

VERTICAL MULTISTAGE PUMPS



MAG DRIVE PUMPS



AODD PUMPS



ROTARY LOBE PUMPS



HELICAL ROTOR PUMPS



PERISTALTIC PUMPS



GEAR PUMPS



# INDUSTRIAL MINING CIVIL

## Pump Handbook

1300 ALLPUMPS

[WWW.ALLPUMPS.COM.AU](http://WWW.ALLPUMPS.COM.AU)

**HYDROMAX**  
Quality - ISO 1 DIN 1 Split Case - Centrifugal Pumps

# ALL-PUMPS

**JAVELIN**  
MULTI-STAGE PUMPS

PACKAGED PUMP SOLUTIONS... *ON TIME*

	<b>CAPABILITIES</b>	<b>5</b>
	<b>PROJECTS</b>	<b>8</b>
	<b>ENVIRONMENTAL &amp; SAFETY</b>	<b>12</b>
	<b>SERVICE &amp; REPAIRS</b>	<b>14</b>

### CENTRIFUGAL PUMP OPTIONS

	<b>CENTRIFUGAL BARESHAFT - DIN   ISO   ANSI</b>	<b>17</b>
	<b>CENTRIFUGAL MOTOR PUMPS</b>	<b>45</b>
	<b>CENTRIFUGAL - MAG DRIVE</b>	<b>79</b>
	<b>CENTRIFUGAL - SELF PRIMING</b>	<b>113</b>
	<b>CENTRIFUGAL - COLUMN</b>	<b>125</b>
	<b>CENTRIFUGAL - SLURRY</b>	<b>129</b>
	<b>CENTRIFUGAL - SPLIT CASE</b>	<b>139</b>
	<b>MULTISTAGE - HORIZONTAL</b>	<b>143</b>
	<b>MULTISTAGE - VERTICAL</b>	<b>163</b>
	<b>BOREHOLE</b>	<b>181</b>
	<b>SUBMERSIBLE PUMPS</b>	<b>203</b>
	<b>DEWATERING PUMPS</b>	<b>229</b>
	<b>VERTICAL TURBINE PUMPS</b>	<b>251</b>



POSITIVE DISPLACEMENT PUMP OPTIONS		
275	AODD - WILDEN	
313	AODD - GRACO	
359	PISTON PUMPS & DRUM UNLOADING SYSTEMS - GRACO	
369	PULSATION DAMPENERS	
383	KDP	
393	GEAR PUMPS	
441	LOBE PUMPS	
467	PERISTALTIC HOSE	
501	HELICAL ROTOR	
517	SCREW PUMPS	
527	ECCENTRIC DISC & VANE PUMPS	
537	DRUM PUMPS	
547	FLEXIBLE IMPELLER PUMPS	
557	METERING PUMP	
577	SITE AMENITIES	
SUPPLEMENTARY		
619	TECH INFO	
640	KWIKFLO	
642	SPEL	
644	GEBEL	



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**EMAIL:** sales@allpumps.com.au

## FREIGHT

All freight is quoted individually, tailored to customer's needs. All Pumps has an excellent database of freight companies to cater for delivery for the most complex packages to the most remote parts of Australia. We are happy for our customers to organize their own freight or compare freight quotations.

## OFFICE HOURS

All Pumps is dedicated to providing flexible opening hours in view of servicing all customers. Our hours of trade are Monday - Friday 6.30 am - 5 pm AEST

## RETURN POLICY

**CANCELLATION:** Orders accepted by Seller cannot be countermanded or delivery deferred or, other than arising out of a breach of any warranty or consumer guarantee claim, goods returned, except with the written consent of Seller and upon terms that reimburse and indemnify Seller against all loss including cartage, bank charges and other incidental expenses on any part of the order that is cancelled. Where Seller agrees to accept goods for return a re-stocking charge of 20% of the price of goods returned will be made.

**ACCEPTANCE AND CLAIMS:** Acceptance of the goods delivered shall be deemed for all purposes to have taken place at the expiration of seven (7) days from the date of each delivery, goods will only be accepted for return if they are still in original condition as supplied.





# CAPABILITIES

ABOUT US

PAGE  
6

CAPABILITY

PAGE  
7

PROJECTS

PAGE  
8

ENVIRONMENT  
& SAFETY

PAGE  
12

SERVICE & REPAIRS

PAGE  
14

## 40 Years of Service...

Since commencing operation in 1972, All Pumps Sales and Service has been committed to providing the answer you need from an urgent spare part requirement to a custom built pumping system. The ability of our trained sales and service personnel to provide innovative, economical and reliable solutions to the exact requirements of clients in the industrial & mining service industries is supported by an unparalleled product range of robust and reliable pumps. This has resulted in a formidable reputation and extensive acceptance within all industry sectors.

**Our trained sales and service personnel provide innovative, economical & reliable solutions for applications / industries covered:**

Mining

Rainwater Harvesting

Sewage & Stormwater

Civil & Construction

Wastewater & Sludge

Fire Protection

Building Services

Irrigation

Environmental

## Customised Packaged Solutions On Time

**We stock what we sell - We customize what we sell - We service what we sell**

- Satisfaction of your parameters. We recognize that you need a package which best accommodates your application.
- A pivotal requirement. A pump in isolation will never be enough.
- The answer you need. Technical, practical and economical.
- You need it now, We stock what we sell & have mastered the art of getting our packages to you. Locations in Sydney, Brisbane & central NSW assist in making this a reality.



## Our Company Philosophy

### Our Mission

Engender and maintain a culture of ingenuity that continuously contributes to the improvement and progress of our system engineering.

### Objectivity

We critically examine our solutions to ensure they align with our clients' objectives and desired outcomes.

### Partnership

We take a personal interest in our clients' success. We work with them as partners to help reach their objectives.

### Our Vision

Be the leader in the supply of pumps, pumping equipment and associated design engineering; to provide the gateway to best practise and competitive solutions.

### Innovation

We encourage innovation, continuous improvement and learning.

### Respect

We treat our clients, our suppliers, work colleagues and the community with respect.

### Our Corporate Values

At All Pumps, our clients are served by professional, knowledgeable and efficient people. We build relationships based on:

### Integrity

We always act with the utmost integrity, and choose what is ethical and right for our clients and the environment.

### In-House Capabilities

We have extensive in-house based facilities including;

- Design selection
- Project management
- Manufacture
- Drafting
- Stock holding
- Testing to AS2417 and in field service team

The All Pumps design team is committed to continual improvements in both quality and design. We are continuing the standard of excellence with the latest and most up-to-date equipment to ensure the development of high quality packaged pumping products.

The use of Autocad, Solid Works and 3D Modelling are only a part of the detail used to enhance our products.

- Complete technical data available
- Detailed drawings of pumps & systems
- Pump & controller troubleshooting guides



All Pumps Packaged Pump Solutions are assembled at our Sydney manufacturing facility. With our extensive & comprehensive product range coupled with 40 years experience in pump systems manufacture we can produce an engineered solution to solve the most complex application.

All Pumps Sales & Service has total control over production procedures ensuring that quality standards and time frames are met.



## PACKAGED PUMP SOLUTIONS... ON TIME

All Pumps Sales & Service has a complete turnkey focus on all pumping equipment, water supply and treatment, and waste water treatment solutions. We embrace all market sectors including industrial, civil, municipal, mining, and commercial operations. All products and processes are quality controlled and engineered to the relevant industry standard and best practise that is applicable. As an organisation All Pumps is committed to a continuous testing regime (both in-house and in the field) to meet industry standards.

### Our package systems are

- Purpose built
- Cost effective
- Highest standard of engineering and reliability

Situated in both Sydney and Central NSW and Brisbane with over 10,000 metres<sup>2</sup> of facility, All Pumps Sales and Service has a focus on quality products and excellent service with an extensive product holding.

### We have a proven track record for:

- Fast and effective response to enquiries
- Reliable deliveries
- Competitive prices
- Efficient after sales service









## Project Gallery



- We can customise to suit your requirements
- All in-house engineering capabilities
- Any drive solution – electric, petrol, diesel, air
- In-house testing & certification





## Project Gallery



- Turn-key designed solutions
- In-house design engineering & project engineering

- We collaborate with you to ensure the outcome fits the brief

- In-house testing & certification



**In-house Drafting & Design**



**Collaboration with Customers is key to a successful project**



**On-Site Installation, testing and commissioning**





**We understand that everything we do affects the environment.**

**We continually review our products, systems & processes to identify opportunities to be more sustainable towards the environment.**



# We are continually working to find new ways to make our service to you as sustainable as possible.

## Commitment to a Better Environment.

- To review our products and processes and select those that offer a benefit in sustainability while delivering on our customers specification.

The Company's OH&S Objectives are:

- Commit to the health and safety of the company's employees, subcontractors, the general public and other personnel who may be on work sites.
- Ensure the Company's employees, subcontractors and agents comply with any Acts, Regulations, local laws and by-laws, Codes of practice, Australian Standards and Principal Contractors policies and procedures which are in any way applicable to your project.
- Ensure company's objectives will be met through good leadership, commitment and continual training.

## Purpose of Company's Safety Management Plan

The purposes of Company's safety Management Plan ("SMP") are to:

- Define Company's management of OH&S when delivering the contract services.
- Provide guidance to Company Staff on Company's obligations under the contract.
- Assure the Principal Contractor that the Company is fulfilling its obligations.
- Set down the frequency and responsibilities for management review of this plan.

## Practice of Safety Management

The company will:

- Assess risks and plan work activities to eliminate or control foreseeable hazards or risks.
- Comply with relevant OH&S, workplace injury management and workers compensation legislation and regulations.
- Establish measurable objectives and targets for continuous improvement.
- Consult with employees and subcontractors and disseminate OH&S information.
- Make this SMP available to all employees.
- Make available relevant parts to subcontractors working at the site during construction/maintenance activities.
- Maintain the workplace in a safe condition.
- Maintain plant and equipment in a safe condition.
- Provide appropriate instruction and training for employees and subcontractors to assist them in avoiding unsafe situations, unsafe work practices and the use of defective equipment.
- Provide adequate facilities for outdoor staff.
- Provide sufficient resources to achieve all the above.



Environmental



Whether an urgent on site call or routine service, our highly trained service team is dedicated to provide economical repairs and maintenance to get you going again.



Time is money and having a production line not producing goods as a result of pump failure can be extremely costly. To this end All Pumps Sales & Service have developed a complete suite of service products, that can be tailored to all clients, to ensure plants operate to maximum efficiency, increase the mean time between failure and to reduce down time caused by pump failure.

The range of our services include:

### 1. In-House Pump Repairs

This is recommended for major pump overhauls and rebuilds. All Pumps use OEM spares, where available, in all rebuilds and services. All in-house repairs/ rebuilds are tested intensively prior to redelivery to the client.

### 2. On-Site Pump Repairs

Clients can reduce plant down time by having the pumps repaired on-site. On-site works are limited to changing seals and gaskets. Pumps repaired on-site are not tested prior to being returned to service.

### 3. Scheduled Maintenance

A contracted, fixed fee service agreement is established to assist clients increase the mean time between failure and cap/ manage costs associated with repairs. This program can be viewed as a preventative maintenance schedule.

### 4. Pump Audits

All Pumps highly trained staff can carry out a thorough audit, identification, tagging and recording of all details of pumps used on site. This is a vital tool to assist with identification of spare parts requirements in the event of failure.

### 5. Spare Parts

All Pumps maxim that we stock what we sell and we service what we sell is not just limited to pumps only. We keep a comprehensive range of OEM spares in our centrally located warehouse.

### 6. Re-engineering

All Pumps have the ability to re-engineer pumps should the system requirements change.

Call All Pumps, 1300 255 786, to discuss how we can assist you to keep your plant operating efficiently.



## In-House Technical Drawings &amp; Engineering







# CENTRIFUGAL BARESHAFT

DIN | ANSI | ISO

**HYDROMAX**  
Quality – ISO | DIN | Split Case – Centrifugal Pumps

PAGE  
18

**GRISWOLD**  
POWER

PAGE  
28

## HYDROMAX DIN SERIES

Quanta - H2O - DM - Seta - Loto - Sani - Higi - Purma

### Introduction

The DIN Series is a single stage end suction centrifugal pump. It provides high performance at an economical cost and is particularly suited to mechanical and fire services as well as being suitable for use in a variety of other industrial applications.

The DIN pump can be fitted with a range of mechanical seals or a simple packed gland depending on the liquid you are pumping. These pumps feature a back pull-out design for easy maintenance and are available in a variety of materials.

The HydroMAX DIN pump has been engineered to the stringent International Standard DIN 24255

### Description

Volute casing centrifugal end suction pump with Back Pull-Out (BPO) feature, main dimensions and performance according to EN733/DIN24255 standards.

**Type:** End Suction Centrifugal, Back Pull-Out (BPO)

**Design:** EN733/DIN24255

**Flange:** DIN2332 PN 10RF

**Direction of Rotation:** Clockwise as viewed from the drive end

OPERATING CAPABILITIES	
Flow Rate(Q)	up to 1100m <sup>3</sup> /h > 1800m <sup>3</sup> /h
Head(H)	up to 150m
Speed	1450-2900 rpm (50Hz) 1750-3600 rpm (60Hz)
Operating Temp	-10 °C to 105 °C standard; optional 150 °C
Pressure Rating	10 bar standard; optional 16 Bar



### Material Options

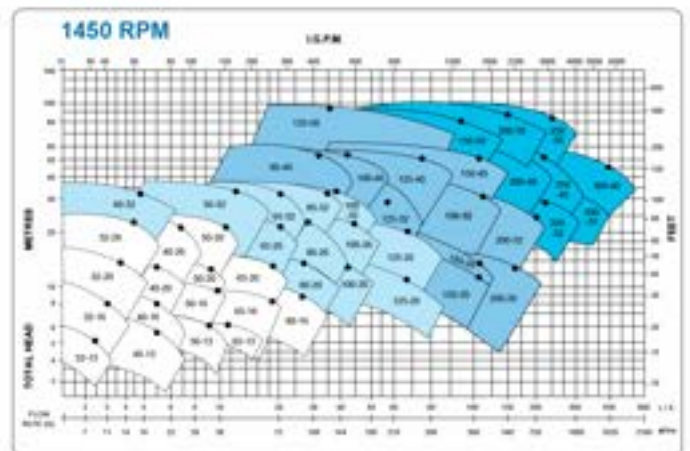
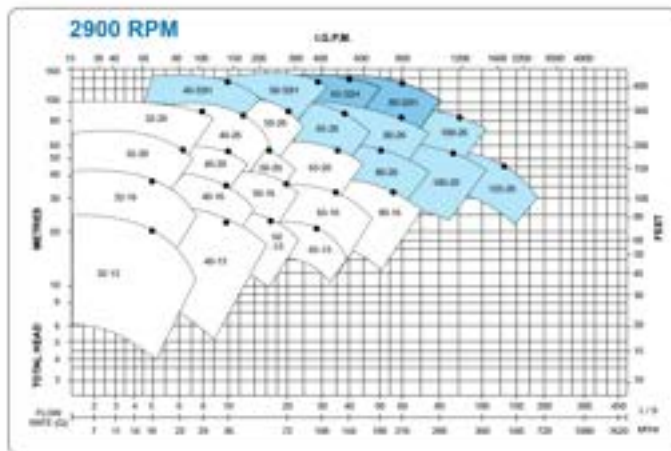
	CAST IRON	DUCTILE IRON	BRONZE	STAINLESS STEEL	MECHANICAL SEAL AND GLAND PACKING	SS420 OPTIONAL AISI304 & AISI316
Casting	✓	✓	✓	✓	—	—
Impeller	✓	✓	✓	✓	—	—
Shaft	—	—	—	—	—	✓
Shaft Sleeve	—	—	—	—	✓	—

### Applications:

- Air-conditioning
- Heating and Ventilation
- Refrigeration
- Fire protection
- Plumbing
- Circulation
- Transfer
- Irrigation
- Drainage
- Water Pressure Boosting
- Process industry
- Petroleum products
- General industry
- Food and drink manufacture
- Water treatment and supply
- Cooling towers



## Performance - 50Hz



## Nomenclature

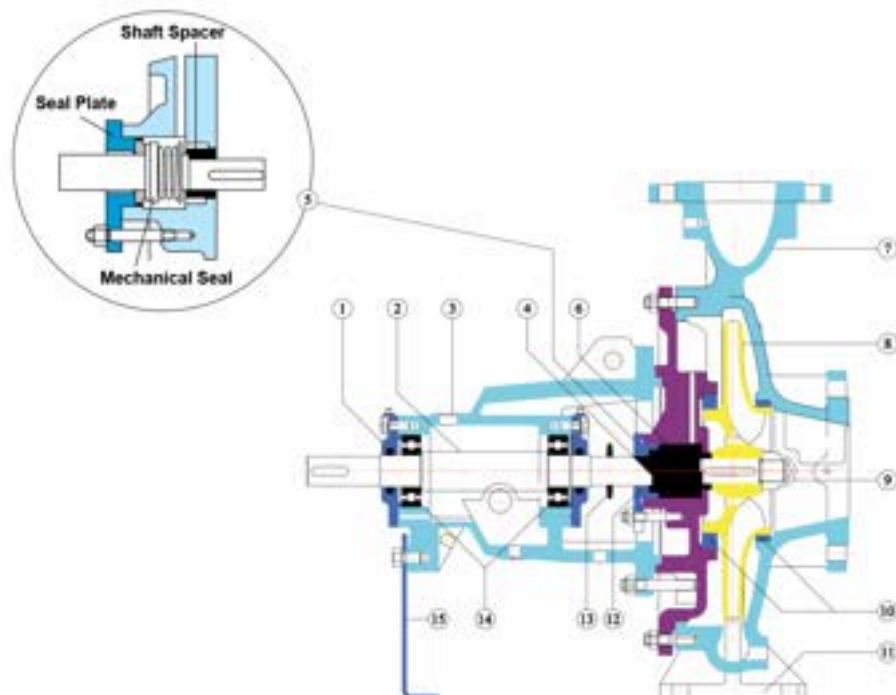
HM	32	-	13	M	-	BC	DB
SERIES	DISCHARGE SIZE		IMPELLER NOMINAL SIZE	SEAL TYPE		IMPELLER / BODY CASING MATERIAL	SPECIAL CODE
HM = Bareshaft pumps HMM = Monobloc pumps				M = Carbon - Ceramic/Viton *P = Gland Packing M1 = Carbon - SiC/Viton (Optional) M2 = Carbon - SiC/EPDM Carbon Ceramic/Nutrilite		BC = Bronze Impeller And Cast Iron Body BD = Bronze Impeller And Ductile Iron Body BB = Bronze Impeller And Body CC = Cast Iron Impeller And Body CD = Cast Iron Impeller And Ductile Iron Body KX = SS316 Impeller And Body KC = SS316 Impeller And Cast Iron Body SS = SS304 Impeller And Body SC = SS304 Impeller And Cast Iron Body KK = SS316 Impeller And Body KC = SS316 Impeller And Cast Iron Body SS = SS304 Impeller And Body SC = SS304 Impeller And Cast Iron Body	1 DB = Double Bearing 1 HH = Bigger Shaft and Bearing Frame 1 OL = Oil Lubricator S4 = SS304 Shaft K6 = SS316 Shaft
<div style="border: 2px solid black; border-radius: 50%; padding: 10px; text-align: center;"> <p><b>DID YOU KNOW?</b></p> <p>Not every size of this pump is shown in the catalogue...</p> <p>Call <b>1300 225 786</b> to discuss your requirements.</p> </div>							
						<b>Note:</b> * Only for HM series of pumps **Applicable to HMM pumps only † All shaft are in SS420	

# HYDROMAX DIN SERIES

Quality - ISO 9001 - DIN 1 - Safe - Long - Durable Pumps

## General Arrangement

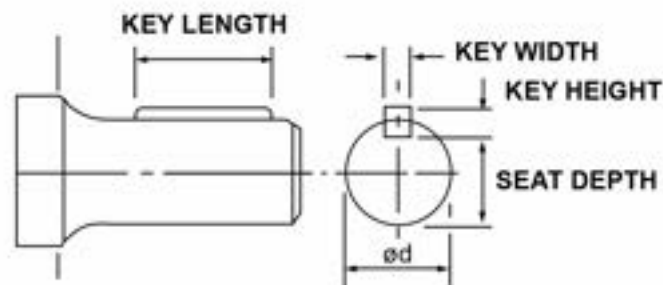
PARTS	
NUMBER	DESCRIPTION
1	Bearing Cover (Drive End)
2	Shaft
3	Bearing Housing
4	Shaft protection Sleeve (with Gland Packing only)
5	Mechanical Seal
6	Gland Packing (Option)
7	Volute Casing
8	Impeller
9	Impeller Nut
10	Casing Wear Rings
11	Front Foot Support
12	Seal Plate
13	Slinger
14	Ball Bearings
15	Rear Foot Support



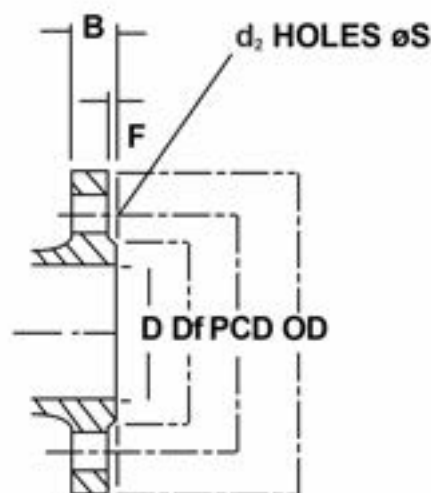
## Installing Dimensions 1.

SHAFT DIMENSIONS			
BEARING HOUSING	DIAMETER	KEY HEIGHT	KEY WIDTH
	NOM		
25	24	7	8
35	32	8	10
45	44	8	12
45	42	8	12
55	48	9	14
60	55	10	16
75	70	12	20

Key dimensions are nominal.

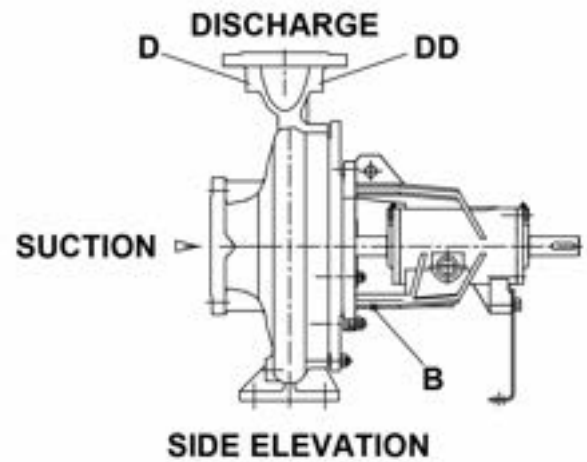
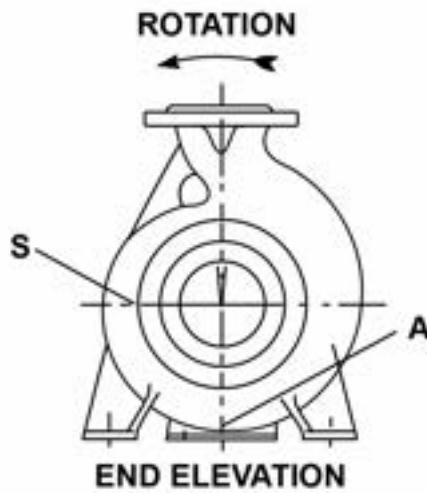


FLANGE DATA							
D	OD	B	Df	F	d <sub>2</sub>	øS	PCD
32	140	18	78	2	4	18	100
40	150	18	88	3	4	18	110
50	165	20	102	3	4	18	125
65	185	20	122	3	4	18	145
80	200	22	138	3	8	19	160
100	220	24	158	3	8	18	180
125	250	26	188	3	8	18	210
150	285	26	212	3	8	22	240
200	340	30	268	3	12	22	295
250	405	32	320	3	12	26	355
300	460	32	370	4	12	26	410





## Dimensions



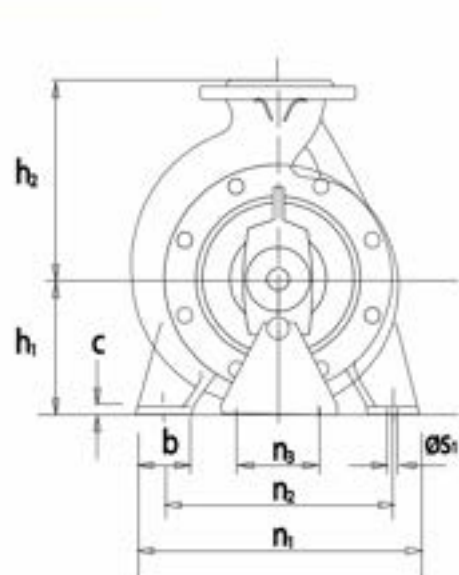
PUMP MODEL	SERVICE CONNECTIONS				
	A CASING DRAIN	B* HOUSING DRAIN	D GAUGE TAPPING	DD VENT TAPPING	S GAUGE TAPPING
HM32-13-DIN	1/4	3/8	1/4	1/4	1/4
HM32-16-DIN	1/4	3/8	1/4	1/4	1/4
HM32-20-DIN	1/4	3/8	1/4	1/4	1/4
HM32-26-DIN	3/8	3/8	1/4	1/4	1/4
HM40-13-DIN	1/4	3/8	1/4	1/4	1/4
HM40-16-DIN	1/4	3/8	1/4	1/4	1/4
HM40-20-DIN	1/4	3/8	1/4	1/4	1/4
HM40-26-DIN	3/8	3/8	1/4	1/4	1/4
HM40-32-DIN	3/8	3/8	1/4	1/4	1/4
HM40-32H-DIN	3/8	3/8	1/4	1/4	1/4
HM50-13-DIN	1/4	3/8	1/4	1/4	1/4
HM50-16-DIN	3/8	3/8	1/4	1/4	1/4
HM50-20-DIN	1/4	3/8	1/4	1/4	1/4
HM50-26-DIN	3/8	3/8	1/4	1/4	1/4
HM50-26H-DIN	3/8	3/8	1/4	1/4	1/4
HM50-32-DIN	3/8	3/8	1/4	1/4	1/4
HM50-32H-DIN	1/4	3/8	1/4	1/4	1/4
HM65-13-DIN	3/8	3/8	1/4	1/4	1/4
HM65-16-DIN	3/8	3/8	1/4	1/4	1/4
HM65-20-DIN	3/8	3/8	1/4	1/4	1/4
HM65-20H-DIN	3/8	3/8	1/4	1/4	1/4
HM65-26-DIN	3/8	3/8	1/4	1/4	1/4
HM65-32-DIN	3/8	3/8	1/4	1/4	1/4
HM65-32H-DIN	3/8	3/8	1/4	1/4	1/4

PUMP MODEL	SERVICE CONNECTIONS				
	A CASING DRAIN	B* HOUSING DRAIN	D GAUGE TAPPING	DD VENT TAPPING	S GAUGE TAPPING
HM80-16-DIN	3/8	3/8	1/4	1/4	1/4
HM80-16H-DIN	3/8	3/8	1/4	1/4	1/4
HM80-20-DIN	3/8	3/8	1/4	1/4	1/4
HM80-26-DIN	3/8	3/8	1/4	1/4	1/4
HM80-32-DIN	3/8	3/8	3/8	1/4	3/8
HM80-32H-DIN	3/8	3/8	3/8	1/4	3/8
HM80-40-DIN	3/8	3/8	3/8	3/8	3/8
HM100-16-DIN	3/8	3/8	3/8	3/8	3/8
HM100-20-DIN	3/8	3/8	3/8	3/8	3/8
HM100-26-DIN	3/8	3/8	3/8	3/8	3/8
HM100-26H-DIN	3/8	3/8	3/8	3/8	1/2
HM100-32-DIN	3/8	3/8	3/8	3/8	1/2
HM100-40-DIN	3/8	1/2	1/2	3/8	1/2
HM125-26-DIN	3/8	1/2	1/2	3/8	1/2
HM125-32-DIN	3/8	1/2	1/2	3/8	1/2
HM125-40-DIN	3/8	1/2	1/2	3/8	1/2
HM125-50-DIN	1/2	3/8	3/8	3/8	3/8
HM150-20-DIN	3/8	1/2	1/2	3/8	1/2
HM150-26-DIN	3/8	1/2	1/2	3/8	1/2
HM150-32-DIN	3/8	1/2	1/2	3/8	1/2
HM150-40-DIN	3/8	1/2	1/2	3/8	1/2
HM150-50-DIN	1/2	3/8	3/8	3/8	3/8
HM200-32-DIN	3/8	1/2	1/2	3/8	1/2
HM200-40-DIN	3/8	1/2	1/2	3/8	1/2
HM200-50-DIN	3/8	3/8	3/8	3/8	3/8
HM250-40-DIN	3/8	1/2	1/2	3/8	1/2
HM250-50-DIN	3/8	3/8	3/8	3/8	3/8
HM300-40-DIN	3/8	3/8	3/8	3/8	3/8

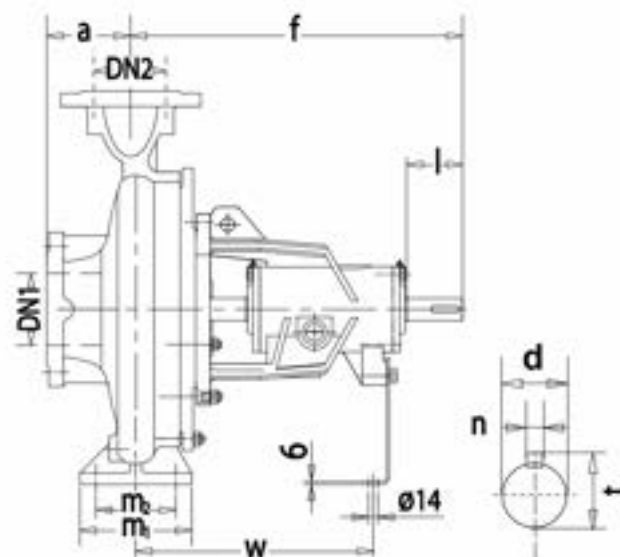
# HYDROMAX DIN SERIES

Quantity – 100 / 1000 / 10000 / 100000 / 1000000 / 10000000 / 100000000

## Dimensions



FRONT ELEVATION



SIDE ELEVATION

PUMP MODEL	BEARING HOUSING	BEARING TYPE		DISCHARGE DN <sub>2</sub>	SUCTION DN <sub>1</sub>	PUMP DIMENSION					FOOT DIMENSION						SHAFT END				NET WEIGHT											
		FRONT	REAR			A	F	H <sub>1</sub>	H <sub>2</sub>	B	C	N <sub>1</sub>	M <sub>1</sub>	M <sub>2</sub>	N <sub>2</sub>	N <sub>3</sub>	S	W	D	L		T	U									
HM32-13-DIN	25	6305	6305	32	50	80	360	112	140	65	14	100	125	95	190	140	267	24	50	27	8	28										
HM32-16-DIN		6305	6305					132	160						50	100						70	240	190	36							
HM32-20-DIN		6305	6305					160	180						110	210						160	31									
HM32-26-DIN		6305	6305					180	225						110	125						95	320	250	63							
HM40-13-DIN		6305	6305	40	100	80	470	65	14	100	125	95	345	280	14	342						32	80	35	10	31						
HM40-16-DIN		6305	6305																							112	140	100	70	240	190	37
HM40-20-DIN		6305	6305																							160	180	110	265	212	46	
HM40-26-DIN		6305	6305																							180	225	110	320	250	63	
HM40-32-DIN	35	6307	6307	65	125	523	200	250	100	125	95	345	280	14	364	42	110	45	12	96												
HM40-32DB-DIN		3307	3307																	200	250	96										
HM40-32H-DIN	45	6309	6309	65	125	523	200	250	100	125	95	345	280	14	364	42	110	45	12	96												
HM50-13-DIN	25	6305	6305	50	100	360	470	65	14	110	125	95	280	212	14	267	24	50	27	8	34											
HM50-16-DIN		6305	6305																		132	160	50	100	70	240	190	38				
HM50-20-DIN		6305	6305	160	180	100	360	160	200	110	265	212	267	24	50	27	8	48														
HM50-26-DIN		6305	6305	180	225	110	320	250	65	110	125	95	345	280	14	364	42	110	45	12	65											
HM50-32-DIN		35	6305	6305	65	125	470	225	280	100	125	95	345	280	14	342	32	80	35	10	101											
HM50-32DB-DIN			3307	3307																	225	280	101									
HM50-32H-DIN	45	6309	6309	65	125	523	225	280	100	125	95	345	280	14	364	42	110	45	12	101												
HM65-13-DIN	25	6305	6305	65	80	100	360	160	180	65	14	110	125	95	280	212	14	267	24	50	27	8	40									
HM65-16-DIN		6305	6305																				160	200	44							



PUMP MODEL	BEARING HOUSING	BEARING TYPE		DISCHARGE DN <sub>2</sub>	SUCTION DN <sub>1</sub>	PUMP DIMENSION					FOOT DIMENSION						SHAFT END					NET WEIGHT																				
		FRONT	REAR			A	F	H <sub>1</sub>	H <sub>2</sub>	B	C	N <sub>1</sub>	M <sub>1</sub>	M <sub>2</sub>	N <sub>2</sub>	N <sub>3</sub>	S	W	D	L	T		U																			
HM65-20-DIN	25	6305	6305	65	80	100	360	180	225	65	14	125	95	320	250	14	267	24	50	27	8	70																				
HM65-26-DIN	35	6307	6307				200	250	15	80	18												160	120	400	315	18	342	32	80	35	10										
HM65-32-DIN		6307	6307				470	225	280																								110	95	320	250	14	267	24	50	27	8
HM65-32DB-DIN	3307	3307	225			280	16	160	120	435	355	18	370	42	110	45	12	110																								
HM65-32H-DIN	45	6309	6309			523	225												280	125	95	320	250	14	267	24	50	27	8	72												
HM80-16-DIN	25	6305	6305	80	100	125	360	180	225	65	14	125	95	320	250	14	267	24	50												27	8	55									
HM80-20-DIN	35	6307	6307				180	250	15	80	16									160	120	400	315	18	342	32	80	35	10													
HM80-26-DIN		6307	6307				200	280	110																					95				320	250	14	267	24	50	27	8	71
HM80-32-DIN		6307	6307				470	250																																		
HM80-32DB-DIN	3307	3307	250			315	16	160	120	435	355	18	370	42	110	45	12	120																								
HM80-32H-DIN	45	6309	6309			523	250												315	140	20	200	150	500	400	22	370	42	110	45	12	177										
HM80-40-DIN	35	6307	6307			530	280	355	85	18	160	120	435	355	18	370	42	110	45														12	111								
HM100-16-DIN	25	6305	6305			100	125	140	360	180										225	65	14	125	95	320	250	14	267	24	50	27	8			70							
HM100-20-DIN	35	6307	6307	180	250				15	80	16	160	120	400	315	18	342	32	80	35	10																					
HM100-26-DIN		6307	6307	200	280				110													95											320	250		14	267	24	50	27	8	72
HM100-32-DIN	6307	6307	470	225	280			80		16	160	120	435	355	18	370	42	110	45	12	120																					
HM100-40-DIN	45	6309	6309	530	280			355	100	20												160	120	435	355	18	370	42	110	45	12	120										
HM125-20-DIN	35	6307	6307	530	280			355	100	20	160	120	435	355	18	370	42	110	45	12	120																					
HM125-26-DIN	45	6307	6307	470	250	355	80	16	160	120												400	315	18	342	32	80	35	10													
HM125-32-DIN		6309	6309	125	150	140	280	355			100	200	150	500	400	23	370	42	110	45	12									163												
HM125-40-DIN		6309	6309	530	315	400	18	200			150																				500	400	23	370	42	110	45	12	190			
HM125-50-DIN	6309	6309	160	630	355	450	120		35	180		250	180	620	500	26	400	42	110	45	12	390																				
HM150-20-DIN	35	6307	6307	150	200	165	530	280	400	100	18	110	200	150	23	370	42	110	45	12	156																					
HM150-26-DIN	45	6309	6309				250	355	110													18	110	200	150	550	450	370	42	110	45	12	164									
HM150-32-DIN		6309	6309				530	280																										400	180	250	180	670	550	20	400	42
HM150-40-DIN	6309	6309	630			355	500	120	35	180	250	180	670	550	20	400	110	45	12	410																						
HM200-26-DIN	55	6311	6311			530	315	450	100	110	200	150	550	450	370	110					45	12	251																			
HM200-32-DIN	60	6311	6311	180	315	480	20	110	220	170	600	480	28	505	48		51	14	310																							
HM200-40-DIN		6311	6311	670	335	480	180	300								240				720	600	27	511	55	60	12	510															
HM200-50-DIN		6311	6311	210	875	400																						500	160	30	180	300	240	720	600	27	511	55	60	12	510	
HM250-32-DIN	55	6311	6311	250	300	220	691	355	520	150	26	110	250	200	660	510	28	525	48	51	14	331																				
HM250-40-DIN	6311	6311	682				400	560	240														875	425	545	160	30	140	300	200	720	600	27	625	65	69.5	12	630				
HM250-50-DIN	70	6314	6314	240	875	425	545	160		30	140	300	200	720	600	27	625	65	69.5	12	630																					
HM300-32-DIN	75	6315	6315	300	350	260	875	400	560	140	30	140	300	200	750	600	27	625	70	140	74.5	20	650																			
HM300-40-DIN	75	6315	6315	300	350	280	875	500	600	150	40	140	300	200	800	600	27	625	70	74.5	20	700																				

# HYDROMAX ISO SERIES

Quality • ISO • CE • Safe • Easy • Durable • Efficient

## Features

- Superior hydraulic design and manufacturing methods for significantly higher efficiencies and reduced maintenance.
- High efficiency double curvature impeller vanes.
- 32 to 200mm discharge.
- Cast iron, zinc free bronze or stainless steel construction.
- Wide range of options.
- AS2129 Table "E" flanges as standard with optional drillings available.
- Back-pullout design does not require the disconnection and removal of motor or suction and discharge lines for maintenance.
- Heavy duty oil lubricated double row ball bearings in drive end and single row roller bearings in wet end.
- Taper mounted and keyed impeller.
- Horizontal or vertical pump discharge mounting.

## Options

- Wear Rings
- Mechanical Seal or Packed Gland Seal, Oil or Grease Lubricated Bearings, Paint and Internal Coatings
- Materials of Construction
- Flange Drillings

## Applications

- Mining
- Irrigation
- Fire Protection
- Industry
- Processing
- Agriculture



### OPERATING CAPABILITIES

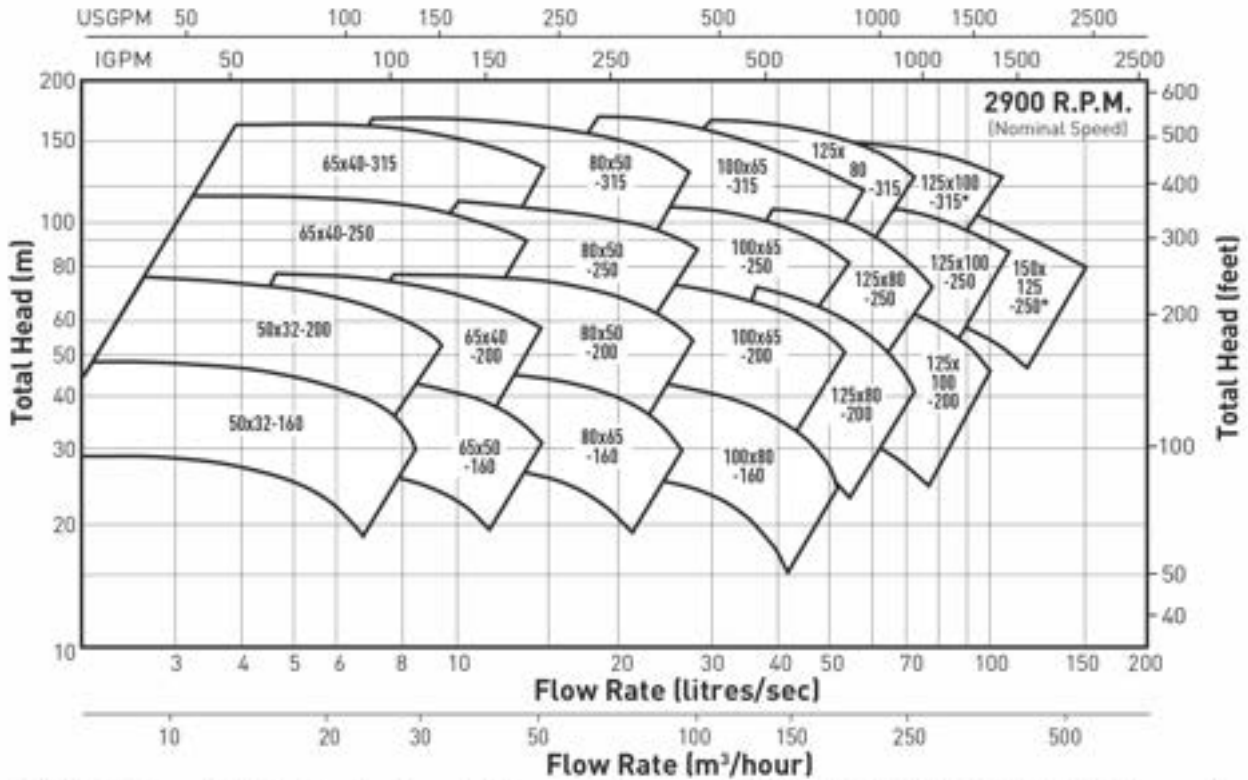
Capacity	490 m <sup>3</sup> /h
Head	Maximum 160 metres
Liquid Temp.	0°C to + 100°C Up to 140°C with high temp. seals
Pumped Liquid	Clean Water

### DID YOU KNOW?

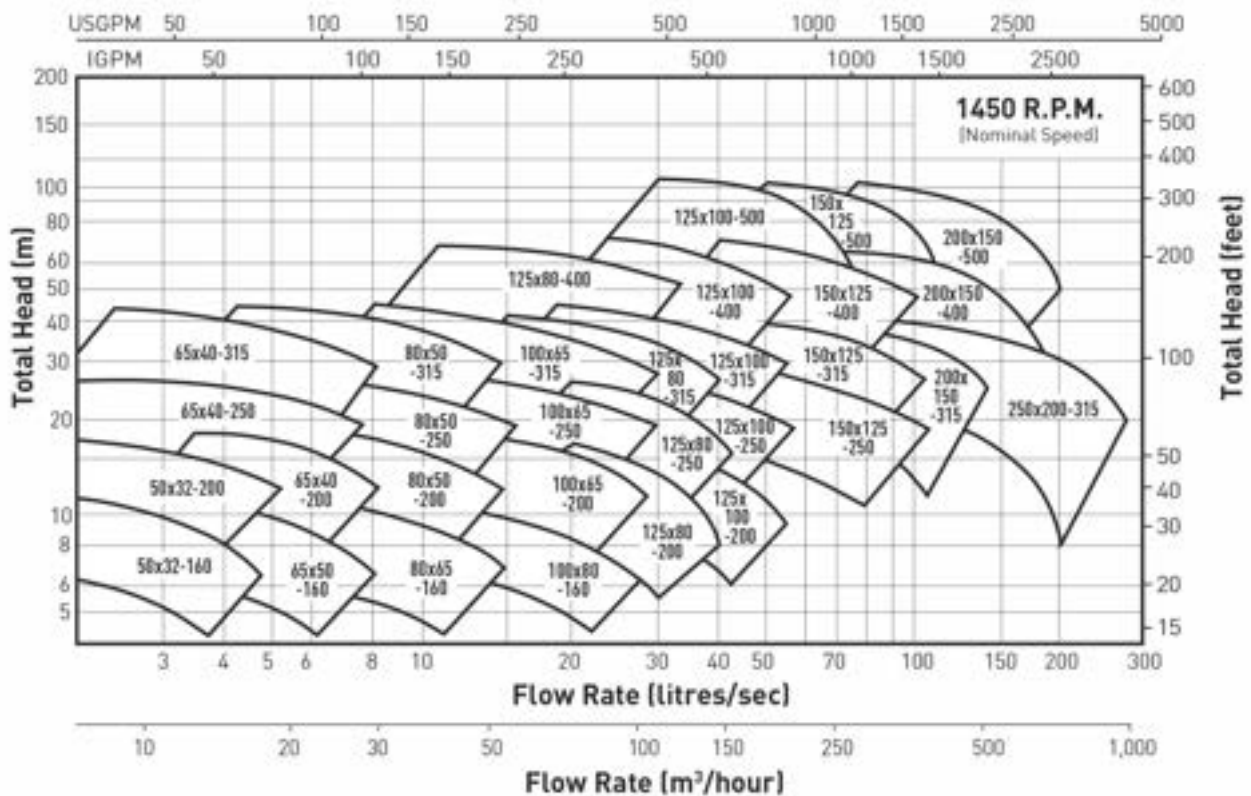
Not every size of this pump is shown in the catalogue...  
Call 1300 225 786 to discuss your requirements.



## Performance Data



\* ISO-PRO Pumps (ISO5199 Standard) required to operate these models (125x100-315 & 150x125-250) at 2 pole speed.



# HYDROMAX ISO SERIES

Quality – ISO 9001:2015 Certified – ISO 14001:2015 Certified – ISO 45001:2018 Certified

## Material Specifications

SYMBOL	MATERIAL	SPECIFICATION	COMPONENT WHERE USED
CI	Cast Iron	AS 1830/T260 Equivalent Standards: BS 1452 (1977) Grade 260 ANSI. 625.1 Class 40 ASTM A48 Class 40	Bearing Housing Bearing Cover Volute Casing Backplate Impeller
ZF	Zinc Free Bronze	AS 1565/C90250 Equivalent Standards: BS 1400 PB3, ISO 1338 CU SN 10	Volute Casing Backplate Impeller Wear Rings
SS	Cast Stainless Steel		
	Wrought Stainless Steel	AS 2837/431 Equivalent Standards: BS 970 Grade 431 S29 ASTM A176 S43100	Shaft
		AS 2837/316 Equivalent Standards: BS 970 Grade 316S16 ASTM A240/S31609	Shaft Impeller Washer Impeller Nut Casing and Discharge Flange Plugs
	316 SS	AS 2548 Gr. A4-80	Blots and Setscrews (ZF and SS only)
	2205 Duplex SS	UNS S31803 ASTM A276-98b	Impeller Key
MS	Mild Steel	AS 1204/250	Support Foot
HT	High Tensile Steel	AS 1110 Gr. 8.8	All Bolts and Setscrews
	Mild Steel Zinc Plated		Casing and Discharge Flange Plugs
	Key Steel		Drive shaft key

### Painting

One Coat – WattyI Super Etch Grey Primer (WattyI Part No. 123907)

Two Coats – WattyI 517 Hammer Finish Green (WattyI Part No. 151741)

Colour – Hammer Finish Green

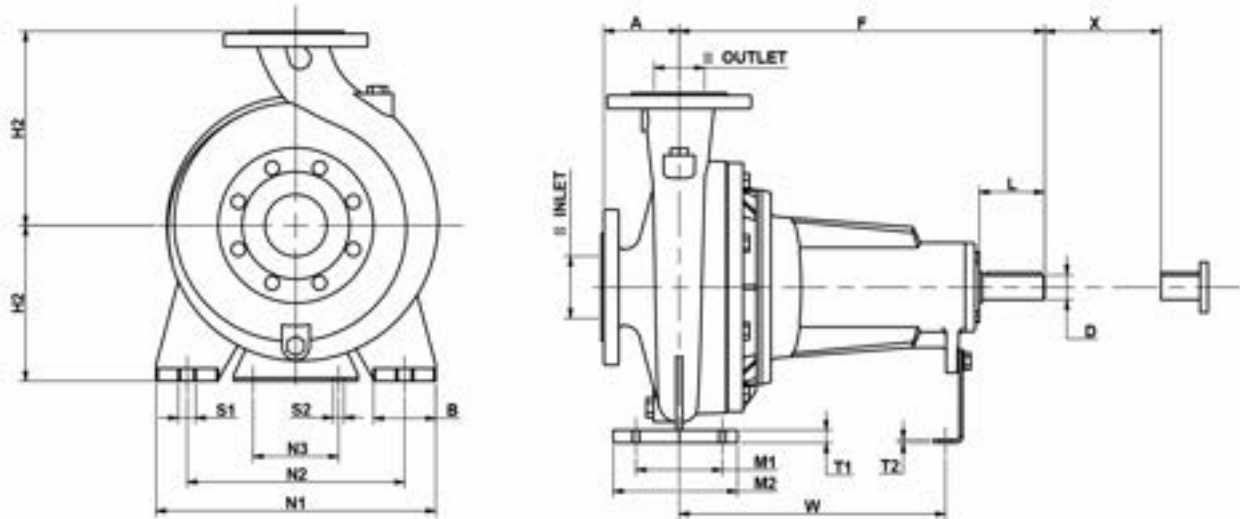


## Nomenclature

HM	50	32	/	160	-	ISO	
SERIES	PUMP SUCTION SIZE	PUMP DISCHARGE SIZE	IMPELLER NOMINAL SIZE	MATERIALS OF CONSTRUCTION			
				CODE SUFFIX	VOLUTE/B PLATE	IMPELLER	SHAFT
HI = Bareshaft pump				A	CI	CI	431SS
				D	CI	CI	316SS
				F	CI	ZF	316SS
				H	ZF	ZF	316SS
				J	CI	SS	431SS
				K	CI	SS	316SS
				S	SS	SS	316SS



## Dimension



MODELS	PUMP SIZE			SHAFT NO.	PUMP DIMENSIONS				MOUNTING DIMENSIONS								BOLT HOLES		SHAFT END		GAP*	PUMP MASS KG	
	INLET	OUTLET	IMP DIA		A	F	H1	H2	B	M1	M2	N1	N2	N3	T1	T2	W	S1	S2	D			L
HM50-32/160-ISO	50	32	160	1	80	385	132	160	50	100	70	240	190	110	12	6	285	M12	M12	24	50	100	43
HM50-32/160-ISO	50	32	160	1	80	385	160	180	50	100	70	240	190	110	13	6	285	M12	M12	24	50	100	49
HM65-50/160-ISO	65	50	160	1	80	385	132	160	50	100	70	240	190	110	12	6	285	M12	M12	24	50	100	44
HM65-40/200-ISO	65	40	200	2	100	385	160	180	50	100	70	265	212	110	13	6	285	M12	M12	24	50	100	51
HM65-40/250-ISO	65	40	250	2	100	500	180	225	65	125	95	320	250	110	14	6	370	M12	M12	32	80	100	71
HM65-40/315-ISO	65	40	315	1	125	500	200	250	65	125	95	345	280	110	16	6	370	M12	M12	32	80	100	90
HM80-65/160-ISO	80	65	160	1	100	385	160	180	50	100	70	265	212	110	13	6	285	M12	M12	24	50	100	49
HM80-50/200-ISO	80	50	200	2	100	385	160	200	50	100	70	265	212	110	13	6	285	M12	M12	24	50	100	53
HM80-50/250-ISO	80	50	250	2	125	500	180	225	65	125	95	320	250	110	15	6	370	M12	M12	32	80	100	76
HM80-50/315-ISO	80	50	315	2	125	500	225	280	65	125	95	345	280	110	18	6	370	M12	M12	32	80	100	94
HM100-80/160-ISO	100	80	160	2	100	500	160	200	65	125	95	280	212	110	14	6	370	M12	M12	32	80	100	68
HM100-65/200-ISO	100	65	200	2	100	500	180	225	65	125	95	320	250	110	15	6	370	M12	M12	32	80	140	72
HM100-65/250-ISO	100	65	250	2	125	500	200	250	80	160	120	360	280	110	16	6	370	M16	M12	32	80	140	84
HM100-65/315-ISO	100	65	315	3	125	530	225	280	80	160	120	400	315	110	18	6	370	M16	M12	48	110	140	122
HM125-80/200-ISO	125	80	200	2	125	500	180	250	65	125	95	345	280	110	16	6	320	M12	M12	32	80	140	81
HM125-80/250-ISO	125	80	250	2	125	500	225	280	80	160	120	400	315	110	18	6	320	M16	M12	32	80	140	88
HM125-80/315-ISO	125	80	315	3	125	530	250	315	80	160	120	400	315	110	20	8	370	M16	M12	48	110	140	130
HM125-80/400-ISO	125	80	400	3	125	530	280	355	80	160	120	435	355	110	20	8	370	M16	M12	48	100	140	163
HM125-100/200-ISO	125	100	200	2	125	500	200	280	80	160	120	360	280	110	17	6	370	M16	M12	32	80	140	87
HM125-100/250-ISO	125	100	250	3	140	530	225	280	80	160	120	400	315	110	18	8	370	M16	M12	48	110	140	122
HM125-100/315-ISO	125	100	315	3	140	530	250	315	80	160	120	400	315	110	19	8	370	M16	M12	48	110	140	138
HM125-100/400-ISO	125	100	400	3	140	530	280	355	100	200	150	500	400	110	20	8	370	M20	M12	48	110	140	175
HM125-100/500-ISO	125	100	500	4	160	670	355	450	100	210	150	540	450	140	25	10	500	M20	M16	60	110	180	378





## ANSI SERIES

## Are all ANSI Pumps The Same?

In 1977, the American National Standards Institute (ANSI) established manufacturing criteria for centrifugal pumps to ensure that dimensional, material composition and safety specifications meet the demanding needs of the chemical processing industry.

Mandatory design features, such as self-ventilation, foot mounting, centreline discharge and back pullout, became the industry's assurance that complying pumps met production and safety needs.

Even though ANSI compliance would seem to level the playing field for pump specification, your choices are actually far more complex. The fact is that many brands just meet the minimal requirements of this standard. And while other brands may offer similar features and performance, you may experience inflated cost, delayed delivery, and deflated service. In a market where all ANSI pumps seem the same, dare to compare.

## GRISWOLD: Anything But Standard

The Griswold Pump Company is no newcomer to pumps. With product lines dating back over 70 years, you'll find a wealth of industry knowledge and experience behind every Griswold product. At our facility in Thomasville, Georgia, we manufacture a variety of pumps, including ANSI, end suction centrifugals, self-priming and submersible/vertical turbines. With hundreds of thousands of pump installations worldwide and our international distribution network, Griswold serves a broad range of chemical process, industrial and municipal applications, including: Pulp and paper, Chemical Petrochemical, Oil and gas, Textile, Breweries, Grain processing, Food processing, Poultry processing, Automotive, Pharmaceutical, Steel, Semiconductor, Water treatment and Power generation.

## Extended Equipment Life

Exceeding standard ANSI construction requirements, the Model 811 includes several additions that are critical to long-term reliable function. To start, our superior open impeller and seal chambers are designed to facilitate corrosive and erosive substance transport, heat regulation and routine maintenance. The 811's range of enhanced power frames and rigid base plates combine the latest technology with the highest quality construction to minimise the effects of work forces and shaft deflection, optimise cooling and further simplify the installation and maintenance process. All told, you can expect the 811 pump series to continue performing long after other ANSIs wear out or break down.

## Proven Track Record Of Performance:

The Griswold 811 ANSI line offers the best pumps you'll find on the market. Engineered for exceptional performance and maximum flexibility, our 811 models go the mile in the harshest and most difficult fluid processing applications. Griswold's 811 centrifugal pump not only meets ANSI standards for chemical processing, it was among the first pump designs to comply with these standards in the 1970s. Almost 30 years of proven performance has enabled Griswold to focus on enhancing our ANSI pump features and support offerings to surpass the industry standard and exceed our customers' expectations.



### DID YOU KNOW?

An ANSI Pump is commonly referred to as a "Griswold"

For more info call  
1300 255 786



## Reduced Initial And Total Cost Of Ownership:

You may have heard that the initial cost of your pump and parts plays a minor role in your total cost of ownership. NOT TRUE! With Griswold's 811, you get identical quality and longevity as the best-known brands—at a lower initial price. Factor in our low cost on parts, and your long-term savings are even greater! This translates into your LOWEST total cost of ownership.

## Reduced Initial And Total Cost Of Ownership:

When meeting your production quota is compromised, each day waiting for repairs can mean significant losses in revenue (another factor in your true cost of ownership). The Griswold 811 and our extensive inventory of parts are 100% interchangeable with hundreds of other ANSI pumps currently in use. With stocking distributors from coast-to-coast and throughout the world, backed by Griswold's 36 hour ship commitment (same day on parts), and NO premium charge for expedited shipment, you can be up and going before you may even get a response call from our competition!

And with our dedication to customer service, reduced response times and engineering support, Griswold stands ready to help improve your process, increase your productivity, lower your costs and reduce your stress.

## Applications




**ANSI SERIES**

## Engineered For Flexibility And Durability

The Model 811 is available in a wide range of sizes, capacities and materials to fit virtually any process fluid application. With over 30 selections and multiple design options, we've got your application covered—for abrasive and corrosive substances, and capacities ranging from 4 through 4000 gallons per minute.

Griswold maintains strict quality assurance programs to ensure that our entire product line is manufactured to the highest standard for engineered tolerances:

- Our American produced investment and no-bake casting processes produce smooth, superior surface finishes for consistent and reliable performance.
- A metallurgist controlled annealing process assures the maximum durability and product life available on the market.
- CNC (computer numerically controlled) machining equipment guarantees consistency for all parts.
- All power frames are assembled and inventoried in our Clean Room to keep sensitive bearings and internal components contaminant-free.

ITEM NO.	DESCRIPTION		
1	Labyrinth Seals Standard	INPRO® oil seals keep outside contaminants from lubrication media, significantly extending bearing life. Standard in bronze. Carbon-filled Teflon® and magnetic face seals optional.	
2	Ductile Iron Frame Adapters	Ductile Iron construction provides strength and safety. Precision-machined fits accurately align the liquid end to the power end. Large openings simplify installation and maintenance. Includes jacking bolts to facilitate disassembly.	
3	Mounting Frame Flange	Machined to accommodate C-face motor adapters. In close coupled configurations.	
4	Extra Large Capacity Powder-Coated Oil Sump	Maximised oil capacity delivers improved heat transfer and oil temperature, greatly extending bearing life. Designed to accommodate optional fin coolers for higher temperature applications. Impenetrable fusion bonded epoxy coating on interior surface extends quality, cleanliness and longevity of the lubricating oil.	
5	External Clearance Adjustment	For maintaining original flow, pressure and efficiency, minimising energy consumption and repairs, and extending mean-time-between-failures (MTBF).	
6	Heavy-Duty Shaft and Bearings	Engineered to minimise vibration and shaft deflection, less than 0.002 inch per ANSI B73.1, optimising pump life. Sleeved and solid shaft available in a variety of materials. Bearings sized for 10-year life under tough operating conditions.	
7	Oversized Sight Glass	One-inch bulls eye reflective sight glass facilitates monitoring oil level and condition, critical to bearing life. Bottle oiler optional.	
8	Magnetic Drain Plug	Collects damaging metallic contaminants away from the bearings.	
9	Contained Casing Gasket	Provides positive sealing at casing joint to prevent "blow out" of liquids and to facilitate disassembly.	
10	Sealing Flexibility	Wide range of sealing options coupled with seal chambers and stuffing boxes selected for service condition to improve lubrication and heat dissipation of seal faces, maximising pump uptime.	
11	Fully Open Impeller	With double the wear area of enclosed models, the 811 impeller offers superior handling of solids, corrosives and abrasives. Back pump-out vanes reduce hydraulic loads and seal chamber pressure.	
12	Extra-Heavy Casings	Class 150 pumps incorporate Class 300 wall thickness as standard, extending reliability and casing life under severe corrosive/erosive conditions: <ul style="list-style-type: none"> <li>• Top centreline, self-venting discharge for air handling</li> <li>• Back pull-out to simplify maintenance</li> <li>• Rigid casing feet prevent pipe load misalignment and promote seal /casing life</li> <li>• Discharge connection for pressure gauge or seal bypass flush connection standard on Ductile Iron and Stainless Steel casings</li> <li>• Class 150 FF standard for positive sealing. Optional Class 150 RF 300 FF/RF available</li> <li>• Casing drain standard in Ductile Iron and Stainless Steel for simplified maintenance.</li> </ul>	



## Optimise Your Pump Replacement Process

Challenge your existing equipment quality, delivery and costs with Griswold's ready-to-ship inventory of 811 pumps and parts. Our high-quality, ANSI-compliant pumps and wearing parts will interchange quickly and seamlessly with a variety of ANSI pump models and brands – without piping, baseplate or coupling changes. All at a significant cost savings!

Factor in our NO PREMIUM 36-HR SHIP COMMITMENT on pumps and SAME-DAY SHIPPING on parts, and you'll save money, simplify ordering, reduce inventory and expedite line repair.

## Interchangeability Guide

All 811 parts, from end to end, are 100% interchangeable with many ANSI pumps.

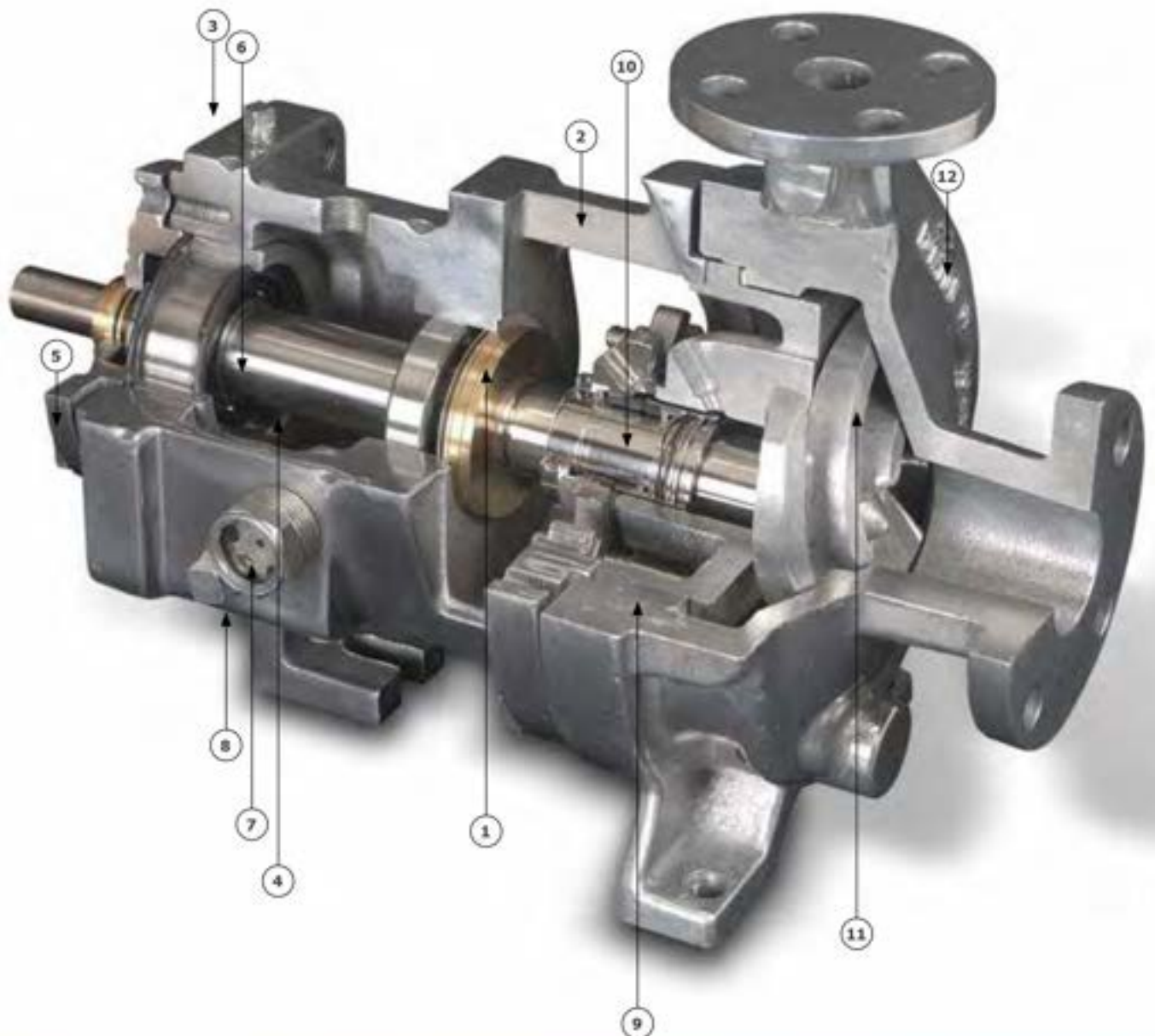
### Interchangeable with:

#### PUMPS

Ductile Iron pumps, Stainless Steel pumps, Alloy 20 pumps, CD4MCu pumps

#### PARTS

Bearings & seals, Cases, Impellers, Power frames, Shafts & sleeves, Stuffing boxes, All other parts for ANSI pumps




**ANSI SERIES**

## Seals To Fit Any Application

**Cartridge Seals, Component Seals & Conventional Packing.** With Griswold's broad selection of seals, you can accommodate most any fluid and temperature for demanding chemical, petroleum, pharmaceutical and general industry applications. Our engineers can recommend the best seal to maximise your application and system life—including cartridge or component, single or double, inside or outside, balance or unbalanced seals or conventional packing.

SEAL SELECTION		
<b>Single Inside Seal</b>	For non to moderately corrosive liquids, moderate abrasives and liquids with good lubrication qualities.	
<b>Conventional Double Seal</b>	For liquids that are incompatible with single seals, cavitation or low flow situations. Meets environmental regulations for toxic, hazardous, abrasive and corrosive substances.	
<b>Single Cartridge Seal</b>	For same applications as conventional single seals, allowing simplified seal setting and maintenance.	
<b>Double Cartridge Seal</b>	For same applications as conventional double seals, allowing simplified seal setting and maintenance.	
<b>Double Gas Barrier Seal</b>	Meets environmental regulations for toxic or hazardous materials. For use when seal pot or external flush is not desirable or when compatible seal flush liquid is not available.	

**3-YEAR Whole Pump Warranty.** All 811 pumps are backed by a 3-YEAR unconditional guarantee against defects in material and workmanship.



## Increased Capability For Reduced Volumes

Standard ANSI pumps (with expanding style volute casing) are not designed for low flow, high head applications: the excessive radial loads and shaft vibration experienced can shorten bearing and seal life. Griswold's Model 811LF series is designed with a circular concentric casing in conjunction with a radial vane impeller to reduce those excessive radial loads and minimise shaft deflection, thus extending MTBPM.



## Circular Concentric Volute Casing

The fully machined concentric volute reduces excessive radial loads experienced in low flow, high head applications. Shaft vibration and deflection are minimised, extending bearing and mechanical seal life.

Class 150 raised face flanges are standard with the Model 811LF series for positive sealing. Class 300 raised face flanges are available as an option.



## Low Flow Radial Vane Impeller

Griswold's radial vane impellers are specially designed to reduce the thrust load and seal chamber pressure normally associated with low flow applications. When operating in reduced volume conditions, the low flow impeller's vanes provide better hydraulic control than traditional ANSI impellers. Balance holes reduce both axial thrust and seal chamber pressure, extending bearing and seal life.



## Retrofitting

Griswold Model 811LF pumps are ANSI dimensional, so they can be installed without piping or base changes to existing equipment. In fact, since all other parts and features are identical/ interchangeable within the entire 811 ANSI line, the 811LF case and impeller can be easily retrofitted to an existing Griswold pump as well as 100,000s of other ANSI pumps already in service!

### SIX 811F MODELS

LF11/2 x1-8	⊙1750RPM
LF11/2 x1-8	⊙3500RPM
LF2x1-10	⊙1750RPM
LF2x1-10	⊙3500RPM
LF 3 x 1 <sup>1/2</sup> -13	⊙1750RPM
LF 3 x 1 <sup>1/2</sup> -13	⊙3500 RPM

### 811LF CAPACITIES

4 GPM to 210 GPM
Heads to 920'



## GRISWOLD ANSI SERIES

### High And Low Temperature Capability

- **Heat Jacket:** Clamps on to the casing to manage heat transfer. Easy to install or remove for servicing.
- **Jacketed Seal Chamber:** Maintains temperature control for heating or cooling of sealing environment.
- **Bearing Frame Finned Cooler:** Directly cools oil to lower bearing temperature. Recommended for temperatures over 350 degrees.



### Seal Flush Plans

We offer all ANSI B73.1 seal flush and cooling plans to control emission levels, improve lubrication and cooling of the seal faces, and reduce down-time. Ask us to assist you in selecting the best plan.



### Lubrication Options

811 power ends accommodate all lubrication systems, including flood oil, oil mist and grease lubrication. Our power ends are pre-drilled for all lubrication methods and can be easily converted in the field without modification.

### Special Surface Preparation

Griswold offers a variety of optional surface preparation processes for extended corrosion protection and contaminant-free pumping:

- Electro Polishing
- Passivation
- Hard Metal Coatings
- Fusion Bonded, Epoxy Coated Power End
- Special Paint Systems





## Enhanced Power Frames

- **INPRO® Labyrinth Oil Seals.**

Our high-quality oil seals keep outside environmental contaminants from entering your lubrication media, greatly extending bearing life—available standard in bronze, and optional in Carbon-filled Teflon® or magnetic seal face.



- **Large Sight Glass.** Our one-inch bulls eye sight glass simplifies oil level and conditions monitoring, critical to bearing life.

- **Large Oil Sump & Oversized Fill Plug.** Increased oil capacity maximises heat transfer for reduced oil temperature. Our extra large 1/2" NPT oil fill plug further simplifies the lubrication process. Designed to accommodate optional fin coolers for higher temperature applications.

- **Powder Coated Oil Sump Lining.**

Griswold utilises a "Fusion Bonded Epoxy Coating" on the interior surface of the power frame to provide an impenetrable barrier between the iron frame and oil, enhancing the long-term quality and cleanliness of the lubricating oil.



- **Improved Strength & Rigidity.** The superior tensile strength of both our cast and ductile iron makes Griswold power frames not only stronger than the competition's (as much as 33%), but also more rigid—and better equipped to withstand forces and moments experienced in today's process applications.

- **Heavy-Duty Shaft & Bearings.** Our shaft is engineered for heavy-duty loads and for minimum vibration and deflection at seal faces (less than 0.002 inches per ANSI B73.1), extending bearing and seal life. Using only the highest-quality bearings further optimises the 811's performance and reliability. Both shaft and bearings are rated for 10-year average life under tough operating conditions. Standard hook-type sleeved design meets ANSI shaft deflection standards and provides ease of maintenance. Solid shaft design available for more demanding applications. Both are available in a variety of materials.

- **Hook-Type Replaceable Shaft Sleeve.** The 811's hook-type shaft sleeve is free to expand with temperature changes and promotes renewal of the sealing surface without bearing and shaft disassembly.

- **Magnetic Drain Plug.** Our drain plug is designed to magnetically collect damaging metallic contaminants away from the bearings.

- **Monitoring Locations.** Each power frame is machined with 4 condition-monitoring sites to facilitate consistent checking of vibration and temperature.

- **Clean Room Assembly.** All sizes of our power frames are assembled in Griswold's climate controlled, sealed, clean room which filters out airborne dirt and debris that might otherwise contaminate sensitive bearings and internal components. We also inventory all finished power frames and associated components in this ultra clean environment to ensure the most reliable power frame you can buy.



## GRISWOLD ANSI SERIES

### Power Frame Upgrade

- **811 L.** The 811 is offered in a larger frame that is ideal in high-load applications or when conditions push the power frame beyond ANSI limits. The 811 L features an oversized rotating assembly and higher radial and thrust load carrying bearings. Duplex angular contact bearings ensure zero end play for improved sealing and maximum mechanical seal life. Whether pumping viscous liquids or high specific gravity liquids, fluctuating process conditions, or pumping high heads or low flows, our 811 L power frame guarantees maximum pump life in your toughest applications.



- ✔ **Increases Performance**
- ✔ **Simplifies Maintenance**
- ✔ **Increases Longevity**

### Heavy Duty C-Face Motor Adapter

- **Optional C-Face Adapter.** Our C-Face motor adapter bolts directly to the precision machined fit on the power frame. Register fits on both ends of the adapter lock in a standard C-Face motor, guaranteeing both parallel and angular alignment. This quick, yet precision installation minimises time spent aligning shaft couplings, and eliminates seal and bearing replacements caused by misalignment. Best of all, our C-Face adapters—like the rest of our parts— are directly interchangeable with most ANSI pumps!

#### POWER FRAME STANDARD FEATURE COMPARISON

	Griswold	Competition
Magnetic Drain Plug	YES	No
INPRO® Lab Seals	YES	No
Epoxy Coated Interior	YES	No
Clean Room Assembly	YES	No
Cast Iron Tensile Strength <small>811, 111, 811L Frames</small>	30000 lbs	20000 lbs
Ductile Iron Tensile Strength <small>111L Frames</small>	65000 lbs	60000 lbs



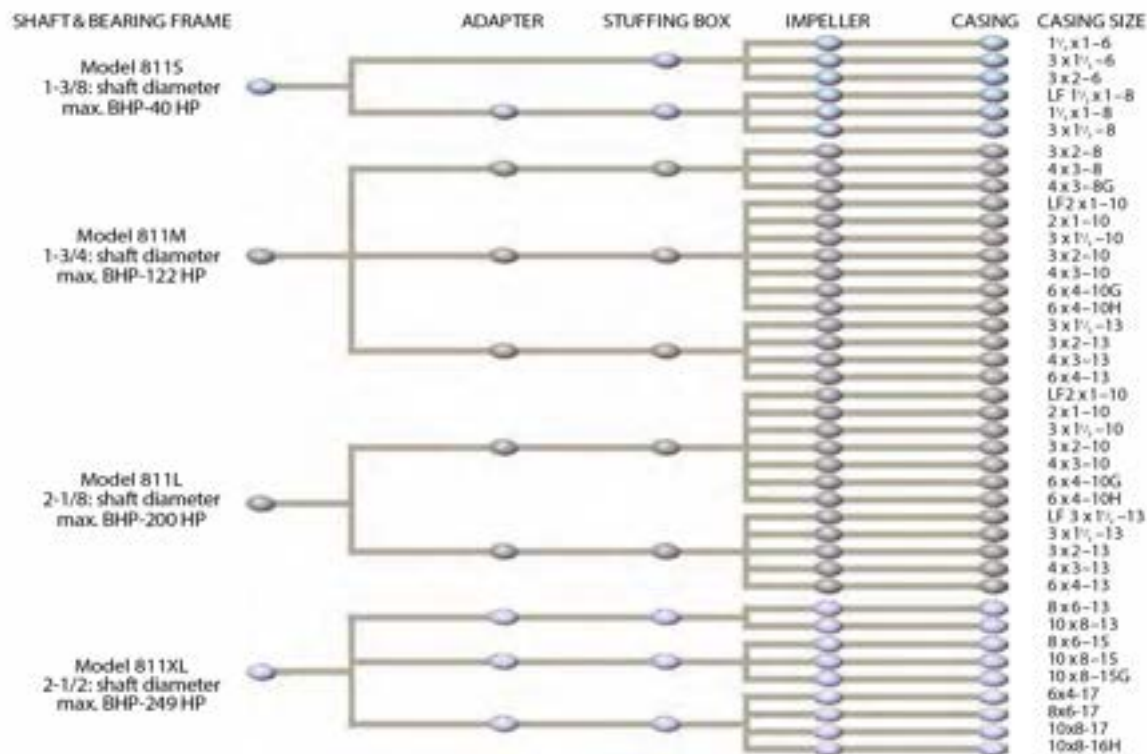
- **Back Pump-Out Vanes** reduce pressure on the shaft seal and axial thrust on the bearings. Maintenance is further simplified—extending bearing life, seal life and performance.
- **Investment Cast Impellers:** ultra-smooth, consistently cast investment impellers are standard on Stainless Steel, CD4MCu and Alloy 20, and optional on Ductile Iron pumps. This feature improves hydraulic and mechanical balance, maximises seal and bearing life and improves efficiency.



## Construction

GRISWOLD 811 MODEL		MODEL 811 S	MODEL 811 M	MODEL 811 L	MODEL 811 XL
Volute		single			
Nominal Case Thickness (in.)		3/8	1/2 (6x4-13A80 = 5/8)		9/16
Corrosive Allowance @ Max.		1/8			
Working Pressure		Limits set by ANSI B16.5			
Max. Working PSIG		See Pressure/Temp. charts on following page			
Hydro Test PSIG @ 100°F		150% of working pressure at 100°F (38°C)			
Max. Liquid Temp (°F)		350°F without Cooling / 500°F with Cooling			
Shaft Diameter	At Coupling (in.)	7/8	1 1/8	1 7/8	2 3/8
	Sleeve Dia. Under Seal (in.)	1 3/8	1 3/4	2 1/8	2 1/2
	Under Impeller (in.)	3/4	1	1 1/4	1 1/2
	Under Sleeve (in.)	1 1/8	1 1/2	1 7/8	2
	Overhang (in.)	6 1/8	8 3/8	8 3/8	9 31/32
Bearings	Radial	SKF 6207	SKF 6309	SKF 6311	SKF 6313
	Thrust	SKF 5306 A/C3	SKF 5309 A/C3	SKF 7310 BECBM	SK 5313 A/C3
	Bearing Span	4 1/8	6 3/4	6 7/8	9 1/4
Mechanical Seal Size (in.)		1 3/8	1 3/4	2 1/8	2 1/2
Stuffing Box I.D. (in.)		2	2 1/2	2 7/8	3 3/8
Standard Bore Depth (in.)		2 1/8	2 5/8		3
Distance End of Box to Nearest Obstruction		2 1/2	2 13/16		2 15/16
Stuffing Box I.D. (in.)		2 7/8	3 1/2	3 7/8	4 1/2
Large Bore Depth (in.)		2 1/8	2 5/8		3
Distance End of Box to Nearest Obstruction		2 3/16	2 13/16		2.85
Lantern Ring Width (in.)		7/16	5/8		5/8

## Component Interchangeability



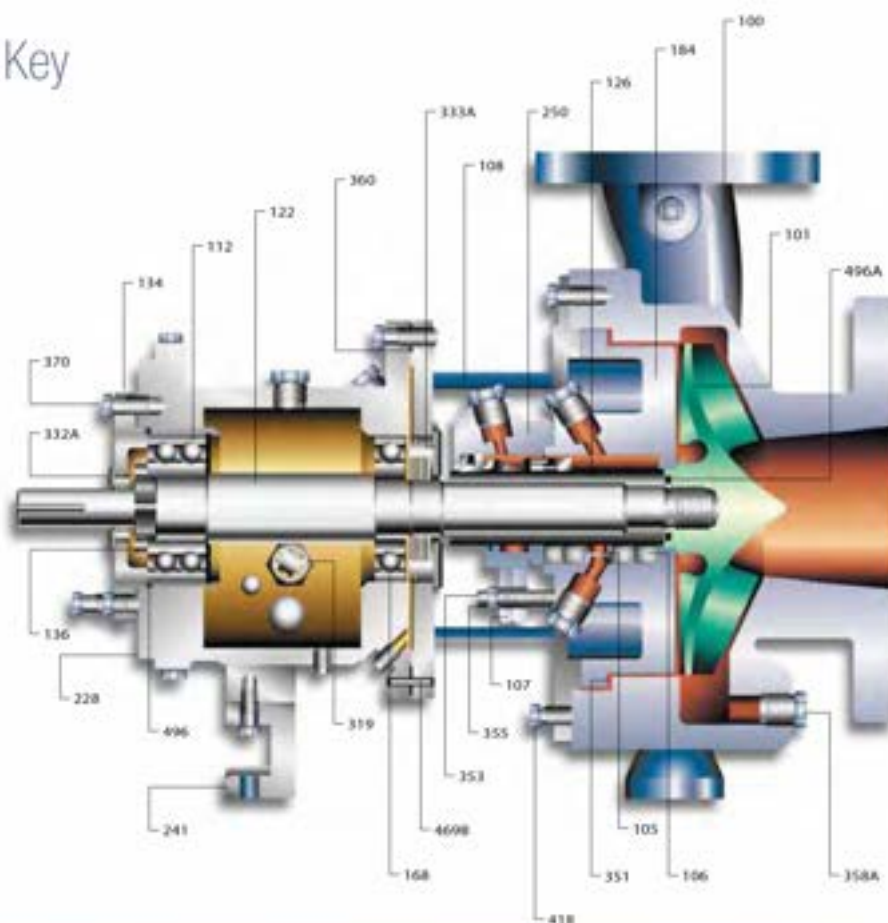
# GRISWOLD ANSI SERIES

## Seal Chambers And Sealing Flexibility

Our quality seal chambers are engineered to provide optimum seal environment for heat dissipation, solids, entrapped air and vapour. Oversized seal chambers increase radial clearance between the mechanical seal and seal chamber, as well as provide better circulation of liquid to and from the seal faces, preventing failure of the shaft seal. A variety of flush plans are available for additional lubrication and cooling of the seal faces.

	STANDARD BORE	LARGE BORE	TAPERED BORE
			
<b>Services</b>	Services utilising packing or mechanical seals. For mild fluid at ambient temperatures.	Most services including those with solids greater than 10%. Increased radial clearance between seal & chamber for improved liquid circulation, lubrication & cooling.	Services up to 10% solids or those containing entrained air or vapours. For lower seal face temperatures, self venting & draining. Circulates solids & vapours away from seal faces.
<b>Sealing flexibility</b>			
Packing	Most Services	Not Available	Not Available
Single Seal/No Flush	Not Recommended	Not Recommended	Services with Solids up to 10%
Single Seal/With Flush	Mild, Clear Fluids	Most Services including Solids above 10%	All Services with Solids up to 10%
Conventional Double Seal with Seal Plan	Zero Leakage Applications	Zero Leakage Applications	Not Available
Cartridge Double Seal with Seal Plan	Zero Leakage Applications	Zero Leakage Applications	Zero Leakage Applications

## Parts List Key



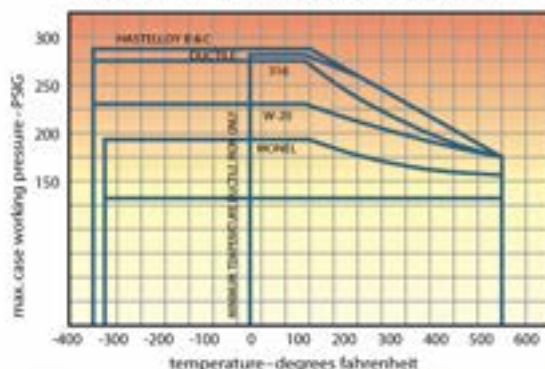


ITEM NO.	REQ'D PER PUMP	PART NAME	ALL DUCTILE IRON	ALL 316SS	ALL ALLOY 20	ALL CD4MCU	ALL MONEL	HASTELLOY B&C	
100	1	Casing	DI	316SS	Alloy 20	CD4MCu	Monel	B&C	
101	1	Impeller	DI	316SS	Alloy 20	CD4MCu	Monel	B&C	
105	1	Lantern Ring	Glass Filled TFE						
106	1	Packing	SIL C-8201 Acid Rest.			TFE			
107	1	Packing Gland	316SS		Alloy 20		Monel	B&C	
108	1	Frame Adapter	Ductile Iron						
112	1	Outboard (Thrust) Bearing	Double Row Angular Contact**						
122	1	Shaft - Less Sleeve (Optional)	316SS						
122	1	Shaft - With Sleeve	SAE4140			316SS			
126	1	Shaft Sleeve	316SS		Alloy 20		Monel	B&C	
134	1	Bearing Housing	Cast Iron						
136	1	Lock Nut / Lock Washer	Steel						
168	1	Inboard (Radial) Bearing	Single Row Deep Groove						
184	1	Stuffing Box	DI	316SS	Alloy 20	CD4MCu	Monel	B&C	
228	1	Frame	Cast Iron (Ductile for Small Frame)						
241	1	Frame Foot	Cast Iron						
250	1	Gland	316SS		Alloy 20				
319	1	Sight Oil Gauge	Cad. Plated						
332A	1	Labyrinth Oil Seal (Outboard)	Bronze (Optional Carbon Filled Teflon)						
333A	1	Labyrinth Oil Seal (Inboard)	Bronze (Optional Carbon Filled Teflon)						
351	1	Casing Gasket	Aramid Fiber with EPDM Rubber						
353	4	Gland Stud	316SS						
355	4	Gland Nut	304SS						
357K	2	Hex Nut	304SS						
358A	1	Casing Drain Plug (Optional)	Steel	316SS	Alloy 20	316SS	Monel	Hastelloy	
360	1	"Gasket, Frame-to-Adapter"	Vellumoid						
360A	1	"Gasket, Bearing End Cover"	Vellumoid (811XL Only)						
370	3	Brg. Hsg. Hex Bolt	Steel						
418	3	Cas. Jack Screw	Steel						
469B	2	Dowel Pin	Steel						
496	1	Brg. Hsg. O-Ring	Buna Rubber						
496A	1	Impeller O-Ring	Glass Filled TFE						

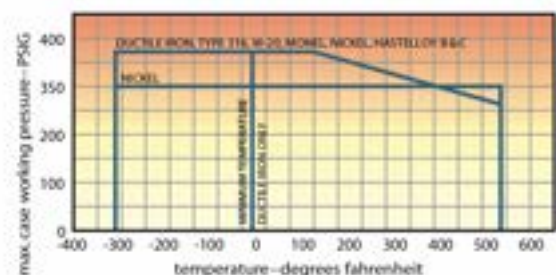
\*\*811L Power end features duplex angular contact

## Pressure And Temperature Capability

Maximum Working Pressure Limits  
models 811S, 811M, 811L; Class 150 Flanges

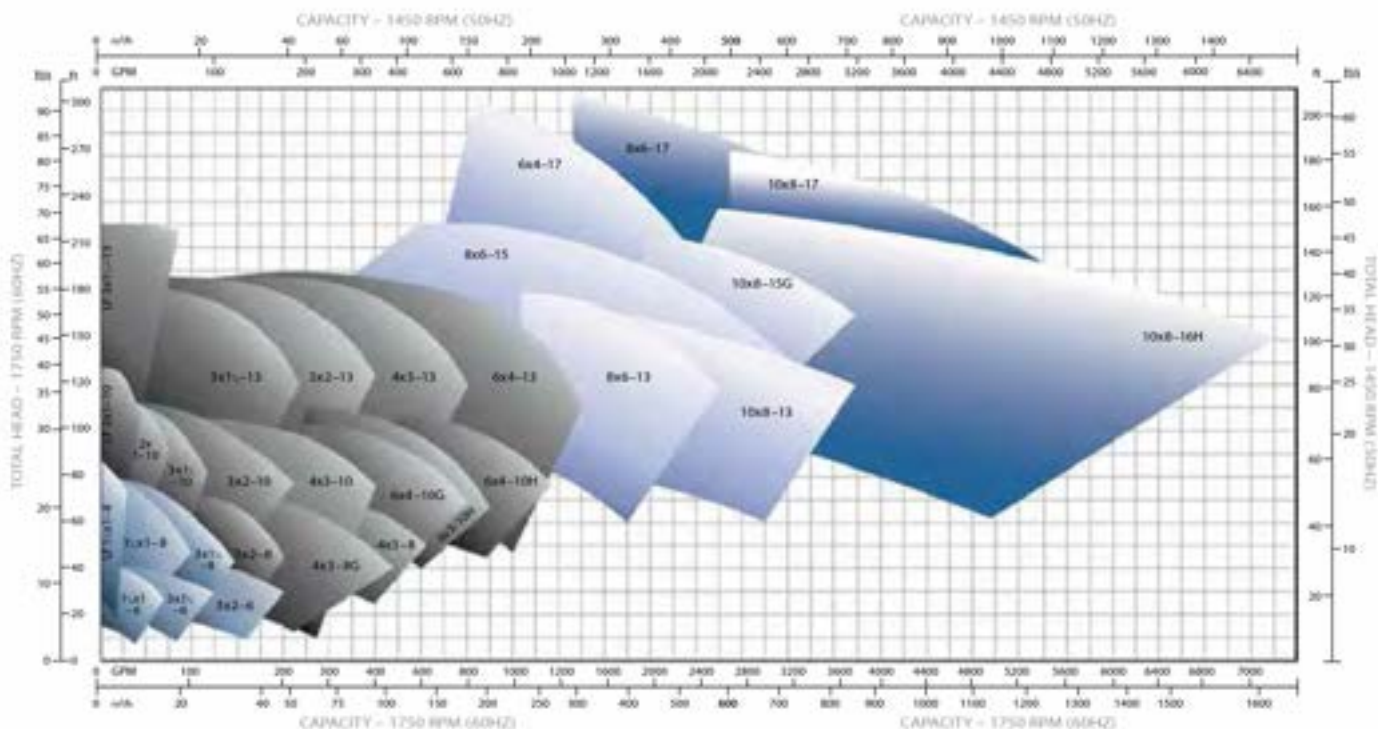


Maximum Working Pressure Limits  
models 811S, 811M, 811L; Class 300 Flanges



**GRISWOLD** ANSI SERIES

### 1750-1450rpm Performance Curve





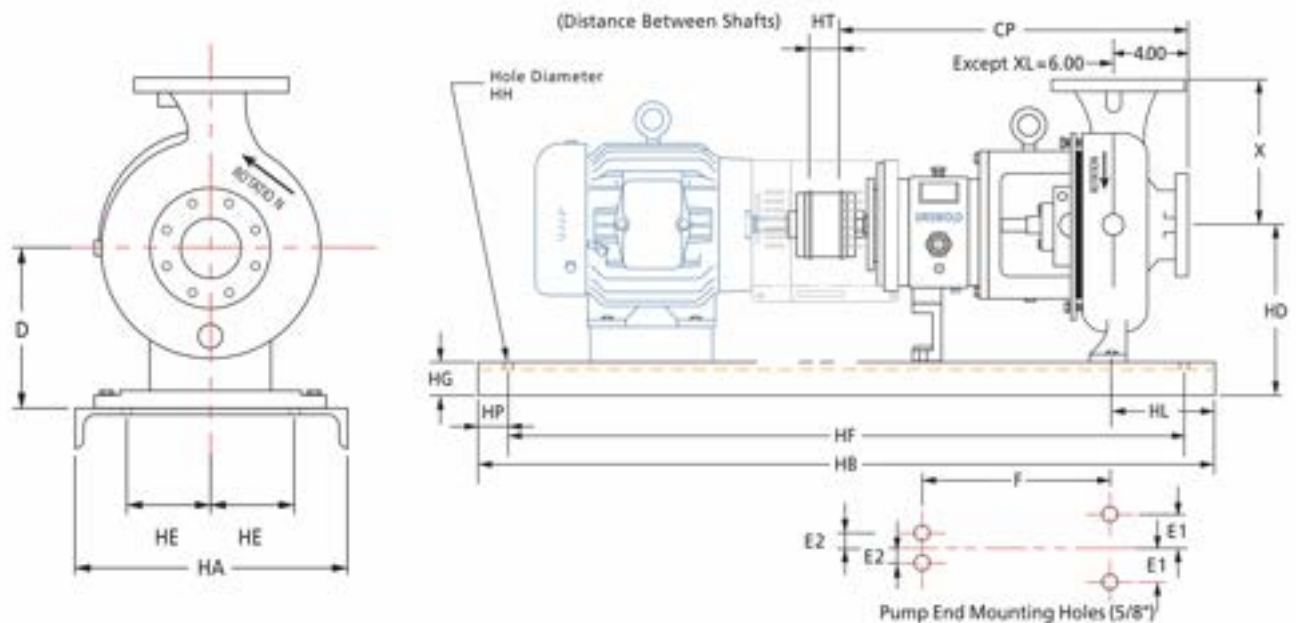
## Small Pump End And Baseplate

PUMP END DIMENSIONS MM (INCH)

	PUMP SIZE	ANSI DESIGNATION	DISCHARGE	SUCTION	D	X	CP	E1	E2	F	IMPELLER EYE (SQ IN)	MAX. DIA SOLIDS
SMALL	1 1/2 x 1 - 6	AA	25 (1 1/2")	25 (1 1/2")	133 (5 1/4")	165 (6 1/2")	444 (17 1/2")	76 (3)	0	184 (7 1/4")	79 (3.1)	9 (11/32)
	3 x 1 1/2 - 6	AB	38 (1 1/2")	76 (3)	133 (5 1/4")	165 (6 1/2")	444 (17 1/2")	76 (3)	0	184 (7 1/4")	180 (7.1)	11 (7/16)
	3 x 2 - 6	AC	51 (2)	76 (3)	133 (5 1/4")	165 (6 1/2")	444 (17 1/2")	76 (3)	0	184 (7 1/4")	165 (6.5)	10 (3/8)
	1 1/2 x 1 - 8	AA	38 (1 1/2")	25 (1 1/2")	133 (5 1/4")	165 (6 1/2")	444 (17 1/2")	76 (3)	0	184 (7 1/4")	165 (3.5)	9 (11/32)
	LF 1 1/2 x 1 - 8	AA	38 (1 1/2")	25 (1 1/2")	133 (5 1/4")	165 (6 1/2")	444 (17 1/2")	76 (3)	0	184 (7 1/4")	79 (3.1)	5 (3/16)
	3 x 1 1/2 - 8	AB	25 (1 1/2")	76 (3)	133 (5 1/4")	165 (6 1/2")	444 (17 1/2")	76 (3)	0	184 (7 1/4")	112 (4.4)	11 (7/16)

BASEPLATE DIMENSIONS MM (INCH)

MAX NEMA FRAME	BASEPLATE NO.	HA**	HB	HT MIN	HD	HE	HF	HG MAX	HH	HL	HP
184T	139	20 (12/15)	991 (39)	89 (3.5)	229 (9)	114 (4.5)	927 (36.5)	95 (3.75)	19 (0.75)	114 (4.5)	32 (1 1/4")
256T	148	21 (15/18)	1219 (48)	89 (3.5)	267 (10.5)	152 (6)	1156 (45.5)	105 (4.13)	19 (0.75)	114 (4.5)	32 (1 1/4")
326TS	153	22 (18/21)	1346 (53)	89 (3.5)	327 (12.88)	191 (7.5)	1283 (50.5)	121 (4.75)	19 (0.75)	114 (4.5)	32 (1 1/4")



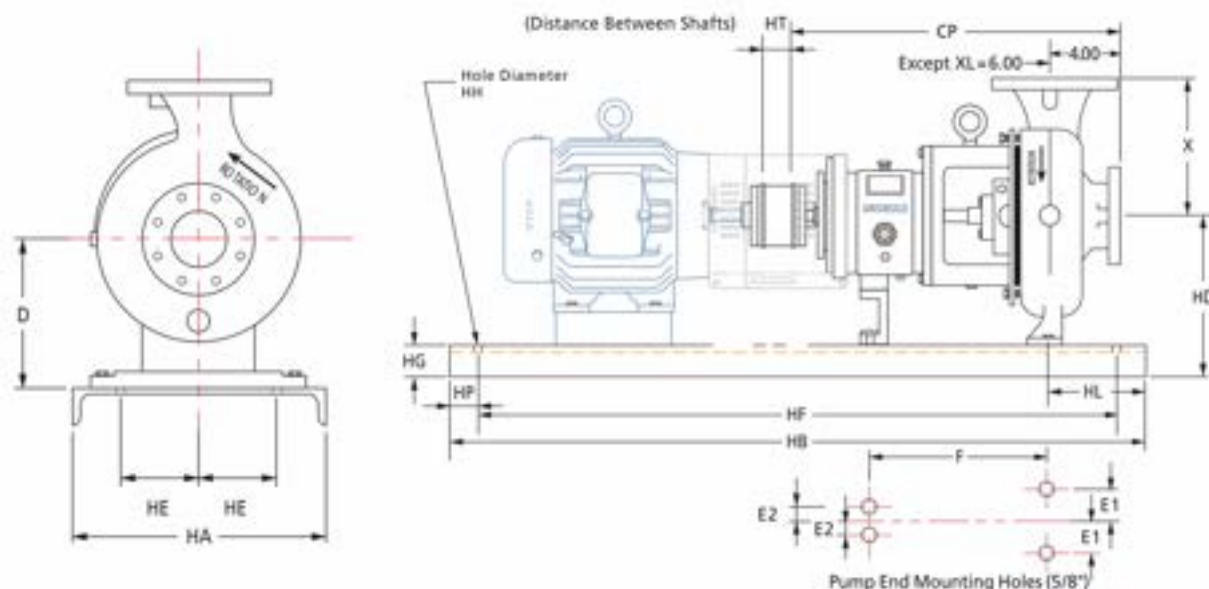
## Medium And Large Pump End And Baseplate

PUMP END DIMENSIONS MM (INCH)												
	PUMP SIZE	ANSI DESIGNATION	DISCHARGE	SUCTION	D	X	CP	E1	E2	F	IMPELLER EYE (SQ IN)	MAX. DIA SOLIDS
MEDIUM	3 x 2 - 8	A60	51 (2)	76 (3)	210 (8 1/4)	241 (9 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	140 (5.4)	13 (1/2)
	4 x 3 - 8	A70	76 (3)	102 (4)	210 (8 1/4)	279 (11)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	318 (12.5)	29 (1 1/8)
	4 x 3 - 8G	A70	76 (3)	102 (4)	210 (8 1/4)	279 (11)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	292 (11.0)	17 (11/16)
MEDIUM OR LARGE	2 x 1 - 10	A05	25 (1)	51 (2)	210 (8 1/4)	203 (8 1/8)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	114 (4.9)	11 (7/16)
	LF 2 x 1 - 10	A05	25 (1)	51 (2)	210 (8 1/4)	203 (8 1/8)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	114 (4.9)	5 (3/16)
	3 x 1 - 1/2 - 10	A50	38 (1 1/2)	76 (3)	210 (8 1/4)	203 (8 1/8)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	165 (6.5)	6 (7/32)
	3 x 2 - 10	A60	51 (2)	76 (3)	210 (8 1/4)	229 (9 1/8)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	79 (3.1)	10 (3/8)
	4 x 3 - 10	A70	76 (3)	102 (4)	210 (8 1/4)	279 (11)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	318 (12.5)	16 (5/8)
	6 x 4 - 10G	A80	114 (4)	152 (6)	254 (10)	343 (13 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	658 (25.9)	25 (1)
	6 x 4 - 10H	A80	114 (4)	152 (6)	254 (10)	343 (13 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	688 (27.1)	25 (1)
	3 x 1-1/2 - 13	A20	38 (1 1/2)	76 (3)	254 (10)	267 (10 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	114 (4.9)	6 (7/32)
	LF 3 x 1-1/2 - 13	A20	38 (1 1/2)	76 (3)	254 (10)	267 (10 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	211 (8.3)	11 (7/16)
	3 x 2 - 13	A30	51 (2)	76 (3)	254 (10)	292 (11 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	79 (3.1)	10 (3/8)
	4 x 3 - 13	A40	76 (3)	102 (4)	254 (10)	318 (12 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	361 (14.2)	16 (5/8)
6 x 4 - 13	A80	114 (4)	152 (6)	254 (10)	343 (13 1/2)	584 (23 1/4)	124 (4 7/8)	92 (3 5/8)	318 (12 1/2)	711 (28.0)	25 (1)	

BASEPLATE DIMENSIONS MM (INCH)												
MAX NEMA FRAME	BASE-PLATE NO.	HA**	HB	HT MIN	IF PUMP D=8.25 HD	IF PUMP D=10 HD	HE	HF	HG MAX	HH	HL	HP
184T	245	20 (12/15)	1143 (45)	89 (3.5)	305 (12)	349 (13.75)	114 (4.5)	1080 (42.5)	95 (3.75)	19 (0.75)	114 (4.5)	32 (1 1/4)
215T	252	21 (15/18)	1321 (52)	89 (3.5)	314 (12.38)	359 (14.13)	152 (6)	1257 (49.5)	105 (4.13)	19 (0.75)	114 (4.5)	32 (1 1/4)
286T	258	22 (18/21)	1473 (58)	89 (3.5)	330 (13)	375 (14.75)	191 (7.5)	1410 (55.5)	121 (4.75)	25 (1)	114 (4.5)	32 (1 1/4)
365T	264	22 (18/21)	1626 (64)	89 (3.5)	353 (13.88)	375 (14.75)	191 (7.5)	1562 (61.5)	121 (4.75)	25 (1)	114 (4.5)	32 (1 1/4)
405TS	268	23 (24/26)	1727 (68)	89 (3.5)	378 (14.88)	378 (14.88)	241 (9.5)	1664 (65.5)	121 (4.75)	25 (1)	114 (4.5)	32 (1 1/4)
449TS	280	23 (24/26)	2032 (80)	89 (3.5)	403 (15.88)	403 (15.88)	241 (9.5)	1969 (77.5)	121 (4.75)	25 (1)	114 (4.5)	32 (1 1/4)

\* Flange drilling is standard ANSI 150lb, flatface. All LF pumps use 150lb raised face flanges, except the LF 3 x 1-1/2-13, which uses 300 lb raised face flanges.

\*\* HA dimensions represent Griswold's standard construction/ANSI maximum width, respectively.





## X-Large Pump End And Baseplate

PUMP END DIMENSIONS MM (INCH)												
	PUMP SIZE	ANSI DESIGNATION	DISCHARGE	SUCTION	D	X	CP	E1	E2	F	IMPELLER EYE (SQ IN)	MAX. DIA SOLIDS
X-LARGE	8 x 6 - 13	A90	152 (6)	203 (8)	266 (14 <sup>1/2</sup> )	406 (16)	860 (33 <sup>7/8</sup> )	203 (8)	114 (4.5)	476 (18 <sup>3/4</sup> )	1156 (45.5)	17 (11/16)
	10 x 8 - 13	A100	203 (8)	254 (10)	266 (14 <sup>1/2</sup> )	457 (18)	860 (33 <sup>7/8</sup> )	203 (8)	114 (4.5)	476 (18 <sup>3/4</sup> )	1440 (56.7)	25 (1)
	8 x 6 - 15	A110	152 (6)	203 (8)	266 (14 <sup>1/2</sup> )	457 (18)	860 (33 <sup>7/8</sup> )	203 (8)	114 (4.5)	476 (18 <sup>3/4</sup> )	1270 (50.0)	21 (13/16)
	10 x 8 - 15	A120	203 (8)	254 (10)	266 (14 <sup>1/2</sup> )	483 (19)	860 (33 <sup>7/8</sup> )	203 (8)	114 (4.5)	476 (18 <sup>3/4</sup> )	1894 (74.6)	29 (1 <sup>1/8</sup> )
	10 x 8 - 15G	A120	203 (8)	254 (10)	266 (14 <sup>1/2</sup> )	483 (19)	860 (33 <sup>7/8</sup> )	203 (8)	114 (4.5)	476 (18 <sup>3/4</sup> )	1600 (63.0)	29 (1 <sup>1/8</sup> )
	10 x 8 - 16H	A120	203 (8)	254 (10)	266 (14 <sup>1/2</sup> )	483 (19)	860 (33 <sup>7/8</sup> )	203 (8)	114 (4.5)	476 (18 <sup>3/4</sup> )	—	—
	10 x 8 - 17	A120	203 (8)	254 (10)	266 (14 <sup>1/2</sup> )	483 (19)	860 (33 <sup>7/8</sup> )	203 (8)	114 (4.5)	476 (18 <sup>3/4</sup> )	—	—

BASEPLATE DIMENSIONS MM (INCH)												
MAX NEMA FRAME	BASEPLATE NO.	HA**	HB	HT MIN	HD	HE	HF	HG MAX	HH	HL	HP	
286T	368	23 (24/26)	1727 (68)	127 (5)	489 (19.25)	241 (9.5)	1664 (65.5)	121 (4.75)	25 (1)	165 (6.5)	32 (1 <sup>1/8</sup> )	
405T	380	23 (24/26)	2032 (80)	127 (5)	489 (19.25)	241 (9.5)	1969 (77.5)	121 (4.75)	25 (1)	165 (6.5)	32 (1 <sup>1/8</sup> )	
449T	398	23 (24/26)	2489 (98)	127 (5)	489 (19.25)	241 (9.5)	2426 (95.5)	121 (4.75)	25 (1)	165 (6.5)	32 (1 <sup>1/8</sup> )	

\* Flange drilling is standard ANSI 150lb, flatface.

\*\* HA dimensions represent Griswold's standard construction/ANSI maximum width, respectively.






**ANSI SERIES**

## Tapped Openings (NPT)

PURPOSE	NUMBER OF TAPS	TAP SIZE MM (INCH)							
		811S		811M		811L		811XL	
Lantern Ring Connection*	2	6 (1/4)		6 (1/4)		10 (3/8)		10 (3/8)	
Frame Adapter Drain*	1			SLOT		SLOT		SLOT	
Casing Drain**	1	10 (3/8)		10 (3/8)		10 (3/8)		10 (3/8)	
Alternate Casing Drain	1	13 (1/2)		13 (1/2)		13 (1/2)		13 (1/2)	
Bearing Frame Cooling*	2	13 (1/2)	25 (1)	13 (1/2)	25 (1)	13 (1/2)	25 (1)	13 (1/2)	25 (1)
Discharge Gage Connection**	1	6 (1/4)		10 (3/8)		10 (3/8)		10 (3/8)	
Suction Gage Connection	1	6 (1/4)		10 (3/8)		10 (3/8)		10 (3/8)	
Stuffing Box Circulating Line**	1	6 (1/4)		10 (3/8)		10 (3/8)		10 (3/8)	
Quench Gland Connection	2	6 (1/4)		6 (1/4)		6 (1/4)		6 (1/4)	

## B.H.P. Limits

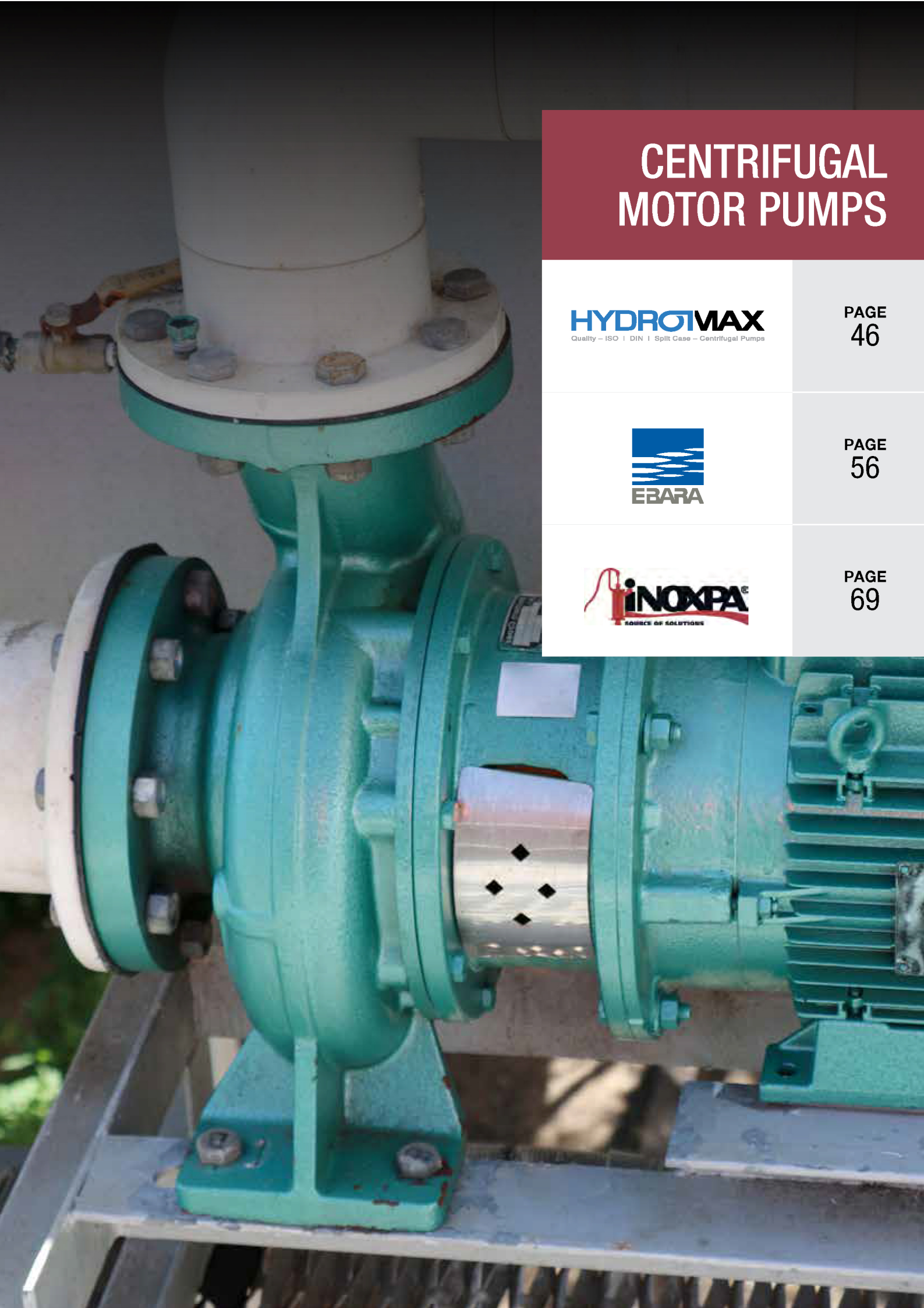
RPM	MODEL			
	811S	811M	811L	811XL
3560	40.0	122.0	200.0	
2900	32.7	99.5	165.0	
1780	20.0	61.0	100.0	249.0
1450	16.3	49.7	81.5	203.0
1180	13.3	40.5	66.4	165.0
880	9.9	30.2	49.5	123.0x

## Materials/Casting Specs

DASH	MATERIAL	CASTING SPECIFICATION
N6	Ductile Iron	ASTM A395 Grade 60-40-18
91	316SS	ASTM A351 Grade CF8M
20	Alloy 20	ASTM A351 Grade CN-7M
X4	Duplex	ASTM A351 Grade CD4MCu







# CENTRIFUGAL MOTOR PUMPS

**HYDROVIA**  
Quality – ISO 1 DIN 1 Split Case – Centrifugal Pumps

PAGE  
46



PAGE  
56



PAGE  
69

## HYDROMAX DIN SERIES

Hydromax - ISO 9001:2008 | Split Cases - Centrifugal Pumps

### Description

HDM series pumps are closed coupled, end suction centrifugal pumps. Designed according to EN733/ DIN24255 standard for interchangeability. Pump is suitable to be coupled with both NEMA and IEC designed motor by a stub shaft that will eliminate time consuming alignments.

These pumps eliminate costly couplings and the alignment problems sometimes associated with long coupled models. In addition, users have the choice of a range of construction materials, pump discharge positions and large operating range. HDM Series End Suction Pumps are designed and engineered to be easily serviced with their back pull-out design. This allows removal of the motor/ impeller module without disturbing pipework.



### Design Options

**Standard Design** - HDM Series close coupled motor pumps have a cost saving advantage over traditional long coupled centrifugal pump and motor sets.

**Operating Temperatures** - With standard mechanical seal - minus 20°C to +100°C. Mechanical seals are available for applications outside these limits.

**Operating Pressures** - Maximum operating pressure 1600kPa. Maximum test pressure up to 2100kPa. (Maximum pressure will vary depending on particular pump model - higher ratings available on application).

**Maximum Speed** - Maximum direct coupled speeds for HDM series pumps vary between 3600rpm and 1800rpm depending upon pump size.

**Back Pull-Out Design** - All HDM series pumps incorporate the "Back Pull-Out" design allowing the removal of the complete rotating element without disturbing the pipe work. This feature enables quick and simple maintenance to take place.

### Material Options

	CAST IRON	BRONZE	Z.F. BRONZE	STAINLESS STEEL
Castings	✓	✓	✓	✓
Impeller	✓	✓	✓	✓
Shaft	—	—	—	✓
Shaft Sleeve	—	✓	—	✓
Wear ring	✓	✓	✓	✓

### Applications

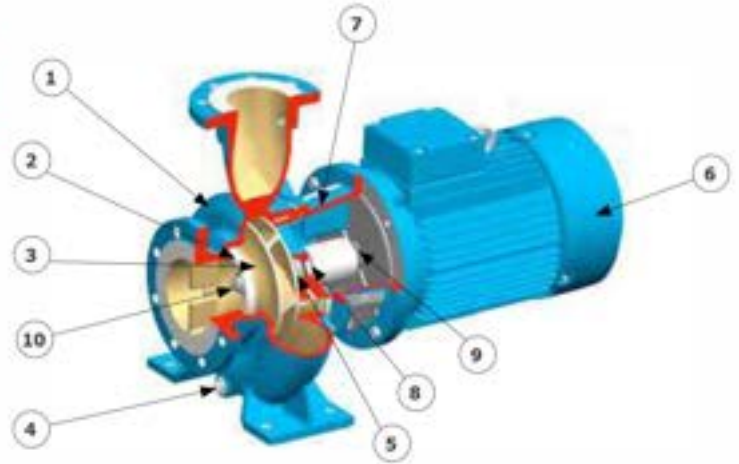
- Air-conditioning
- Heating and Ventilation
- Refrigeration
- Fire protection
- Plumbing
- Circulation
- Transfer
- Irrigation
- Drainage
- Water Pressure Boosting
- Process industry
- Petrol IUM products
- General industry
- Food and drink manufacture
- Water treatment & supply
- Cooling towers



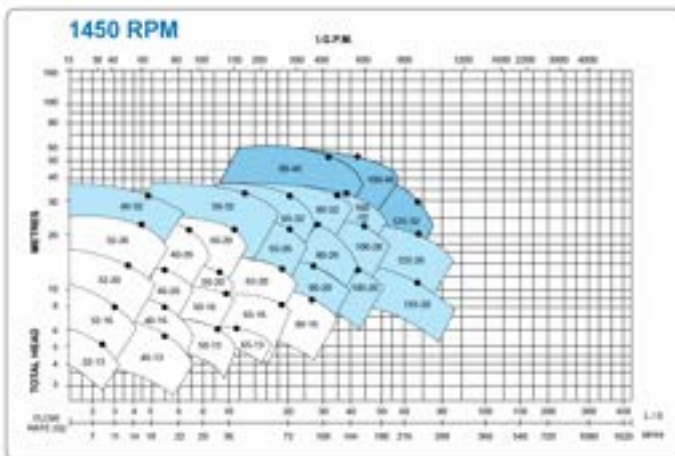
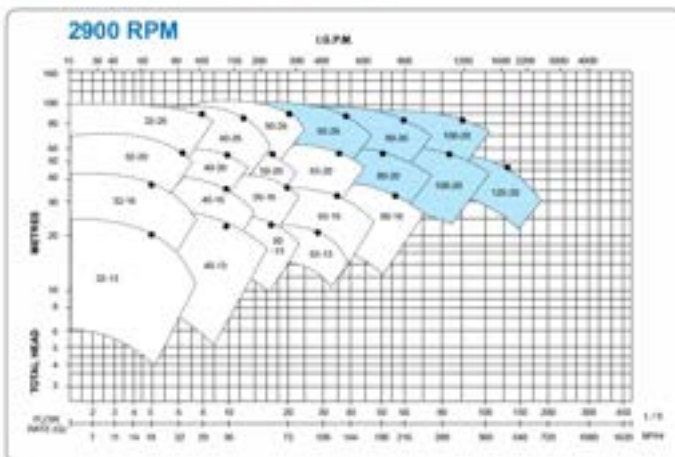
## General Arrangement

PARTS	
NUMBER	DESCRIPTION
1	Volute Casing
2	Wear Ring
3	Impeller
4	Screw Plug
5	Mechanical Seal

PARTS	
NUMBER	DESCRIPTION
6	IEC Standard Motor
7	Adapter
8	Slinger
9	Shaft
10	Impeller Nut



## Performance - 50Hz



## Dimensions (2 Pole)



MODEL / POWER		SUCTION / DISCHARGE		DIMENSION														NET WEIGHT (KG)																																
TYPE	KW / 2POLE	INLET	OUTLET	a	$h_1$	$h_2$	$L_1$	$L_2$	L	A	B	H	HD	$\phi_1$	$\phi_2$	$\phi_3$	$\phi_4$	$S_1$	$S_2$																															
HDM32-13-1.1-DIN	1.1	50	32	80	112	140	152	167	407	125	100	80	220	100	70	210	160	420	125	95	320	225	14	10	47																									
HDM32-13-1.5-DIN	1.5							422	190	140		48																																						
HDM32-13-2.2-DIN	2.2							173	447	140		125	90												250	10	49																							
HDM32-16-2.2-DIN	2.2							100	180	228		286.5	788												279	818	279	241	180	455	125	95	345	280	15	190	222	149	15	190	222	149								
HDM32-16-3-DIN	3																																										192	489	160	100	270	67		
HDM32-16-4-DIN	4																																										199	504	190	112	300	66		
HDM32-16-5.5-DIN	5.5																																										187	241	577	140	240	190	15	123
HDM32-20-5.5-DIN	5.5																																										216	132	345	12	133			
HDM32-20-7.5-DIN	7.5																																										186	240	576	12	135			
HDM32-20-11-DIN	11																																										218	291	723	170				
HDM32-26-15-DIN	15																																										733	254	160	420	15	181		
HDM32-26-18.5-DIN	18.5																																										788	254	191					
HDM40-13-1.5-DIN	1.5	65	40	80	112	140	152				167			407	125	100	80	220	100	70	210	160	420	125																			95	320	225	14	10	53		
HDM40-13-2.2-DIN	2.2										422			190	140		55																																	
HDM40-13-3-DIN	3										173			447	140		125	90																														250	10	63
HDM40-13-4-DIN	4							192	489	160	100	270	62																																					
HDM40-16-3-DIN	3							199	504	190	112	300	62																																					
HDM40-16-4-DIN	4							192	489	1500	100	270	62																																					
HDM40-16-5.5-DIN	5.5							199	504	190	140	112	300	100	70		240	190							12	68																								
HDM40-16-7.5-DIN	7.5							187	241	577	216	132	345	12	125																																			
HDM40-20-7.5-DIN	7.5							216	132	345	12	134																																						
HDM40-20-11-DIN	11							218	291	723	210	265	212	169																																				
HDM40-26-15-DIN	15							733	254	160	420	112																																						
HDM40-26-18.5-DIN	18.5							788	254	191																																								
HDM40-26-22-DIN	22	788	254	191																																														
HDM40-32-22-DIN	22	861	279	241	180	455	15	190																																										



## Dimensions (4 Pole)

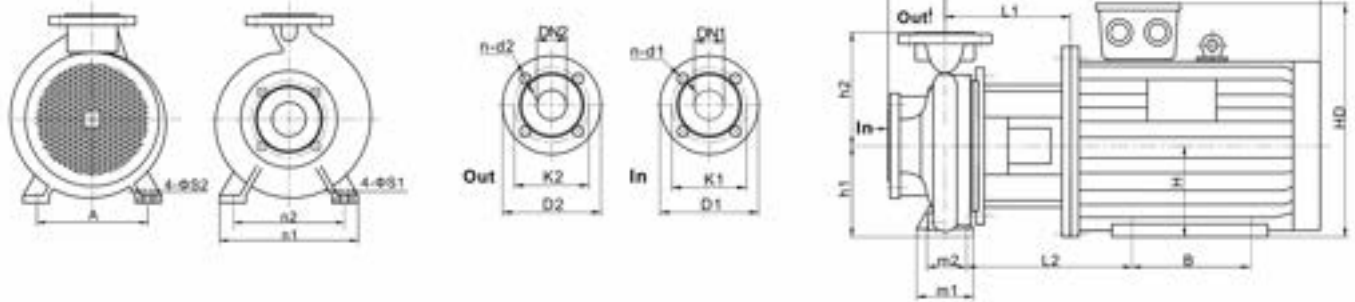
MODEL / POWER		SUCTION / DISCHARGE		DIMENSION																NET WEIGHT (KG)																																														
TYPE	KW / 3POLE	INLET	OUTLET	a	b <sub>1</sub>	b <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L	A	B	H	HD	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>																																															
HDM50-13-4-DIN	4	65	50	100			164	199	504	190			112	300								65																																												
HDM50-13-5.5-DIN	5.5						132	160																															124																											
HDM50-13-7.5-DIN	7.5						187	241																															577	216	190	132	345	12	126																					
HDM50-16-7.5-DIN	7.5						65	50	100														180							100	70										129																									
HDM50-16-11-DIN	11																						220																		293	725																					164			
HDM50-20-11-DIN	11																						160																																											
HDM50-20-15-DIN	15																						200																				221	291	726	254	210	160	420																	
HDM50-20-18.5-DIN	18.5																																																																	
HDM50-26-22-DIN	22																																																	180	225	229	299.5	819	279	241	180	455								
HDM50-26-30-DIN	30																						232																		314.5	892	318	305	200	505	320	250																		
HDM65-13-5.5-DIN	5.5	80	65	100							187	228.5	577	216	140	132	345																														129																			
HDM65-13-7.5-DIN	7.5										180																																																							131
HDM65-13-11-DIN	11																																																																	
HDM65-16-11-DIN	11						160																																169																											
HDM65-16-15-DIN	15						200				220																												280.5	725							210	160	420																	
HDM65-16-18.5-DIN	18.5																																						179																											
HDM65-20-18.5-DIN	18.5																																						180	225							218	278.5	778	318	305	200	505													
HDM65-20-22-DIN	22						221	291.5	808	279	241	180	455	320	250																								218																											
HDM65-20-30-DIN	30						221	306.5	881	318	305	200	505																																																		321			
HDM65-26-37-DIN	37						200	250	237	310	997	160	120			360	280					18		19	143																																									
HDM80-16-15-DIN	15	100	80	125					725	210	160	420													177																																									
HDM80-16-18.5-DIN	18.5								220	280.5	780	254													254	320	250	15	187																																					
HDM80-16-22-DIN	22								225	293.5	810	279													241	180	455	218																																						
HDM80-16-30-DIN	30								180	222	304.5	839													125	95	14	302																																						
HDM80-20-30-DIN	30								318	305	200	505													345	280	310																																							
HDM80-20-37-DIN	37								322.5	897	310	356													311	225	560	356																																						
HDM80-20-45-DIN	45								250	338.5	942	356													311	225	560	356																																						
HDM100-16-30-DIN	30								125	100	200																	725	210	160	420													146																						
HDM100-16-37-DIN	37																											237																																						146
HDM100-20-30-DIN	30																											310																																						897
HDM100-20-37-DIN	37	280																																														140																		
HDM100-20-45-DIN	45	942																																														356	311	225	560	148														

## Dimensions (2 Pole)

MODEL / POWER		SUCTION / DISCHARGE		DIMENSION																NET WEIGHT (KG)																											
TYPE	KW / 2POLE	INLET	OUTLET	a	h <sub>1</sub>	h <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L	A	B	H	HD	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>																												
HDM32-13-0.55-DIN	0.55	50	32	80	112	140	152	167	407	125	100	80	220	100	70	190	140	10	10	40																											
HDM32-16-0.55-DIN	0.55				132	160														49																											
HDM32-20-1.1-DIN	1.1				160	180														151	172	421	140	90	240	190	63																				
HDM32-26-2.2-DIN	2.2	65	40	100	180	225	173	186.5	498	160	140	100	270	125	95	320	225	14	12	80																											
HDM32-26-3-DIN	3																			89																											
HDM40-13-5.5-DIN	5.5																			80	112	140	152	167	407	125	100	80	220	100	70	210	160	14	10	41											
HDM40-13-7.5-DIN	7.5																																			44											
HDM40-16-1.1-DIN	1.1																																			132	160	173	422	140	90	250	240	190	56		
HDM40-20-1.1-DIN	1.1																			100	160	180	151	172	421	446	140	125	90	250	100	70	265	212	14	12	61										
HDM40-20-1.5-DIN	1.5																																				66										
HDM40-26-2.2-DIN	2.2																																				83										
HDM40-26-3-DIN	3																																				88										
HDM40-32-4-DIN	4																																				111										
HDM40-32-5.5-DIN	5.5																			125	200	250	201	242.5	591	216	140	112	300	132	345	280	23	12	168												
HDM50-13-0.55-DIN	0.55	65	50	100	132	160	152	167	407	125	100	80	220	100	70	240	190	10	10	45																											
HDM50-13-0.75-DIN	0.75																			48																											
HDM50-13-1.1-DIN	1.1																			173	422	140	90	250	240	190	52																				
HDM50-16-1.5-DIN	1.5																			180	447	140	125	90	250	265	212	14	62																		
HDM50-20-1.5-DIN	1.5																			160	200	154	172	449	160	140	100	270	100	270	125	95	320	250	14	12	69										
HDM50-20-2.2-DIN	2.2																																				80										
HDM50-26-3-DIN	3																																				92										
HDM50-26-4-DIN	4																			180	225	174	186.5	497	190	178	112	300	132	345	280	23	12	150	88												
HDM50-26-5.5-DIN	5.5																																		150												
HDM50-32-5.5-DIN	5.5																			125	225	280	201	242.5	591	216	140	132	345	178	178	160	120	345	280	18	15	178									
HDM50-32-7.5-DIN	7.5																																					188									
HDM50-32-11-DIN	11	231	291.5	736	254	210	160	420	125	95	400	315	18	15	213																																
HDM65-13-1.1-DIN	1.1	100	160	180	152	160.5	447	140	125	100	90	250	100	70	280	212	14	10	57																												
HDM65-13-1.5-DIN	1.5																		61																												
HDM65-16-2.2-DIN	2.2																		200	164	179.5	489	160	100	270	320	250	14	77																		
HDM65-20-2.2-DIN	2.2																		180	225	163	178.5	488	140	270	140	112	300	132	345	160	120	360	280	18	15	78										
HDM65-20-3-DIN	3																																				81										
HDM65-20-4-DIN	4																																				83										
HDM65-26-4-DIN	4																		200	250	202	231	632	216	178	132	345	160	120	160	120	360	280	18	15	100											
HDM65-26-5.5-DIN	5.5																																			162											
HDM65-26-7.5-DIN	7.5																																			172											
HDM65-32-7.5-DIN	7.5																																			234	230	631	178	132	345	160	120	360	280	18	194
HDM65-32-11-DIN	11																																			225	280	235	283	740	254	210	160	420	15	219	
HDM65-32-15-DIN	15	125	250	202	243.5	632	216	178	132	345	160	120	160	120	360	280	18	15	224																												
HDM80-16-3-DIN	3																		85																												
HDM80-16-15-DIN	15																		225	220	280.5	725	254	210	160	420	125	95	320	250	15	230															
HDM80-20-3-DIN	3																		180	179	194.5	504	160	100	270	125	95	345	280	14	89																
HDM80-20-4-DIN	4																															93															
HDM80-20-5.5-DIN	5.5																															151															
HDM80-20-7.5-DIN	7.5																		200	280	234	282	739	254	210	160	420	160	120	360	280	18	15	161													
HDM80-26-7.5-DIN	7.5																																	179													
HDM80-26-11-DIN	11																																	204													
HDM80-32-11-DIN	11																																	223													
HDM80-32-15-DIN	15																																	250	315	235	283	795	254	254	160	120	360	280	18	15	228
HDM80-32-18.5-DIN	18.5	280	355	249	296	825	279	241	180	455	400	315	19	200																																	
HDM80-40-22-DIN	22													225																																	
HDM80-40-30-DIN	30													322	909	318	305	200	505	225																											



## Dimensions (4 Pole)



MODEL / POWER		SUCTION / DISCHARGE		DIMENSION																NET WEIGHT (KG)																						
TYPE	KW / 4POLE	INLET	OUTLET	a	h <sub>1</sub>	h <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L	A	B	H	HD	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>																							
HDM100-16-5.5-DIN	5.5	125	100	125	200	250	202	231	592	216	140	132	345								12	149																				
HDM100-20-5.5-DIN	5.5								632													178	160	120	360	280	18	160														
HDM100-20-7.5-DIN	7.5								739													210	160	420	160	120	18	170														
HDM100-20-11-DIN	11								740													210	160	420	160	120	18	180														
HDM100-26-11-DIN	11								798													254	160	420	160	120	18	212														
HDM100-26-15-DIN	15								798													254	160	420	160	120	18	217														
HDM100-32-15-DIN	15								795													254	160	420	160	120	18	234														
HDM100-32-18.5-DIN	18.5								825													279	180	455	160	120	18	292														
HDM100-32-22-DIN	22								865													279	180	455	160	120	18	284														
HDM100-40-30-DIN	30								909													318	200	505	160	120	18	255														
HDM100-40-37-DIN	37								964													356	225	560	200	150	500	400	23	19	266											
HDM100-40-45-DIN	45								989													356	225	560	200	150	500	400	23	19	276											
HDM125-20-7.5-DIN	7.5								150													125	140	315	202	231	632	216	178	132	345										12	211
HDM125-20-11-DIN	11																										739															210
HDM125-26-15-DIN	15	798	254	160	420	160	120	18		234																																
HDM125-26-18.5-DIN	18.5	822	279	180	455	160	120	18		291																																
HDM125-26-22-DIN	22	862	279	180	455	160	120	18		283																																
HDM125-32-15-DIN	15	809	254	160	420	160	120	18		244																																
HDM125-32-18.5-DIN	18.5	839	279	180	455	160	120	18		297																																
HDM125-32-22-DIN	22	879	241	180	455	160	120	18		287																																
HDM125-32-30-DIN	30	909	318	200	505	160	120	18		254																																
HDM125-40-37-DIN	37	964	356	225	560	200	150	500		400	23	19	277																													
HDM125-40-45-DIN	45	989	356	225	560	200	150	500		400	23	19	287																													
HDM125-40-55-DIN	55	1054	406	250	615	200	150	500		400	23	19	297																													
HDM125-40-75-DIN	75	1129	457	280	680	200	150	500		400	23	19	307																													
HDM150-20-18.5-DIN	18.5	200	150	160	280	261	307	851		279	241	180	455	200	150	400	315	23																								15
HDM150-26-30-DIN	30							416	1018													318	305	200	505	450		350	244													
HDM150-32-30-DIN	30							250	307													910	318	305	200	505		450	350	244												
HDM150-32-37-DIN	37							358	965													286	225	560	19	258																
HDM150-32-45-DIN	45							358	990													311	225	560	19	268																
HDM150-32-55-DIN	55							1055	406													250	615	200	150	500		450	282													
HDM150-40-55-DIN	55							1054	406													250	615	200	150	500		450	282													
HDM150-40-75-DIN	75							1129	457													280	680	200	150	500		450	282													
HDM150-40-90-DIN	90							1179	457													280	680	200	150	500		450	282													

# HYDROMAX ISO SERIES

Quantity – 100 / 200 / 500 / 1000 / 2000 / 5000 / 10000 / 20000 / 50000 / 100000

## Features

- Compact close coupled motor pump design.
- Superior hydraulic design and manufacturing methods for significantly higher efficiencies and reduced maintenance.
- High efficiency double curvature impeller vanes.
- 32 to 200mm discharge.
- Cast iron, zinc free bronze or stainless steel construction.
- AS2129 Table "E" flanges as standard with optional drillings available.
- Back-pullout design does not require the disconnection and removal of suction and discharge lines for maintenance.
- Choice of high quality WEG TEFC IP55 motors with sealed for life (11kW and under) or regreasable (15kW and over) motor bearings.
- Taper mounted and keyed impeller.
- Horizontal or vertical pump discharge mounting.



### OPERATING CAPABILITIES

Capacity	Maximum 250Litres/sec
Head	Maximum 160 metres
Liquid Temp.	0°C to + 100°C Up to 140°C with high temp. seals
Pumped Liquid	Clean Water

## Options

- Wear Rings
- Mechanical Seals or Packed Gland Seal Paint and Internal Coatings Materials of Construction
- Flange Drillings
- Works Certified and Witness Testing Impeller Turndowns
- Pressed or Welded Baseplates

## Applications

- Industry
- Building Services
- Irrigation
- Processing
- Mining
- Agriculture

DESCRIPTION	MATERIAL	OPTIONAL MATERIAL		
Volute Casing <sup>1</sup>	Cast Iron	Zinc Free Bronze	316 Stainless Steel	
Bearing Cover	Cast Iron			
Impeller Nut & Lock Washer	316 Stainless Steel			
Backplate <sup>1</sup>	Cast Iron	Zinc Free Bronze	316 Stainless Steel	
Impeller <sup>1</sup>	Cast Iron	Zinc Free Bronze	316 Stainless Steel	
Shaft Key	Key Steel			
Bearing Housing	Cast Iron			
Shaft	431 Stainless Steel	316 Stainless Steel	SAF 2205	
Support Foot	Mild Steel			
Casing Plug	Mild Steel Zinc Plated	Zinc Free Bronze	316 Stainless Steel	
Impeller Key	Key Steel			
Casing O-Ring	Lurene	EPDM	Viton	Nitrile
Gland Flushing Plug <sup>1</sup>	Cast Iron	Zinc Free Bronze		
Mechanical Seal <sup>1</sup>	C/Cer/Nitrile	SIC/SIC/Viton		
Packed Gland	Roflon			
Wear Rings	Zinc Free Bronze			

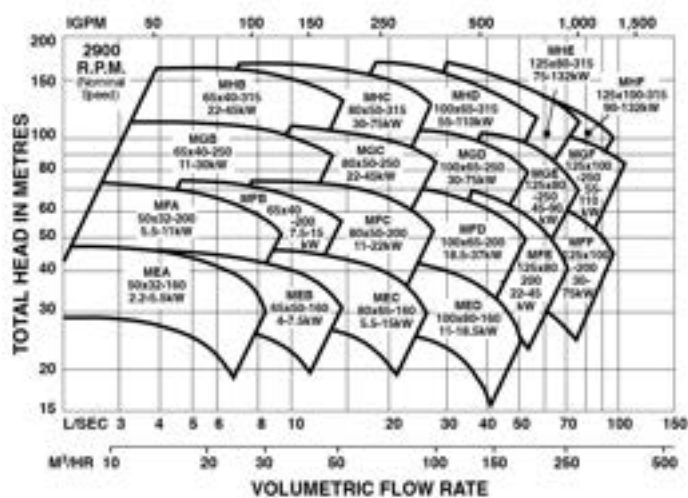
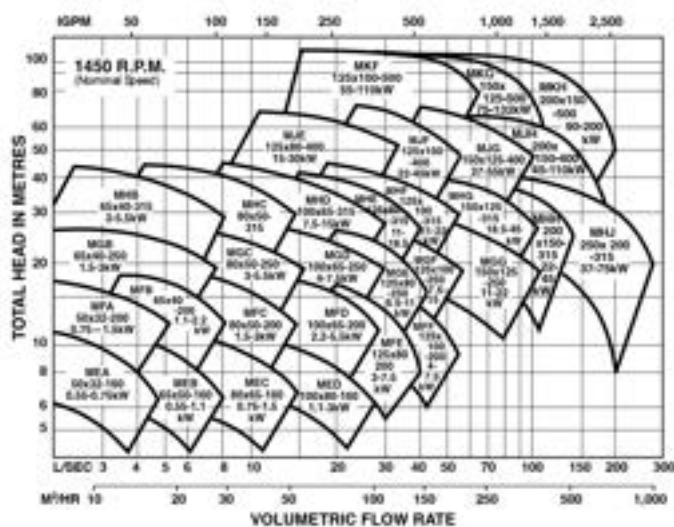
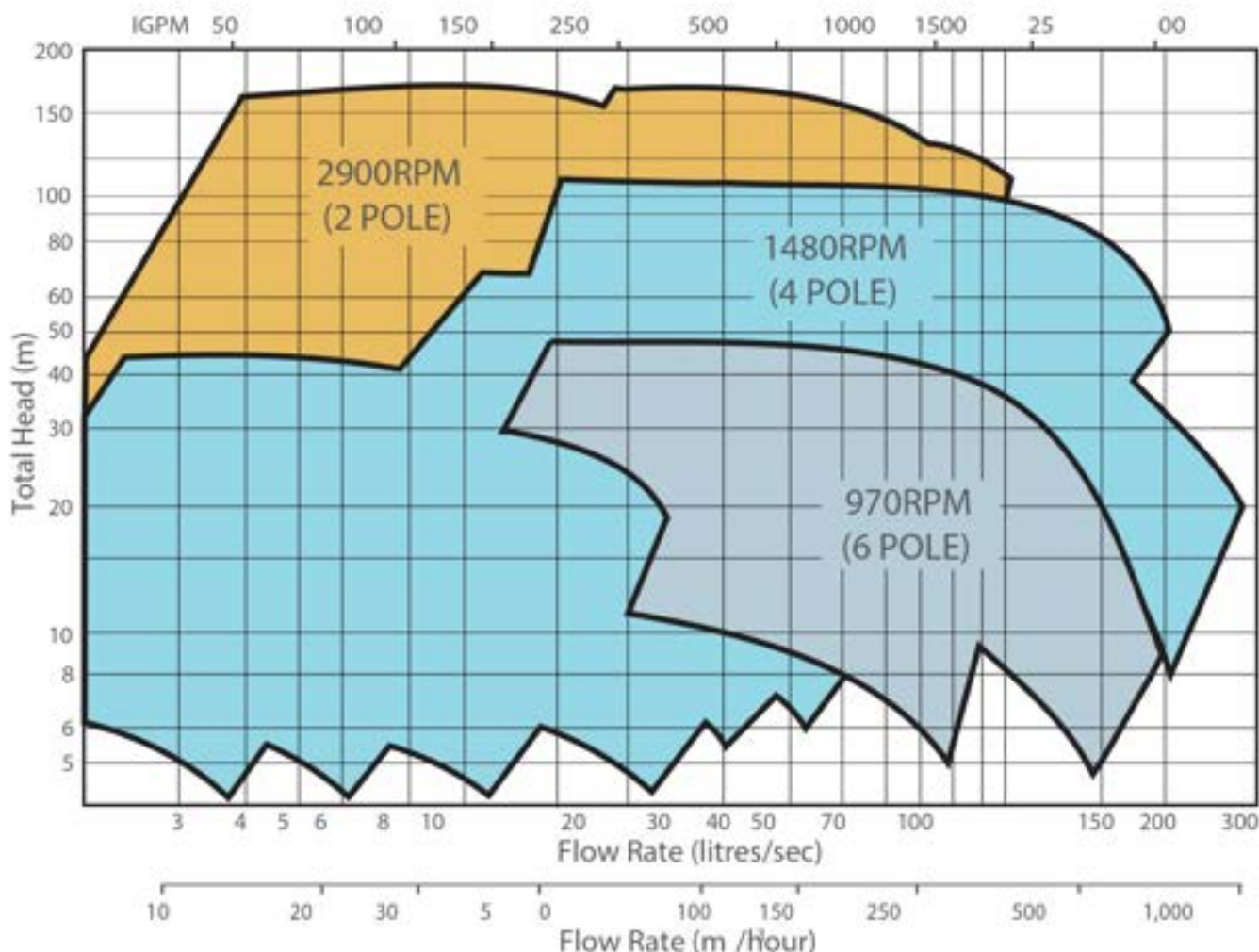
1. Material options only available with Star-Pro pumps.

2. Other material options such as 5G Iron Duplex, Super Duplex, Durimet 20, CDHMCu, marine bronze, Ni-Resist and other exotic materials are available on an ETO basis. Contact Pentair Southern Cross or your local Southern Cross dealer for further details.

3. A range of mechanical seals are available including high temperature, hydrocarbon, sea water and other options to suit particular applications and operating conditions.



## Performance



The HydroMax Linebloc Pump is an in-line, close coupled, single stage, centrifugal motor pump. These compact pumps are ideal when space is at a premium and you require a high flow at an economical operating cost. It is most commonly used in movement, however, it is suitable for a broad range of other applications.

The Linebloc utilises a standard off-the-shelf TEFC foot and flanged motor, however, if necessary- special types of motors can be fitted for specific applications. It features a durable cast bronze impeller and is available in a variety of materials.

The Linebloc also features back pull-out which allows for easy maintenance without disturbing the pipework.



## Interchangeability

Many of the Linebloc components are interchangeable resulting in a reduction in spares requirements, and an initial cost saving.

## Motor Options

The design of the Linebloc range means that readily available standard electric motors are used. Alternatively, a motor to suit your particular specifications can be fitted where special protection classes and enclosures are required, or to suit a certain power supply (i.e. weatherproof, flameproof, 60Hz).

## Applications:

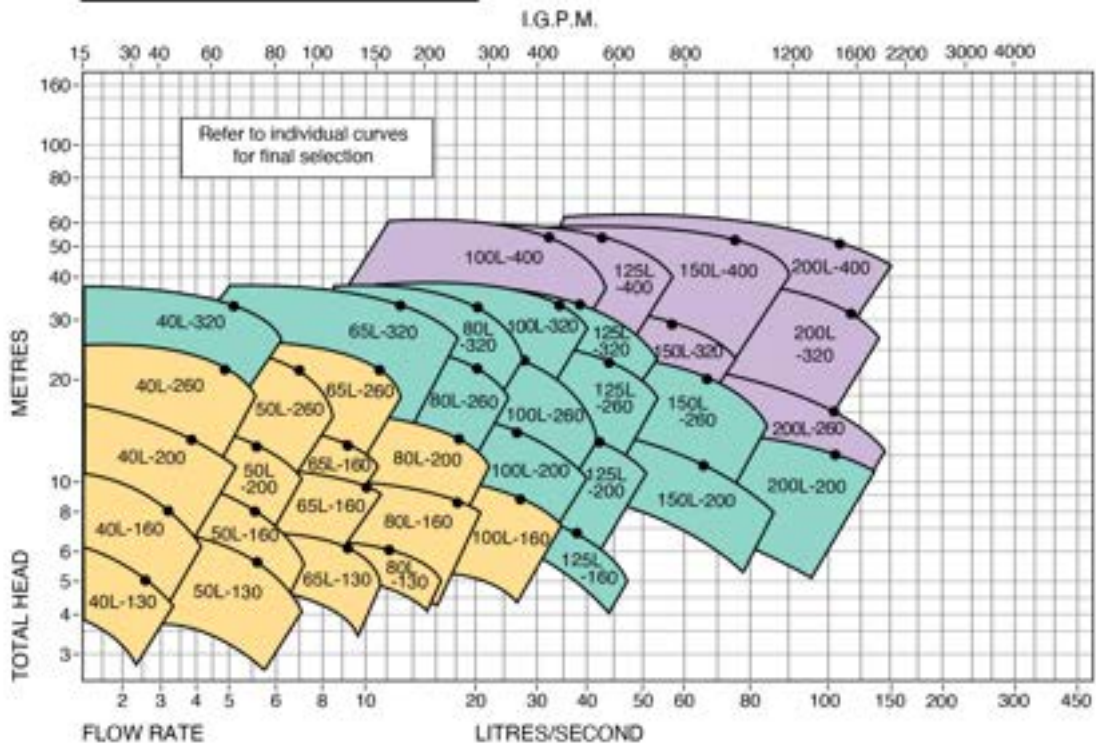
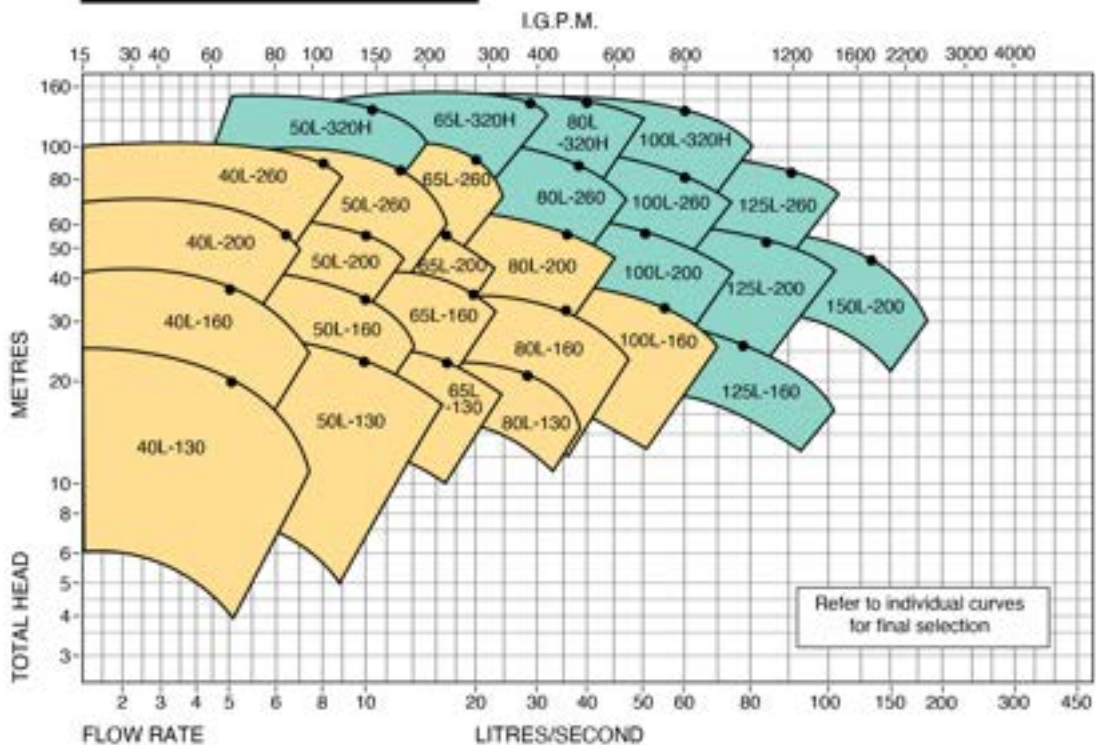
- In-Line Booster
- Recirculation Systems
- Heating Water
- Cooling Water
- Condensed Water
- Applications where floor space is limited

## Material Options

Most combinations of: Cast Iron, Bronze, Zinc-free Bronze and Stainless Steel are available for casings and impellers. Other materials and special coatings available upon request.

	CAST IRON	BRONZE	Z.F. BRONZE	STAINLESS STEEL
Casting	✓	✓	✓	✓
Impeller	✓	✓	✓	✓
Shaft	—	—	—	✓
Shaft Sleeve	—	✓	—	✓
Wear ring	✓	✓	✓	✓

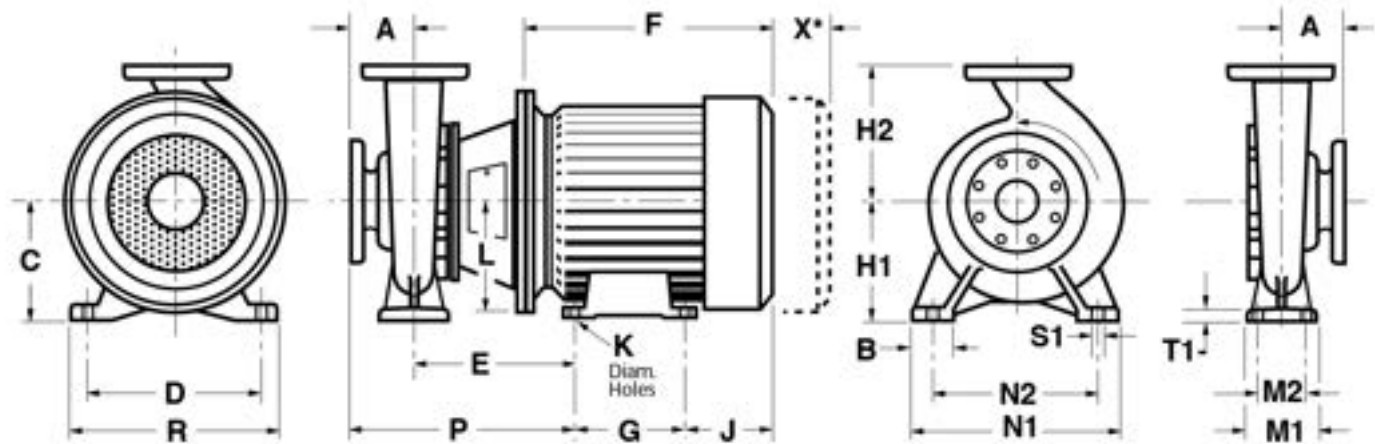


**1450 RPM**

**2900 RPM**




## VERTICAL DIN LINEBLOC

## Dimension Data



MODEL	PUMP SIZE			SHAFT NO.	MOTOR KW	FRAME SIZE	DIMENSIONS																								
	INLET	OUTLET	IMP DIA				A	B	C	D	E	F	G	H1	H2	J	K	L	M1	M2	N1	N2	P	R	S1	T1	GAP X*	KG			
HDM200-150/315-7.5-ISO	200	150	315		7.5	160M			160	254	448	505	210			187	15	175								608	320			392	
HDM200-150/315-11-ISO		SHH		4	11	160L	160	100	160	254	448	560	254	315	400	198	15	175	210	150	540	450			608	320	22	20	180	420	
HDM200-150/315-15-ISO					15	180L			180	279	461	615	279			215	15	175							621	355				468	
HDM250-200/315-11-ISO	250	200	315		11	160L			160	254	448	560	254			198	15	175							628	320				460	
HDM250-200/315-15-ISO		SHD		4	15	180L	180	100	180	279	461	615	279	315	450	215	15	175			210	150	540	450		641	355	22	25	180	508
HDM250-200/315-18.5-ISO					18.5	200L			200	318	473	643	305			205	19	200							653	395				533	
HDM250-200/315-22-ISO					22	200L			200	318	473	643	305			205	19	200							653	395				563	
HDM200-150/400-15-ISO	200	150	400		15	180L			180	279	461	615	279			215	15	175							621	355				533	
HDM200-150/400-18.5-ISO		SHH		4	18.5	200L	160	100	200	318	473	643	305	315	450	205	19	200			210	150	540	450		633	395	22	25	180	558
HDM200-150/400-22-ISO					22	200L			200	318	473	643	305			205	19	200							633	395				588	
HDM200-150/400-30-ISO					30	225M			225	356	489	685	311			225	19	225							649	435				630	
HDM125-100/500-18.5-ISO	125	100	500		18.5	200L			200	318	473	643	305			205	19	200							633	395				597	
HDM125-100/500-22-ISO		SKF		4	22	200L	160	100	200	318	473	643	305	355	450	205	19	200			210	150	540	450		633	395	22	25	180	627
HDM125-100/500-30-ISO					30	225M			225	356	489	685	311			225	19	225							649	435				669	
HDM125-100/500-37-ISO					37	250M			250	406	508	748	349			231	24	275							668	490				785	
HDM150-125/500-22-ISO	150	125	500		22	200L			200	318	473	643	305			205	19	200							633	395				651	
HDM150-125/500-30-ISO		SKG		4	30	225M	160	100	225	356	489	685	311	355	450	225	19	225	210	150	540	450			649	435	22	25	180	693	
HDM150-125/500-37-ISO					37	250M			250	406	508	748	349			231	24	275							668	490				809	
HDM200-150/500-30-ISO	200	150	500		30	225M			225	356	489	685	311			225	19	225							649	435				717	
HDM200-150/500-37-ISO		SKH		4	37	250M	160	100	250	406	508	748	349	400	500	231	24	275			210	150	540	450		668	490	22	25	180	833
HDM200-150/500-45-ISO					45	280S			280	457	530	823	368			265	24	275							690	550				961	
HDM200-150/500-55-ISO					55	280M			280	457	530	873	419			265	24	275							690	550				1020	



## 3LS - STAINLESS STEEL MOTOR PUMP



This series of stainless steel pumps features a unique one piece volute casing that is produced using an advanced computer controlled Plasma stamping system that ensures total quality control during manufacture. With the smooth surfaces of stamped stainless steel, this results in consistent high standard products, of superior quality and high efficiency. (Cast casing on 65-250 & 80 models)

The back pull-out construction permits the disassembly and overhaul of the impeller, mechanical seal and motor without removal of the suction or discharge piping, or pump casing.

The centre line discharge and foot support under the casing ensure maximum resistance to misalignment and distortion from pipe loads.



Standard with high quality silicon carbide mechanical seal  
All the hydraulic and wetted components are manufactured in 316 stainless steel



Stub shaft design Uses IEC standard motors  
Precision cast casing on 65-250 & 80 models

### Motor Data

- IEC standard 2 pole 50Hz motors (3LS)
- IEC standard 4 pole 50Hz motor (3LS4)
- 3 phase, TEFC, IP55, Class F

### Range

- 1.1 to 55kW - 3 phase (3LS)
- 0.25 to 7.5kW -3 phase (3LS4)
- 32 to 80mm discharge.

### Options

- Available as pump end kit without motor
- Single Phase motors
- Other motor brands, types, etc. on request.

### Materials

	CAST IRON	316 STAINLESS STEEL	SILICON CARBIDE/ SILICON CARBIDE/VITON
Pump casing	—	✓	—
Impeller	—	✓	—
Casing cover	—	✓	—
Shaft	—	✓	—
Motor bracket	✓	—	—
Mech. seal	—	—	✓

TECHNICAL SPECIFICATIONS	
Stainless steel pump with closed impeller	
Maximum working pressure	10 bar
Liquid temperature	-10°C to +110°C

#### Model Code

3LS 40 - 200 / 7.5 M

- M = Single Phase
- Motor Size kW
- Nominal Impeller Diameter mm
- Discharge Size Ømm
- Model; 3LS with motor; 3LSF without motor (kit)

Synchronous Speed:  
3000 r.p.m.  
  
Water temp:  
20°C

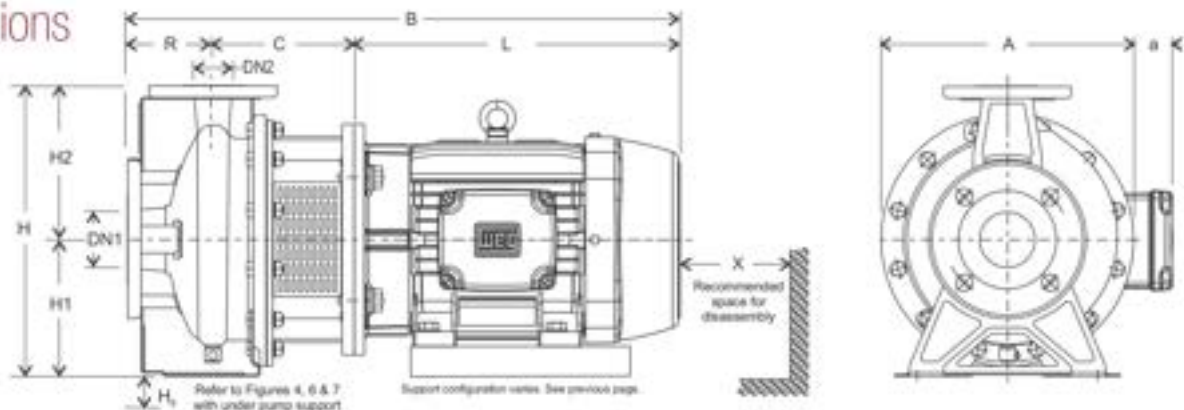
Applicable standard of test:  
ISO 2458  
Class C

#### Available as pump end kit (without motor)





## Dimensions



Dimensions & weights refer to units fitted with standard 3 phase cast iron WEG motors

DN2 X DN1	PUMP MODEL (_____/KW)	MOTOR DETAILS			DIMENSIONS (MM)												WEIGHT (KG)		
		FRAME	MOUNT	CONFL.	H1	H2	R	R <sub>L</sub>	R	C	L	B	A	a	X	PUMP END	MOTOR	TOTAL	
32mm x 50mm	3LS 32-125/1.1	80	B5	Fig 1	112	140	252	-	80	118	236	434	213	30	110	13	15	28	
	3LS 32-160/1.5	90S	B5	Fig 1	132	160	292	-	80	130	254	464	254	28	110	17	20	37	
	3LS 32-160/2.2	90L	B5	Fig 1	132	160	292	-	80	130	279	489	254	28	110	17	23	40	
	3LS 32-200/3.0	100L	B35	Fig 2	160	180	340	-	80	142	316	538	296	17	110	24	33	57	
	3LS 32-200/4.0	112M	B35	Fig 2	160	180	340	-	80	142	333	555	296	36	110	24	42	66	
	3LS 32-200/5.5	132S	B35	Fig 3	160	180	340	-	80	165	372	617	296	64	110	28	61	89	
40mm x 65mm	3LS 32-200/7.5	132S	B35	Fig 3	160	180	340	-	80	165	372	617	296	64	110	28	67	95	
	3LS 40-125/1.5	90S	B5	Fig 1	112	140	252	-	80	130	354	464	213	49	115	15	20	35	
	3LS 40-125/2.2	90L	B5	Fig 1	112	140	252	-	80	130	279	489	213	49	115	15	23	48	
	3LS 40-160/3.0	100L	B35	Fig 3	132	160	292	-	80	142	316	538	254	38	115	20	33	53	
	3LS 40-160/4.0	112M	B35	Fig 3	132	160	292	-	80	142	333	555	254	57	115	20	42	62	
	3LS 40-200/5.5	132S	B35	Fig 3	160	180	340	-	100	165	372	637	296	64	115	28	61	89	
50mm x 65mm	3LS 40-200/7.5	132S	B35	Fig 3	160	180	340	-	100	165	372	637	296	64	115	28	67	95	
	3LS 40-200/11.0	160M	B35	Fig 4	160	180	340	42	100	198	488	786	296	107	115	42	110	152	
	3LS 50-125/2.2	90L	B5	Fig 1	132	160	292	-	100	130	279	489	254	28	125	20	23	43	
	3LS 50-125/3.0	100L	B35	Fig 3	132	160	292	-	100	142	316	558	254	38	125	20	33	53	
	3LS 50-125/4.0	112M	B35	Fig 3	132	160	292	-	100	142	333	575	254	57	125	20	42	62	
	3LS 50-160/5.5	132S	B35	Fig 3	160	180	340	-	100	165	372	637	296	64	125	29	61	90	
65mm x 80mm	3LS 50-160/7.5	132S	B35	Fig 3	160	180	340	-	100	165	372	637	296	64	125	29	67	96	
	3LS 50-200/9.2	132L	B35	Fig 3	160	200	360	-	100	165	410	675	296	64	125	29	74	103	
	3LS 50-200/11.0	160M	B35	Fig 4	160	200	360	42	100	198	488	786	296	107	125	42	110	152	
	3LS 50-200/15.0	160M	B35	Fig 4	160	200	360	42	100	198	488	786	296	107	125	43	115	158	
	3LS 65-125/4.0	112M	B35	Fig 2	160	180	340	-	100	142	333	575	254	57	145	26	42	68	
	3LS 65-125/5.5	132S	B35	Fig 3	160	180	340	-	100	165	372	637	254	85	145	28	61	89	
80mm x 100mm	3LS 65-125/7.5	132S	B35	Fig 3	160	180	340	-	100	165	372	637	254	85	145	29	67	96	
	3LS 65-160/9.2	132M	B35	Fig 3	160	200	360	-	100	165	410	675	296	64	145	30	74	104	
	3LS 65-160/11.0	160M	B35	Fig 4	160	200	360	42	100	198	488	786	296	107	145	40	110	150	
	3LS 65-160/15.0	160M	B35	Fig 4	160	200	360	42	100	198	488	786	296	107	145	42	115	157	
	3LS 65-200/15.0	160M	B35	Fig 3	180	225	405	-	100	208	488	696	296	107	145	30	115	145	
	3LS 65-200/18.5	160L	B35	Fig 3	180	225	405	-	100	208	532	840	296	107	145	30	136	166	
80mm x 100mm	3LS 65-200/22	180M	B35	Fig 5	180	225	405	-	100	208	554	862	296	127	145	30	172	202	
	3LS 65-250/30	200L	B35	Fig 5	200	250	450	-	100	208	657	965	400	100	150	70	245	315	
	3LS 65-250/37	200L	B35	Fig 5	200	250	450	-	100	208	657	965	400	100	150	71	260	331	
	3LS 80-160/11	160M	B35	Fig 3	180	225	405	-	125	208	488	821	350	80	150	52	110	162	
	3LS 80-160/15	160M	B35	Fig 3	180	225	405	-	125	208	488	821	350	80	150	52	115	167	
	3LS 80-160/18.5	160L	B35	Fig 3	180	225	405	-	125	208	532	865	350	80	150	53	136	189	
80mm x 100mm	3LS 80-200/22	180M	B35	Fig 5	180	250	430	-	125	208	554	887	357	97	150	68	172	240	
	3LS 80-200/30	200L	B35	Fig 6	180	250	430	20	125	208	657	990	400	100	150	72	245	317	
	3LS 80-200/37	200L	B35	Fig 6	180	250	430	20	125	236	657	1018	400	100	150	73	260	333	
	3LS 80-250/45	225S/M	B35	Fig 6	200	280	480	25	125	236	737	1098	450	148	150	88	411	499	
	3LS 80-250/55	225S/M	B35	Fig 7	200	280	480	80	125	248	783	1156	550	98	150	100	490	590	

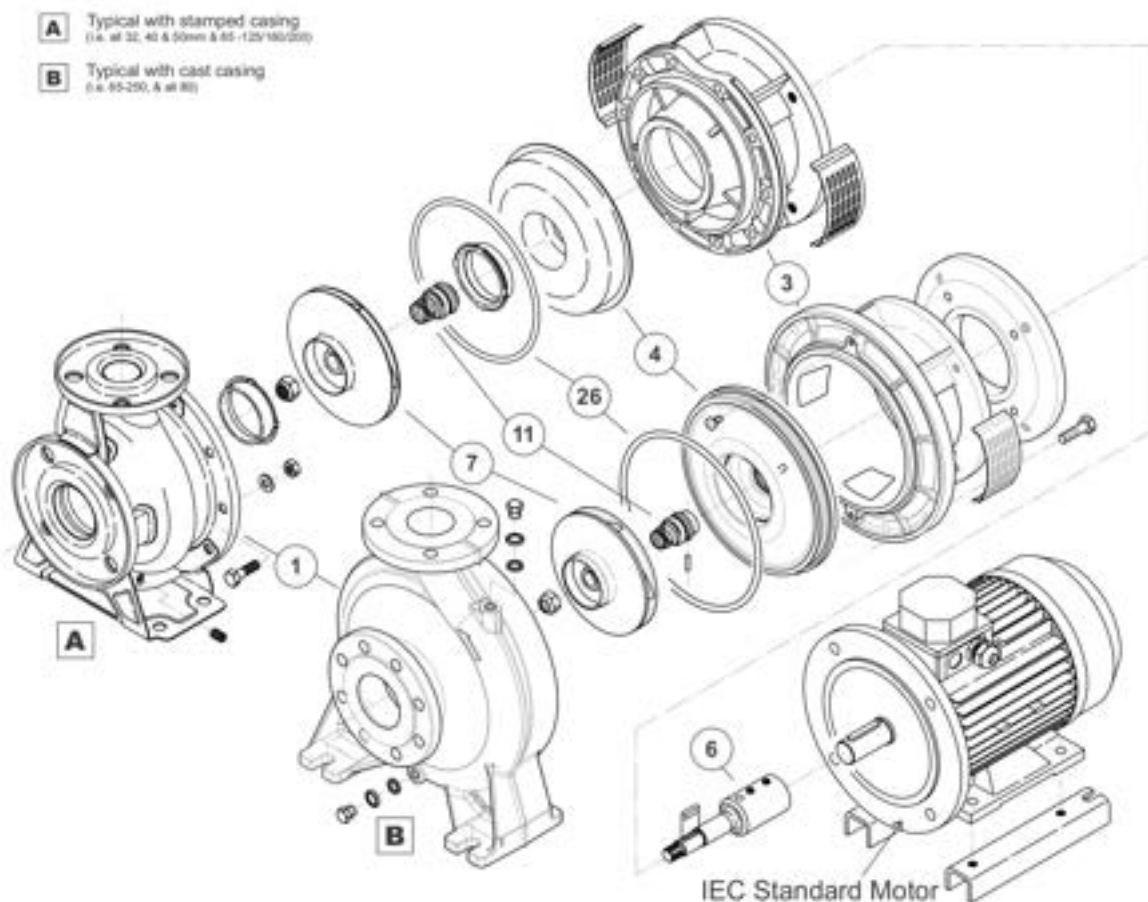


DN	32	40	50	65	80	100
P	75	80	95	115	120	135
K	100	110	125	145	160	180
D	140	150	165	185	200	225



## Construction

- A** Typical with stamped casing  
(i.e. of 32, 40 & 50mm & 65-125/160/200)
- B** Typical with cast casing  
(i.e. 65-250, & all 80)



Note: Mounting and support feet varies between models.

ITEM	DESCRIPTION	SUITS MODELS	MATERIALS	
1	Casing	All 32, 40 & 50; 65-125/160/200 65-250; All 80	AISI 316L Stainless Steel - stamped AISI 316 Stainless Steel - precision cast	
7	Impeller	All 32, 40 & 50 All 65 & 80	AISI 316L Stainless Steel - stamped AISI 316 Stainless Steel - precision cast	
4	Casing cover	32, 40 & 50; 65-125/160/200; 80-160 65-250; 80-200/250	AISI 316L Stainless Steel - stamped AISI 316 Stainless Steel - precision cast	
26	O-ring (casing)	All models	Viton	
11	Mechanical Seal	All models	SIC/SIC/Viton	with anti rotation device for stationary seat
6	Stub shaft	All models	AISI 316 Stainless Steel (Up to 22 kW)	Duplex Stainless Steel (30 to 55 kW)
3	Motor bracket	All models	Cast iron	





## 3LS32

## PUMP END KITS ONLY For 2900 RPM Motors

PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF 32-125/1.1	1.1kW	80	FL	32mm / 50mm
3LSF 32-160/1.5	1.5kW	90	FL	
3LSF 32-160/2.2	2.2kW	90	FL	
3LSF 32-200/3.0	3.0kW	100	F & FL	
3LSF 32-200/4.0	4.0kW	112	F & FL	
3LSF 32-200/5.5	5.5kW	132	F & FL	

FL = 85 Flange Mount Motor

F &amp; FL= 835 Foot &amp; Flange Mount Motor

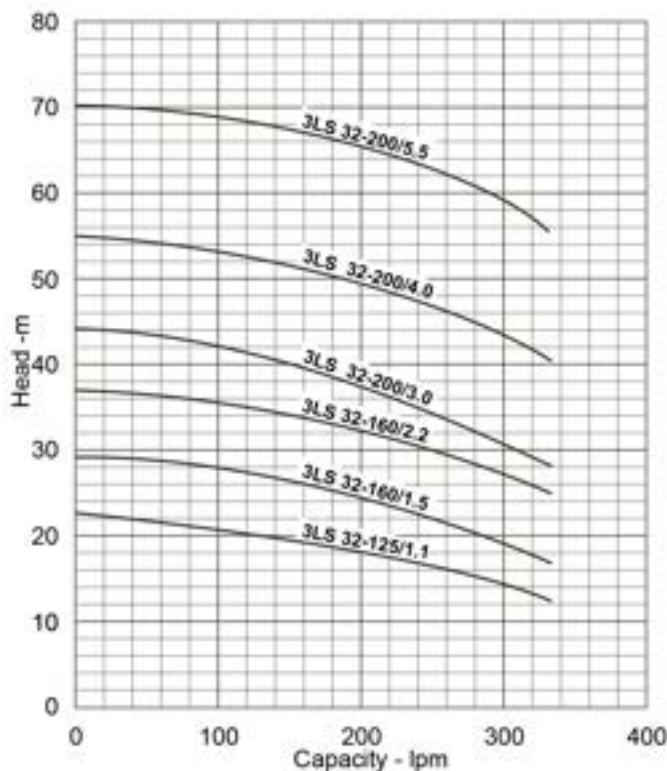
## Pumps with 3 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 32-125/1.1	1.1kW	415V	3PH	32mm / 50mm
3LS 32-160/1.5	1.5kW	415V	3PH	
3LS 32-160/2.2	2.2kW	415V	3PH	
3LS 32-200/3.0	3.0kW	415V	3PH	
3LS 32-200/4.0	4.0kW	415V	3PH	
3LS 32-200/5.5	5.5kW	415V	3PH	

## Pumps with 1 phase, IP55, Class F, 2900 RPM Motors

DISCHARGE / SUCTION	POWER	VOLTAGE	PHASE	PUMP MODEL
32mm / 50mm	1.1kW	240/480V	1PH	3LS 32-125/1.1M
	1.5kW	240/480V	1PH	3LS 32-160/1.5M
	2.2kW	240/480V	1PH	3LS 32-160/2.2M
	3.0kW	240/480V	1PH	3LS 32-200/3.0M
	4.0kW	240/480V	1PH	3LS 32-200/4.0M
	5.5kW	240/480V	1PH	3LS 32-200/5.5M

## Performance Curve



**Model Code** 3LS 40 - 200 / 7.5 M

- M = Single Phase
- Motor Size kW
- Nominal Impeller Diameter mm
- Discharge Size Ømm
- Model: 3LS with motor; 3LSF without motor (kit)
- 3LS/3LSF = 2 pole model; 4 pole models are 3LS4/3LSF4



# 3LS40

## PUMP END KITS ONLY For 2900 RPM Motors

PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF 40-125/1.5	1.5kW	90	FL	40mm / 65mm
3LSF 40-125/2.2	2.2kW	90	FL	
3LSF 40-160/3.0	3.0kW	100	F & FL	
3LSF 40-160/4.0	4.0kW	112	F & FL	
3LSF 40-200/5.5	5.5kW	132	F & FL	
3LSF 40-200/7.5	7.5kW	132	F & FL	
3LSF 40-200/11.0	11.0kW	160	F & FL	

FL = B5 Flange Mount Motor

F &amp; FL= B35 Foot &amp; Flange Mount Motor

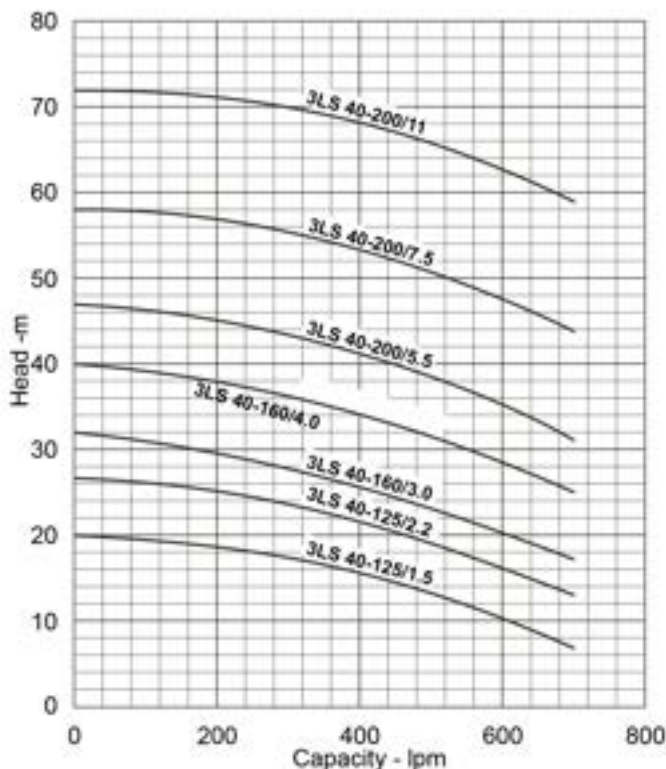
### Pumps with 3 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 40-125/1.5	1.5kW	415V	3PH	40mm / 65mm
3LS 40-125/2.2	2.2kW	415V	3PH	
3LS 40-160/3.0	3.0kW	415V	3PH	
3LS 40-160/4.0	4.0kW	415V	3PH	
3LS 40-200/5.5	5.5kW	415V	3PH	
3LS 40-200/7.5	7.5kW	415V	3PH	
3LS 40-200/11.0	11.0kW	415V	3PH	

### Pumps with 1 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 40-125/1.5M	1.5kW	240/480V	1PH	40mm / 65mm
3LS 40-125/2.2M	2.2kW	240/480V	1PH	
3LS 40-160/3.0M	3.0kW	240/480V	1PH	
3LS 40-160/4.0M	4.0kW	240/480V	1PH	
3LS 40-200/5.5M	5.5kW	240/480V	1PH	
3LS 40-200/7.5M	7.5kW	240/480V	1PH	

## Performance Curve



### Model Code

3LS 40 - 200 / 7.5 M  
 M = Single Phase  
 Motor Size kW  
 Nominal Impeller Diameter mm  
 Discharge Size Ømm  
 Model: 3LS with motor; 3LSF without motor (kit)  
 3LS/3LSF = 2 pole model (4 pole models are 3LS4/3LSF4)



## 3LS50

## PUMP END KITS ONLY For 2900 RPM Motors

PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF 50-125/2.2	2.2kW	90	FL	50mm / 65mm
3LSF 50-125/3.0	3.0kW	100	F & FL	
3LSF 50-125/4.0	4.0kW	112	F & FL	
3LSF 50-160/5.5	5.5kW	132	F & FL	
3LSF 50-160/7.5	7.5kW	132	F & FL	
3LSF 50-200/9.2	9.2kW	132	F & FL	
3LSF 50-200/11.0	11.0kW	160	F & FL	
3LSF 50-200/15.0	15.0kW	160	F & FL	

FL = B5 Flange Mount Motor

F &amp; FL = B35 Foot &amp; Flange Mount Motor

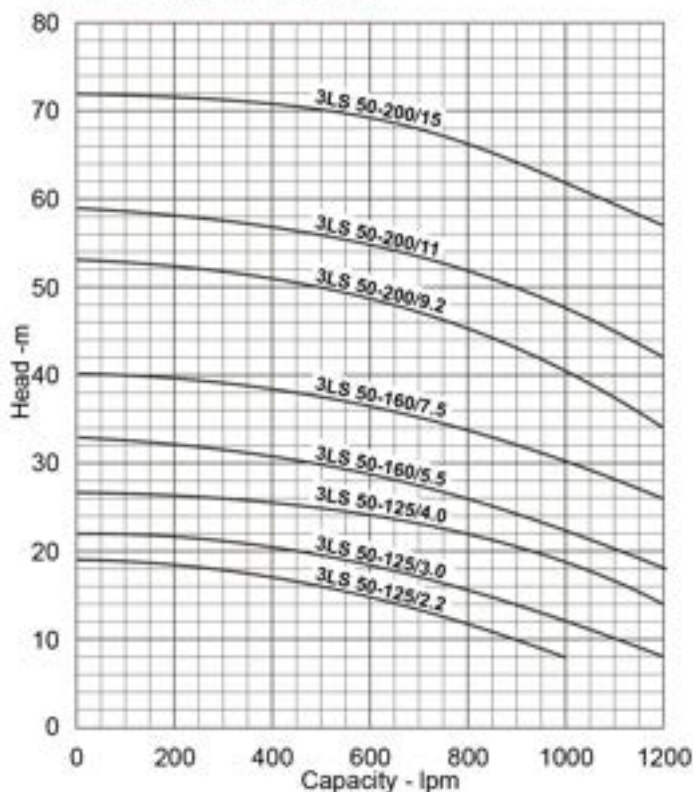
## Pumps with 1 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 50-125/2.2M	2.2kW	240/480V	1PH	50mm / 65mm
3LS 50-125/3.0M	3.0kW	240/480V	1PH	
3LS 50-125/4.0M	4.0kW	240/480V	1PH	
3LS 50-160/5.5M	5.5kW	240/480V	1PH	
3LS 50-160/7.5M	7.5kW	240/480V	1PH	

## Pumps with 3 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 50-125/2.2	2.2kW	415V	3PH	50mm / 65mm
3LS 50-125/3.0	3.0kW	415V	3PH	
3LS 50-125/4.0	4.0kW	415V	3PH	
3LS 50-160/5.5	5.5kW	415V	3PH	
3LS 50-160/7.5	7.5kW	415V	3PH	
3LS 50-200/9.2	9.2kW	415V	3PH	
3LS 50-200/11.0	11.0kW	415V	3PH	
3LS 50-200/15.0	15.0kW	415V	3PH	

## Performance Curve



## Model Code

3LS 40 - 200 / 7.5 M

M = Single Phase

Motor Size kW

Nominal Impeller Diameter mm

Discharge Size Ømm

Model: 3LS with motor; 3LSF without motor (kit)

3LS/3LSF = 2 pole model (4 pole models are 3LS4/3LSF4)



# 3LS65

## PUMP END KITS ONLY For 2900 RPM Motors

PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF 65-125/4.0	4.0kW	112	F & FL	65mm / 80mm
3LSF 65-125/5.5	5.5kW	132	F & FL	
3LSF 65-125/7.5	7.5kW	132	F & FL	
3LSF 65-160/9.2	9.2kW	132	F & FL	
3LSF 65-160/11.0	11.0kW	160	F & FL	
3LSF 65-160/15.0	15.0kW	160	F & FL	
3LSF 65-200/15.0	15.0kW	160	F & FL	
3LSF 65-200/18.5	18.5kW	160	F & FL	
3LSF 65-200/22	22.0kW	180	F & FL	
3LSF 65-250/30	30kW	200	F & FL	
3LSF 65-250/37	37kW	200	F & FL	

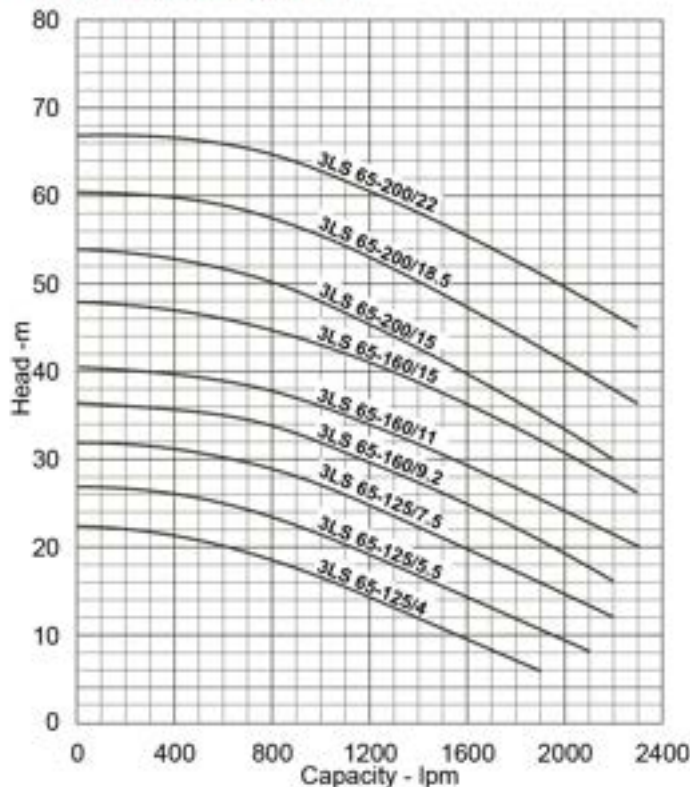
FL = B5 Flange Mount Motor

F &amp; FL= B35 Foot &amp; Flange Mount Motor

## Pumps with 3 phase, IP55, Class F, 2900 RPM Motors

PUMP KIT MODEL	MINIMUM POWER	FRAME	MOUNT	DISCHARGE / SUCTION
3LS 65-250/30	30kW	415V	3PH	65mm / 80mm
3LS 65-250/37	37kW	415V	3PH	

## Performance Curve



**Model Code** 3LS 65-200/7.5

- 3LS = Single Phase
- 65 = Motor Size kW
- 200 = Nominal Impeller Diameter mm
- 7.5 = Discharge Size Ømm

Model: 3LS with motor; 3LSF without motor (kit)  
 3LS/3LSF = 2 pole model (4 pole models are 3LS4/3LSF4)

## Pumps with 1 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 65-125/4.0M	4.0kW	240/480V	1PH	65mm / 80mm
3LS 65-125/5.5M	5.5kW	240/480V	1PH	
3LS 65-125/7.5M	7.5kW	240/480V	1PH	

## Pumps with 3 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 65-125/4.0	4.0kW	415V	3PH	65mm / 80mm
3LS 65-125/5.5	5.5kW	415V	3PH	
3LS 65-125/7.5	7.5kW	415V	3PH	
3LS 65-160/9.2	9.2kW	415V	3PH	
3LS 65-160/11.0	11.0kW	415V	3PH	
3LS 65-160/15.0	15.0kW	415V	3PH	
3LS 65-200/15.0	15.0kW	415V	3PH	
3LS 65-200/18.5	18.5kW	415V	3PH	
3LS 65-200/22	22.0kW	415V	3PH	



## 3LS80

## PUMP END KITS ONLY For 2900 RPM Motors

PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF 80-160/11	11kW	160	F & FL	80 mm / 100 mm
3LSF 80-160/15	15kW	160	F & FL	
3LSF 80-160/18.5	18.5kW	180	F & FL	
3LSF 80-200/22	22kW	180	F & FL	
3LSF 80-200/30	30kW	200	F & FL	
3LSF 80-200/37	37kW	200	F & FL	
3LSF 80-250/45	45kW	225	F & FL	
3LSF 80-250/55	55kW	250	F & FL	

FL = B5 Flange Mount Motor

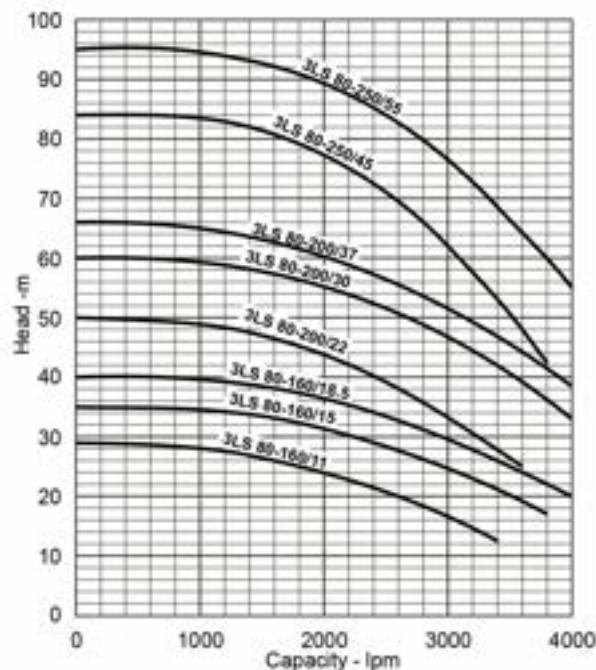
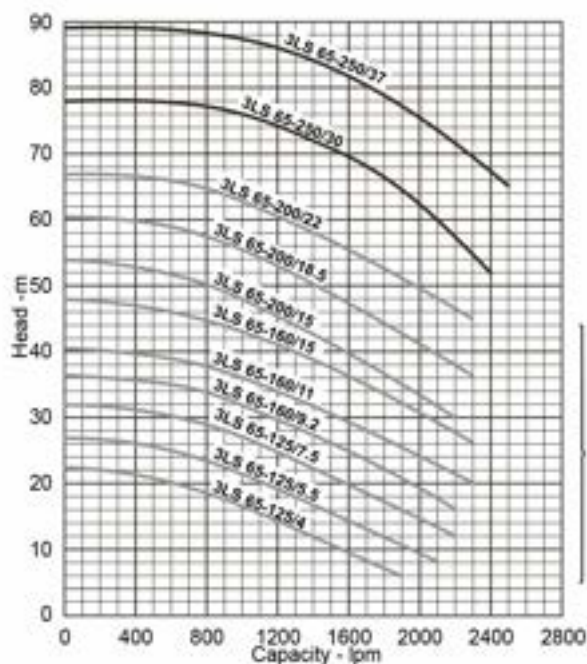
F &amp; FL= B35 Foot &amp; Flange Mount Motor

\*KIT\* consists of complete pump wet end, cast iron motor bracket, stub shaft, motor support and all fasteners.

## Pumps with 3 phase, IP55, Class F, 2900 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS 80-160/11	11kW	415V	3PH	80 mm / 100 mm
3LS 80-160/15	15kW	415V	3PH	
3LS 80-160/18.5	18.5kW	415V	3PH	
3LS 80-200/22	22kW	415V	3PH	
3LS 80-200/30	30kW	415V	3PH	
3LS 80-200/37	37kW	415V	3PH	
3LS 80-250/45	45kW	415V	3PH	
3LS 80-250/55	55kW	415V	3PH	

## Performance Curves





## 3LS4 32

**PUMP END KITS ONLY For 1450 RPM Motors**

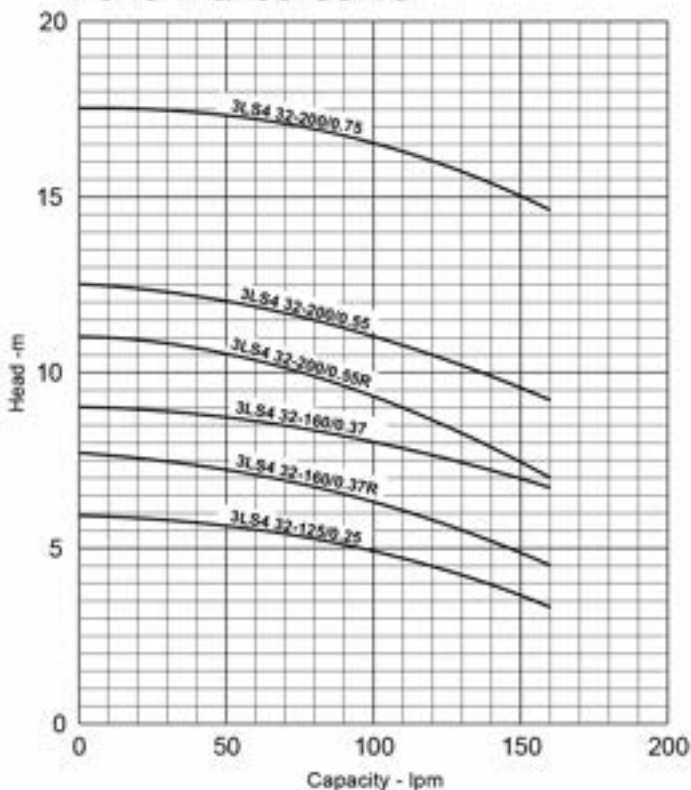
PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF4 32-125/0.25	0.25kW	71	FL	32mm / 50mm
3LSF4 32-160/0.37	0.37kW	71	FL	
3LSF4 32-160/0.37	0.37kW	71	FL	
3LSF4 32-200/0.55R	0.55kW	80	FL	
3LSF4 32-200/0.55	0.55kW	80	FL	
3LSF4 32-200/0.75	0.75kW	80	FL	

FL = BS Flange Mount Motor

**Pumps with 3 phase, IP55, Class F, 1450 RPM Motors**

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS4 32-125/0.25	0.25kW	415V	3PH	32mm / 50mm
3LS4 32-160/0.37R	0.37kW	415V	3PH	
3LS4 32-160/0.37	0.37kW	415V	3PH	
3LS4 32-200/0.55R	0.55kW	415V	3PH	
3LS4 32-200/0.55	0.55kW	415V	3PH	
3LS4 32-200/0.75	0.75kW	415V	3PH	

## Performance Curve



**Model Code** 3LS4 50 - 160 / 1.5 II

- Reduced Diameter Impeller
- Motor Size kW
- Nominal Impeller Diameter mm
- Discharge Size Ømm
- 4 = 4 Pole speed
- Model: 3LS with motor; 3LSF without motor (kit)



## 3LS4 40

PUMP END KITS ONLY For 1450 RPM Motors

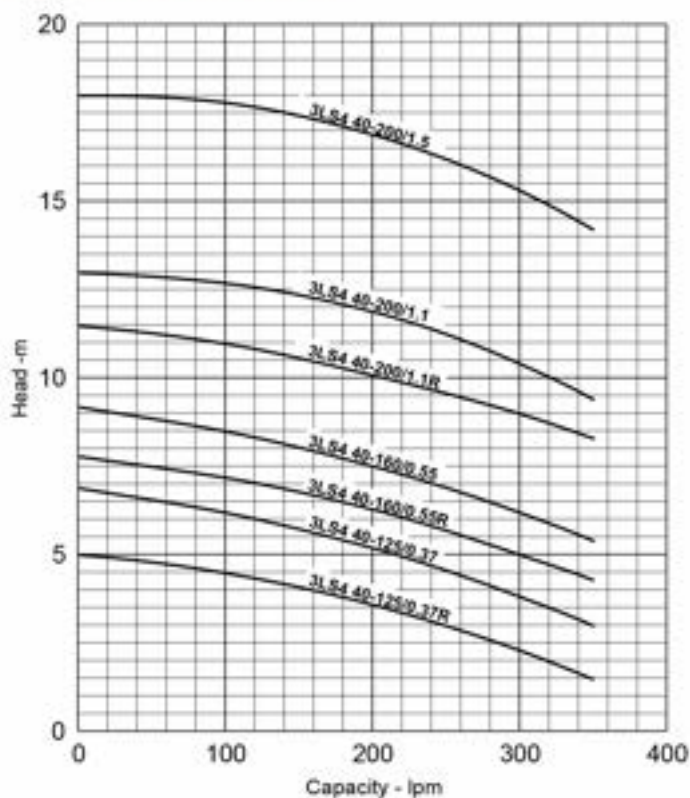
PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF4 40-125/0.37R	0.37kW	71	FL	40mm / 65mm
3LSF4 40-125/0.37	0.37kW	71	FL	
3LSF4 40-160/0.55R	0.55kW	80	FL	
3LSF4 40-160/0.55	0.55kW	80	FL	
3LSF4 40-200/1.1R	1.1kW	90	FL	
3LSF4 40-200/1.1	1.1kW	90	FL	
3LSF4 40-200/1.5	1.5kW	90	FL	

FL = B5 Flange Mount Motor

Pumps with 3 phase, IP55, Class F, 1450 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS4 40-125/0.37R	0.37kW	415V	3PH	40mm / 65mm
3LS4 40-125/0.37	0.37kW	415V	3PH	
3LS4 40-160/0.55R	0.55kW	415V	3PH	
3LS4 40-160/0.55	0.55kW	415V	3PH	
3LS4 40-200/1.1R	1.1kW	415V	3PH	
3LS4 40-200/1.1	1.1kW	415V	3PH	
3LS4 40-200/1.5	1.5kW	415V	3PH	

## Performance Curve



### Model Code

3LS4 50 - 180 / 1.5 II

- II Reduced Diameter Impeller
- 1.5 Motor Size kW
- 180 Nominal Impeller Diameter mm
- 50 Discharge Size Ømm
- 4 = 4 Pole speed

Model: 3LS with motor; 3LSF without motor (kit)



## 3LS4 50

**PUMP END KITS ONLY For 1450 RPM Motors**

PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF4 50-125/0.55R	0.55kW	80	FL	50mm / 65mm
3LSF4 50-125/0.55	0.55kW	80	FL	
3LSF4 50-160/1.1R	1.1kW	90	FL	
3LSF4 50-160/1.1	1.1kW	90	FL	
3LSF4 50-200/1.5R	1.5kW	90	FL	
3LSF4 50-200/1.5	1.5kW	90	FL	
3LSF4 50-200/2.2	2.2kW	100	F & FL	

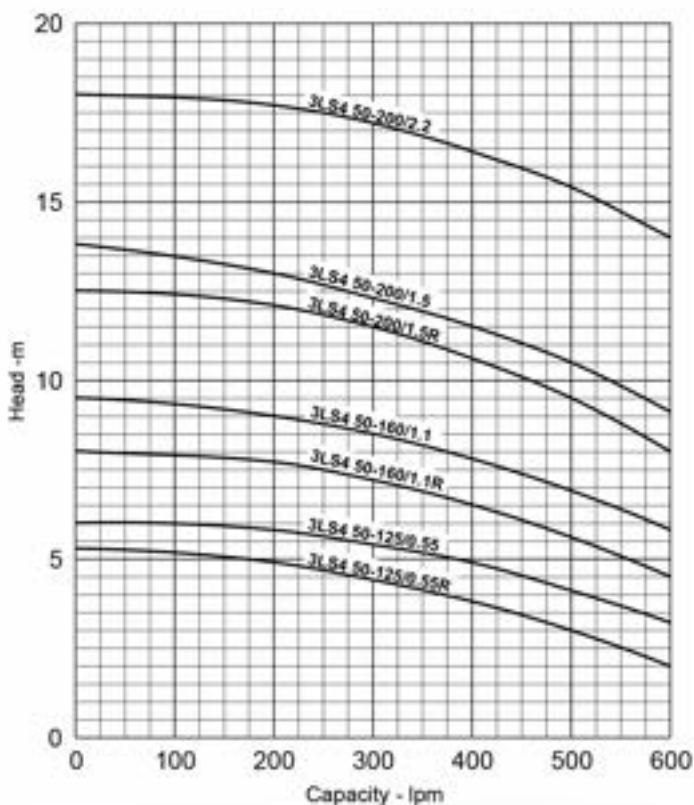
FL = B5 Flange Mount Motor

F & FL= B35 Foot & Flange Mount Motor

**Pumps with 3 phase, IP55, Class F, 1450 RPM Motors**

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS4 50-125/0.55R	0.55kW	415V	3PH	50mm / 65mm
3LS4 50-125/0.55	0.55kW	415V	3PH	
3LS4 50-160/1.1R	1.1kW	415V	3PH	
3LS4 50-160/1.1	1.1kW	415V	3PH	
3LS4 50-200/1.5R	1.5kW	415V	3PH	
3LS4 50-200/1.5	1.5kW	415V	3PH	
3LS4 50-200/2.2	2.2kW	415V	3PH	

## Performance Curve



**Model Code**

3LS4 50 - 160 / 1.5 R

- Reduced Diameter Impeller
- Motor Size kW
- Nominal Impeller Diameter mm
- Discharge Size Ømm
- 4 = 4 Pole speed

Model: 3LS with motor; 3LSF without motor (kit)



## 3LS4 65

### PUMP END KITS ONLY For 1450 RPM Motors

PUMP KIT MODEL	MOTOR REQUIREMENT			DISCHARGE / SUCTION
	MINIMUM POWER	FRAME	MOUNT	
3LSF4 65-125/0.55	0.55kW	80	FL	65mm / 80mm
3LSF4 65-125/0.75	0.75kW	80	FL	
3LSF4 65-125/1.1	1.1kW	90	FL	
3LSF4 65-160/1.5	1.5kW	90	FL	
3LSF4 65-160/2.2	2.2kW	100	F & FL	
3LSF4 65-200/2.2	2.2kW	100	F & FL	
3LSF4 65-200/3.0	3.0kW	100	F & FL	

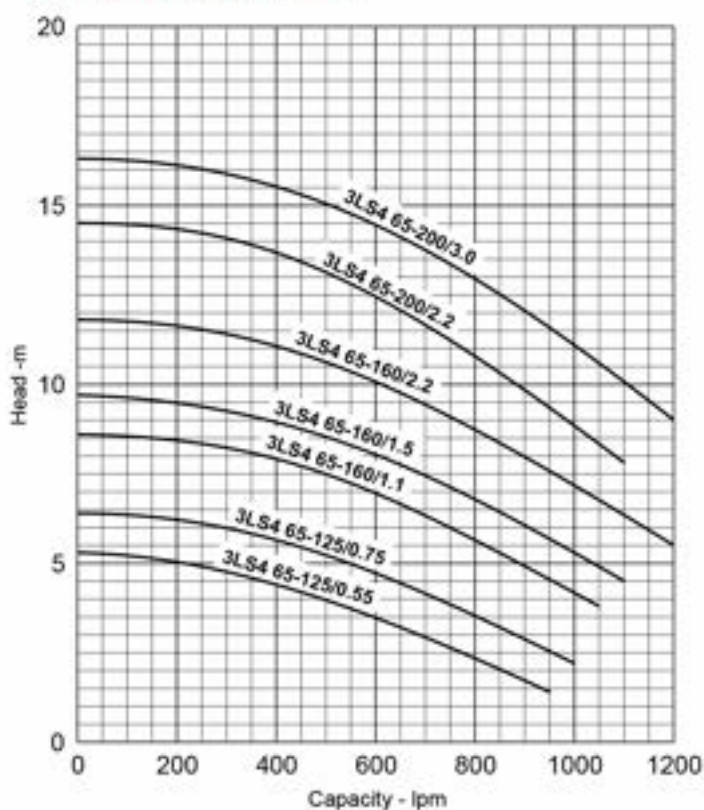
FL = B5 Flange Mount Motor

F &amp; FL= B35 Foot &amp; Flange Mount Motor

### Pumps with 3 phase, IP55, Class F, 1450 RPM Motors

PUMP MODEL	POWER	VOLTAGE	PHASE	DISCHARGE / SUCTION
3LS4 65-125/0.55	0.55kW	415V	3PH	65mm / 80mm
3LS4 65-125/0.75	0.75kW	415V	3PH	
3LS4 65-125/1.1	1.1kW	415V	3PH	
3LS4 65-160/1.5	1.5kW	415V	3PH	
3LS4 65-160/2.2	2.2kW	415V	3PH	
3LS4 65-200/2.2	2.2kW	415V	3PH	
3LS4 65-200/3.0	3.0kW	415V	3PH	

## Performance Curve



#### Model Code





## HYGINOX SE



Self-priming casing

### Application

The Hyginox SE pump is a centrifugal pump manufactured in stainless steel with a shrouded motor. Its sanitary and cost-efficient design makes it perfect for the dairy, beverage, food-processing, pharmaceutical and fine chemicals industries.

### Operating principle

Housed inside the casing, the impeller rotates in conjunction with the pump shaft.

With this arrangement, the impeller blades convey energy to the fluid in the form of kinetic energy and pressure energy.

This pump is not reversible by simple reversal of the direction of rotation. The direction of rotation is clockwise when the pump is viewed from the non-drive end of the motor.

### Design and features

- Casing manufactured with cold-formed plate.
- Hygienic or DIN connections.
- Open impeller manufactured with stainless steel investment casting. Mechanical seal according to DIN 24960 L1K.
- AISI 304 motor shroud.
- Adjustable stainless steel legs.
- IEC B34 motors, IP 55, F-class insulation.

### Options

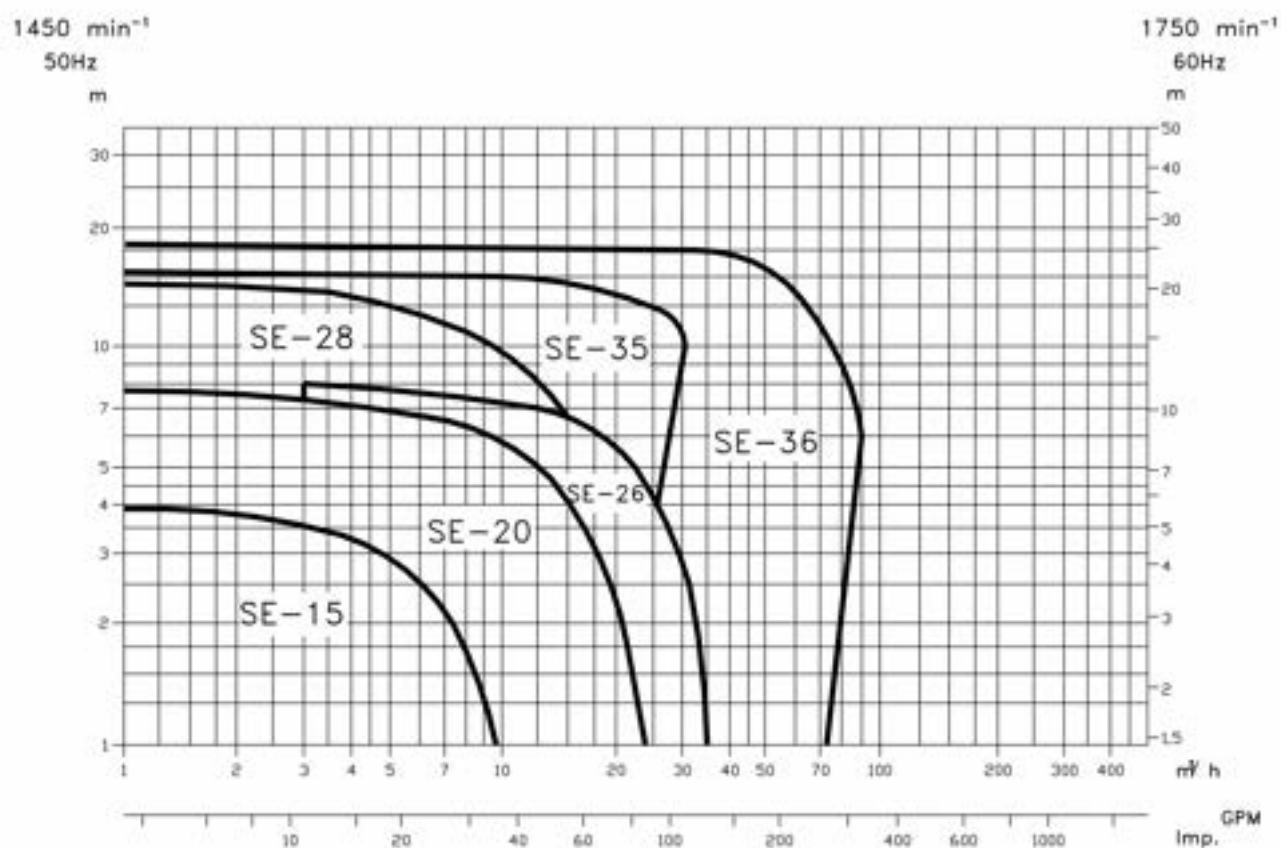
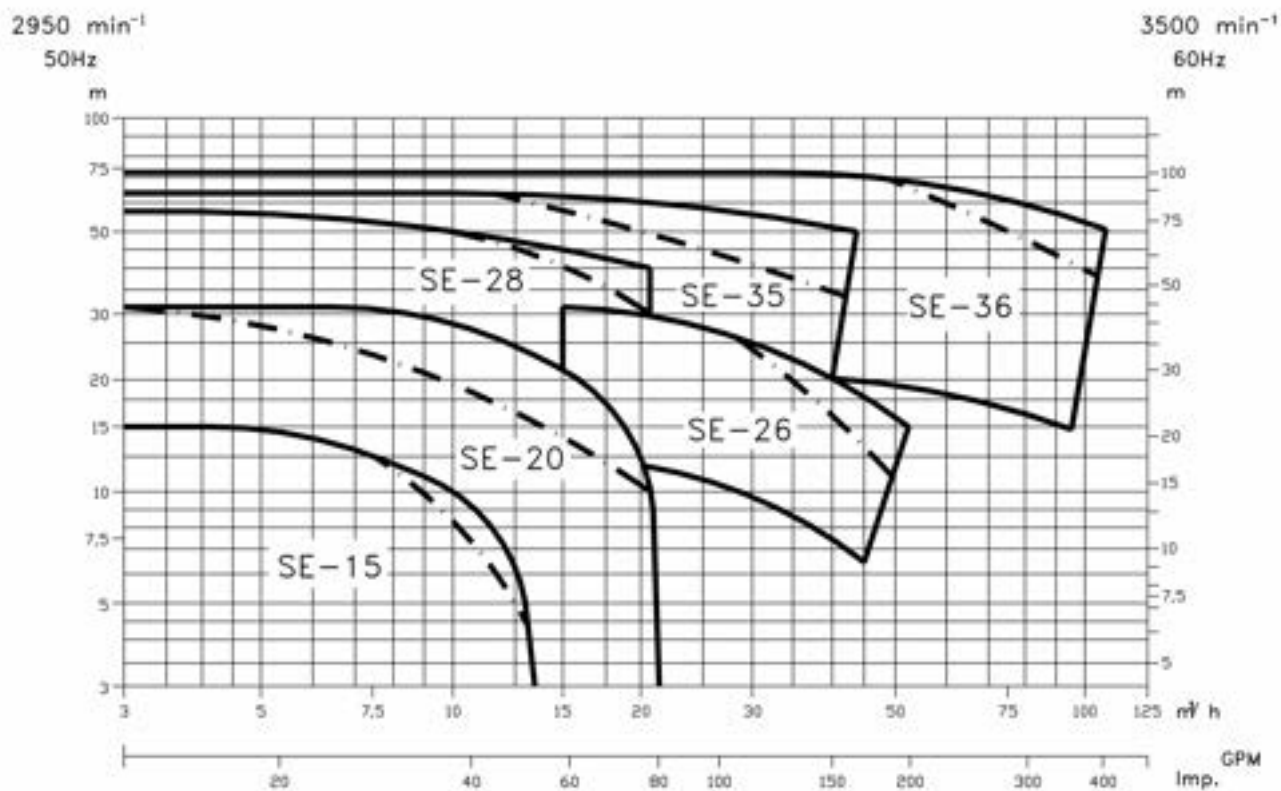
- Mechanical seal in C/St.St and SiC/SiC.
- Gaskets in FPM and PTFE.
- Self-priming casing.
- Drainage connection.
- Connections: Clamp, SMS, RJT, etc.
- Motors with additional protection.
- Trolley and/or electric panel.

### Material Options

	AISI 316L	AISI 304	EPDM	C/SiC/ EPDM	RA < 0.8 µm	MIRROR POLISHED
Parts in contact with pumped media	✓	—	—	—	—	—
Other parts	—	✓	—	—	—	—
Gaskets	—	—	✓	—	—	—
Mechanical seal	—	—	—	✓	—	—
Inside surface finishing	—	—	—	—	✓	—
Outside surface finishing	—	—	—	—	—	✓

TECHNICAL SPECIFICATIONS		
Max.flow	100 m <sup>3</sup> /h	440 GPM
Max.head	7,5 bar	109 PSI
Max.suction pressure	4 bar	58 PSI
Max.working temperature	20°C	248°F
Max.speed	3500 min <sup>-1</sup>	

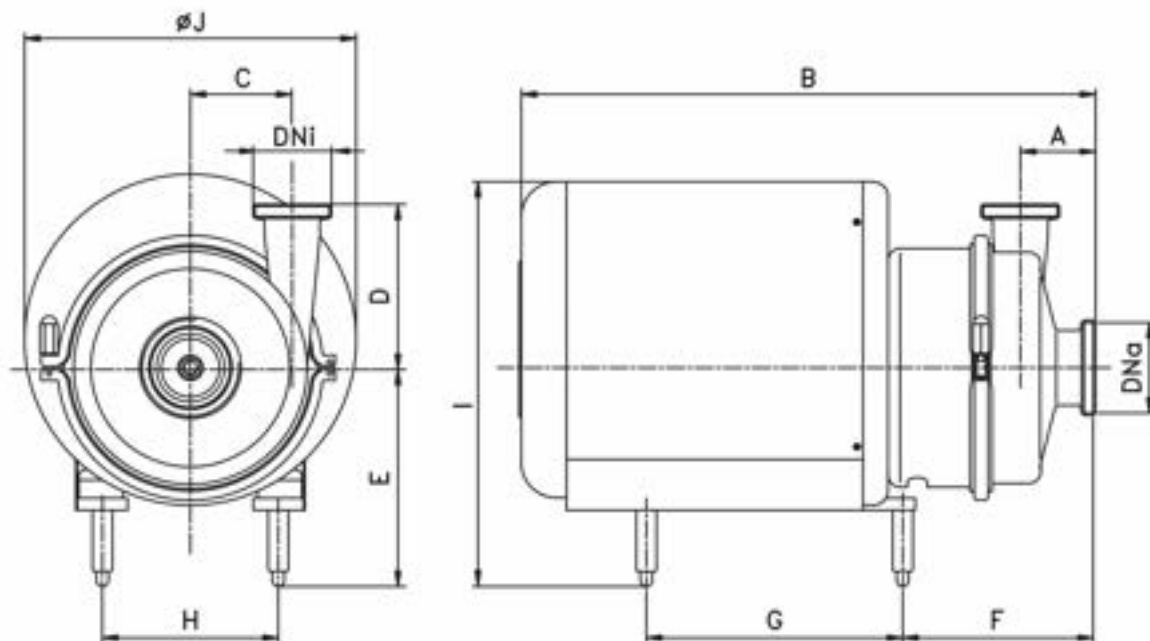
## Performance Curves



--- installed capacity limit to 60 Hz



## Dimensions

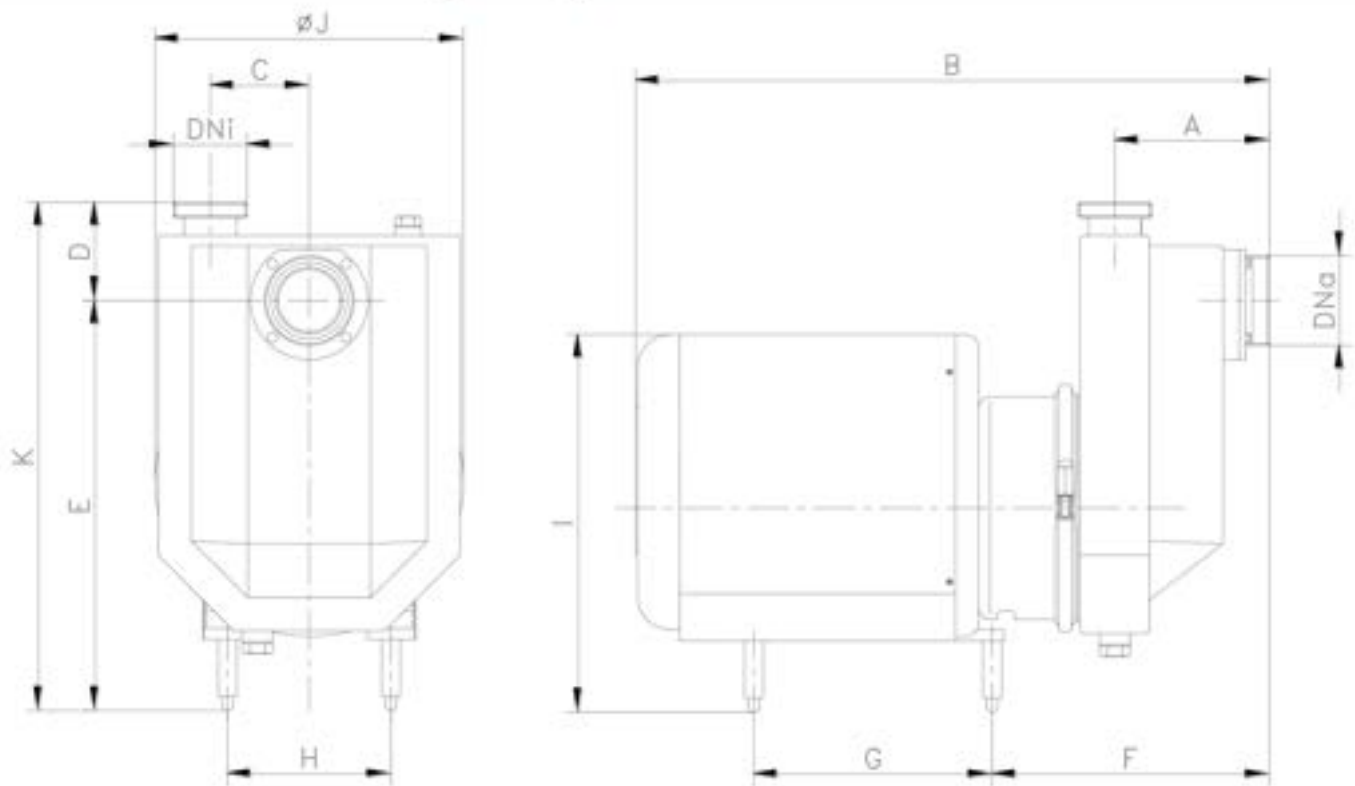


PUMP	MOTOR SIZE	KW		DNa	DNI	A	B	C	D	E	F	G	H	I	OJ
		2950 MIN <sup>-1</sup>	1450 MIN <sup>-1</sup>												
SE-15	A 71	0,37-0,55	0,25	40 1 <sup>1/2</sup> "	32 1 <sup>1/2</sup> "	55	400	55	100	160	140	140	112	288	220
SE-20	C 90	1,5-2,2	1,1	50 2"	40 1 <sup>1/2</sup> "	55	475	74	140	196	196	220	140	355	270
SE-26	C 90	-	1,1	65 3"	50 2"	55	485	72	150	196	196	220	355	355	270
	E 100	3	-				570			218	218	254	175	412	330
	F 132	5,5	-				680			255	255	260	216	472	380
SE-28	C 90	1,5-2,2	1,1	40 1 <sup>1/2</sup> "	40 1 <sup>1/2</sup> "	65	480	107	165	196	196	220	140	355	270
	E 100	3	-				565			218	218	254	175	412	330
	F 132	5,5	-				675			255	255	260	216	472	380
SE-35	C 90	-	1,5	65 3"	50 2"	75	495	104	175	196	179	220	140	355	270
	F 132	5,5-7 5-9 11	-				690			255	180	260	216	472	380
SE-36	C 90	-	1,5	100 4"	65 3"	75	495	98	180	196	179	220	140	355	270
	E 100	-	2,2-3				580			218	187	254	175	412	330
	E 112	-	4				580			218	194	254	175	412	330
	F 132	7,5-9-11	-				690			255	180	220	216	472	380

Dimensions with connections DIN 11851


**HYGINOX SE**

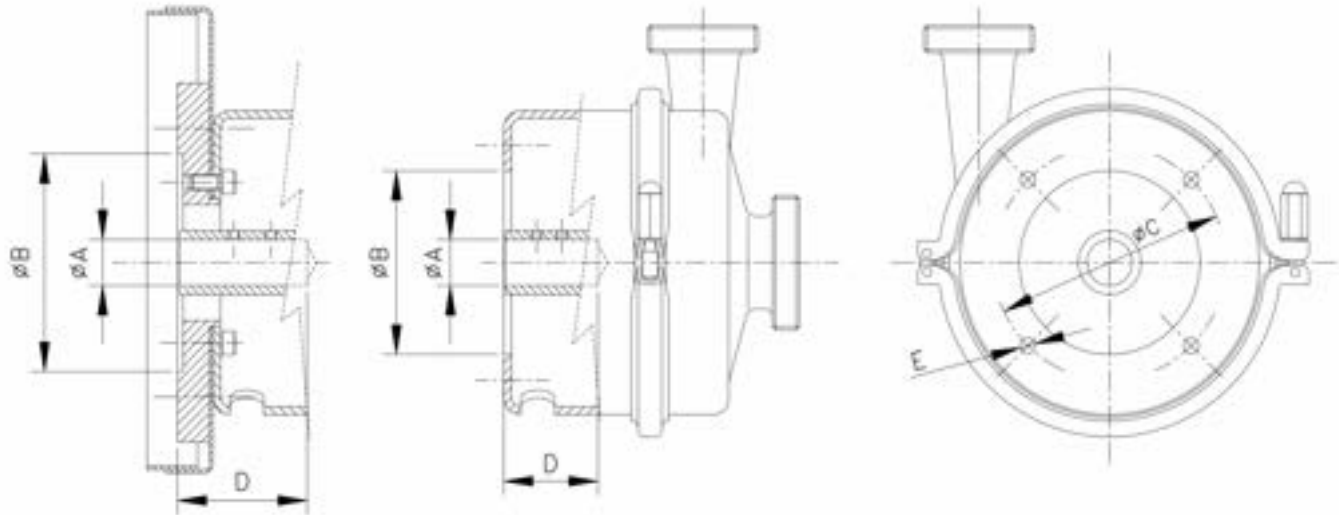
Dimensions - Self Priming casing shown



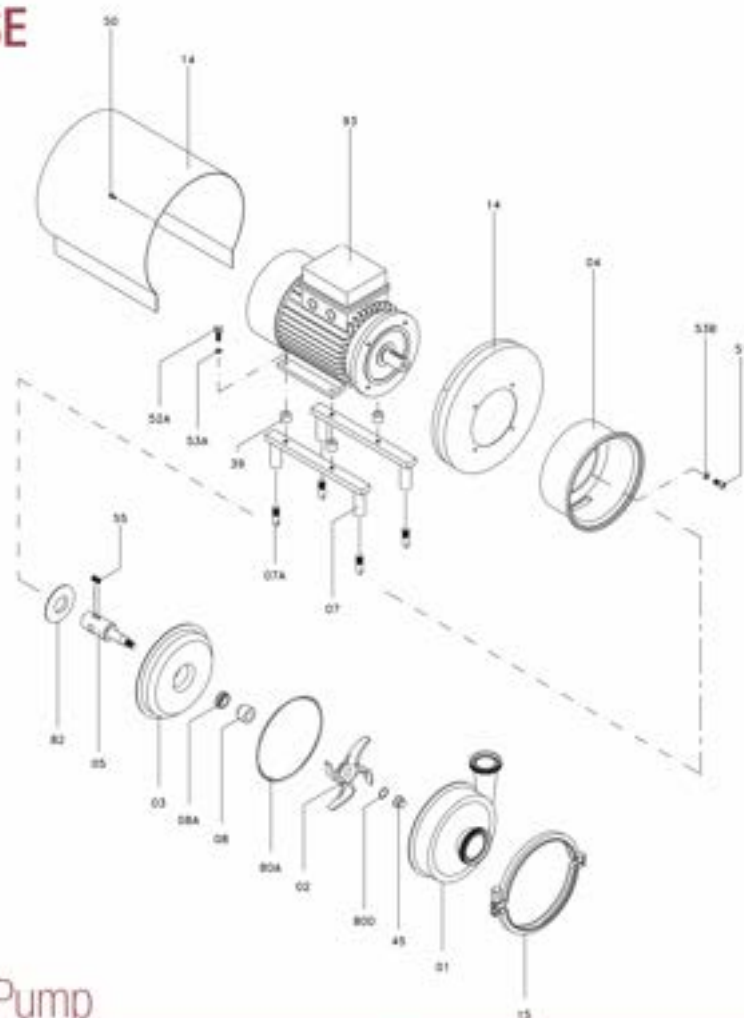
PUMP	MOTOR SIZE	KW		DNa	DNI	A	B	C	D	E	F	G	H	I	øJ	K			
		2950 MIN <sup>-1</sup>	1450 MIN <sup>-1</sup>																
SE-15	A 71	0,37-0,55	0,25	40 1 1/2"	40 1 1/2"	123	470	65	83	305	207	140	112	288	220	388			
SE-20	B 80	1,1	0,75	65 2 1/2"	50 2"	157	580	75	100	351	242	220	140	355	270	451			
	C 90	1,5-2,2	262																
SE-26	B 80	-	0,75	65 2 1/2"	50 2"	157	585	75	100	351	249	220	140	355	270	451			
	E 100	3	277				254			175	412						330	473	
	112	4-5,5	284				254			175	412						330	473	
	F 132	5,5	410				274			260	216						472	380	510
SE-28	B 80	1,1	0,75	40 1 1/2"	40 1 1/2"	121	540	92	73	376	205	220	140	355	270	449			
	C 90	1,5-2,2	1,1				225			254	175						412	330	471
	E 100	3	398				233			254	175						412	330	471
	112	4-5,5	240				254			175	412						330	471	
	F 132	5,5	735				435			227	260						216	472	380
SE-35	C 90		1,5	65 2 1/2"	50 2"	164	585	105	106	416	297	220	140	355	270	522			
	F 132	5,5-7,5-9,11	475				280			260	216						472	380	581
SE-36	C 90		1,5	100 4"	80 3"	218	630	120	130	426	311	220	140	355	270	556			
	E 100	2,2-3	319				254			175	412						330	578	
	112	4	326				254			175	412						330	578	
	F 132	7,5-9-11	485				312			260	216						472	380	615



## Dimensions



PUMP	MOTOR			A	B	C	D	E	
	FRAME	FORM	Ø FLANGE						
SE-15	A	71	B3/B14	105	14	70	85	32	7
SE-20	C	90	B3/B14	140	24	95	115	52	9
SE-26	C	90	B3/B14	140	24	95	115	52	9
	E	100/112	B3/B14	160	28	110	130	62	9
SE-28	F	132	B3/B5	300	38	230	265	82	M12
	C	90	B3/B14	140	24	95	115	52	9
SE-35	E	100/112	B3/B14	160	28	110	130	62	9
	F	132	B3/B5	300	38	230	265	82	M12
SE-36	C	90	B3/B14	140	24	95	115	52	9
	E	100/112	B3/B14	160	28	110	130	62	9
	F	132	B3/B5	300	38	230	265	82	M12


**HYGINOX SE**


### Parts List Hyginox SE Pump

POSITION	QUANTITY	DESCRIPTION	MATERIAL
01	1	Pump housing	AISI 316
02	1	Impeller	AISI 316
03	1	Pump cover	AISI 316
04	1	Lantern	AISI 316
05	1	Shaft	AISI 316
07	2	Legs	AISI 316
07A	4	Adjustable leg	AISI 316
08	1	Mechanical seal – rotating part	-
08A	1	Mechanical seal – stationary part	-
14	1	Shroud	AISI 304
15	1	Clamping ring	AISI 304
39	4	Motor bushing	AISI 304
45	1	Blind nut	AISI 304
50	4	Screw	A2
51	4	Allen screw	A2
52A	4	Hexagonal screw	A2
53A	4	Flat washer	A2
53B	4	Spring washer	A2
55	1	Stud	A2
80A	1	O-ring	EPDM
80D	1	O-ring	EPDM
82	1	Splash ring	EPDM
93	1	Motor	-



## Application

The Prolac S pump is a sanitary centrifugal pump that meets the highest sanitary requirements for use in the food-processing and pharmaceutical industries. Some of its uses include processes in the brewing, dairy and beverage industries in general, and with the appropriate options it can also be used in complex applications such as with evaporators, concentrators, distillation towers, decanting of syrups, and purified-water loops in the pharmaceutical industry.



## Operating principle

Housed inside the casing, the impeller rotates in conjunction with the pump shaft. With this arrangement, the impeller blades convey energy to the fluid in the form of kinetic energy and pressure energy. This pump is not reversible by simple reversal of the direction of rotation. The direction of rotation is clockwise when the pump is viewed from the non-drive end of the motor.

## Design and features

- Casing manufactured with cold-formed plate.
- DIN connections.
- Open impeller manufactured with stainless steel investment casting technology.
- Sanitary mechanical seal.
- Very robust stainless steel cast motor to pump connection.

## Materials

- Parts in contact with pumped media: AISI 316L
- Other parts in stainless steel: AISI 304
- Gaskets: EPDM
- Mechanical seal: St.St/C/EPDM
- Inside surface finishing:  $Ra < 0.8 \mu m$ .
- Outside surface finishing: Mirror polished
- IEC B5 motors (B14 for S-15, B35 motors T.200, 225, 250 and B3 for close-coupled models), IP55, F-class insulation.
- Pump support from AISI 304.



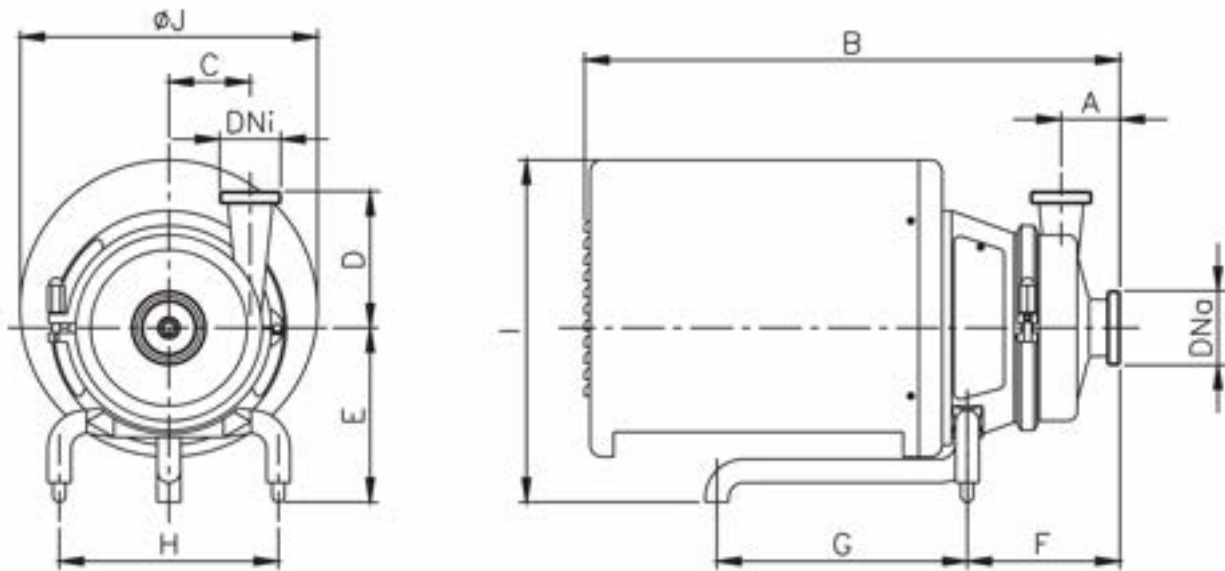
## Options

- Bareshaft construction for models S-35, S-38, S-70.
- Mechanical seals in SiC/C, SiC/SiC or TgC/SiC.
- Cooled or double mechanical seal.
- Gaskets in FPM (Viton) and PTFE.
- $Ra < 0.4$  surface finishing.
- Self-priming casing.
- Heating chamber.
- Drainage connection.
- Connections: Clamp, SMS, RJT, etc.
- Motors with additional protection.
- Trolley and/or switchboard.

### TECHNICAL SPECIFICATIONS

Max.flow	425 m <sup>3</sup> /h
Max.head	200 mcl
Max.suction pressure	4 bar
Max.working temperature	120°C
Max.speed	3500 min <sup>-1</sup>

## Dimensions



PUMP	MOTOR SIZE	DNa	DNi	A	B	C	D	E	F	G	H	I	ØJ
SE-15	A 71	40 1 <sup>1/2"</sup>	32 1 <sup>1/2"</sup>	55	415	55	100	130	137	175	155	260	220
SE-20	B 80	50 2"	40 1 <sup>1/2"</sup>	55	485	74	140	165	152	235	205	325	270
	C 90												
SE-26	B 80	65 3"	50 2"	55	495	72	150	165	162	235	205	325	270
	E 100/112				575			190	172	275	205	375	330
SE-28	B 80				485			165	156	235	205	325	270
	C 90	40 1 <sup>1/2"</sup>	40 1 <sup>1/2"</sup>	65	570	107	165	190	166	275		375	330
	E 100/112												
SE-35	C 90	65 3"	50 2"	75	500	104	175	165	170	235	205	325	270
	F 132				685			230	193	320	280	445	380
SE-38	C 90				500			165	170	235	205	325	270
	E 100/112	100 4"	65 3"	75	585	98	180	190	180	275		375	330
	G 160				870			280	237	355	320	555	465
SE-70	H 180									425			
	F 132				735					425		495	380
	G 160	100 4"	65 3"	92	880	148	212	280	243	355	320	555	465
H 180									425				



## ESTAMPINOX EFI



### Application

The Estampinox EFI pump is a stainless steel centrifugal pump for the transfer of water and other liquids. It is designed to cater for the needs of auxiliary services in the food-processing, chemical, pharmaceutical and wine-making industries.

### Design and features

Estampinox EFI is a range of close-coupled centrifugal pumps. It is made of a cold-formed stainless steel casing, open impeller manufactured with stainless steel cold-formed plate or investment casting (according to model), mechanical seal, pump cover, lantern and shaft. Estampinox EFI centrifugal pump is provided with an internal single mechanical seal.

Estampinox EFI centrifugal pump with motor shroud



### Materials:

Parts in contact with the product:  
Stainless steel AISI 316L (1.4404)

Other steel parts: Stainless steel AISI 304 (1.4301)

Gaskets in contact with the product:  
EPDM

Mechanical seal: Rotary part: Cer  
Stationary part: C  
Gaskets: EPDM

Surface finish: Electropolished

Connections: Threaded connection (ISO 7)

### Options

AISI 304 motor shroud.

Other materials for mechanical seals and gaskets.

Motor with other voltages, frequencies and protection classes.

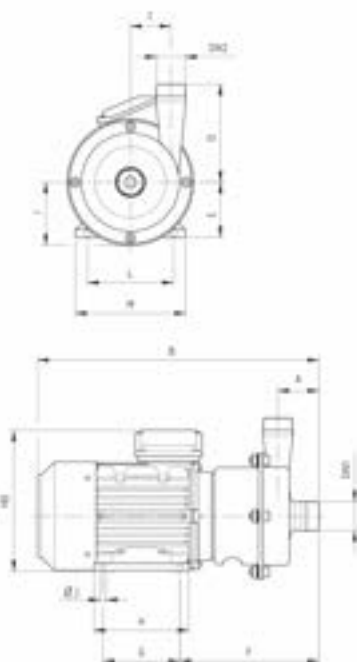
Trolley and/or control panel.

Different types of connections.

#### TECHNICAL SPECIFICATIONS

Max.flow	65 m <sup>3</sup> /h
Max.head	42 m
Max.suction pressure	4 bar
Max.working temperature	-10°C to +90 °C
Max.speed	3500 rpm

### Dimensions



PUMP	MOTOR SIZE	KW	RPM	DN1	DN2	A	B	C	D	E	F	G	H	HD	I	ØJ	L	M	KG
EFI 0	71	0,25	1450	R 1	R 1 <sup>14</sup>	60	370	36	100	71	193	90	110	190	73	7	112	137	7
	71	0,37	2900							71	193	90	110	190	73	7	112	137	8
EFI 1	80	0,55	1450	R 1 <sub>107</sub>	R 1	64	405	48	110	80	204	100	125	220	86	9	125	160	12
	80	0,75	2900							80	204	100	125	220	86	9	125	160	13
EFI 2	90S	1,1	1450	R 1 <sub>107</sub>	R 1 <sub>117</sub>	67	450	66	160	90	227	100	130	240	103	10	140	175	19
	90L	2,2	2900							90	227	125	155	240	103	10	140	175	21
EFI 2	100	2,2	1450	R 2	R 2	70	520	92	192	100	251	140	180	265	128	12	160	200	32
	112	4	112							258	140	180	295	128	12	190	230	37	
	112	5,5	2900							112	258	140	180	295	128	12	190	230	41
	132S	7,5	132							300	140	180	335	150	12	216	255	67	

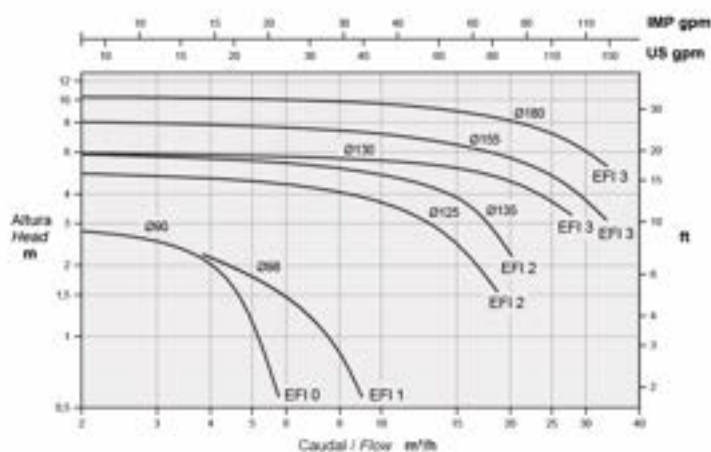


# ESTAMPINOX EFI

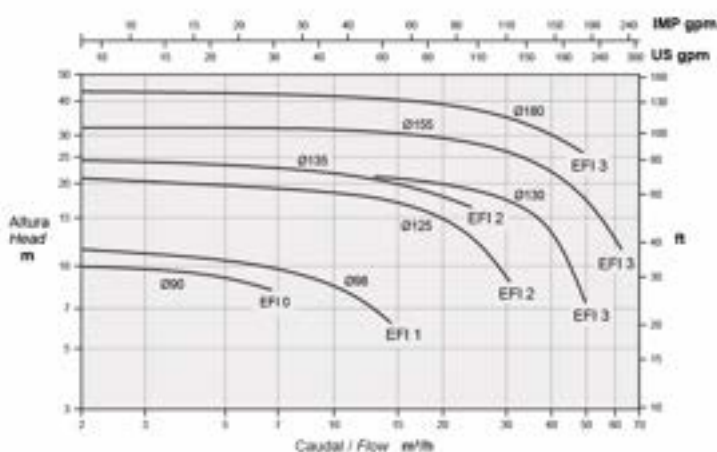
## Performance Curves

50 Hz

1450 rpm

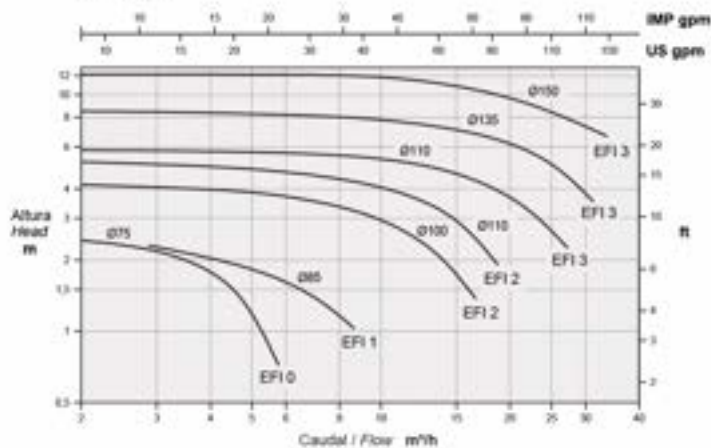


2900 rpm

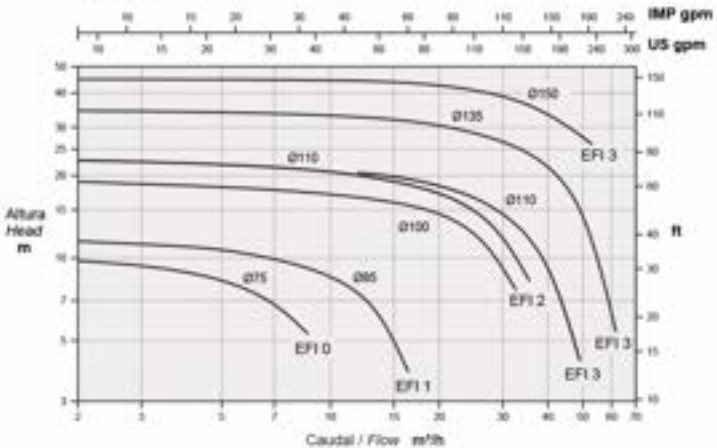


60 Hz

1750 rpm



3500 rpm



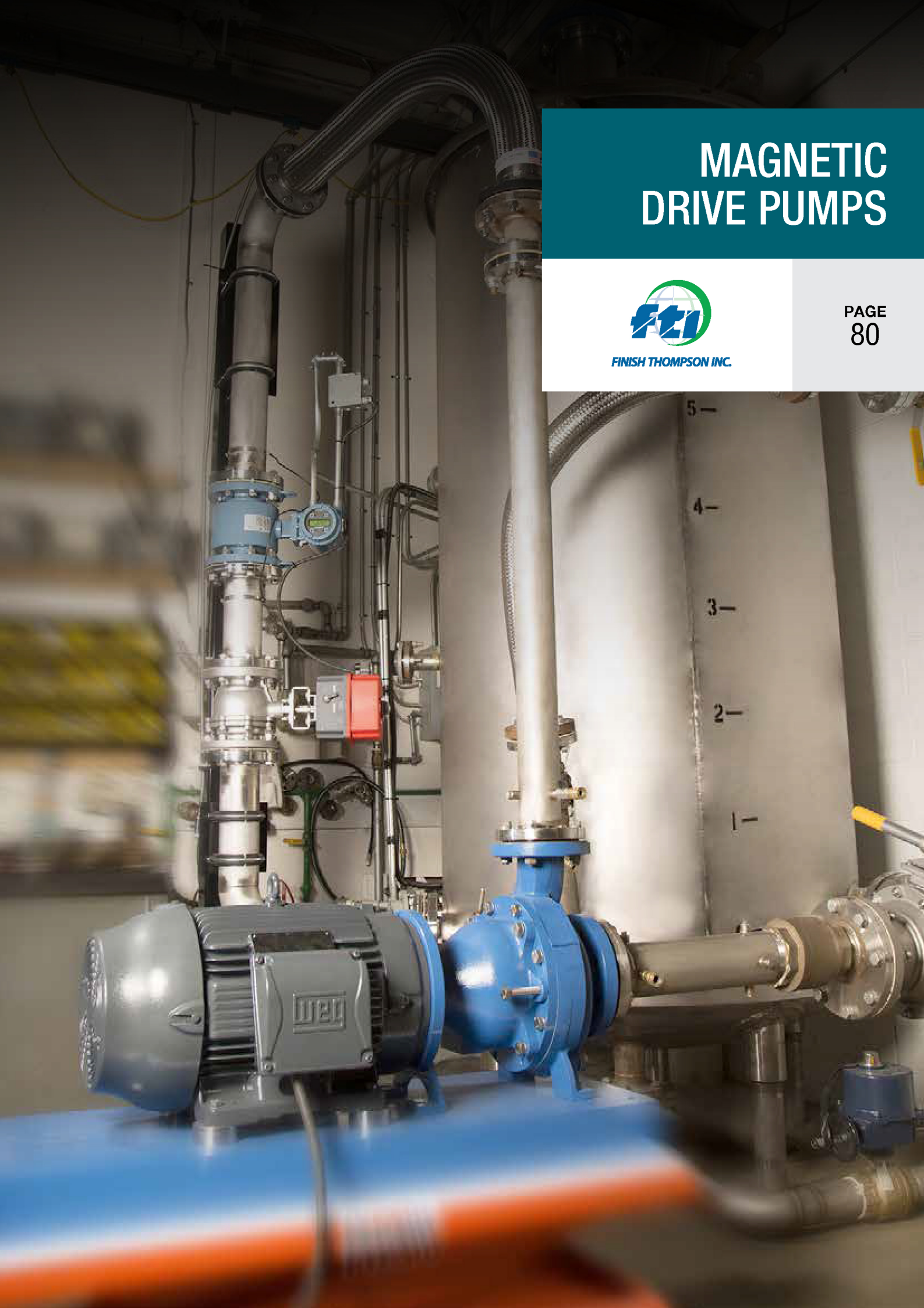


# MAGNETIC DRIVE PUMPS



FINISH THOMPSON INC.

PAGE  
80







## DB SERIES



Magnetic drive pumps are a type of sealless centrifugal pump. These pumps transmit torque generated by the motor to the impeller by the means of a rotating outer magnet which diffuses the magnetic force through a sealed barrier to the inner magnet connected to the impeller.

There are some pump applications where the consequences of product leakage are serious and as such zero leakage is desirable or, in some instances, even mandated. These tolerances are not typically achievable in a well-specified and well-maintained mechanical seal. Some applications where even limited amounts of leakage would not be tolerated include:

- Toxic/ liquids (e.g. cyanide)
- Heat transfer liquids
- Carcinogens or environmental hazards
- Noxious or malodorous liquids
- Highly corrosive liquids
- Radioactive liquids

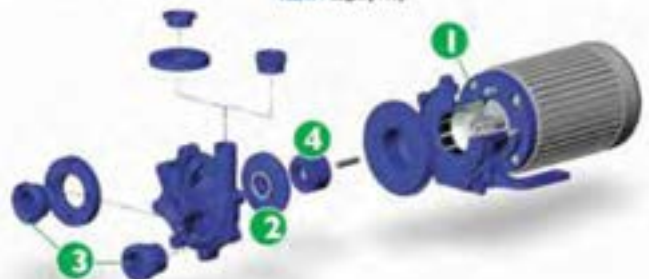
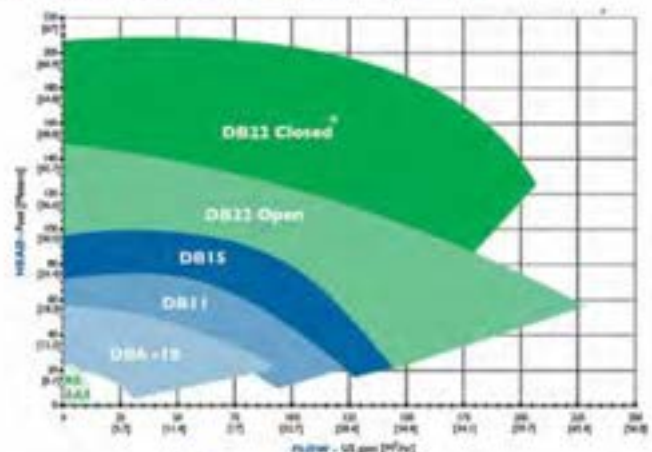
Some of the features of the DB Series include:

1. **Easy Set Outer Drive:** Measurement-free outer drive ensures optimum magnet alignment and easy motor installation. Allows optional vertical operation when used with IEC motors.
2. **Multiple Impeller Diameters:** Allows hydraulic requirements to be precisely met. Two-piece impeller design allows impeller to be changed without having to replace inner drive.
3. **Multiple Connections:** NPT or BSP threads, raised face adjustable flanges or union.
4. **Run Dry System:** The DB Series can run dry without damage when equipped with a chemical grade carbon bushing in optimum operating conditions. This helps protect the pump from operator errors and system upsets.

As government regulation agencies enforce environmentally friendly, best manufacturing practices, the list of applications requiring zero leakage will continue to grow. One incentive for using magnetic drive pumps or sealless pump technology is cost saving. Traditional pumps require the frequent replacement of either gland packing or mechanical seals which contributes a high percentage of overall pump maintenance costs. With sealless technology any sundry or auxiliary equipment is unnecessary i.e. seal flush systems, seal barriers or buffer fluids, thus reducing the risk of product contamination. Introducing the DB Series magnetic drive pump, the new standard for high hydraulic efficiency and corrosive fluid handling. With design added magnetic flux and computational fluid dynamic technology the DB Series packs all the high-pressure fluid-handling punch you would expect.....and then some.

Born as the result of a painstakingly extensive research and development effort, the efficiency of the DB Series lowers energy consumption and operating costs over the long life cycle of the pump. Constructed from either Polypropylene or PVDF, the DB Series operates durably in the most corrosive of environments and can even run dry without damage. The DB Series represents rock solid embodiment of technological advancement and is superior in precision, performance and reliability to other pumps on the market.

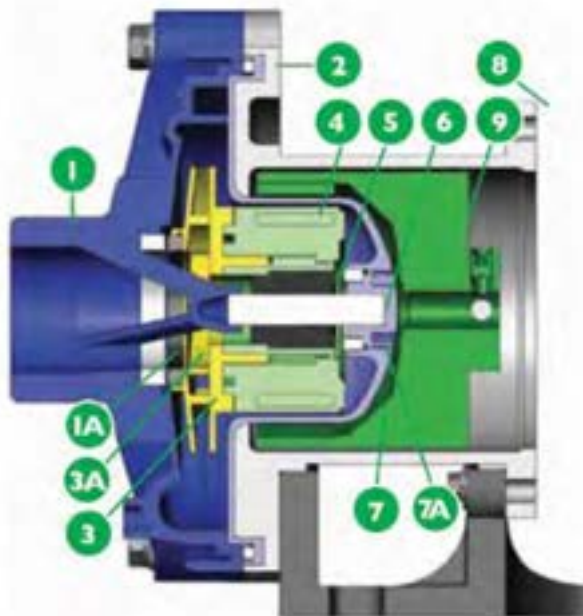
### DB Series 3450/2900rpm





DB SERIES CHARACTERISTICS

PUMP MODEL	DB10	DB11	DB15	DB22
KW	0.15 - 0.63	0.75 - 3	1.1 - 4	1.5 - 5.5
IMP DIA (MM)	76, 83, 89, 95, 102, 106	10.8, 11.4, 12.1, 12.7, 13.3	12.7, 13.3, 14, 14.6	12.7, 14, 15.2, 16.5, 17.8
INLET X OUTLET (IN.)	1" X 1"	1 1/2" x 1 1/2"	1 1/2" x 1 1/2"	2" x 2"
MAX FLOW @ 2900RPM (M3/HR)	12.2	24	26	48
MAX DISCHARGE PRESSURE @ 2900RPM (M)	13.6	17	23	38
MAX PRIMING (MINS @ M)	4mins @ 7.6m	4mins18secs @ 7.6m	4mins45secs @ 7.6m	1min45secs @ 7.6m
MAX S.G.	1.8	1.8	1.8	1.8



	DESCRIPTION		
1	Impeller Housing	Glass fibre reinforced polypropylene	Carbon-fibre reinforced PVDF
1A	Impeller housing thrust ring options	High-purity alumina ceramic, silicon carbide	
2	O-ring options	FKM, EPDM, Simriz, Kalrez	
3	Impeller	Glass fibre reinforced polypropylene	Carbon-fibre reinforced PVDF
3A	Impeller thrust washer options	Molybdenum disulfide filled PTFE, silicon carbide	
4	Inner Drive	Neodymium iron boron magnets encapsulated in unfilled polypropylene	Neodymium iron boron magnets encapsulated in unfilled PVDF
5	Bushing Options	Carbon, PTFE, high purity alumina ceramic, silicon carbide	
6	Shaft options	High-purity alumina ceramic, Hastelloy C, silicon carbide	
7	Barrier	Glass fibre reinforced polypropylene	Carbon-fibre reinforced PVDF
7A	Barrier thrust ring	High-purity alumina ceramic	
8	Motor adapter	Glass-filled polypropylene or ductile iron	
9	Outer drive magnet	Nickel-plated neodymium iron boron magnets/steel	

## Notes:

† Kalrez® is a registered trademark of DuPont Performance Elastomers

‡ Simriz® Perfluoroelastomer is a registered trademark of the Simrit® division of Freudenberg-NOK

†† Hastelloy® C is a registered trademark of Haynes International, Inc.

## Features

- + Close-coupled design
- + Polypropylene or PVDF construction
- + Replaceable shaft
- + ISO 1940 G2.5 balancing
- + Mounts to Nema and IEC motor frames
- + Mounts to motor without disassembly
- + Back pullout design
- + Five-year warranty
- + CE certified/ATEX available

## Capabilities

- + High operating efficiency—up to 70%
- + High working pressure—up to 90 psi
- + High specific gravity handling—over 1.8
- + Maximum viscosity: 150 cP
- + Maximum Temperature: Polypropylene—180°F (82°C); PVDF—220°F (104°C)

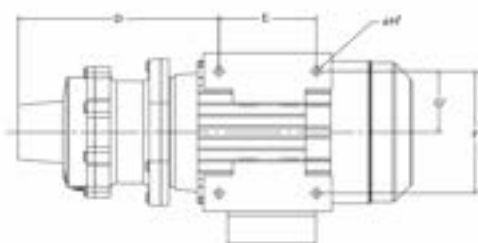
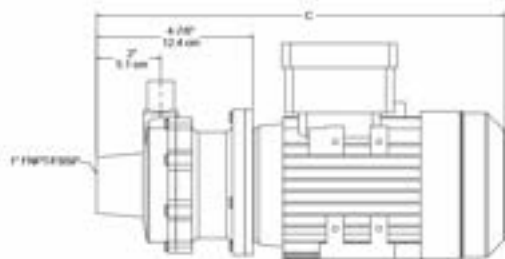
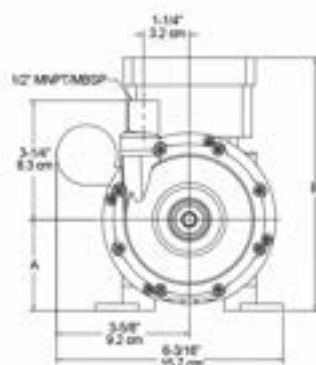
## Applications

- + Chemical manufacturing
- + Metal plating/working
- + Wastewater treatment
- + Electronics manufacturing
- + Fume scrubbing
- + Mining
- + Paper mills
- + Printing
- + Pharmaceutical processing
- + Agriculture
- + OEM equipment supply
- + General pump applications

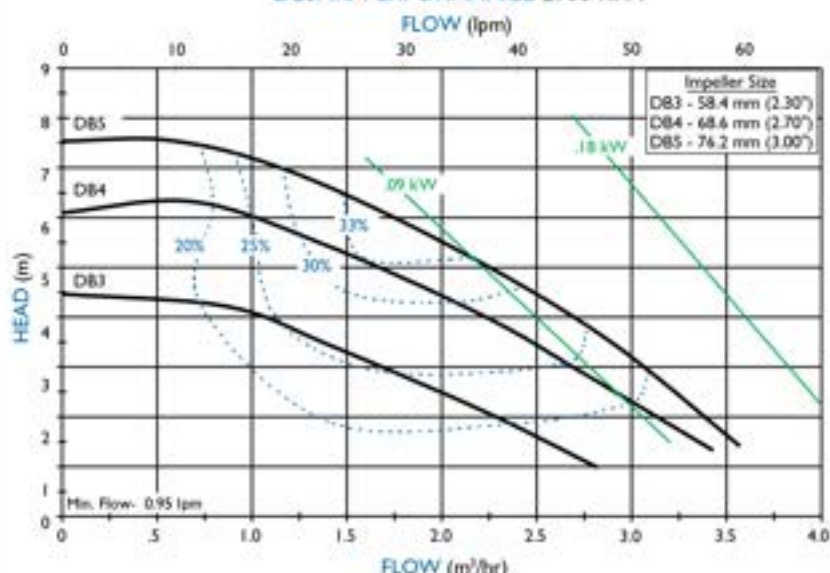




# DB3/4/5



DB3/4/5 PERFORMANCE 2900 RPM



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

MOTOR FRAME	A	B	C	D	E	PP	PVDF
IEC 56 w/B14	2-7/32" [ 5.6 cm ]	6-1/8" [15.2 cm]	11-3/4" [29.9 cm]	5-13/16" [16.5 cm]	2-25/32" [7.1cm]	3.7 [1.7]	4.05 [1.84]
IEC 63 w/B14	2-15/32" [6.3 cm]	6-5/16" [16 cm]	12-7/8" [32.7 cm]	6-1/2" [16.5 cm]	3-5/32" [8.0 cm]	3.7 [1.7]	4.05 [1.84]
IEC 71 w/B14	2-13/16" [7.1 cm]	7-7/16" [18.9 cm]	14-1/16" [35.8 cm]	6-15/16" [17.6 cm]	3-17/32" [9 cm]	3.9 [1.77]	4.35 [1.97]

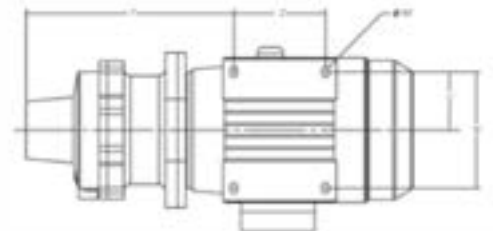
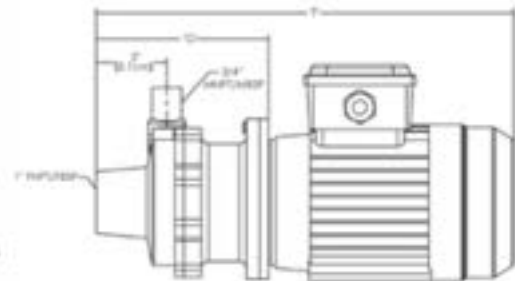
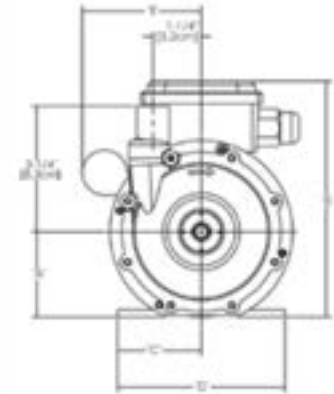
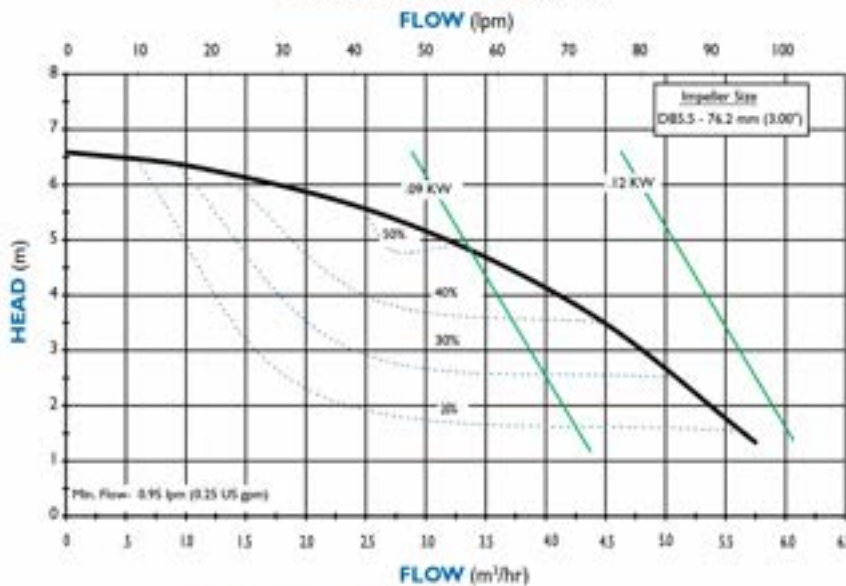
## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB3P-B-M614	Polypropylene	1"x1/2" BSPT	FKM (Viton) & Carbon	0.09-0.19kW 240V/415V
DB3V-B-M614	PVDF (Kynar)			
DB4P-B-M615	Polypropylene			
DB4V-B-M615	PVDF (Kynar)			
DB5P-B-M615	Polypropylene			
DB5V-B-M615	PVDF (Kynar)			





DB5.5 PERFORMANCE 2900 RPM



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

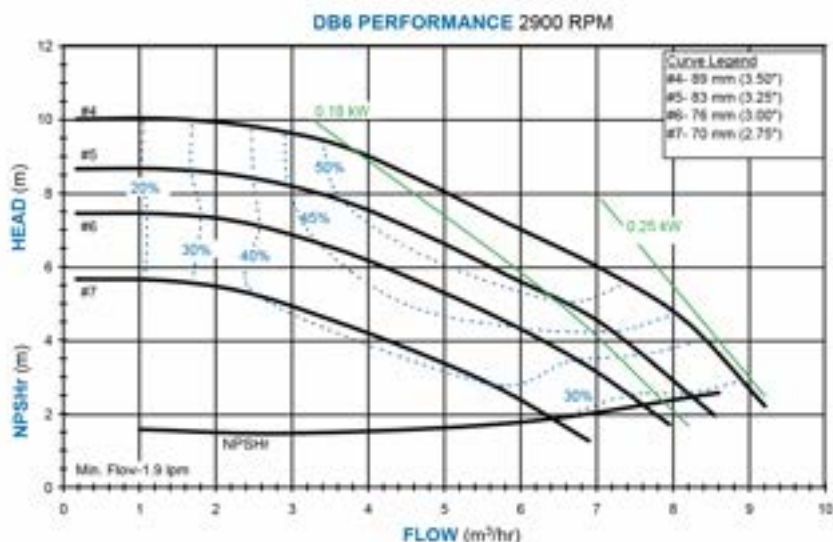
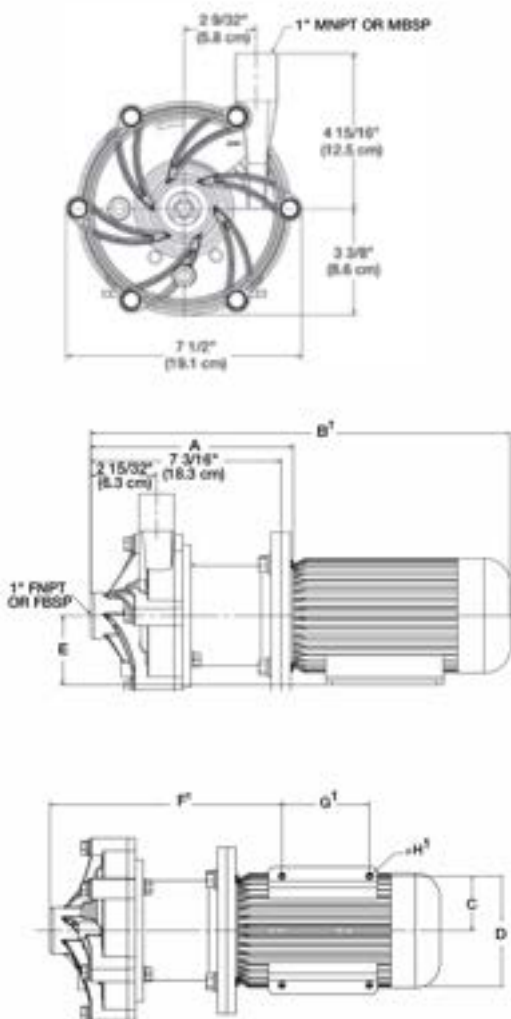
MOTOR FRAME	A	B	C	D	E	F	G	I	J	PP	PVDF
IEC 63 w/ B14	2-15/32" [6.3 cm]	6-5/16" [16 cm]	2-13/32" [6.1 cm]	4-13/16" [12.2 cm]	3-7/16" [8.7cm]	12-7/8" [32.7 cm]	4-7/8" [12.4 cm]	6-5/8" [16.9 cm]	3-5/32" [8 cm]	3.7 [1.7]	4.05 [1.84]
IEC 71 w/ B14	2-13/16" [7.1 cm]	7-7/16" [18.9 cm]	2-11/16" [6.9 cm]	5-13/32" [13.7 cm]	3-13/16" [9.7 cm]	14-1/16" [35.8 cm]	5-5/32" [13.1 cm]	6-15/16" [17.6 cm]	3-17/32" [9 cm]	3.9 [1.77]	4.35 [1.97]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB5.5P-B-M615	Polypropylene	1" x 1/4" BSPT	FKM (Viton) & Carbon	0.19-.37kW 240V/415V
DB5.5V-B-M615	PVDF			
DB5.5P-B-M617	Polypropylene			
DB5.5V-B-M617	PVDF			



# DB6



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

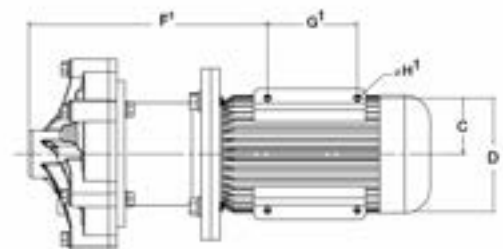
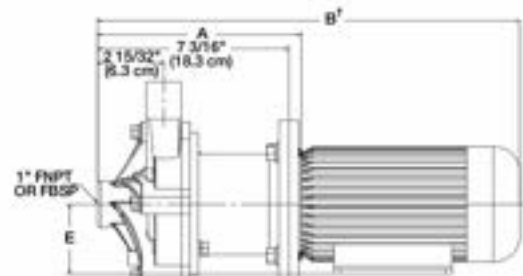
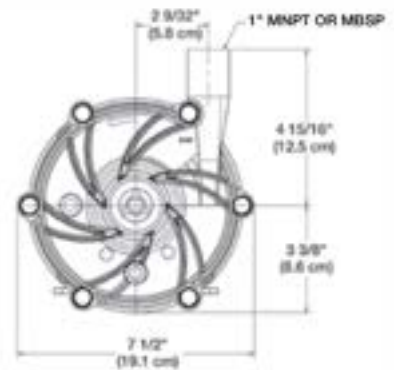
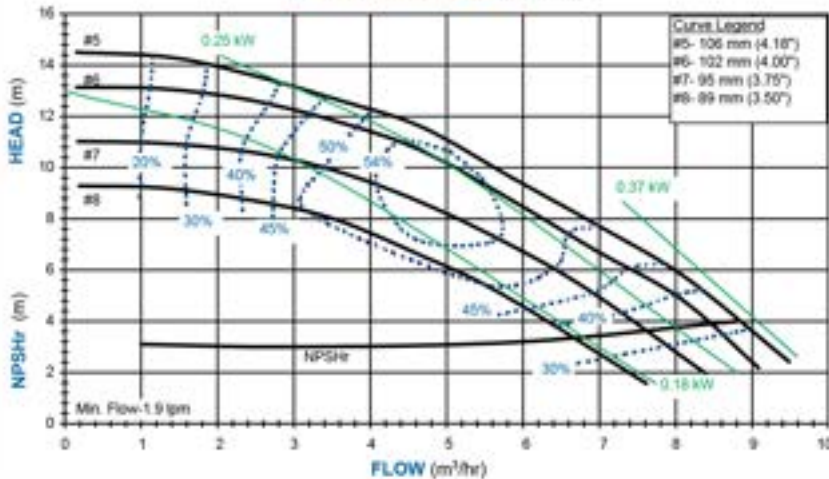
## Dimensions

MOTOR FRAME	A	B	C	D	E	PP	PVDF
NEMA 56C	7-3/16" [18.3 cm]	17-7/16" [44.3 cm]	2-7/16" [6.2 cm]	4-7/8" [12.4 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
NEMA 145TC	7-3/16" [18.3 cm]	17 15/16" [45.6 cm]	2-3/4" [7.0 cm]	5-1/2" [14.0 cm]	3-1/2" [8.9cm]	10.5 [4.8]	11.1 [5.0]
IEC 63 w/B14 or B5 flange	7-5/8" [19.4 cm]	14-7/8" [37.8 cm]	1-31/32" [5.0 cm]	3-15/16" [10.0 cm]	2-15/32" [6.3 cm]	14.0 [6.4]	15.0 [6.8]
IEC 71 w/B14 or B5 flange	7-5/8" [19.4 cm]	15-13/16" [40.2 cm]	2-7/32" [5.6 cm]	4-13/32" [11.2 cm]	2-25/32" [7.1 cm]	14.0 [6.4]	15.0 [6.8]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB6P	Polypropylene	1" x 1" BSPT OR 1" x 1" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.25-0.75kW 215V/415V
DB6V	PvDF			




**DB6H PERFORMANCE 2900 RPM**

**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

## Dimensions

MOTOR FRAME	A	B	C	D	E	PP	PVDF
NEMA 56C	7-3/16" [18.3 cm]	17-7/16" [44.3 cm]	2-7/16" [6.2 cm]	4-7/8" [12.4 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
NEMA 145TC	7-3/16" [18.3 cm]	17 15/16" [45.6 cm]	2-3/4" [7.0 cm]	5-1/2" [14.0 cm]	3-1/2" [8.9cm]	10.5 [4.8]	11.1 [5.0]
IEC 63 w/ B14 or B5 flange	7-5/8" [19.4 cm]	14-7/8" [37.8 cm]	1-31/32" [5.0 cm]	3-15/16" [10.0 cm]	2-15/32" [6.3 cm]	14.0 [6.4]	15.0 [6.8]
IEC 71 w/ B14 or B5 flange	7-5/8" [19.4 cm]	15-13/16" [40.2 cm]	2-7/32" [5.6 cm]	4-13/32" [11.2 cm]	2-25/32" [7.1 cm]	14.0 [6.4]	15.0 [6.8]

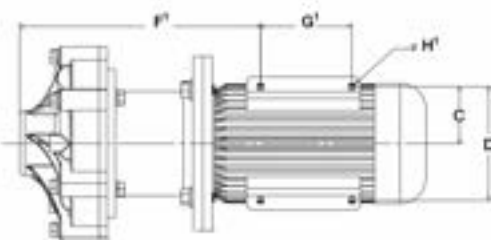
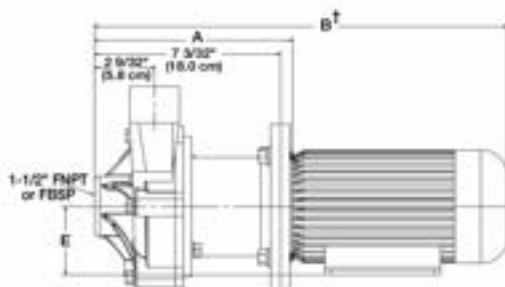
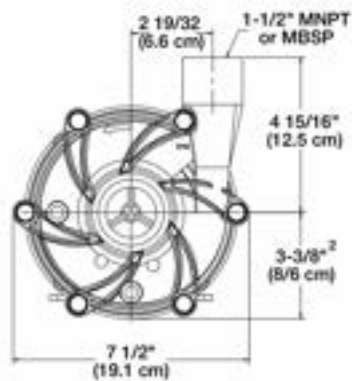
## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB6HP	Polypropylene	1" x 1" BSPT OR 1" x 1" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.25-0.75kW 215V/415V
DB6HV	PVDF			

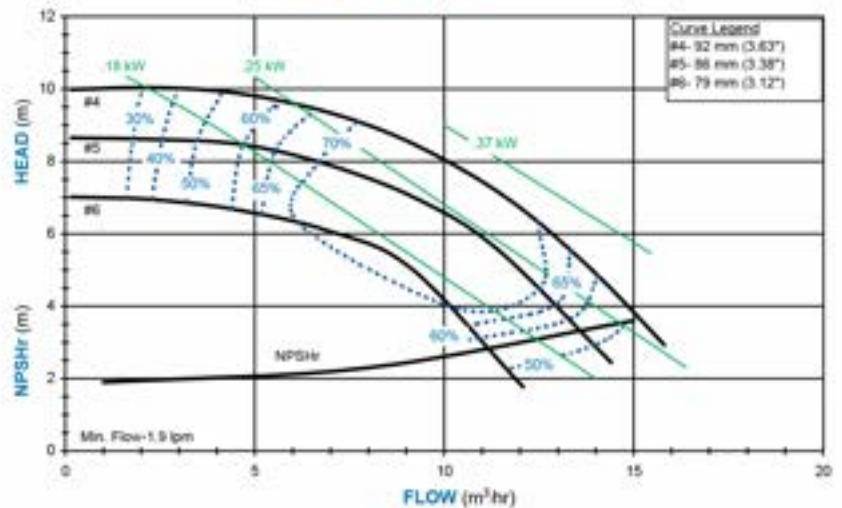


FINISH THOMPSON INC.

DB7



DB7 PERFORMANCE 2900 RPM



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

MOTOR FRAME	A	B	C	D	E	PP	PVDF
NEMA 56C	7-3/32" [18.0 cm]	17-11/32" [44.1 cm]	2-7/16" [6.2 cm]	4-7/8" [12.4 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
NEMA 145TC	7-3/32" [18.0 cm]	17-27/32" [45.3 cm]	2-3/4" [7.0 cm]	5-1/2" [14.0 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
IEC 63 w/B14 or B5 flange	7-17/32" [19.1 cm]	14-25/32" [37.5 cm]	1-31/32" [5.0 cm]	3-15/16" [10.0 cm]	2-15/32" [6.3 cm]	14 [6.4]	15.0 [6.8]
IEC 71 w/B14 or B5 flange	7-17/32" [19.1 cm]	15-23/32" [39.9 cm]	2-7/32" [5.6 cm]	4-13/32" [11.2 cm]	2-25/32" [7.1 cm]	14 [6.4]	15.0 [6.8]
IEC 80 w/B14 or B5 flange	7-23/32" [19.6 cm]	17-7/32" [43.7 cm]	2-15/32" [6.3 cm]	4-29/32" [12.5 cm]	3-5/32" [8.0 cm]	11 [5.0]	12.0 [5.4]
IEC 90 w/B14 or B5 flange	7-23/32" [19.6 cm]	17-7/32" [43.7 cm]	2-3/4" [7.0 cm]	5-1/2" [14.0 cm]	3-17/32" [9.0 cm]	11 [5.0]	17.0 [7.7]

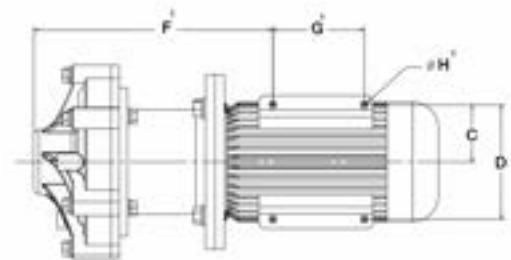
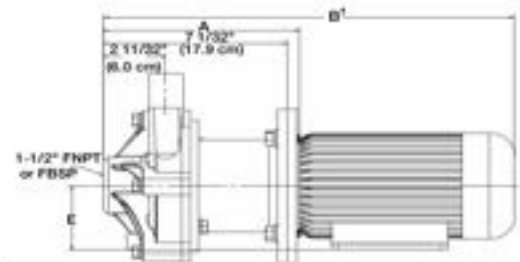
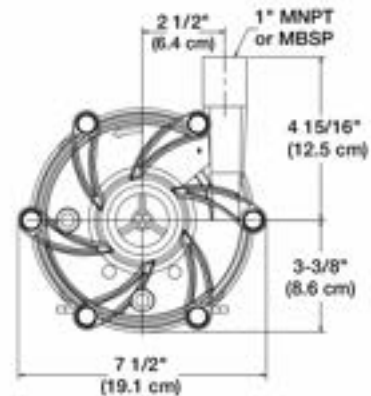
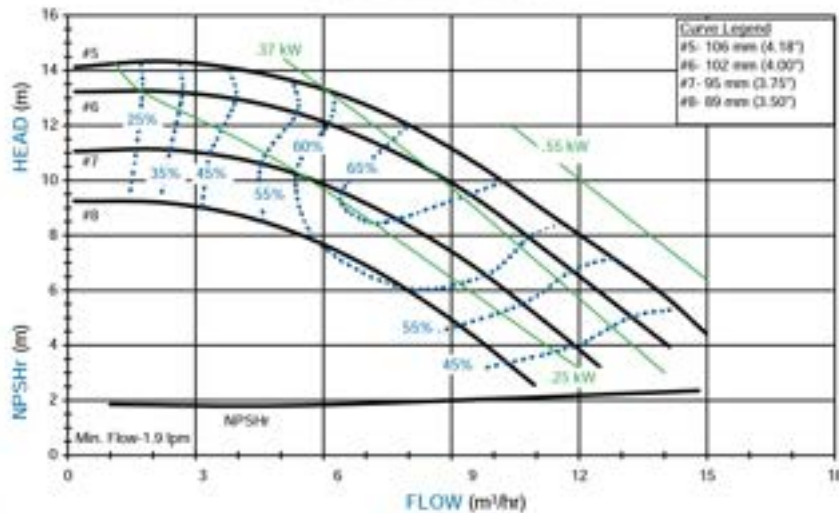
## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB7P	Polypropylene	1 1/2" x 1 1/2" BSPT OR 1 1/2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.37-0.75kW 215V/415V
DB7V	PVDF			





DB8 PERFORMANCE 2900 RPM



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

MOTOR FRAME	A	B	C	D	E	PP	PVDF
NEMA 56C	7-1/32" [17.9 cm]	17-9/32" [43.9 cm]	2-7/16" [6.2 cm]	4-7/8" [12.4 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
NEMA 145TC	7-1/32" [17.9 cm]	17-25/32" [45.2 cm]	2-3/4" [7.0 cm]	5-1/2" [14.0 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
IEC 63 w/B14 or B5 flange	7-15/32" [19.0 cm]	14-23/32" [37.4 cm]	1-31/32" [5.0 cm]	3-15/16" [10.0 cm]	2-15/32" [6.3 cm]	14 [6.4]	15.0 [6.8]
IEC 71 w/B14 or B5 flange	7-15/32" [19.0 cm]	15-21/32" [39.8 cm]	2-7/32" [5.6 cm]	4-13/32" [11.2 cm]	2-25/32" [7.1 cm]	14 [6.4]	15.0 [6.8]
IEC 80 w/B14 or B5 flange	7-21/32" [19.4 cm]	17-15/32" [43.6 cm]	2-15/32" [6.3 cm]	4-29/32" [12.5 cm]	3-5/32" [8.0 cm]	11 [5.0]	12.0 [5.4]

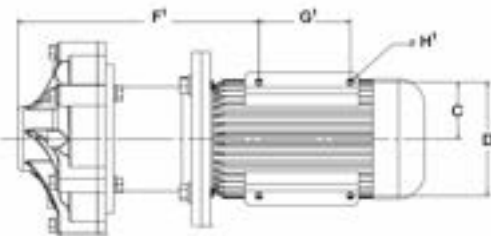
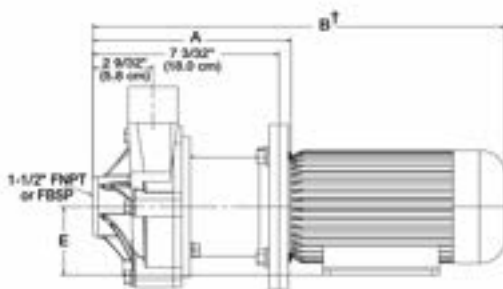
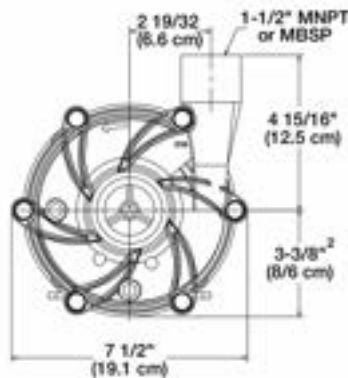
## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB8P	Polypropylene	1 1/2" x 1 1/2" BSPT OR 1 1/2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/Carbon	0.37-1.5kW 215V/415V
DB8V	PVDF			

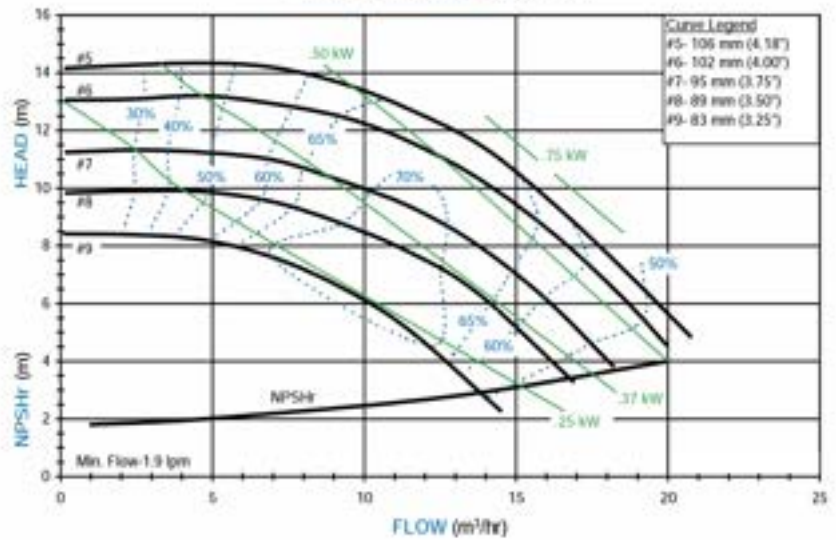


FINISH THOMPSON INC.

# DB10



DB10 PERFORMANCE 2900 RPM



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

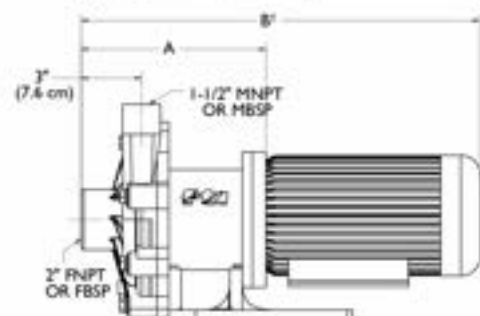
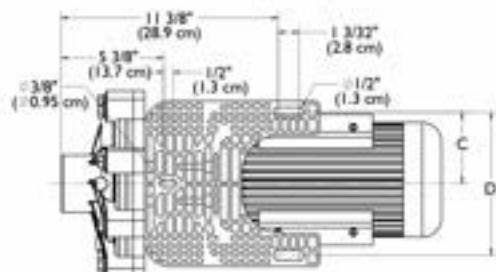
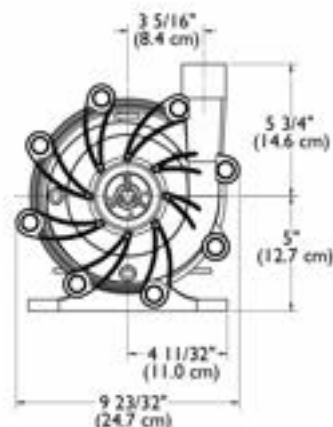
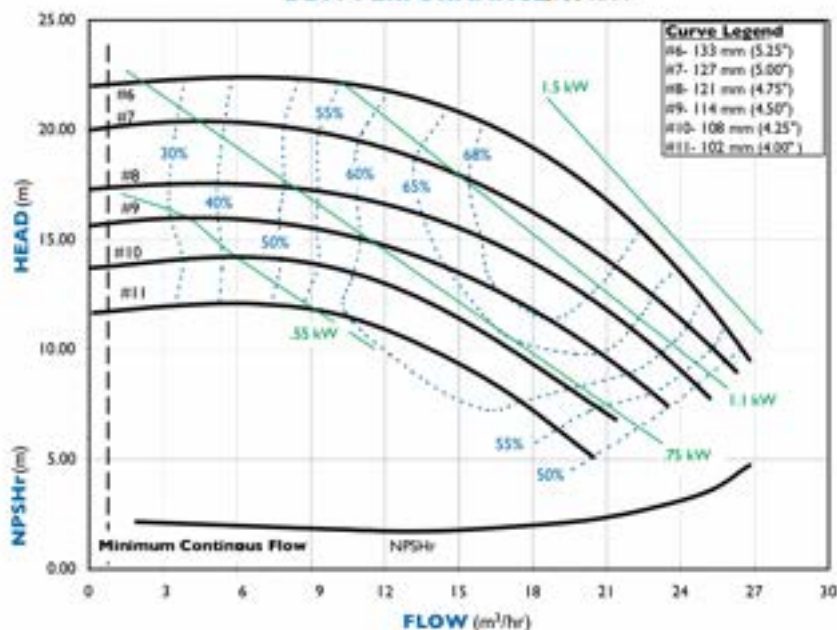
## Dimensions

MOTOR FRAME	A	B	C	D	E	PP	PVDF
NEMA 56C	7-3/32" [18.0 cm]	17-11/32" [44.1 cm]	2-7/16" [6.2 cm]	4-7/8" [12.4 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
NEMA 145TC	7-3/32" [18.0 cm]	17-27/32" [45.3 cm]	2-3/4" [7.0 cm]	5-1/2" [14.0 cm]	3-1/2" [8.9 cm]	10.5 [4.8]	11.1 [5.0]
IEC 63 w/B14 or B5 flange	7-17/32" [19.1 cm]	14-25/32" [37.5 cm]	1-31/32" [5.0 cm]	3-15/16" [10.0 cm]	2-15/32" [6.3 cm]	14.0 [6.4]	15.0 [6.8]
IEC 71 w/B14 or B5 flange	7-17/32" [19.1 cm]	15-23/32" [39.9 cm]	2-7/32" [5.6 cm]	4-13/32" [11.2 cm]	2-25/32" [7.1 cm]	14.0 [6.4]	15.0 [6.8]
IEC 80 w/B14 or B5 flange	7-23/32" [19.6 cm]	17-7/32" [43.7 cm]	2-15/32" [6.3 cm]	4-29/32" [12.5 cm]	3-5/32" [8.0 cm]	11.0 [5.0]	12.0 [5.4]
IEC 90 w/B14 or B5 flange	7-23/32" [19.6 cm]	17-7/32" [43.7 cm]	2-3/4" [7.0 cm]	5-1/2" [14.0 cm]	3-17/32" [9.0 cm]	11.0 [5.0]	12.0 [5.4]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB10OP	Polypropylene	1 1/2" x 1 1/2" BSPT OR 1 1/2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.55-2.2kW 240V/415V
DB10V	PVDF			




**DB11 PERFORMANCE @ 900 RPM**

**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

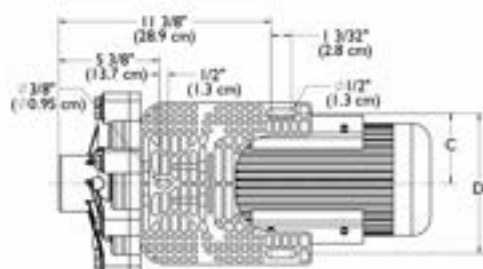
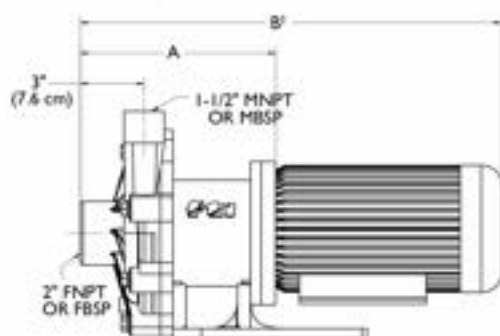
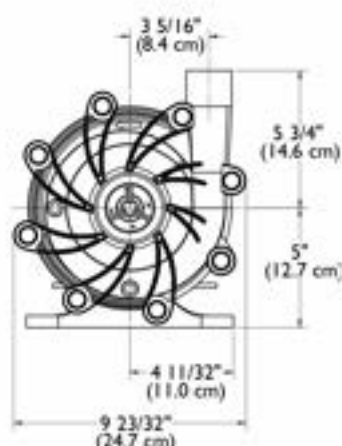
Call 1300 225 786 to discuss your requirements.

## Dimensions

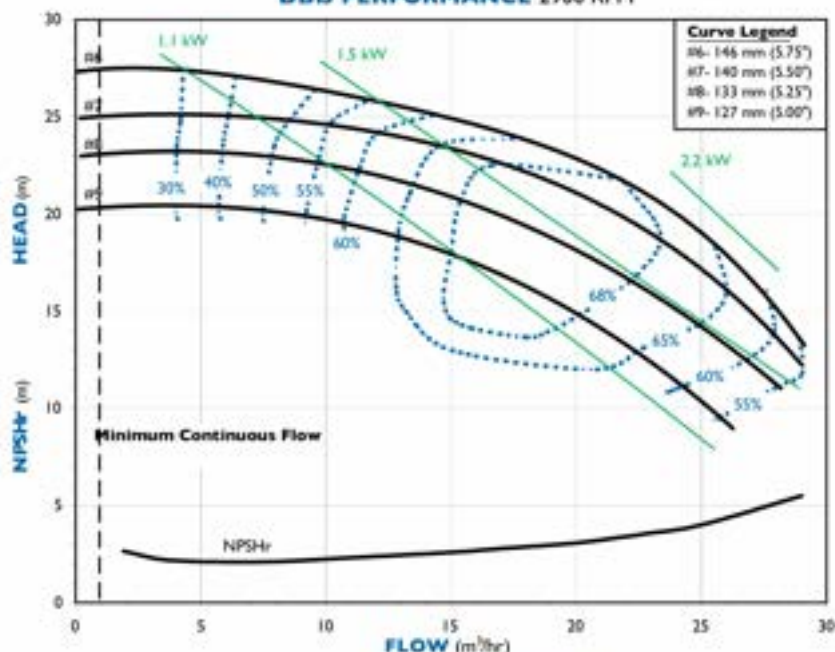
MOTOR FRAME	A	B	C	D	PP	PVDF
NEMA 56C	8-17/32" [21.7 cm]	20-17/32" [52.1 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	21.6 [9.8]	22.8 [10.3]
NEMA 145	8-17/32" [21.7 cm]	18-29/32" [48.0 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	21.6 [9.8]	22.8 [10.3]
NEMA 184	9-13/32" [23.9 cm]	22-6/32" [56.4 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.7 [11.7]	26.9 [12.2]
IEC 80/90 w/B14 or B5*	9-5/32" [23.3 cm]	19-11/16" [50.0 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	22.1 [10]	23.3 [10.6]
IEC 80/90 w/B14 ATEX	9-5/32" [23.3 cm]	19-7/8" [50.5 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	N/A	23.5 [10.7]
IEC 100 w/B14 or B5*	9-7/32" [23.4 cm]	21-3/8" [54.3 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	25.2 [11.4]	26.4 [12]
IEC 100 w/B14 ATEX	9-7/32" [23.4 cm]	21-3/8" [54.3 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	N/A	26.6 [12.1]
IEC 112 w/B14 or B5*	9-7/32" [23.4 cm]	21-7/8" [55.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.2 [11.4]	26.4 [12]
IEC 112 w/B14 ATEX	9-7/32" [23.4 cm]	21-7/8" [55.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	N/A	26.6 [12.1]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB11P	Polypropylene	2" x 1 1/2" BSPT OR 2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.55-3.0kW 240V/415V
DB11V	PVDF			



DB15 PERFORMANCE 2900 RPM



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

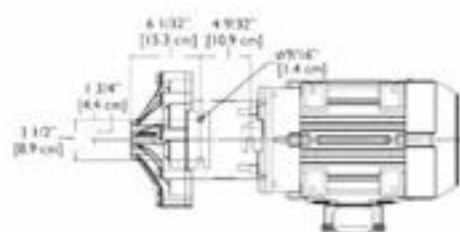
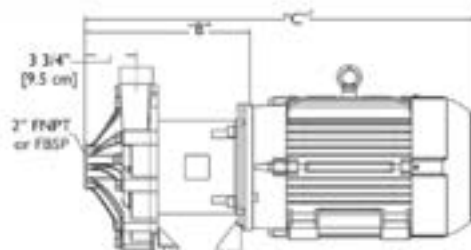
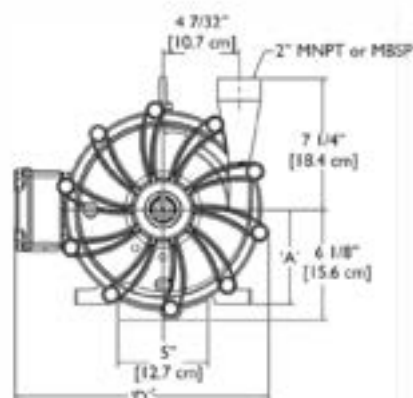
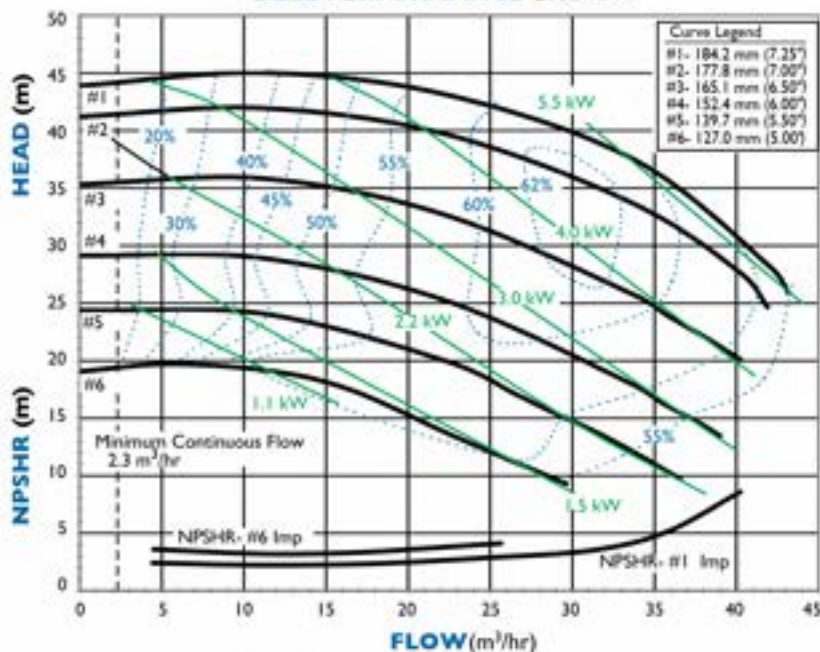
## Dimensions

MOTOR FRAME	A	B	C	D	PP	PVDF
NEMA 56C	8-17/32" [21.7 cm]	20-17/32" [52.1 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	21.6 [9.8]	22.8 [10.3]
NEMA 145	8-17/32" [21.7 cm]	18-29/32" [48.0 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	21.6 [9.8]	22.8 [10.3]
NEMA 184	9-13/32" [23.9 cm]	22-6/32" [56.4 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.7 [11.7]	26.9 [12.2]
IEC 80/90 w/B14 or B5*	9-5/32" [23.3 cm]	19-11/16" [50.0 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	22.1 [10]	23.3 [10.6]
IEC 80/90 w/B14 ATEX	9-5/32" [23.3 cm]	19-7/8" [50.5 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	N/A	23.5 [10.7]
IEC 100 w/B14 or B5*	9-7/32" [23.4 cm]	21-3/8" [54.3 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	25.2 [11.4]	26.4 [12]
IEC 100 w/B14 ATEX	9-7/32" [23.4 cm]	21-3/8" [54.3 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	N/A	26.6 [12.1]
IEC 112 w/B14 or B5*	9-7/32" [23.4 cm]	21-7/8" [55.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.2 [11.4]	26.4 [12]
IEC 112 w/B14 ATEX	9-7/32" [23.4 cm]	21-7/8" [55.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	N/A	26.6 [12.1]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB15P	Polypropylene	2" x 1 1/2" BSPT OR 2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	1.1 - 4.0kW 240V/415V
DB15V	PVDF			




**DB22 PERFORMANCE 2900 RPM**


**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

MOTOR FRAME	A	B	C	D	PP	PVDF
NEMA 184TC	4-1/2" [11.4 cm]	11-13/32" [29.0 cm]	26-7/16" [67.2 cm]	12-15/32" [31.7 cm]	40 [18.1]	44 [20.0]
NEMA 213/215TC	5-1/4" [13.3 cm]	12" [30.5 cm]	28-5/16" [71.9 cm]	14-1/32" [35.7 cm]	45 [20.4]	49 [22.2]
IEC 90 w/B14 or B5	3-17/32" [9.0 cm]	12-5/16" [31.2 cm]	23-5/16" [59.2 cm]	11-11/16" [29.7 cm]	48 [21.8]	52 [23.6]
IEC 100 w/B14 or B5	3-15/16" [10.0 cm]	12-5/16" [31.2 cm]	24-23/32" [62.8 cm]	12-1/8" [30.8 cm]	48 [21.8]	52 [23.6]
IEC 112 w/B14 or B5	4-13/32" [11.2 cm]	12-5/16" [31.2 cm]	25-15/32" [64.7 cm]	12-1/8" [30.8 cm]	48 [21.8]	52 [23.6]
IEC 132 w/B14 or B5	5-3/16" [13.0 cm]	12-3/8" [31.4 cm]	28-15/32" [72.3 cm]	14-3/16" [36.0 cm]	51 [23.1]	55 [24.9]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
DB22P	Polypropylene	2" x 2" BSPT OR 2" x 2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	1.5-11kW 240/415V
DB22V	PVDF			



FINISH THOMPSON INC.

## SP SERIES

Big on power yet short on energy consumption, the SP Series from Finish Thompson is one of the most versatile and economical centrifugal pumps on the market.

Backed by an industry best five-year warranty, it's also one of the most reliable. The exclusive SP series combines deep-lift capabilities (up to 25 feet/7.6 metres) and lightning fast priming (18 feet/5.5 metres in 90 seconds) with the advantages of magnetic drive technology, ensuring ease of operation with no seal replacement, no leaks and the capability to run-dry without damage. What's more, its innovative design and corrosion-resistant materials make the SP Series ideal for handling even the most difficult applications.

### Principles of Self-Priming



1. During pump installation, the priming housing is filled through the fill port.



2. As priming begins, air in the suction piping mixed with liquid in the priming chamber forms a vacuum in the inner volute. As they separate, the air rises out of the discharge piping while the liquid returns to the priming chamber.



3. The circulation process continues until liquid replaces all the air in the suction piping, beginning the pumping process.



4. When the pump is shut off, the priming chamber's gooseneck design ensures that enough liquid is retained for efficient re-priming.

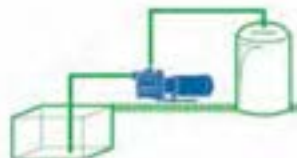
### Applications



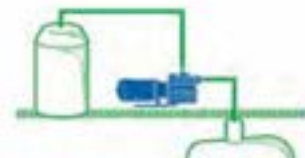
1. Transfer from top of rail cars or tanker trucks to bulk storage.



2. Transfer from bulk storage to process or day tanks.

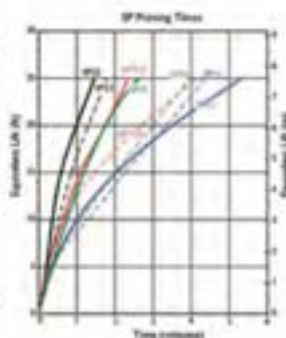
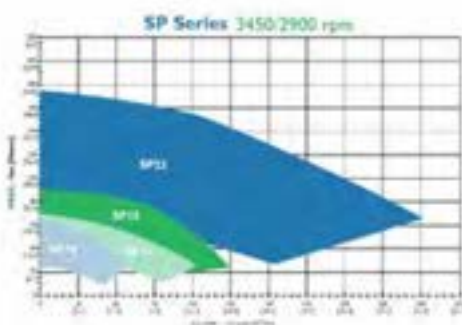


3. Pump from underground sumps or pits to treatment tanks.



4. Pump from underground storage tanks to process or day tanks.

### SP Series Performance Details



#### SP SERIES CHARACTERISTICS

PUMP MODEL	SP10	SP11	SP15	SP22
KW	0.15 - 0.63	0.75 - 3	1.1 - 4	1.5 - 5.5
IMP DIA (MM)	76, 83, 89, 95, 102, 106	10.8, 11.4, 12.1, 12.7, 13.3	12.7, 13.3, 14, 14.6	12.7, 14, 15.2, 16.5, 17.8
INLET X OUTLET (IN.)	1" X 1"	1 1/2" X 1 1/2"	1 1/2" X 1 1/2"	2" X 2"
MAX FLOW @ 2900RPM (M3/HR)	12.2	24	26	48
MAX DISCHARGE PRESSURE @2900RPM (M)	13.6	17	23	38
MAX PRIMING (MINS @ M)	4mins @ 7.6m	4mins-18secs @ 7.6m	4mins-45secs @ 7.6m	1min-45secs @ 7.6m
MAX S.G.	1.8	1.8	1.8	1.8



## SP SERIES


**1. Thermoplastic Priming Chamber**

Functions as a fluid reservoir and features moulded-in "gooseneck" suction passage eliminating the need for internal check valves. Integral fill and drain ports are standard. Available in GF-PP or CF-PVDF for optimal corrosion resistance.

**2. O-ring**

Creates airtight seal between the inner volute and the "gooseneck" suction passage. Helps the pump maintain the vacuum required for proper priming.

**3. Multiple Connections**

NPT or BSP threads, raised face adjustable flanges or union.

**4. Separator Plate**

Acts as a barrier between the low velocity fluid reservoir and the high velocity area in the rear of the priming chamber. Openings allow liquid to flow to the impeller and discharge the air/liquid mixture created during priming back into the fluid reservoir.

**5. Inner Volute**

Houses the rotating impeller. Special design allows air to be efficiently removed from the suction passages for fast priming.

**6. Multiple Impeller Diameters**

Allows hydraulic requirements to be precisely met. Two piece impeller design allows impeller to be changed without having to replace inner drive.

**7. Run Dry System**

The SP can run dry without damage when equipped with a chemical grade carbon bushing in optimum operating conditions. This helps protect the pump from operator errors and system upsets.

**8. Easy Set Outer Drive**

Measurement-free outer drive ensures optimum magnet alignment and easy motor installation.

## Capabilities

- Retains fluid for re-priming when shut off without a check valve.
- Runs without damage in absence of continuous flow.
- Provides up to 25 feet (7.6 metres) of lift
- Primes up to 18 feet (5.5 metres) in 90 seconds
- High working pressure up to 90 psi (6.2 bar)
- High specific gravity handling over 1.8
- Maximum Temperature:  
Polypropylene - 180°F (82°C);  
PVDF - 220°F (104°C)

## Features

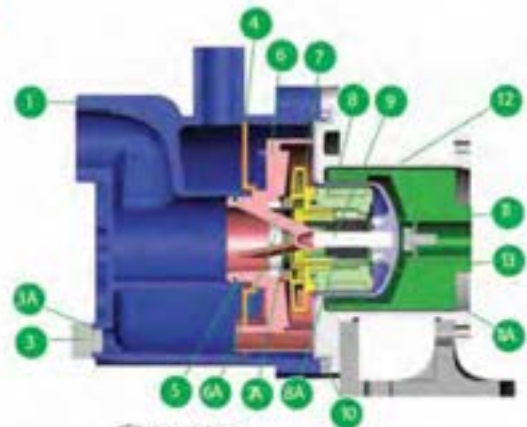
- Five year warranty
- Polypropylene or PVDF construction
- Sealless mag drive
- Powerful neodymium magnets
- Close-coupled with back pullout design
- Mounts to NEMA and IEC motor frames
- Replaceable shaft
- ISO 1940 G2.5 balancing
- CE Certified

## Applications

- Sumps
- Underground storage tanks
- Rail Cars
- Tanker trucks
- Over-the-wall applications
- Tanks with an opening on top
- Piping systems that tend to have trapped or entrained air
- When run dry protection is needed



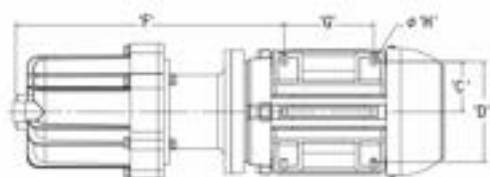
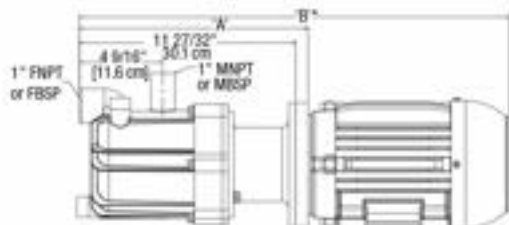
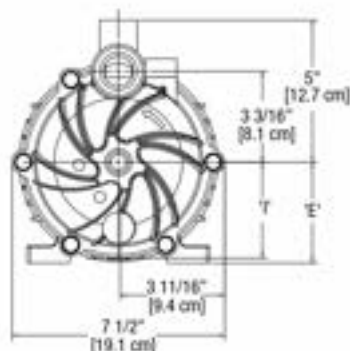
DESCRIPTION	POLYPROPYLENE MODELS	PVDF MODELS
1 Housing	Glass fibre reinforced polypropylene	Carbon fibre reinforced PVDF
4 Separator plate		
6 Inner volute		
7 Impeller		
3A O-ring options	FKM, EPDM	
10 Fill and drain plugs*	Polypropylene	PVDF
6A Inner volute thrust ring options	High purity alumina ceramic, silicon carbide	
7A Impeller thrust washer options	Molybdenum disulphide filled PTFE, silicon carbide	
8 Inner drive	Neodymium iron boron magnets encapsulated in unfilled polypropylene	Neodymium iron boron magnets encapsulated in unfilled PVDF
8A Bushing Options	Carbon, PTFE, high purity alumina ceramic, silicon carbide.	
9 Shaft options	High purity alumina ceramic, Hastelloy® C, silicon carbide	
11 Barrier	Glass-fibre reinforced polypropylene	Carbon-fibre reinforced PVDF
11A Barrier thrust ring	High purity alumina ceramic	
12 Motor adapter	Ductile iron or glass reinforced polypropylene	
13 Outer drive magnets	Nickel plated neodymium iron boron magnets/ steel.	



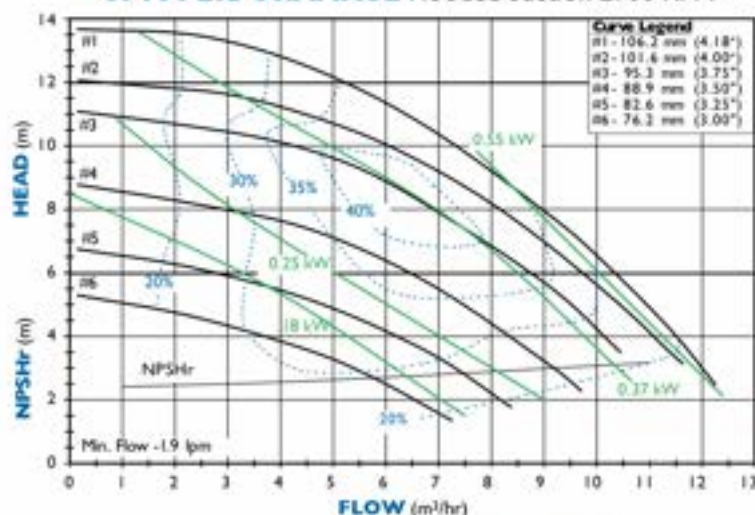
\*Fill plug not shown



# SP10



**SPI0 PERFORMANCE** Flooded Suction 2900 RPM\*



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

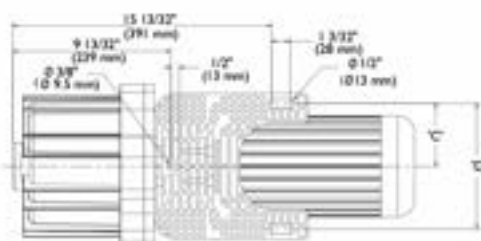
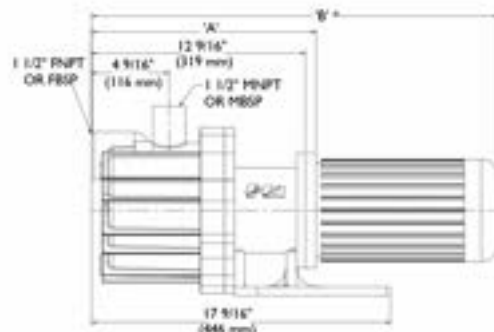
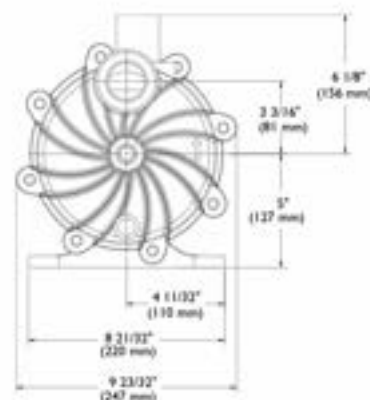
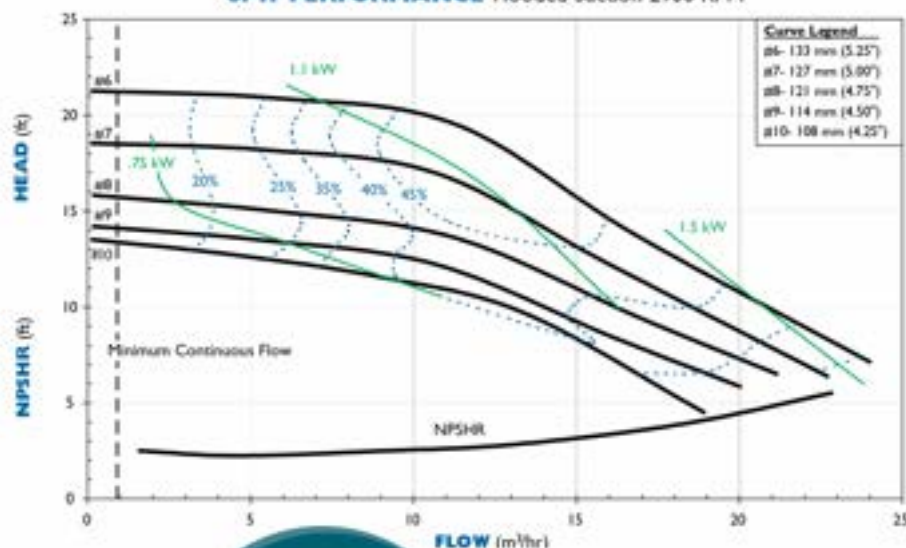
## Dimensions

FRAME SIZE	A	B	C	D	E	F	G	H	I	PUMP WT - LBS (KG)	MOTOR WT - LBS (KG)
NEMA 56C	11-27/32" (30.1 cm)	22-3/32" (56.1 cm)	2-7/16" (6.2 cm)	4-7/8" (12.4 cm)	3-1/2" (8.9 cm)	14-19/32" (37.1 cm)	3" (7.6 cm)	11/32" (0.9 cm)	3-3/8" (8.6 cm)	13 (5.9)	28 (12.7)
NEMA 145TC	11-27/32" (30.1 cm)	23-1/16" (58.6 cm)	2-3/4" (7.0 cm)	5-1/2" (14.0 cm)	3-1/2" (8.9 cm)	14-7/32" (36.1 cm)	5" (12.7 cm)	11/32" (0.9 cm)	3-3/8" (8.6 cm)	13 (5.9)	32 (14.5)
IEC63 B14/ B5	12-3/16" (31.0 cm)	18-31/32" (48.2 cm)	1-31/32" (5.0 cm)	3-15/16" (10.0 cm)	2-15/32" (6.3 cm)	13-5/16" (33.8 cm)	3-5/32" (8.0 cm)	9/32" (0.7 cm)	3-3/8" (8.6 cm)	16.5 (7.5)	17 (7.7)
IEC71 B14/ B5	12-3/16" (31.0 cm)	20-1/2" (52.0 cm)	2-7/32" (5.6 cm)	4-13/32" (11.2 cm)	2-25/32" (7.1 cm)	14-1/16" (35.7 cm)	3-17/32" (9.0 cm)	9/32" (0.7 cm)	3-3/8" (8.6 cm)	16.5 (7.5)	22 (10.0)
IEC80 B14/ B5	12-17/32" (31.8 cm)	21-3/4" (55.2 cm)	2-15/32" (6.3 cm)	4-29/32" (12.5 cm)	3-5/32" (8.0 cm)	14-7/16" (36.7 cm)	3-15/16" (10.0 cm)	13/32" (1.0 cm)	3-15/16" (10.0 cm)	19 (8.6)	37.5 (17.0)
IEC90 B14/B5	12-17/32" (31.8 cm)	23-17/32" (59.8 cm)	2-3/4" (7.0 cm)	5-1/2" (14.0 cm)	3-17/32" (9.0 cm)	14-23/32" (37.4 cm)	3-15/16" (10.0 cm)	13/32" (1.0 cm)	3-15/16" (10.0 cm)	19 (8.6)	37.5 (17.0)

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
SP10P	Polypropylene	1" x 1" BSPT OR 1" x 1" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.37-1.1kW 240V/415V
DB10V	PVDF			




**SPII PERFORMANCE** Flooded Suction 2900 RPM\*

**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

## Dimensions

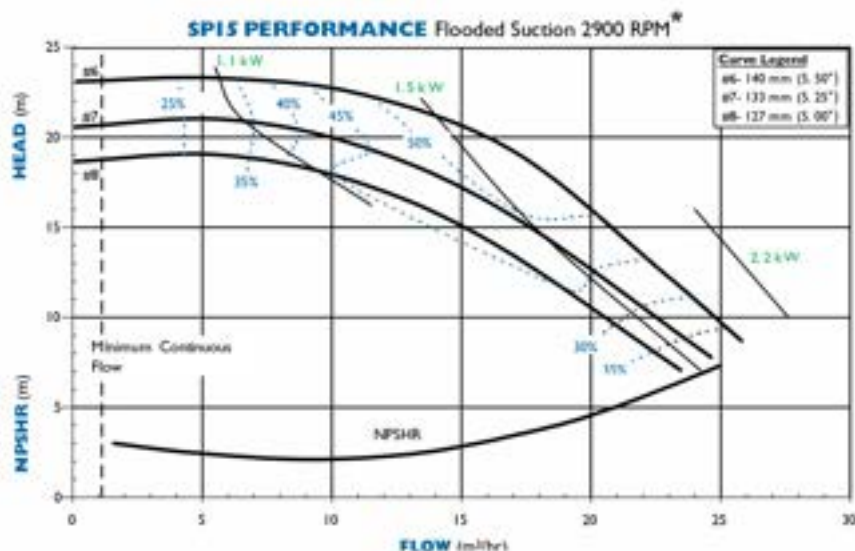
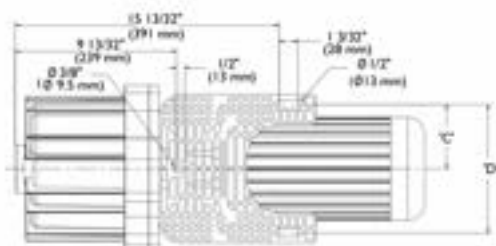
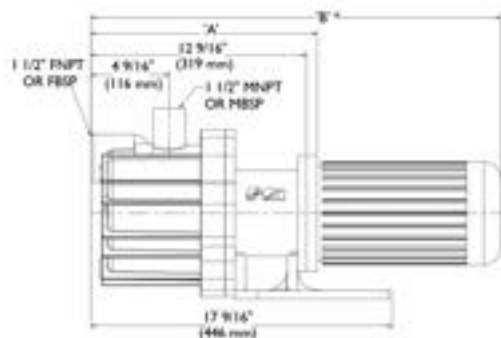
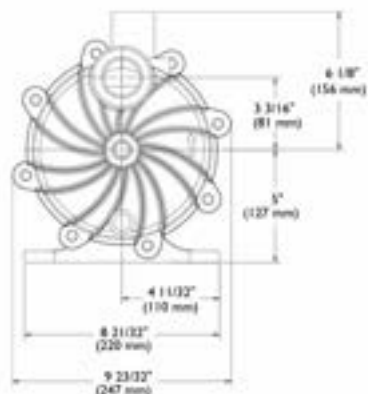
FRAME SIZE	A	B	C	D	PP	PVDF
NEMA 56C	12-9/16" [31.9 cm]	24-9/16" [62.4 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25 [11.3]	30 [13.6]
NEMA 145	12-9/16" [31.9 cm]	23-5/16" [59.2 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25 [11.3]	30 [13.6]
NEMA 184TC	13-7/16" [31.4 cm]	25-11/16" [66.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	26 [11.8]	31 [14.1]
IEC 80/90 w/B14 or B5	13-3/16" [33.5 cm]	23-7/8" [60.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.5 [11.6]	30.5 [13.8]
IEC 100 w/B14	13-1/4" [33.7 cm]	25-13/32" [64.5 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	25.5 [11.6]	30.5 [13.8]
IEC 112 w/B14	13-1/4" [33.7 cm]	25-29/32" [65.8 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.5 [11.6]	30.5 [13.8]
IEC 100 w/B5	13-1/4" [33.7 cm]	25-25/32" [65.5 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	31.5 [14.3]	36.5 [16.6]
IEC112 w/B5	13-1/4" [33.7 cm]	26-5/8" [67.6 cm]	3-3/4" [9.5 cm]	6-10/32" [16.0 cm]	31.5 [14.3]	36.5 [16.6]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
SP11B	Polypropylene	1 1/2" x 1 1/2" BSPT OR 1 1/2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.55-2.2kW 240V/415V
SP11V	PVDF			



# SP15



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

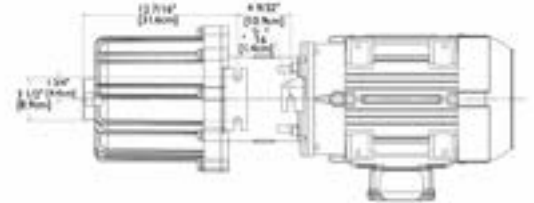
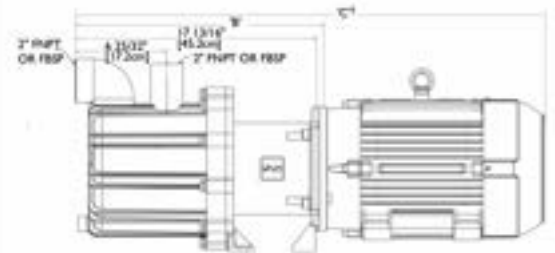
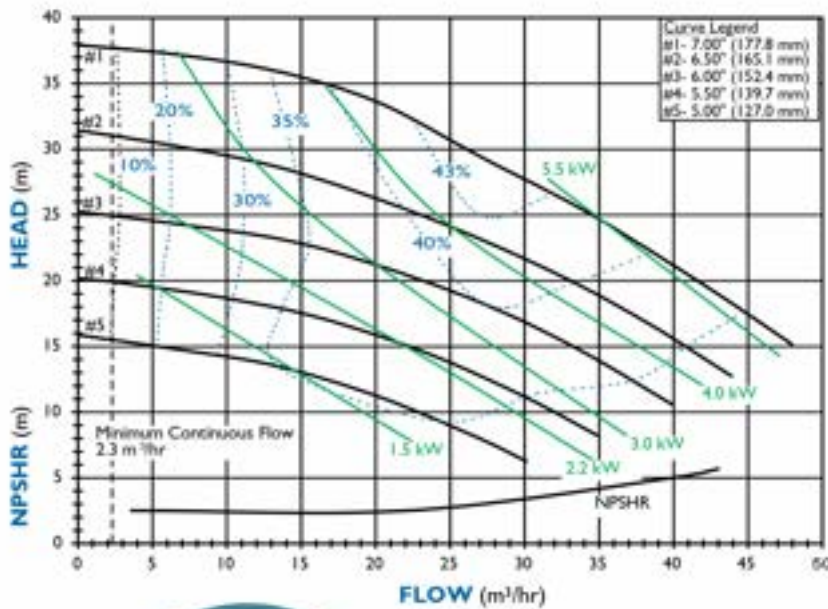
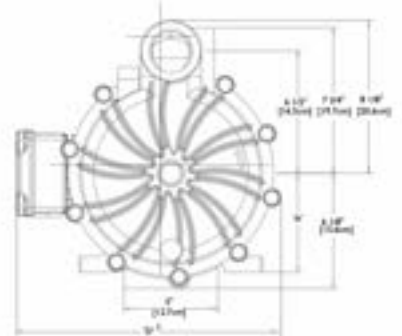
FRAME SIZE	A	B	C	D	PP	PVDF
NEMA 56c	12-9/16" [31.9 cm]	24-9/16" [62.4 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25 [11.3]	30 [13.6]
NEMA 145	12-9/16" [31.9 cm]	23-5/16" [59.2 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25 [11.3]	30 [13.6]
NEMA 184TC	13-7/16" [31.4 cm]	25-11/16" [66.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	26 [11.8]	31 [14.1]
IEC 80/90 w/B14 or B5	13-3/16" [33.5 cm]	23-7/8" [60.6 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.5 [11.6]	30.5 [13/8]
IEC 100 w/B14	13-1/4" [33.7 cm]	25-13/32" [64.5 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	25.5 [11.6]	30.5 [13.8]
IEC 112 w/B14	13-1/4" [33.7 cm]	25-29/32" [65.8 cm]	3-3/4" [9.5 cm]	7-1/2" [19.1 cm]	25.5 [11.6]	30.5 [13.8]
IEC 100 w/B5	13-1/4" [33.7 cm]	25-25/32" [65.5 cm]	3-5/32" [8.0 cm]	6-10/32" [16.0 cm]	31.5 [14.3]	36.5 [16.6]
IEC112 w/B5	13-1/4" [33.7 cm]	26-5/8" [67.6 cm]	3-3/4" [9.5 cm]	6-10/32" [16.0 cm]	31.5 [14.3]	36.5 [16.6]

## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
SP15P	Polypropylene	1 1/2" x 1 1/2" BSPT OR 1 1/2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	0.75-3.0kW 240V/415V
SP15V	PVDF			



SP22



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

FRAME SIZE	A	B	C	D	PP	PVDF
NEMA 184TC	4-1/2" [11.4 cm]	17-13/16" [45.2 cm]	31-1/16" [78.9 cm]	12-15/32" [31.7 cm]	46 [20.9]	52 [23.6]
NEMA 213/215	5-1/4" [13.3 cm]	18-11/32" [46.6 cm]	34-11/16" [88.1 cm]	14-1/32" [35.7 cm]	51 [23.1]	57 [25.9]
IEC 90 w/B14 or B5	3-17/32" [9.0 cm]	18-11/16" [47.5 cm]	29-11/16" [75.4 cm]	11-11/16" [29.7 cm]	54 [29.7]	60 [27.2]
IEC 100 w/B14 or B5	3-15/16" [10.0 cm]	18-11/16" [47.5 cm]	31-1/8" [79.1 cm]	12-1/8" [30.8 cm]	54 [24.5]	60 [27.2]
IEC 112 w/B14 or B5	4-13/32" [11.2 cm]	18-11/16" [47.5 cm]	31-7/8" [81.0 cm]	12-1/8" [30.8 cm]	54 [24.5]	60 [27.2]
IEC 132 w/ B14 or B5	5-3/16" [13.0 cm]	18-3/4" [47.6 cm]	34-27/32" [88.5 cm]	14-3/16" [36.0 cm]	57 [25.9]	63 [28.6]

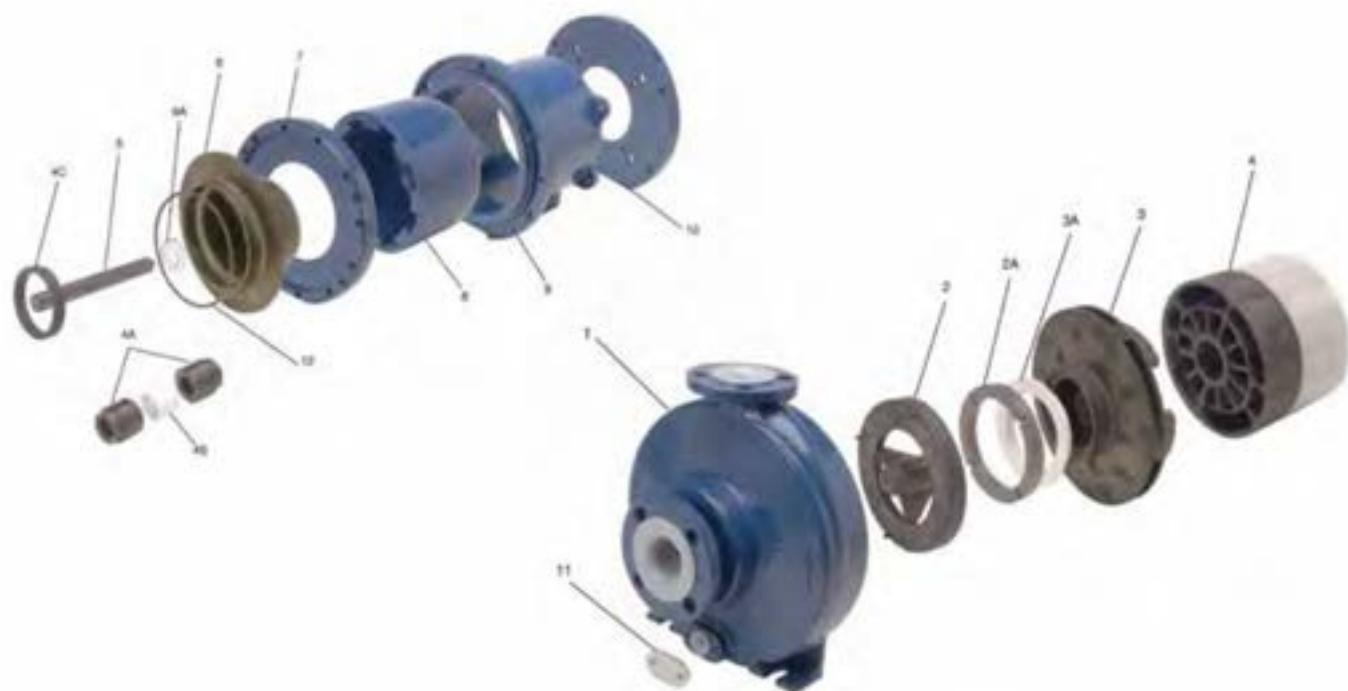
## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	O-RINGS & BUSHINGS	MOTOR SPECIFICATIONS
SP22P-B-CED1.552P	Polypropylene	1 1/2" x 1 1/2" BSPT OR 1 1/2" x 1 1/2" Flange (Steel reinforced)	FKM (Viton)/ Carbon	2.2-7.5kW 240V/415V
SP22V-Fs-CED5.5T2P	PVDF			



FINISH THOMPSON INC.

## UC SERIES

**Casing (1, 2, 2A, 11)**

High strength ductile iron bonded with pure Tefzel® for exceptional corrosion resistance. ANSI dimensional design with self-venting top centre line discharge. Premium alpha sintered silicon carbide thrust washer and replaceable carbon-filled ETFE shaft support with integral straightening vanes help prevent pre-rotation in the suction and enhance low flow operation.

**Impeller and Internal Drive (3, 3A, 4, 4C)**

Enclosed impeller is injection moulded from carbon fibre reinforced ETFE for superior chemical resistance and strength. Versatile lock-fit design allows removal of the impeller from the internal drive for lower maintenance costs. Rare earth magnets are encapsulated in pure ETFE for added protection against the most aggressive chemicals. The thrust balance system utilizes generous balance holes and a replaceable rear sealing ring with the same diameter as the impeller thrust ring to balance axial thrust. A replaceable Fluorosint® impeller thrust ring provides exceptional wear characteristics at all flows (also available in optional alpha sintered silicon carbide).

**Magnets (4, 8)**

High strength, rare earth neodymium iron boron magnets transmit maximum power up to 250°F (121°C). FTI's unique technology ensures an extraordinarily strong, secure coupling between the motor and pump. Sealless design virtually eliminates maintenance and environmental emissions.

**Barrier (6, 6A, 12)**

A precision moulded, carbon-filled ETFE liner and external containment shell of woven glass-reinforced vinyl ester make up the barrier assembly, providing optimum chemical and pressure resistance. The nonmetallic design eliminates energy losses due to eddy currents from the magnetic coupling. The barrier contains a high purity ceramic rear thrust ring for maximum durability. A fully contained O-ring provides a leak-proof seal.

**Drive Assembly, Motor Adapter, Motor Adapter Flange (8, 9, 10)**

Drive assembly and motor adapter are made of high strength ductile iron for added mechanical strength and stiffness. The outer drive is dynamically balanced to ensure smooth operation and reliability. Easy set outer drive feature ensures optimum magnet alignment and easy motor installation. The motor adapter is designed to slide over the outer drive magnet for easy maintenance. An optional bronze bump ring is added to the motor adapter for explosion-proof environments and in ATEX certified models. A machined steel motor adapter flange allows the pump to be mounted to a wide array of NEMA and IEC motors.



### Dual Bushings (4A, 4B)

Replaceable alpha sintered silicon carbide bushings ride evenly on the shaft and distribute radial loading over the entire length of the shaft. The self-aligning design eliminates premature wear caused by bushing misalignment. Internal spiral grooves help flush and lubricate the shaft during operation. A pure PTFE spacer separates the bushings. Optional carbon or dri-coat alpha sintered silicon carbide bushings allows run dry capability.

### Shaft (5)

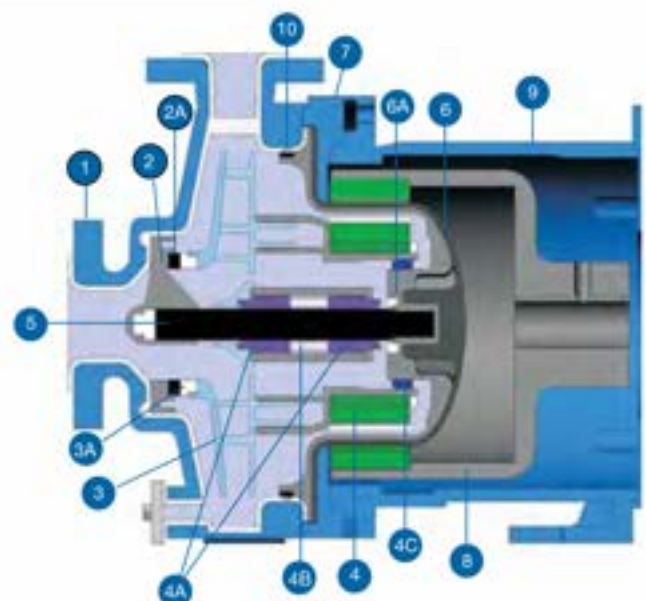
A replaceable premium alpha sintered silicon carbide or dri-coat alpha sintered silicon carbide shaft is shaped to minimise stress concentrations. Shaft is fully supported on both ends for maximum strength.

### Clamp Ring (7)

A machined steel clamp ring provides a precise fit between barrier and casing to minimise barrier stress and deflection under pressure for maximum operating reliability. It separates the liquid end from the motor allowing the motor to be removed without opening the liquid end.

ITEM	DESCRIPTION	CONSTRUCTION FEATURES
1	Casing	Cast ductile iron lined with DuPont Tefzel
2	Shaft Support	Carbon-filled EFTE
2A	Front thrust ring	Alpha sintered silicon carbide
3	Impeller Assembly	Enclosed impeller injection moulded from carbon fibre reinforced EFTE
3A	Impeller Thrust Ring	Fluorosint (Alpha sintered silicon carbide optional)
4	Impeller Drive Hub	Carbon fibre-filled EFTE with neodymium iron boron magnets encapsulated in pure EFTE
4A	Bushings & Spacer	Alpha sintered silicon carbide bushing with PTFE Spacer (Carbon bushing or dri-coat alpha sintered silicon carbide bushing optional)
4C	Rear Sealing Shaft	Molybdenum disulfide filled PTFE
5	Shaft	Replaceable alpha sintered silicon carbide (Dri-coat alpha sintered silicon carbide optional)
6	Barrier	Moulded carbon fibre-filled EFTE liner with woven glass-reinforced vinyl ester external shell
6A	Rear Thrust Ring	High purity ceramic
7	Clamp Ring	Steel
8	Drive Assembly	Nickel-plated neodymium iron boron magnets/heavy duty ductile iron
9	Motor Adapter	Heavy duty ductile iron
10	Motor Adapter Flange	Steel
11	Drain Plug	304 stainless steel/Gylon gasket
12	O-ring	FKM, EPDM, Kalrez, Simriz

ITEM	DESCRIPTION	CONSTRUCTION FEATURES
1	Casing	Cast ductile iron, DuPont Tefzel® (ETFE) lined
2	Shaft support	Carbon fibre filled ETFE
2A	Front thrust ring	Alpha sintered silicon carbide
3	Impeller	Carbon fibre filled ETFE
3A	Impeller thrust washer	Fluorosint®, alpha sintered silicon carbide optional
4	Inner drive	Neodymium iron boron magnets encapsulated in pure ETFE
4A	Bushing options	Alpha sintered silicon carbide, carbon
4B	Bushing spacer	PTFE
4C	Rear sealing ring	Molybdenum disulfide-filled PTFE
5	Shaft	Alpha sintered silicon carbide
6	Barrier	Moulded carbon fibre filled ETFE liner with woven glass reinforced vinyl ester external shell
6A	Barrier thrust ring	High purity alumina ceramic
7	Clamp ring	Steel
8	Outer drive magnet	Nickel-plated neodymium iron boron magnets/steel
9	Motor adapter	Ductile iron
10	O-ring options	FKM, EPDM, Kalrez®, Simriz®





FINISH THOMPSON INC.

## UC SERIES

## Ultra Reliable

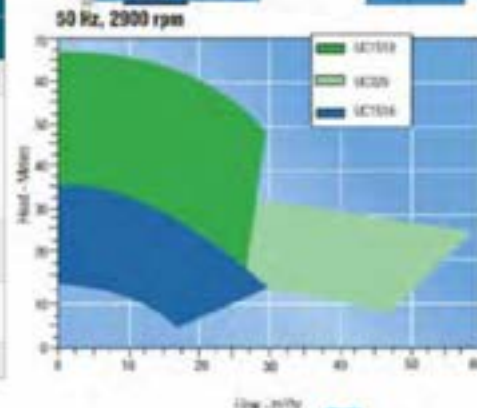
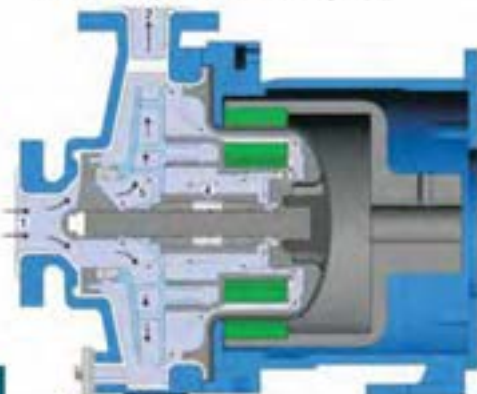
Engineered for extreme reliability in the most extreme chemical processing applications, Finish Thompson's ULTRACHem® is a magnetically driven, ANSI dimensional pump constructed from tough ductile iron with DuPont Tefzel® (ETFE) lining for superior corrosion resistance.

## Ultra Sealless

Powerful neodymium magnets drive the impeller through a carbon-filled ETFE lined barrier for dependable, leak-free operation with no environmental emissions, no double mechanical seal costs, and no seal support systems.

## Ultra Chem Circulation &amp; Thrust Minimisation

As the liquid flows through the suction and into the impeller (1), it accelerates to a high velocity and is pressurised, exiting the discharge (2). A small portion of the flow is re-directed to the rear of the impeller drive where it proceeds through the rear sealing ring (3), which minimises axial impeller thrust. The flow then goes both around the bushings and through the spiral grooves in the bore of bushings (4) in order to enhance the flow, remove heat, and provide lubrication between the shaft and bushing bore, before emptying back into the impeller suction eye (5).



FEATURES	CONSTRUCTION	APPLICATIONS
Magnetically coupled to motor, no mechanical seals to leak or replace.	Ductile Iron casing lined with DuPont Tefzel.	Manufacturing, spraying, transfer of extremely corrosive chemicals.
Run dry ability with carbon bushing.	Enclosed impeller is injection moulded from carbon fibre reinforced ETFE for superior corrosion resistance.	Recirculation/ filtration, water, waste water treatment, acid recirculation
Superior corrosion resistance for the most extreme chemical processes.	High strength rare earth neodymium magnets.	Fume scrubbers, cleaning processes.
ANSI OR ISO flange mounting.	Internal drive hub has ETFE encapsulated magnets for added protection.	
Close Coupled.	Casing meets ANSI/B73.1M nozzle loads.	<b>TYPICAL CHEMICALS</b>
1.8 SG with no impeller trim.	Sintered silicon carbide or carbon bushings	Sodium Hydroxide, Sodium Hypochlorite
Engineered for long life and low maintenance.	Viton®, EPDM, Kalrez® or Atlas® o-rings	Sulfuric Acid, hydrochloric acid, nitric acid
ATEX certified models available.	Suits IEC motors.	Corrosive Blends, solvents, waste water.

UC SERIES CHARACTERISTICS							
PUMP MODEL	UC1516	UC1518	UC326	UC3158	UC328	UC436	UC438
KW	1.1 – 7.5	4.0 – 11.0	3.0 – 11.0	1.5 - 55	1.5 - 55	1.5 - 55	1.5 - 55.0
IMP. DIA (CM)	10.2, 11.4, 12.7, 14, 15.2, 16.2	15.2, 15.5, 17.8, 19, 20.6	11.4, 12.7, 14, 15.2, 16.2	15.2 - 21	15.2 - 21	12.9 - 15.9	15.2 - 21
INLET OUTLET (IN.)	1 1/2" x 1"	1 1/2" x 1"	3" x 2"	-	-	-	-
MAX FLOW (M³/HR)	37 m³/hr	37 m³/hr	75 m³/hr	101	101	143	187
MAX HEAD (M)	55 m	100 m	50 m	88	88	52	88



UC1516



UC1516L



UC1518



UC326



UC326H



UC3158



UC328



UC436



UC438



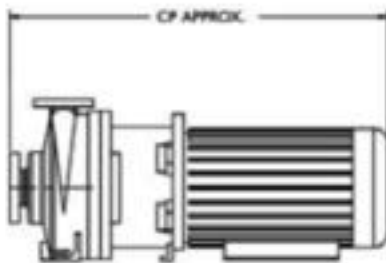
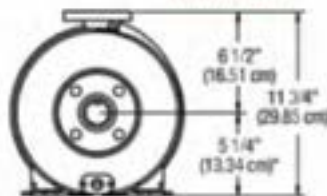
UC4310H



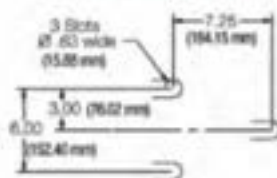
## UC1516



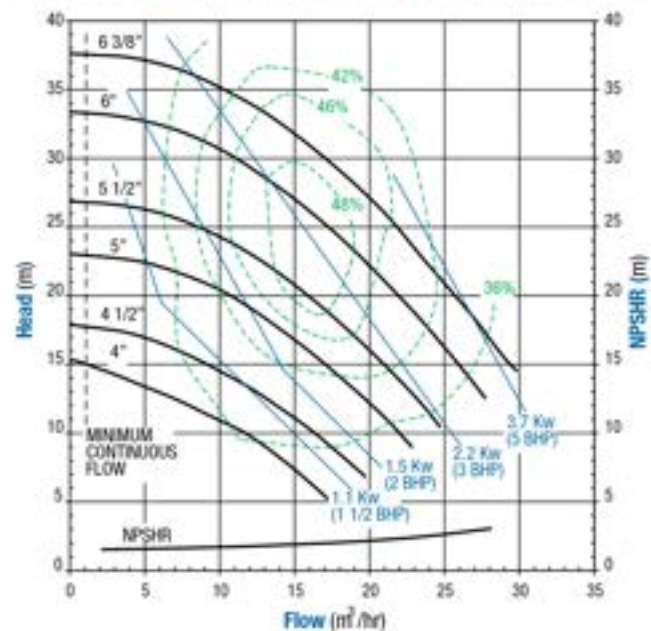
FRONT VIEW



BOTTOM VIEW



## Performance curve 2900rpm, 50hz



## Motor Frame

IEC	A-DRIVE (CM)	B-DRIVE (CM)
80	58.1	-
90	61.7	-
100/ 112	67.5	-
132	73.9	76.5
160	-	86.0

## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC1516	A - to 10hp	E ANSI #150	C Close coupled	S SIC	S SIC	V FKM	F Fluorosint	400 - 4	90 - 90/B14	2 or 3 Digit Ref. No.
	B - to 20hp		F Frame mounted	C Carbon	D Dri-coat	E EPDM	S SIC	450 - 4 <sup>1/2</sup>	10 - 100-112/b14	
				D Dri-coat		K Kalrez		500 - 5	13 - 132/B5	
						S Simriz		550 - 5 <sup>1/2</sup>	16 - 160/B5	
						A Atlas		600 - 6	FO - Frame mount, o	
								637 - 6 <sup>1/2</sup>	FB - Frame mount,G	

Wet end (all wetted components up to and including barrier)  
 Pump end (all components up to and including the motor adapter)

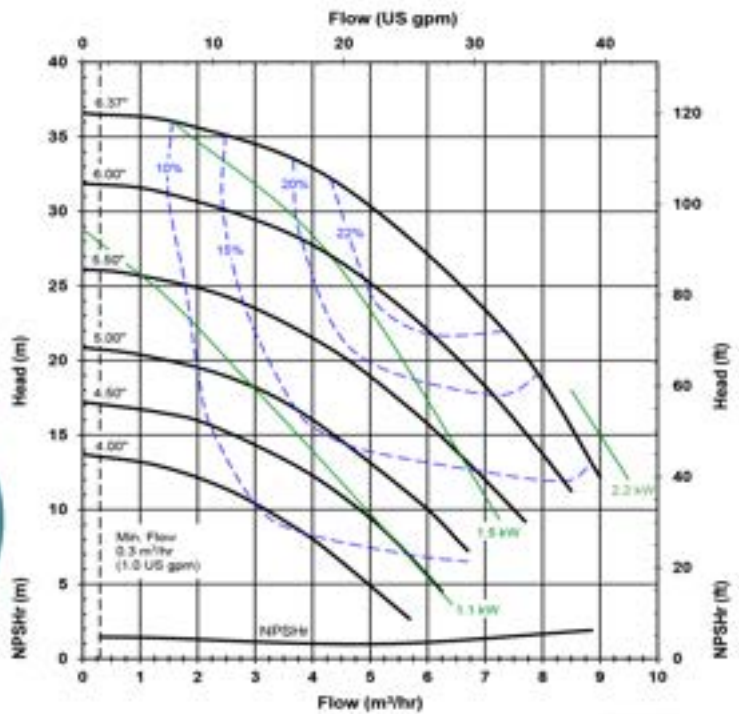


# UC SERIES

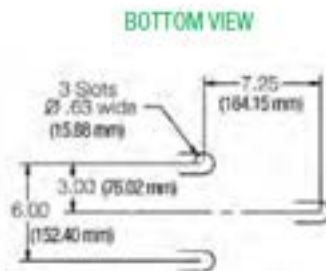
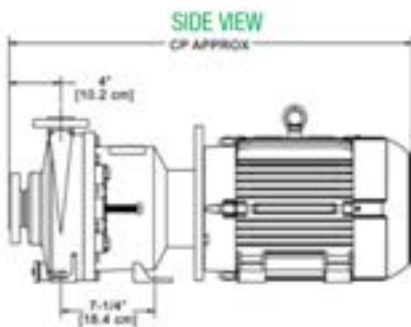
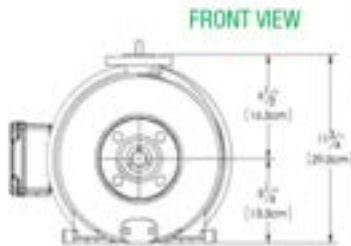
UC1516L

Performance curve 2900rpm, 50hz

2900 rpm, 50 Hz



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.



## Motor Frame

IEC	CP (APPROX.)* (CM)
90	59.9
100/112	63.6
132	79
160	88.5

\*For all magnet sets

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC1516L	A - to 10hp	E ANSI #150	C Close coupled	S SIC	S SIC	V FKM	F Fluorosint	400 - 4	90 - 90/B14	2 or 3 Digit Ref. No.
	B - to 20hp		F Frame mounted	C Carbon	D Dri-coat	E EPDM	S SIC	450 - 4 <sup>1/2</sup>	10 - 100-112/b14	
			D Dri-coat		K Kalrez	500 - 5	13 - 132/B5			
					S Simriz	550 - 5 <sup>1/2</sup>	16 - 160/B5			
					A Atlas	600 - 6	FO - Frame mount, o			
							637 - 6 <sup>1/2</sup>	FB - Frame mount, G		

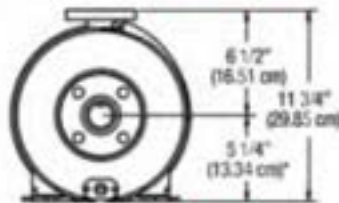
Wet end (all wetted components up to and including barrier)  
 Pump end (all components up to and including the motor adapter)



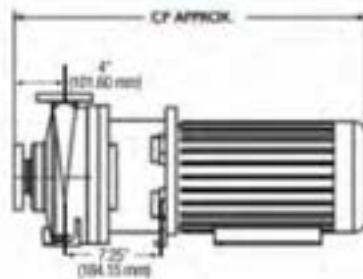
## UC1518



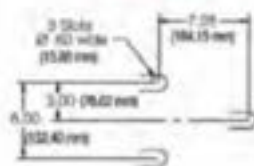
FRONT VIEW



SIDE VIEW



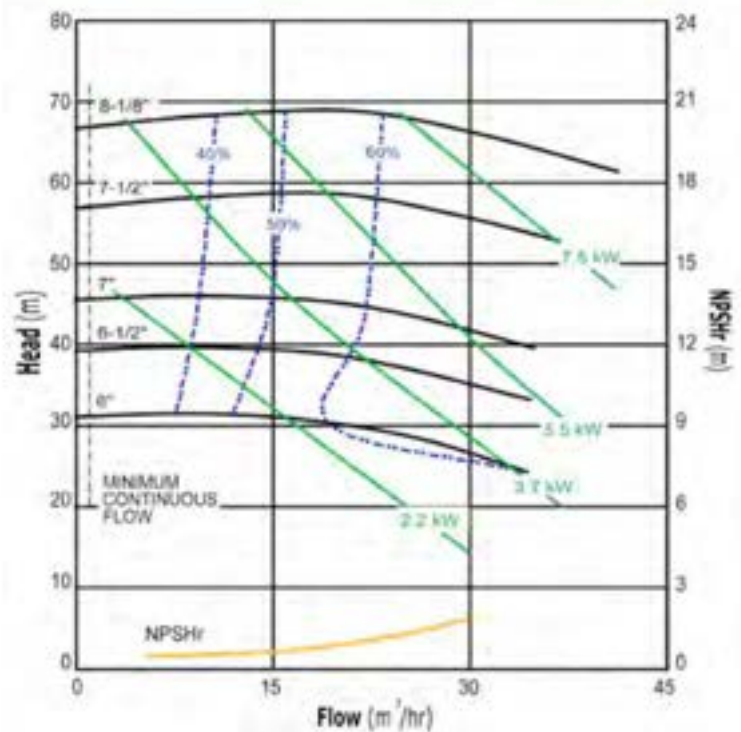
BOTTOM VIEW


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

## Performance curve 2900rpm, 50hz



## Motor Frame

IEC	A-DRIVE (CM)	B-DRIVE (CM)
80	58.1	-
90	61.7	-
100/ 112	67.5	-
132	73.9	76.5
160	-	86.0

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC1518	A - to 10hp	E ANSI #150	C Close coupled	S SIC	S SIC	V FKM	F Fluorosint	600 - 6	90 - 90/B14	2 or 3 Digit Ref. No.
	B - to 20hp		F Frame mounted	C Carbon	D Dri-coat	E EPDM	S SIC	700 - 7	10 - 100-112/b14	
				D Dri-coat		K Kalrez		812 - 8 <sup>1/2</sup>	13 - 132/B5	
						S Simriz			16 - 160/B5	
						A Aflas			FO - Frame mount, o	
									FB - Frame mount, G	

Wet end (all wetted components up to and including barrier)  
Pump end (all components up to and including the motor adapter)



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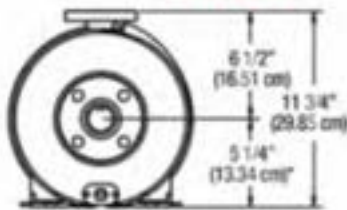
# UC SERIES

## UC326

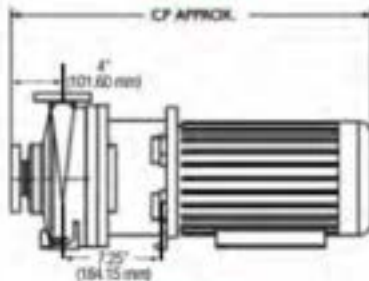
## Performance curve 2900rpm, 50hz



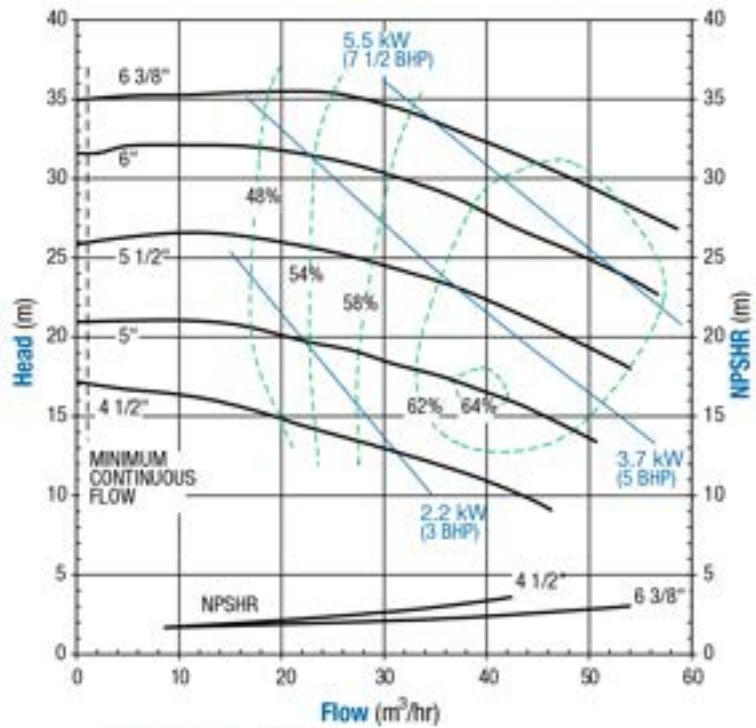
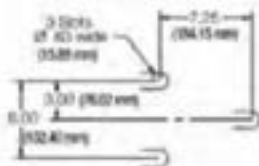
FRONT VIEW



SIDE VIEW



BOTTOM VIEW



### Motor Frame

IEC	A-DRIVE (CM)	B-DRIVE (CM)
80	58.1	-
90	61.7	-
100/ 112	67.5	-
132	73.9	76.5
160	-	86.0

**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC326	A - to 10hp	E ANSI #150	C Close coupled	S SIC	S SIC	V FKM	F Fluorint	500 - 5	90 - 90/B14	2 or 3 Digit Ref. No.
	B - to 20hp		F Frame mounted	C Carbon	D Dri-coat	E EPDM	S SIC	600 - 6	10 - 100-112/b14	
				D Dri-coat		K Kalrez		637 - 6 <sup>1/8</sup>	13 - 132/B5	
						S Simriz			16 - 160/B5	
						A Atlas			FO - Frame mount, o	
									FB - Frame mount,G	

Wet end (all wetted components up to and including barrier)  
 Pump end (all components up to and including the motor adapter)



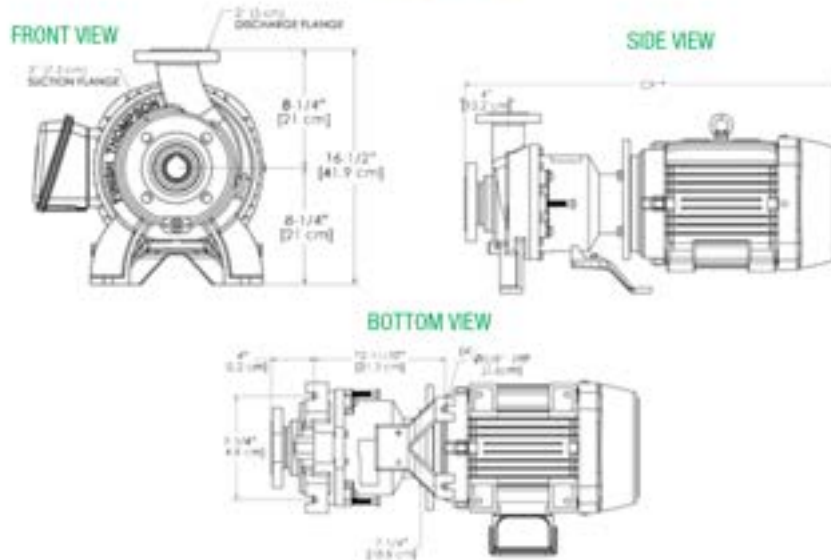
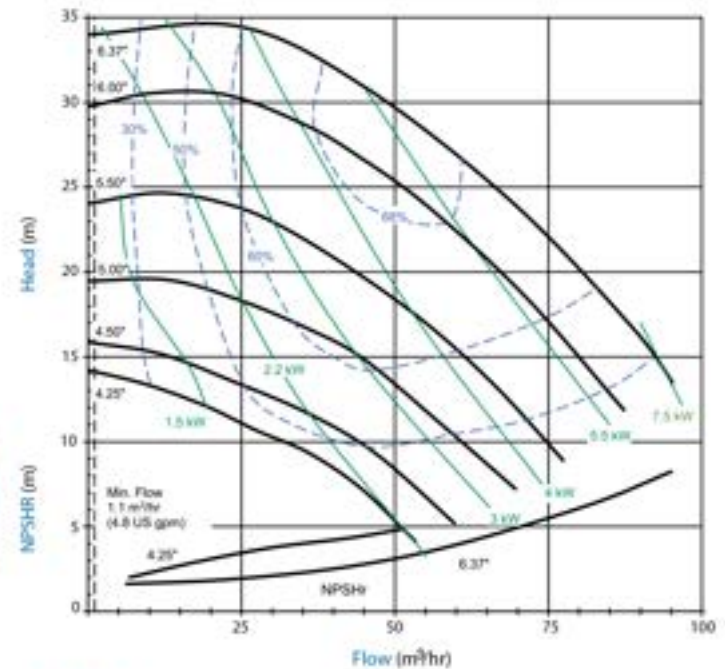
## UC326H


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...  
Call 1300 225 786 to discuss your requirements.

## Performance curve 2900rpm, 50hz

2900 rpm, 50 Hz



## Motor Frame

	IEC	CP (APPROX.)* (CM)
	90	59.9
	100/112	63.6
	132	79
	160	88.5

\*For all magnet sets.

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC326H	A - to 10hp	E ANSI #150	C Close coupled	S SIC	S SIC	V FKM	F Fluorosint	500 - 5	90 - 90/B14	2 or 3 Digit Ref. No.
	B - to 20hp		F Frame mounted	C Carbon	D Dri-coat	E EPDM	S SIC	600 - 6	10 - 100-112/b14	
				D Dri-coat		K Kalrez		637 - 6 <sup>1/2</sup>	13 - 132/B5	
						S Simriz			16 - 160/B5	
						A Aflas			FO - Frame mount, o	
									FB - Frame mount, G	

Wet end (all wetted components up to and including barrier)  
 Pump end (all components up to and including the motor adapter)

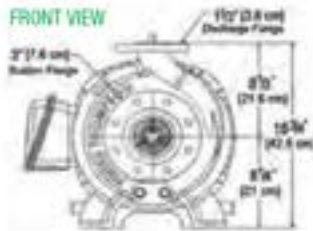


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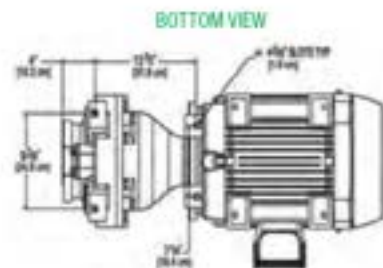
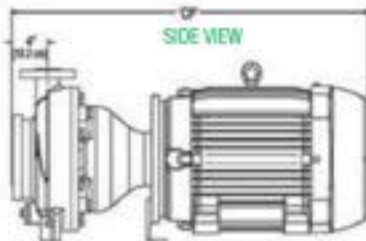
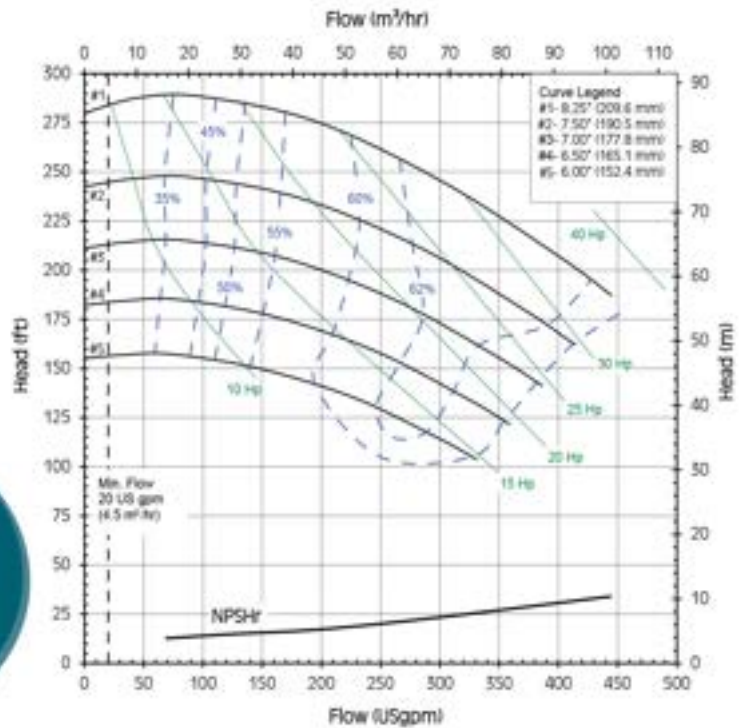
# UC SERIES

## UC3158

## Performance curve 2900rpm, 50hz



**DID YOU KNOW?**  
 Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.



### Motor Frame

IEC	CP (APPROX.)* (CM)
90	69.8
100/ 112	73.4
132	82.7
160	97.2
180	103
200	109.5
225	118.5

\*For all magnet sets

### Specifications

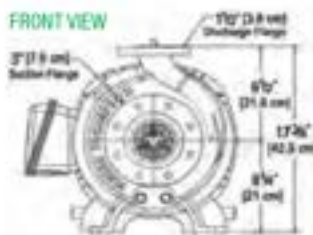
BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC3158	B - to 20hp	O ANSI #150	C Close coupled	S SIC	S SIC	V FKM	S SIC	600 - 6	90 - 90/B14	2 or 3 Digit Ref. No.
	C - to 40hp	T ANSI #300	F Frame mounted	C Carbon	D Dri-coat	E EPDM		700 - 7	10 - 100-112/b14	
	D - to 60hp	I ANSI PN40		D Dri-coat		K Kalrez		825 - 8 <sup>1/2</sup>	13 - 132/B5	
	E - to 75hp					S Simriz			16 - 160/B5	
						A Atlas			19 - 180/B5	
									20 - 200/B5	
									22 - 225/B5	
									FO - Frame mount, o	
									FB - Frame mount, G	

Wet end (all wetted components up to and including barrier)  
 Pump end (all components up to and including the motor adapter)



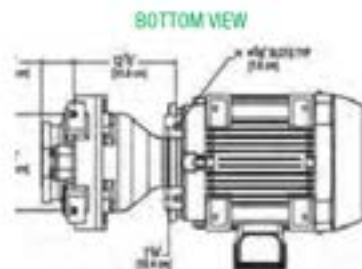
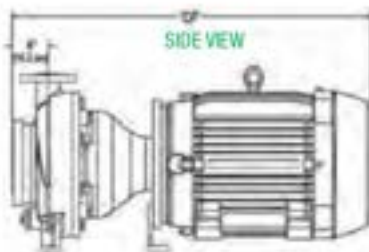
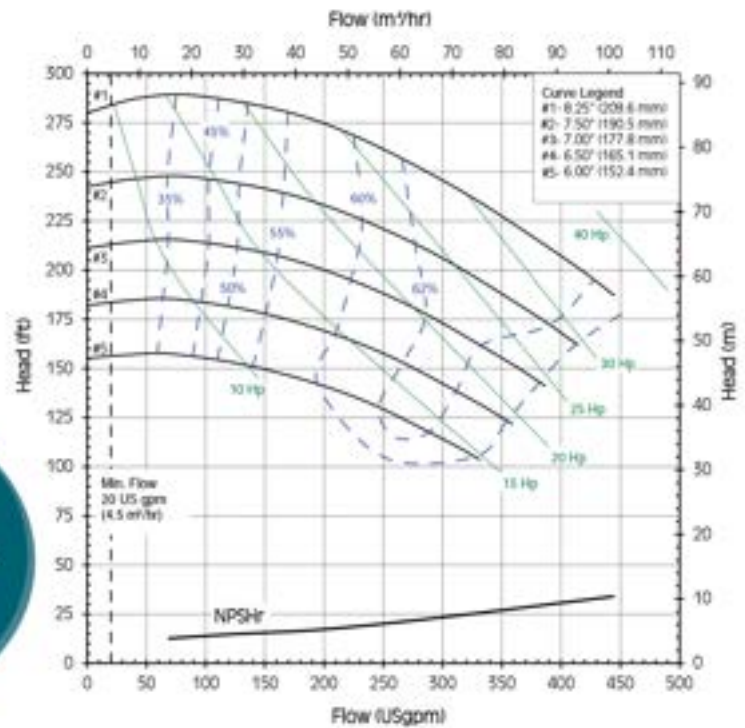
## UC328

## Performance curve 2900rpm, 50hz


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.



## Motor Frame

IEC	CP (APPROX.)* (CM)
90	69.8
100/ 112	73.4
132	82.7
160	97.2
180	103
200	109.5
225	118.5

\*For all magnet sets

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC328	B - to 20hp	O ANSI #150	C Close coupled	S SIC	S SIC	V FKM	S SIC	600 - 6	90 - 90/B14	2 or 3 Digit Ref. No.
	C - to 40hp							F Frame mounted	C Carbon	
	D - to 60hp			D Dri-coat		K Kalrez	825 - 8 <sup>1/2</sup>	13 - 132/B5		
	E - to 75hp				S Simriz	16 - 160/B5				
					A Atlas	19 - 180/B5				
						20 - 200/B5				
						22 - 225/B5				
						FO - Frame mount, o				
						FB - Frame mount, G				

Wet end (all wetted components up to and including barrier)  
Pump end (all components up to and including the motor adapter)



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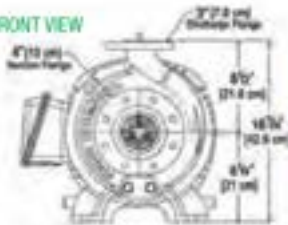
# UC SERIES

## UC436



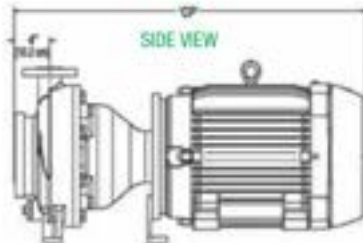
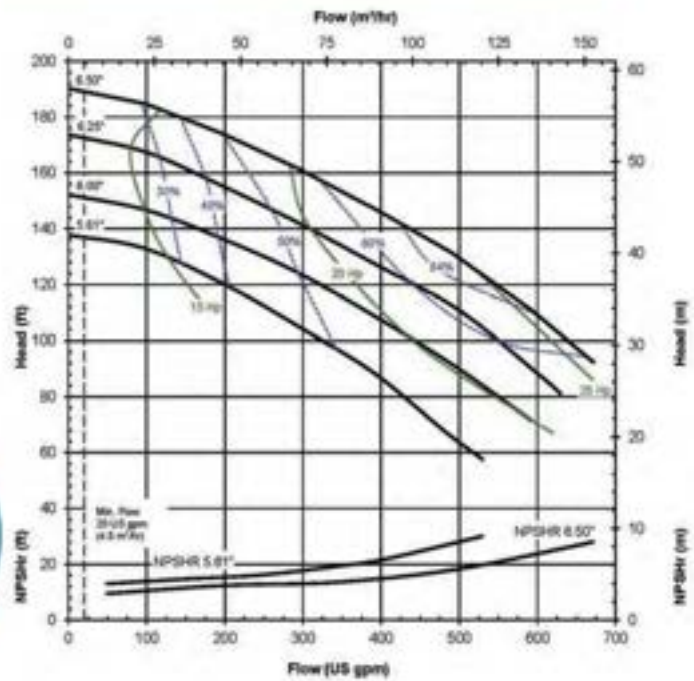
### Performance curve 2900rpm, 50hz

FRONT VIEW

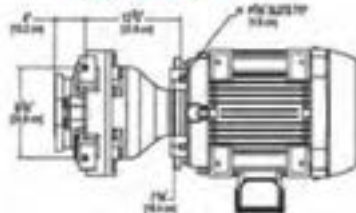


#### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...  
Call 1300 225 786 to discuss your requirements.



BOTTOM VIEW



### Motor Frame

	IEC	CP (APPROX.)* (CM)
	90	69.8
	100/ 112	73.4
	132	82.7
	160	97.2
	180	103
	200	109.5
	225	118.5

\*For all magnet sets

### Specifications

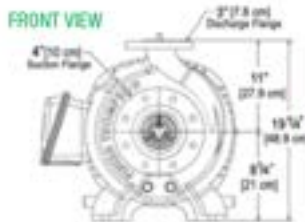
BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC436	B - to 20hp	O ANSI #150	C Close coupled	S SIC	S SIC	V FKM	S SIC	561 - 5 <sup>1/8</sup>	90 - 90/B14	2 or 3 Digit Ref. No.
	C - to 40hp	T ANSI #300	F Frame mounted	C Carbon	D Dri-coat	E EPDM		600 - 6	10 - 100-112/b14	
	D - to 60hp	I ANSI PN40		D Dri-coat		K Kalrez		625 - 6 <sup>1/8</sup>	13 - 132/B5	
	E - to 75hp					S Simriz		650 - 6 <sup>1/2</sup>	16 - 160/B5	
						A Aflas			19 - 180/B5	
									20 - 200/B5	
									22 - 225/B5	
									FO - Frame mount, o	
									FB - Frame mount, G	

Wet end (all wetted components up to and including barrier)  
Pump end (all components up to and including the motor adapter)

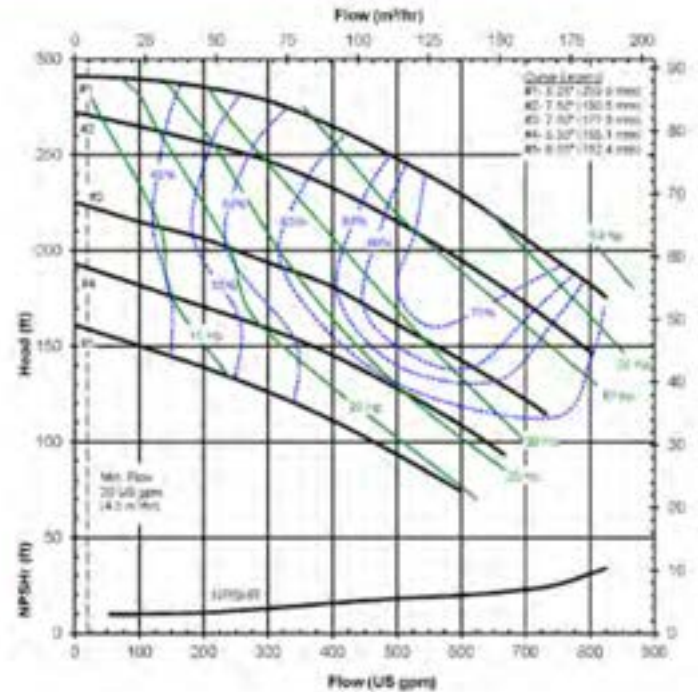
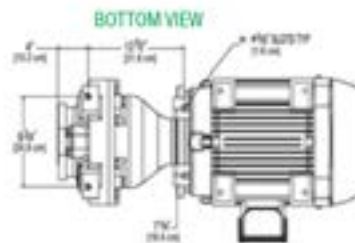
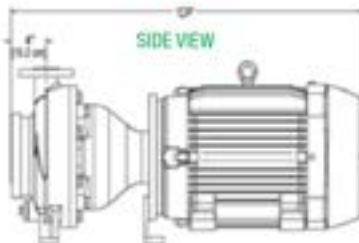


## UC438

## Performance curve 2900rpm, 50hz


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...  
Call 1300 225 786 to discuss your requirements.



## Motor Frame

IEC	CP (APPROX.)* (CM)
90	69.8
100/ 112	73.4
132	82.7
160	97.2
180	103
200	109.5
225	118.5

\*For all magnet sets

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC438	B - to 20hp	O ANSI #150	C Close coupled	S SIC	S SIC	V FKM	S SIC	600 - 6	90 - 90/B14	2 or 3 Digit Ref. No.
	C - to 40hp	T ANSI #300	F Frame mounted	C Carbon	D Dri-coat	E EPDM		700 - 7	10 - 100-112/b14	
	D - to 60hp	I ANSI PN40		D Dri-coat		K Kalrez		750 - 7 <sup>1/2</sup>	13 - 132/B5	
	E - to 75hp					S Simriz		825 - 8 <sup>1/2</sup>	16 - 160/B5	
						A Aflas			19 - 180/B5	
									20 - 200/B5	
									22 - 225/B5	
									FO - Frame mount, o	
									FB - Frame mount,G	

Wet end (all wetted components up to and including barrier)  
Pump end (all components up to and including the motor adapter)



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# UC SERIES

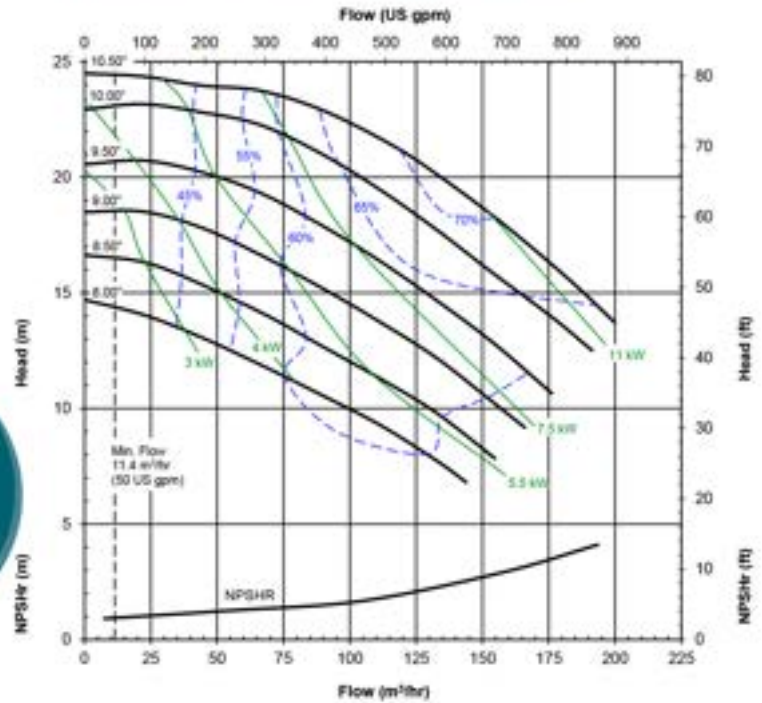
## UC4310H



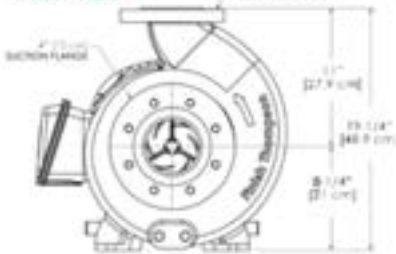
### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...  
Call 1300 225 786 to discuss your requirements.

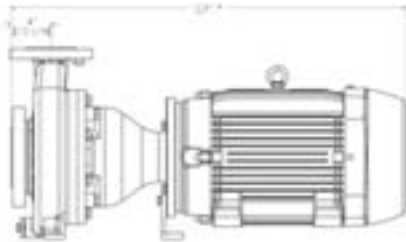
## Performance curve 1450, 50hz



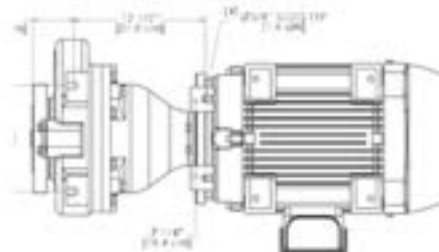
FRONT VIEW



SIDE VIEW



BOTTOM VIEW



## Motor Frame

IEC	CP (APPROX.)* (CM)
90	69.8
100/112	73.4
132	82.7
160	97.2
180	103
200	109.5
225	118.5

\*For all magnet sets

## Specifications

BASE	MEGENT SET	FLANGE	COUPLING	BUSHING	SHAFT	O-RING	THRUST RING	IMPELLER IN.	MOTOR ADAPTER	MOTOR
UC4310H	B - to 20hp	O ANSI #150	C Close coupled	S SIC	S SIC	V FKM	S SIC	561 - 5 <sup>1/8"</sup>	90 - 90/B14	2 or 3 Digit Ref. No.
	C - to 40hp	T ANSI #300	F Frame mounted	C Carbon	D Dri-coat	E EPDM		600 - 6	10 - 100-112/b14	
	D - to 60hp	I ANSI PN40		D Dri-coat		K Kalrez		625 - 6 <sup>1/8"</sup>	13 - 132/B5	
	E - to 75hp					S Simriz		650 - 6 <sup>1/2"</sup>	16 - 160/B5	
						A Aflas			19 - 180/B5	
									20 - 200/B5	
									22 - 225/B5	
									FO - Frame mount, o	
									FB - Frame mount, G	

Wet end (all wetted components up to and including barrier)  
Pump end (all components up to and including the motor adapter)

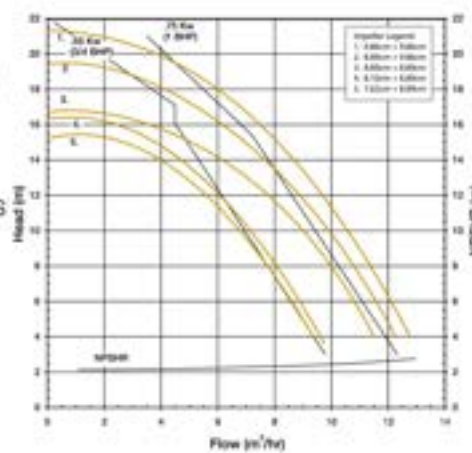


# MSKC SERIES



## Features

- Sealless mag drive technology - eliminates costly seal problems
- Multi-Stage design: Generates increased head at low flow rates, low power consumption, wide hydraulic envelope allows for mix and match impeller sizes
- Small footprint - avoids large impeller diameters
- Unique interconnecting drive shaft - transmits torque from magnetic coupling to first stage impeller
- Independent thrust bearings at each stage for maximum reliability
- Polypropylene or PVDF construction
- Accepts standard NEMA 56C or IEC 71/B14, 80/B14 frame motors
- Maximum working pressure 80 psi
- Maximum temperature: 180°F (82°C) - Polypropylene  
220°F (104°C) - PVDF
- Maximum flow 60 gpm (12.8 m<sup>3</sup>/hr.), maximum head 100 ft. (21.3 m)



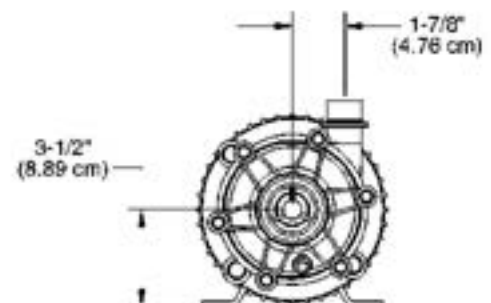
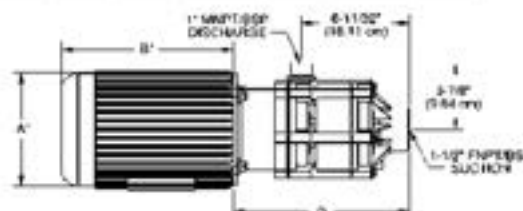
## Specifications

MODEL (CONSTRUCTION)	SUCTION [DISCHARGE]	IMPELLER SIZE		MAX. FLOW		MAX. HEAD		MOTOR DRIVE		MAX S.G. @50 CPS
		INCH	CM	3450 RPM GPM	2900 RPM M <sup>3</sup> /HR	3450 RPM HP	2900 RPM M	3450 RPM HP	2900 RPM KW	
MSKC1 (P, V)	1-1/2" FNPT/BSP [1" MNPT/BSP]	3.88+3.88	9.86+9.86	61	12.7	99	21.3	3	1.1	1.5
MSKC2 (P, V)		3.50+3.88	8.89+9.86	59	12.2	90	19.4	2	1.1	1.5
MSKC3 (P, V)		3.50+3.50	8.89+8.89	56	11.5	79	16.7	2	0.75	1.5
MSKC4 (P, V)		3.19+3.50	8.10+8.89	51	9.7	75	16.2	1.5	0.75	1.8
MSKC5 (P, V)		3.00+3.50	7.62+8.89	49	9.3	71	15.2	1.5	0.55	1.8

P - Polypropylene glass filled - maximum temperature 180°F (82°C). V - PVDF carbon filled - maximum temperature 220°F (104°C). Note: Actual performance may vary with conditions.

## Dimensions

MODEL	MOTOR FRAME	A*		B*		C*		D*	
		INCH	CM	INCH	CM	INCH	CM	INCH	CM
MSKC	56C	6-1/2	16.5	8	20.3	3-1/2	8.89	10-9/32	26.11
	71 IEC	4-1/8	10.5	8	20.3	2-13/16	7.10	10-9/32	26.11
	80 IEC	4-23/32	12	9	22.9	3-5/32	8	10-9/32	26.11



## Models

MODEL NUMBER	MATERIAL OF CONSTRUCTION	CONNECTION SIZE & TYPE	IMPELLER DIA. (IN)	BUSHINGS & O-RINGS	MOTOR SPECIFICATIONS
MSKCPVB1-CED0.55T2P	Polypropylene	1 1/2" x 1" BSPT	3.88" & 3.88"	Carbon & FKM (Viton)	0.55kW/ 415V
MSKCVRAB4-CED1.1T2P	PVDF		3.19" & 3.50"	Ceramic & Aflas	1.1kW/ 415V



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## UC SERIES





# SELF PRIMING PUMPS

**HYDROPRIME**  
Quality Self Priming Pumps

PAGE  
114





## Principle of Self Priming

Upon starting the pump, pressure drop occurs at the eye of the impeller which will give rise to pressure differences within the pump system (pump casing & suction pipe) and outside the pump system. As the pressure continues to drop in the pump system, a mixture of liquid and air will start to flow into the pump due to higher atmospheric pressure outside the pump system.

The mixture of liquid and air will flow through the casing chamber designed like a diffuser through the inlet and then to the discharge port. At the discharge port, air being lighter will be extricated through the discharge piping. The liquid being heavier will fall back into the pump chamber and re-mix with the inlet liquid. This process is repeated till air in the suction pipe and pump casing is fully emptied and filled with liquid. At this point, the pump will then be fully primed and achieve the self-priming effect.



## Applications:

### Industry

- Waste water treatment
- Transfer of low viscosity petroleum products
- Recovery of dirty solvents
- Emergency duty

### Civil engineering/civil defence

- Sewer by-pass
- Recovery of hazardous liquids
- Flood drainage

### Marine duty

- Bilge pumping
- Sanitary duty
- Loading and unloading
- Washing
- Fire fighting

### Sewage

- Lift stations
- Sewage by-pass
- Treatment

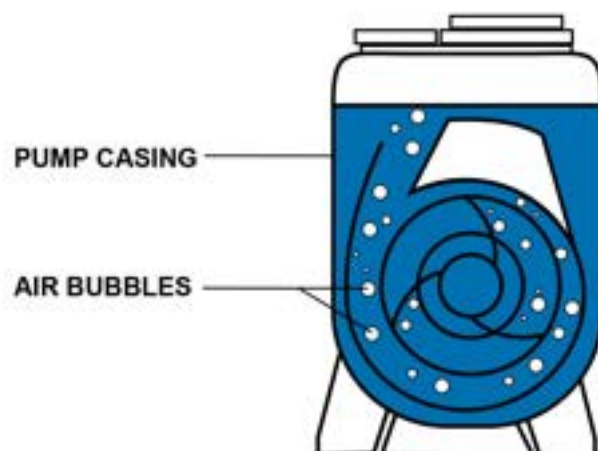
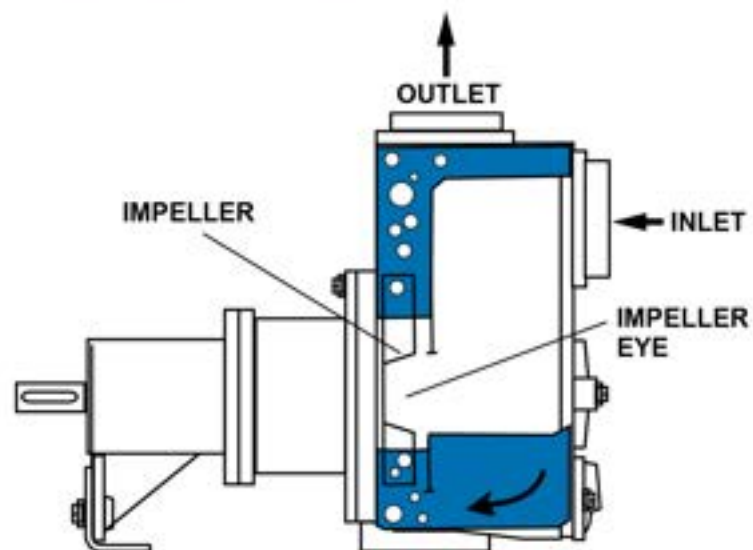
### Construction

- Dewatering
- Ground water control
- Water supply

### Agriculture

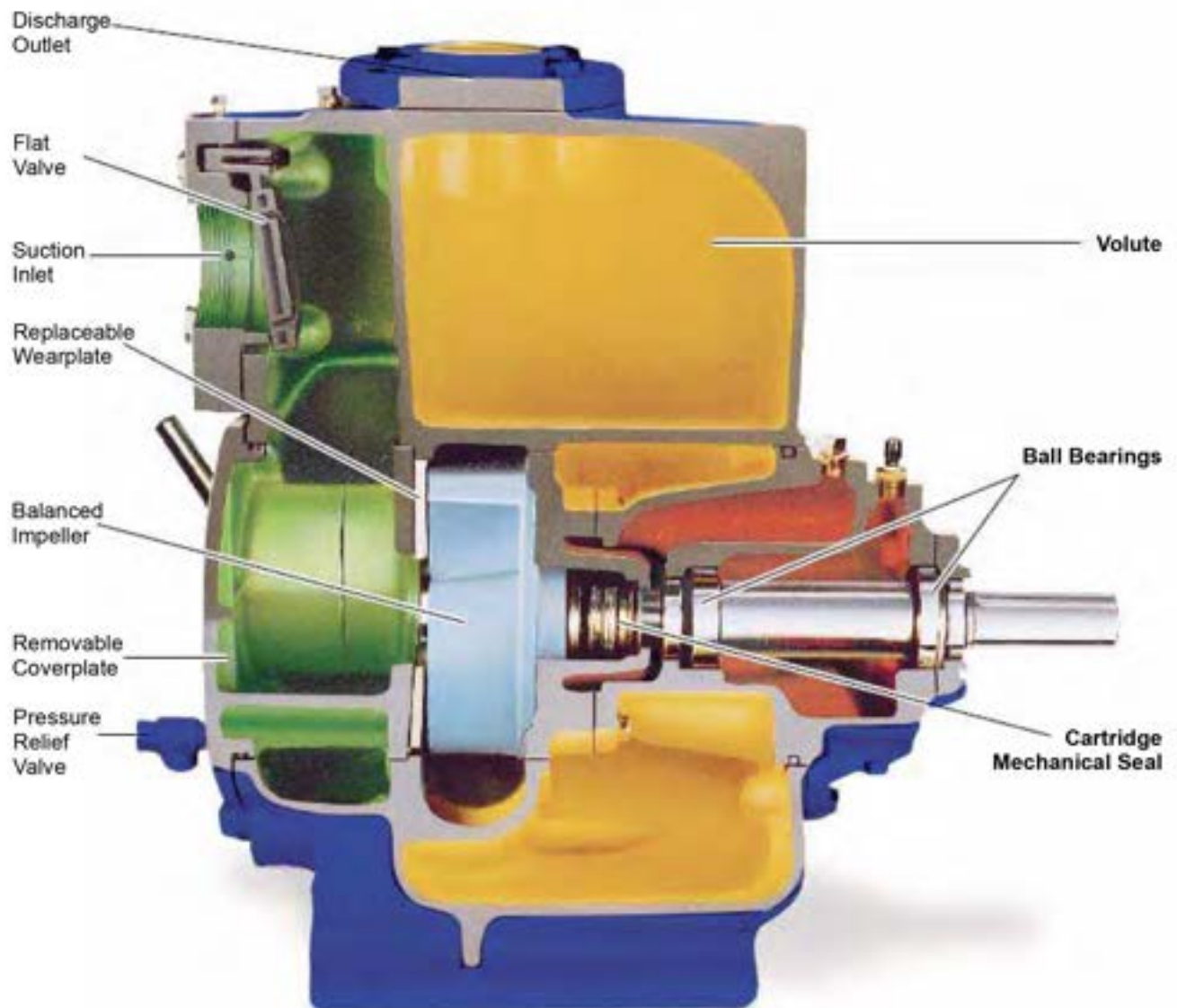
- Surface irrigation
- Liquid manure
- Distribution of liquid animal feed

## Technical Drawing





## HP - Selectional Parts



PUMP MODEL	PORT SIZE	SOLID SIZE		50/60HZ						
	MM	ODM		CAPACITY M3/HR		HEAD M			RPM	MOTOR KW
HP50-160	50	44	47	30	14	27	31	35	2900	15
HP80-223	80	64	105	70	31	25	30	34	2150	25
HP100-248	100	76	180	110	55	24	30	35	1950	30
HP150-315	150	76	330	225	85	18	24	32	1550	40
HP200-375	200	76	590	360	140	12	26	33	1550	75
HP250-375	250	76	760	470	220	23	33	39	1450	100
HP300-457	300	76	1250	800	250	19	34	43	2150	125
HP80-280	80	21	85	55	20	49	58	61	2150	30
HP100-280	100	29	145	100	35	74	55	60	2150	50
HP150-318	150	32	305	210	98	44	53	58	1950	75

## Nomenclature

**EXAMPLE:** HP 50-160 XX XX XX

### Series

HPT = Large Flow pumps  
HPU = High Head Pumps

### DISCHARGE SIZE - IMPELLER NOMINAL SIZE

50-160	80-223	80-280	100-248	100-280
150-315	150-318	200-375	250-375	300-457

### Seal type

10 = Sic Vs Sic/Viton  
20 = Tc Vs/Viton  
30 = C Vs Ceramic/Viton

TC = Tungsten Carbide  
C = Carbon  
Sic = Silicon Carbide

### BODY / IMPELLER / SHAFT MATERIAL

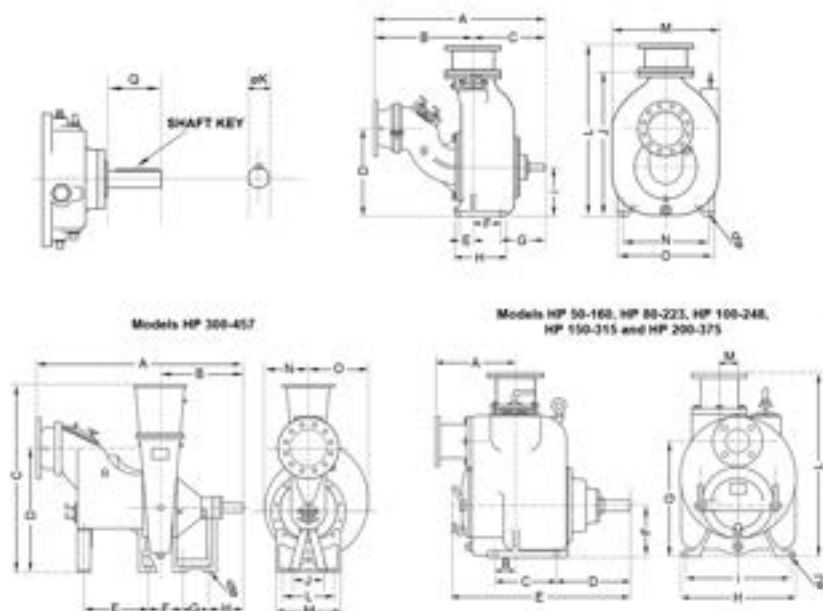
CODES	CASING	IMPELLER	SHAFT
CD	CI	Ductile Iron	2Cr13 (420)
CA	CI	A 216 (Carbon Steel)	2Cr13
CAD	CI	Harden Iron	SS304
CB	CI	Bronze	SS304
C20	CI	CD4MCU	SS304
CS04	CI	SS304	SS304
BB	Bronze	Bronze	SS316
D4MC	Duplex SS	Duplex SS	SS316
SS04	SS304	SS304	SS304
SS16	SS316	SS316	SS316
ADI	Harden Iron	Harden Iron	SS304
HH	Hastelloy	Hastelloy	SS316

### Special Option Engine

EB = Engine on baseplate  
ET1 = Engine on Trolley - off road  
ET2 = Engine on Trolley - on road



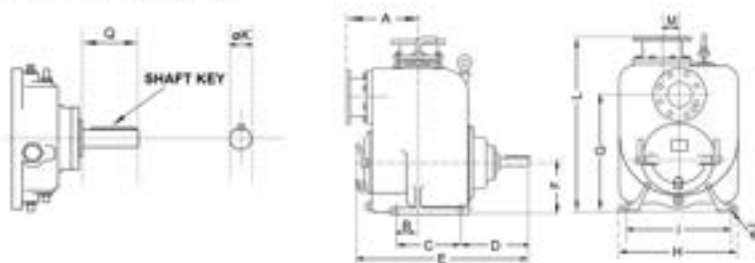
## Installing Dimensions



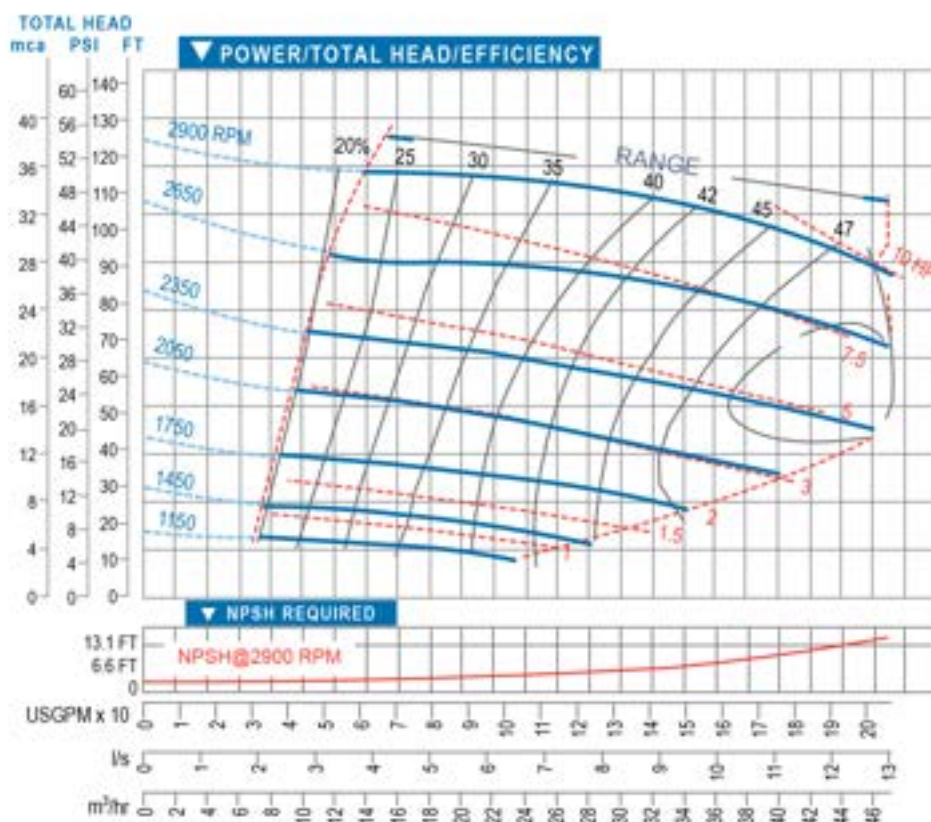
PUMP MODEL	PORT SIZE	PUMP DIMENSION										FOOT DIMENSION						SHAFT END		SHIPPING WEIGHT (KG)
		MM	A	E	F	G	L	M	N	O	B	C	D	H	I	J	P	K	Q	
50-160	50	225	547	152	318	523	70			54	163.2	275.0	308.3	281.0	14.0			38.1	331.6	156
80-223	80	294	668	191	432	667	70			76.2	228.6	294.2	431.8	393.7	17.5			38.1	331.6	270
100-248	100	318	768	222	495	742	70			77.8	280.0	293.7	501.7	457.2	17.5			38.1	327.0	375
150-315	150	406	902	257	568	897	70			77.8	279.4	293.7	577.9	527.0	17.5			38.1	327.0	487
200-380	200	413	1023	330	724	1068				101.6	304.8	407.1	704.9	635.0	22.4			44.5	368.9	905
250-375	250	5237	102	204	322	1221	786	635	705	712.0	523.3	636.5	381.0	355.0	3041.4	22.4		44.5	322.2	943
300-457	300	6522	508	270	203	408	508	346	467	650.0	1474.7	927.5	272.5	508.0	242.8	26.7		69.9	367.4	1320

## IMPELLER SHAFT

Models HP 80-280, HP 100-280, HP 150-318



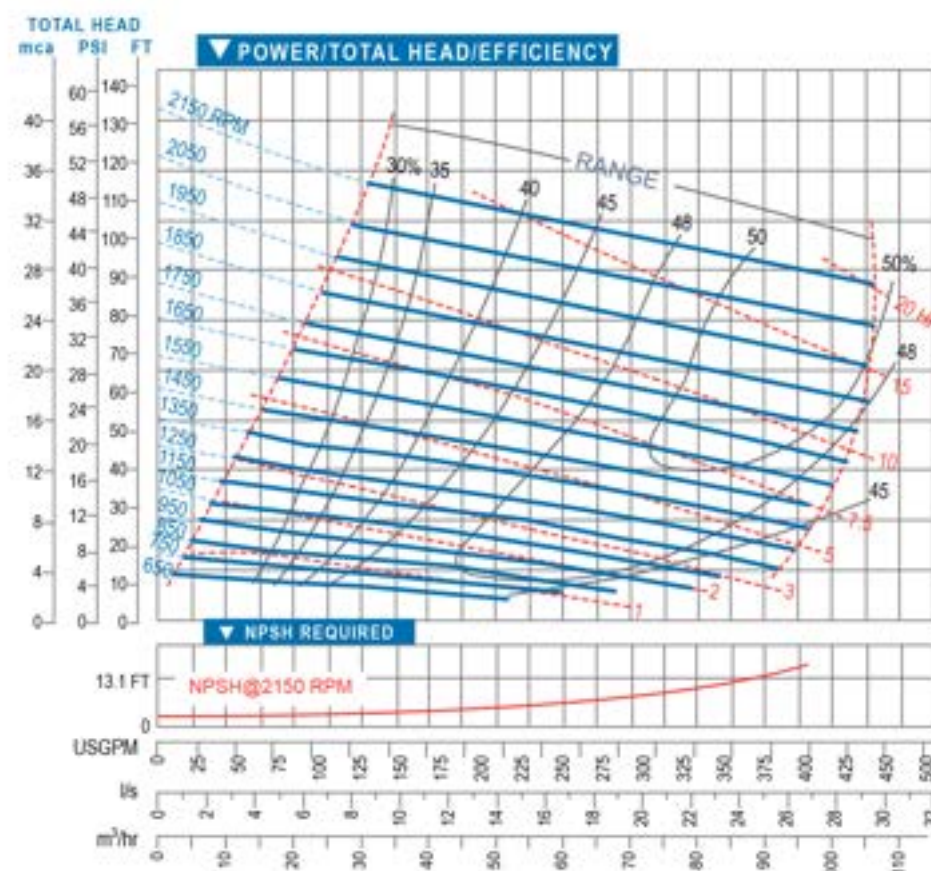
PUMP MODEL	PORT SIZE	PUMP DIMENSION										FOOT DIMENSION						SHAFT END		SHIPPING WEIGHT (KG)
		MM	A	E	F	G	L	M	N	O	B	C	D	H	I	J	K	Q		
80-280	80	292	667	191	432	667	70	76.2	228.6	282.9	431.8	394.0	17.5	38.1	331.6	301				
100-280	100	318	752	222	508	748	70	96.8	279.4	297.5	508.0	457.2	17.5	38.1	326.2	357				
150-318	150	406	845	257	568	897	70	77.7	279.4	330.7	534.2	527.2	17.5	45.5	314.3	574				



## HP 50-160

### Performance Curve

Impeller Dia. 158.75mm (6.14")  
Max Solids 44.45mm (1.34")  
R.P.M. from 1150rpm to 2900rpm

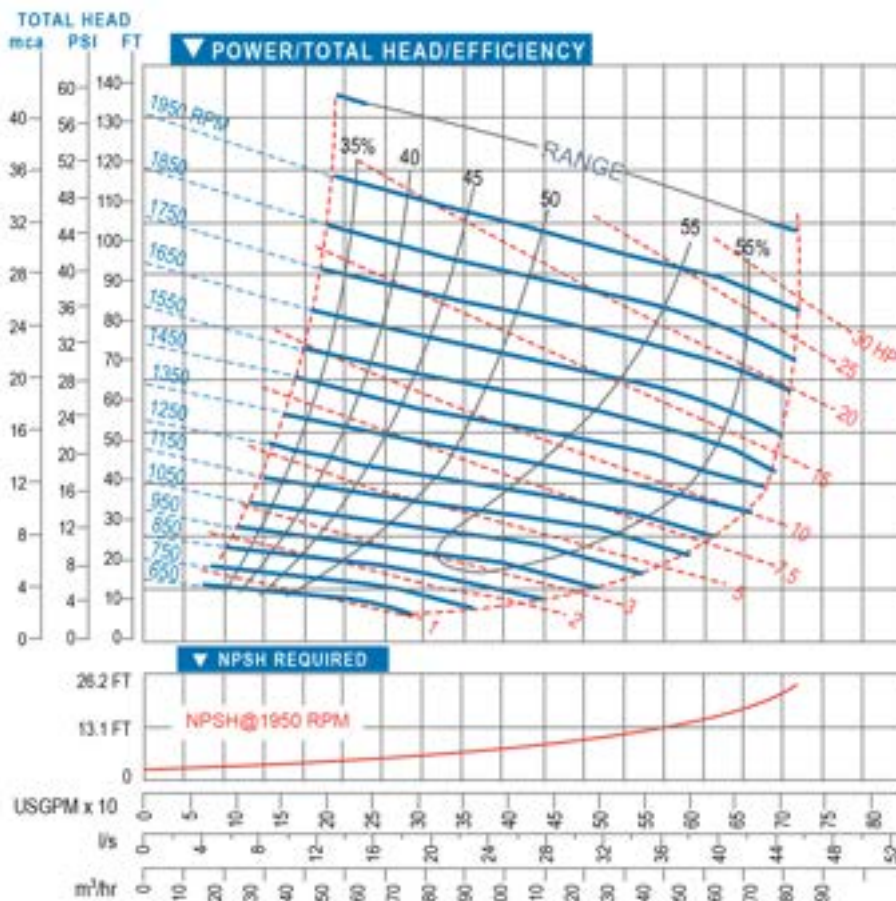


## HP 80-223

### Performance Curve

Impeller Dia. 222.25mm (8.34")  
Max Solids 63.5mm (2.12")  
R.P.M. from 650rpm to 2150rpm





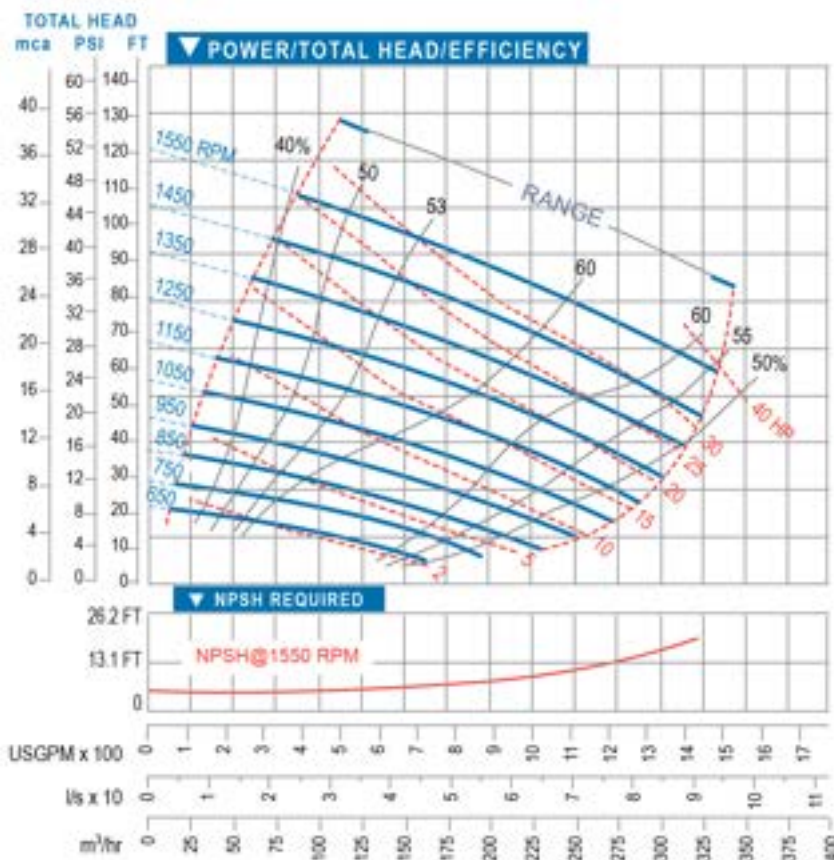
## HP 100-248

### Performance Curve

Impeller Dia. 247,65mm (9.34")

Max Solids 76,2mm (3")

R.P.M. from 650rpm to 1950rpm



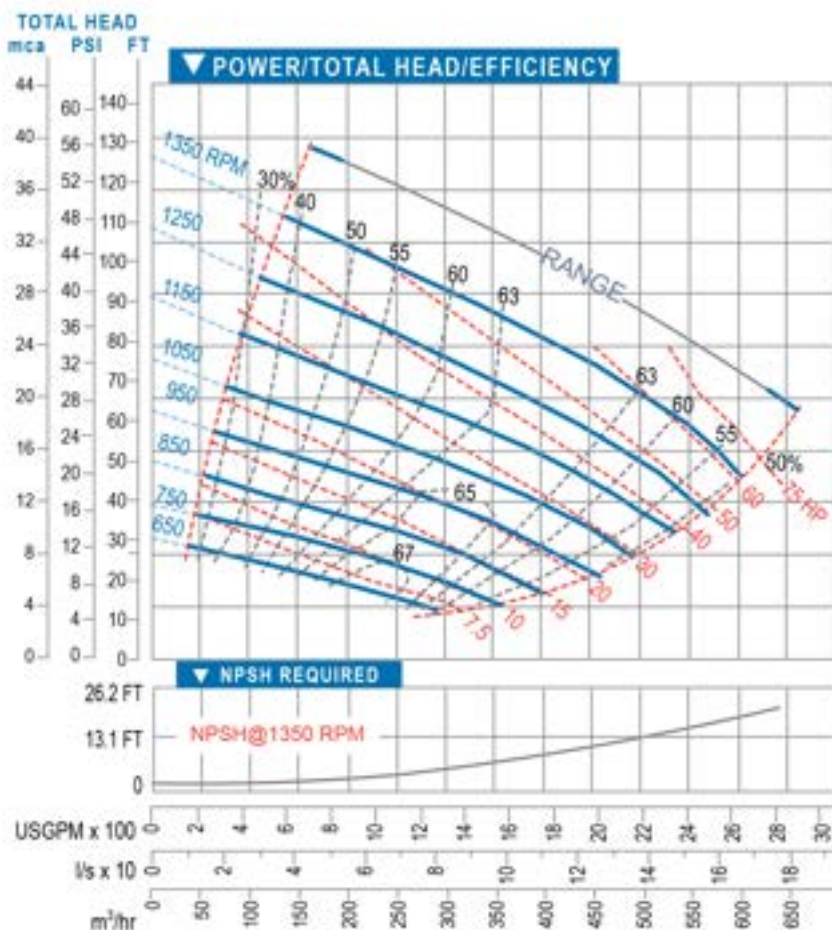
## HP 150-315

### Performance Curve

Impeller Dia. 314,32mm (12.38")

Max Solids 76,2mm (3")

R.P.M. from 650rpm to 1550rpm

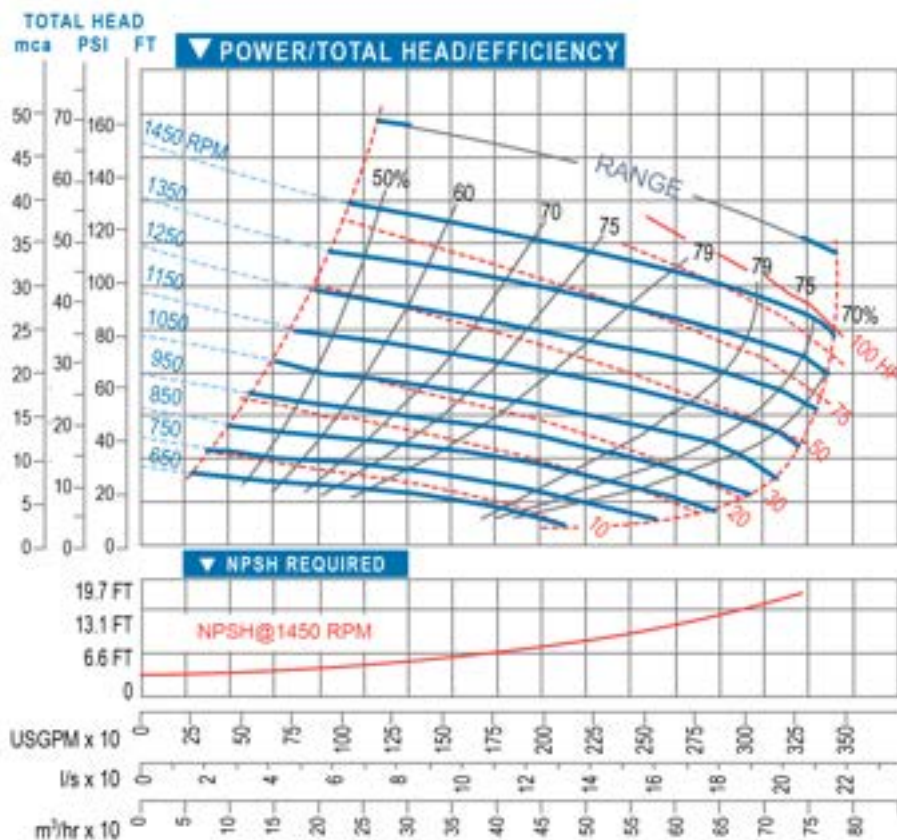


**HP 200-375**  
*Performance Curve*

Impeller Dia. 374,65mm (14,34")

Max Solids 76,2mm (3")

R.P.M. from 650rpm to 1350rpm



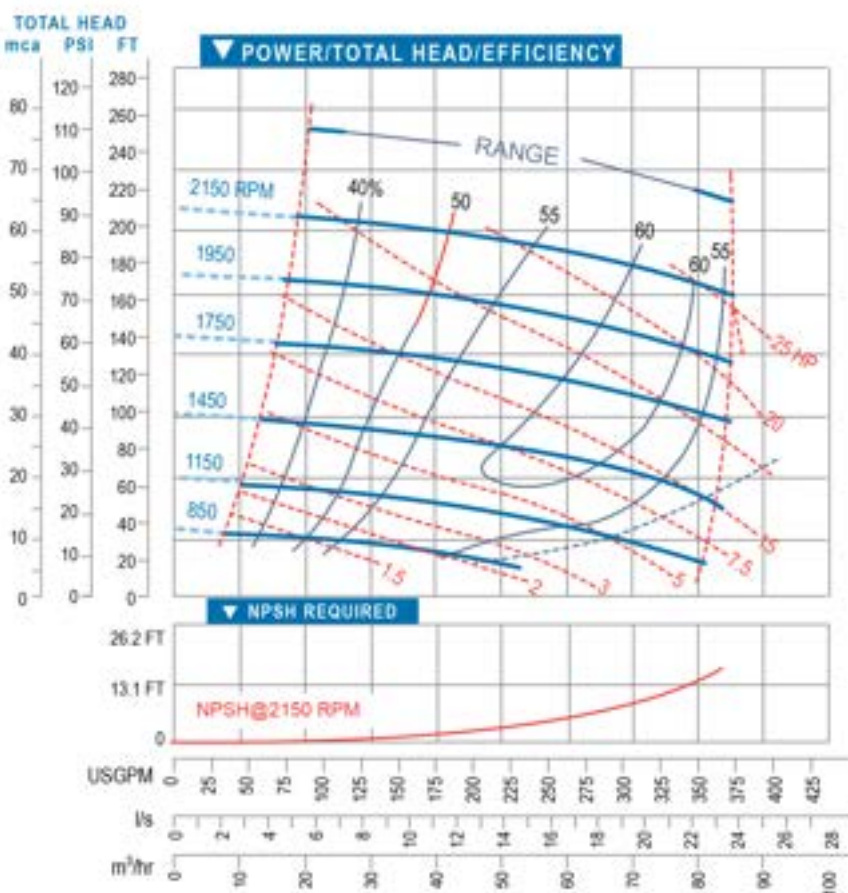
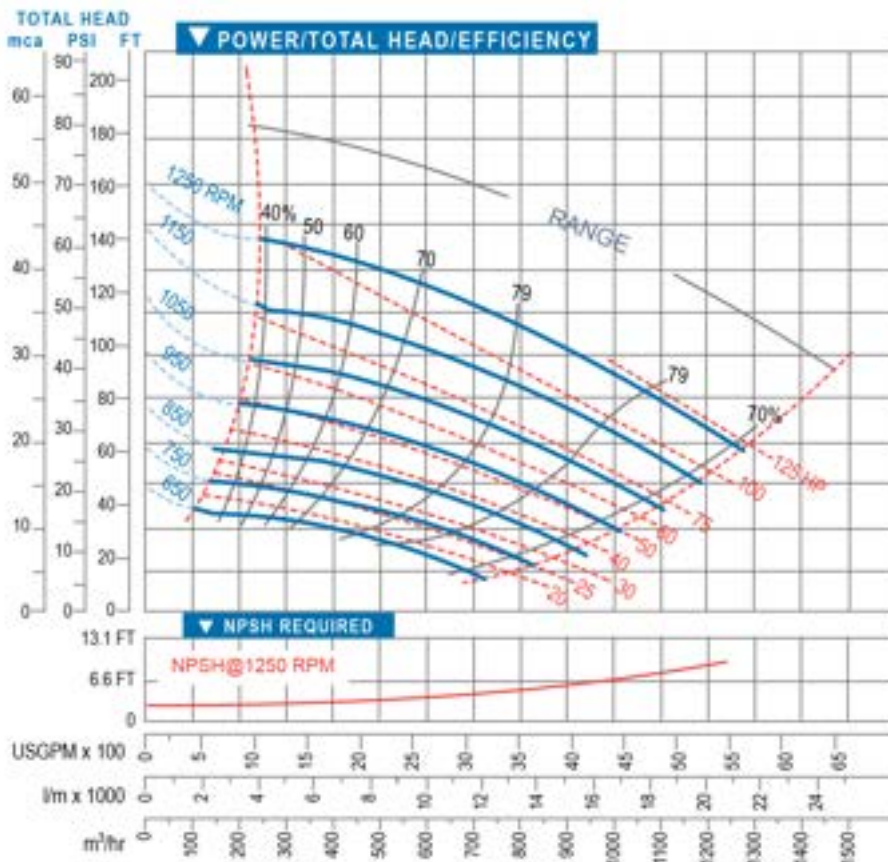
**HP 250-375**  
*Performance Curve*

Impeller Dia. 374,65mm (14,34")

Max Solids 76,2mm (3")

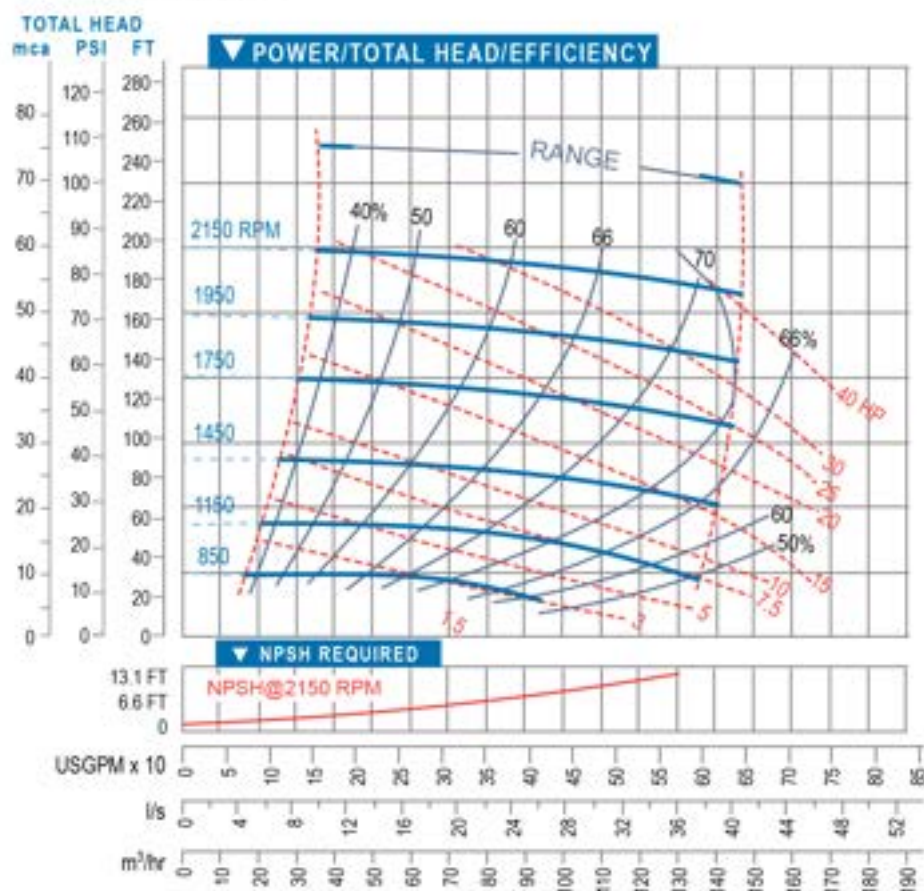
R.P.M. from 650rpm to 1450rpm





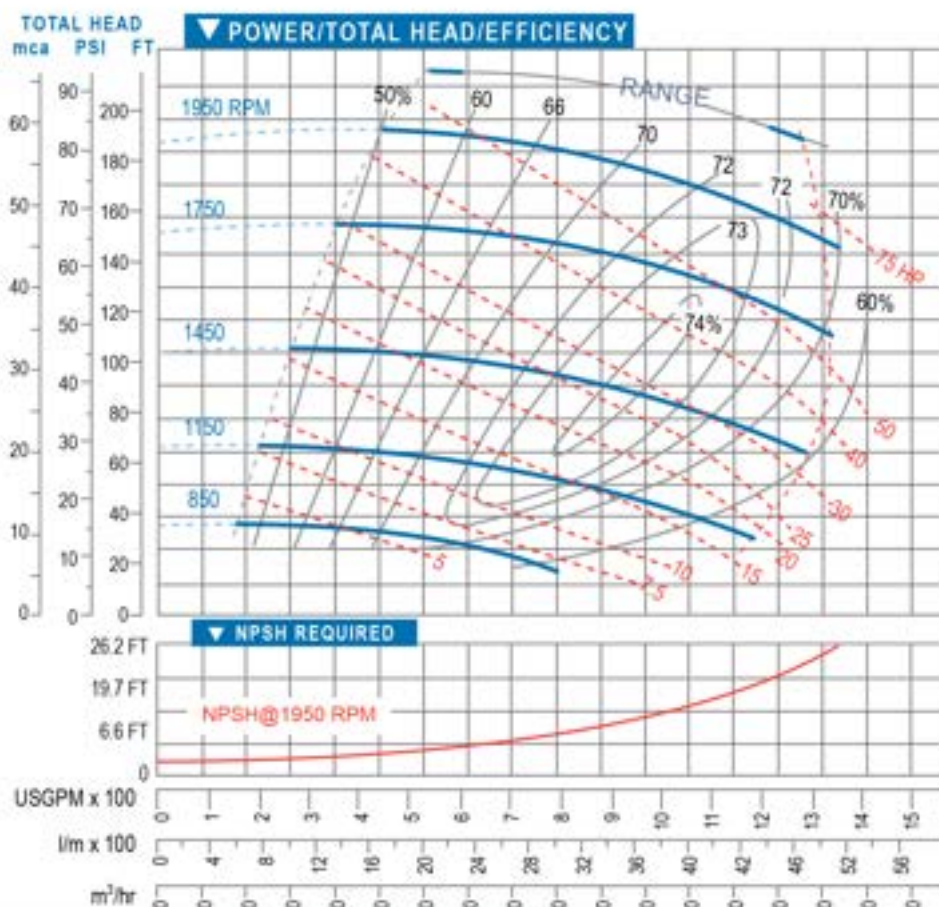
**HPU 100-280**  
Performance Curve

Impeller Dia. 279,4mm (11")  
Max Solids 28,57mm (1.1/8")  
R.P.M. from 850rpm to 2150rpm



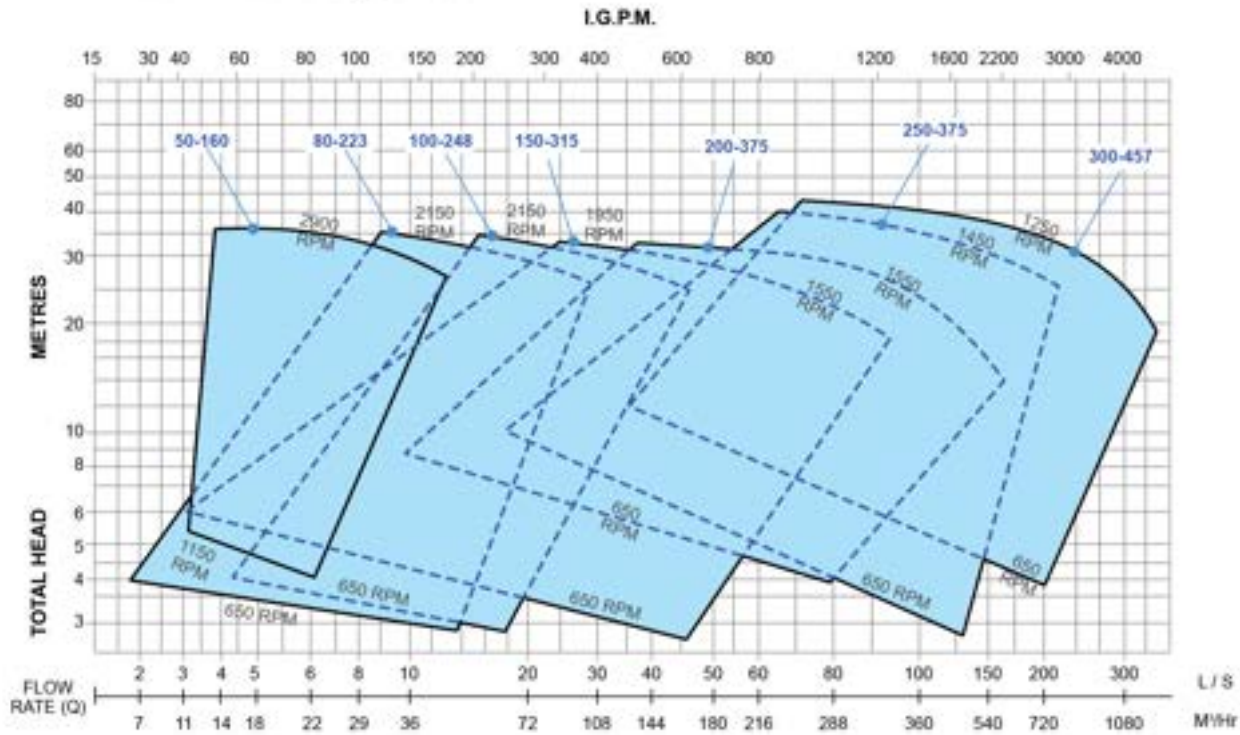
**HPU 150-318**  
Performance Curve

Impeller Dia. 317,5mm (12.1/2")  
Max Solids 31,75mm (1.1/4")  
R.P.M. from 850rpm to 1950rpm

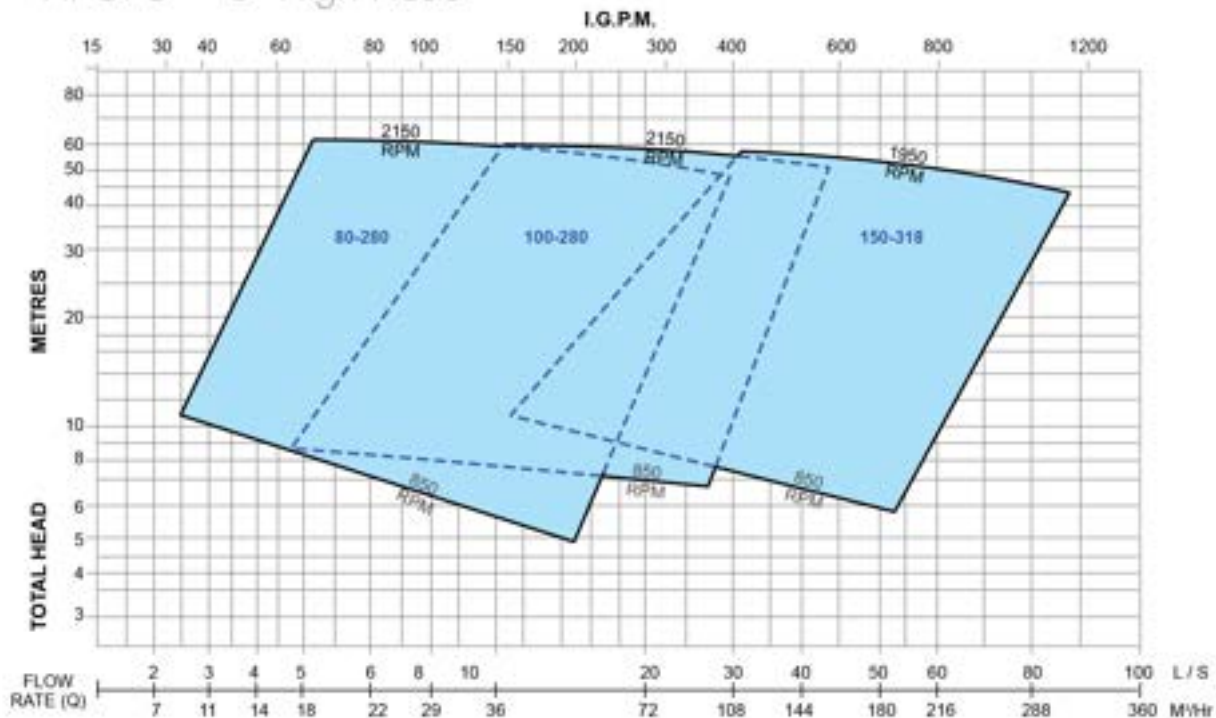




## HPT: 2" - 12" Large Flow



## HPU: 3" - 6" High Head



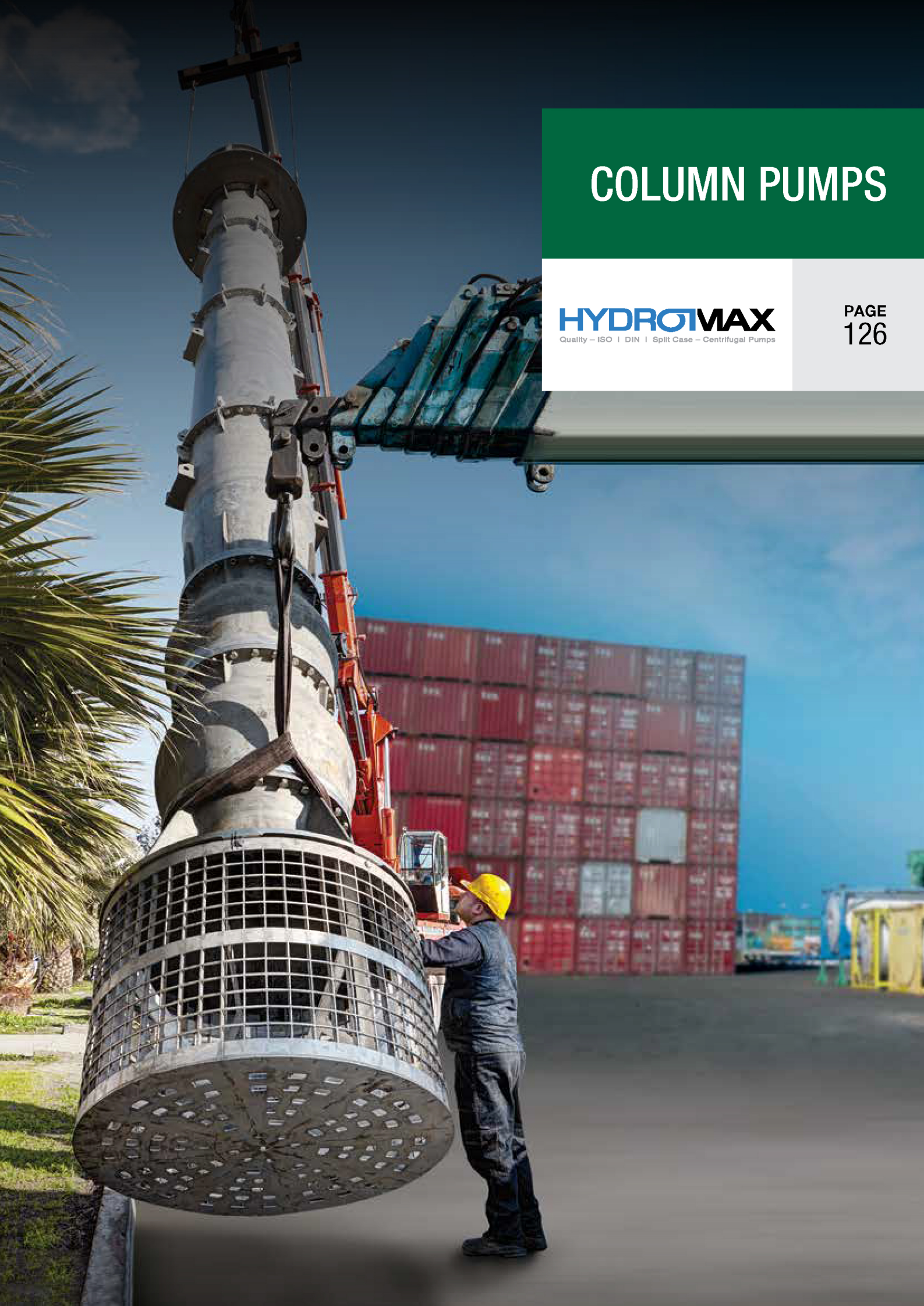




# COLUMN PUMPS

**HYDROMAX**  
Quality – ISO | DIN | Split Case – Centrifugal Pumps

PAGE  
126





A vertical column pump involves a vertical shaft supported in a vertical column. The shaft and column connect the motor which is mounted outside the pit to the pump end which is mounted inside the pit. The pump end is submerged in the liquid which allows the liquid to enter the impeller and be pumped through a volute casing and out a column discharge pipe.

The shaft and column are available in different lengths to suit the depth of the pit. Vertical column pumps are typically used for pumping water and other relatively thin liquids. They can be used for pumping liquids with small amounts of solids if correct impeller type is installed. Column pumps are available in alloys and other materials for corrosive applications.

Vertical column pumps are a relatively low cost sump pump option and as the liquid end is submerged in the liquid any possible cavitation issues are avoided.

Also, most designs need no shaft seal as the shaft column is not pressurised. Vertical sump motors are situated outside of the pit which allows easy inspection and safer maintenance, removes any risk of potential problems caused by immersion, and facilitates broader motor selection and easy repair or replacement.



## Applications

- Chemical Production
- High Temperature Liquids
- Dangerous Chemical Transfer
- General Industry
- Flammable liquids

## Lubricated Pump Shaft

The pump shaft runs in oil for lubrication of bottom locating bearings and intermediate bearing.





### Mounting Plate

A steel mounting plate, pre-drilled to take mounting bolts is fitted for simple pump installation.

### Balanced Impeller

The impeller has been balanced to ensure smooth operation, high efficiency and durability.

### TEFC Motor

The standard electric motor is a totally enclosed fan-cooled unit for protection against moisture or dust, and for cool running. All single phase motors are fitted with thermal overload protection.

### Flexible Options

There are a wide variety of options available to customise individual pumps for specific applications, including various column lengths; twin columns; cantilever design and a variety of construction materials for different components.

### Mechanical Seals

Mechanical self-adjusting seals are fitted as standard, however you have the option of fitting special high temperature seals for use over 80°C and various seal materials for special liquids.

### Material Options:

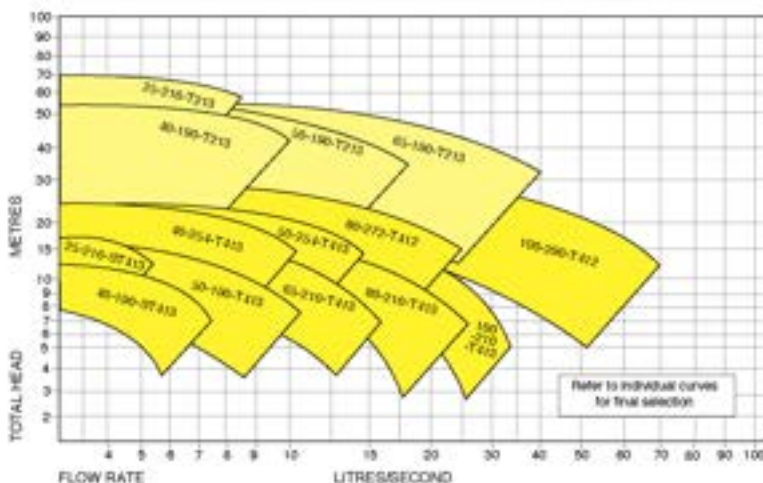
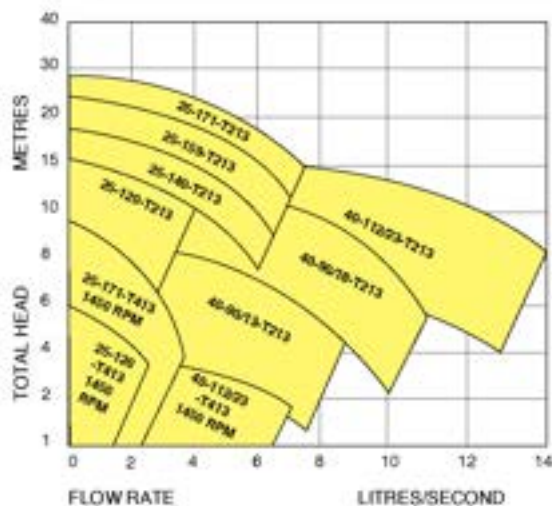
Standard construction is cast iron with a bronze impeller and stainless steel shaft. Options include all cast iron, bronze, zinc-free bronze and 316 stainless steel. Seal: mechanical - carbon/ceramic mating faces, Options Available: special seals for high temperature and various liquids.

	CAST IRON	BRONZE	Z.F. BRONZE	STAINLESS STEEL
Casting	✓	✓	✓	✓
Impeller	✓	✓	✓	✓
Shaft	—	—	—	✓

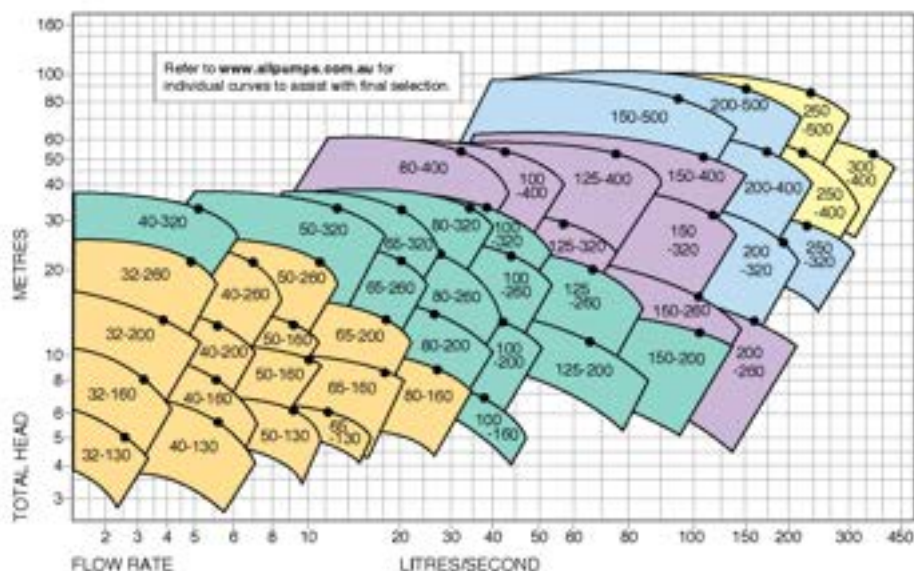


## Performance Curves

### 2900 rpm



### 1450 rpm





# SLURRY PUMP

SLURRYPRO

PAGE  
130



# SLURRYPRO

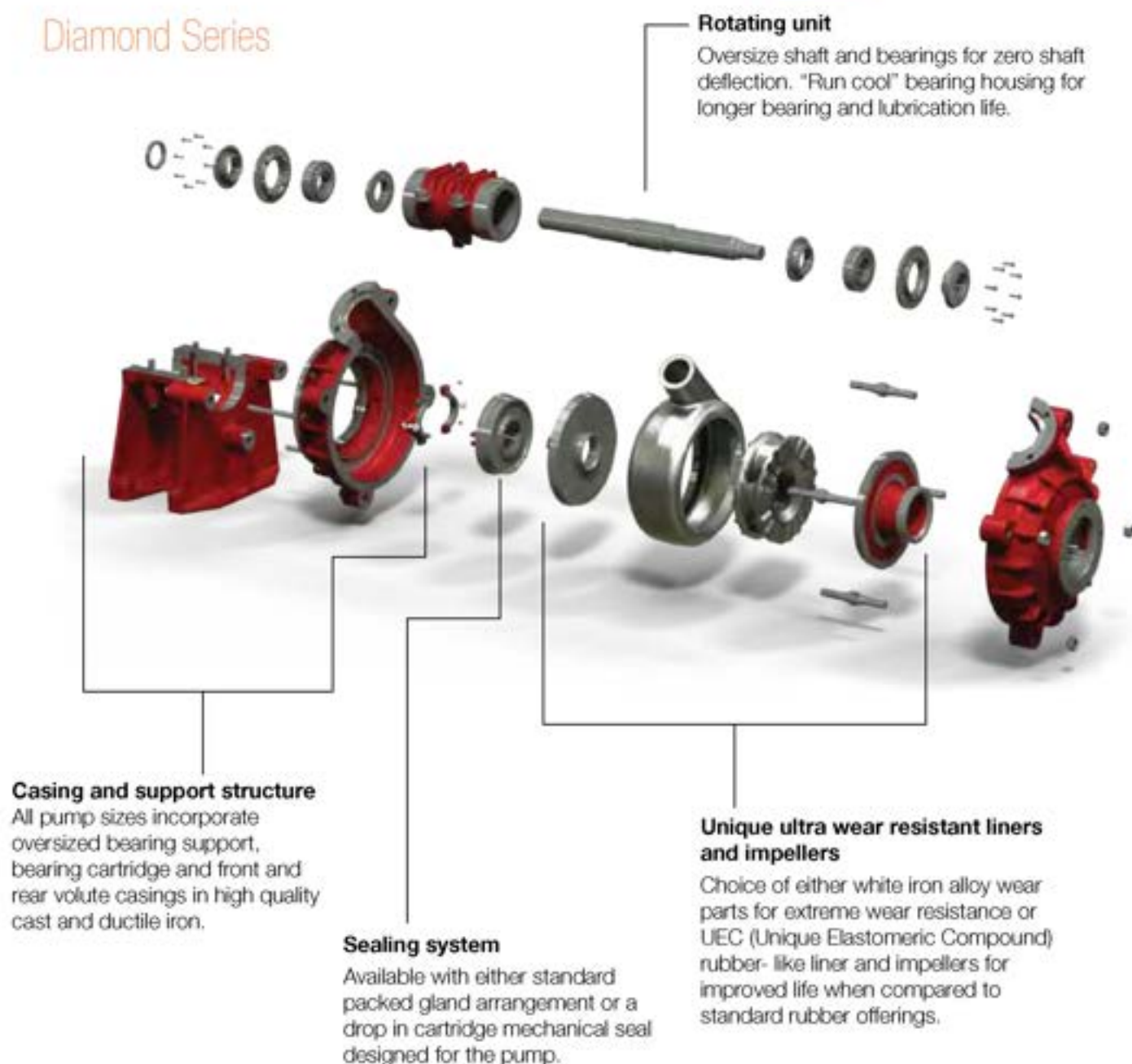
## Overview

Slurry pumps have many industrial applications where liquids containing particles must be pumped. Applications for slurry pumps include mine dewatering, pumping mine slurries and tailings, mineral processing, fly ash and bottom ash sluicing in coal-fired power plants, mill scale handling, sand and gravel sluicing in quarries and dredging operations, paper mill waste processing and clay slurry processing.

The major concern in pumping abrasive slurries is the wear on the impeller, casing and other wetted parts and along with being abrasive, many of these slurries are corrosive as well.



## Diamond Series



### Rotating unit

Oversize shaft and bearings for zero shaft deflection. "Run cool" bearing housing for longer bearing and lubrication life.

### Casing and support structure

All pump sizes incorporate oversized bearing support, bearing cartridge and front and rear volute casings in high quality cast and ductile iron.

### Sealing system

Available with either standard packed gland arrangement or a drop in cartridge mechanical seal designed for the pump.

### Unique ultra wear resistant liners and impellers

Choice of either white iron alloy wear parts for extreme wear resistance or UEC (Unique Elastomeric Compound) rubber-like liner and impellers for improved life when compared to standard rubber offerings.



Over 100 years of mining industry pump experience focused on delivering a PREMIUM range of slurry pumps. The result: the SlurryPro® DIAMOND and UEC Pump Series.

**“To provide relief from downtime and maintenance costs”**

## The Fastest Response - Globally

With profiled reserve stocks of components and a world class lean manufacturing system, delivery of pumps and parts and associated engineering support is the fastest in the industry – across 4 different continents SlurryPro® has on-the-ground presence in Australia, South America, Europe, and the United States.

## Innovation Today For Tomorrow's Demands

Engineering design improvements ensure that SlurryPro® Pumps continue running long after conventional designs have given up. Thanks to innovative design features which allow the pumps to run cooler and cleaner SlurryPro® Pumps improve operating efficiencies and greatly reduce down-time failures. A unique bearing housing design and modular “no fuss” sealing system, liner and wear part options make for a pump that really fits your application. Attention to detail – small details add up to make a big difference.

## Focused On The Mining Industry

Proven performance in a demanding industry with support and back-up by experienced regional mining industry specialists adds local knowledge to each pump unit supplied.

## Product And Part Accountability To Each And Every Customer

Quality control, identification and traceability from foundry to end-user ensure that parts consistently perform at beyond industry expectations.

## Special Configurations, Fast!

State-of-the-art manufacturing procedures make for reduced turnaround times even for alternative pump configurations and built-up skids.

## Not Just Heavy Duty, Super Duty!

Designed for the worst duties with oversized shafts and bearings and generous casting wall thicknesses mean that SlurryPro® Pumps continue to deliver in the harshest conditions.

## Effortless Upgrade

Critical dimensions are interchangeable to other common centrifugal slurry pump designs making it easy to trade up for a SlurryPro®.

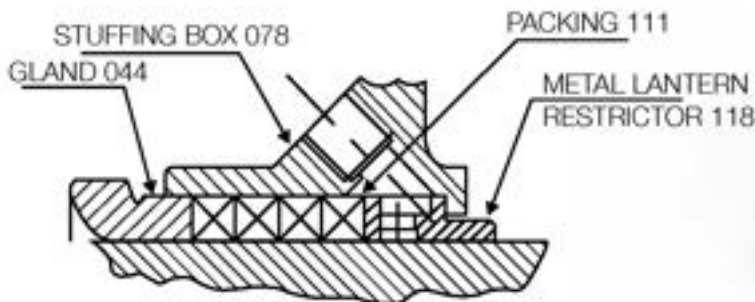


# SLURRYPRO

## Sealing System

The modular sealing chamber design of the SlurryPro DIAMOND and UEC series pumps allows for flexibility when specifying new pumps or upgrading existing pumps:

- 1 Independently lubricated SlurryPro modular cartridge seal**  
O-ring dampened sealing faces for excellent shock resistance, no flushing or water supply required, modular parts for simple on-site repair and extreme tolerance to axial movement means that impeller adjustment does not require seal removal or clamping.
- 2 Expeller design**  
For low inlet pressure applications.
- 3 Wear resistant gland packing**  
Tough gland packing on a hardened replaceable shaft sleeve provides a rugged, cost effective sealing solution. A variety of packing materials including chemically and wear resistant braided packing rings and injectable "on the run" sealing products are available.

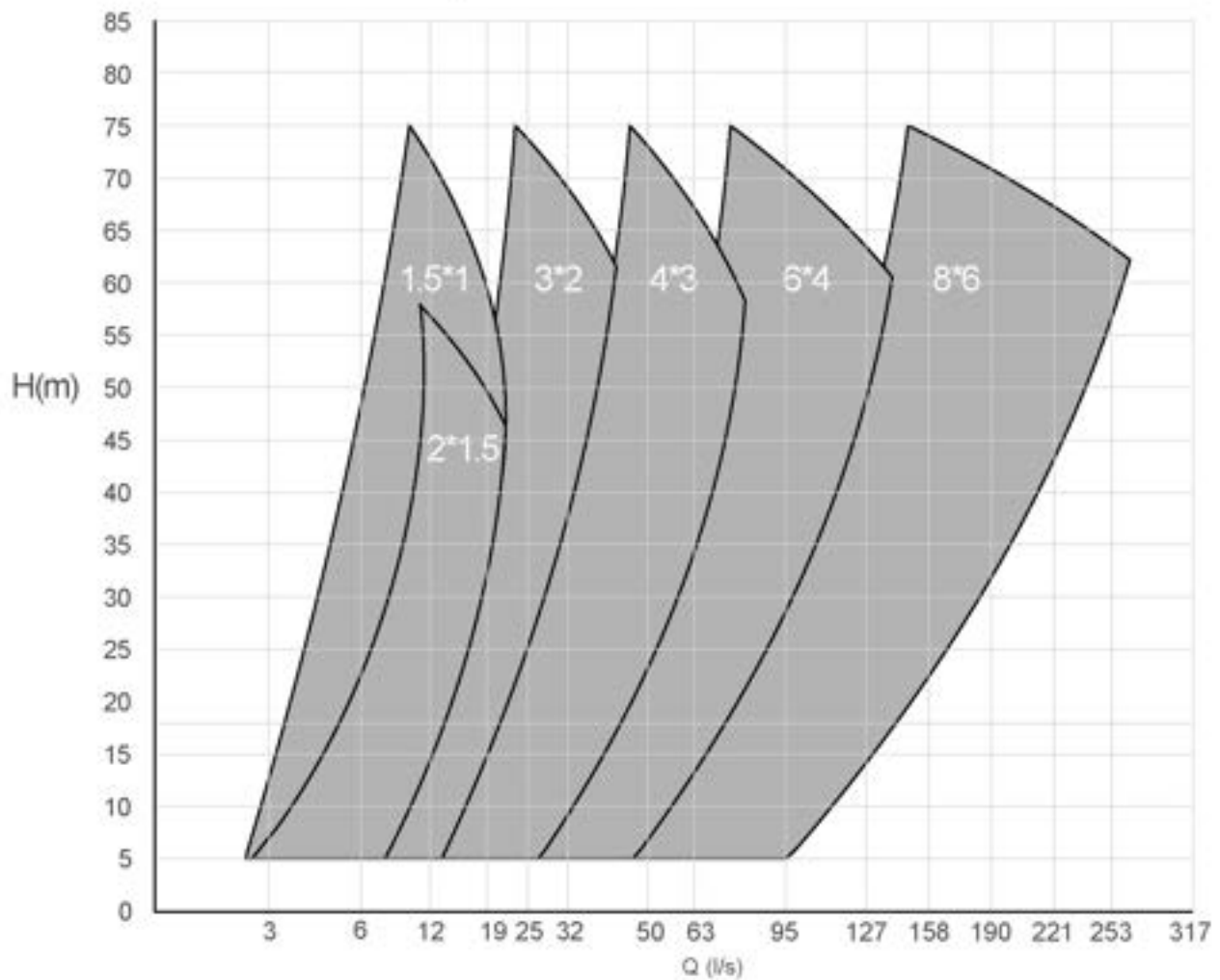




## Performance Curves

SD Series - SlurryPro Diamond

SU Series - SlurryPro UEC



Max discharge pressure is dependent on impeller and liner configuration – consult factory

## SLURRYPRO

### Upgrade With Interchangeable Technology

The SlurryPro Silver Series is a flexible, proven range of horizontal and vertical slurry pumps in a wide range of sizes. Available with both high chrome and different grades of rubber wearing parts. The SlurryPro Silver Series pump and spare range allows you to continue using your current pump configurations, spares stock and pipework configuration.



### Vertical

This heavy duty range features a cantilever shaft design that eliminates any bearings or seals in the fluid end. An ideal pump for heavy slurry wash down and spill duties. A full range of material options including complete elastomer lined pumps and hard metal options for corrosive and abrasive media duties.

Pumps in all sizes can be configured with a range of column lengths and impeller designs. They are ideal for corrosive coarse particles and high concentrations of slag pulp and are widely used in the metallurgical, mining and coal industries.



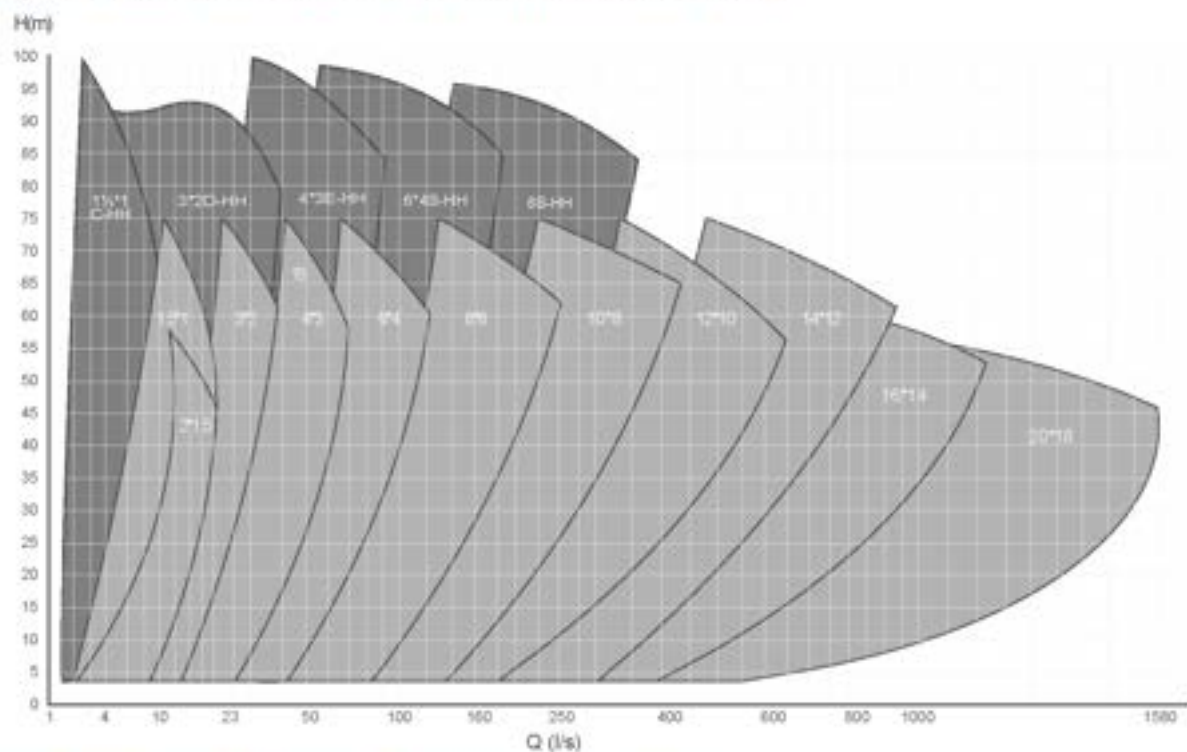
### Horizontal

A complete range of sizes are available across the full selection of pump types and materials. Components come in a range of elastomer and hard metal types and materials to suit any application, for maximum abrasion and corrosion resistance. The removable cartridge-type bearing assembly facilitates easy on-site maintenance procedures on-site.

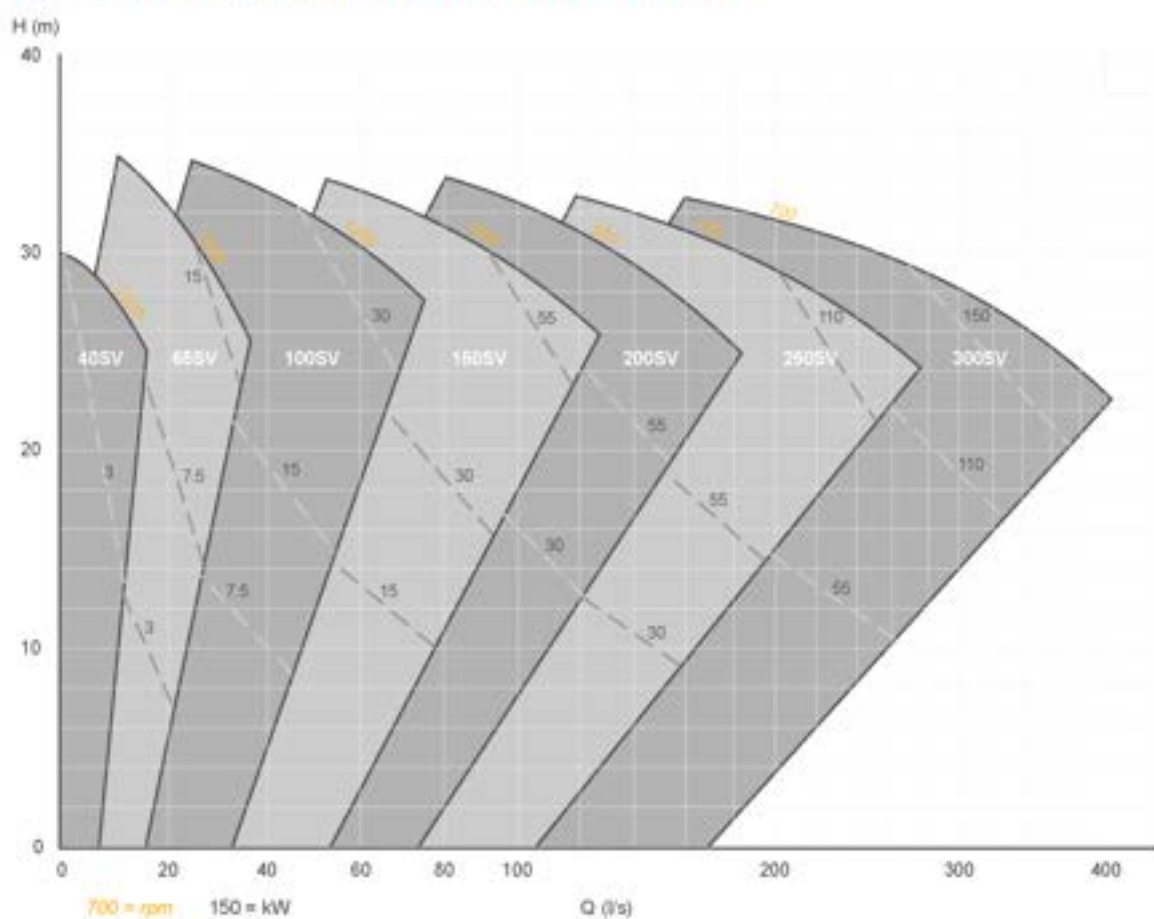
A range of seal types are provided to suit every requirement, including centrifugal shaft seals to eliminate gland sealing water are available.



## Silver Series Horizontal Performance Curves

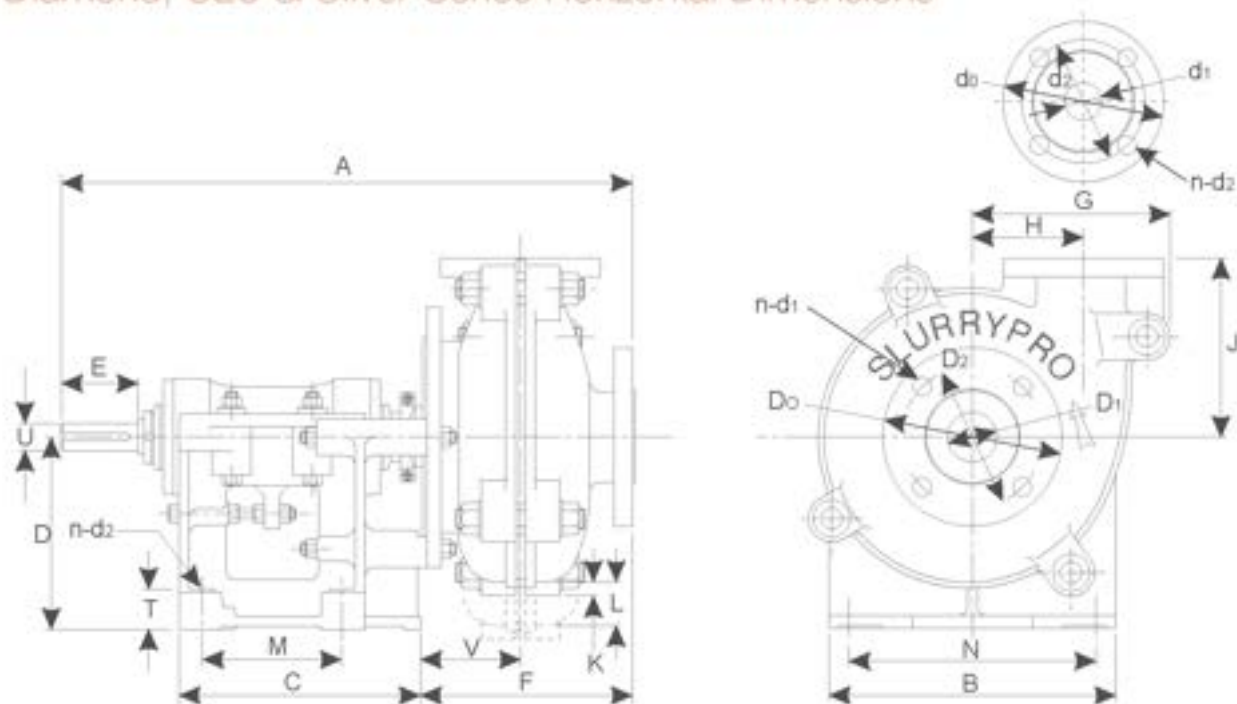


## Silver Series Vertical Performance Curves



# SLURRYPRO

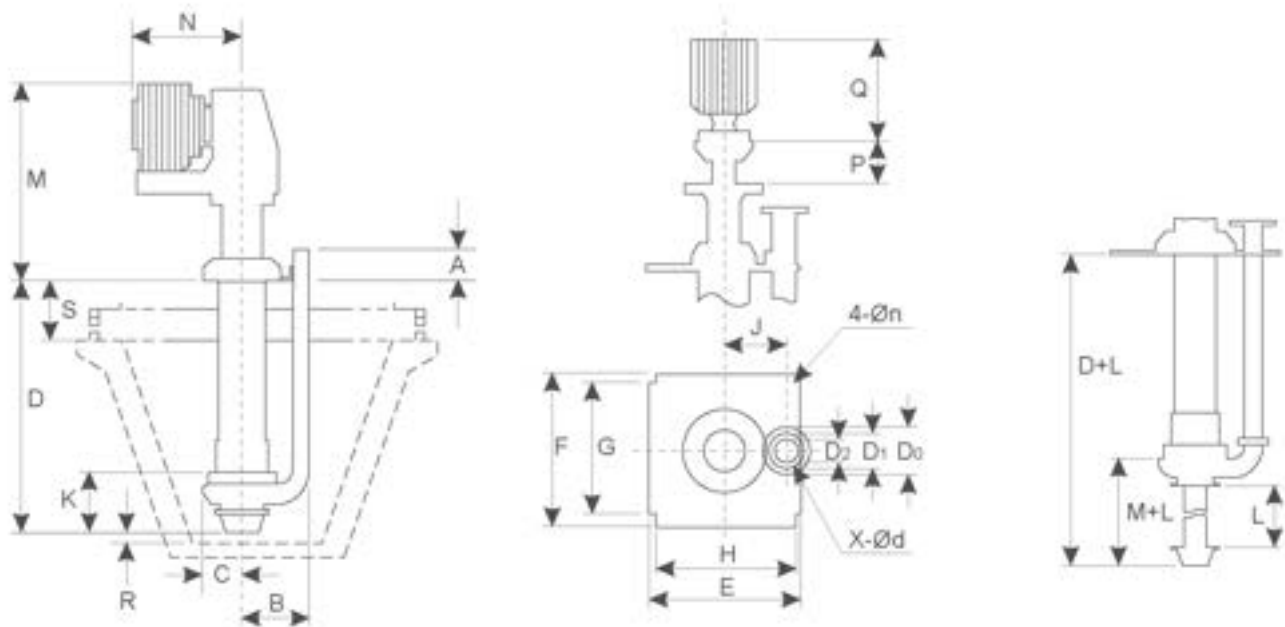
## Diamond, UEC & Silver Series Horizontal Dimensions



TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	N-D	SUCTION FLANGE				DISCHARGE FLANGE				PUMP WEIGHT	
																			D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>	N-D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	N-D <sub>1</sub>	METAL	RUBBER
L5*18	583	295	248	197	28	79	206	181	98	171	46	-	143	254	181	38	24	4-014	152	38	114	4-016	165	25	127	4-016	91	77
L5*1C	759	406	311	254	42	121	306	270	194	254	-	11	175	356	232	48	32	4-019	152	38	114	4-017	152	25	114	4-017	138	-
2*1.5B	592	295	248	197	28	79	217	205	114	184	33	-	143	254	184	38	24	4-014	184	51	146	4-019	165	38	127	4-019	104	138
3*2C	768	406	311	254	42	121	281	238	138	210	71	-	175	356	233	48	32	4-019	216	76	178	4-019	184	51	146	4-019	191	154
3*2D	986	492	364	330	65	164	389	384	234	368	-	51	213	432	298	44	38	4-022	216	76	178	4-019	203	51	165	8-019	750	-
4*3C	843	406	311	254	42	121	354	292	148	262	24	-	175	358	270	48	32	4-019	279	102	235	4-022	229	76	191	4-022	263	236
4*3D	943	492	364	330	65	164	353	292	148	262	100	-	213	432	279	44	38	4-022	279	102	235	4-022	229	76	191	4-022	363	290
4*3E	1240	622	448	457	80	222	462	462	330	432	-	-	257	546	381	76	54	4-029	254	102	210	8-019	254	76	230	8-019	1250	-
6*4D	1021	492	364	330	65	164	403	406	229	338	13	-	213	432	318	44	38	4-022	337	152	292	4-32	279	102	235	4-32	626	454
6*4E	1178	622	448	457	80	222	433	406	229	338	138	-	257	546	351	76	54	4-029	337	152	292	4-022	279	102	235	4-022	728	635
6*4S	1668	820	780	450	120	280	596	616	413	546	-	134	640	760	353	90	70	4-035	337	152	292	8-022	305	102	280	8-022	2880	-
8*6E	1302	622	448	457	80	222	357	351	318	460	-	62	257	546	402	76	54	4-029	406	203	356	8-022	368	152	324	8-021	1473	982
8*6R	1360	680	590	350	85	215	-	511	318	460	-	170	490	560	312	70	50	4-028	406	203	356	8-022	368	152	324	8-022	1655	-
8*6T	2275	1150	1040	650	150	230	852	835	584	813	-	180	880	900	398	125	80	4-040	432	203	375	8-029	432	152	375	8-029	6386	-
10*8E	1337	622	448	457	80	222	584	613	381	470	-	83	257	546	403	76	54	4-029	502	254	445	8-029	432	203	375	8-029	1623	1202
10*8R	1385	680	590	350	85	215	-	613	381	470	-	190	490	560	314	70	50	4-028	502	254	445	8-029	432	203	375	8-029	1836	-
10*8T	1748	1150	790	650	120	280	692	673	419	635	27	-	620	900	439	125	80	4-040	502	254	445	8-029	432	203	375	8-029	3750	3130
12*10S7	1836	1150	790	650	120	280	762	755	464	674	-	8	620	900	461	125	80	4-040	527	305	470	12-025	527	254	470	12-025	4318	3357
14*12S7	1873	1150	790	650	120	280	812	937	629	832	-	224	620	900	486	125	80	4-040	585	356	521	12-025	552	305	485	12-025	6409	4672
16*14TU	2320	1460	1030	900	150	330	933	1048	660	889	-	84	880	1200	597	150	95	4-079	705	406	641	12-033	673	356	630	12-029	10000	-
20*18TU	2475	1460	1030	900	150	330	1300	1420	940	1230	-	420	880	1200	615	130	95	4-079	900	508	800	12-042	900	460	800	12-042	18864	15421



## Silver Series Vertical Dimensions



PUMP			A	B	C	D		E	F	G	H	J	Øn	K	M	N	P	Q	PUMP WEIGHT (KG)	S	DISCHARGE FLANGE SIZE				
SIZE	FRAME	TYPE				1200mm	1800mm														Ø D1	Ø D2	Ø D0	X-Ød	
40	PV(L)	40PV	137	265	153	900	1200	1800	300	300	450	490	205	18	174	1113	675	248	629	285	200	127	40	96	4-Ø16
		40PVBC	140	265	175		2200	2300																	
65	QV(L)	65QV	227	399	231	1200	1200	1500	680	680	620	620	265	18	265	1390	794	290	681	432	350	178	65	140	4-Ø19
		65QVR	230	390	260		2200	2300																	
100	PV(L)	100PV	256	538	317	1500	1200	1800	1000	870	800	930	400	22	393	1800	1020	416	960	867	350	229	100	191	8-Ø19
		100PVR	266	435	332		1200	1800																	
150	SV(L)	150SV	390	670	365	1800	1500	2100	1100	1100	1030	1030	500	28	475	2186	1290	478	1011	1737	350	280	150	241	8-Ø22
		150SVR	395	670	400		2000	3200																	
200	SV(L)	200SV	450	805	440	1800	1500	2100	1300	1200	1100	1200	600	28	530	2181	1300	478	1011	2800	350	340	200	298	8-Ø22
		200SVR					2000	3200																	
250	TV(L)	250TV	500	900	470	2100	1800	2400	1750	1490	1350	1650	700	48	685	2572	1750	561	1246	3700	400	406	250	362	12-Ø25
		250TVR					2000	3200																	
300	TV(L)	300SP	500	1170	558	2100	1800	2400	1750	1490	1350	1650	700	48	700	2476	1750	561	1246		400	403	300	432	12-Ø25
		300SPR	400	1090	630		2000	3200																	

NOTE: L size: 0, 300, 600, 900, 1200, 1800 Standard pump: L=0, R dimension range: 300-50mm.

\* Dimensions subject to change without notice

# SLURRYPRO

## Silver Series Parts

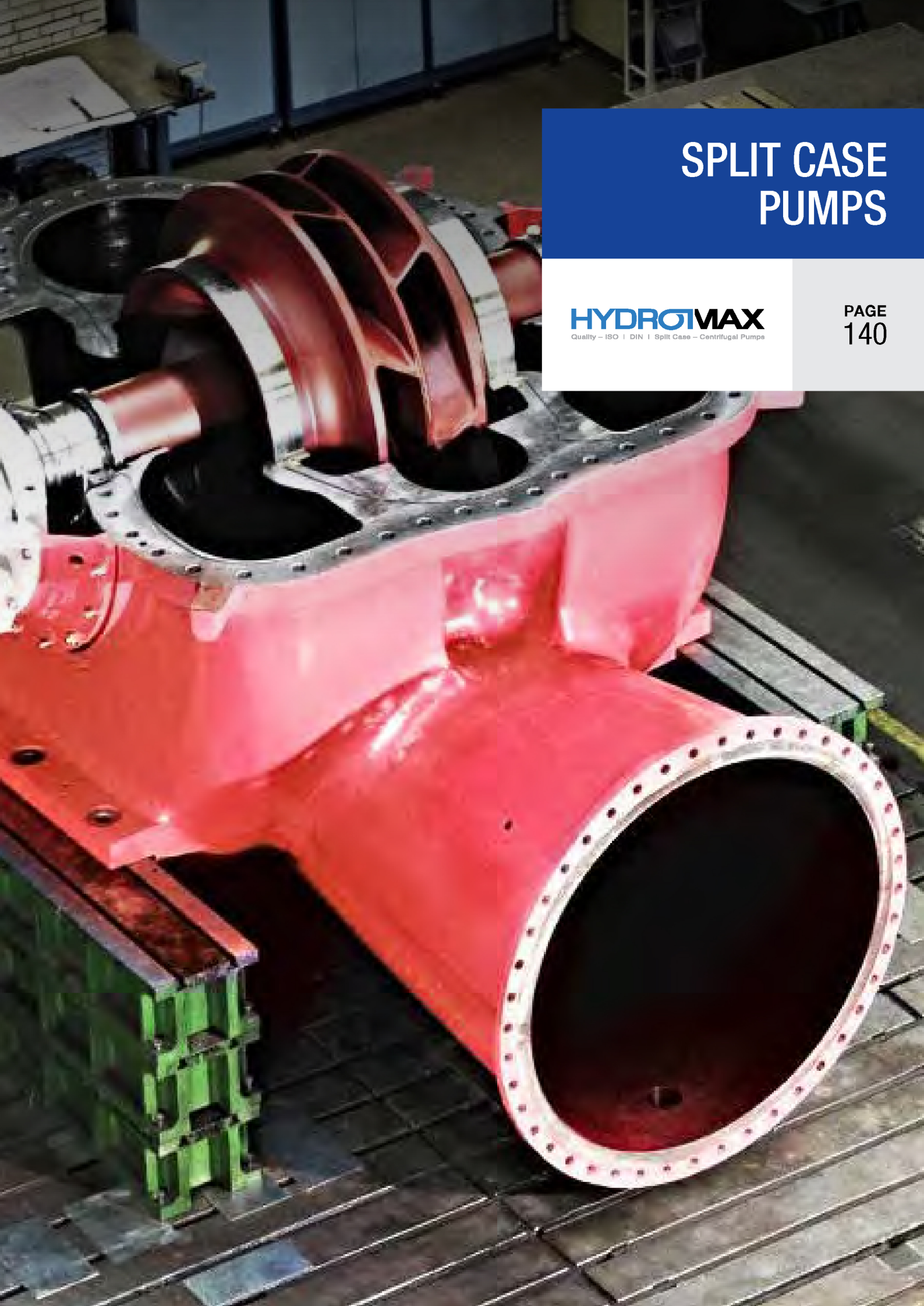


SlurryPro offers a wide range of interchangeable replacement spare parts to suit most common brand slurry pumps.

- Impellers - hard metal and elastomer
- Casing liners - hard metal and elastomer
- Shaft units
- Bearings
- Seals and Sealing Systems







# SPLIT CASE PUMPS

**HYDROMAX**  
Quality – ISO | DIN | Split Case – Centrifugal Pumps

PAGE  
140



## HYDROMAX

Quality – ISO 1 – DIN 1 – BS8000 – Certified Products

Horizontal split case pumps, or as they are occasionally called axially split case pumps, are widely used where extremely high flow rates of water are required.

These pumps are widely used in any of the following applications:

- Condenser Water
- Chilled Water Circulation
- Hot Water Circulation
- General Industry
- Water Supply
- Drainage
- Boiler feed applications requiring high pressure and high flow.

The beauty of horizontal split case pumps is that they can be maintained in place without the need to remove or disconnect piping.

The lowest life-cycle range of split case pumps has been developed to offer the end user maximum efficiency and design life over a wide range of duties. The well proven design not only achieves market leading efficiencies, but also offers long component life, easy maintenance and reduced levels of efficiency degradation.

The standard materials of construction include a stainless steel impeller, stainless shaft cartridge mechanical seals and internally coated casing.



## Nomenclature

HS	250	- 450	A	- L	- R(F)	- MS/GP
<b>EXAMPLE</b>						
HS split casing pumps	Outlet of pump (mm)	Diameter of Impeller (mm)	Impeller is trimmed one time	L: Vertical Constructure	R: Hot Water F API 610 BB1 (Petrochemical application)	MS: Mechanical Seal GP: Gland Packing

## The Technical Parameter of Type HS Pumps:

<b>DN</b>	80~1400mm	
<b>Q</b>	22~25200m <sup>3</sup> /h	
<b>H</b>	7~280m	
<b>T</b>	-20°C~105°C	-60°C~200°C
<b>SOLID CONTAINS</b>	80mg/L	
<b>WORKING PRESSURE</b>	<2.5Mpa	<4Mpa
<b>FLANGE STD</b>	DN, ANSI, BS, JIS, GB	

- High Efficiency and low pulsation
- Wide performance range with up to 280m head and 25,200m<sup>3</sup>/hr
- Stable service and low maintenance
- Heavy duty design and long life span
- Options for CW/CCW rotation
- Fine production and shortest down time
- HS is the horizontal single stage axial split casing centrifugal pumps with double suction impeller.
- Axially split casing, allows maintenance to the pump without removing pipework.
- The shaft can be sealed by either gland packing or mechanical seal.

### Casing

- Cast Iron
- Ductile Cast Iron
- Ni-resistant cast iron
- Cast Steel
- AISI304
- AISI316
- AISI316L
- Duplex stainless steel

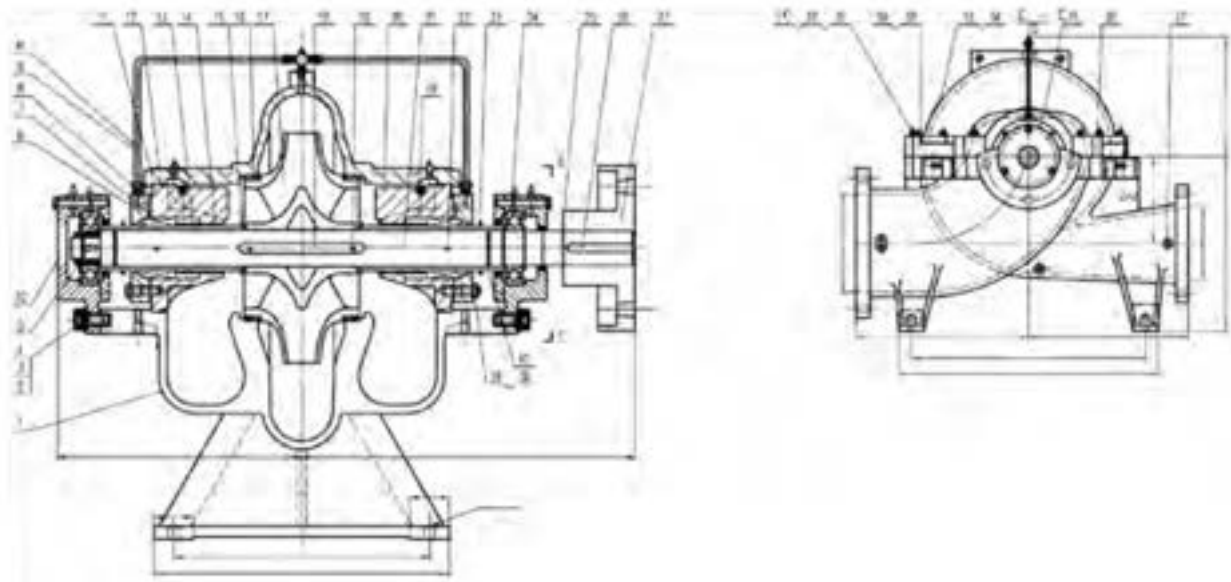
### Shaft

- Carbon steel ASTM1045
- AISI304
- AISI316
- AISI316L
- Duplex Stainless steel

### Impeller

- Cast Iron
- Ductile Cast Iron
- Ni-resistant cast iron
- Cast Steel
- Bronze
- AISI304
- AISI316
- AISI316L
- Duplex stainless steel
- cast Iron



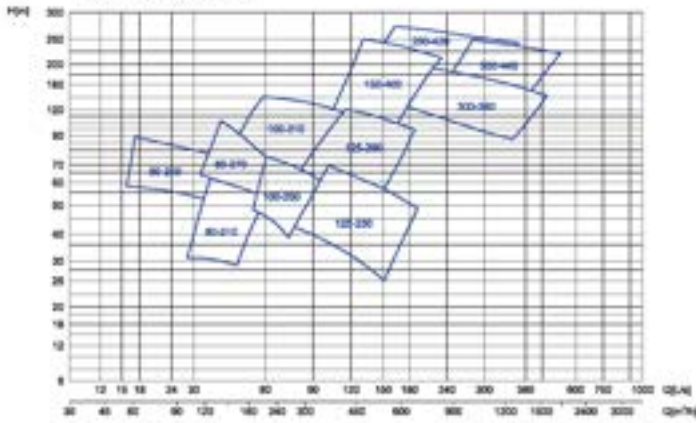


1	Pump casing
2	Bolts
3	Washer
4	Gasket
5	Key
6	Seal Cover (mechanical seal)
7	Mechanical Seal
8	Washer
9	Flushing assembly for mechanical seal
10	Bearing assembly for no drive end
11	Seal mounted
12	O-ring
13	Sleeve for mechanical seal
14	Shaft sleeve for mechanical seal
15	O-ring
16	Wear Ring
17	Impeller
18	Key
19	Bolts
20	Pump Casing
21	Shaft

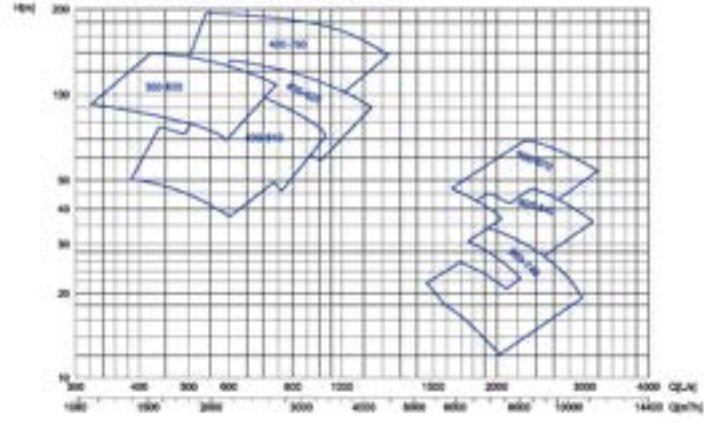
22	Bolts
23	Water Slap Ring
24	Bearing assembly for drive end
25	Water Slap Ring
26	Key
27	Pump Coupling
28	Rivets
29	Nuts
30	Bolts
31	Nuts
32	Bolts
33	Nameplate
34	Rivets
35	Rotation Plate
36	Washer
37	Plug
38	Bolts
39	Buts
40	O-ring
41	Flushing parts for mechanical seal

## Performance curves

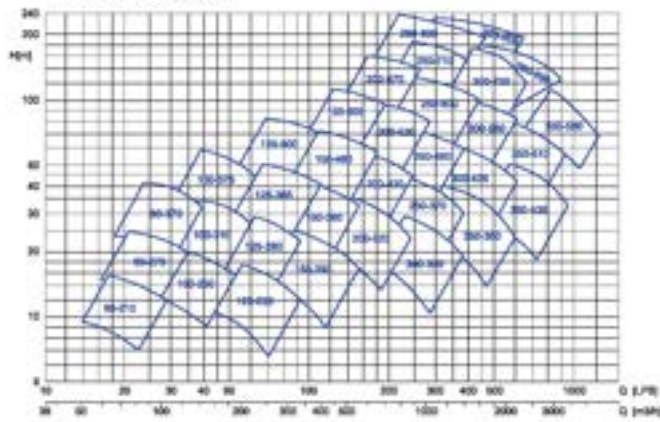
**n=2900r/min**



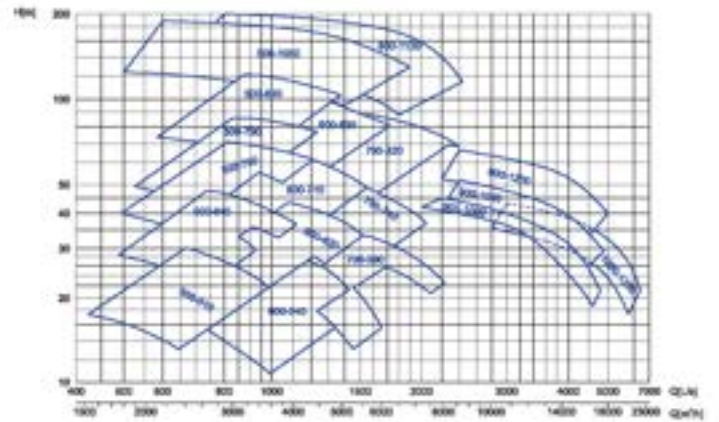
**n=1450r/min, 725r/min**



**n=1450r/min**



**n=960r/min, 590r/min, 490r/min**





# MULTISTAGE HORIZONTAL PUMPS



PAGE  
144





The JH, JHI series are non-self priming, horizontal multistage centrifugal pumps. The pump is close coupled to the motor and mounted on a base plate. This user friendly design makes the pump suitable for installation in small domestic and industrial water supply or transfer applications. The pump is fitted with a mechanical seal and common pump-motor shaft.



## Type Key

Example -	JH	4	-	30	-	CQBE
	Pump type	Nominal flow rate [m <sup>3</sup> /h]		Number of stages x 10		Mechanical Seals

## Pipe Connections

CONNECTION	JH, JHI	JH, JHI
Suction port	1" BSP	1 1/4" BSP
Discharge	1" BSP	1" BSP
Drain hole, piping hole	3/8" BSP	3/8" BSP

The pump is fitted with a totally enclosed, fan-cooled motor.

## Motor

Standard voltages	1 x 220 - 240V, 50 Hz 2 x 220 - 240 / 415V, 50Hz
Rated speed	2800 rpm (50Hz)
Enclosure class	IP 54
Insulation class	F

The pump is fitted with a totally enclosed, fan-cooled motor.



## Operating Conditions

Liquid: Clean liquid without solid particles.  
Liquid temperature range: 0°C ~ +90°C.  
Maximum ambient temperature: +50°C.

The maximum operating pressure depends on the temperature of the pumped liquid.

Max. Operating Pressure	JHI(1)2, JHI(1)4
10kg/cm <sup>2</sup>	0°C + 40°C
6kg/cm <sup>2</sup>	+41°C to +90°C

## Mechanical Seals

LIST OF MATERIALS	
Q: Silicon carbide	E: EPDM
U: Tungsten Carbide	V: Viton
B: Carbon	C: Seal type
A: Seal Type	

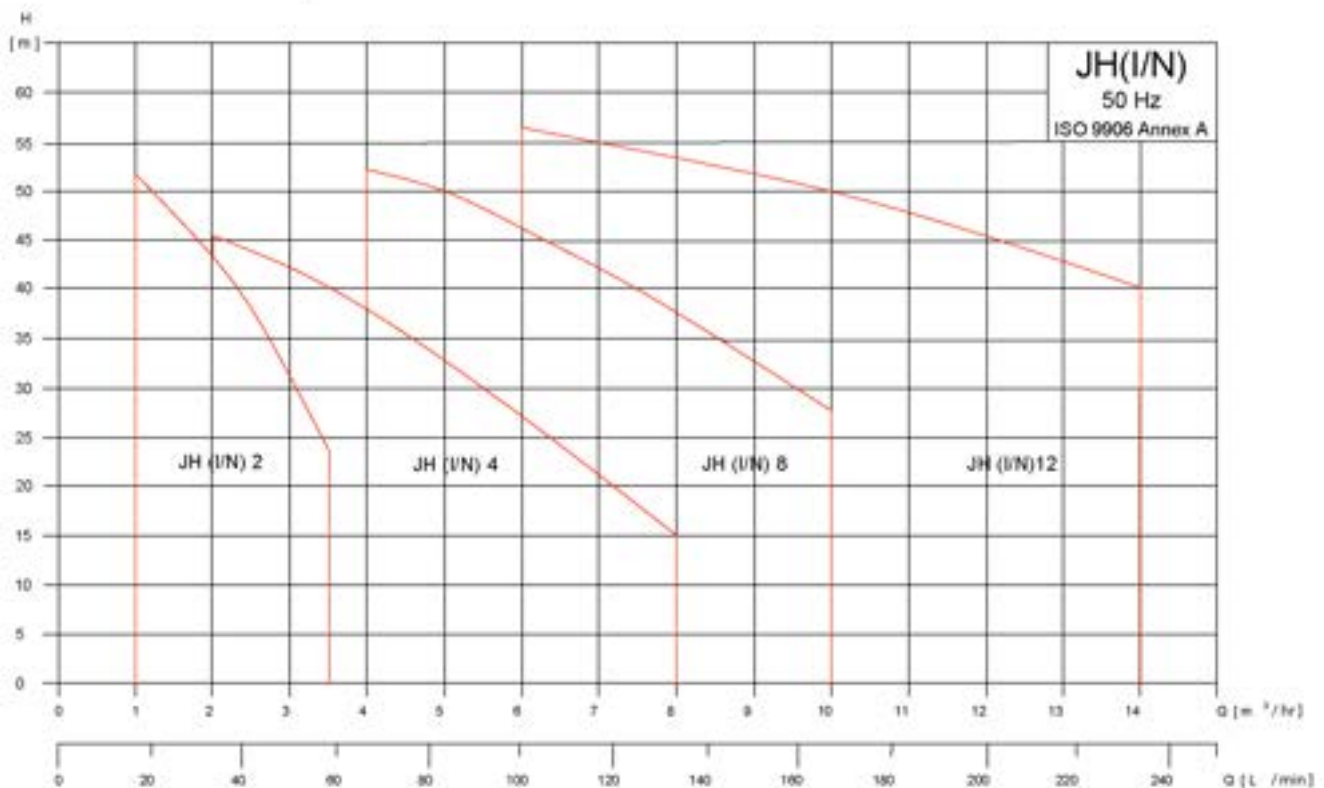
JH, JHI 2/4	
CQB	•
CQQ	Optional
AUU	Optional

O-RINGS	
E	•
V	•

Key: Standard •



## Performance Range 50Hz



## Pumps

The JH and JHI series are non-self priming, horizontal multistage centrifugal pumps. The Pump is close coupled to an electric motor with a common shaft and mounted on a base-plate. This design makes the pump suitable for installation in the small domestic or industrial water supply systems. The pump is fitted with a mechanical seal and common pump-motor shaft.

**JH** - The discharge and suction chamber are made of cast iron. The other parts of pump in contact with the liquid are made of stainless steel.

**JHI** - All parts of the pump in contact with the liquid being pumped are made of stainless steel. EPDM or Viton elastomers are available as standard.

### APPLICATION

- ✓ Domestic
- ✓ Liquid Transfer and circulation
- ✓ Pressure Boosting



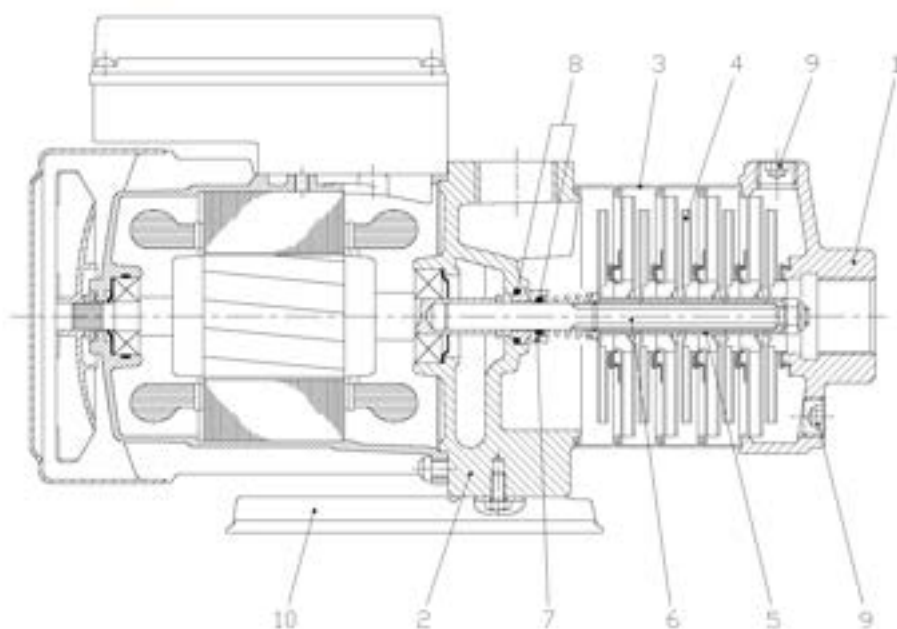
### DID YOU KNOW?

These pumps can be configured in pressure boosting systems?

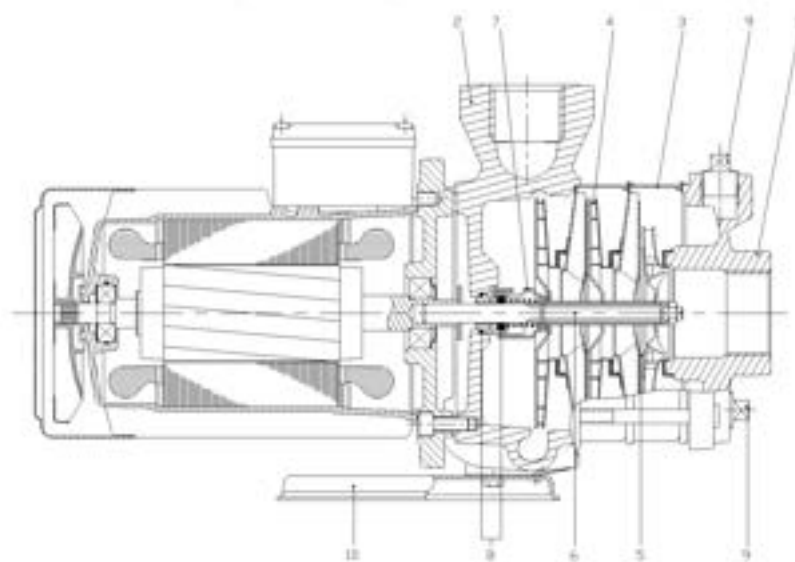
Refer to the **Site Amenities** section for more info

## Materials of Construction

JH 2,4



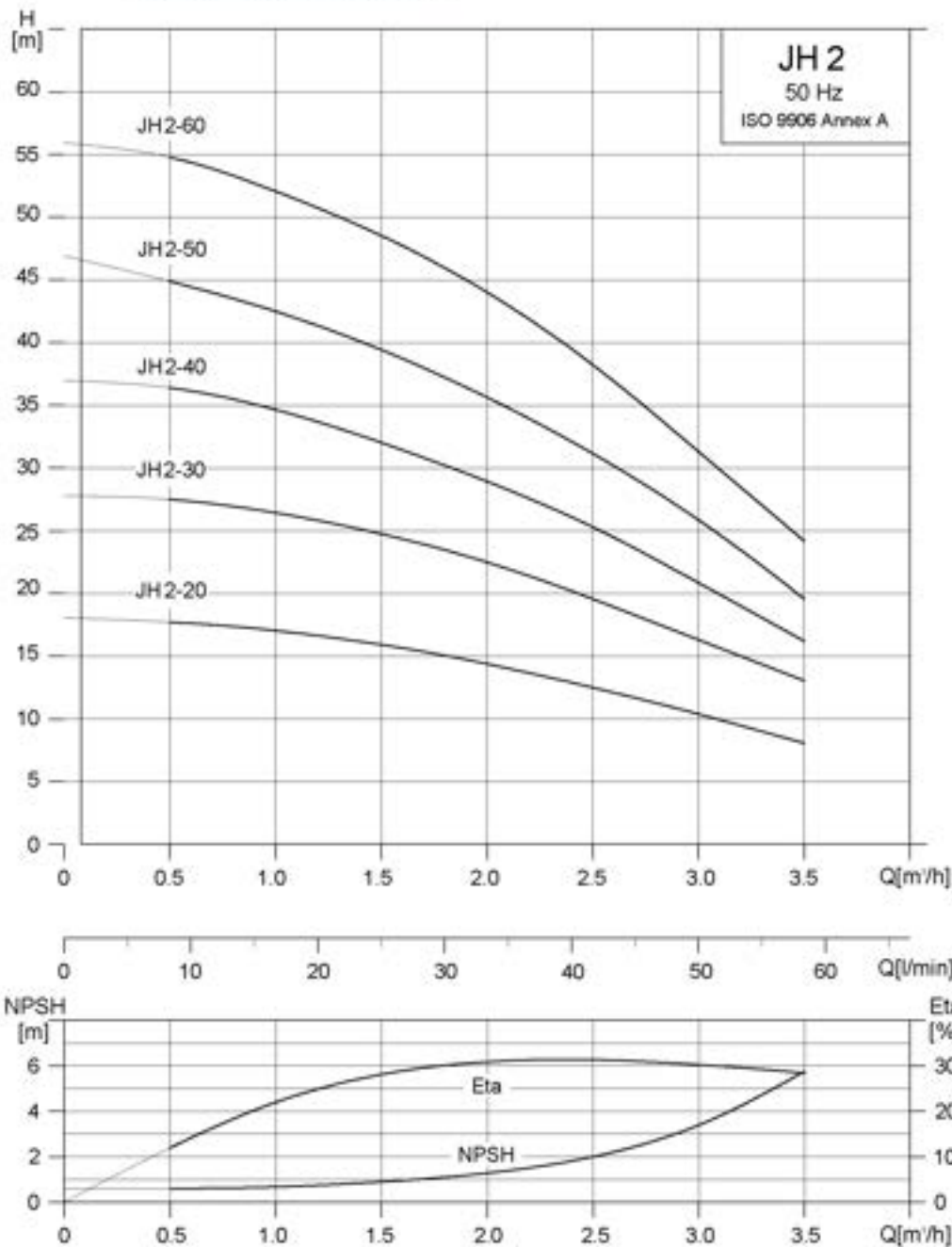
JH 8,12



POS.	DESCRIPTION	MATERIALS
		JH
1	Suction chamber	Cast iron
2	Pump head	Cast iron
3	Intermediate chamber	SS304
4	Impeller	SS304
5	Spacer	SS304
6	Shaft	SS431
7	Mechanical Seal	Silicon carbide / carbon
8	O-ring	EPDM or Viton
9	Drain and priming plug	Steel
10	Base plate	Steel



## Performance Curve



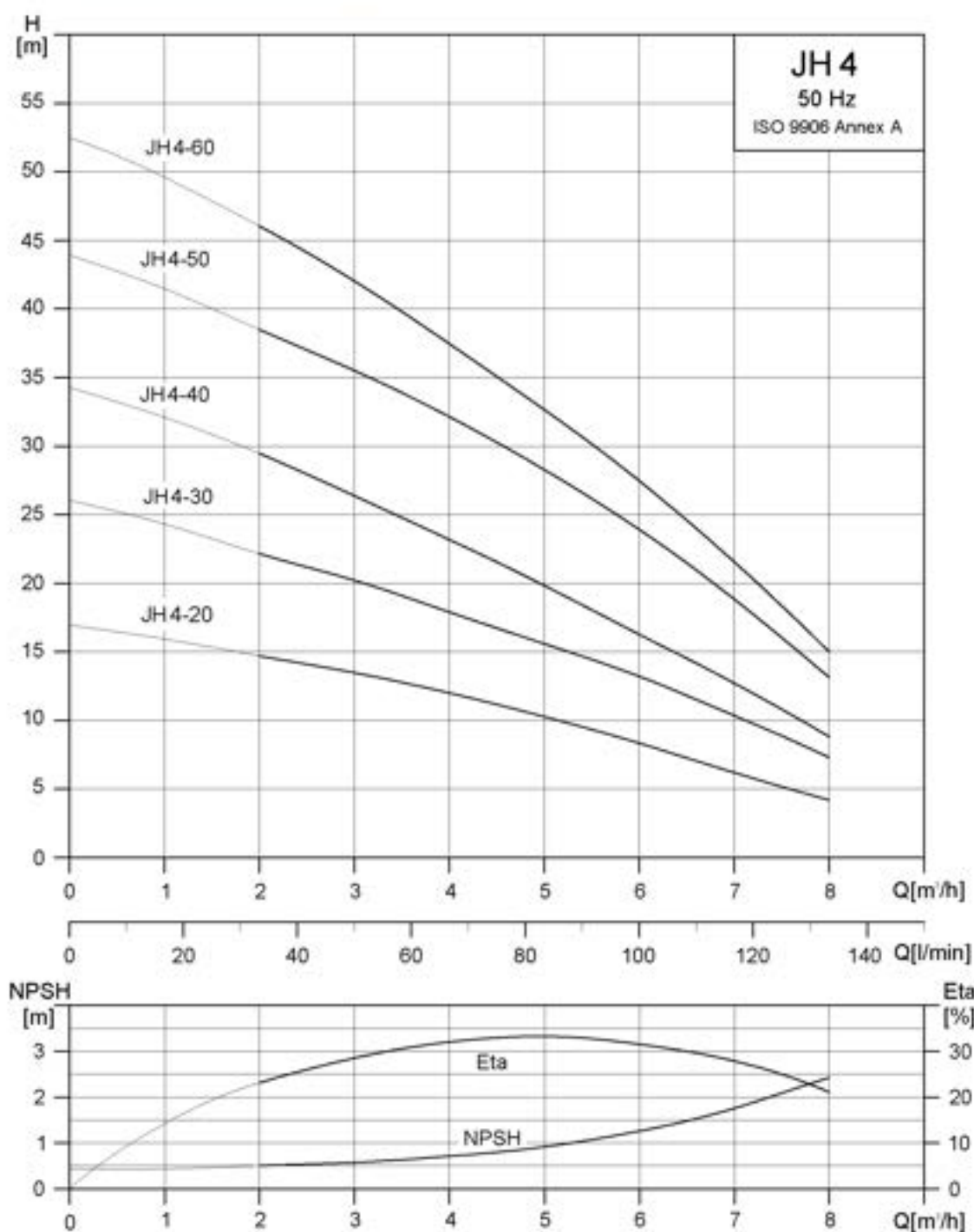
MODEL NUMBER	1 X 220 - 240V		3 X 220 240 Δ / 380 - 415 Y V	
	P.[W]	P.[W]	P'[W]	I 1/1 [A]
JH 2-20	420	2.1	380	1.8/ 1.1
JH 2-30	480	2.3	460	1.9/ 1.2
JH 2-40	570	2.6	560	2.0/ 1.2
JH 2-50	680	3.2	660	2.7/ 1.2
JH 2-60	810	3.7	810	2.8/ 1.6

**DID YOU KNOW?**

These pumps can be configured in pressure boosting systems?

Refer to the Site Amenities section for more info

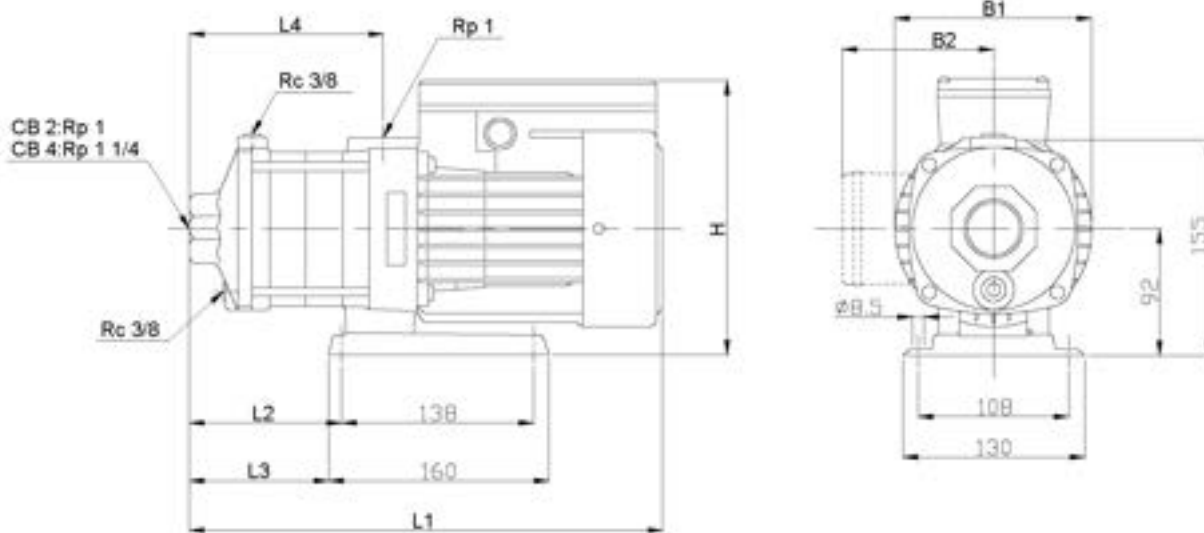
## Performance Curve



MODEL NUMBER	1 X 220 - 240V		3 X 220 240 Δ / 380 - 415 Y V	
	P.[W]	I 1/1 [A]	P'[W]	I 1/1 [A]
JH 4-20	540	2.4	560	2.0/1.2
JH 4-30	820	3.5	770	2.3/1.3
JH 4-40	1020	4.3	1000	3.1/1.8
JH 4-50	1220	5.4	1200	4.0/2.3
JH 4-60	1450	6.2	1400	4.6/2.7



## Dimensions &amp; Weight



MODEL NUMBER	MM									KG	
	L1	L2	L3	L4	B1	B2		H		1 PHASE	3 PHASE
						1 PHASE	3 PHASE	1 PHASE	3 PHASE		
JH 2-20	309	75	63	101	141	127	112	228	206	10.3	10.0
JH 2-30	327	93	81	119	141	127	112	228	206	10.5	10.3
JH 2-40	345	111	99	137	141	127	112	228	206	10.6	10.5
JH 2-50	363	129	117	155	141	127	112	228	206	10.6	10.2
JH 2-60	381	147	135	173	141	127	112	228	206	11.8	11.2
JH 4-20	318	84	72	110	141	127	112	228	206	10.4	10.1
JH 4-30	344	111	99	137	141	127	112	228	206	10.8	10.5
JH 4-40	372	138	126	164	141	127	112	228	206	11.6	11.2
JH 4-50	438	165	153	191	141	127	112	228	206	13.4	13.1
JH 4-60	475	192	180	218	141	127	112	228	206	14.8	14.5

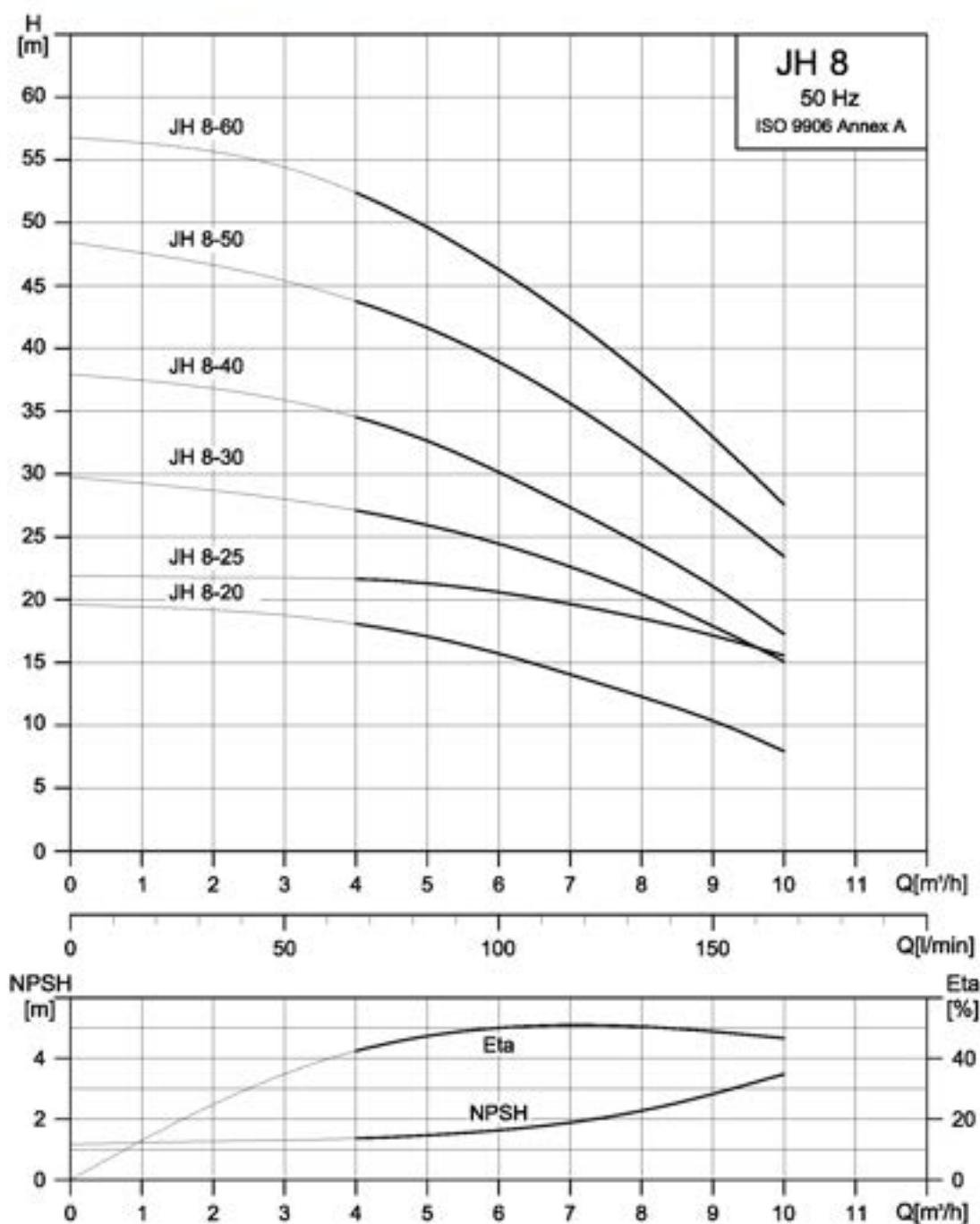

**DID YOU KNOW?**

These pumps can be configured in pressure boosting systems?

Refer to the Site Amenities section for more info



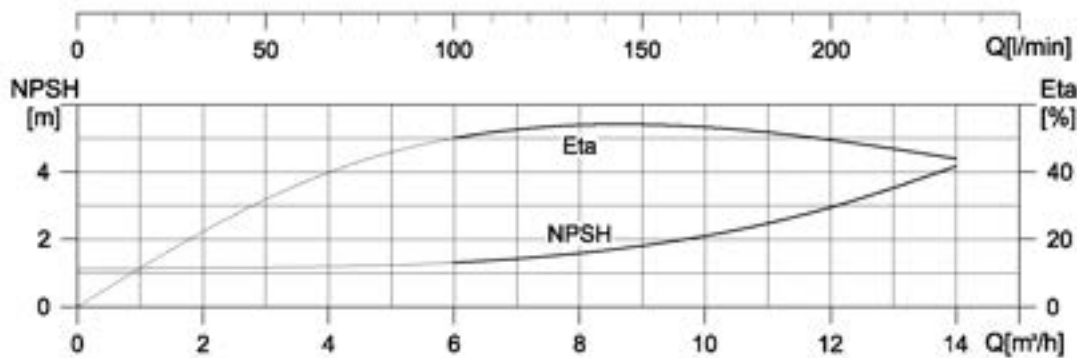
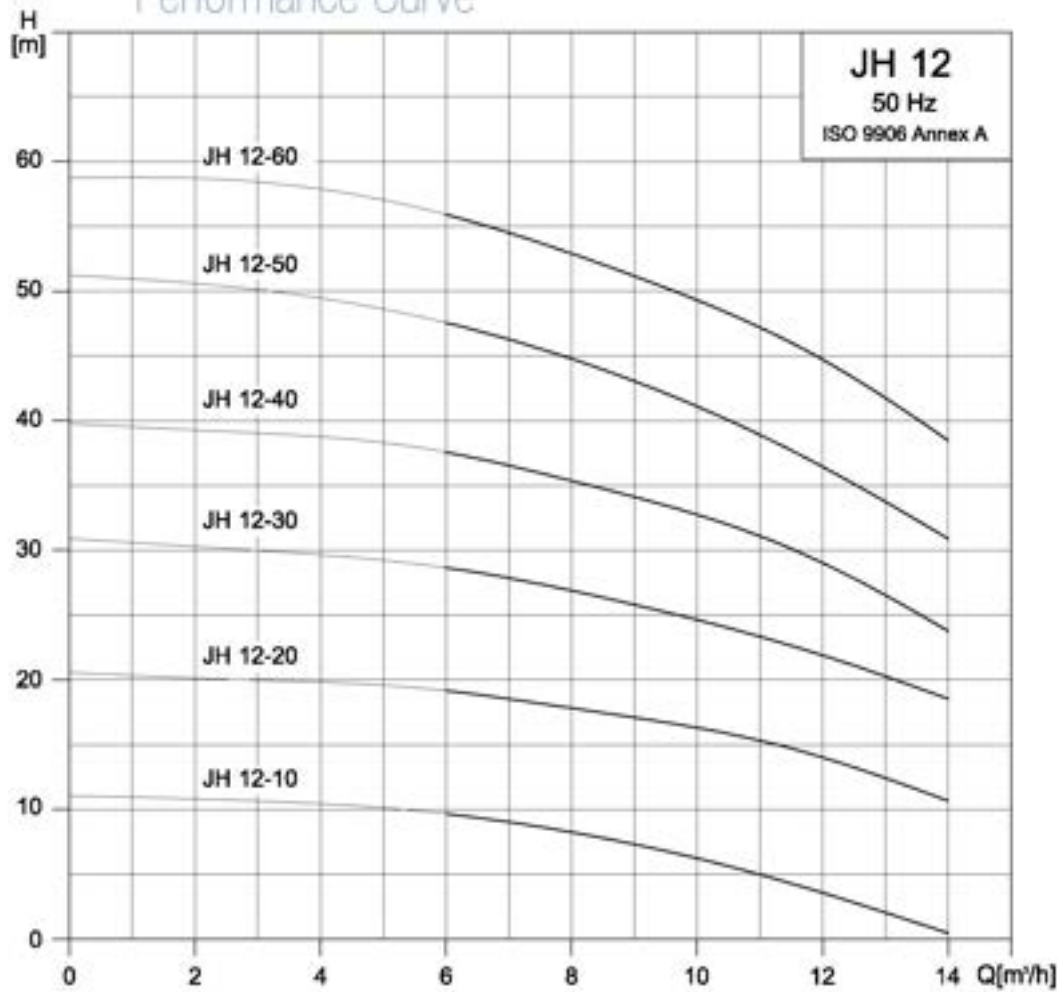
## Performance Curve



MODEL NUMBER	1 X 220 - 240V		3 X 220 240 Δ / 380 - 415 Y V	
	P.[W]	I 1/1 [A]	P'[W]	I 1/1 [A]
JH 8-20	740	3.4	720	2.6/1.5
JH 8-25	-	-	960	3.5/2.0
JH 8-30	1130	5.2	1100	3.8/2.2
JH 8-40	1400	6.3	1350	5.0/2.9
JH 8-50	1890	8.6	1730	6.0/3.5
JH 8-60	2150	9.8	2040	6.4/3.7



## Performance Curve



MODEL NUMBER	1 X 220 - 240V		3 X 220 240 Δ / 380 - 415 Y V	
	P [W]	I l / I [A]	P [W]	I l / I [A]
JH 12-10	-	-	560	2.4/1.4
JH 12-20	1170	5.4	1140	3.8/2.2
JH 12-30	1710	7.6	1650	5.9/3.4
JH 12-40	2360	10.4	2300	7.1/4.1
JH 12-50	2850	13	2820	9.1/5.3
JH 12-60	-	-	3500	11.1/6.4

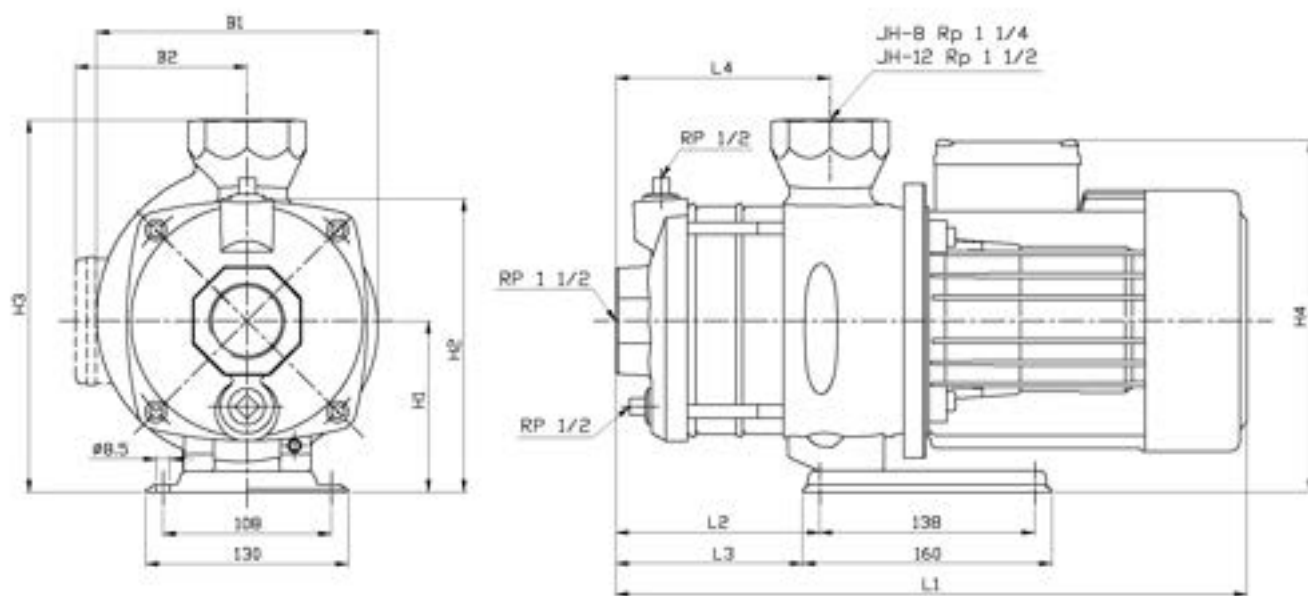
**DID YOU KNOW?**

These pumps can be configured in pressure boosting systems?

Refer to the Site Amenities section for more info

## Dimensions & Weight 50Hz

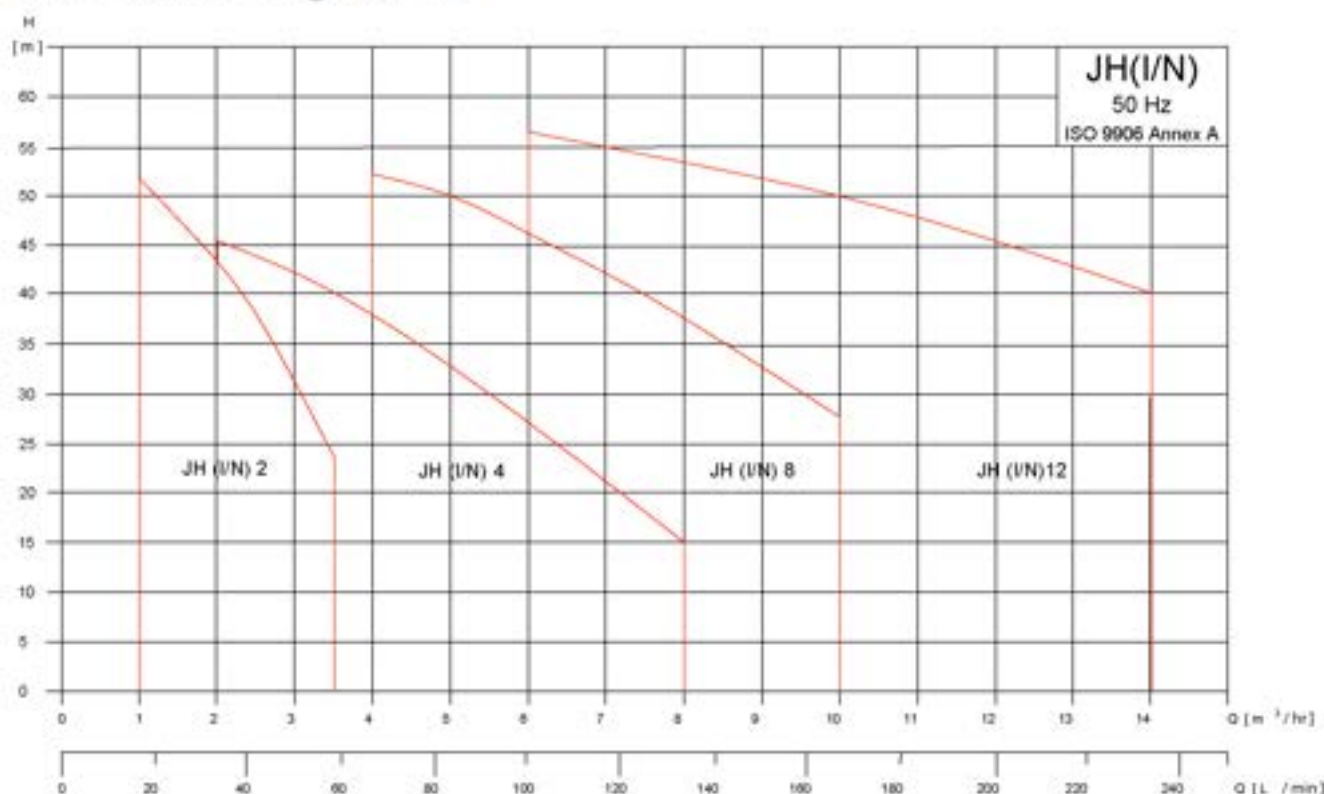
### JH 8,12



PUMP TYPE	MM														KG	
	L1		L2	L3	L4	B1		B2		H1	H2	H3	H4		1PHASE	3PHASE
	1PHASE	3PHASE				1PHASE	3PHASE	1PHASE	3PHASE				1PHASE	3PHASE		
JH 8-20	320	320	54	42	78	181	181	136	116	112	190	240	248	228	17.2	17
JH 8-25	-	390	54	42	78	-	181	-	116	112	190	240	-	228	-	19.1
JH 8-30	390	390	84	72	108	181	181	136	116	112	190	240	248	228	19.5	19.2
JH 8-40	390	390	102	90	108	181	181	136	116	112	190	240	248	228	20.72	20.5
JH 8-50	478	420	132	120	138	185	181	156	116	112	190	240	268	228	27.9	21.4
JH 8-60	478	478	132	120	138	185	185	156	141	112	190	240	268	253	28.1	27
JH 12-10	-	320	54	42	78	-	181	-	116	112	190	240	-	228	-	17.85
JH 12-20	360	360	54	42	78	181	181	136	116	112	190	240	248	228	18.35	18.15
JH 12-30	390	390	84	72	108	181	181	136	116	112	190	240	248	228	20.62	20.4
JH 12-40	448	448	102	90	108	185	185	156	141	112	190	240	268	253	27.05	26.05
JH 12-50	478	490	132	120	138	185	185	156	141	112	190	240	268	253	29.22	29.3
JH 12-60	-	503	132	120	138	-	196	-	147	125	203	253	-	272	-	34.58



## Performance Range 50Hz



## Pumps

A horizontal, multistage centrifugal pump is made of stainless steel. The pump is a non-self priming type and fitted with a mechanical shaft seal.

CONNECTION / PUMP	JH(N)2	JH(N)4
Suction port	RP 1	RP1 1/4
Discharge port	RP 2	RP1 1/4
Drain hole, priming hole	475	192

### APPLICATION

- ✓ Water supply and pressure boosting
- ✓ Air Conditioning
- ✓ Water Treatment
- ✓ Heating and cooling of industrial processes
- ✓ Industrial Washing
- ✓ Pressure boosting of process water

## Operating Conditions

Liquid temperature range: 0°C + 110°C  
 Maximum ambient temperature: +40°C  
 Maximum operating pressure: 10 kg/cm  
 Maximum inlet pressure is limited by maximum operating pressure.

## Motor

Totally enclosed and fan-cooled standard motor.  
 Standard voltages: 1 x 220-240 V, 50Hz  
 3 x 220-240/415Y V, 50Hz  
 Insulation class: F  
 Enclosure class: IP54

### DID YOU KNOW?

These pumps can be configured in pressure boosting systems?

Refer to the Site Amenities section for more info



## Liquids Handled

These pumps are designed for pumping non-corrosive, non-explosive, and non-flammable liquids. The liquids to be pumped must also be free of solid matter, sand, fibres, and similar materials. Most common non highly corrosive liquids, oily liquids, hot and cold liquids can be pumped.

The suitability of these pumps for pumping any particular liquids depends upon a number of factors, such as the pH value, contents of chemicals such as chlorides, oils, the temperature of the liquids, etc. Please contact your distributor or the factory if there are any questions as to whether certain liquids are suitable for pumping with these pumps.

### LIST OF MATERIALS

Q: Silicon Carbide	E: EPDM
B: Carbon	V: Viton
R: Seal type	

### MECHANICAL SEALS

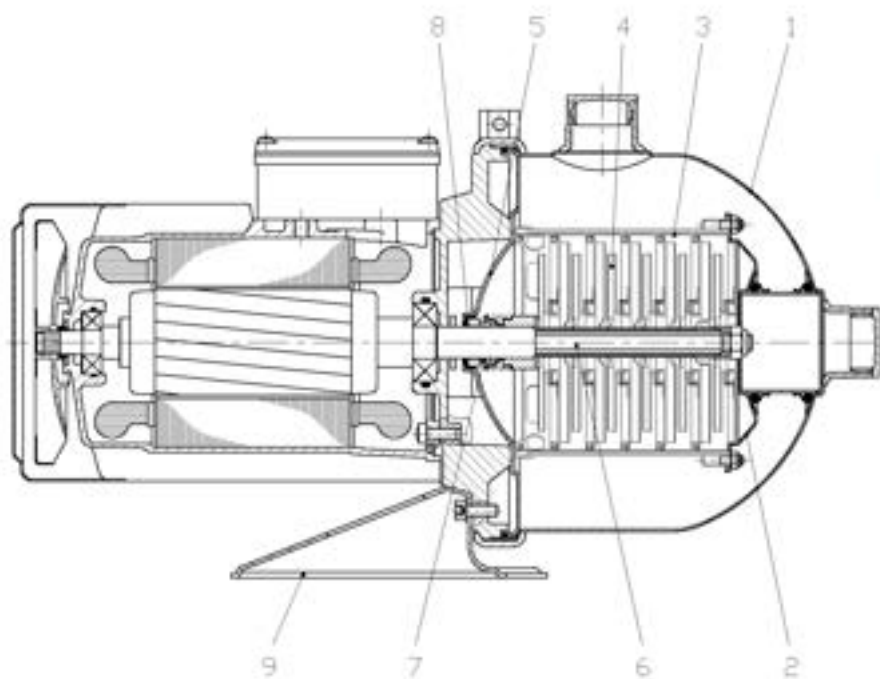
MECHANICAL SEALS	JHI
RQQ	Optional
RQB	•
E	•
V	•

Key: Standard •

## Type Key

Example: JHI(N)	4	-	30	-	RQQE
Type	Nominal flow rate (m <sup>3</sup> /h)		Number of stages x 10		Mechanical seals

## Sectional Drawing

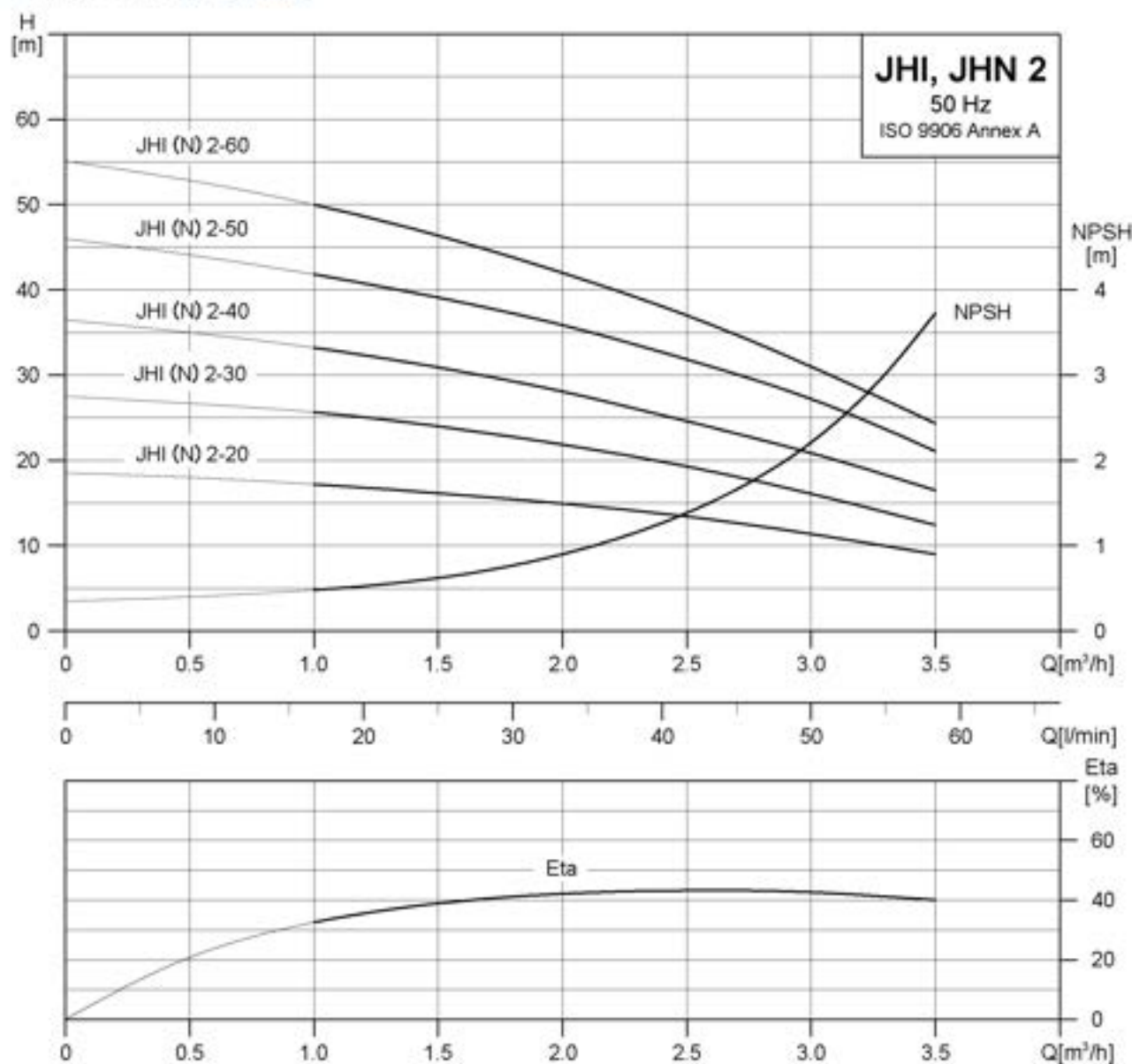


## Material Construction

POS.	DESCRIPTION	JHI
1	Pump casing	SS304
2	Suction inter-connectors	SS304
3	Chamber	SS304
4	Impeller	SS304
5	Cover plate	SS304
6	Shaft	SS304
7	Mechanical seal	Silicon carbide/ carbon
8	O-ring	EPDM or Viton
9	Base Plate	SS304



## Performance Curve

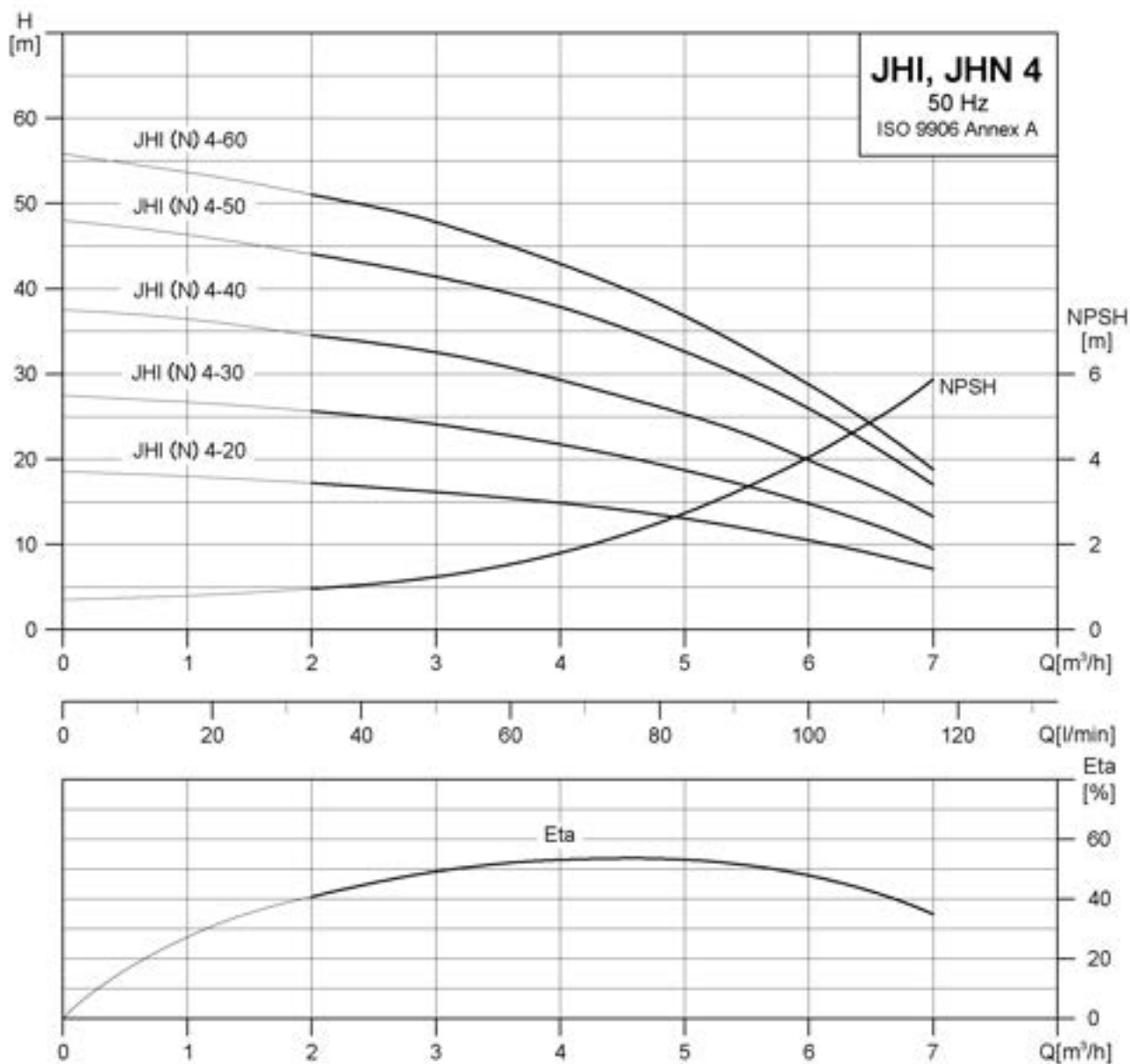


MODEL NUMBER	1 X 220 - 240V		3 X 220 - 240 Δ / 380 - 415 Y V	
	P <sub>i</sub> [W]	P <sub>e</sub> [W]	P <sup>*</sup> [W]	I 1/1 [A]
JHI, JHN 2-20	450	1.9	370	1.9/1.1
JHI, JHN 2-30	540	2.4	480	1.9/1.1
JHI, JHN 2-40	630	2.8	620	2.0/1.2
JHI, JHN 2-50	800	3.8	820	2.7/1.6
JHI, JHN 2-60	940	4.2	910	2.8/1.6

**DID YOU KNOW?**  
These pumps can be configured in pressure boosting systems?  
Refer to the Site Amenities section for more info



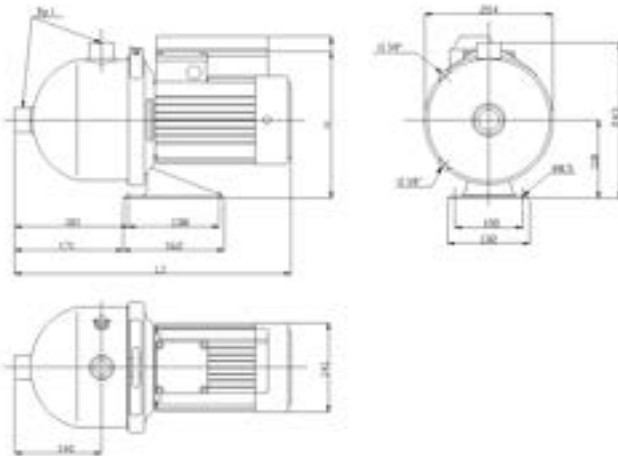
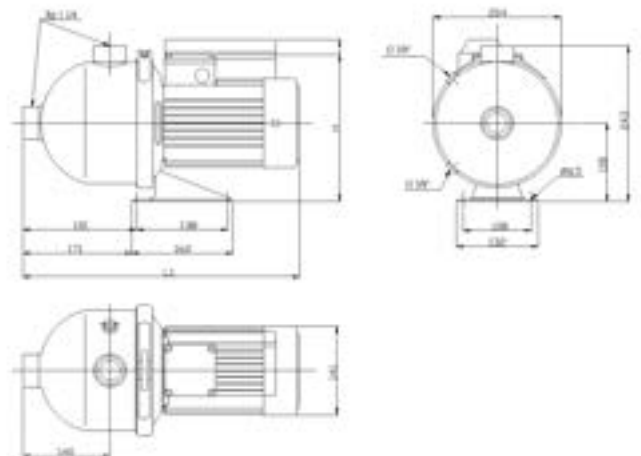
### Performance Curve



MODEL NUMBER	1 X 220 - 240V		3 X 220 - 240 Δ / 380 - 415 Y V	
	P.[W]	P.[W]	P'[W]	I 1/1 [A]
JHI, JHN 4-20	560	2.5	560	2.0/1.2
JHI, JHN 4-30	760	3.5	720	2.4/1.4
JHI, JHN 4-40	1000	4.8	980	3.2/1.8
JHI, JHN 4-50	1220	5/7	1210	4.0/2.3
JHI, JHN 4-60	1410	6.4	1410	4.8/2.7



## Dimensions &amp; Weight 50Hz

**JHI(N)-2**

**JHI(N)-4**


PUMP TYPE	DIMENSION (MM)				NET WEIGHT
	1 PHASE		3 PHASE		
	L1	H	L1	H	
JHI, JHN 2-20	403	225	403	223	9.6
JHI, JHN 2-30	403	225	403	223	9.9
JHI, JHN 2-40	403	225	403	223	10.1
JHI, JHN 2-50	403	225	403	223	10.8
JHI, JHN 2-60	403	225	403	223	11.0
JHI, JHN 4-20	403	255	403	233	9.6
JHI, JHN 4-30	403	225	403	223	9.9
JHI, JHN 4-40	403	225	403	223	10.6
JHI, JHN 4-50	441	225	441	223	12.1
JHI, JHN 4-60	441	225	441	223	12.3

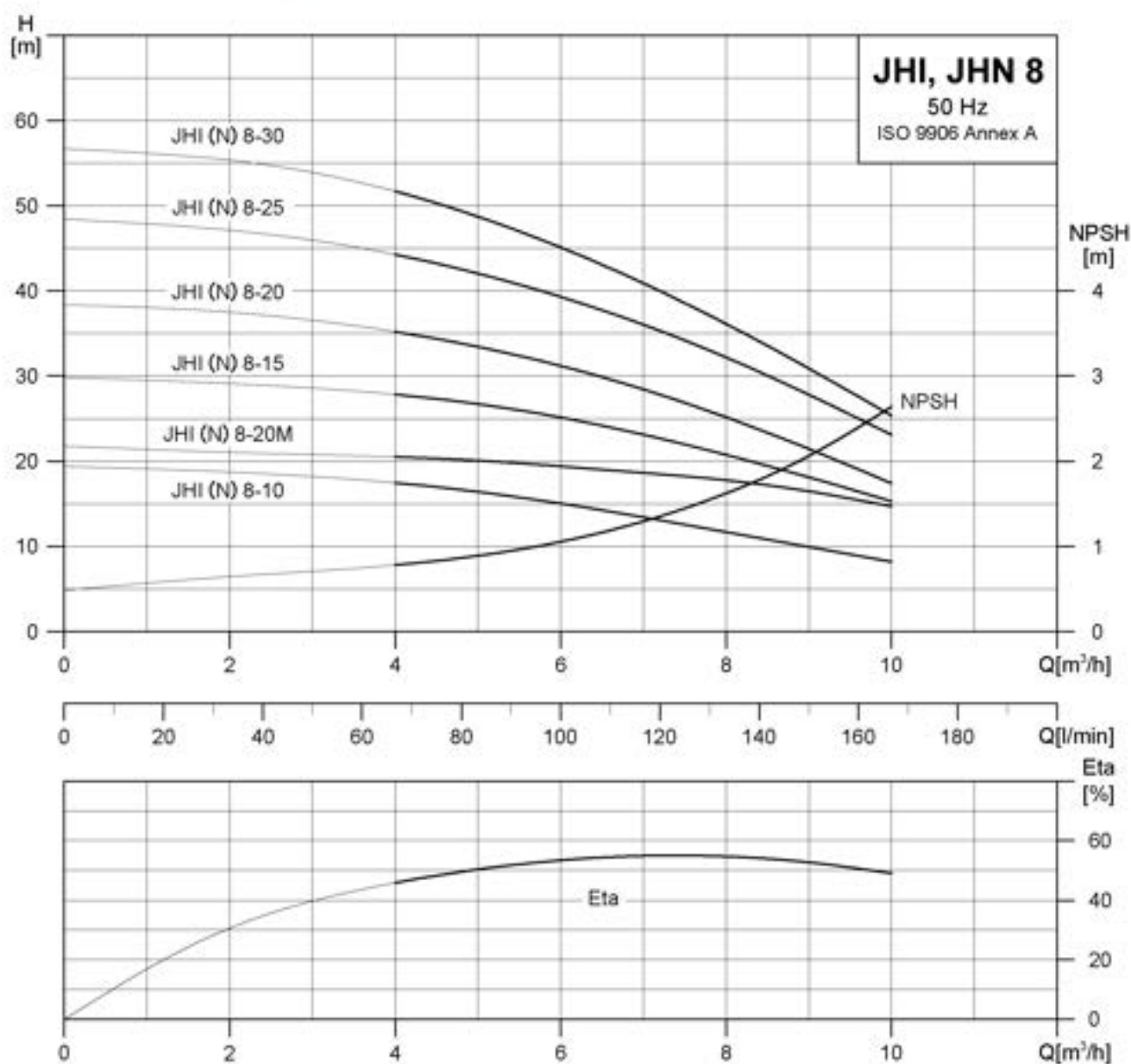

**DID YOU KNOW?**

These pumps can be configured in pressure boosting systems?

Refer to the Site Amenities section for more info



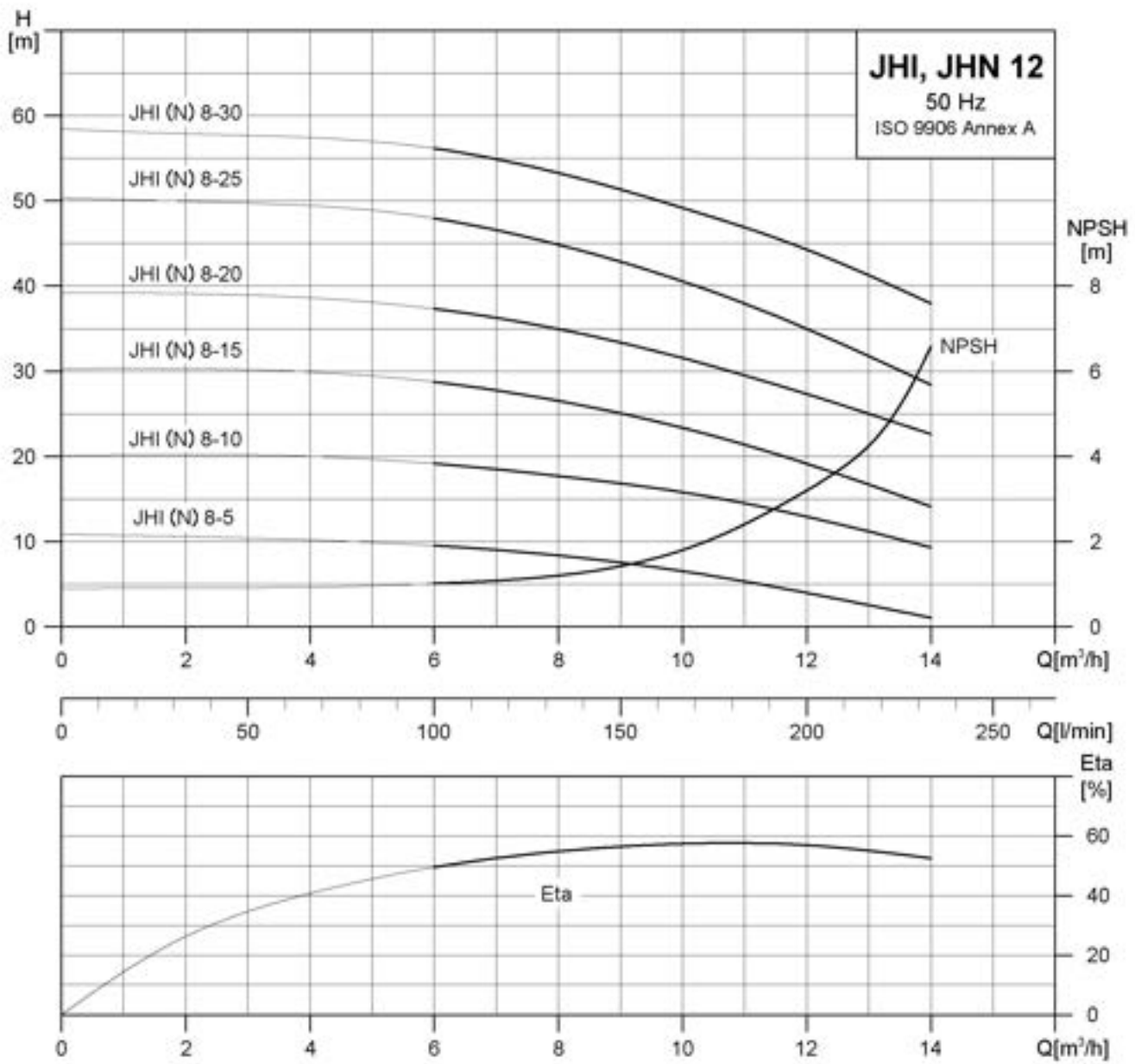
## Performance Curve



MODEL NUMBER	1 X 220 - 240V		3 X 220 - 240 Δ / 380 - 415 Y V	
	P [W]	I 1/1 [A]	P' [W]	I 1/1 [A]
JHI, JHN 8-20	720	3.4	760	2.9/1.7
JHI, JHN 8-30	-	-	1030	4.1/2.4
JHI, JHN 8-40	1150	5.4	1180	4.3/2.5
JHI, JHN 8-50	1930	8.6	1810	6.0/3.5
JHI, JHN 8-60	2100	9.3	2050	6.9/4.0



## Performance Curve

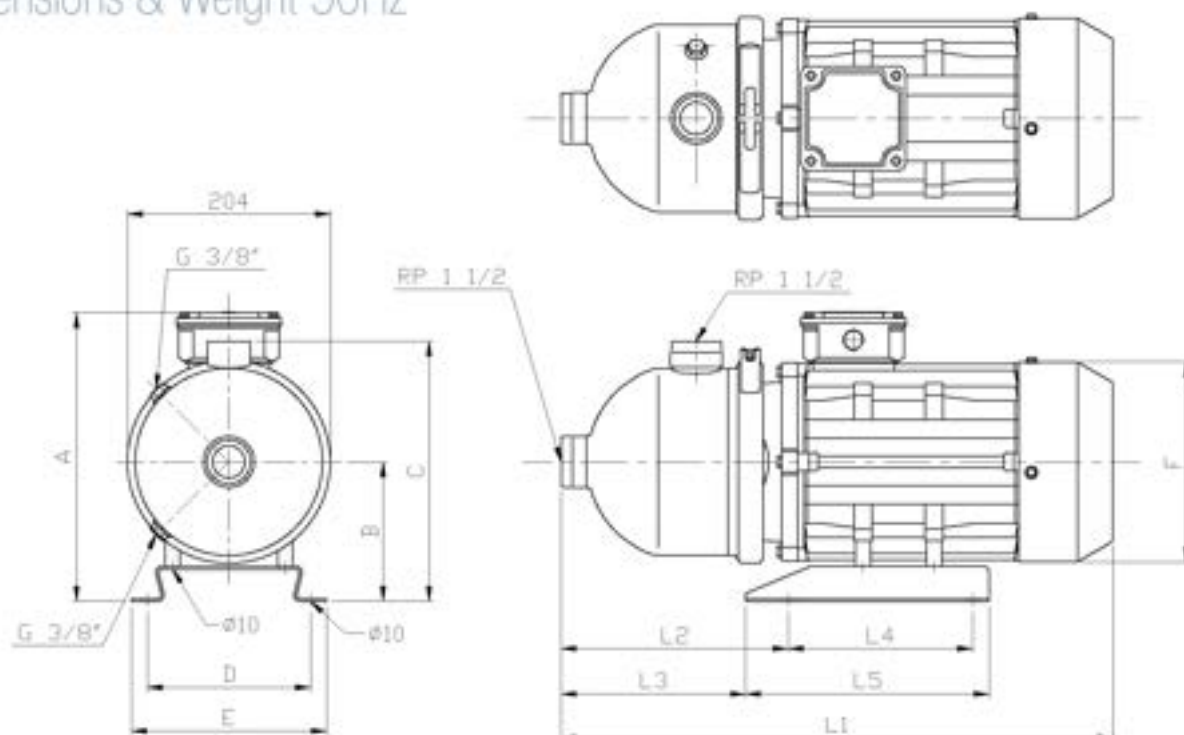


MODEL NUMBER	1 X 220 - 240V		3 X 220 - 240 Δ / 380 - 415 Y V	
	P.[W]	I 1/1 [A]	P'[W]	I 1/1 [A]
JHI, JHN 12-05	-	-	550	2.6/1.5
JHI, JHN 12-10	1200	5.5	1210	4.3/2.5
JHI, JHN 12-15	1700	7.8	1680	5.9/3.4
JHI, JHN 12-20	2460	11	2410	7.4/4.3
JHI, JHN 12-25	2900	13	2870	9.2/5.3
JHI, JHN 12-30	-	-	3640	11.6/6.7

**DID YOU KNOW?**  
These pumps can be configured in pressure boosting systems?  
Refer to the Site Amenities section for more info



## Dimensions & Weight 50Hz



PUMP TYPE	MOTOR		L1							A		B	C	D	E	F	NET WEIGHT (KG)	
	P2		1PHASE	3PHASE	L2	L3	L4	L5	1PHASE	3PHASE	1PHASE						3PHASE	
	PHASE	HP																
JHD, JHN 8-10	1 3	0.75	403	403	181	171	138	162	255	233	118	243	108	132	141	10.20	10.02	
JHD, JHN 8-15	1 3	1.0	441	441	181	171	138	162	255	233	118	243	108	132	141	12.28	12.08	
JHI, JHN 8-20M	3	1.	-	441	181	171	138	162	-	233	118	243	108	132	141	-	11.98	
JHD, JHN 8-20	1 3	1.5	441	441	181	171	138	162	255	233	118	243	108	132	141	13.54	13.34	
JHD, JHN 8-25	1 3	2.0 1.5	514 -	- 441	200 181	180 171	195 138	235 162	267 -	- 233	121 118	245 243	158 108	178 132	177 141	23.08 -	- 13.92	
JHD, JHN 8-30	1 3	2.0	514	493	200	180	195	235	267	261	121	245	158	178	177	23.14	22.22	
JHI, JHN 12-05	3	0.5	-	403	181	171	138	162	-	233	118	243	108	132	141	-	9.41	
JHI, JHN 12-10	1 3	1.0	441	441	181	171	138	162	255	233	118	243	108	132	141	11.72	11.52	
JHI, JHN 12-15	1 3	1.5	441	441	181	171	138	162	255	233	118	243	108	132	141	13.38	13.18	
JHI, JHN 12-20	1 3	2.0	514	493	200	180	195	235	267	261	121	245	158	178	177	22.52	21.48	
JHI, JHN 12-25	1 3	3.0	514	493	200	180	195	235	267	261	121	245	158	178	177	25.74	24.36	
JHI, JHN 12-30	3	4.0	-	539	200	180	195	245	-	284	133	259	174	198	197	-	30.20	



## Typical Configuration



### DID YOU KNOW?

These pumps can be configured in pressure boosting systems?

Refer to the Site Amenities section for more info



## Mains Booster





# MULTI-STAGE VERTICAL PUMPS

**JAVELIN**  
MULTI-STAGE PUMPS

**GRUNDFOS**

PAGE  
164

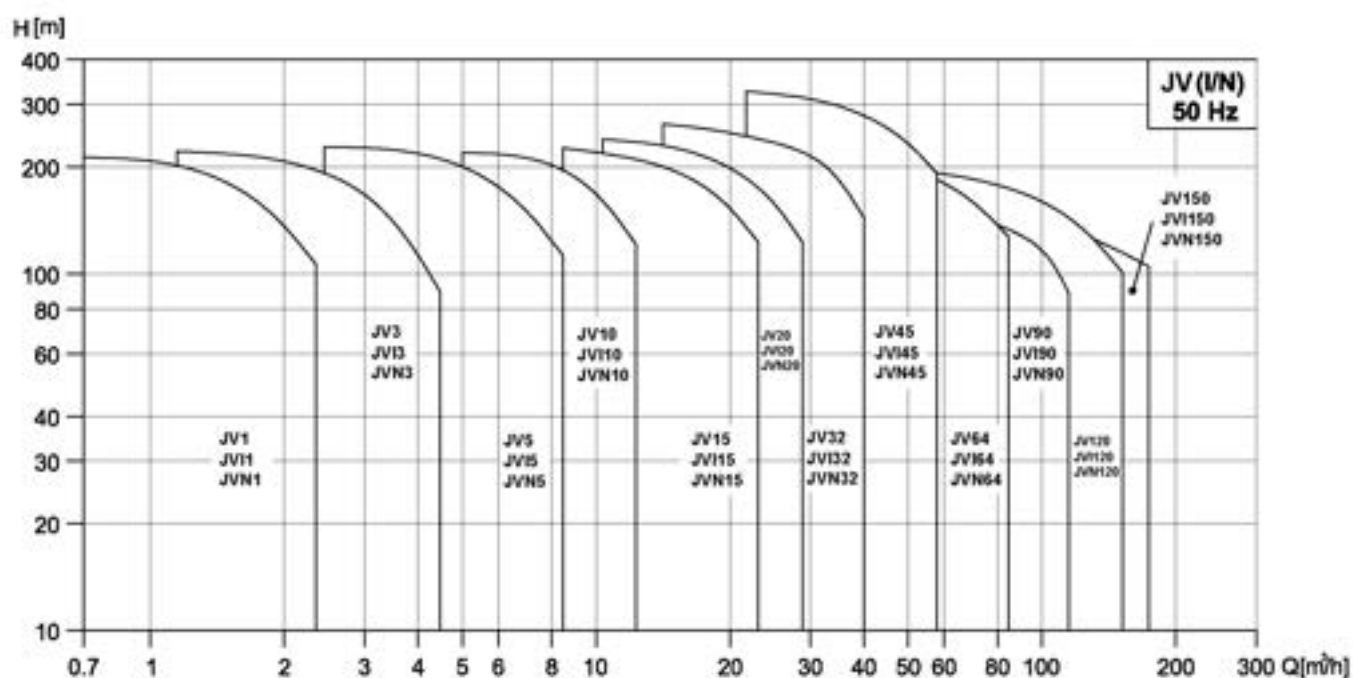




The JV, JVI and JVN series are a non-self priming vertical multistage centrifugal pumps of inline design, flanged, threaded or with Victaulic coupling, equally sized suction and discharge ports, stage construction with stainless steel impellers, chambers and pressure casing. Pump stub shaft and motor shaft of the IEC-standard motor are directly close coupled. All pumps are equipped with a cartridge type mechanical seal for easy maintenance. The JV, JVI and JVN pumps have a range of different pump sizes and various numbers of stages to provide the flow and the pressure required.



## Performance Scope





## Product Data

RANGE	JV, JVI, JVN											
	1	3	5	10	15	20	32	45	64	90	120	150
	50Hz											
Nominal Flow (m <sup>3</sup> /h)	1	3	5	10	15	20	32	45	64	90	120	150
Flow Range (m <sup>3</sup> /h)	0.7-2.4	1.2-4.5	2.5-8.5	5-13	8.5-23.5	10.5-29	15-40	22-58	30-85	45-120	60-160	75-180
Max. pressure (bar)	21.5	23	24	21.5	23	24.3	27.5	33	21.8	20	20.4	18.7
Fluid Temperature (°C)	-15 to +120											
Motor Power (kW)	0.37-2.2	0.37-3	0.37-5.5	0.37-7.5	1.1-15	1.1-18.5	1.5-30	3-45	4-45	5.5-45	11-75	11-75
<b>VERSION</b>												
JV Cast Iron and Stainless Steel EN1.4301/AISI304	*	*	*	*	*	*	*	*	*	*	*	*
JVI Stainless Steel EN 1.4301/AISI304	*	*	*	*	*	*	*	*	*	*	*	*
JVN Stainless Steel EN1.4401/AISI 316	*	*	*	*	*	*	*	*	*	*	*	*
<b>MOTOR</b>												
Main Connection 1 ~ (V/Hz) (Permissible voltage tolerance ±10%)	220-240 V 50 Hz											
Main Connection 3 (V/Hz) (Permissible Voltage tolerance ±10%)	0.37-3.0kW 220-240/380-415 V 50 Hz From 4.0 kW 380-415 V 50 Hz											
Insulation Class	F											
Protection Class	IP 55											
Ambient Temperature	40°C											
<b>JV PIPE CONNECTION</b>												
Flange	DN 25 DN 32	DN 25 DN 32	DN 25 DN 32	DN 40	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN125	DN125
<b>JVI, JVN PIPE CONNECTION</b>												
Flange	DN 25 DN 32	DN 25 DN 32	DN 25 DN 32	DN 40	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN125	DN125
Victaulic Connection	R 1¼ DN 32	R 1¼ DN 32	R 1¼ DN 32	R2 DN 50	R2 DN 50	R2 DN 50	N/A	N/A	N/A	N/A	N/A	N/A
<b>MECHANICAL SEALS</b>												
SiC/SiC	Standard											
<b>SEALS</b>												
EPCM	Standard										0.37kW-45kW	
Viton											55kW-75kW	

## Motor

HP	kW	MOTOR TYPE			NOMINAL CURRENT IN [A]					
		POLE	FLANGE	FRAME	3 220V	3 240 V	3 380V	3 415V		
0.5	0.37	2	B14	71	1.8	1.9	1.0	1.1		
0.75	0.55			71	2.6	2.7	1.5	1.6		
1.0	0.75			80	3.4	3.6	2.0	2.1		
1.5	1.1			90S	5.1	5.2	2.9	3.0		
2.0	1.5			90S	6.0	6.2	3.5	3.6		
3.0	2.2			90L	9.5	10.0	5.5	5.8		
4.0	3.0			100L	12.1	12.5	7.0	7.2		
5.5	4.0			112M	14.9	15.0	8.6	8.7		
7.5	5.5					3 380V	3 415V	3 660V	3 690V	
10.0	7.5					132S	12.1	12.0	7.0	6.9
						132M	16.0	15.3	9.2	8.8
15	11				B5				3 380V	3 415V
20.0	15.0					160M			21.0	19.2
25	18.5					160M			28.4	26.0
30	22		160L				34.7	31.8		
40	30		180M				41.1	37.7		
50	37		200L				55.7	51.0		
60	45		200L				68.3	62.5		
75	55		225m				87.2	78.6		
			250M				101.0	92.5		
100	75		280S				134.0	123.0		



## Applications

Water supply and pressure boosting: Pressure boosting in buildings, hotels, residential complexes, pressure booster stations, supply of water networks, pressure boosting for industrial water supply.

Light industry: Washing and cleaning systems, car washing facilities fire fighting systems, process water systems, machine tools (cooling lubricants).

Heating, ventilation and air-conditioning: boilers, induction heating, heat exchangers, refrigerators, cooling towers and systems, temperature control systems.

Irrigation and agriculture: greenhouses, sprinkler irrigation, flood irrigation.

Water Treatment: Water softeners and demineralisation, reverse osmosis systems, distillation systems, filtration, ultra-filtration system.

## Electric Motors

Squirrel cage, aluminium or cast iron casing up to 45 kW, totally enclosed, fan-cooled, 2-pole standard motor.

Enclosed class: IP55

Insulation class: F

Standard voltage: P2:0.37 - 3.0 kW : 3 x 220 - 240V/380 - 415 V  
P2: From 4.0 kW 3 x 380 - 415 V

The motors have efficiency values that fall within the range referred to as MEPS2

Ambient temperature: Max. + 40°C

## Nomenclature

JV	10	5	SQQE
TYPE RANGES	NOMINAL FLOW (M <sup>3</sup> /H)	NUMBER OF STAGES	CODE OF SHAFT SEAL

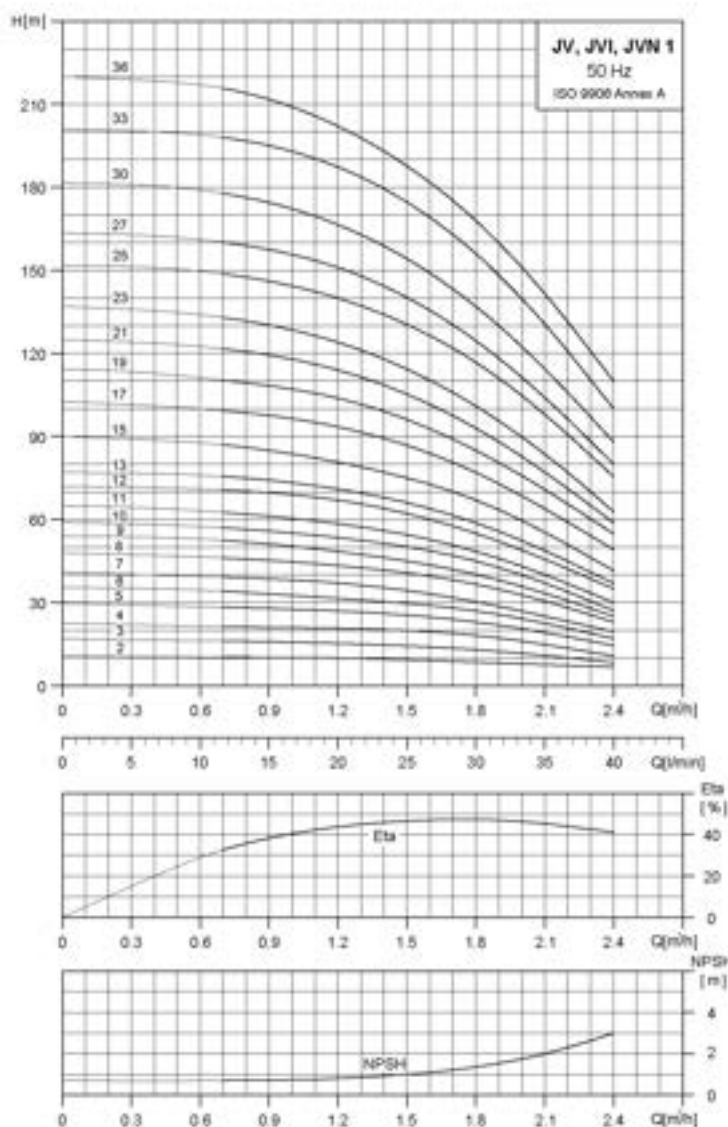


## Mechanical Seals

Standard Cartridge type mechanical seal made of Silicon Carbide/Silicon Carbide/ EPDM or Viton. Based on the type of application, alternative materials are available for the seal and the elastomers. The cartridge type mechanical seal can be replaced in minutes without special tools and without dismantling the pump.







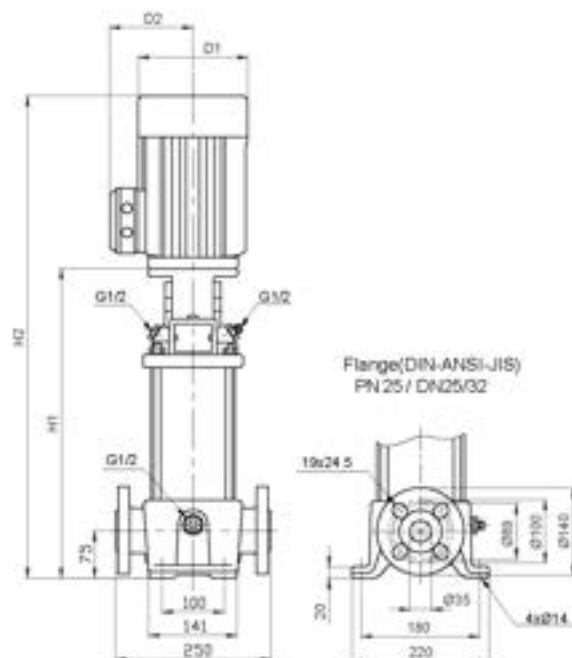
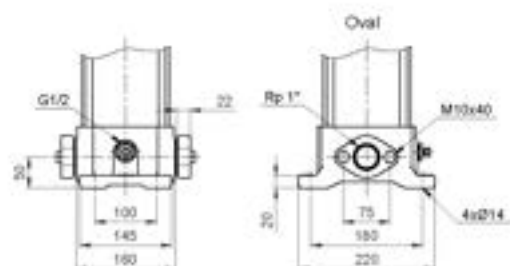
MODEL	MOTOR					NET WEIGHT [KG]	
		P <sup>2</sup>	DIN FLANGE		D1		D2
			H1	H2			
JV1-2	0.37	279	470	141	109	23.0	
JV1-3	0.37	279	479	141	109	23.0	
JV1-4	0.37	297	488	141	109	23.0	
JV1-5	0.37	315	506	141	109	24.0	
JV1-6	0.37	333	524	141	109	24.0	
JV1-7	0.37	351	542	141	109	25.0	
JV1-8	0.55	369	560	141	109	26.0	
JV1-9	0.55	387	578	141	109	26.0	
JV1-10	0.55	405	596	141	109	26.0	
JV1-11	0.55	423	614	141	109	27.0	
JV1-12	0.75	447	678	141	109	29.0	
JV1-13	0.75	465	696	141	109	29.0	
JV1-15	0.75	501	732	141	109	30.0	
JV1-17	1.1	537	768	141	109	33.0	
JV1-19	1.1	573	804	141	109	34.0	
JV1-21	1.1	609	840	141	109	35.0	
JV1-23	1.1	645	876	141	109	36.0	
JV1-25	1.5	697	972	175	109	42.9	
JV1-27	1.5	733	1008	175	140	43.7	
JV1-30	1.5	787	1062	175	140	44.8	
JV1-33	2.2	841	1116	175	140	47.9	
JV1-36	2.2	895	1170	175	140	49.1	

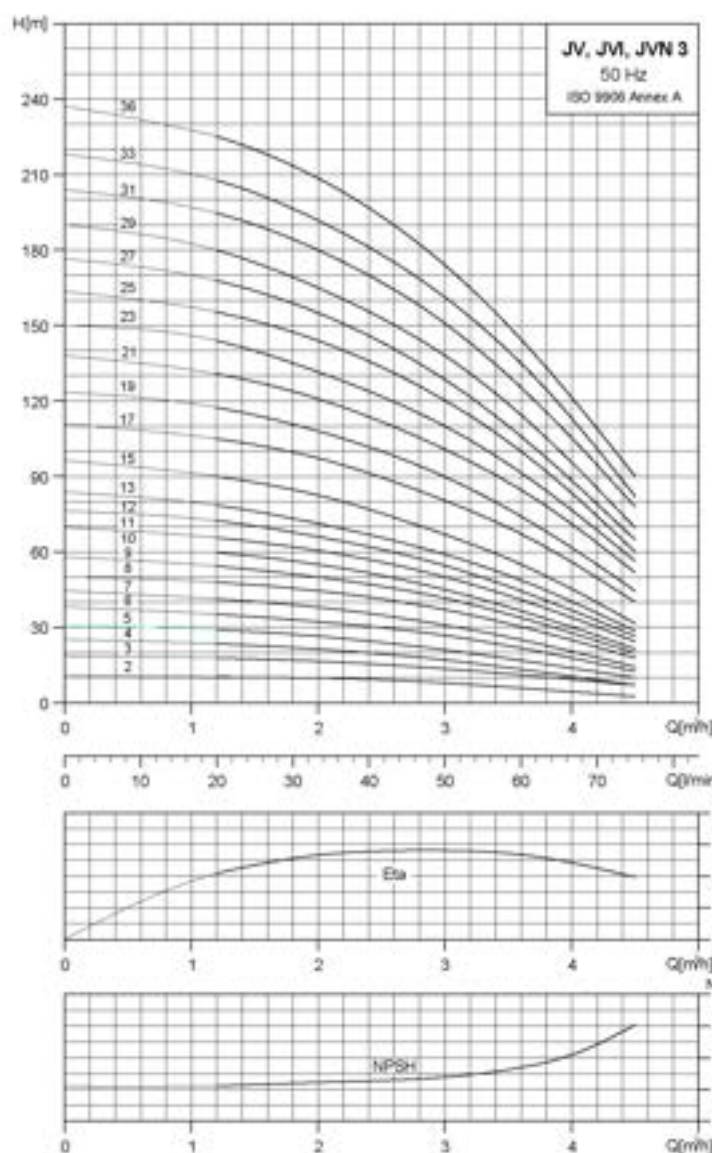
\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type

### DID YOU KNOW?

These pumps can be configured in pressure boosting systems?

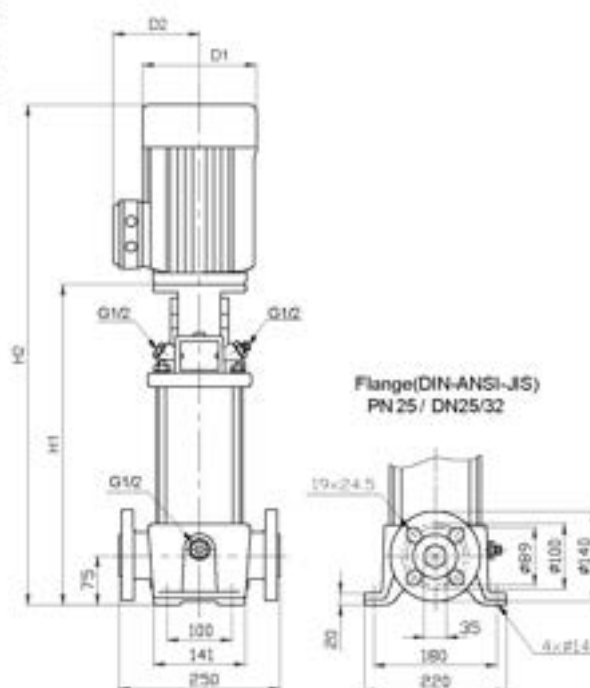
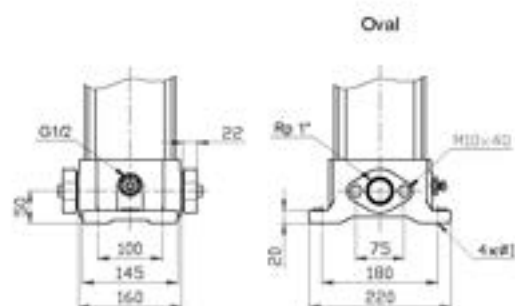
Refer to the Site Amenities section for more info



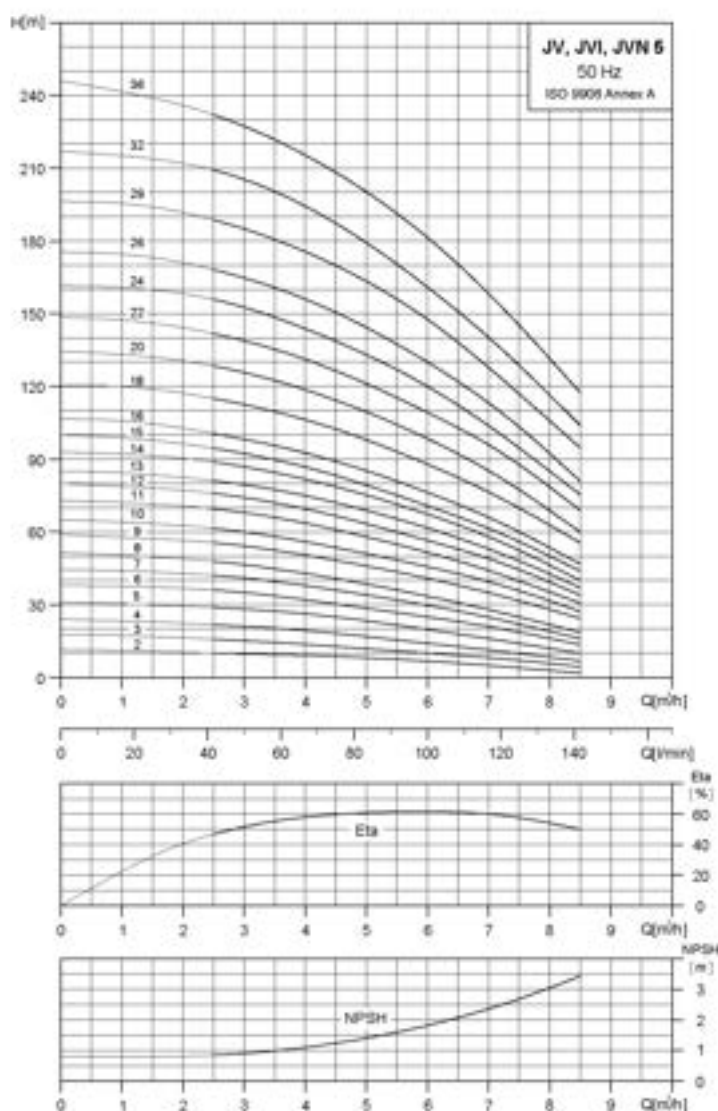


MODEL	MOTOR	JV				
		DIMENSION [MM]				
		DIN FLANGE		D1	D2	NET WEIGHT (KG)
P2	H1	H2				
	kW					
JV3-2	0.37	279	470	141	109	23
JV3-3	0.37	279	470	141	109	23
JV3-4	0.37	279	488	141	109	23
JV3-5	0.37	315	506	141	109	24
JV3-6	0.55	333	524	141	109	25
JV3-7	0.55	351	542	141	109	25
JV3-8	0.75	375	606	141	109	27
JV3-9	0.75	393	624	141	109	28
JV3-10	0.75	411	642	141	109	28
JV3-11	1.1	429	660	141	109	31
JV3-12	1.1	447	678	141	109	31
JV3-13	1.1	465	696	141	109	31
JV3-15	1.1	501	732	141	109	32
JV3-17	1.5	533	828	175	140	29.9
JV3-19	1.5	589	864	175	140	40.7
JV3-21	2.2	625	900	175	140	43.4
JV3-23	2.2	661	936	175	140	44.2
JV3-25	2.2	697	972	175	140	44.9
JV3-27	2.2	733	1008	175	140	45.7
JV3-29	2.2	769	1044	175	140	46.4
JV3-30	3	809	1129	196	148	53.9
JV3-33	3	845	1165	196	148	54.7
JV3-36	3	899	1219	196	148	55.8

\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type







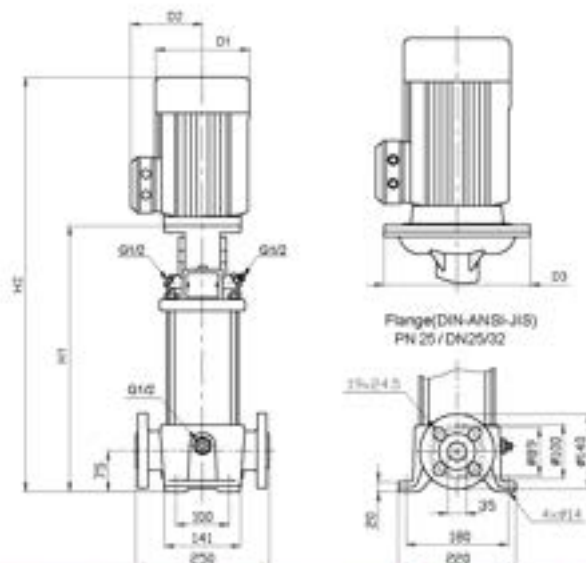
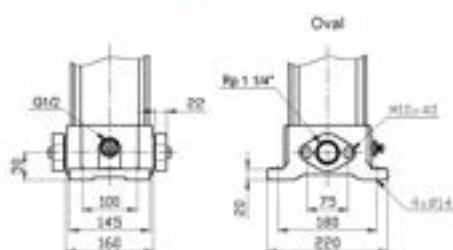
MODEL	MOTOR	JV					
		DIMENSION [MM]					
		P <sup>2</sup> KW	DIN FLANGE H1 H2		D1	D2	D3
JV5-2	0.37	279	470	141	109	-	23
JV5-3	0.55	316	497	141	109	-	24
JV5-4	0.55	333	524	141	109	-	25
JV5-5	0.75	366	597	141	109	-	27
JV5-6	1.1	393	624	141	109	-	30
JV5-7	1.1	420	651	141	109	-	30
JV5-8	1.1	447	678	141	109	-	31
JV5-9	1.5	490	765	175	140	-	38.3
JV5-10	1.5	517	792	175	140	-	38.9
JV5-11	2.2	544	819	175	140	-	41.5
JV5-12	2.2	571	846	175	140	-	42.0
JV5-13	2.2	598	873	175	140	-	42.6
JV5-14	2.2	625	900	175	140	-	43.2
JV5-15	2.2	652	927	175	140	-	43.8
JV5-16	3	679	954	175	148	-	44.3
JV5-18	3	737	1057	196	148	-	52.2
JV5-20	4	791	1111	196	162	-	53.4
JV5-22	4	845	1180	219	162	-	61.5
JV5-24	4	899	1234	219	162	-	62.6
JV5-26	4	953	1288	219	162	-	63.8
JV5-29	4	1034	1369	219	162	-	65.5
JV5-32	5.5	1145	1505	234	199	300	85.9
JV5-36	5.5	1253	1613	234	199	300	88.2

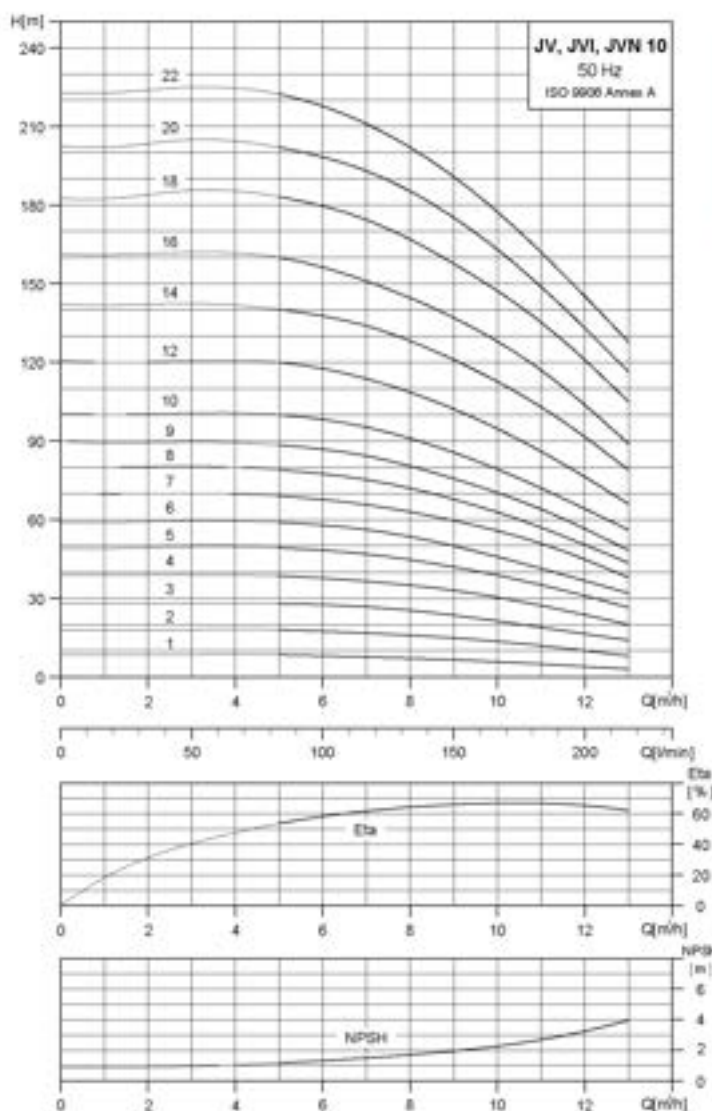
\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type

### DID YOU KNOW?

These pumps can be configured in pressure boosting systems?

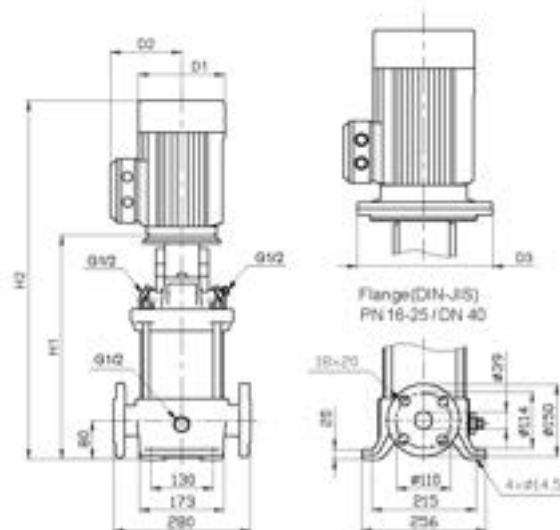
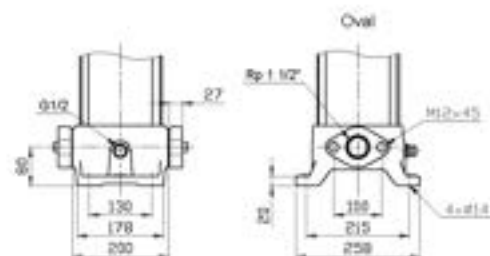
Refer to the Site Amenities section for more info



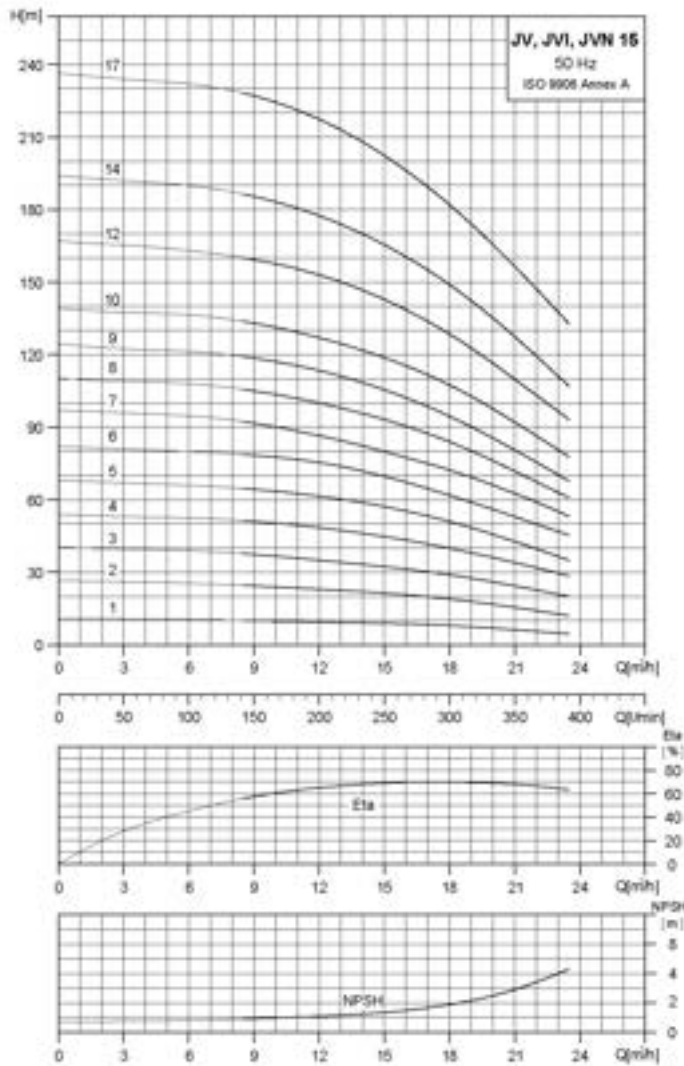


MODEL	MOTOR	JV						
		p <sub>2</sub>	DIN FLANGE		D1	D2	D3	NET WEIGHT (KG)
			H1	H2				
JV10-1	0.37	343	534	141	109	-	34	
JV10-2	0.75	347	578	141	109	-	36	
JV10-3	1.1	377	608	141	109	-	39	
JV10-4	1.5	423	698	175	140	-	48.2	
JV10-5	2.2	453	728	175	140	-	51.2	
JV10-6	2.2	483	758	175	140	-	52.2	
JV10-7	3	518	838	196	148	-	60.5	
JV10-8	3	548	868	196	148	-	61.5	
JV10-9	3	578	898	196	148	-	62.5	
JV10-10	4	608	943	219	162	-	70.5	
JV10-12	4	668	1003	219	162	-	72.6	
JV10-14	5.5	760	1120	234	199	300	98.5	
JV10-16	5.5	820	1180	234	199	300	100.5	
JV10-18	7.5	880	1280	234	199	300	111.6	
JV10-20	7.5	940	1340	234	199	300	113.6	
JV10-22	7.5	1000	1400	234	199	300	115.7	

\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type





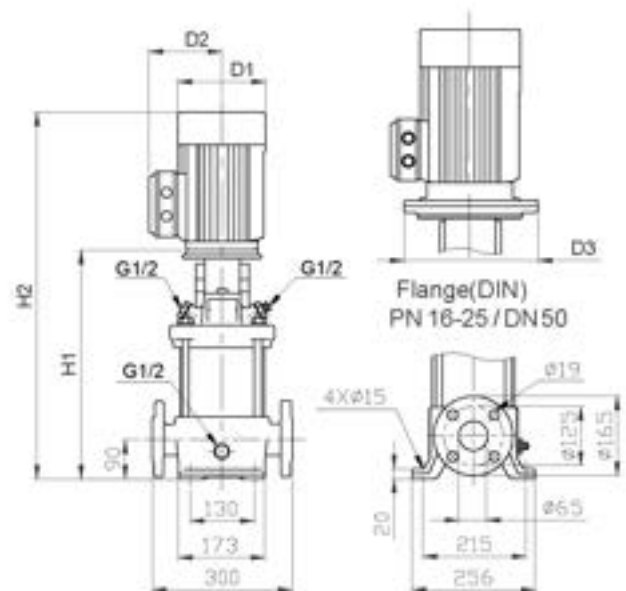


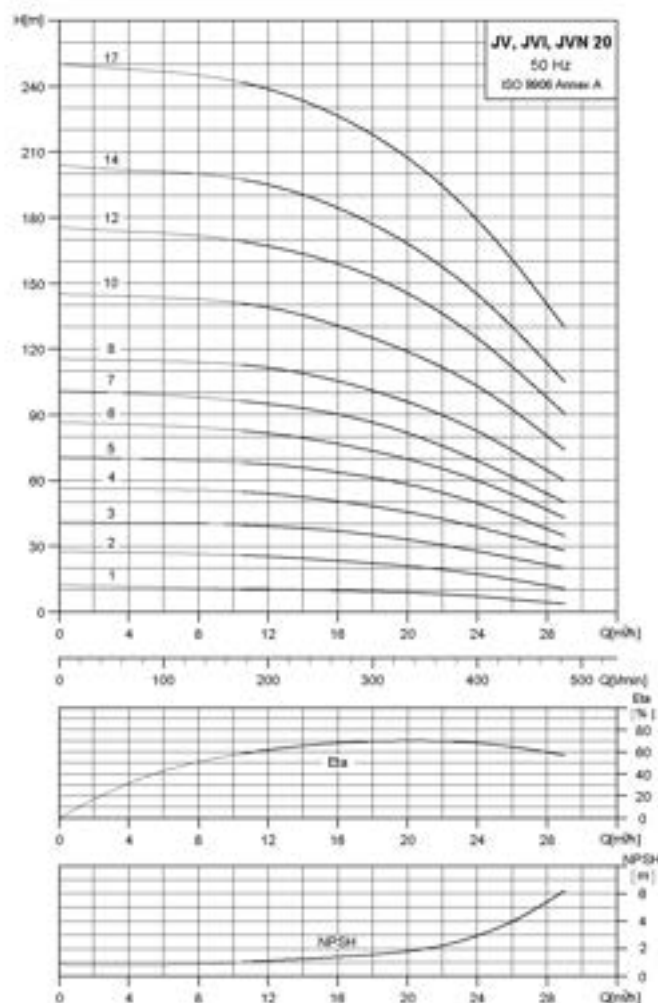
MODEL	MOTOR P <sup>2</sup> kW	JV DIMENSION (MM)					NET WEIGHT (KG)
		DIN FLANGE		D1	D2	D3	
		H1	H2				
JV15-1	1.1	400	631	141	109	-	42
JV15-2	2.2	415	690	175	140	-	52.6
JV15-3	3	465	785	196	148	-	61.3
JV15-4	4	510	845	219	162	-	69.7
JV15-5	4	555	890	219	162	-	71.7
JV15-6	5.5	632	992	234	199	300	96.3
JV15-7	5.5	677	1037	234	199	300	97.7
JV15-8	7.5	722	1122	234	199	300	108.1
JV15-9	7.5	767	1167	234	199	300	109.5
JV15-10	11	889	1334	268	215	350	140.6
JV15-12	11	979	1424	268	215	350	143.4
JV15-14	11	1069	1514	268	215	350	146.2
JV15-17	15	1204	1693	268	215	350	141.2

\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type

### DID YOU KNOW?

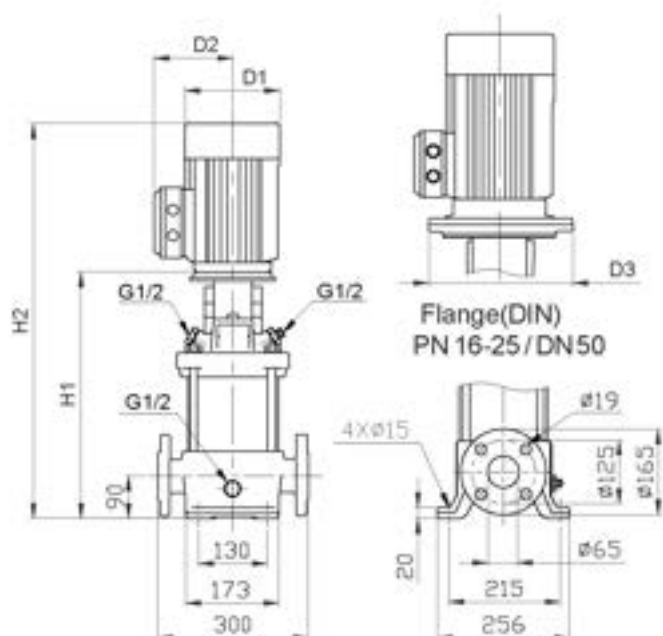
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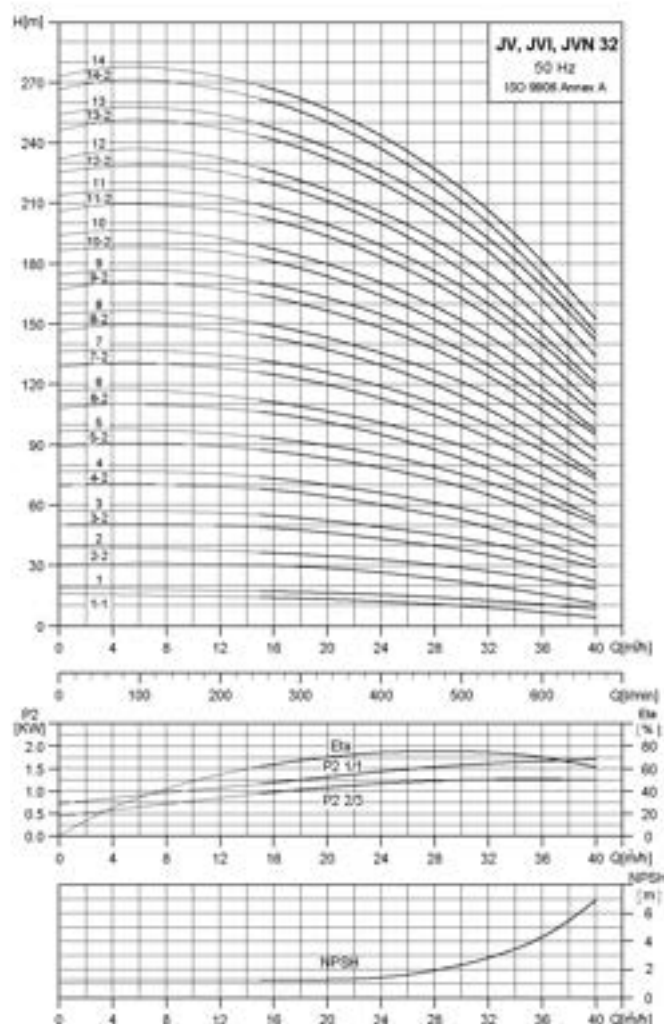


MODEL	MOTOR	JV						
		P2	DIN FLANGE		DIMENSION [MM]			NET WEIGHT (KG)
			H1	H2	D1	D2	D3	
JV20-1	1.1	400	631	141	109	-	42	
JV20-2	2.2	415	690	175	140	-	52.7	
JV20-3	4	465	800	239	162	-	68.4	
JV20-4	5.5	542	902	234	199	300	93.6	
JV20-5	5.5	587	947	234	199	300	95.0	
JV20-6	7.5	632	1032	234	199	300	105.4	
JV20-7	7.5	677	1077	234	199	300	106.8	
JV20-8	11	799	1244	268	235	350	137.9	
JV20-10	11	889	1334	268	235	350	140.7	
JV20-12	15	979	1468	268	235	350	154.5	
JV20-14	15	1069	1558	268	235	350	157.3	
JV20-17	18.5	1204	1739	317	242	400	196.4	

\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type







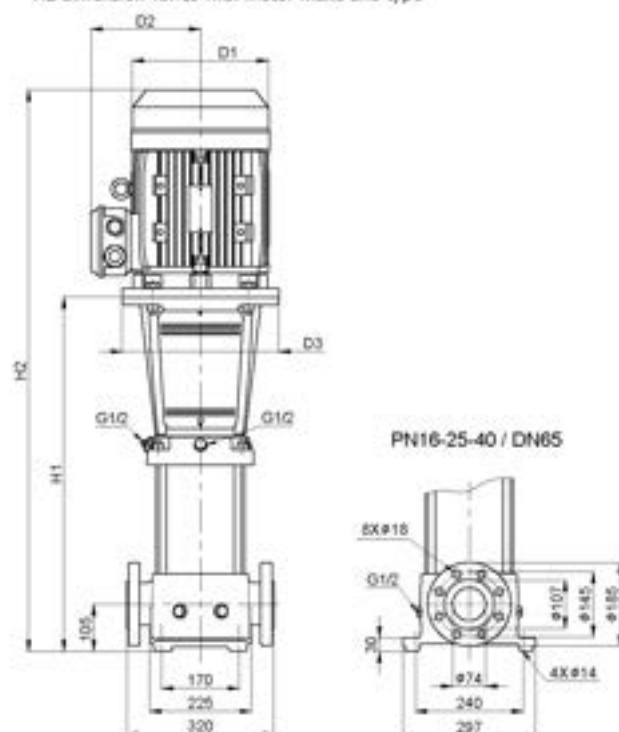
MODEL	MOTOR	JV					NET WEIGHT (KG)
	P <sup>2</sup> kW	DIMENSION [MM]		D1	D2	D3	
		H1	H2				
JV32-1-1	1.5	504	779	175	140	-	69.5
JV32-1	2.2	504	779	175	140	-	71.5
JV32-2-2	3.0	574	894	196	148	-	80.5
JV32-2	4.0	574	909	219	162	-	87.5
JV32-3-2	5.5	644	1004	234	199	300	104.4
JV32-3	5.5	644	1004	234	199	300	104.4
JV32-4-2	7.5	714	1114	234	199	300	116.4
JV32-4	7.5	714	1114	234	199	300	116.4
JV32-5-2	11.0	894	1339	268	215	350	153.0
JV32-5	11.0	894	1339	268	215	350	153.0
JV32-6-2	11.0	964	1409	268	215	350	156.0
JV32-6	11.0	964	1409	268	215	350	156.0
JV32-7-2	15.0	1034	1523	268	215	350	170
JV 32-7	15.0	1034	1523	268	215	350	170
JV32-8-2	15.0	1104	1593	268	215	350	173
JV32-8	15.0	1104	1593	268	215	350	173
JV32-9-2	18.5	1174	1709	317	242	400	211
JV32-9	18.5	1174	1709	317	242	400	211
JV32-10-2	18.5	1244	1779	317	242	400	213
JV32-10	18.5	1244	1779	317	242	400	214
JV32-11-2	22.0	1314	1893	317	242	400	227
JV32-11	22.0	1314	1893	317	242	400	227
JV32-12-2	22.0	1384	1963	317	242	400	229
JV32-12	22.0	1384	1963	317	242	400	229
JV32-13-2	30.0	1454	2077	317	290	400	317
JV32-13	30.0	1454	2077	317	290	400	317
JV32-14-2	30.0	1524	2147	317	290	400	320
JV32-14	30.0	1524	2147	317	290	400	320

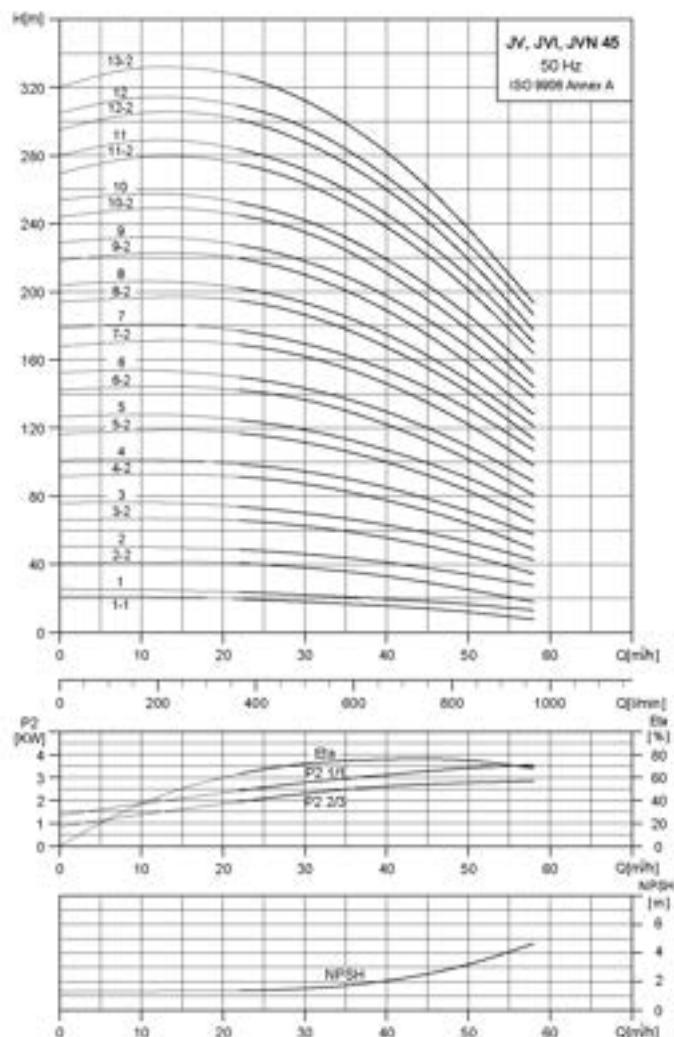
\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type

### DID YOU KNOW?

These pumps can be configured in pressure boosting systems?

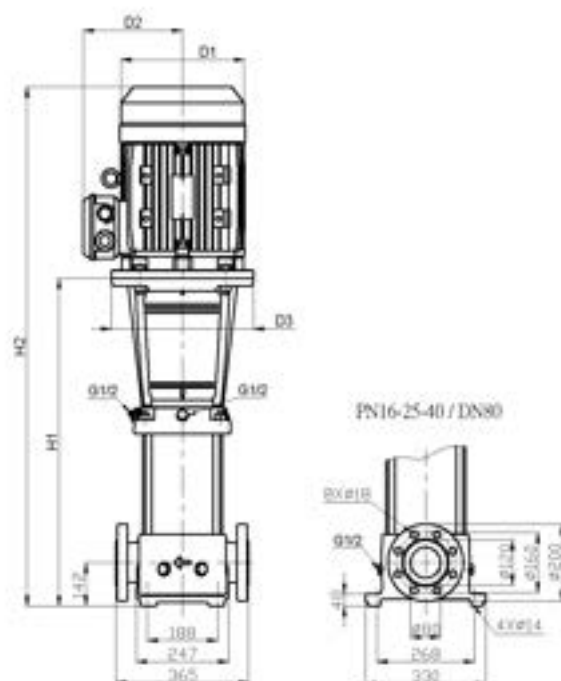
Refer to the Site Amenities section for more info



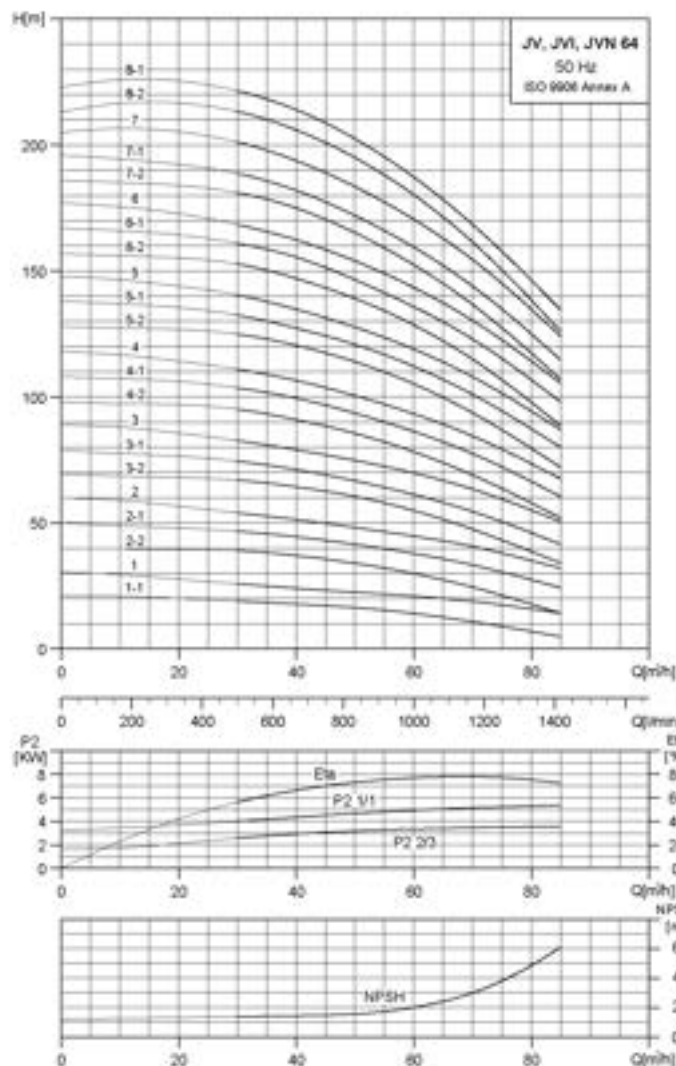


MODEL	MOTOR P <sub>2</sub> kW	JV					
		DIMENSION [MM]				NET WEIGHT (KG)	
		DIN FLANGE		D1	D2		D3
		H1	H2				
JV45-1-1	3.0	881	881	196	148	280	87.8
JV45-1	4.0	896	896	219	162	280	94.8
JV45-2-2	5.5	1001	1001	234	199	300	112.3
JV45-2	7.5	1041	1041	234	199	300	121.4
JV45-3-2	11.0	1276	1276	268	215	350	158.6
JV45-3	11.0	1276	1276	268	215	350	158.6
JV45-4-2	15.0	1400	1400	268	215	350	173.3
JV45-4	15.0	1400	1400	268	215	350	173.3
JV45-5-2	18.5	1526	1526	317	242	350	211.9
JV45-5	18.5	1526	1526	317	242	350	211.9
JV45-6-2	22.0	1650	1650	317	242	350	226.4
JV45-6	22.0	1650	1650	317	242	350	226.4
JV45-7-2	30.0	1774	1774	317	290	400	315.3
JV45-7	30.0	1774	1774	317	290	400	315.3
JV45-8-2	30.0	1854	1854	317	290	400	318.9
JV45-8	30.0	1854	1854	317	290	400	319.0
JV45-9-2	30.0	1934	1934	317	290	400	322.6
JV45-9	37.0	2036	2036	398	365	400	391.6
JV45-10-2	37.0	2116	2116	398	365	400	395.2
JV45-10	37.0	2116	2116	398	365	400	395.2
JV45-11-2	45.0	2196	2196	398	365	450	426.8
JV45-11	45.0	2196	2196	398	365	450	426.8
JV45-12-2	45.0	226	226	398	365	450	430.4
JV45-12	45.0	2276	2276	398	365	450	430.4
JV45-13-2	45.0	2356	2356	398	365	450	434.0

\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type



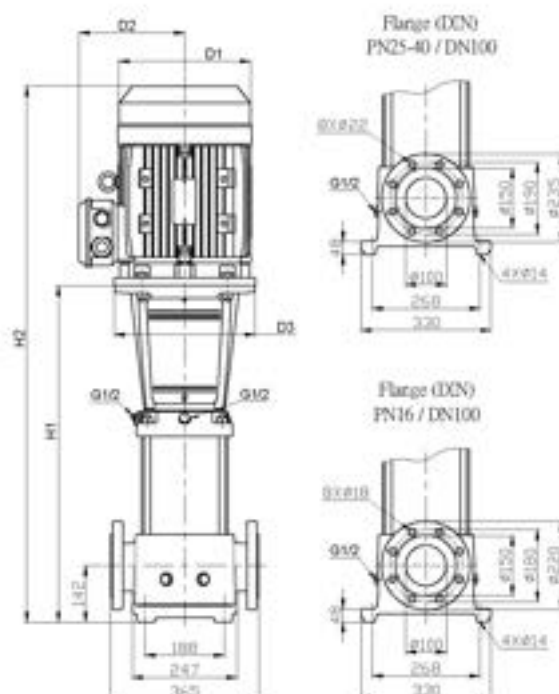




MODEL	MOTOR	JV					
		DIMENSION [MM]					
		P <sub>2</sub> kW	DIN FLANGE		D1	D2	D3
JV64-1-1	4.0	563	898	219	162	200	88.76
JV64-1	5.5	563	923	234	199	300	102.64
JV64-2-2	7.5	646	1046	234	199	300	115.58
JV64-2-1	11.0	756	1201	268	215	350	149.16
JV64-2	11.0	756	1201	268	215	350	149.16
JV64-3-2	15.0	838	1327	268	215	350	164.62
JV64-3-1	15.0	838	1327	268	215	350	146.62
JV64-3	18.5	838	1373	317	242	350	199.62
JV64-4-2	18.5	921	1456	317	242	350	203.52
JV64-4-1	22.0	921	1500	317	242	350	214.28
JV64-4	22.0	921	1500	317	242	350	214.28
JV64-5-2	30.0	1003	1626	317	290	400	303.43
JV64-5-1	30.0	1003	1626	317	290	400	303.43
JV64-5	30.0	1003	1626	317	290	400	303.43
JV64-6-2	30.0	1086	1790	317	290	400	307.29
JV64-6-1	37.0	1086	1811	398	365	400	376.29
JV64-6	37.0	1086	1811	398	365	400	376.29
JV64-7-2	37.0	1168	1893	398	365	400	380.24
JV64-7-1	37.0	1168	1893	398	365	400	380.24
JV64-7	45.0	1172	1897	398	365	450	408.24
JV64-8-2	45.0	1255	1980	398	365	450	412.24
JV64-8-1	45.0	1255	1980	398	365	450	412.24

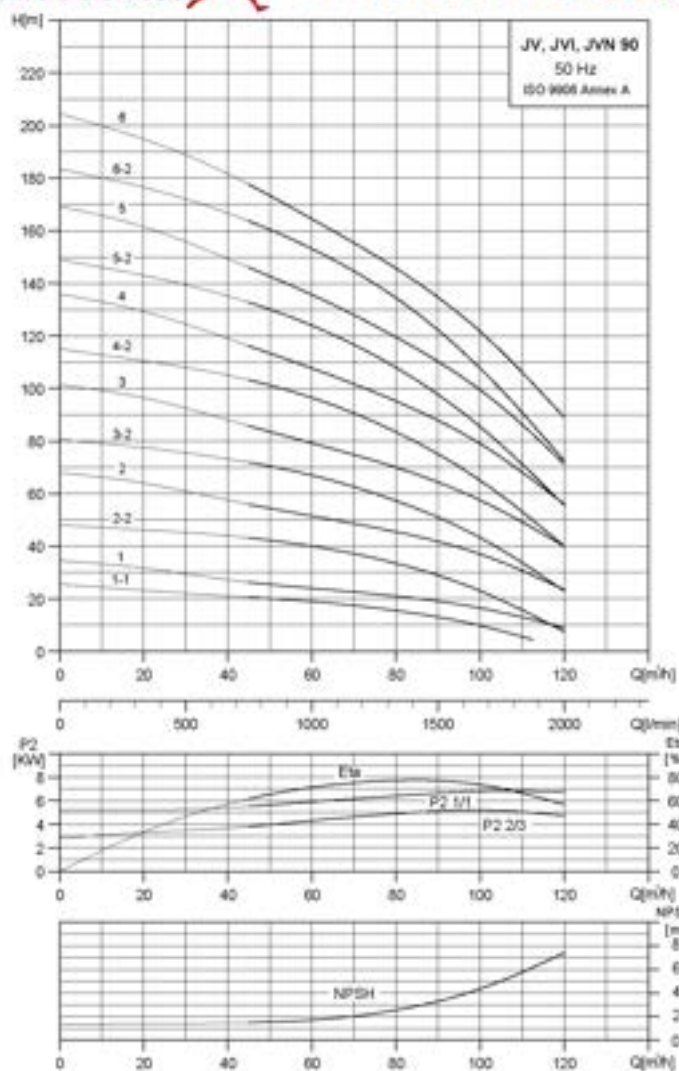
\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type

**DID YOU KNOW?**  
These pumps can be configured in pressure boosting systems?  
Refer to the Site Amenities section for more info





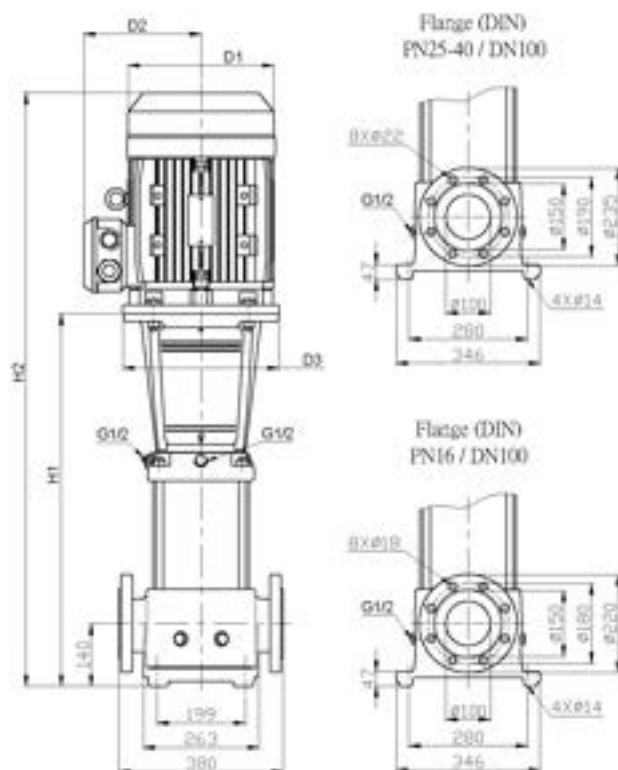
GRUNDFOS **JV90**



MODEL	MOTOR P <sub>2</sub> kW	JV					
		DIN FLANGE		DIMENSION [MM]			NET WEIGHT (KG)
		H1	H2	D1	D2	D3	
JV90-1-1	5.5	572	932	234	199	300	116.06
JV90-1	7.5	572	972	234	199	300	125.08
JV90-2-2	11.0	744	1219	268	215	350	163.82
JV90-2	15.0	744	1263	268	215	350	174.86
JV90-3-2	18.5	866	1401	317	242	350	214.94
JV90-3	22.0	866	1445	317	242	350	225.74
JV90-4-2	30.0	958	1581	317	290	400	316.08
JV90-4	30.0	958	1581	317	290	400	316.12
JV90-5-2	37.0	1050	1775	398	365	400	391.48
JV90-5	37.0	1050	1775	398	365	400	391.52
JV90-6-2	45.0	1142	1867	398	365	450	424.58
JV90-6	45.0	1142	1867	398	365	450	424.62

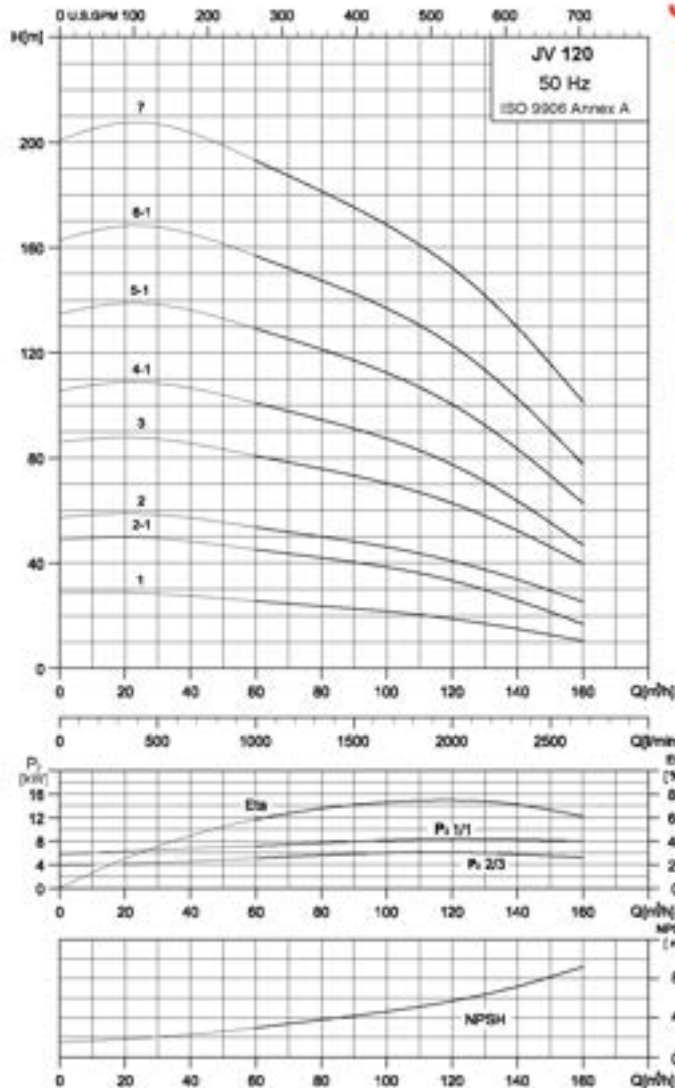
\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type

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Refer to the Site Amenities section for more info



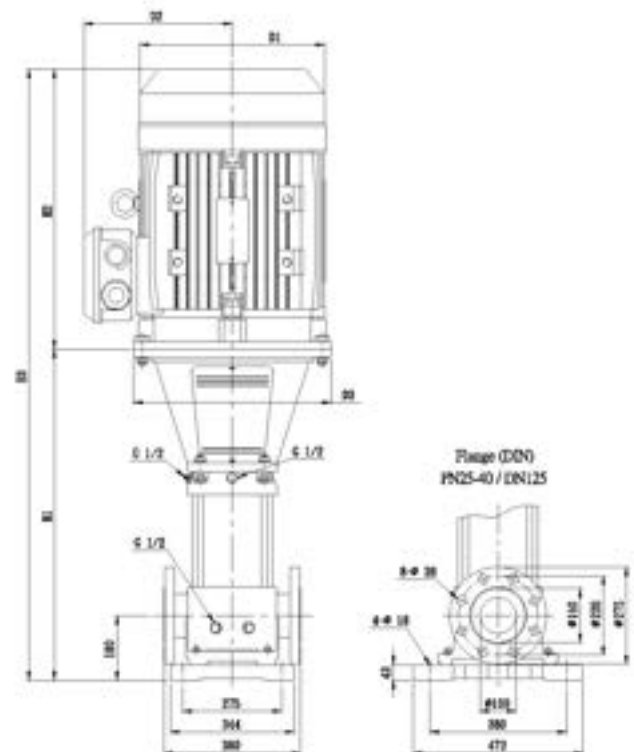


## JV120

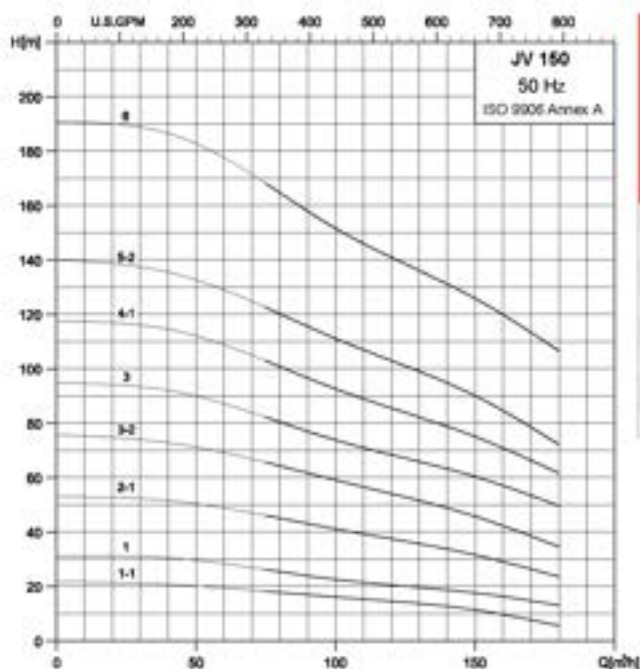


MODEL	MOTOR P <sub>2</sub> kW	JV DIMENSION [MM]						
		DIN FLANGE			D1	D2	D3	NET WEIGHT (KG)
		H1	H2	H3				
JV120-1-1	11	834	505	1339	318	245	350	116.06
JV120-2-1	18.5	990	550	1540	318	245	350	125.08
JV120-2	22	990	580	1570	358	265	350	163.82
JV120-3	30	1145	660	1805	420	295	400	174.86
JV120-4-1	37	1301	660	1961	420	295	400	214.94
JV120-5-1	45	1460	690	2150	470	325	450	225.74
JV120-6-1	55	1642	770	2412	510	355	550	316.08
JV12-7	75	1797	845	2642	580	410	550	316.12

\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type

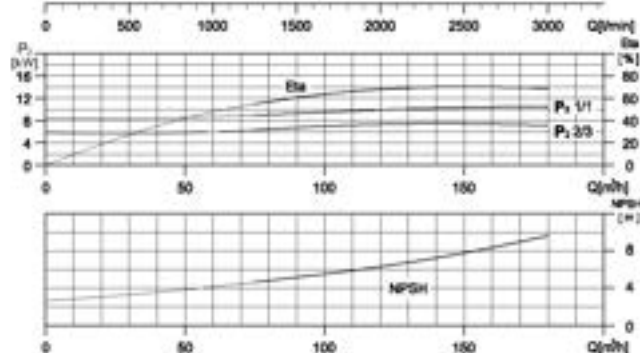

**DID YOU KNOW?**

These pumps can be configured in pressure boosting systems?  
Refer to the Site Amenities section for more info

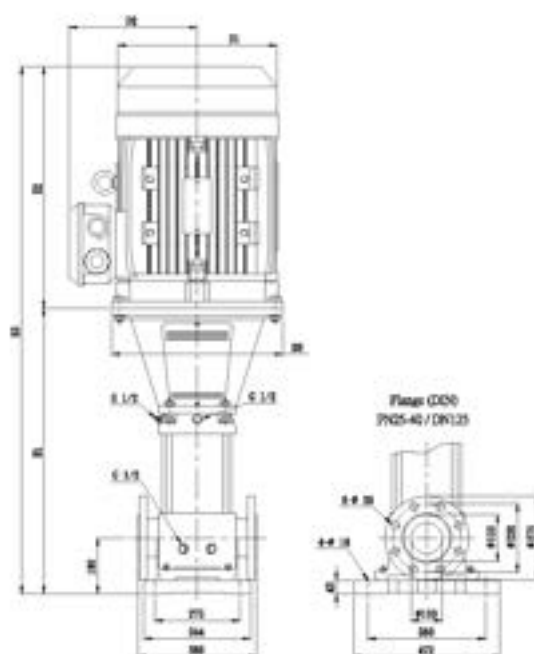


MODEL	MOTOR P <sub>2</sub> kW	JV DIMENSION [MM]						
		DIN FLANGE			D1	D2	D3	NET WEIGHT (KG)
		H1	H2	H3				
SB 150-1-1	11	834	505	1339	318	245	350	200.0
SB 150-1	15	834	510	1344	318	245	350	210.1
SB 150-2-1	22	990	580	1570	358	265	350	287.8
SB 150-3-2	30	1145	660	1805	420	295	400	362.3
SB 150-3	37	1145	660	1805	420	295	400	375.4
SB 150-4-1	45	1305	690	1995	470	325	450	443.4
SB 150-5-2	55	1486	770	2256	510	355	550	568.7
SB 15-6	75	1642	845	2487	580	410	550	741.0

\* Weights are indicative and may change with different motor make and type  
H2 dimension varies with motor make and type



**DID YOU KNOW?**  
These pumps can be configured in pressure boosting systems?  
Refer to the Site Amenities section for more info





## Variable speed pressure systems utilising vasco speed controllers

Single



Dual



**DID YOU KNOW?**

These pumps can be configured in pressure boosting systems? Refer to the Site Amenities section for more info



## Variable speed pressure systems utilising vasco speed controllers

Triplex



Quad





# BOREHOLE PUMPS



PAGE  
182







## Overview

The Sabre Borehole ranges of submersible pumps are made of corrosion and abrasion resistant stainless steel and have been developed in accordance with state-of-the-art technology. The JB 4" pumps are manufactured to the highest standards for energy efficiency, dependable performance, rugged construction, and long service life.

## Applications

- Potable water supply from deep wells
- Municipal and industrial
- Agricultural irrigation, livestock watering, etc.
- Pressure boosting
- Mine dewatering
- Fountains, etc.

## Pumped Liquids

- Clean, non-corrosive and non-abrasive liquids.

## Operating conditions

- Max. Ambient temperature (Liquid): 30°C
- Sand content: Max. 50g/m<sup>3</sup>

## Features

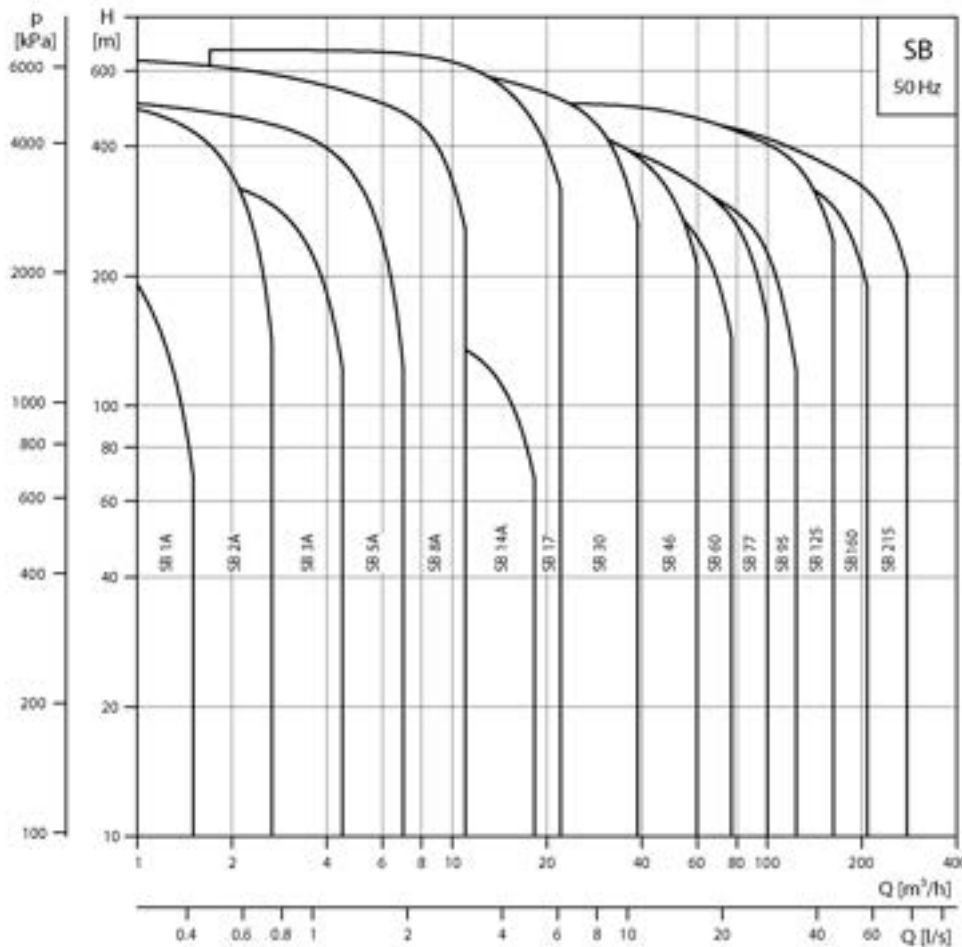
- Stainless steel construction designed and built for years of trouble free operation
- All metal parts are made of 304 stainless steel, except for the shaft, which is made of 431 stainless steel.
- Heavy duty stainless steel discharge head with built-in check valve for long life and ease of installation
- Smooth safety hook
- Mounting specifications are according to NEMA standards
- High quality shaft bearings providing low friction and high wear resistance
- Heavy duty stainless steel impellers & diffusers ensuring optimal performance
- Stainless steel strainer to restrict the entry of sand and other extraneous material

## Specifications

SIZE	CAPACITY (M <sup>3</sup> /H)		
	MIN FLOW	MAX FLOW	MAX HEAD
4"	0.3	18	285m
6"	3	78	433m
8"	12	120	412m
10"	16	280	502m







SB Submersible Pumps are made of corrosion and abrasion resistant stainless steel and have been developed in accordance with state-of-the-art technology. The SB series of pumps are manufactured to the highest standards for energy efficiency, dependable performance, rugged construction and long service life for the most demanding applications.

### Efficiency and MEI index for SB pumps

PUMP TYPE	PUMP SIZE	BEP (M <sup>3</sup> /H)	MEI
SB 01	4"	1.0	≥ 0.70
SB 02	4"	2.0	≥ 0.70
SB 03	4"	3.0	≥ 0.70
SB 05	4"	5.0	≥ 0.56
SB 09	4"	8.0	≥ 0.70
SB 11	4"	11.0	≥ 0.55
SB 14	4"	14.0	≥ 0.44
SB 17	6"	17.0	≥ 0.70
SB 30	6"	30.0	≥ 0.50
SB 46	6"	45.0	≥ 0.50
SB 60	6"	60.0	≥ 0.60
SB 77	8"	75.0	-
SB 95	8"	95.0	-
SB 125	10"	125.0	-
SB 160	10"	160.0	-
SB 215	10"	215.0	-

### Product key

<b>SB</b>	<b>95</b>	<b>-</b>	<b>5</b>	<b>S</b>	<b>S</b>
<b>EXAMPLE</b>					
Type range	Nominal flow rate (m <sup>3</sup> /hr)	Number of stages	Diffuser material	Impeller material	





## General Information



Manufacturing diffusers, impellers, suction case, discharge case of stainless steel provides maximum strength, durability, wear and tear resistance.



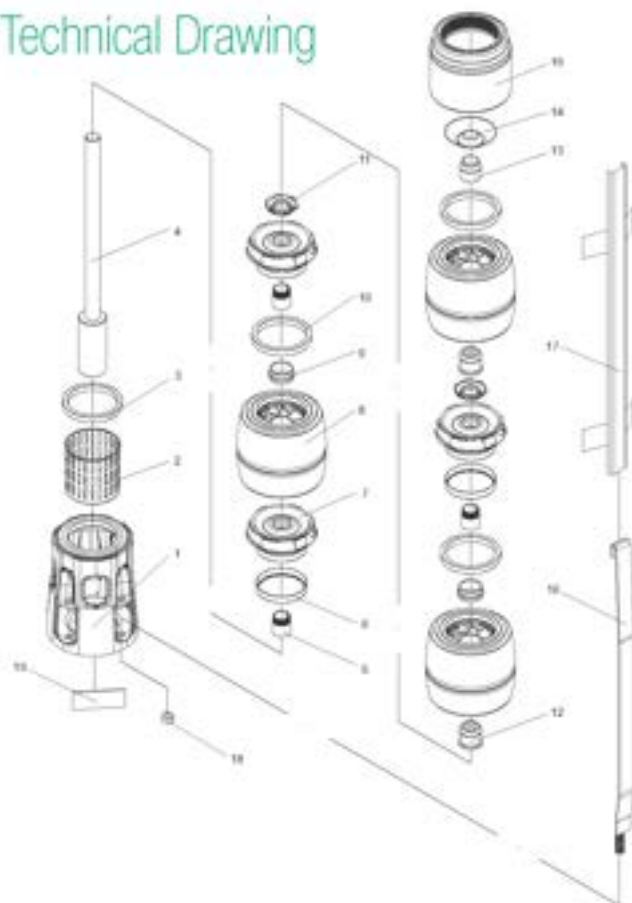
Rubber bearings are water lubricated and have sand channels to enable the sand particles to leave the pump with the pumped liquid.



The stainless steel strainer prevents particles over a certain size from entering the pump.

- Long life
- High efficiency
- High durability and solid construction
- Easy service operation
- Suitable connection in NEMA standards
- Water lubricated rubber bearing
- Built-in checkvalve to prevent back flow

## Technical Drawing



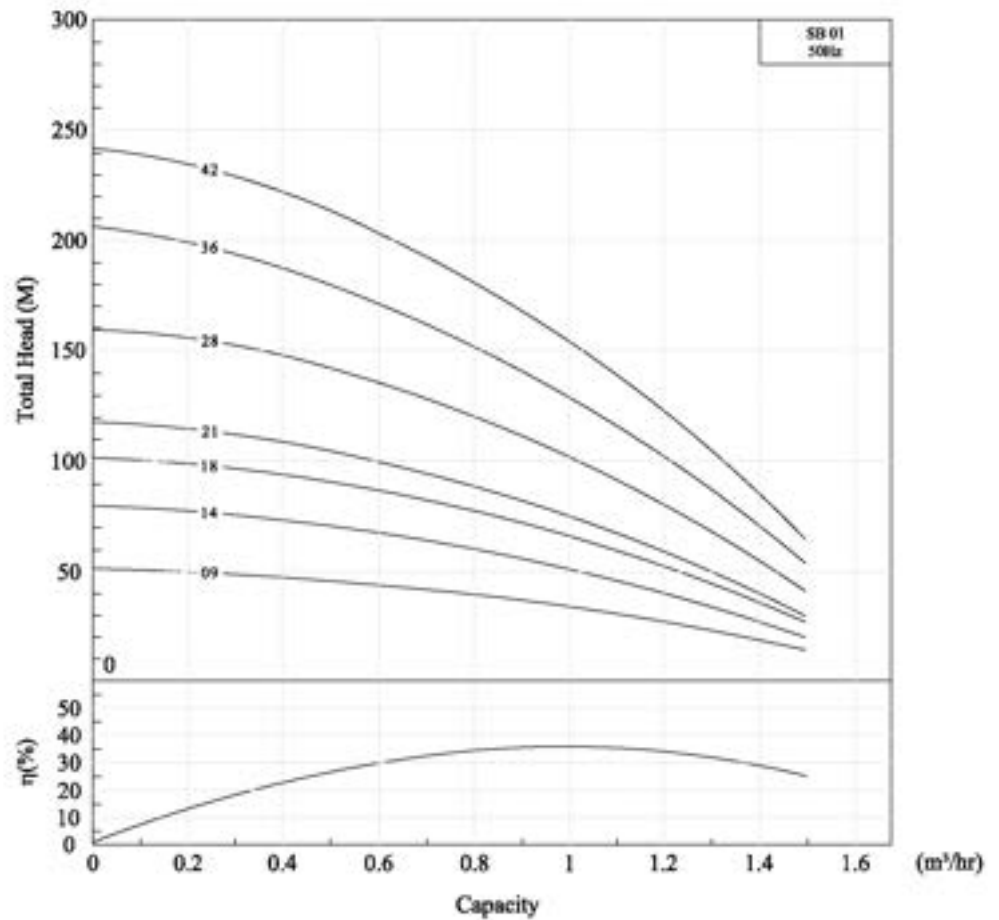
## Parts List

NO.	PART NAME	MATERIAL
1	Suction Case	Stainless Steel (AISI 304L)
2	Filter	Stainless Steel (AISI 304)
3	Suction Case Wear Ring	Bronze (ASTM B145-4A)
4	Pump Shaft	Stainless Steel (AISI 420)
5	Collet	Stainless Steel
6	Impeller Wear Rings	Stainless Steel (AISI 304)
7	Impeller	Stainless Steel (AISI 304L)
8	Diffuser	Stainless Steel (AISI 304L)
9	Rubber Bearing	Rubber
10	Diffuser Wear Ring	Rubber
11	Nut For Stop Ring	Stainless Steel (AISI 304L)
12	Bearing	Rubber
13	Shaft Stopper	Bronze (ASTM B145-4A)
14	Valve	Stainless Steel (AISI 304)
15	Discharge Case	Stainless Steel (AISI 304)
16	Tie Rod	Stainless Steel (AISI 304L)
17	Cable Guard	Stainless Steel (AISI 304)
18	Tie Rod Nut	Stainless Steel (AISI 303)
19	Name plate	Stainless Steel (AISI 304)



## SB-01

## Performance curve


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

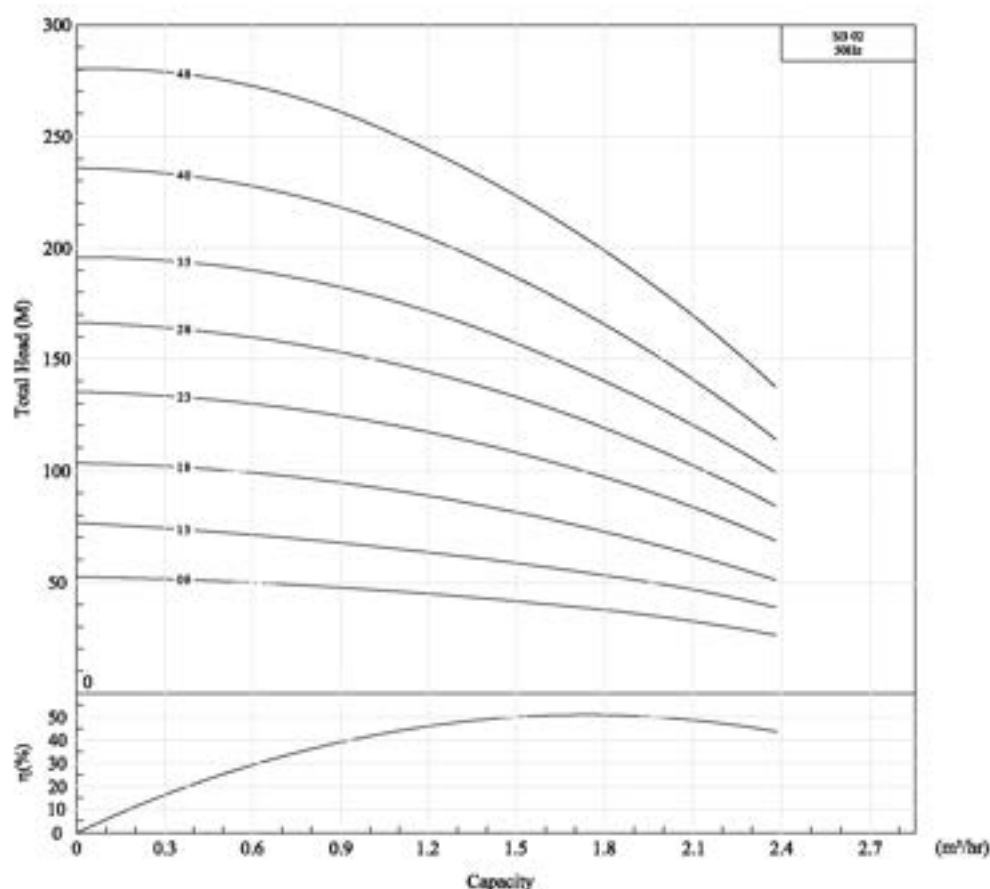
Call 1300 225 786 to discuss your requirements.

TYPE	DIMENSIONS (MM)			WEIGHT KG	MOTOR		HEAD M	M <sup>3</sup> /HR					
	A	B	C		HP	KW		0	0.3	0.6	0.9	1.2	1.5
								L/ MIN					
								0	5	10	15	20	25
SB01-09	1 1/4"	98	336	3.1	0.5	0.37	34	52	48	45	36	27	14
SB01-14			461	4	0.5	0.37	40	79	76	68	56	38	21
SB01-18			545	4.7	0.75	0.55	67	102	96	88	72	52	27
SB01-21			606	5.2	0.75	0.55	76	118	112	100	81	58	30
SB01-28			755	6.6	1.0	0.75	102	158	153	138	111	78	42
SB01-36			946	8.6	1.5	1.1	117	205	195	175	134	103	54
SB01-42			1072	9.8	1.5	1.1	134	238	235	203	167	118	67



SB-02

Performance curve



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

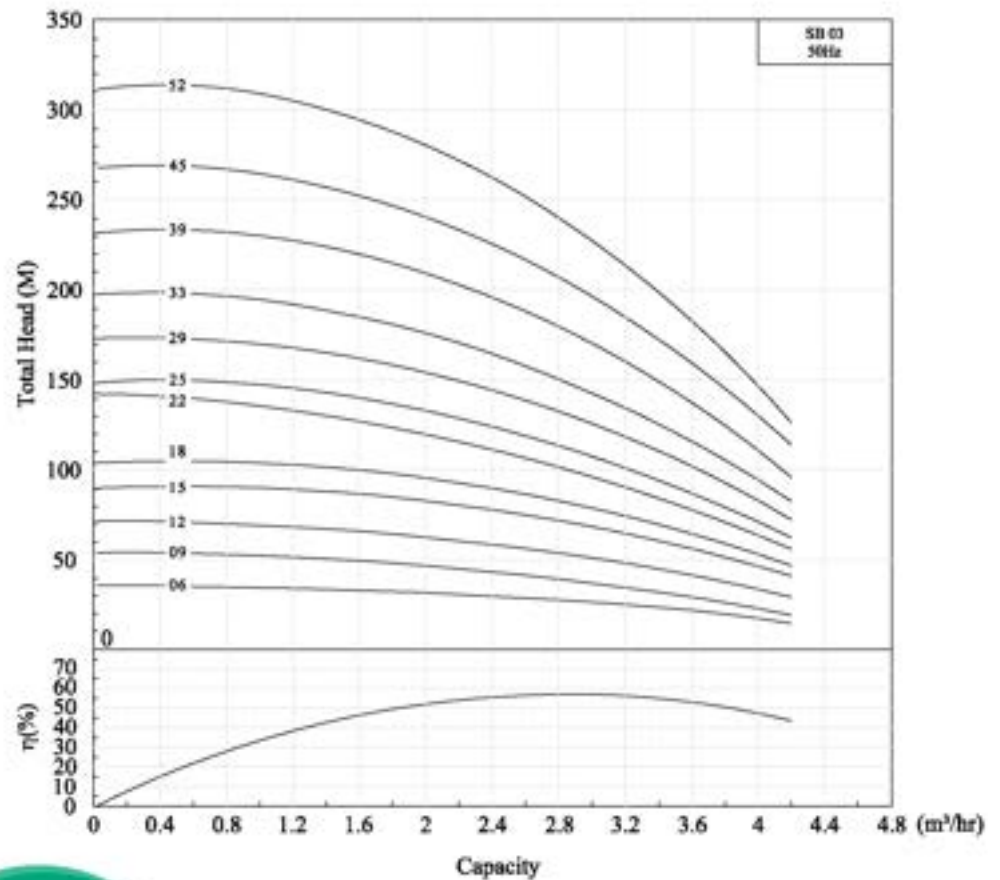
TYPE	DIMENSIONS (MM)			WEIGHT KG	MOTOR		HEAD M	M³/HR					
	A	B	C		HP	KW		0	0.9	1.2	1.5	1.8	2.4
								L/MIN					
								0	15	20	25	30	40
SB02-09	1 1/4"	98	356	3.2	0.5	0.37	32	53	48	45	42	38	26
SB02-13			440	4	0.75	0.55	48	77	68	64	58	54	38
SB02-18			545	5.1	1.0	0.75	67	104	94	89	83	74	51
SB02-23			650	6.2	1.5	1.1	86	136	124	118	108	98	69
SB02-28			755	7	2.0	1.5	106	166	154	145	134	122	86
SB02-33			883	8.1	2.0	1.5	121	195	183	173	159	143	102
SB02-40			1030	10.4	3.0	2.2	150	235	218	205	190	170	119
SB02-48			1198	12.1	3.0	2.2	176	280	261	246	228	204	143



## SB-03



Performance curve


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

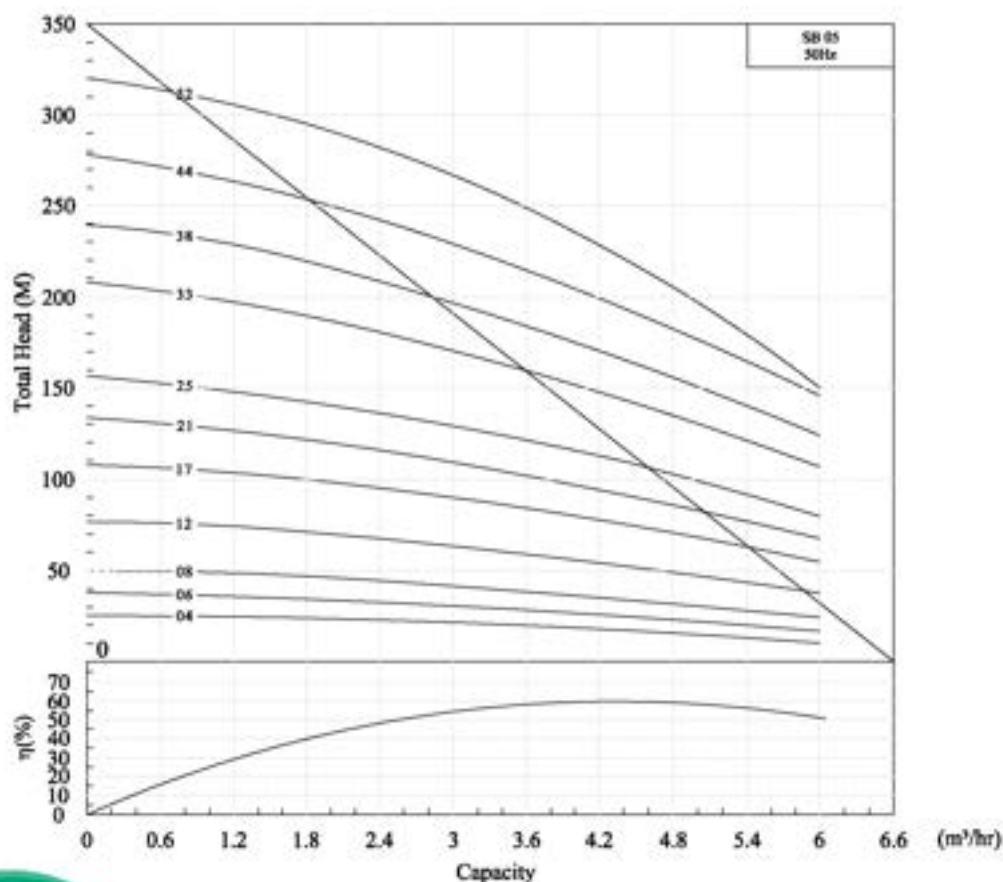
TYPE	DIMENSIONS (MM)			WEIGHT KG	MOTOR		HEAD M	M <sup>3</sup> /HR					
	A	B	C		HP	KW		0	2.1	2.4	3.0	3.6	4.2
								L/ MIN					
								0	35	40	50	60	70
SB03-06	1 1/4"	86.7	98	2.6	0.5	0.37	25	36	31	30	26	22	14
SB03-09				3.1	0.75	0.55	37	54	46	44	38	30	19
SB03-12				3.7	1.0	0.75	49	72	62	58	52	43	28
SB03-15				4.2	1.5	1.1	61	90	80	77	69	57	40
SB03-18				4.9	1.5	1.1	75	104	94	90	80	67	45
SB03-22				5.4	2	1.5	90	143	115	110	97	80	54
SB03-25				6.0	2.0	1.5	102	149	128	124	110	90	60
SB03-29				6.9	3.0	2.2	119	173	149	143	127	103	70
SB03-33				7.9	3.0	2.2	137	198	172	164	145	118	80
SB03-39				9.2	4.0	3.0	165	232	204	195	172	138	94
SB03-45				10.4	4.0	3.0	194	268	233	224	199	162	110
SB03-52				11.8	5.5	4.0	229	312	272	261	230	184	123



## SB-05



Performance curve



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

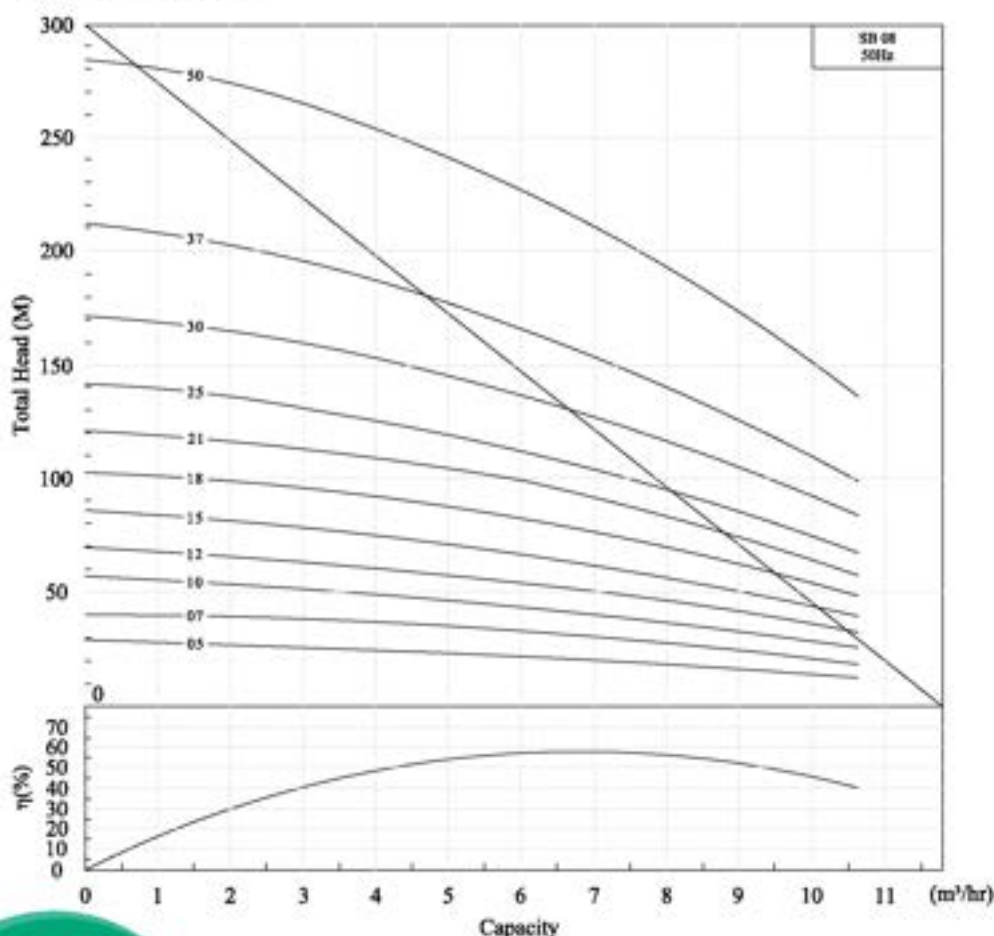
TYPE	DIMENSIONS (MM)			WEIGHT KG	MOTOR		HEAD M	M³/HR					
	A	B	C		HP	KW		0	3	3.6	4.2	4.8	6.0
								L/MIN					
								0	50	60	70	80	100
SB05-04	1 1/2"	98	251	2.2	0.5	0.37	15	25	20	19	17	15	10
SB05-06			293	2.3	0.75	0.55	22	38	30	28	26	24	16
SB05-08			335	2.9	1.0	0.75	31	52	41	39	36	33	23
SB05-12			419	3.7	1.5	1.1	46	77	63	60	56	50	37
SB05-17			524	4.7	2.0	1.5	63	108	88	84	77	70	54
SB05-21			608	5.3	3.0	2.2	79	134	108	103	96	87	67
SB05-25			692	6.4	3.0	2.2	94	157	127	121	113	103	78
SB05-33			868	7.8	4.0	3.0	124	209	168	159	149	137	105
SB05-38			973	9.7	5.5	4.0	150	242	194	185	172	158	123
SB05-44			1099	11	5.5	4.0	166	279	226	215	202	187	143
SB05-52			1267	13.2	7.5	5.5	190	321	261	247	233	209	147



## SB-08



Performance curve


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

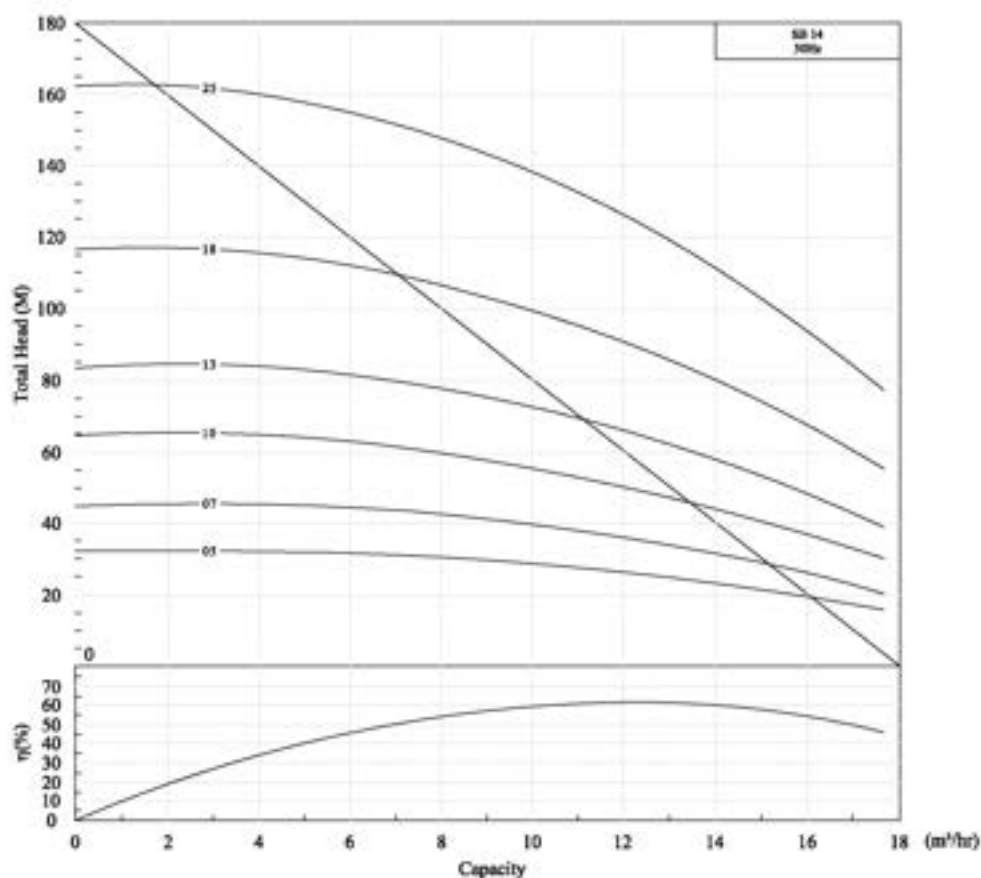
TYPE	DIMENSIONS (MM)			WEIGHT KG	MOTOR		HEAD M	M <sup>3</sup> /HR					
	A	B	C		HP	KW		0	3.6	4.8	8.4	9.6	10.8
								L/MIN					
								0	60	80	140	160	180
SB08-05	2"	98	412	4.1	1.0	0.75	19	30	26	24	19	15	12
SB08-07			496	5.1	1.5	1.1	27	41	36	35	27	24	17
SB08-10			622	6.6	2.0	1.5	38	58	51	47	38	32	25
SB08-12			706	7.6	3.0	2.2	46	71	61	58	47	40	31
SB08-15			832	9.1	3.0	2.2	59	87	76	72	57	49	38
SB08-18			958	10.6	4.0	3.0	71	104	93	88	72	60	47
SB08-21			1084	12.1	5.5	4.0	83	122	107	102	85	72	55
SB08-25			1252	14.1	5.5	4.0	99	144	126	119	97	84	64
SB08-30			1462	16.6	7.5	5.5	117	174	154	145	120	103	79
SB08-37			1753	20.1	7.5	5.5	141	215	188	177	145	122	93
SB08-50	2315	26.6	10	7.5	187	288	254	242	198	168	129		



## SB-14



Performance curve



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 788 to discuss your requirements.

TYPE	DIMENSIONS (MM)			WEIGHT KG	MOTOR		HEAD M	M3/HR					
	A	B	C		HP	KW		0	6.0	8.4	12	15	18
								L/MIN					
								0	100	140	200	250	300
SB14-05	2"	98	505	5.4	2.0	1.5	32	32	31	29	26	22	16
SB14-07			635	6.8	3.0	2.2	45	45	44	42	36	30	20
SB14-10			830	7.4	4.0	3.0	65	65	62	58	52	43	29
SB14-13			1025	8.9	5.5	4.0	84	84	80	77	67	56	38
SB14-18			1250	13.7	7.5	5.5	117	117	111	104	93	77	54
SB14-25			1805	17.9	10	7.5	163	163	154	145	129	107	75



## SB17

## SPECIFICATIONS

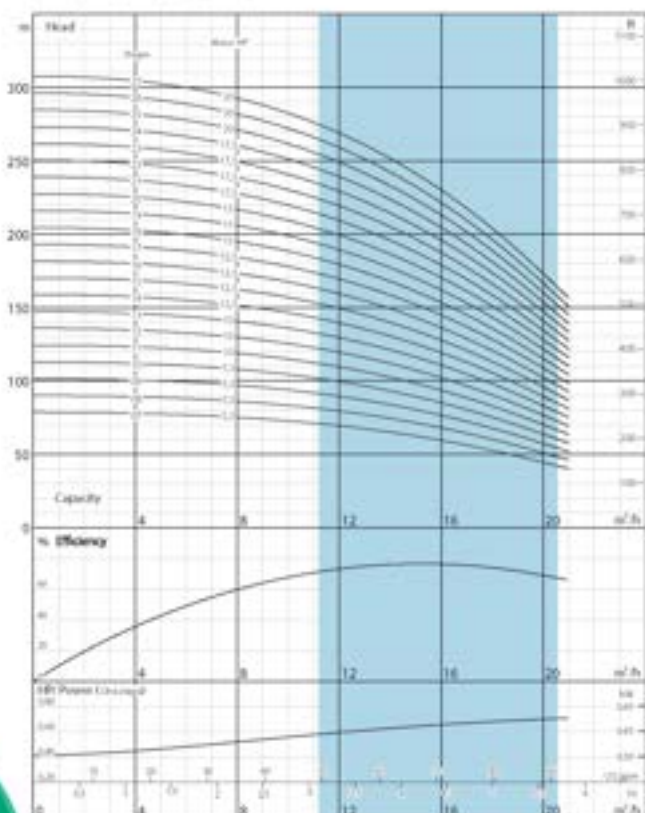
No. of vanes	6
Outlet connection diameter	2 1/2" (inside threaded)
Pump outside diameter	132 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	20 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30 C (50 C optional)
Degree of protection	IP 68

## MATERIALS

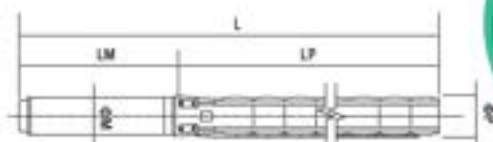
Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve



For continuous operation in alignment with the light in green specifications in this catalog page only.



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	M <sup>3</sup> /H						
	KW	HP	L	LM	LP	ØM	ØP		I/S						
									0	6	10	12	16	18	20
SB17-07	4.0	5.5	1342	649	693	142	132	54	81	79	75	72	61	54	46
SB17-08	5.5	7.5	1431	678	753	142	132	59.5	93	91	86	82	70	62	53
SB17-09	5.5	7.5	1490	678	814	142	132	60.5	104	102	97	92	78	69	59
SB17-10	5.5	7.5	1552	678	874	142	132	61.5	116	113	107	102	87	77	66
SB17-11	7.5	10.0	1693	798	935	142	132	70	127	125	118	112	96	85	72
SB17-12	7.5	10.0	1753	798	995	142	132	71	139	136	129	123	104	92	79
SB17-13	7.5	10.0	1814	798	1056	142	132	73	151	147	140	133	113	100	85
SB17-14	7.5	10.0	1874	798	1116	142	132	74	162	159	150	143	122	108	92
SB17-15	9.3	12.5	1977	800	1177	142	132	81	174	170	161	153	131	115	99
SB17-16	9.3	12.5	2037	800	1237	142	132	82	185	182	172	164	139	123	105
SB17-17	9.3	12.5	2098	800	1298	142	132	84	197	193	182	174	148	131	112
SB17-18	11.0	15.0	2209	851	1358	142	132	90	208	204	193	184	157	139	118
SB17-19	11.0	15.0	2270	851	1419	142	132	91	220	216	204	194	165	146	125
SB17-20	11.0	15.0	2330	851	1479	142	132	93	232	227	215	204	174	154	131
SB17-21	13.0	17.5	2451	911	1540	142	132	99	243	238	225	215	183	162	138
SB17-22	13.0	17.5	2511	911	1600	142	132	101	255	250	236	225	191	169	145
SB17-23	13.0	17.5	2572	911	1661	142	132	102	266	261	247	235	200	177	151
SB17-24	13.0	17.5	2632	911	1721	142	132	104	278	272	258	245	209	185	158
SB17-25	15.0	20.0	2755	973	1782	142	132	112	289	284	268	256	218	192	164
SB17-26	15.0	20.0	2815	973	1842	142	132	114	301	295	279	266	226	200	171
SB17-27	15.0	20.0	2876	973	1903	142	132	115	313	306	290	276	235	208	177



## SB30

## SPECIFICATIONS

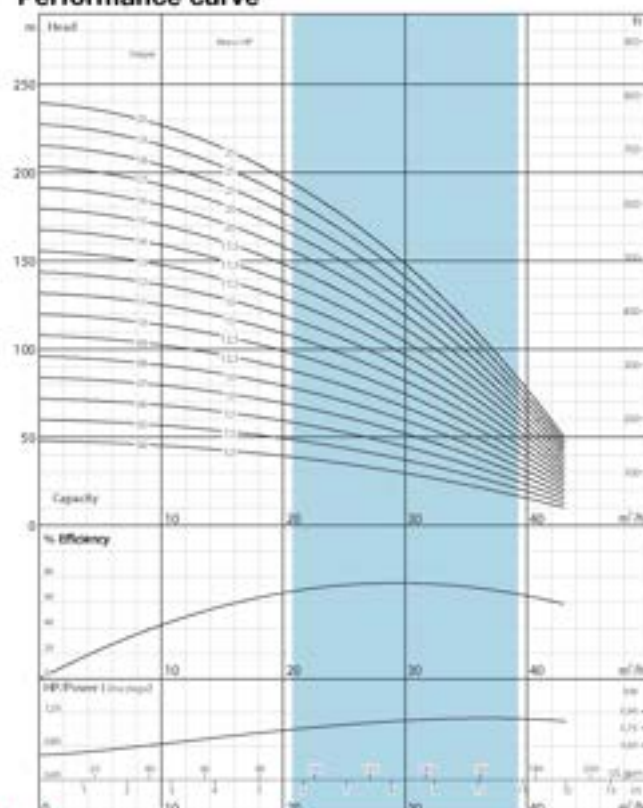
No. of vanes	7
Outlet connection diameter	3" (inside threaded)
Pump outside diameter	132 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	22 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve

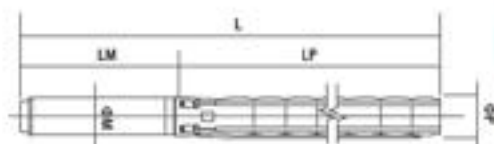


Due to continuous improvements in design we reserve the right to amend specifications in data without prior notice.

## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.



PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	MP / H						
	KW	HP	L	LM	LP	ØM	ØP		0.0	7.2	14.4	21.6	28.8	36.0	43.2
									I/S						
0	2.0	4.0	6.0	8.0	10.0	12.0									
SB30-04	4	5.5	1298	649	649	142	132	53	48	45	43	38	31	22	10
SB30-05	5.5	7.5	1422	678	744	142	132	58.5	60	58	54	47	39	27	12
SB30-06	5.5	7.5	1517	678	839	142	132	60.5	72	69	64	57	46	33	15
SB30-07	7.5	10	1692	758	934	142	132	69	84	81	75	66	54	38	17
SB30-08	7.5	10	1787	758	1029	142	132	71	96	92	86	76	62	44	20
SB30-09	9.3	12.5	1924	800	1124	142	132	78	108	104	97	85	70	49	22
SB30-10	9.3	12.5	2019	800	1219	142	132	80	119	116	107	95	77	54	25
SB30-11	9.3	12.5	2114	800	1314	142	132	82	131	127	118	104	85	60	27
SB30-12	11	15	2260	851	1409	142	132	89	143	139	129	113	93	65	30
SB30-13	11	15	2355	851	1504	142	132	91	155	150	139	123	100	71	32
SB30-14	13	17.5	2510	911	1599	142	132	98	167	162	150	132	108	76	35
SB30-15	13	17.5	2605	911	1694	142	132	101	179	173	161	142	116	82	37
SB30-16	15	20	2762	973	1789	142	132	110	191	185	172	151	124	87	40
SB30-17	15	20	2857	973	1884	142	132	112	203	196	182	161	131	93	42
SB30-18	18.5	25	2985	1006	1979	142	132	118	215	208	193	170	139	98	45
SB30-19	18.5	25	3080	1006	2074	142	132	120	227	220	204	180	147	103	47
SB30-20	18.5	25	3175	1006	2169	142	132	122	239	231	214	189	155	109	50



## SB45

## SPECIFICATIONS

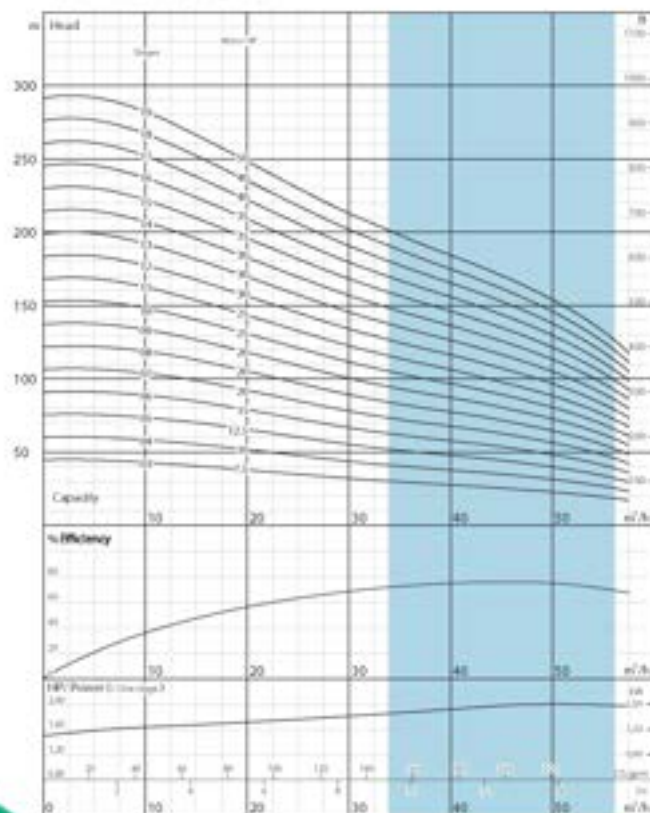
No. of vanes	6
Outlet connection diameter	4" (inside threaded)
Pump outside diameter	144 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	22 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

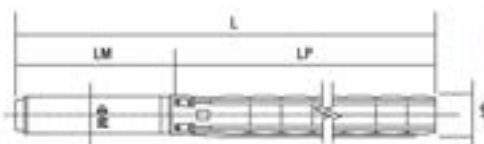
Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve



For more information, please contact us directly on the right to request specifications, models and price lists.



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...  
Call 1300 225 786 to discuss your requirements.

PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	M <sup>3</sup> /H						
	KW	HP	L	LM	LP	ØM	ØP		0	28.8	36.0	43.2	46.8	50.4	58.0
									I/S						
								0	8.0	4.0	6.0	8.0	10.0	12.0	
SB45-03	55	75	1284	678	606	142	144	55.5	45	35	32	28	26	24	20
SB45-04	75	10	1476	798	718	142	144	65	60	47	42	38	35	32	26
SB45-05	75	10	1588	758	830	142	144	68	74	59	53	47	44	41	33
SB45-06	93	125	1742	800	942	142	144	75	89	71	64	56	53	49	39
SB45-07	11	15	1905	851	1054	142	144	83	104	83	74	66	63	57	46
SB45-08	13	175	2077	911	1166	142	144	91	119	95	85	75	70	65	52
SB45-09	15	20	2251	973	1278	142	144	100	134	106	95	85	79	73	59
SB45-10	185	25	2396	1006	1390	142	144	107	149	118	106	94	88	81	65
SB45-11	185	25	2508	1006	1502	142	144	110	164	130	117	103	96	89	72
SB45-12	22	30	2720/2504	1106/890	1614	142/172	144	123/122	179	142	127	113	105	97	78
SB45-13	22	30	2830/2616	1106/890	1726	142/172	144	126/125	193	154	138	122	114	106	85
SB45-14	22	30	2944/2728	1106/890	1838	142/172	144	129/128	208	166	148	131	123	114	91
SB45-15	265	35	3167/2890	1217/940	1950	142/172	144	142/135	223	177	159	141	132	122	98
SB45-16	265	35	3279/3002	1217/940	2062	142/172	144	145/138	238	189	170	150	140	130	104
SB45-17	30	40	3421/3154/3230	1247/980/1056	2174	142/172/192	144	152/152/178	253	201	180	160	149	138	111
SB45-18	30	40	3533/3266/3342	1247/980/1056	2286	142/172/192	144	155/155/181	268	213	191	169	158	146	117
SB45-19	37	50	3745/3458/3514	1347/1060/1136	2398	142/172/192	144	165/168/193	283	225	201	178	167	154	124



## SB60

## SPECIFICATIONS

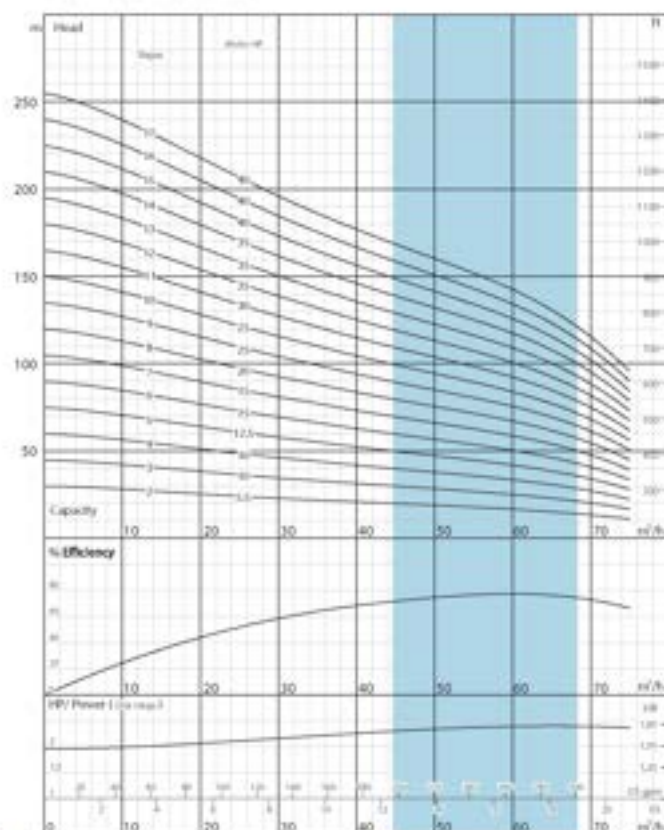
No. of vanes	7
Outlet connection diameter	4" (inside threaded)
Pump outside diameter	144 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	22 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

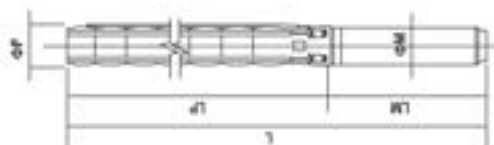
Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve



Due to continuous development and design we reserve the right to amend specifications in this without prior notice.



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	M <sup>3</sup> /H						
	KW	HP	L	LM	LP	OM	OP		l/s						
									0	30	36	40	58	65	76
SB60-02	4	5.5	1143	649	494	142	144	50	0	83.0	10.0	119.0	161.0	181.0	211.0
SB60-03	5.5	7.5	1284	678	606	142	144	55.5	30	23	22	20	17	15	10
SB60-04	7.5	10	1476	758	718	142	144	65	44	35	33	31	26	23	15
SB60-05	9.3	12.5	1630	800	820	142	144	73	59	47	44	41	35	31	20
SB60-06	11	15	1793	851	942	142	144	80	74	59	55	51	43	38	25
SB60-07	13	17.5	1965	911	1054	142	144	88	89	70	66	61	52	46	30
SB60-08	15	20	2139	973	1166	142	144	98	104	82	77	72	60	53	35
SB60-09	18.5	25	2294	1006	1278	142	144	104	104	82	77	72	60	53	35
SB60-10	18.5	25	2396	1006	1390	142	144	107	118	94	88	82	69	61	40
SB60-11	22	30	2608/2392	1106/890	1502	142/172	144	121/120	133	105	99	92	78	69	45
SB60-12	22	30	2720/2504	1106/890	1614	142/172	144	123/122	148	117	110	102	86	76	50
SB60-13	27	35	2943/2666	1217/940	1726	142/172	144	137/130	163	129	121	112	95	84	55
SB60-14	27	35	3055/2778	1217/940	1838	142/172	144	140/133	178	140	132	123	104	92	60
SB60-15	30	40	3197/2930/3006	1247/980/1056	1950	142/172/192	144	147/147/173	192	152	143	133	112	99	65
SB60-16	30	40	3309/3042/3118	1247/980/1056	2062	142/172/192	144	150/150/176	207	164	154	143	121	107	70
SB60-17	30	40	3421/3154/3230	1247/980/1056	2174	142/172/192	144	153/153/179	222	176	165	153	130	114	75
									237	187	176	164	138	122	80
									252	199	187	174	147	130	85



## SB77

## SPECIFICATIONS

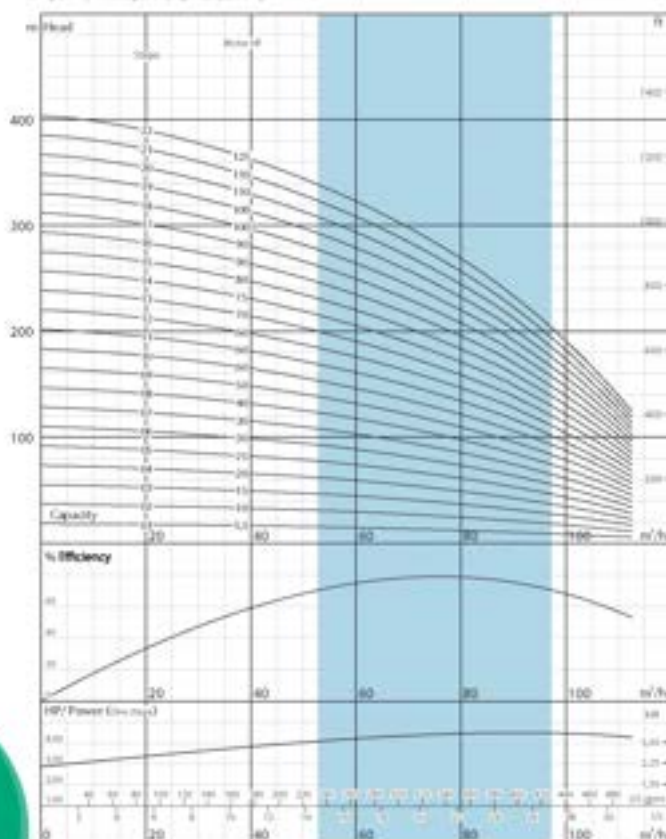
No. of vanes	6
Outlet connection diameter	5" (inside threaded)
Pump outside diameter	172 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25,4 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve

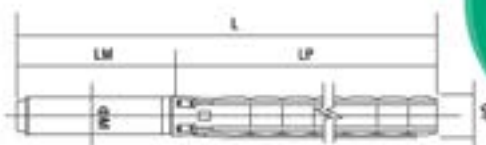


Due to continuous improvement for design we reserve the right to amend specifications or data without prior notice.

## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.



PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	M <sup>3</sup> / H						
	KW	HP	L	LM	LP	ØM	ØP		I/S						
									0	57.6	64.8	72.0	79.2	86.4	96.0
								0	16.0	18.0	20.0	22.0	24.0	26.7	
SB77-01	4	5.5	1220	649	571	142	172	66	19	15	15	14	13	11	9
SB77-02	7.5	10	1457	758	699	142	172	80	38	31	29	27	25	23	19
SB77-03	11	15	1678	851	827	142	172	94	58	46	44	41	38	34	28
SB77-04	15	20	1928	973	955	142	172	110	77	62	58	55	50	45	37
SB77-05	18.5	25	2089	1006	1083	142	172	138	96	77	73	68	63	57	47
SB77-06	22	30	2317/2101	1106/890	1211	142/172	172	133/132	115	93	88	82	75	68	56
SB77-07	26.5	35	2556/2279	1217/940	1339	142/172	172	148/141	135	108	102	96	88	79	66
SB77-08	30	40	2714/2447/2523	1247/980/1056	1467	142/172/192	172	157/157/183	154	124	117	109	101	91	75
SB77-09	37	50	2942/2655/2711	1347/1060/1116	1595	142/172/192	172	168/171/196	173	139	132	123	113	102	84
SB77-10	37	50	3070/2783/2839	1347/1060/1116	1723	142/172/192	172	172/175/200	192	155	146	137	126	113	94
SB77-11	45	60	2990/3052	1139/1201	1851	172/192	172	193/218	211	170	161	150	138	125	103
SB77-12	45	60	3118/3180	1139/1201	1979	172/192	172	197/222	231	186	175	164	151	136	112
SB77-13	52	70	3325/3393	1218/1286	2107	172/192	172	212/244	250	201	190	178	164	147	122
SB77-14	52	70	3453/3521	1218/1286	2235	172/192	172	216/248	269	217	205	191	176	159	131
SB77-15	55	75	3613/3649	1250/1286	2363	172/192	172	220/252	288	232	219	205	189	170	140
SB77-16	60	80	3832	1341	2491	192	172	271	307	247	234	219	201	181	150
SB77-17	67	90	3985	1366	2619	192	172	275	327	263	249	232	214	193	159
SB77-18	67	90	4113	1366	2747	192	172	279	346	278	263	246	226	204	169
SB77-19	67	90	4241	1366	2875	192	172	283	365	294	278	260	239	215	178
SB77-20	75	100	4394	1391	3003	192	172	296	384	309	292	273	252	227	187
SB77-21	75	100	4522	1391	3131	192	172	300	404	325	307	287	264	238	197
SB77-22	81	110	4730/4629	1471/1370	3259	192/231	172	319/365	423	340	322	301	277	249	206



## SB95

## SPECIFICATIONS

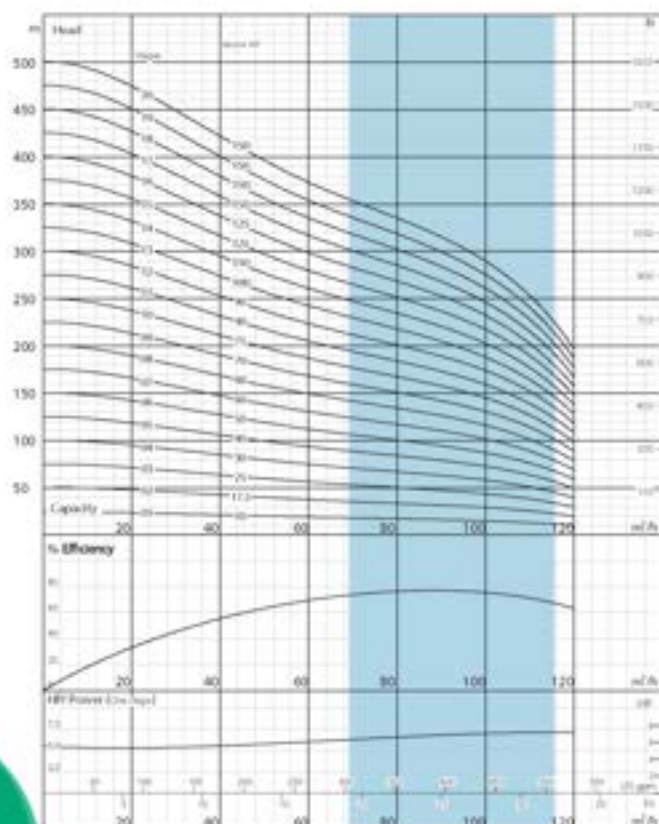
No. of vanes	7
Outlet connection diameter	5" (inside threaded)
Pump outside diameter	172 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25,4 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

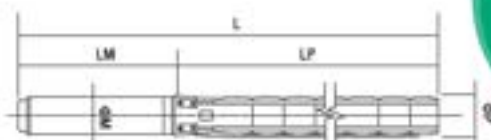
Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve



These curves are subject to change without notice. The right to amend specifications is reserved without prior notice.



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 788 to discuss your requirements.

PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	M <sup>3</sup> /H						
	KW	HP	L	LM	LP	OM	OP		I/S						
									0	20.0	40.0	60.0	80.0	100.0	110.0
SB95-01	55	75	1249	678	571	142	172	69.5	25	24	21	19	17	15	13
SB95-02	11	15	1350	851	699	142	172	90	30	47	42	37	34	29	25
SB95-03	15	20	1800	972	827	142	172	106	75	71	63	56	51	44	38
SB95-04	22	30	2061/1845	1106/890	955	142/172	172	125/124	100	95	84	75	67	58	51
SB95-05	30	40	2330/2063/2139	1247/980/1056	1083	142/172/192	172	145/145/171	125	119	105	93	84	73	63
SB95-06	37	50	2558/2271/2327	1347/1060/1116	1211	142/172/192	172	156/159/184	150	142	126	112	101	88	76
SB95-07	37	50	2686/2399/2455	1347/1060/1116	1339	142/172/192	172	160/163/188	175	166	148	131	118	102	89
SB95-08	45	60	2606/2668	1139/1201	1467	172/192	172	181/206	200	190	169	149	135	117	101
SB95-09	45	60	2734/2796	1139/1201	1595	172/192	172	185/210	225	214	190	168	152	131	114
SB95-10	55	75	2973/3009	1250/1286	1723	172/192	172	200/232	250	237	211	187	168	146	127
SB95-11	60	80	3192	1341	1851	192	172	251	275	261	232	205	185	161	139
SB95-12	67	90	3345	1366	1979	192	172	256	300	285	253	224	202	175	152
SB95-13	75	100	3498	1391	2107	192	172	269	325	309	274	243	219	190	165
SB95-14	75	100	3626	1391	2235	192	172	273	350	332	295	261	236	204	177
SB95-15	81	110	3804/3733	1471/1370	2363	192/231	172	292/338	375	356	316	280	253	219	190
SB95-16	92	125	4027/3921	1536/1430	2491	192/231	172	298/370	400	380	337	299	269	234	203
SB95-17	92	125	4155/4049	1536/1430	2619	192/231	172	302/374	425	404	358	317	286	248	215
SB95-18	110	150	4257	1510	2747	231	172	405	450	427	379	336	303	263	228
SB95-19	110	150	4385	1510	2875	231	172	409	475	451	401	355	300	277	241
SB95-20	110	150	4513	1510	3003	231	172	413	500	475	422	373	337	292	253



## SB125

## SPECIFICATIONS

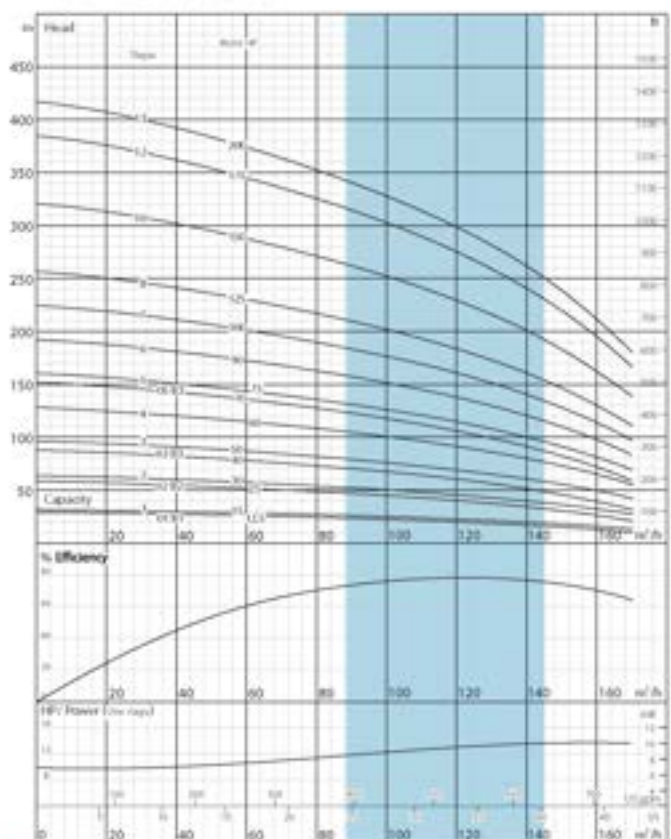
No. of vanes	7
Outlet connection diameter	6" (inside threaded)
Pump outside diameter	213 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	30,16 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve

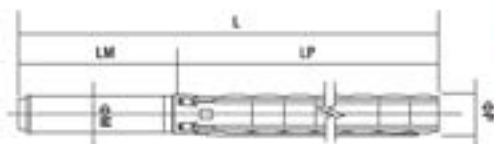


Please contact us to determine the design we advise for the right to avoid specifications in data without your notice.

## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.



PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	M <sup>3</sup> / H						
	KW	HP	L	LM	LP	ØM	ØP		I/S						
									0	40.0	90.0	130.0	140.0	160.0	170.0
SB125-01.81	93	125	1486	800	686	142	213	87	29	27	24	19	17	13	11
SB125-01	11	15	1537	851	686	142	213	92	32	30	26	22	20	16	14
SB125-02.82	185	25	1848	1006	842	142	213	115	59	55	47	38	34	26	21
SB125-02	22	30	1948/1732	1106/890	842	142/172	213	126/125	64	60	52	43	40	33	28
SB125-03.83	30	40	2244/1977/2053	1247/980/1056	997	142/172/192	213	148/148/174	88	82	71	57	52	39	32
SB125-03	37	50	2344/2057/2113	1347/1060/1116	997	142/172/192	213	155/158/183	96	91	79	65	60	49	42
SB125-04	45	60	2292/2354	1139/1201	1153	172/192	213	179/204	128	121	105	86	80	65	56
SB125-05.83	52	70	2527/2595	1218/1286	1309	172/192	213	196/228	152	143	123	100	92	72	60
SB125-05	55	75	2559/2595	1250/1286	1309	172/192	213	196/228	160	151	131	108	100	81	70
SB125-06	67	90	2831	1366	1465	192	213	251	192	181	157	130	120	98	83
SB125-07	75	100	3011	1391	1620	192	213	266	225	211	183	151	140	114	97
SB125-08	92	125	3312/3206	1536/1430	1776	192/231	213	290/362	257	241	210	173	161	130	111
SB125-10	110	150	3597	1510	2087	231	213	402	321	302	262	216	201	163	139
SB125-12	129	175	4009	1610	2399	231	213	442	385	362	315	259	241	195	167
SB125-13	147	200	4294	1740	2554	231	213	480	417	392	341	281	261	211	181



## SB160

## SPECIFICATIONS

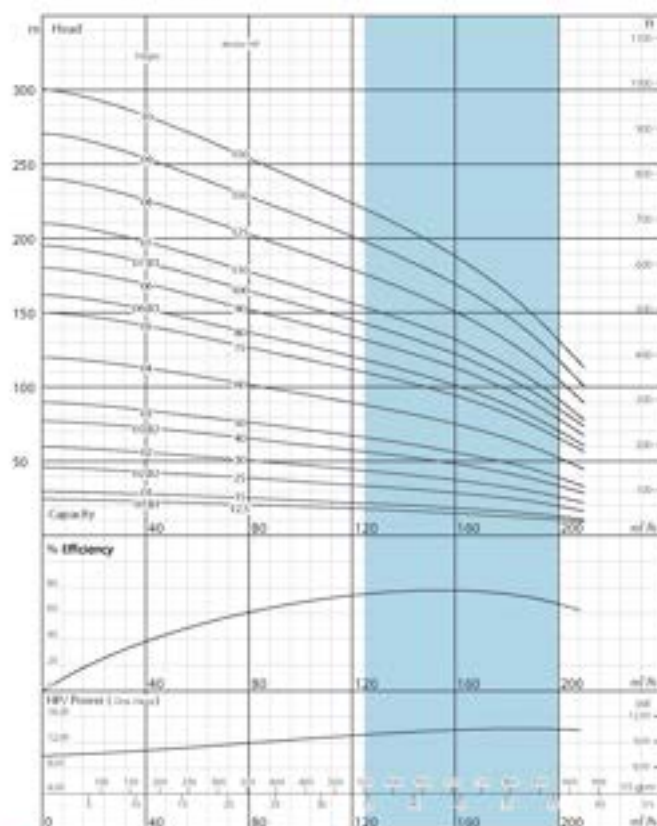
No. of vanes	6
Outlet connection diameter	6" (inside threaded)
Pump outside diameter	226 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	30,16 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

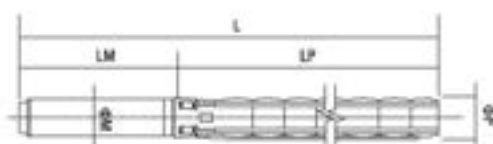
Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve



Head is continuous improvement for design on size or for tight or special specifications or data without job order.



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 788 to discuss your requirements.

PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	M <sup>3</sup> /H							
	KW	HP	L	LM	LP	ØM	ØP		I/S							
									0	22.2	27.8	33.3	38.9	44.4	50.0	55.6
SB160-01.B1	93	125	1486	800	685	142	226	89	25	21	20	19	17	16	14	11
SB160-01	11	15	1537	851	686	142	226	94	30	25	24	22	21	19	16	13
SB160-02.B2	185	25	1848	1006	842	142	226	116	46	39	37	34	32	29	25	20
SB160-02	22	30	1948/1730	1106/890	842	142/172	226	127/126	60	51	48	45	41	38	33	26
SB160-03.B2	30	40	2244/1977/2053	1247/980/1056	997	142/172/192	226	150/150/176	77	65	61	58	53	49	42	34
SB160-03	37	50	2344/2057/2113	1347/1060/1116	997	142/172/192	226	157/160/185	90	76	72	67	62	57	49	40
SB160-04	45	60	2292/2354	1139/1201	1153	172/192	226	180/205	120	101	96	89	83	75	66	53
SB160-05	55	75	2559/2595	1250/1286	1309	172/192	226	198/230	150	127	119	112	104	94	82	66
SB160-06.B3	60	80	2806	1341	1465	192	226	251	162	137	129	121	112	102	89	71
SB160-06	67	90	2831	1366	1465	192	226	252	180	152	143	134	124	113	99	79
SB160-07.B3	75	100	3011	1391	1620	192	226	268	195	165	155	145	135	123	107	86
SB160-07	81	110	3091/2990	1471/1370	1620	192/231	226	283/329	210	178	167	157	145	132	115	92
SB160-08	92	125	3312/3206	1536/1430	1776	192/231	226	291/363	240	203	191	179	166	151	132	106
SB160-09	110	150	3442	1510	1932	231	226	397	270	228	215	201	187	170	148	119
SB160-10	110	150	3597	1510	2087	231	226	403	300	254	239	224	207	189	165	132



## SB215

## SPECIFICATIONS

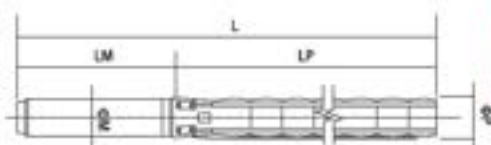
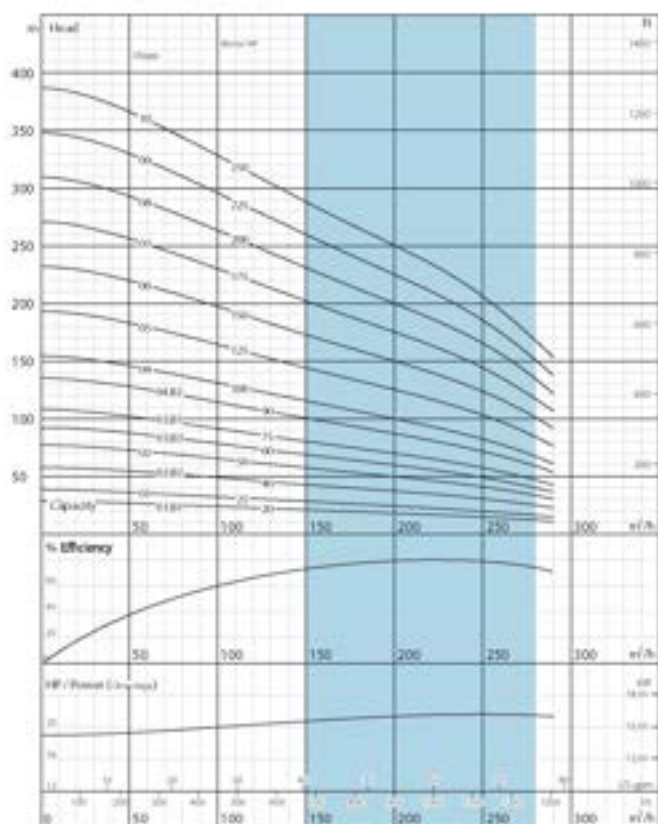
No. of vanes	7
Outlet connection diameter	6" (inside threaded)
Pump outside diameter	247 mm
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	42,86 mm
Max. sand content	50 gr / m <sup>3</sup>
Valve cap	Stainless steel
Voltage	380-415 V (+%6 / -%10)
Frequency	50 Hz.
Max. water temperature	30°C (50°C optional)
Degree of protection	IP 68

## MATERIALS

Diffuser	Stainless steel (AISI 304L)
Impeller	Stainless steel (AISI 304L)
Pump shaft	Stainless steel (AISI 420)
Coupling	Stainless steel (AISI 420)
Strainer	Stainless steel (AISI 304)



## Performance curve



## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

PUMP TYPE	MOTOR		DIMENSIONS (MM)					WEIGHT (KG)	HEAD (M)									
	KW	HP	L	LM	LP	ØM	ØP		MP / H									
									0	100.0	140.0	180.0	200.0	220.0	240.0	260.0	290.0	
SB215-01.B1	15	20	1767	973	794	142	247	116	29	25	22	20	19	18	16	15	11	
SB215-01	185	25	1800	1006	794	142	247	120	39	33	30	27	25	23	22	19	15	
SB215-02.B2	30	40	2217/1950/2026	1247/980/1056	970	142/172/192	247	158/158/184	58	49	44	40	38	35	32	29	23	
SB215-02	37	50	2317/2030/2086	1347/1060/1116	970	142/172/192	247	165/168/193	77	66	59	53	50	47	43	39	31	
SB215-03.B3	45	60	2286/2348	1139/1201	1147	172/192	247	193/218	93	79	71	64	60	56	52	47	37	
SB215-03.B1	55	75	2397/2433	1250/1286	1147	172/192	247	204/236	108	92	83	74	70	66	61	55	43	
SB215-04.B2	67	90	2689	1366	1323	192	247	262	136	115	104	93	88	82	76	68	54	
SB215-04	75	100	2714	1395	1323	192	247	271	155	131	119	106	100	94	87	78	61	
SB215-05	92	125	3035/2429	1536/1430	1499	192/231	247	299/371	194	164	148	133	125	117	108	97	76	
SB215-06	110	150	3185	1510	1675	231	247	409	232	197	178	160	150	141	130	117	92	
SB215-07	129	175	3461	1610	1851	231	247	447	271	230	208	186	175	164	151	136	107	
SB215-08	150	200	3768	1740	2028	231	247	489	310	263	237	213	201	188	173	156	122	
SB215-09	166	225	4024	1820	2204	231	247	530	349	296	267	239	226	211	195	175	138	
SB215-10	185	250	4200	1820	2380	231	247	546	387	329	297	266	251	235	216	195	153	



## FLEXIBORE 200 FLEXIBLE RISING MAIN

### Product Description

#### Description

Flexibore is a flexible riser used for ground water pumping. By integrating thermoplastic polyurethane into a woven textile fabric of high tenacity polyester, the hose is produced. This process gives the hose flexibility while sustaining the weight of a submersible pump.

#### Compatibility

Flexibore will suit many borehole applications and is compatible with most submersible pumps. The sizes range from 40mm to 200mm internal diameter and depths of up to 250m.



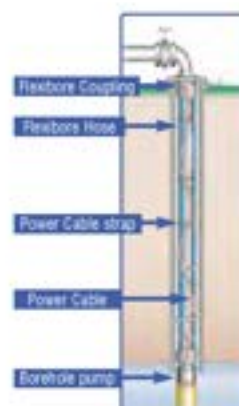
### Applications

#### Typical Applications

These include mine de-watering, domestic and municipal water supply, test pumping, rural and industrial bore-water retrieval and similar ground water projects.

#### General Application

Flexibore has been specifically designed to replace rigid riser pipes such as steel which is subject to rust and encrustations. This internal scaling reduces flow rates and pump efficiency. Other risers such as PVC and polypipe can be brittle or bend. They are also generally heavier and hard to handle.





## FLEXIBORE 200 FLEXIBLE RISING MAIN



### Ease of Use

#### Easy Installation

Once in the field, Flexibore is attached to the pump with the patented couplings. The pump, with hose and cables attached, is lowered into the bore using either a simple rolling wheel or a crane. See our installation brochure for further details.

#### Transportable

With its continuous length, the hose can be installed with less time and labour than rigid systems, this includes poly pipe. The same advantages apply to pump retrieval.



### Benefits

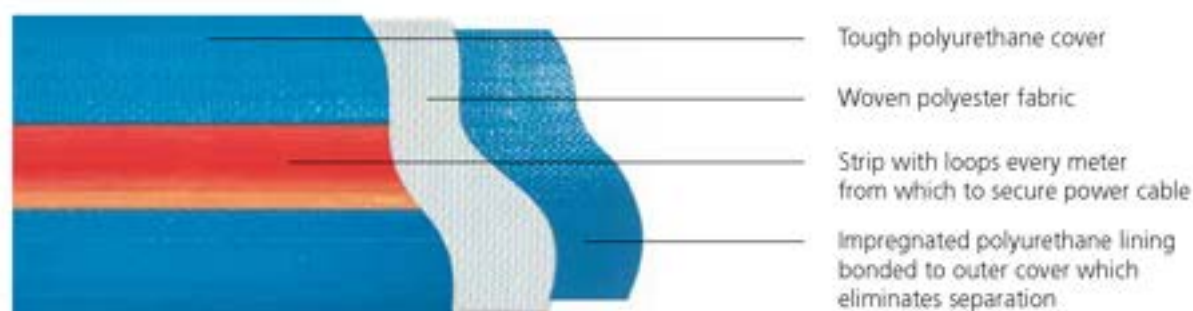
#### Benefits and Cost Saving Features

- ✓ Quick and easy installation and retrieval
- ✓ No internal scaling
- ✓ Totally corrosion resistant
- ✓ Reduced head losses and improved flow rates due to swelling under pressure
- ✓ Less labour intensive due to ease of installation
- ✓ Reduced transport costs due to light weight and easy handling
- ✓ Custom lengths made to order
- ✓ Potable water approved: AS 4020
- ✓ All hydrostatically tested





## FLEXIBORE 200 FLEXIBLE RISING MAIN



Tough polyurethane cover

Woven polyester fabric

Strip with loops every meter from which to secure power cable

Impregnated polyurethane lining bonded to outer cover which eliminates separation

Each hose is covered by a 5 year pro-rata warranty against faulty materials and workmanship.

### FLEXIBORE 200 SERIES

Nominal size (inches)	1 <sup>1/2</sup>	2	3	4	5	6	8
Internal diameter (mm)	40	51	76	102	126	152	200
Burst pressure (bar)	38	74	58	52	50	44	42
Maximum recommended operating pressure (bar)	15	30	23	21	20	18	16
Peak Tensile Load (tonnes)	2.1	3.2	8.3	10.0	14.5	16.0	22.0
Max. recommended Tensile Load (tonnes)	0.9	1.3	3.3	4.0	6.0	6.5	9
Weight of Flexibore (kg/m)	0.3	0.6	0.9	1.5	2.1	2.5	3.4
Outer diameter of Coupling (mm)	70	90	115	140	170	190	270
Weight of coupling stainless steel (kg)	2.0	2.8	5.2	7.1	11.0	12.1	41.0
Weight of water at 10% swell (kg/m)	1.52	2.38	5.49	9.89	15.09	21.96	31.00
Maximum flow rate (l/sec)	4	6	18	40	55	90	148

NOTE: For OPERATION beyond stated RECOMMENDED OPERATING LIMITS, contact your distributor.

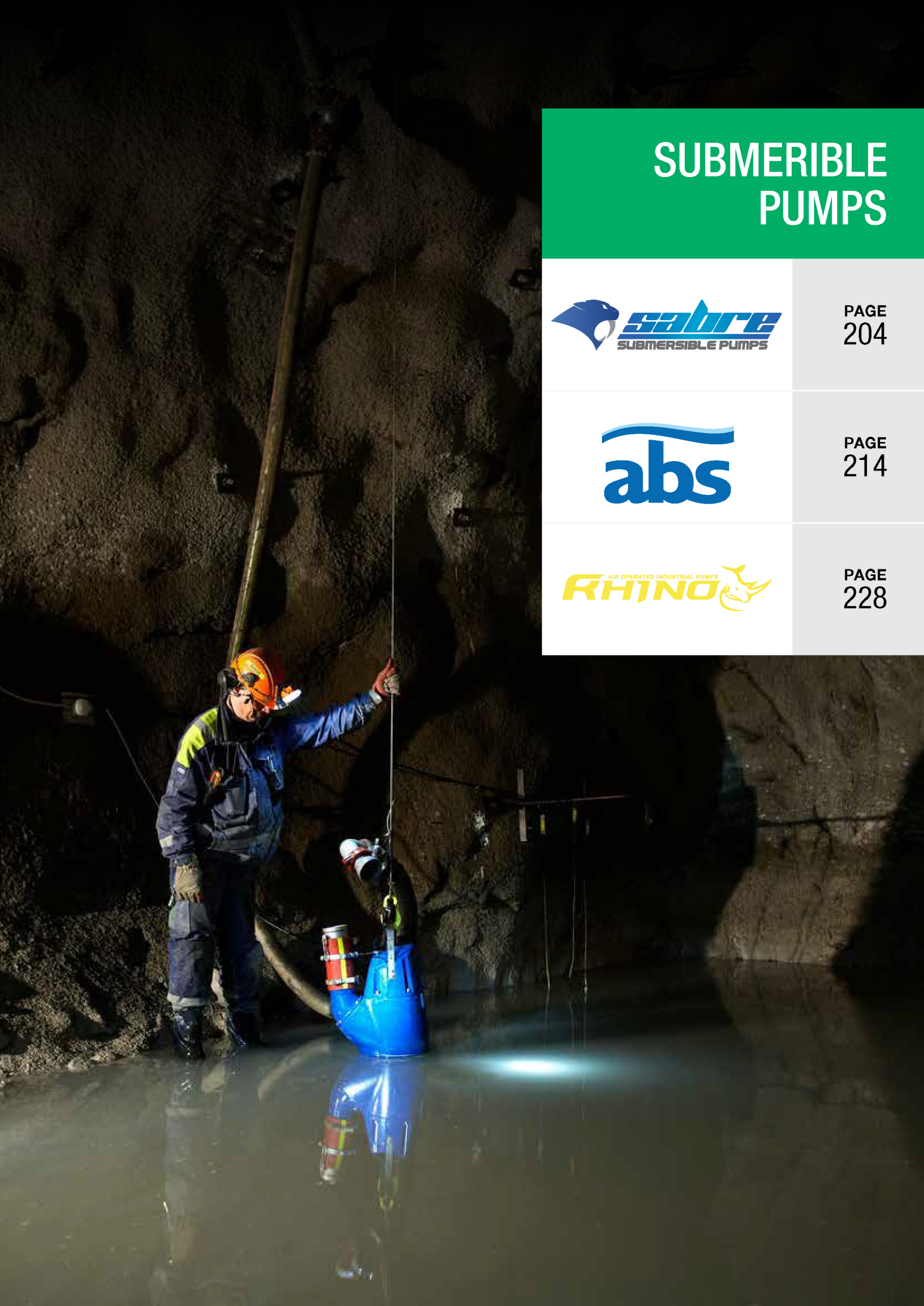
### OTHER SPECS

Maximum operating temperature	60°C
Water pH range	3 to 9
Maximum pump setting	250m

### OTHER SPECS

Maximum diametric swell	15%
Average extension	0.5%
Safety Factor	2.5:1





# SUBMERIBLE PUMPS



PAGE  
204



PAGE  
214



PAGE  
228





Submersible pumps are designed, as the name suggests to be totally submerged in the pumped liquid. The motor is generally encapsulated and filled with oil, which is separated from the pumped liquid by a mechanical seal. These pumps are designed primarily to pump sewage or industrial wastewater from either pits or tanks, with the pumped liquid occasionally containing solids.

Submersible pumps can be installed into tanks on a guide rail system with quick connect discharge fittings, this allows for quick installation into existing situations as a retro fit option as well as the ease of removal for maintenance. Pumps can also be controlled via float switches or manual on/ off operation depending on the application requirements.

Submersible pumps are available in either cast iron or stainless steel depending on the application requirement and come in a variety of styles, depending on the impeller design, and are typically used to pump sub soil water, storm water, grey water, sewage and industrial waste water.

The options available include:

- Vortex
- Drainage
- High head
- High flow
- Cutter
- Grinder



Along with the Sabre range of submersible pumps which suit all applications, we also carry the Rhino brand which is a range of air operated submersible pumps for dewatering applications and ABS range-industry leaders in dewatering submersible pumps.

**Some of the advantages of ABS range of pumps include:**

**1 Easy start**  
– plug-in without worrying about overheating

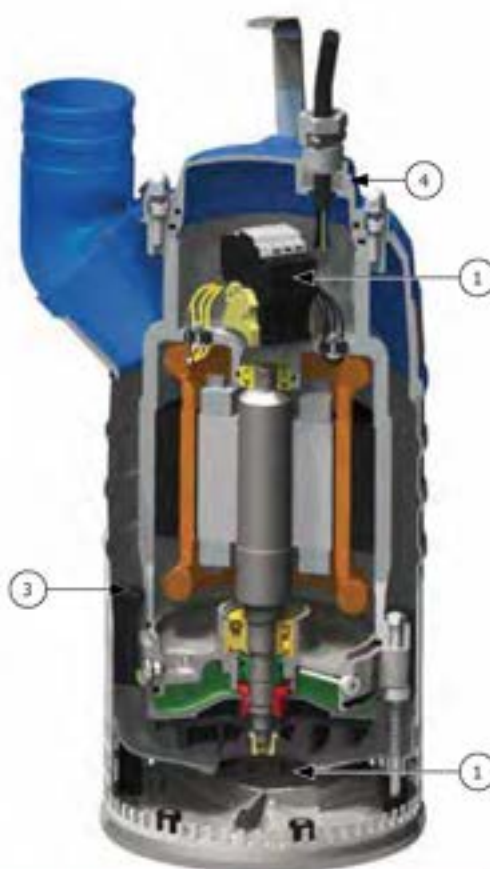
Built-in contactor connected to the thermal sensors in the stator windings protects the motor from over-heating and features an automatic restart function.

**2 Wear resistance**  
– one investment, years of cost efficient pumping

Impeller in high chrome alloy steel with full upper shroud and adjustable wear parts in oil resistant nitrile rubber secure a long lifetime and high efficiency.

**3 Reliable operation**  
– minimises time for maintenance

Double outer casing and good heat convection enables pump to operate continuously at low levels or even run dry without damaging the motor.



First class materials like outer casing in stainless steel, cast parts in lightweight aluminium alloy, mechanical shaft seals in silicon carbide grant a pump you can rely on.

**4 Serviceability**  
– save time and money by easy on-site service

Due to modular design, the same parts can be used for different pumps, which lowers overall service costs. By removing the top cover of the pump you can easily check the electrical junction box. For protection the motor is separately sealed from the junction box. Environmentally safe white oil is used in the oil casing for easy inspection of seal conditions. For J205 and J405 service is made even easier due to a mechanical seal cartridge.



## MODEL ADVS



High Volume Non-Clogging 2 Poles Motor  
- Solid Pass 33 -0 55mm

- Liquid temperature: 0°C to 40°C
- HP Range: 1HP to 5HP / 0.75kW TO 3.7kW
- PH: 6 to 8
- Rated Speed: 2900/3450rpm
- Protection Class: IP68
- Maximum depth: 8m



Guide rail kits are available for easy removal and installation



Impeller Design

**SEMI-VORTEX IMPELLER**

Offers non-clog operations with high pumping efficiency and allows pumping the water containing impurities under 70% of the discharge size.

**PROTECTION**

Quick acting dual response provides protection against overload.

**DOUBLE MECHANICAL SEAL IN OIL CHAMBER**

Provides strong and reliable shaft sealing

**APPLICATIONS**

Ideal for waste water application containing soft or fibrous solids

Industrial waste water drainage

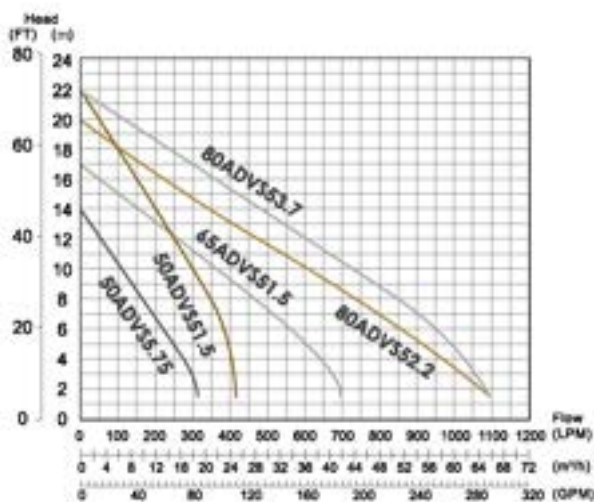
Septic effluent

Miscellaneous drainage

**EASY MAINTENANCE**

For the semi-vortex design with no strainer or close tolerance suction cover, only 3 or 4 bolts need to be removed for quick and easy maintenance.

## Performance Curve



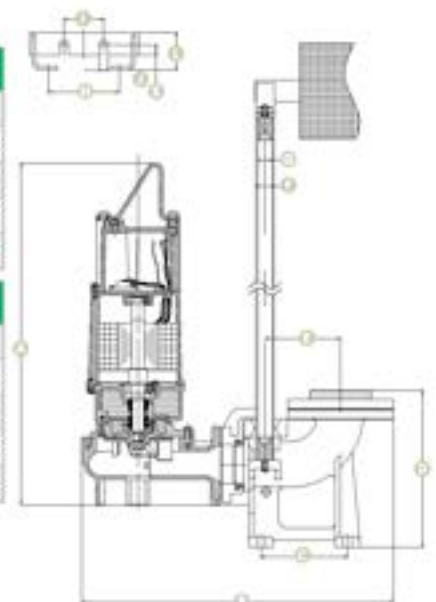
## Dimensions

MODEL NO.	A	B	C	D	E	F
50ADV55.75	400	271				
50ADV55.1.5	625	521	152	275	133	32
65ADV55.1.5	675	548	152	275	133	32
80ADV55.2.2	770	583	152	275	133	32
80ADV55.3.7	770	583	152	275	133	32

MODEL NO.	G	H	I	J	K	L
50ADV55.75						
50ADV55.1.5	25.4	125	70	15	17.5	65
65ADV55.1.5	25.4	125	70	15	17.5	65
80ADV55.2.2	25.4	125	70	15	17.5	65
80ADV55.3.7	25.4	125	70	15	17.5	65

\*Measurements in mm



## Models

MODEL NO.	OUTPUT		OUTLET		PASS SOLID DIA (mm)	MAX FLOW (LPM)	LPM FLOW @ HEAD					MAX HEAD (mm)	DIMENSION L X W X H (mm)	WEIGHT kg
	HP	kW	mm	INCH			3m	6m	9m	12m	15m			
50ADV55.75	1	0.75	50	2"	33	320	300	230	140	55	-	14	271 X 128 X 400	21
50ADV55.1.5	2	1.5	50	2"	31	420	415	390	330	250	170	22	270 X 218 X 443	30
65ADV55.1.5	2	1.5	65	2.5"	45	700	680	560	420	250	90	17	398 X 244 X 600	46
80ADV55.2.2	3	2.2	80	3"	50	1100	1020	860	660	480	280	20	449 X 281 X 723	64
80ADV55.3.7	5	3.7	80	3"	55	1100	1060	960	800	600	420	22	449 X 281 X 723	68



## BAV SERIES



- Liquid temperature: 0°C to 40°C
- HP Range: 1/5HP TO 3/4HP / 150W TO 550W
- PH: 6 to 8
- Rated Speed: 2900/3450rpm
- Protection Class: IP68
- Maximum depth: 6m



BAV-S: With strainer  
BAV: Without strainer

Impeller Design

### APPLICATIONS

- Ideal for waste water application containing soft or fibrous solids
- Industrial waste water drainage
- Septic effluent
- Miscellaneous drainage

### SEMI-VORTEX IMPELLER

Offers non-clog operations with high pumping efficiency and allows pumping the water containing impurities under 70% of the discharge size.

### EASY MAINTENANCE

For the semi-vortex design with no strainer or close tolerance suction cover, only 3 or 4 bolts need to be removed for quick and easy maintenance.

### DOUBLE MECHANICAL SEAL IN OIL CHAMBER

Provides strong and reliable shaft sealing

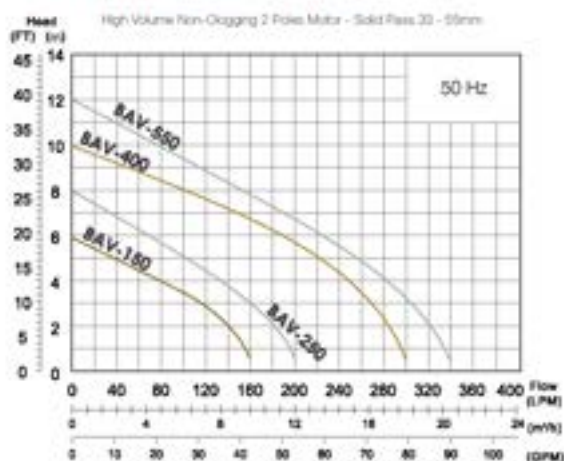
### PROTECTION

Quick acting dual response provides protection against overload.

### AUTOMATIC OPERATION

Equipped with float switch and control box is optional

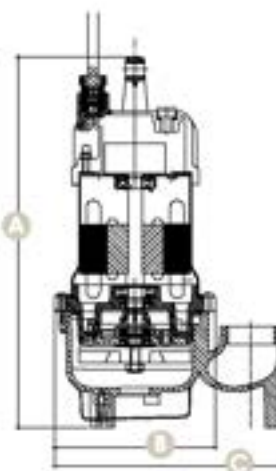
## Performance Curve



## Dimensions

MODEL NO.	A	B	C
BAV-150	304	131	186
BAV-250	314	131	196
BAV-400	350	143	224
BAV-550	365	144	224

\*Measurements in mm



## Models

MODEL NO.	OUTPUT		OUTLET		PASS SOLID DIA (mm)	MAX FLOW (LPM)	LPM FLOW @ HEAD					MAX HEAD (mm)	DIMENSION L X W X H (mm)	WEIGHT kg
	HP	kW	mm	INCH			1.5m	3m	4.5m	6m	7.5m			
BAV-150	1/5	150	32	1-1/4"	10	160	150	115	60	-	-	6	186 X 131 X 304	7
BAV-250	1/3	250	40	1-1/2"	25	200	190	160	120	70	15	8	196 X 121 X 314	9
BAV-400	1/2	400	50	2"	30	300	290	270	235	185	125	10	224 X 143 X 350	11
BAV-550	3/4	550	50	2"	35	340	330	305	270	225	170	12	224 X 144 X 350	11



## KS SERIES

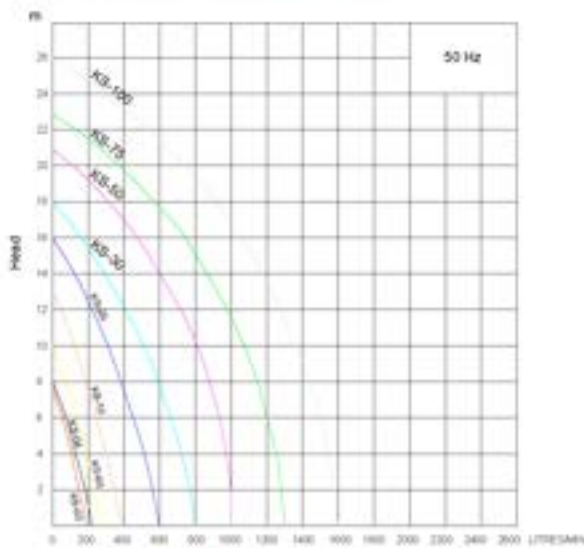

**FEATURES**

- IP 68 Protection & F Class insulation
- Low temperature operation for long service life
- Built in thermal overload protector
- Double mechanical seal available for 1HP and above
- High efficiency hydraulic suction for energy saving

**APPLICATIONS**

- Drainage or cellar
- Groundwater effluent
- Civil engineering & construction
- Agriculture & irrigation
- Tunnel & caisson drainage

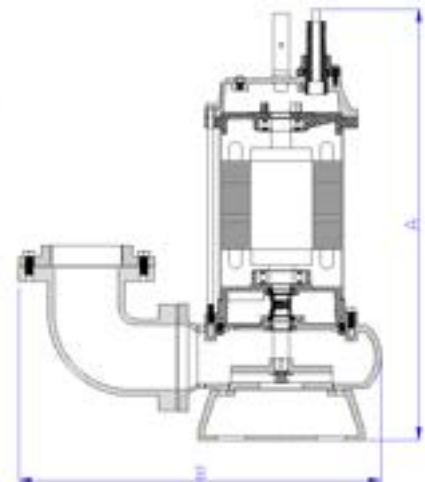
## Performance Curve



## Dimensions

MODEL NO.	A	B	C
KS-03	188	230	140
KS-04	208	230	140
KS-05	360	230	140
KS-08	433	277	156
KS-10	461	277	193
KS-20	494	291	193
KS-30	516	467.4	458.3
KS-50	546	467.4	458.3
KS-75	616	551	221
KS-100	680	517.7	331

\*Measurements in mm



## Models

MODEL NO.	OUTPUT		DISCHARGE		RATED		MAXIMUM		WEIGHT kg	DIMENSION L X W X H (mm)
	HP	kW	mm	INCH	HEAD	CAPACITY	HEAD	CAPACITY		
					m	LPM	m	LPM		
KS-03	1/3	0.25	40	1 1/2"	3	130	8	180	9	188 X 141 X 305
KS-04	1/2	0.4	50	2"	5	150	8	220	11	208 X 140 X 359
KS-05	1/2	0.4	50	2"	5	160	10	260	14	230 X 156 X 375
KS-10	1	0.75	50 (80)	2"(3")	6	240	13	380	21	290 X 180 X 425
KS-20	2	1.5	80	3"	10	300	16	600	31	278 X 182 X 475
KS-30	3	2.2	80	3"	10	500	18	800	42	390 X 250 X 450
KS-50	5	3.7	100	4"	10	800	21	1100	48	450 X 240 X 530
KS-75	7.5	5.6	100	4"	15	800	23	1300	60	550 X 310 X 590
KS-100	10	7.5	150	6"	18	900	26	1600	70	550 X 310 X 610

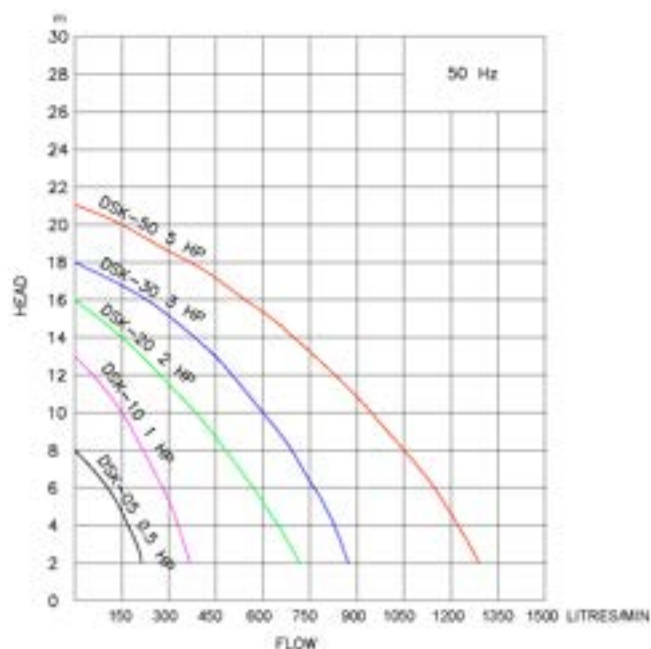
**DSK SERIES**
**FEATURES**

- Motor with IP68 protection and F class insulation
- Low temperature rise for long service life
- Single phase motor with thermal protector
- With double edge Tungsten cutter, high abrasive-resistant impeller and heat treated bottom grinder plate for cutting sewage
- Stainless steel motor housing

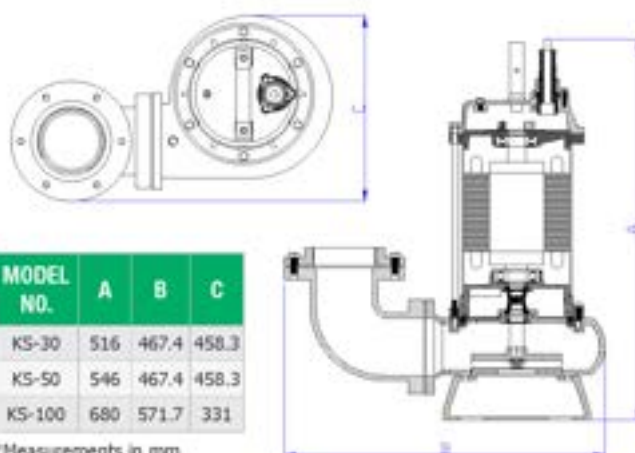
**APPLICATIONS**

- Dewatering effluent
- Light industrial plant
- Water or sewage sump pit
- Tunnel water, water drainage
- Kitchen or farm residue discharge

## Performance Curve



## Dimensions



MODEL NO.	A	B	C
KS-30	516	467.4	458.3
KS-50	546	467.4	458.3
KS-100	680	571.7	331

\*Measurements in mm

## Models

MODEL NO.	OUTPUT		OUTLET		RATED		MAXIMUM		WEIGHT	DIMENSION
	HP	kW	mm	INCH	HEAD	FLOW	HEAD	CAPACITY		
					m	L/M	m	L/M	kg	L X W X H (mm)
DSK-10	1	0.75	50	2"	5	250	12	350	30	280 x 195 x 420
DSK-20	2	1.5	80	3"	8	500	15	650	35	285 x 223 x 550
DSK-30	3	2.2	80	3"	10	550	18	800	46	410 x 240 x 520
DSK-50	5	3.7	100	4"	12	700	21	1200	62	480 x 250 x 550



## GP1 SERIES


**CUTTER ASSEMBLY**

Hardened 440 SST (56-60 Rockwell) shredding ring and grinding impeller.	Ductile iron casting for superior quality and long life
8,300 cuts/second 1/2 million cuts/minute	Recessed impeller provides non-overloading performance.
Recessed design prevents clogging	

**MOTOR**

Capacitor start / run design for assured starting, strong torque and grinding under heavy load
Pressed stator for precise shaft / bearing alignment, long life
Internal capacitors and start switch, no external control box required
Internal overload protection
Dual ball bearings (upper and lower)

**OIL-FILLED MOTOR PROVIDES**

Constant bearing lubrication
Maximum motor cooling, even temperature distribution

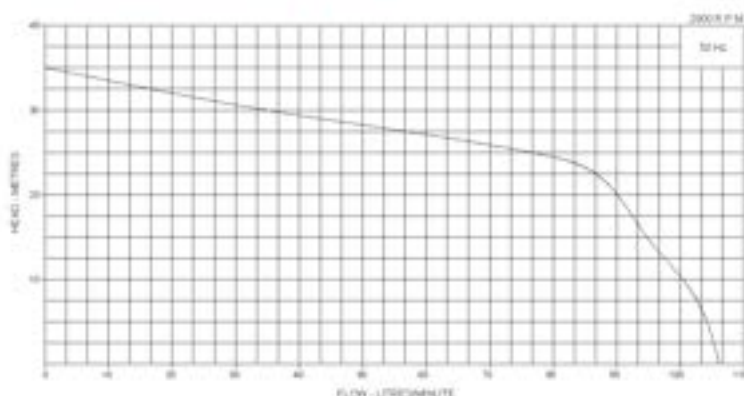
**OPTIONAL**

Guide rail system for easy removal of pump
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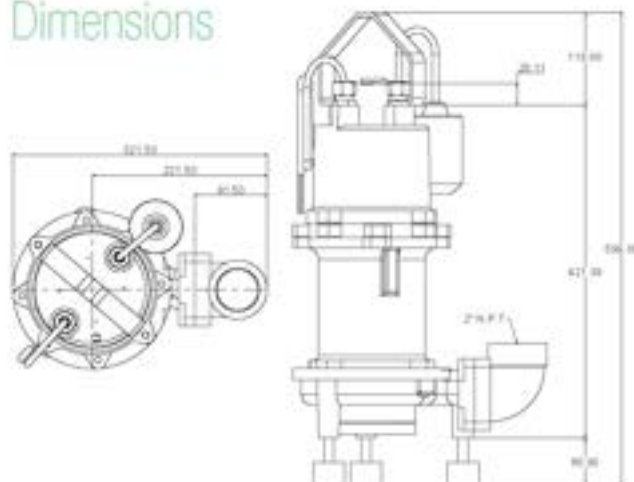
**SHAFT SEALS**

Full mechanical seal (silicon/carbide) and secondary lip seal
---

## Performance Curves



## Dimensions


**SPECIFICATIONS**

DISCHARGE	2" BSP, Vertical
LIQUID TEMPERATURE	120 degrees F. (Continuous), 140 degrees F. (Intermittent)
MOTOR HOUSING	Cast Iron, ASTM A-48, Class 30
CORD CAP	Cast Iron, ASTM A-48, Class 30
VOLUTE	Cast Iron, ASTM A-48, Class 30
SEAL PLATE	Cast Iron, ASTM A-48, Class 30
IMPELLER	Bronze, Ductile Iron, Vortex with 10 Pump-out Vanes, Dynamically Balanced
SHREDDING RING	Hardened 440C Stainless Steel 56-60 Rockwell C
GRINDER IMPELLER	Hardened 440C Stainless Steel 56-60 Rockwell C
SHAFT	416 Stainless Steel, (Primary) Mechanical, Silicon - Rotating Face, Carbide - Stationary Face
SHAFT SEAL	Buna-N-Elastomer, 300 Series Stainless Steel - Hardware, (Secondary) Lip Seal
BEARING (UPPER)	Buna-N Single Row, Ball, Oil Lubricated
BEARING (LOWER)	Single Row, Ball, Oil Lubricated
HARDWARE	300 Series Stainless Steel
SQUARE RINGS	Buna-N
CABLE	UL/C/(UL) Listed 14 AWG, Type SJOW or SOOW, 20' Length Standard. Other lengths available
CABLE ENTRY	Triple Sealed Design, Compression Grommet - Outer Jacket Seal, Epoxy Potted - Inner Conductor Seal, Butt Connector - Inner Wire Strand Wicking Blockage
MOTOR (SINGLE PHASE)	1.1kW motor, 11 amps, 2900 RPM, 50Hz, 240 Volt, NEMA L, Includes Overload Protection in the Motor, Oil Filled, Class F, Capacitor Start / Capacitor Run, Start Capacitor... 200mfd, 250 volts, Run Capacitor... 30mfd, 300 volts
MOTOR (THREE PHASE)	1.1kW motor, 4 amps, 2900 RPM, 50Hz, 415 Volt, NEMA B, Requires Overload Protection in the Control Panel, Oil Filled, Class F



## GP2 SERIES

**IMPELLER**

Two Ductile Iron castings for superior quality and long life  
 Recessed impeller provides high head & non-overloading performance  
 Recessed (vortex) design reduces bearing load/increases bearing life  
 Recessed Impellers prevent clogging

**MOTOR**

Single phase and three phase available  
 Capacitor start / run design for assured starting, strong torque and grinding under heavy load (single phase only)  
 Pressed stator for precise shaft / bearing alignment, long life  
 Utilises a low voltage, stress-free electronic start switch  
 Internal overload protection  
 Dual ball bearings (upper and lower)

**SHAFT SEALS**

Single "Type 1" Silicon Carbide / Silicon Carbide / Neoprene  
 Mechanical Seal with Neoprene Lip Seal

**CUTTER ASSEMBLY**

Hardened 440SST (56-60 Rockwell)  
 shredding ring & grinding impeller  
 11,500 cuts/second... 690,000  
 cuts/minute

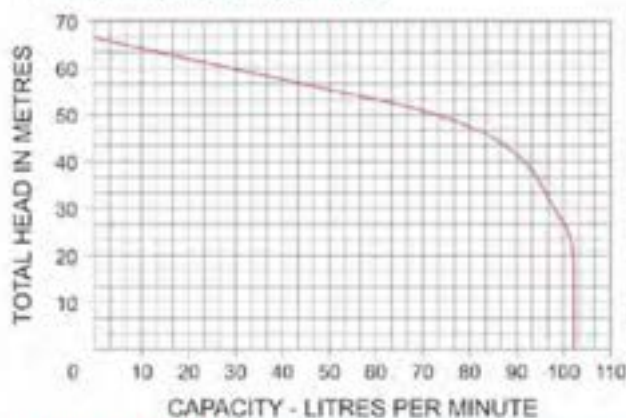
**OIL-FILLED MOTOR PROVIDES**

Constant bearing lubrication  
 Maximum motor cooling, even  
 temperature distribution

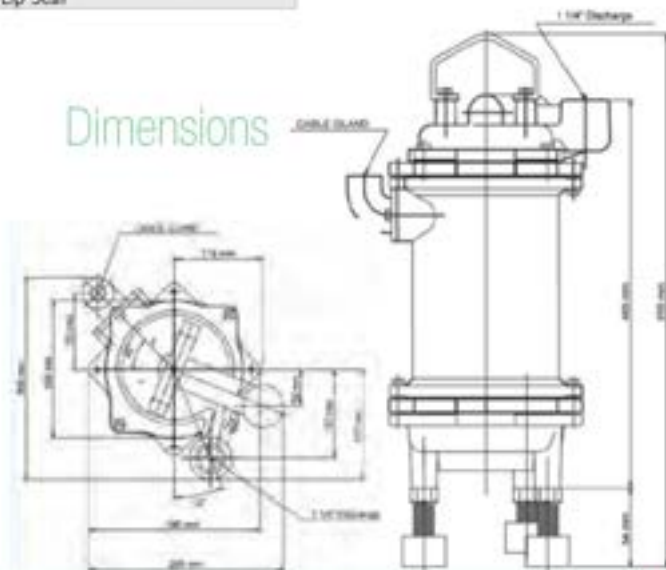
**OPTIONAL**

Guide rail system for easy  
 removal of pump

## Performance Curves



## Dimensions

**SPECIFICATIONS**

DISCHARGE	1/4" NPT, Female Thread (Vertical)
LIQUID TEMPERATURE	40 degrees C. (Continuous), 60 degrees F. (Intermittent)
MOTOR HOUSING	Cast Iron, ASTM A-48, Class 30
CORD CAP	Cast Iron, ASTM A-48, Class 30
VOLUTE	Cast Iron, ASTM A-48, Class 30
SEAL PLATE	Cast Iron, ASTM A-48, Class 30
IMPELLER	Ductile Iron, Vortex with 10 Pump-out Vanes, Dynamically Balanced
SHREDDING RING	Hardened 440C Stainless Steel 56-60 Rockwell C
GRINDER IMPELLER	Hardened 440C Stainless Steel 56-60 Rockwell C
SHAFT	416 Stainless Steel
SHAFT SEAL	(Upper and Lower Impeller) Single "Type 1" Silicon Carbide / Silicon Carbide / Neoprene Mechanical Seal with Neoprene Lip Seal
BEARING (UPPER)	Single Row, Ball, Oil Lubricated
BEARING (LOWER)	Single Row, Ball, Oil Lubricated
HARDWARE	300 Series Stainless Steel
SQUARE RINGS	Buna-N
CORD	UL/C/(UL) Listed 14 AWG, Type SJOW or SOOW, 10m Length Standard. Other lengths available
CORD ENTRY	Triple Sealed Design, Compression Grommet - Outer Jacket Seal, Epoxy Potted - Inner Conductor Seal, Butt Connector - Inner Wire Strand Wicking Blockage
MOTOR (SINGLE PHASE)	1.5kW motor, 18 amps, 2900 RPM, 50Hz, 240 Volt, NEMA L, Includes Overload Protection in the Motor, Oil Filled, Class F, Capacitor Start / Capacitor Run, Start Capacitor... 400mfd, 125 volts, Run Capacitor... 90mfd, 250 volts
MOTOR (THREE PHASE)	1.5kW motor, 6 amps, 2900 RPM, 50Hz, 415 Volt, 30 NEMA, Requires Overload Protection in the Control Panel, Oil Filled, Class F
OPTIONAL EQUIPMENT	Seal Materials, Additional Cable Lengths, Guide Rail Systems, Complete Pump, Tank & Control Packages, Multiple Pump Systems





### Sewage Pump with Single Channel Impeller

#### SPECIFICATIONS

Submersible sewage pump with non-clog, single channel impeller  
 Maximum solids handling: 76mm  
 Maximum liquid temperature: 40°C  
 Maximum submergence: 8m

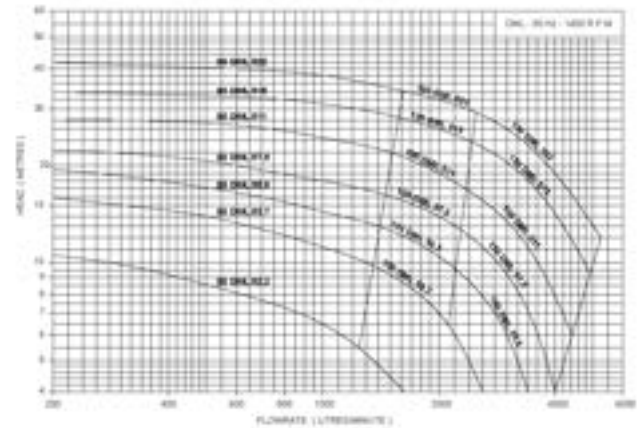
#### MATERIALS

Pump casing: Cast Iron  
 Impeller: Cast Iron  
 Suction cover: Cast Iron  
 Shaft: 403 Stainless Steel  
 Motor frame: Cast Iron  
 Fasteners: 304 Stainless Steel  
 Mechanical seal: Double mechanical seal in oil lubricated chamber, Silicon carbide lower faces, Carbon/Ceramic upper faces

#### FEATURES

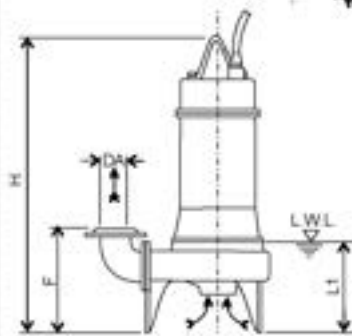
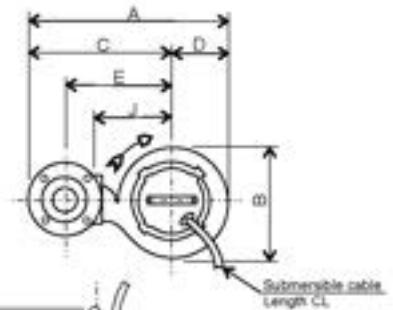
Robust cast iron construction  
 Single channel impeller  
 Double row lower bearing  
 1450 RPM  
 Class F  
 Air filled submersible motor  
 Double mechanical seal in oil chamber with SIC/SIC lower faces and carbon/ceramic upper faces.  
 Built in overload protection or klixon

### Performance Curves



### Dimensions

SIZE DA	MODEL	OUTPUT kW	A	B	C	D	E	F	H	J	L1	CL	WEIGHT
80	80 DML 52.2	2.2	534	320	378	157	285	298	668	210	279	10m	80 kg
	80 DML 53.7	3.7	534	320	378	157	285	298	727	210	279	10m	87 kg
	80 DML 55.5	5.5	640	381	453	188	360	334	824	255	310	10m	118 kg
	80 DML 57.5	7.5	640	381	453	188	360	334	824	255	310	10m	123 kg
	80 DML 511	11	734	455	513	221	420	350	938	315	329	10m	157 kg
	80 DML 515	15	734	455	513	221	420	350	938	315	329	10m	163 kg
100	80 DML 522	22	777	497	533	245	440	363	1021	335	332	10m	223 kg
	100 DML 53.7	3.7	577	320	420	157	315	313	727	210	279	10m	89 kg
	100 DML 55.5	5.5	653	381	465	188	360	334	824	255	310	10m	121 kg
	100 DML 57.5	7.5	653	381	465	188	360	334	824	255	310	10m	125 kg
	100 DML 511	11	746	455	525	221	420	350	938	315	329	10m	160 kg
	100 DML 515	15	746	455	525	221	420	350	938	315	329	10m	166 kg
105	100 DML 522	22	790	497	533	245	440	363	1021	335	332	10m	226 kg
	150 DML 55.5	5.5	713	381	525	188	385	369	824	255	310	10m	127 kg
	150 DML 57.5	7.5	713	381	525	188	385	369	824	255	310	10m	132 kg
	150 DML 511	11	806	455	585	221	445	385	938	315	329	10m	166 kg
	150 DML 515	15	806	455	585	221	445	385	938	315	329	10m	172 kg
	150 DML 522	22	850	497	605	245	465	398	1021	335	332	10m	232 kg



### Model

PUMP MODEL	MOTOR OUTPUT kW	# DISCHARGE Ø mm	FULL LOAD CURRENT @ 415 V, 3PH	Q = CAPACITY - LITRES/MIN																			
				600	1200	1700	2400	2700	3000	3500	4000	4400	5000	5360									
				H = TOTAL HEAD - METRES (m)																			
80 DML 52.2	2.2	80	5.2 A	8.2	5.6	3.6																	
80 100 DML 53.7	3.7	80 or 100	8.4 A	12.8	10.4	8.1	4.9	3.6															
80, 100, 150 DML 55.5	5.5	80, 100 or 150	12.7 A		14.0	11.5	8.8	7.1	5.8	3.5													
80, 100, 150 DML 57.5	7.5	80, 100 or 150	16.9 A		16.8	14.8	12.0	10.7	9.3	6.8	4.0												
80, 100, 150 DML 511	11.0	80, 100 or 150	23.0 A		23.6	20.8	16.8	15.0	13.3	10.8	8.2	6.4											
80, 100, 150 DML 515	15.0	80, 100 or 150	30.0 A		29.6	27.1	23.6	21.9	20.3	17.3	14.5	12.2	8.8										
80, 100, 150 DML 522	22.0	80, 100 or 150	42.0 A		36.1	33.5	29.8	27.9	26.0	22.8	19.4	17.4	14.0	12.0									



## DC12 SERIES

**SWITCH**

The ON - OFF switch is located inline on the power cord.

**PUMP**

This pump unit is a totally enclosed submersible pump. It is powered by a 0.25 kW, 12 volt DC, 20 amp motor. Battery clamps on the power cord for ease of connection to any 12 volt vehicle battery.

**HOISTING & LOWERING**

Use the attached nylon line. Do not use the power cord for handling the unit.

**OPERATING OF UNIT**

Lower the unit into the liquid to be pumped (Note: This unit is not for pumping flammable liquids.) Turn on the switch. Pump can be run for a few minutes (less than 5 mins) without pumping liquid. Do not run completely dry for any extended period more than 5 mins. This will prevent damage to the shaft and seal.

**OVERLOAD PROTECTION**

Overload protection is provided with an "inline" 25 amp fuse. Location is approximately 150mm below red (positive) battery clamp. The unit uses a standard automotive 25 amp fuse.

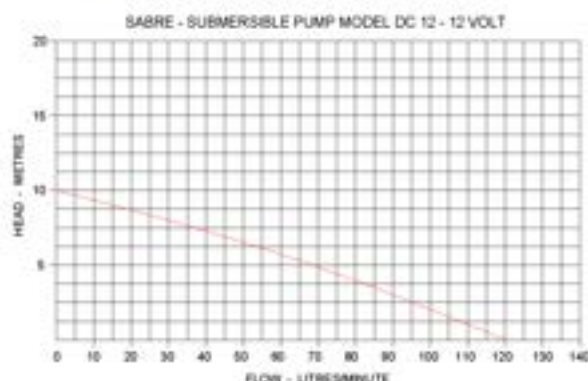
**SABRE 12 VOLT****BATTERY CONNECTION**

Check the position of the ON-OFF switch make certain the switch is in the OFF position before connecting to the battery, using this connection procedure eliminates arcing. Connect the RED battery clamp to the POSITIVE battery terminal. Connect the BLACK clamp to the NEGATIVE or ground to a rigid metallic surface on the engine. The connection should be 30 to 40 cm from the battery.

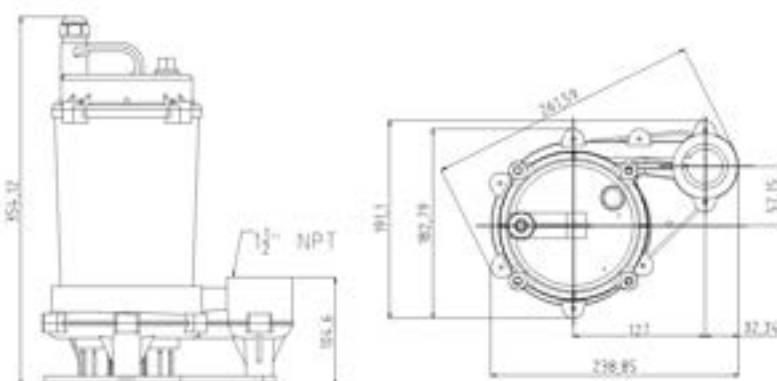
**RUNNING TIME PERIODS**

The unit draws 20-25 amps and can be operated for approximately 1 hour on a fully charged 60 amp-hour battery and still be able to start the vehicle under normal conditions. Caution should be used when running times exceed 25-30 minutes without the engine running to recharge the battery. Also be mindful of cold temperatures which lowers battery efficiency. Review battery size (AMP-Hour rating) and the use of other accessories & lights etc while operating pump without the engine operating.

## Performance Curves



## Dimensions



CAPACITY	DISCHARGE HEIGHT
LITRES PER MINUTE	METRES
113.5	1.5
100.3	3.0
85.1	4.5
73.8	6.0
56.7	7.5
34.0	9.0
11.3	10.0



## GPQ SERIES



## Grinder Pump

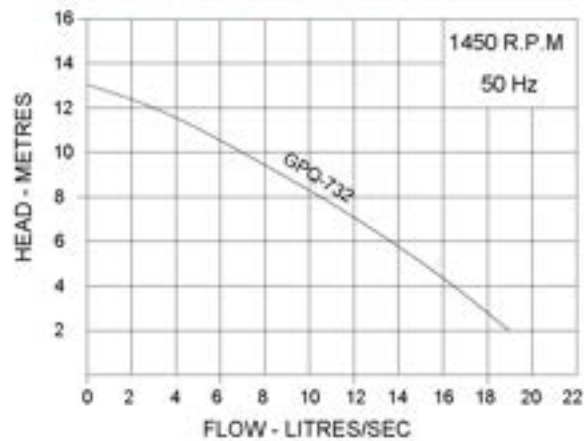

**FEATURES**

- Hardened stainless steel grinder & impeller
- Double mechanical seal in oil bath
- Thermal overload protection
- High flow rate
- Easy access for cleaning

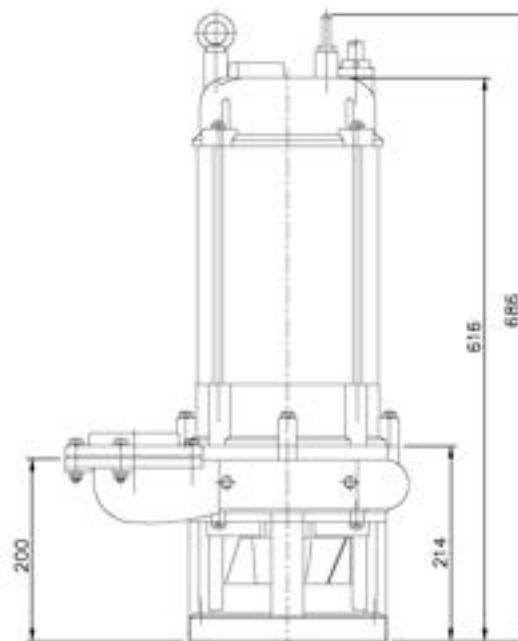
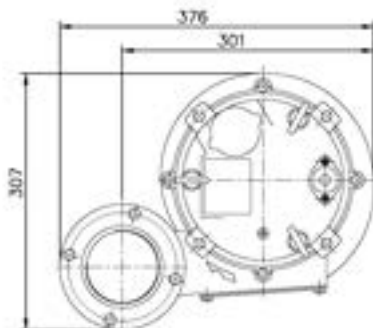
**APPLICATIONS**

- Food waste processing
- Raw sewage
- Abattoirs
- Solids laden liquid discharge
- Industrial waste

## Performance Curve



## Dimensions



## Model

POWER	PHASE	VOLT	MOTOR SPEED	CURRENT	FREQ	CABLE LENGTH	OUTLET	MAX HEAD	MAX FLOW	WEIGHT
5.5 kW	3 PH	415 V	1440 RPM	11.0 AMPS	50 Hz	10 m	3 inch (80mm)	13 m	18.5 L/S	83.5 kg



## Submersible Drainage Pump Type ABS XJ

Submersible drainage pump type ABS XJ is excellent for pumping water and dirty water mixed with light abrasives. The slim design makes the pump easy to move and easy to handle.

### 1 Easy and fail-safe starting

Instead of a built-in contactor, an optional AquaTronic unit can be used. The AquaTronic unit compensates for incorrect phase order, which ensures correct motor rotation every time.

### 2 Wear resistance

An impeller and wear ring in white cast iron, as well as diffusers coated in oil-resistant nitrile rubber, provide high abrasion resistance.

### 3 Reliable operation

Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide and secondary seal surfaces in silicon carbide on carbon, extend the life of the pump. A double cable-entry seal system increases the protection against moisture entering the electrical junction area. A double outer casing and good heat convection enable the pump to operate continuously at low levels – or even run dry without damaging the motor.

### 4 Serviceability

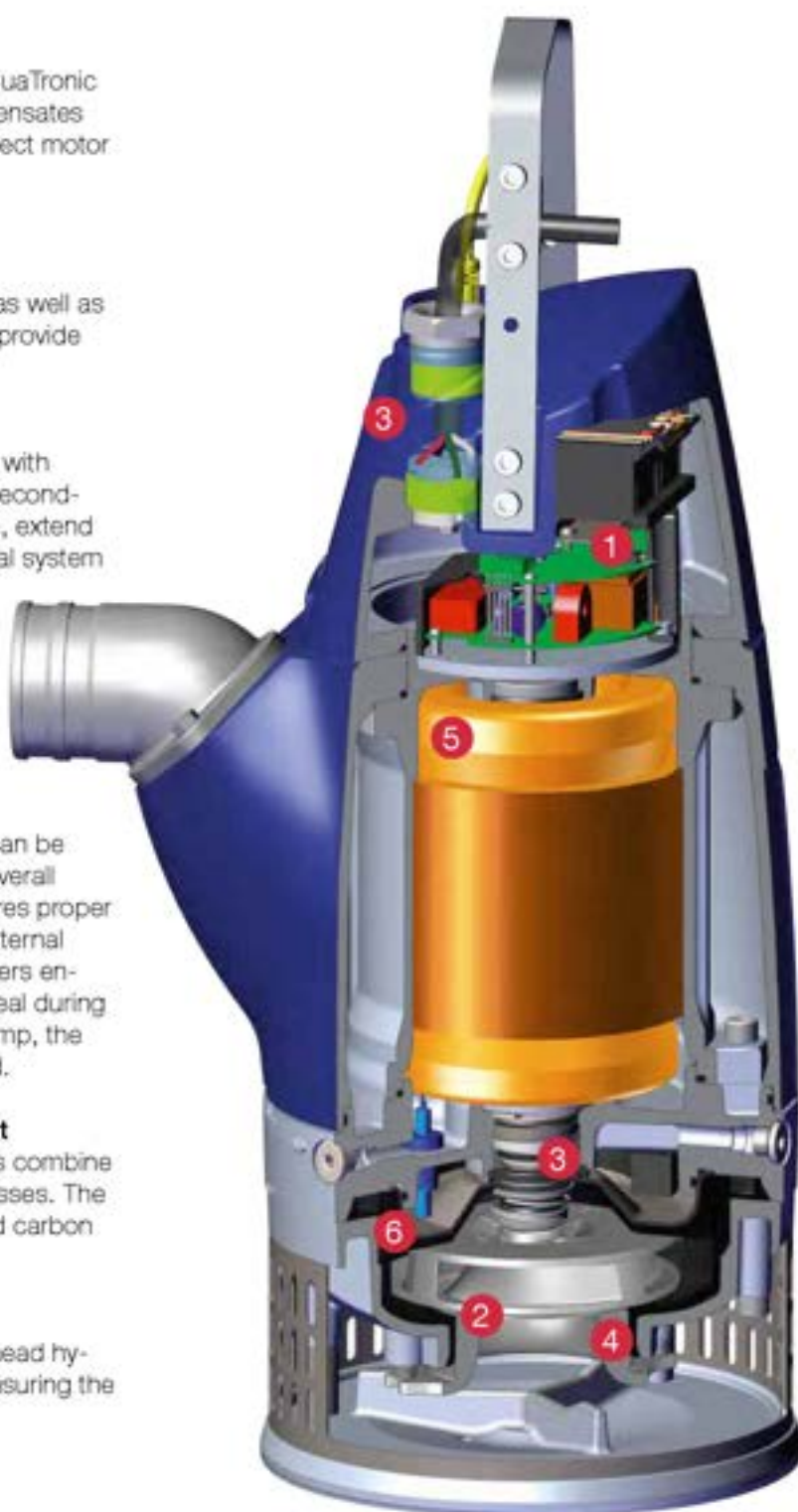
Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. The adjustable wear ring ensures proper clearance throughout the impeller lifetime. External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked.

### 5 Less energy and environmental impact

The high-efficiency motor and new hydraulics combine with low-friction bearings to reduce power losses. The result is low total energy costs and minimized carbon footprint.

### 6 Flexibility

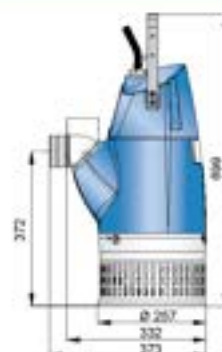
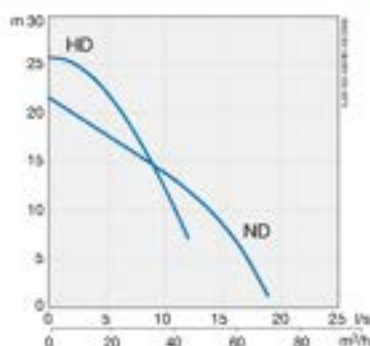
Conversion between high-volume and high-head hydraulics is managed with only a few parts, ensuring the right performance for the application.



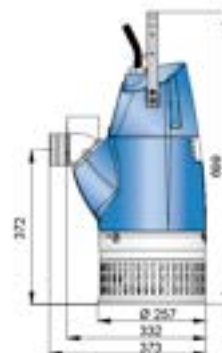
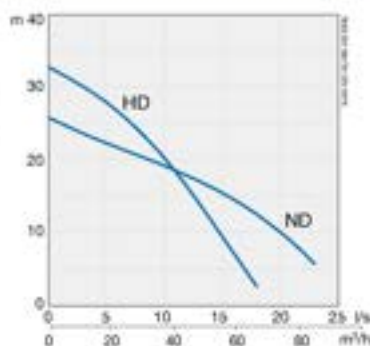


**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS XJ 25**

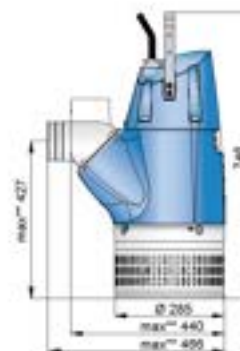
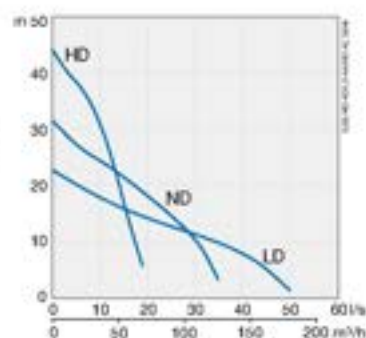
XJ 25 ND*	MEDIUM HEAD
XJ 25 HD*	HIGH HEAD
Motor rating P2	2.5 kW, 3-
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	8.8 / 5.1 / 4.3 / 2.9 / 2.0
Speed	2920 rpm
Strainer hole	7.5 x 22 mm
Discharge connections	Hose 2 1/2", 3", 4" Thread G/BSP 2 1/2", 3", 4"
Weight (excl. cable)	39 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS XJ 40**

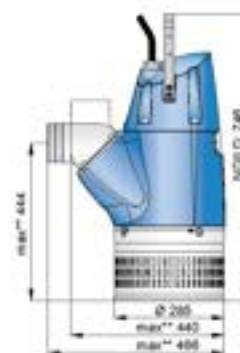
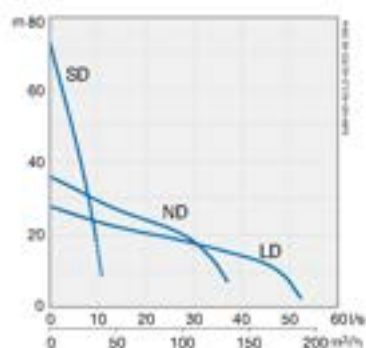
XJ 40 ND*	MEDIUM HEAD
XJ 40 HD*	HIGH HEAD
Motor rating P2	3.7 kW, 3-
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	13.2 / 7.6 / 6.1 / 4.4 / 3.0
Speed	2860 rpm
Strainer hole	7.5 x 22 mm
Discharge connections	Hose 2 1/2", 3", 4" Thread G/BSP 2 1/2", 3", 4"
Weight (excl. cable)	42 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS XJ 50**

XJ 50 ND*	MEDIUM HEAD
XJ 50 LD*	HIGH FLOW
XJ 50 HD*	HIGH HEAD
Motor rating P2	5.6 kW, 3-
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	19.7 / 11.3 / 9.0-10.8 / 6.6 / 4.5
Speed	2900 rpm
Strainer hole	7.5 x 22 mm
Discharge connections	Hose 3", 4", 6" Thread G/BSP 3", 4", 6"
Weight (excl. cable)	59 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS XJ 80**

XJ 80 ND*	MEDIUM HEAD
XJ 80 LD*	HIGH FLOW
XJ 80 HD*	HIGH HEAD
XJ 80 SD*	HIGH HEAD
Motor rating P2	8.3 kW, 3-
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	27.8 / 16 / 13.8 / 9.3 / 6.4
Speed	2920 rpm
Strainer hole	7.5 x 22 mm
Discharge connections	Hose 3", 4", 6" Thread G/BSP 3", 4", 6"
Weight (excl. cable)	63 kg (ND/LD), 78 kg (SD)
Motor protection	Built-in
Electric cable	20 m



\* Option: AquaTronic, built-in electronic pump control.  
\*\* Max measurement based on largest discharge size.

## Submersible Drainage Pump Type ABS J 205, 405, 604

Submersible drainage pump type ABS J is suitable for pumping water and dirty water mixed with light abrasives. The pump design enables convenient transport, handling and installation.

### 1 Easy to start

Pump J 205 has a built-in contactor connected to the thermal sensors in the stator windings, which protects the motor from overheating and features an automatic restart function. Pumps J 405 and J 604 have thermal sensors in the stator windings that protect the motor from overheating by means of an external control panel.

### 2 Wear resistance

Abrasive-resistant impellers, combined with diffusers and wear rings coated in oil-resistant nitrile rubber, provide extended pump life in tough applications.

### 3 Reliable operation

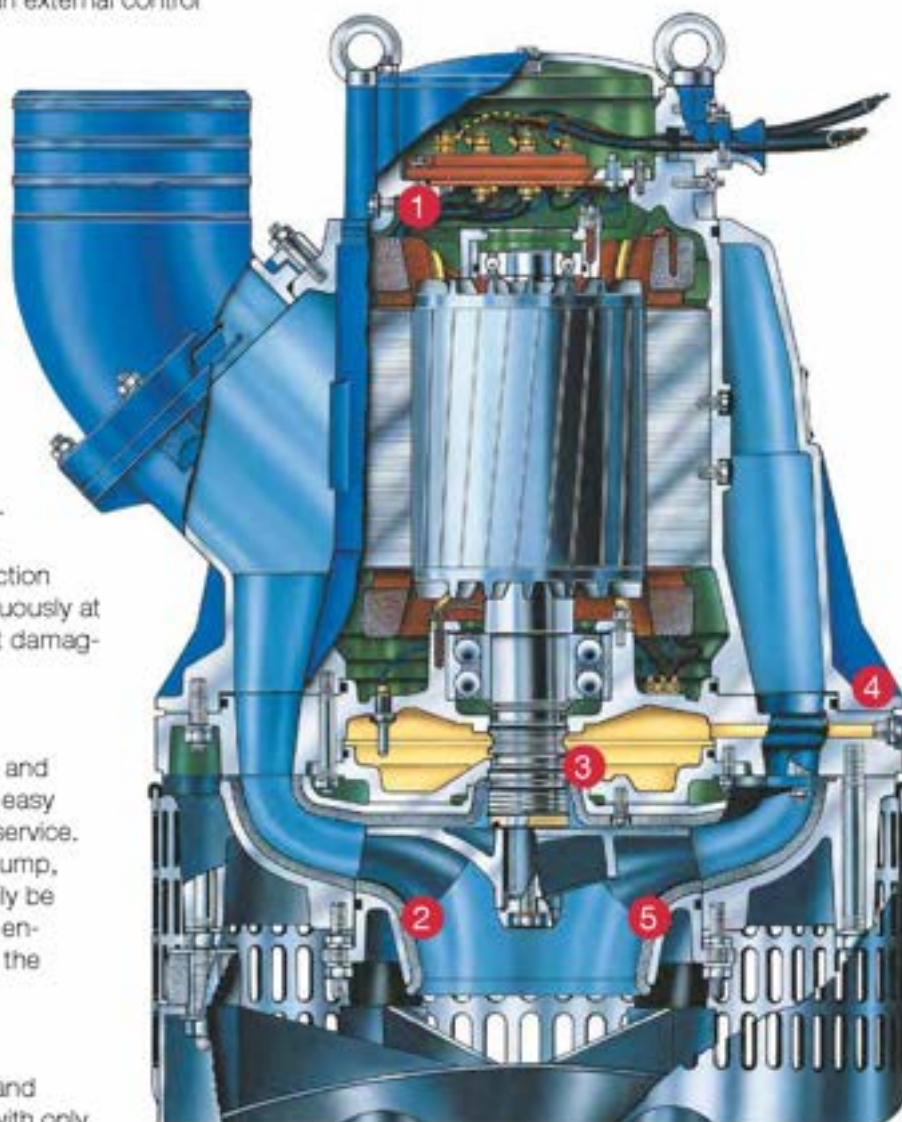
Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide, extend the life of the pump. In pumps J 205 and J 405, the primary and secondary seals comprise an easy-to-replace seal cartridge. A double outer casing and good heat convection enable the pump to operate continuously at low levels – or even run dry without damaging the motor.

### 4 Serviceability

External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked. The adjustable wear ring ensures proper clearance throughout the impeller lifetime.

### 5 Flexibility

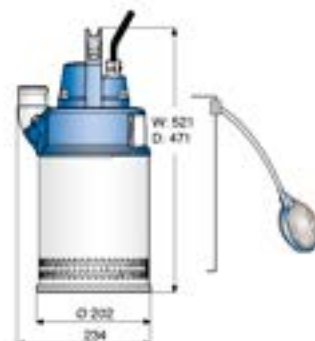
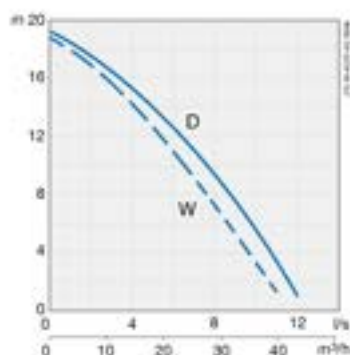
Conversion between high-volume and high-head hydraulics is managed with only a few parts, ensuring the right performance for the application.





**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS J 15**
**J 15 W/J 15 WKS\*  
J 15 D/J 15 DKS\*\***

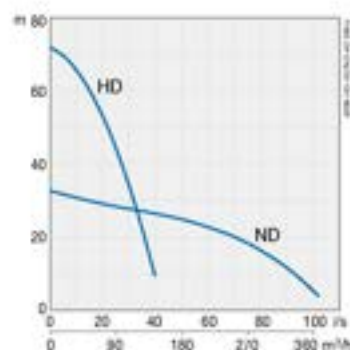
	1-PHASE	3-PHASE
Motor rating P2	1.4 kW, 1~	1.4 kW, 3~
Voltage (V)	230	230 / 400 / 500
Full load (A)	8.1	5.0 / 2.9 / 2.3
Speed	2800 rpm	2800 rpm
Strainer hole	6.5 x 22 mm	
Discharge connections	Hose 1½", 2", 2½", 3" Thread G/BSP 2", 2½", 3"	
Weight (excl. cable)	18 kg (W), 16.5 kg (D)	
Motor protection	Built-in	
Electric cable	20 m	



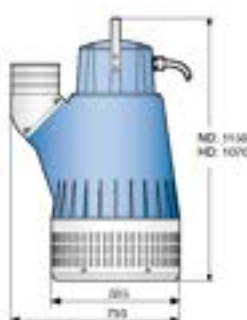
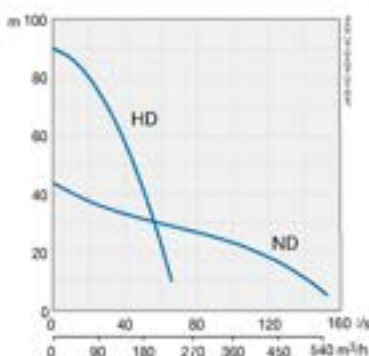
\* Built in float switch available as option.  
\*\* KS version not available in 500 V.

**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS J 205**
**J 205 ND MEDIUM HEAD  
J 205 HD HIGH HEAD**

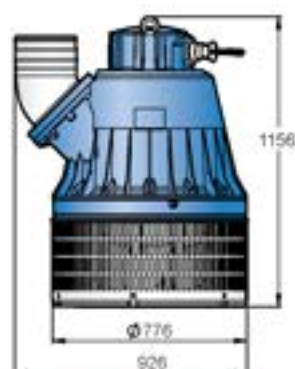
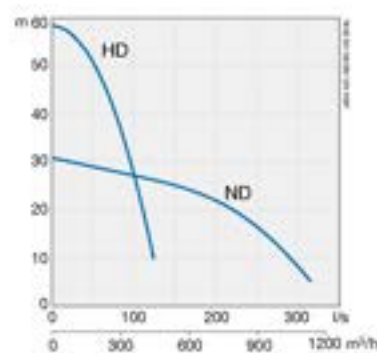
Motor rating P2	21 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	68 / 39 / 31.2 / 23 / 16
Speed	2910 rpm
Strainer hole	8 x 34 mm
Discharge connections	Hose 4", 6", 8" Thread G/BSP 4", 6", 8"
Weight (excl. cable)	155 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS J 405**
**J 405 ND MEDIUM HEAD  
J 405 HD HIGH HEAD**

Motor rating P2	35 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	108 / 62 / 51 / 36 / 25
Speed	2930 rpm
Strainer hole	8 x 34 mm
Discharge connections	Hose 4", 6", 8" Thread G/BSP 4", 6", 8"
Weight (excl. cable)	270 kg
Motor protection	Thermal overload sensors
Electric cable	20 m


**SUBMERSIBLE DRAINAGE PUMP  
TYPE ABS J 604**
**J 604 ND MEDIUM HEAD  
J 604 HD HIGH HEAD**

Motor rating P2	55 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	184 / 106 / 84 / 61 / 42
Speed	1450 rpm
Strainer hole	12 x 60 mm
Discharge connections	Hose 6", 8", 10" Thread G/BSP 6", 8"
Weight (excl. cable)	525 kg
Motor protection	Thermal overload sensors
Electric cable	20 m



## Submersible Drainage Center-Line Pump Types ABS JC and XJC

Submersible drainage center-line pump types ABS JC and XJC are excellent for pumping water and dirty water mixed with light abrasives. The slim design makes them easy to move and easy to handle, and they are perfect for applications with limited installation space.

### 1 Easy and fail-safe starting

In XJC pump models, an optional AquaTronic unit can be used instead of a built-in contactor. The AquaTronic unit compensates for incorrect phase order, which ensures correct motor rotation every time. In JC pump models, a built-in contactor with an automatic restart function protects the motor.

### 2 Wear resistance

An impeller and wear ring in white cast iron, as well as diffusers coated in oil-resistant nitrile rubber, provide high abrasion resistance.

### 3 Reliable operation

Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide and secondary seal surfaces in silicon carbide on carbon, extend the life of the pump. Pumps XJC 50 and XJC 80 have a double cable-entry seal system that increases the protection against moisture entering the electrical junction area. A double outer casing and good heat convection enable the pump to operate continuously at low levels – or even run dry without damaging the motor.

### 4 Serviceability

Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. The adjustable wear ring ensures proper clearance throughout the impeller lifetime. External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked.

### 5 Less energy and environmental impact

Pumps XJC 50 and XJC 80 are equipped with high-efficiency motors and new hydraulics, which combine with low-friction bearings to reduce power losses. The result is low total energy costs and minimized carbon footprint.

### 6 Flexibility

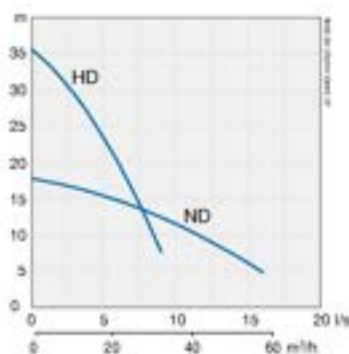
Pumps XJC 50 and XJC 80 allow conversion between high-volume and high-head hydraulics with only a few parts, ensuring the right performance for the application.



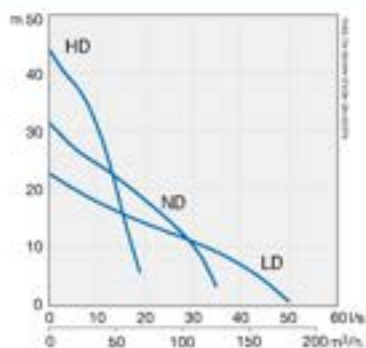


**SUBMERSIBLE DRAINAGE CENTER-LINE PUMP TYPE ABS JC 34**
**JC 34 ND, MEDIUM HEAD**  
**JC 34 HD, HIGH HEAD**

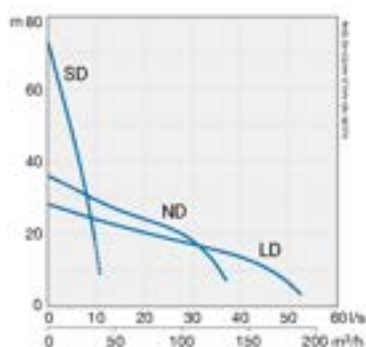
Motor rating P2	3 kW, 3~
Voltage (V)	230 / 400 / 500
Full load (A)	12.7 / 7.3 / 5.5
Speed	2850 rpm
Strainer hole	8 x 33 mm
Discharge connections	Hose 2", 3" Thread G/BSP 2", 3"
Weight (excl. cable)	31 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE DRAINAGE CENTER-LINE PUMP TYPE ABS XJC 50**
**XJC 50 ND\* MEDIUM HEAD**  
**XJC 50 LD\* HIGH FLOW**  
**XJC 50 HD\* HIGH HEAD**

Motor rating P2	5.6 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	19.7 / 11.3 / 9.0-10.8 / 6.6 / 4.5
Speed	2930 rpm
Strainer hole	7.5 x 22 mm
Discharge connections	Hose 3", 4", 6" Thread G/BSP 3", 4", 6"
Weight (excl. cable)	59 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE DRAINAGE CENTER-LINE PUMP TYPE ABS XJC 80**
**XJC 80 ND\* MEDIUM HEAD**  
**XJC 80 LD\* HIGH FLOW**  
**XJC 80 HD\* HIGH HEAD**  
**XJC 80 SD\* HIGH HEAD**

Motor rating P2	8.3 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	27.8 / 16 / 13.8 / 9.3 / 6.4
Speed	2920 rpm
Strainer hole	7.5 x 22 mm
Discharge connections	Hose 3", 4", 6" Thread G/BSP 3", 4", 6"
Weight (excl. cable)	63 kg (ND/LD), 78 kg (SD)
Motor protection	Built-in
Electric cable	20 m



\* Option: AquaTronic, built-in electronic pump control.



## Submersible Sludge Pump Type ABS XJS

Submersible sludge pump type ABS XJS is excellent for pumping dirty water and water mixed with solids. The slim design makes the pump easy to move and easy to handle.

### 1 Easy and fail-safe starting

Instead of a built-in contactor, an optional AquaTronic unit can be used. The AquaTronic unit compensates for incorrect phase order, which ensures correct motor rotation every time.

### 2 Clog-free pumping

A free-flow vortex impeller and pump volute make the pump ideal for pumping solids. The impeller is available in different sizes to meet specific requirements.

### 3 Reliable operation

Both the impeller and volute are made from heavy-duty ductile iron for maximum durability. Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide and secondary seal surfaces in silicon carbide on carbon, extend the life of the pump. A double cable-entry seal system increases the protection against moisture entering the electrical junction area.

### 4 Convenient handling

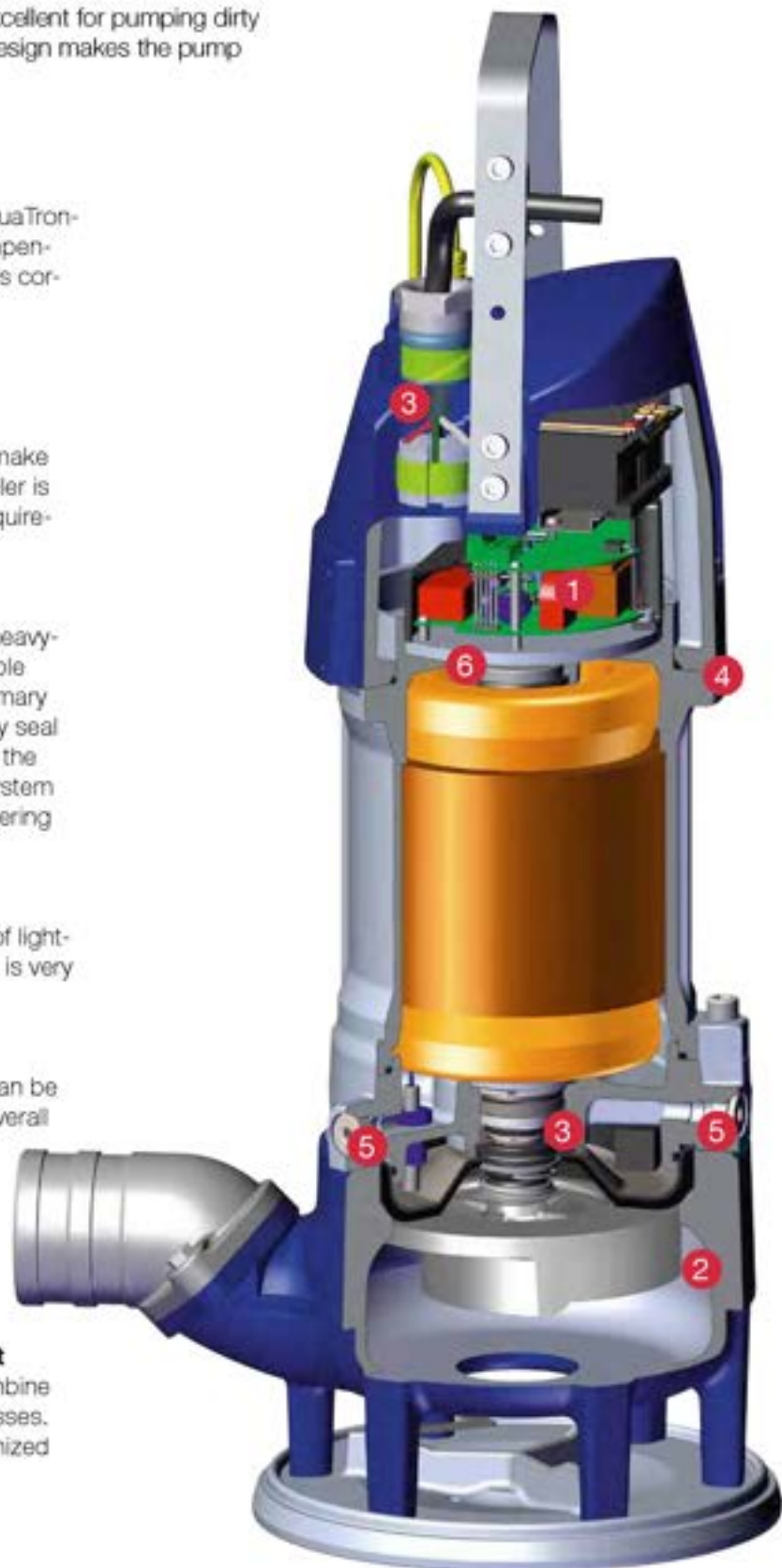
The top cover and motor housing are made of light-weight aluminium, which creates a pump that is very easy to handle and install.

### 5 Serviceability

Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked.

### 6 Less energy and environmental impact

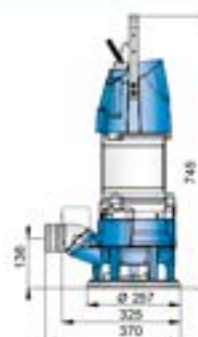
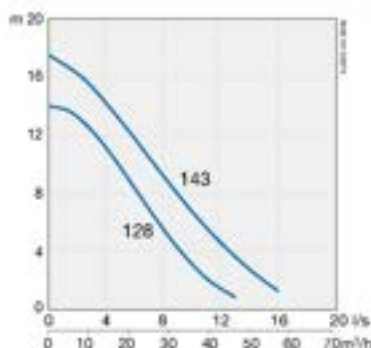
The high-efficiency motor and hydraulics combine with low-friction bearings to reduce power losses. The result is low total energy costs and minimized carbon footprint.



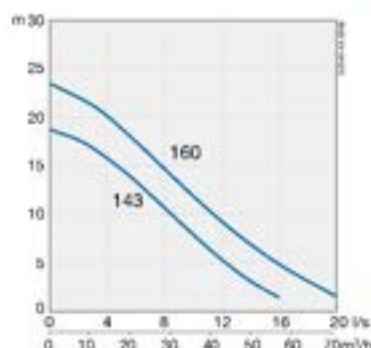


**SUBMERSIBLE SLUDGE PUMP  
TYPE ABS XJS 25**
**XJS 25 D\* -128**  
**XJS 25 D\* -143**

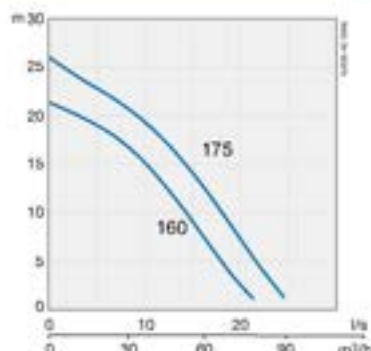
Motor rating P2	2.5 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	8.8 / 5.1 / 4.1 / 2.9 / 2.0
Speed	2920 rpm
Free passage	45 x 55 mm
Discharge connections	Hose 2½", 3", 4" Thread G/BSP 2½", 3", 4"
Weight (excl. cable)	39 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE SLUDGE PUMP  
TYPE ABS XJS 40**
**XJS 40 D\* -143**  
**XJS 40 D\* -160**

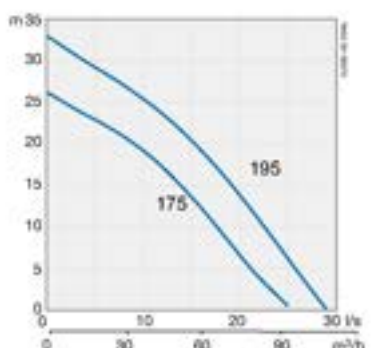
Motor rating P2	3.7 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	13.2 / 7.6 / 6.1 / 4.4 / 3.0
Speed	2860 rpm
Free passage	45 x 55 mm
Discharge connections	Hose 2½", 3", 4" Thread G/BSP 2½", 3", 4"
Weight (excl. cable)	41 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE SLUDGE PUMP  
TYPE ABS XJS 50**
**XJS 50 D\* -160**  
**XJS 50 D\* -175**

Motor rating P2	5.6 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	19.7 / 11.3 / 9.0 / 6.6 / 4.5
Speed	2930 rpm
Free passage	48 x 60 mm
Discharge connections	Hose 2½", 3", 4" Thread G/BSP 2½", 3", 4"
Weight (excl. cable)	59 kg
Motor protection	Built-in
Electric cable	20 m


**SUBMERSIBLE SLUDGE PUMP  
TYPE ABS XJS 80**
**XJS 80 D\* -175**  
**XJS 80 D\* -195**

Motor rating P2	8.3 kW, 3~
Voltage (V)	230 / 400 / 500-550 / 690 / 1000
Full load (A)	27.8 / 16 / 12.8 / 9.3 / 6.4
Speed	2920 rpm
Free passage	48 x 60 mm
Discharge connections	Hose 2½", 3", 4" Thread G/BSP 2½", 3", 4"
Weight (excl. cable)	64 kg
Motor protection	Built in
Electric cable	20 m



\* Option: AquaTronic, built-in electronic pump control.



## PIRANHA SUBMERSIBLE GRINDER PUMP 08 - 110



### MATERIALS

DESCRIPTION	MATERIAL
Upper Lid *	Stainless steel 1.4301 (AISI 304)
Motor Housing	Cast iron EN-GJL-250
Rotor Shaft	Stainless steel 1.4021 (AISI 420)
Volute	Cast iron EN-GJL-250
Impeller **	Cast iron EN-GJL-250
Fasteners	Stainless steel 1.4401 (AISI 316)

\* Piranha 08 and 09

\*\* Polyamide for Piranha 08

### FEATURES

- For the pumping of wastewater containing sewage, offal, organic and industrial effluent
- Piranha 08 and 09 fitted with MF modular motor; Piranha-S with AS, Piranha PE with XFP Premium Efficiency IE3
- Piranha 08 and 09 available as KS version with float switch
- Small discharge lines from 1 1/4" (DN 32)
- Installations are possible where large ground undulations are present
- Standard and Ex-versions (see motor data below)
- Piranha 08 and 09 have capacitor in upper lid and do not require a control box
- Low installation costs due to small diameter discharge pipework.

### APPLICATIONS

- Piranha submersible pumps have been designed for effective and economic dewatering using discharge lines of small diameter, in private, municipal and industrial areas.
- Sewage removal from living units and houses in remote settlements where the laying of a conventional sewer would be too expensive, where large ground undulations are present or where it is only possible to lay pipe lines of small diameter
- Sewage removal from motorway resting sites, communal buildings and for renovation of buildings or areas of a city
- For use in slaughter houses, food processing plants, paper factories, agriculture and similar areas
- Piranha 08 and 09 are specially designed for private and domestic applications
- Maximum allowable temperature of the medium is 40 °C, or short term to 60 °C (max. 5 minutes)

## Technical Data

MODEL	DISCHARGE		MOTOR POWER ** (KW)		RATED CURRENT (A)	RATED VOLTAGE (V)	SPEED (R/MIN)	CABLE SIZE ***	WEIGHT **** (KG)
	FLANGE DN	INTERNAL THREAD *	P1	P2					
08W	-	G 1 1/4"	1.41	1.00	6.41	220-240 1~	2900	3G1.0	18
08D	-	G 1 1/4"	1.34	1.00	2.71	400 3~	2900	4G1.0	18
09W	-	G 1 1/4"	2.56	1.84	11.60	220-240 1~	2900	3G1.0	23
09D	-	G 1 1/4"	2.56	2.00	4.64	400 3~	2900	4G1.0	23
S10/4W (1)	32	G 1 1/4"	1.69	1.00	7.49	220-240 1~	1450	4G1.0	32
S12/2W (1)	32	G 1 1/4"	1.77	1.20	8.22	220-240 1~	2900	4G1.0	32
S12/2D	32	G 1 1/4"	1.69	1.20	3.29	400 3~	2900	4G1.0	32
S13/4D	32	G 1 1/4"	1.93	1.30	3.60	400 3~	1450	4G1.0	32
S17/2W (1)	32	G 1 1/4"	2.36	1.65	10.60	220-240 1~	2900	4G1.0	32
S17/2D	32	G 1 1/4"	2.31	1.70	3.97	400 3~	2900	4G1.0	32
S21/2D	32	G 1 1/4"	2.79	2.10	4.75	400 3~	2900	4G1.0	37
S26/2D	32	G 1 1/4"	3.43	2.60	5.64	400 3~	2900	4G1.0	40
PE30/2D-C	32	G 1 1/4"	3.42	3.00	5.58	400 3~	2900	7G1.5	85
PE55/2D-E	50 DIN	-	6.08	5.50	10.30	400 3~	2900	10G1.5	130
PE70/2D-E	50 DIN	-	7.74	7.00	13.50	400 3~	2900	10G1.5	130
PE90/2D-E	50 DIN	-	9.84	9.00	17.00	400 3~	2900	10G1.5	145
PE110/2D-E	50 DIN	-	12.10	11.00	20.10	400 3~	2900	10G1.5	145

\* Piranha S10/4 - S26/2 and PE30/2D-C with threaded flange adaptor as accessory \*\* P1 = Power at mains; P2 = Power at motor shaft

\*\*\* Piranha S10/4 Ex and Piranha S10/4 - S26/2 with DI and klixon: 7G1.5 \*\*\*\* Weight with 10 m cable

(1 Start and Run capacitor to the following specification required in control panel.

Start: 125-150µF

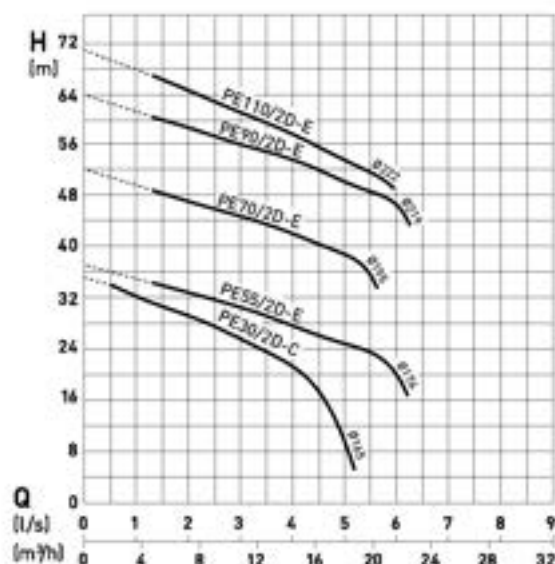
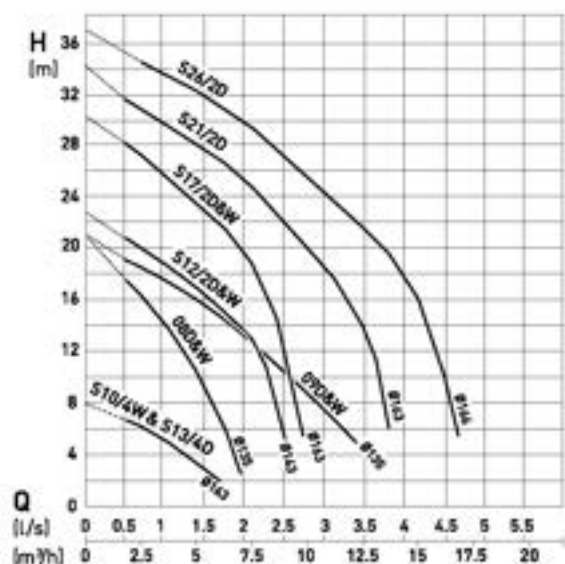
Run: 40µF (2x20µF) for S10/4W, 30µF for S12/2W and S17/2W

The recommended start time for the motors is two seconds



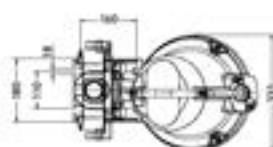
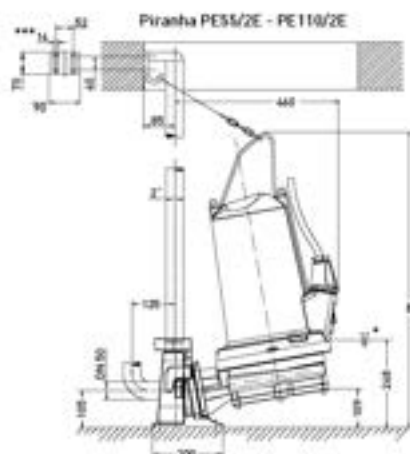
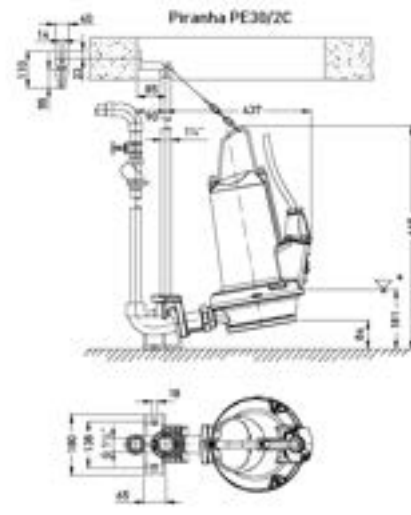
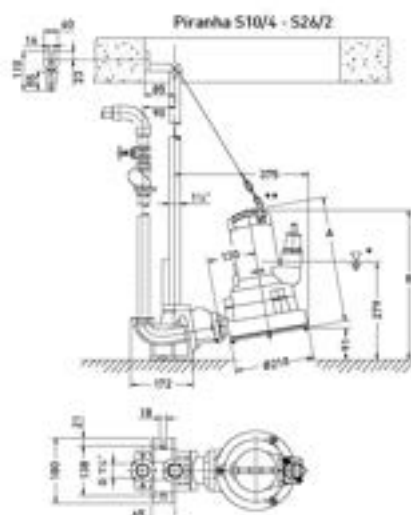
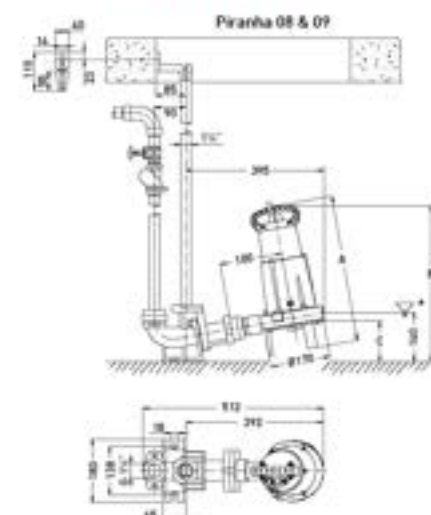
# PIRANHA SUBMERSIBLE GRINDER PUMP 08 - 110

## Performance Curves



H = Total Head, Q = Discharge Volume. Curves to ISO 9906 (50 Hz available on request) N.B. please use the ABSEL program to validate pump selection.

## Dimensions



MODEL	A	B	C
08	420	445	117
09	445	470	108
S10/4 - S17/2	347	414	-
S21/2 & S26/2	360	427	-
PE55/2E - PE90/2E	-	774	-
PE110/2E	-	844	-

Piranha 08 - PE110/2E: Minimum sump opening Ø625 mm  
Pedestal base secured using M10 masonry anchor bolts, drill hole size 14 mm  
\* Lowest switch-off point for automatic operation

Piranha S10/4 - S26/2: \*\* To allow the pump to be lowered and fixed correctly to the pedestal, the shackle must be fixed to the handle at the point furthest from the guide rail.  
Piranha PE55/2E - PE110/2E: Discharge line connection with threaded flange DN 50/2" PN16  
Discharge elbow supplied by customer  
\*\*\* Hexagon head wood screw 10 x 70 D04 S71 and dowel size 12



## SUBMERSIBLE SEWAGE PUMP XFP 100J - 600X



### MOTOR

Water pressure sealed premium efficiency motors, (3-phase, squirrel cage induction motors), from 15 to 350 kW and, depending on hydraulic requirements as 4- to 12-pole versions.

Voltage: 400 V3~, 50 Hz (other voltages on request).

Insulation material: H (motor winding protected by temperature sensor 140 °C)

Temperature rise: According to class A

Protection type: IP68

Start-up: direct on line (DOL), soft starter or star-delta

### CONSTRUCTION

Energy saving premium efficiency motor in accordance with IEC 60034-30, exceeding EFF1 of CEMEP regulation

The water-tight fully flood-proof motor and the pump section form a compact and robust unit, easy to clean and easy to service

Water pressure sealed connection chamber, with two stage cable entry, protected against excessive cable tension and bending

Bimetallic thermal sensors in the stator which open at 140 °C

Rotor and rotor shaft dynamically balanced, upper and lower bearings lubricated-for-life, maintenance-free

Triple shaft sealing

Upper and lower sealing by means of a silicon carbide mechanical seal, independent of the direction of rotation

Inspection chamber with sensor for moisture protection to indicate water leakage through mechanical seal

Option: Blockage- and maintenance-free internal closed looped cooling system. Cooling medium: Glycol - water mixture (standard for PE6 range)

Hydraulic parts with various impeller options: 2-or 3-channel Contrablock, 2-or 3-channel closed or 3-channel skew

These pumps are built as standard in ATEX explosion-proof version in accordance with international standards e.g. Ex d IIB T4/ATEX II 2Gk

## Standard and options

DESCRIPTION	STANDARD	OPTION
Max. ambient temperature	40 °C	60 °C
Max. submergence depth	20 m	
Mains voltage	380...420 V/50 Hz	230 V, 690 V/50 Hz
Voltage tolerance	± 10 % at 400 V	
Insulation class	H (140)	H (160) (not for explosion-proof)
Start-up	DOL (direct on line), star-delta or soft starter	
Approval	Ex/ATEX	
Cables	S1BN8-F	EMC shielded cables
Cable length	10 m	15 m, 20 m, other length on request
Mechanical seal (medium side)	SIC-SIC (NBR)	SIC-SIC (Viton execution)
Mechanical seal (motor side)	SIC-SIC	
O-rings	NBR	Viton
Preparation for lifting hoist	Lifting hoop	Lifting hoop in stainless steel
Protective coating	Two component coating epoxy resin	Special coatings on request
Cathodic protection		Zinc anodes on request
Installation	Wet-well	Dry-well vertical/horizontal
Motor cooling	Cooling by surrounding medium	Closed loop cooling system*
Moisture sensor motor housing		DI (sensor for moisture detection)*
Moisture sensor inspection chamber	DI (sensor for moisture detection)	

\* standard for PE6 motor range



# PIRANHA SUBMERSIBLE GRINDER PUMP 08 - 110



## Materials

MOTOR	STANDARD	OPTION
Connection chamber	EN-GJL-250	
Cooling chamber	EN-GJL-250	
Cooling jacket	1.0036	
Motor housing	EN-GJL-250	
Motor shaft	1.4021	1.4462
Fasteners (medium contacted)	1.4401	
Lifting hoop (PE4 & 5)	EN-GJS-400-18	1.4470
Lifting hoop (PE6)	1.0060	1.4462

CONNECTION SYS. (WET)	STANDARD	OPTION
Pedestal	EN-GJL-250	Non sparking
Fastening elements	Stainless steel	
Protective coating	Epoxy resin	
Guide rail	Galv. steel	Stainless steel
Pipe retainer	EN-GJS-400-18	1.4470

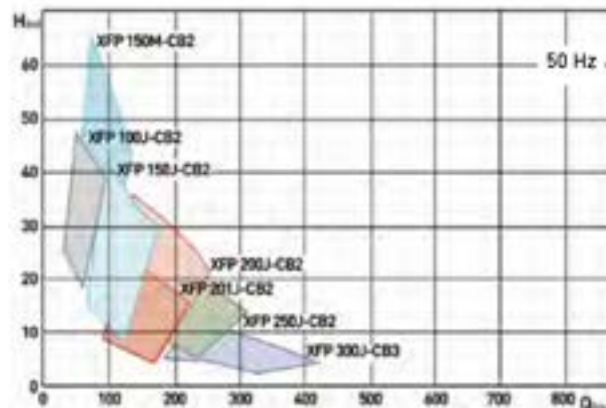
HYDRAULICS	STANDARD	OPTION
Volute	EN-GJL-250	
Impeller	EN-GJL-250	1.4470
Bottom plate (not all versions)	EN-GJL-250	1.4470
Shroud (XFP 501U and 600X)	EN-GJL-250	
Wear ring (not all versions)	EN-GJL-250	1.4581

CONNECTION SYS. (DRY)	STANDARD	OPTION
Support frame	1.0036	Galv. steel

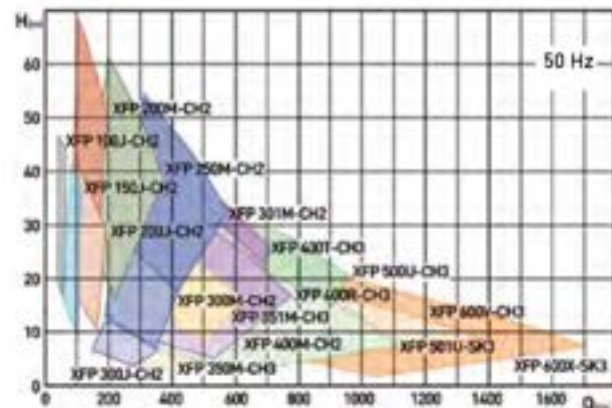


## Performance Curves

Performance fields with Contrablock system



Performance field with channel impeller





## FEATURES, OPTIONAL EXTRAS

### Additional protection for more durable operation

ABS submersible dewatering pumps can easily be added with zinc anode belts providing protection against galvanic corrosion. The cast parts of the pump can also be protectively coated, ensuring trouble free operation when pumping salty or brackish water.



### Series connections for pumping high heads

With minimal effort, the standard ABS drainage pumps can be rebuilt to function in series connected applications for high head pumping. This feature ensures a flexible use of your drainage pumps.



### Polyurethane for prolonged life of the drainage pump

ABS offers diffusers and wear-rings in polyurethane, which increases resistance when pumping fine sand and other abrasive mediums. Polyurethane coated diffusers and wear rings are available as an option on J/JC 24-44, J/JC 54-84, J 205, J 405 and J 604.



### Electronic motor supervision

The FSV 82, electronic motor protector prevents the pump from starting in the wrong direction of rotation. This protection device will also trip the pump in event of phase failure. The FSV 82 features protection against automatic restart in the event that the pump has tripped due to overheating.



### Bottom suction adapter

On pumps types J12, J15 and J24 the standard bottom plate may be replaced by a bottom suction adapter. A basement floor or a tank can be pumped practically dry with this adapter.



### Save time and money on ABS repair kits

ABS offers repair kits to all submersible dewatering pumps. The repair kits include preselected spare parts which secure a fast and efficient maintenance and avoids unnecessary downtime for the pump. The common known modular design with many interchangeable parts makes it possible to repair all drainage and sludge pumps just with a few repair kits.





## OPTIONAL EXTRAS



## Complete equipment supply for easy installation and convenient handling

ABS offers a variety of discharge connections/quick couplings in different size and style to suit your needs/ requirements. Choose from ABS flexible durable discharge hoses in sizes up to 10".



## Easy installation with starter box and safe operation with level control

When a start and stop level is required, a starter box for level control can prolong the life of the pump. ABS provides standard DOL and star-delta starter boxes with a built in float switch for J/JC/JS/JT series. For the smaller J/JS pumps the level control function can be integrated in the pump.



## SoftDrive for cost effective operation

ABS offers a built in SoftDrive concept on the J54 to J205 pumps. It reduces starting current dramatically and provides a smooth operation for both the power net and pump equipment. The pump can be started with a smaller sized generator compared to a standard direct on line started pump.



## Plug and pump with ABS carry case kit

ABS pump model J12 and J15 are available as a complete carry case kit including pump, discharge connection, hose, couplings, lifting rope and bottom suction adapter. It is easily carried to site in a case including all parts needed to get the pump up running.



## Quick and easy installation with ABS flotation ring

ABS flotation rings offers a solution for pumps up to 55 kg. The flotation ring is easy to install and can be used to any of ABS dewatering pumps J12 to J54. Other pumps may be used after checking the lifting capacity.



## Let the pump float and avoid unnecessary wear with ABS flotation system

ABS flotation system offers a modular system and cover pumps from 70 to 600 kg. The modular flotation system is easy to build and use to any of ABS dewatering pumps J/JC 84 to J 604 and JS 54-84. Other pump types such as JT may be used after checking the lifting capacity.





## AIR OPERATED SUBMERSIBLE PUMPS

### Submersible Sump Pump 2" & 2<sup>1/2</sup>" Discharge

Rhino Submersible pumps have a small cross section and can be lowered into areas having small access hatches. Especially preferred where electric spark may risk ignition or explosion.

#### APPLICATIONS

Construction  
De-watering  
Engineering industry  
Transfer of fluids, usage in sumps for periodic dewatering  
Marine- emptying ballast tanks, after washing procedure  
Draining cargo holds during and after washing procedure  
Pumping of sea water from bilges, holds, etc.

#### FEATURES

Will pump down to 22mm. Will handle up to 3mm solids Governor controlled motor.  
Compact design enables uses in restricted areas. Air inlet operated by Gate Valve Lever.

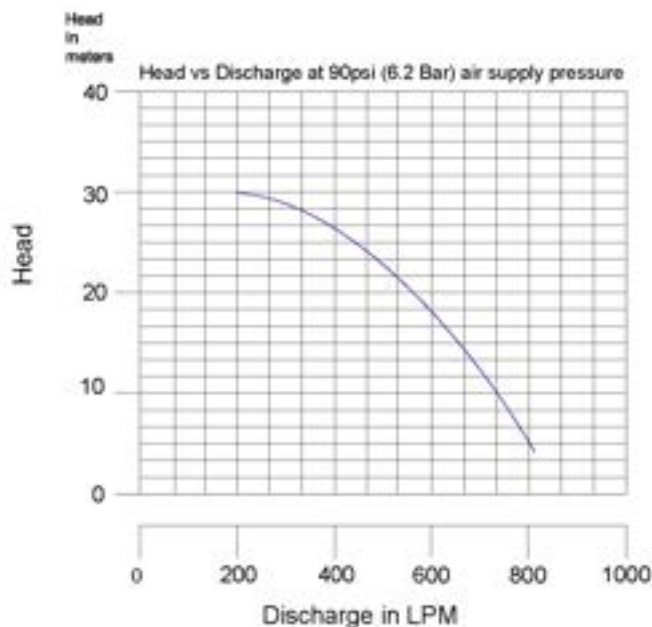


2" Pump

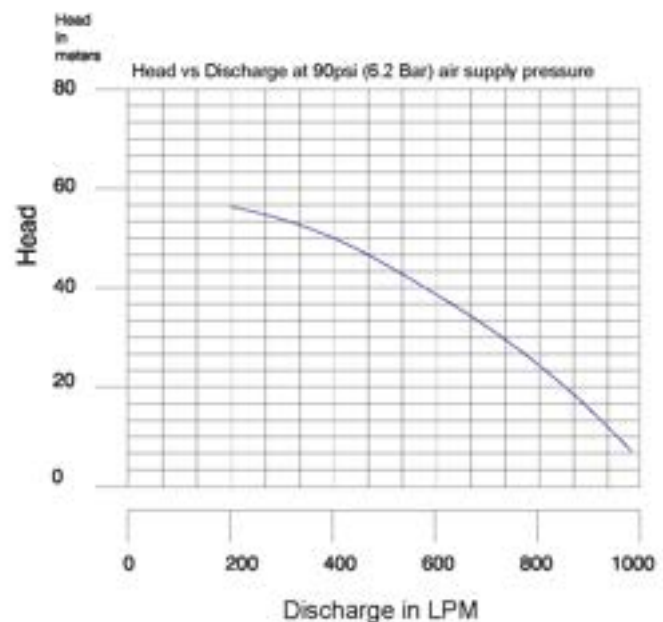
2<sup>1/2</sup>" Pump

### Performance Curves

#### Submersible Sump Pump 2" Discharge



#### Submersible Sump Pump 2<sup>1/2</sup>" Discharge



#### SPECIFICATIONS

MODEL NO.	AIR (MM)			FLUID (MM)		AIR SUPPLY PSIG	RECOMMENDED HOSE SIZE (MM)	MINIMUM OPENING PUMP WILL ENTER (MM)	HEIGHT	WEIGHT
	INLET	OUTLET	CONSUMPTION	INLET	OUTLET				MM	kg
ASP20	3/4" NPT	1" BSPP	2.7 m <sup>3</sup> /min	Screen	2" NPT	80-90	25 (1")	204x230	340	22
ASP25	3/4" NPT	1-1/2" BSPP	3.8 m <sup>3</sup> /min	Screen	2-1/2" NPT	80-90	25 (1")	210x305	430	32



# DEWATERING PUMPS



PAGE  
230







### Revolutionising dewatering pump performance

Pioneer Pump revolutionised the mining and quarrying pump industry when they launched the Pioneer Prime, high efficiency self priming pumps. Whether our pumps are assessed on flow rates, pressures or efficiencies, Pioneer pumps offer their users world class performance including flows over 4000m<sup>3</sup>/hr, heads of 16 bar all from pumps with two year warranties.

### Fully packaged sets including sound attenuation, banded tanks and Tier III engines

With over 100 models of pumps and over forty packaged pumpsets to choose from including those that are fully banded and sound attenuated, Pioneer offer the largest range of electric motor or engine driven pumps including equipment for use in ATEX environments or noise sensitive areas.

### Ductile iron castings, stainless steel shafts and run-dry seals all lead to high reliability

Features such as fully machined impellers, ductile iron castings and of course our run-dry mechanical seals give all our users a sense of security whilst at the same time knowing there is no other pump that can move so much water with such little energy consumption.

### Specifically designed not to be a compromise

With such a large product range to choose from, Pioneer Pump offer the right pump for the job which means it's not a compromise.

### It's not just the pump, it's the people

Having the right pump is not always enough. Having spares and backup including fully trained people capable of engineering solutions, has made Pioneer what it is today in a very short time, a world leader in mining and quarry pumps.

### Engineers first and foremost

Our sales engineers are fully capable of engineering solutions including full site surveys, system calculations and designing specific solutions for applications including pipework and fittings. From this they work with the in-house designers to develop solutions either from our standard product range or something special to solve those harder applications.



### Typical features of Pioneer pumps

- Heavy duty construction, including high quality materials of construction
- Oversized shaft and seal for high reliability in arduous conditions
- Silicon versus silicon mechanical seals with Viton elastomers
- Patented positive sealing priming equipment in full stainless steel
- Low NPSHr impeller designs for exceptional suction lifts
- Back pullout design allowing for ease of maintenance
- 50cfm vacuum pump on all sizes of Pioneer Prime for the fastest priming
- GGG40 Ductile iron castings for extra long life on key parts such as impellers
- Optional materials includes CD4MCU abrasion resistant stainless steels
- 17-4PH stainless steel shafts for corrosion and abrasion resistance
- Auto-start and stop functionality on control panels
- GSM pump and engine monitoring from anywhere in the world
- Trailer or skids



### Typical applications of Pioneer pumps

- Sump pumping
- Extreme pressure dewatering of quarries and open cast mines
- Light slurry pumping
- Polymer pumping
- Flood management in environmentally sensitive areas
- Well pointing pumps
- Dust suppression pumping
- Rubble wash plants
- Sand and gravel sorting plants
- Concrete plants
- Dewatering
- Processing
- Temporary pumping





## Engineering Leadership

Pioneer Pump's innovation begins with our engineering team. Using the latest computer technology, we design our pumps to deliver outstanding hydraulic performance for both solids handling and clear liquid applications. Our large impeller eye areas provide higher suction lifts, lower NPSHr and more stable operation. No other company designs and builds centrifugal pumps capable of our extreme flows and pressures.



## Rugged Construction

From the Arctic to the equator, from oil exploration to corrosive waste, Pioneer pumps are built to survive — and thrive in the most demanding applications. Robust ductile iron (or special metal) construction combined with oversized bearings and shafts provide unparalleled reliability. In industries and climates where the cost of downtime is highest, confident customers count on Pioneer Pump.



## Green by Design

With stricter environmental regulations, pumps have to be safer, cleaner and more efficient than ever. All of our pumps utilize the latest engineering techniques to provide high-volume efficiency and low energy consumption. Unlike our competitors, our patented PosiValve™ priming valve prevents spillage and carryover of the product. Compare our pumps to others on gallons pumped and energy consumed. You'll see why Pioneer is the greenest choice.



## Smart Designs

Our modular design allows us to fulfill your needs with the right pump for multiple applications while minimizing spare parts. Mounting multiple pump ends on standardized heavy-duty bearing housings enables us to build and ship quickly. Our trailer packages are designed so you can convert to stationary skid with just a few turns of the wrench. Our versatility gives us the confidence to say "yes" to your needs while saving you money.



## High-flow and High-pressure Dewatering

**Get extreme performance** Pioneer Prime offers flows up to 18,000 GPM (4,000m<sup>3</sup>/hr) and heads to 700+ feet (210m) with vacuum-assisted dry priming and run-dry capability, providing the best performance of any company in the self-priming pump market

**Work more efficiently** Exceptional hydraulic designs combined with outstanding quality assures less service and downtime, leading to increased production and profits.

**Be environmentally friendly** Our patented PosiValve™ and UltraPrime priming system prevents leakage and carryover while offering unparalleled reliability. Fully contained packages, including 110% containment with noise levels as low as 60 dBA, meet noise and containment regulations.

**Get back to work sooner** Size for size, Pioneer pumps are designed to move more water than any other manufacturer. Whether it is mine dewatering or quarry flooding, Pioneer gets you drier, faster.



## Plant and Process

**Get more performance with less energy** Pioneer pumps are highly efficient so they're better for your budget and the environment.

**High flow without worries** ST Standard centrifugal and self-priming pumps deliver high flow and pressure for the most demanding mining applications.

### Process pump applications include:

- Wheel washing
- Light slurry and polymer pumping
- Dust suppression
- Sand and gravel washing
- Concrete plant water feed pumps





## Pioneer Prime

For superior flow and suction lift capabilities, consider the Pioneer Prime series. Our pumps deliver extreme flows with high head capability, combined with our UltraPrime™ priming system, which is capable of rapid (50 CFM) unattended priming and run-dry operation. Our environmentally friendly, patented PosiValve priming valve prevents leakage and product carryover. Units are available for solids handling or clear liquid service. In addition, enclosed silent units are available with low dBA ratings designed around your specific application. Pumps are also available in a variety of different metallurgies.

### DESCRIPTION

End suction centrifugal pumps with vacuum-assist, dry-priming capabilities

### PERFORMANCE

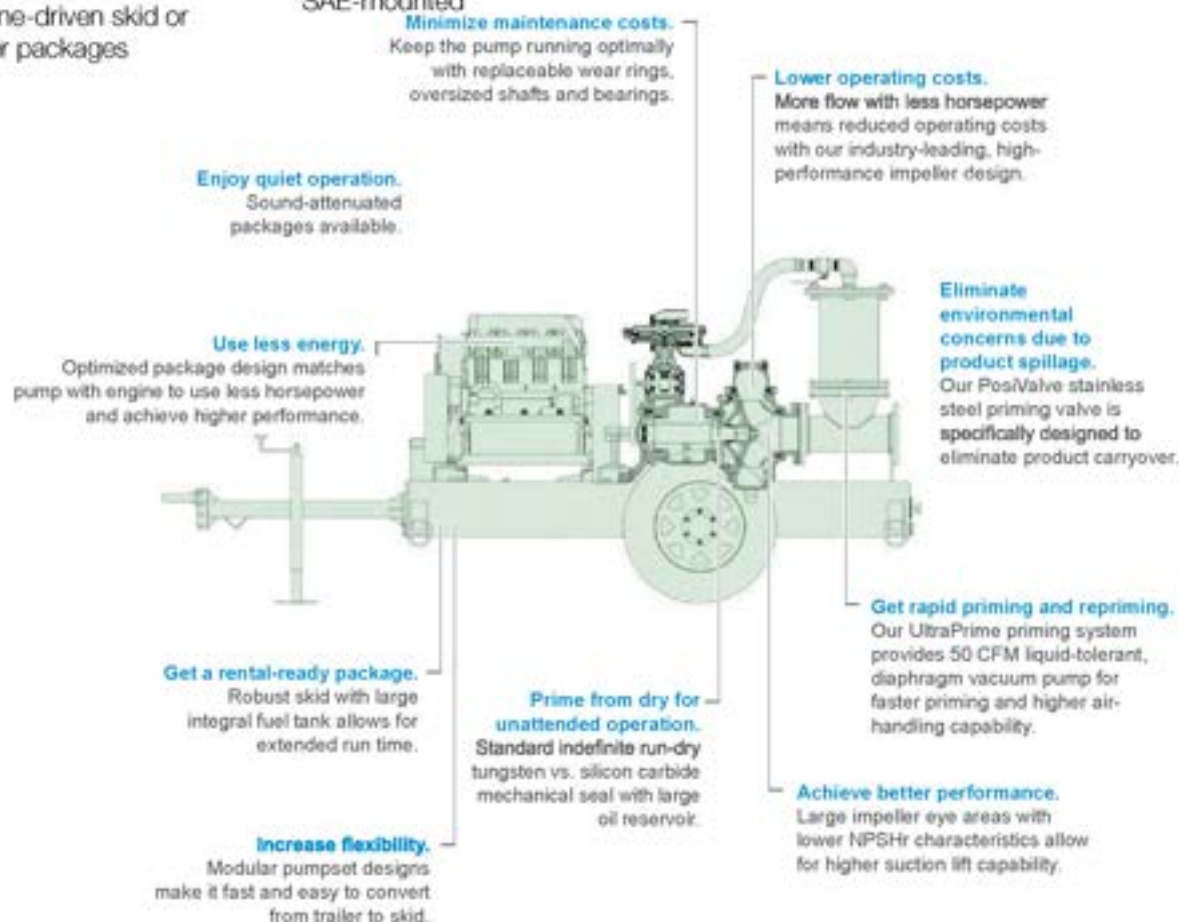
Size: 40–760 mm

Flow: 4–10,000 m<sup>3</sup>/hr 2–3000 l/s

Head: 210 meters

### AVAILABLE CONFIGURATIONS

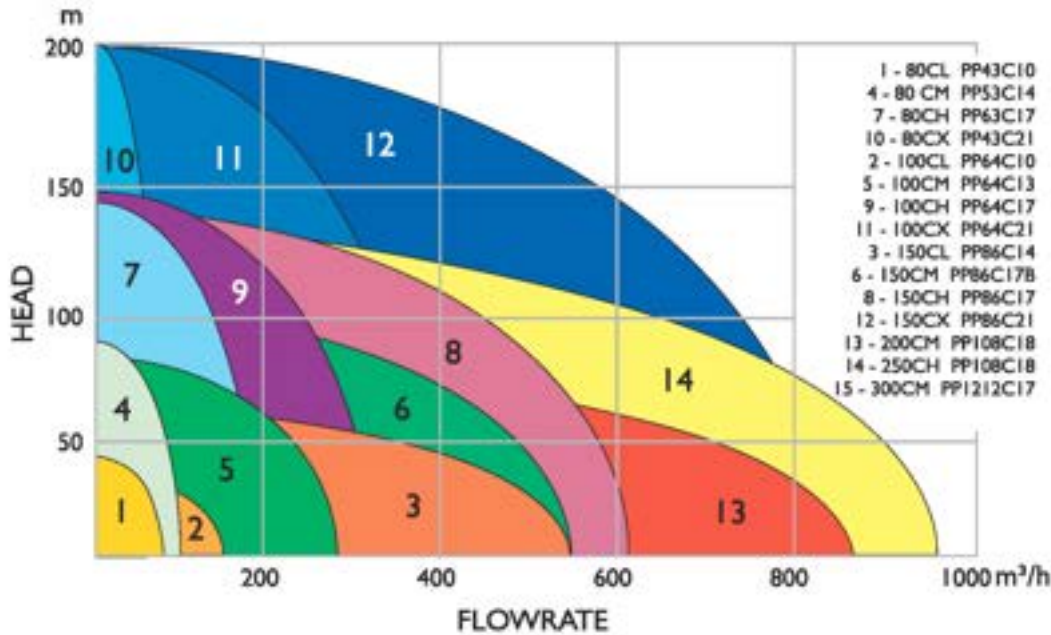
- Frame-mounted
- Base-mounted electric-driven
- Engine-driven skid or trailer packages
- Sound-attenuated skid or trailer packages
- Engine-driven SAE-mounted





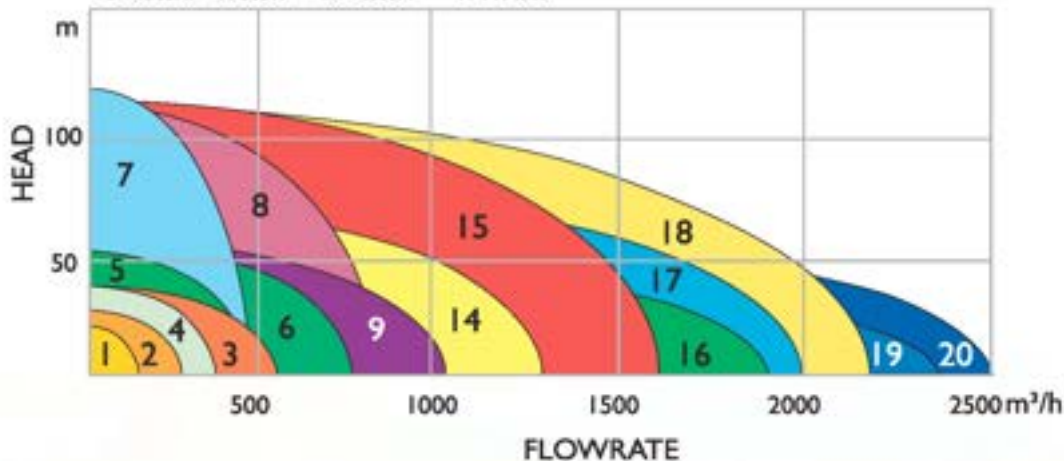
## Performance Curves

High pressure self priming pumps - Engine driven pumps operating at 1800-2000rpm



Solids handling self priming pumps - Engine driven pumps operating at 1800-2000rpm

1 - 80SL PP43075	9 - 200SL PP88512	20 - 450SM PP1818522
2 - 100SL PP4458	14 - 200SM PP108514	21 - 450SH PP1818522
5 - 100SM PP44510	15 - 250SH PP108517	
7 - 100SH PP64517	16 - 300SL PP1212513	Note: All pumps have a minimum 75mm solids handling capability
3 - 150SL PP66510	17 - 300SM PP1212514	250mm-400mm pumps have a minimum 90mm solids handling capability
6 - 150SM PP66512	18 - 300SH PP1212517	450mm pumps have a 150mm solids handling capability
8 - 150SH7 PP86517	19 - 400SM PP1414517	





## Pioneer 80SL PP43075

General purpose pumpset ideal for small drainage, trenching, dewatering with ease of access and manoeuvrability.

### SPECIFICATIONS

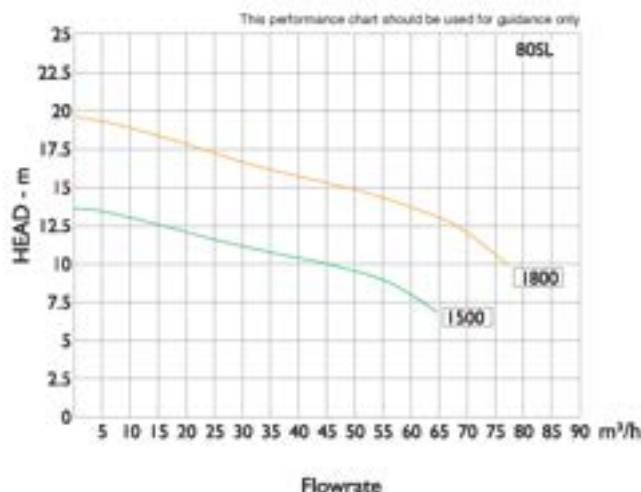
Pump Size:	80mm
Max Flow m <sup>3</sup> /hr:	100
Max Head m:	22
Solids Size mm:	25
Max Efficiency %:	62
Performance at BEP):	52m <sup>3</sup> /hr@13m
Engine Type:	Hatz-1D81
Nominal Speed rpm:	1800
Rated Power kw:	5.5
Dry Weight kg:	740

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 100SL PP44S8

General purpose pumpset ideal for sewage bypass, trenching, dewatering with ease of access and manoeuvrability.

### SPECIFICATIONS

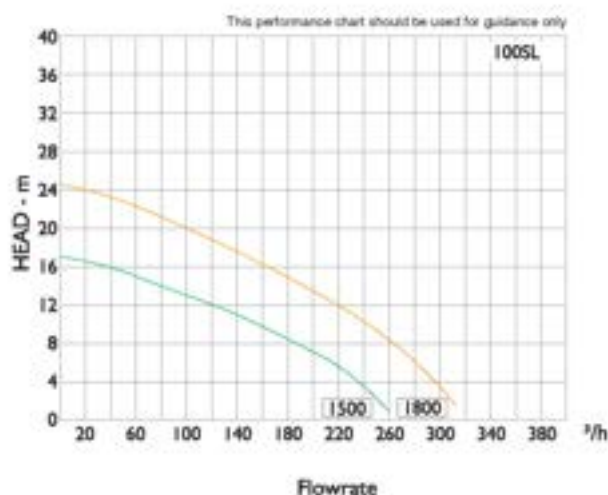
Pump Size:	100 x 100mm
Max Flow m <sup>3</sup> /hr:	300
Max Head m:	25
Solids Size mm:	76
Max Efficiency %:	70
Performance at BEP):	162m <sup>3</sup> /hr@15m
Engine Type:	Perkins 403D/DEUTZ 914/CAT 1.5
Nominal Speed rpm:	1800
Rated Power kw:	5.5-19
Dry Weight kg:	1390

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 100SM PP44S10

General purpose pumpset ideal for sewage bypass, trenching, dewatering with ease of access and manoeuvrability.

### SPECIFICATIONS

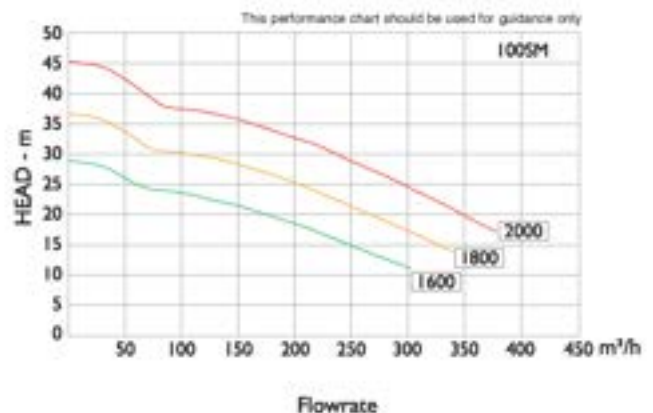
Pump Size:	100 x 100mm
Max Flow m <sup>3</sup> /hr:	365
Max Head m:	45
Solids Size mm:	76
Max Efficiency %:	69
Performance at BEP:	240m <sup>3</sup> /hr@25m
Engine Type:	Perkins 404D/DEUTZ 914/JD 3029
Nominal Speed rpm:	1800
Rated Power kw:	12-30
Dry Weight kg:	1520

### FEATURES

- Ductile iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 100SH PP64S17

High pressure solids handling pumpset ideal for bypass, flood control and dewatering with environmental design allowing for continuous pumping in noise sensitive environments.

### SPECIFICATIONS

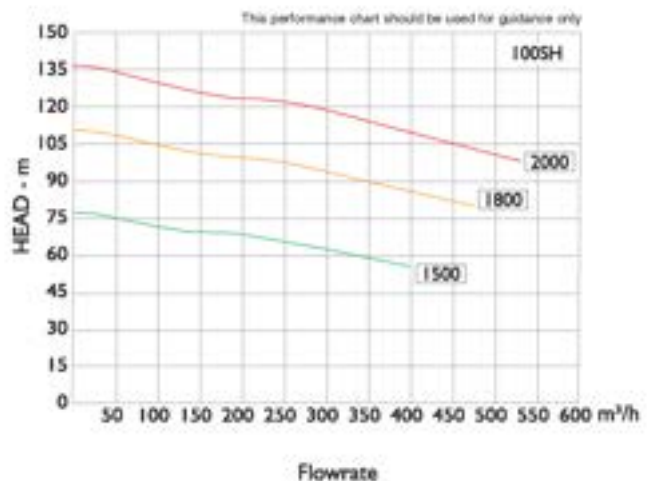
Pump Size:	150 x 100mm
Max Flow m <sup>3</sup> /hr:	340
Max Head m:	135
Solids Size mm:	76
Max Efficiency %:	72
Performance at BEP:	350m <sup>3</sup> /hr@90m
Engine Type:	CAT C9/JD 6091/DEUTZ 914
Nominal Speed rpm:	1800
Rated Power kw:	225
Dry Weight kg:	3500-5000

### FEATURES

- Ductile iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 125SM PP64S12

Medium pressure solids handling pumpset ideal for bypass, flood control and dewatering with environmental design allowing for continuous pumping in noise sensitive environments.

### SPECIFICATIONS

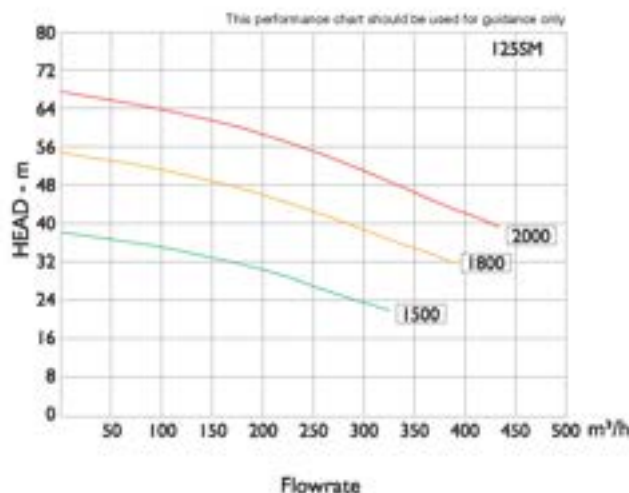
Pump Size:	150 x 100mm
Max Flow m <sup>3</sup> /hr:	400
Max Head m:	66
Solids Size mm:	76
Max Efficiency %:	69
Performance at BEP:	285m <sup>3</sup> /hr@40m
Engine Type:	JCB 444/JD 4045/CAT 4.4/DEUTZ 914
Nominal Speed rpm:	2000
Rated Power kw:	200
Dry Weight kg:	2050-3500

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 150SL PP66S10

General purpose pumpset ideal for sewage bypass, trenching, dewatering with ease of access and manoeuvrability.

### SPECIFICATIONS

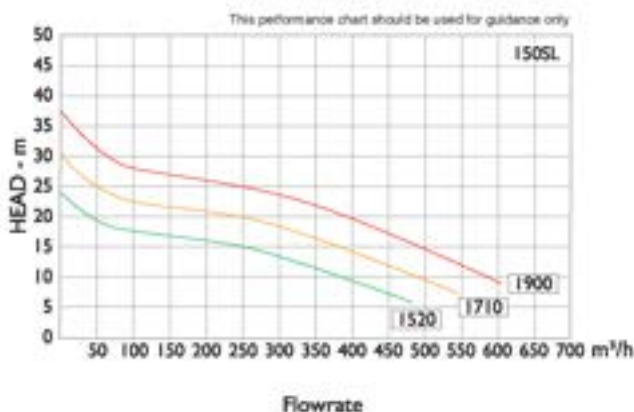
Pump Size:	150 x 150mm
Max Flow m <sup>3</sup> /hr:	500
Max Head m:	34
Solids Size mm:	76
Max Efficiency %:	71
Performance at BEP:	350m <sup>3</sup> /hr@19m
Engine Type:	Perkins 404D/JD 3029/DEUTZ 914
Nominal Speed rpm:	1800
Rated Power kw:	7.5-30
Dry Weight kg:	1520

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 150SM PP66S12

Medium pressure pumpset ideal for sewage bypass, flood control, dewatering with small footprint or easy handling requirement.

### SPECIFICATIONS

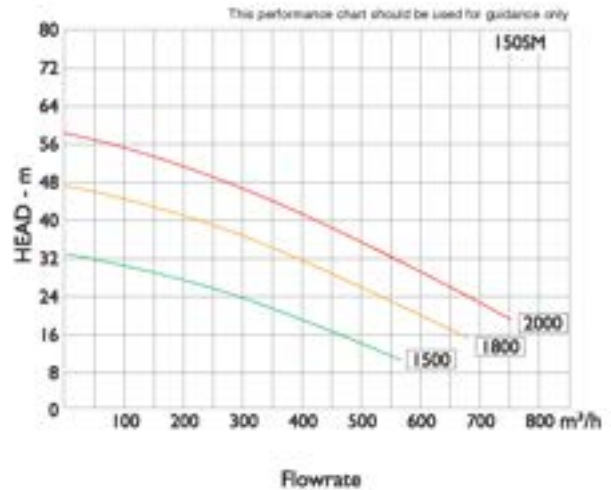
Pump Size:	150 x 150mm
Max Flow m <sup>3</sup> /hr:	720
Max Head m:	58
Solids Size mm:	76
Max Efficiency %:	68
Performance at BEP:	490m <sup>3</sup> /hr@25m
Engine Type:	JCB 444/JD 4045/CAT 4.4/DEUTZ 914
Nominal Speed rpm:	1800
Rated Power kw:	25-80
Dry Weight kg:	2050-3500

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 150SH PP86S17

High pressure solids handling pumpset ideal for bypass, flood control and dewatering with environmental design allowing for continuous pumping in noise sensitive environments.

### SPECIFICATIONS

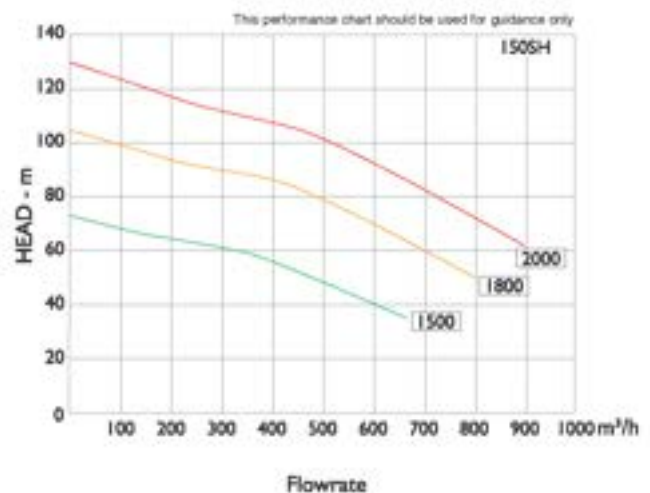
Pump Size:	150 x 100mm
Max Flow m <sup>3</sup> /hr:	820
Max Head m:	132
Solids Size mm:	76
Max Efficiency %:	73
Performance at BEP:	570m <sup>3</sup> /hr@72m
Engine Type:	CAT C9-C15/JD 6091-6135
Nominal Speed rpm:	2000
Rated Power kw:	200
Dry Weight kg:	3000-5000

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 150SL PP66S10

High flow pumpset ideal for sewage bypass, flood control, dewatering with ease of handling and towable behind 4x4.

### SPECIFICATIONS

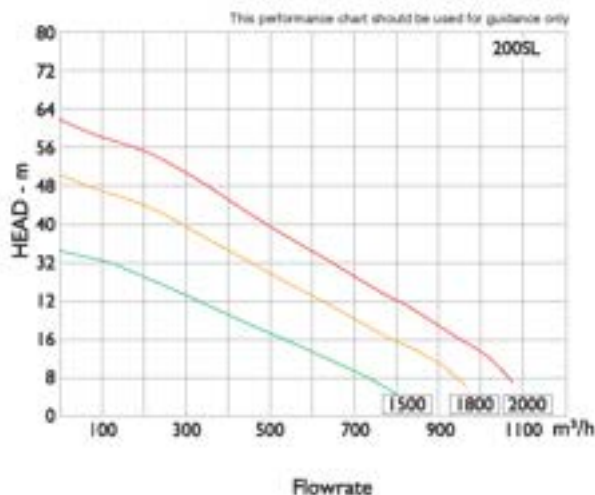
Pump Size:	200 x 200mm
Max Flow m <sup>3</sup> /hr:	1050
Max Head m:	62
Solids Size mm:	76
Max Efficiency %:	68
Performance at BEP:	630m <sup>3</sup> /hr@32m
Engine Type:	JCB 444/JD 4045/CAT 4.4/DEUTZ 914
Nominal Speed rpm:	1800
Rated Power kw:	30-75
Dry Weight kg:	2500-3500

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 200SM PP108S17

Medium pressure solids handling pumpset ideal for bypass, flood control and dewatering with environmental design allowing for continuous pumping in noise sensitive environments.

### SPECIFICATIONS

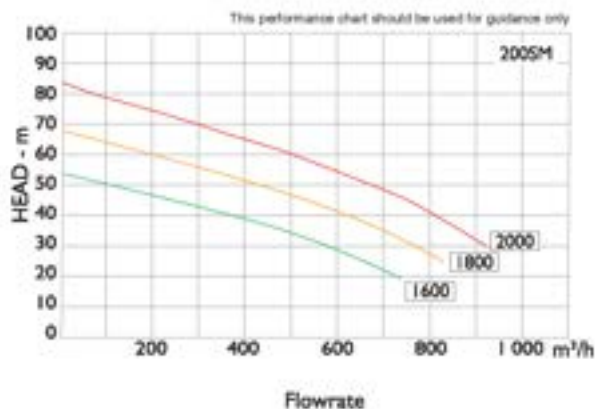
Pump Size:	200 x 200mm
Max Flow m <sup>3</sup> /hr:	1300
Max Head m:	92
Solids Size mm:	100
Max Efficiency %:	70
Performance at BEP:	600m <sup>3</sup> /hr@40m
Engine Type:	Perkins 1106D/JD 6068/CAT C7
Nominal Speed rpm:	1800
Rated Power kw:	160
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 250SH PP108S17

High pressure solids handling pumpset ideal for bypass, flood control and dewatering with environmental design allowing for continuous pumping in noise sensitive environments.

### SPECIFICATIONS

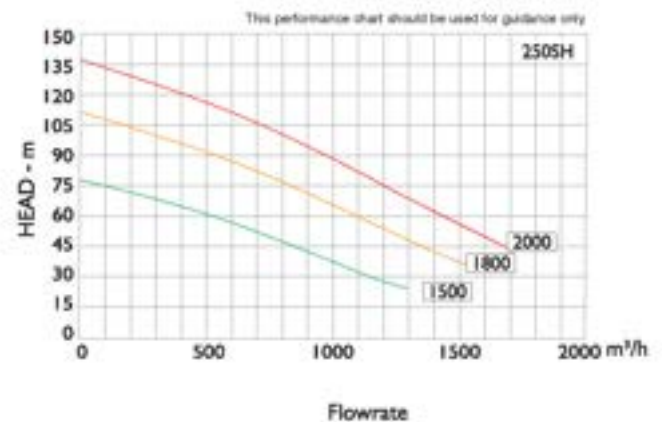
Pump Size:	250 x 200mm
Max Flow m <sup>3</sup> /hr:	1600
Max Head m:	130
Solids Size mm:	90-100
Max Efficiency %:	76
Performance at BEP:	1050m <sup>3</sup> /hr@80m
Engine Type:	CAT C9/JD 6091/VOLVO 952
Nominal Speed rpm:	1800
Rated Power kw:	225
Dry Weight kg:	3500-5500

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 300SL PP1212S17

High flow pumpset ideal for sewage bypass, flood control, dewatering in a compact design.

### SPECIFICATIONS

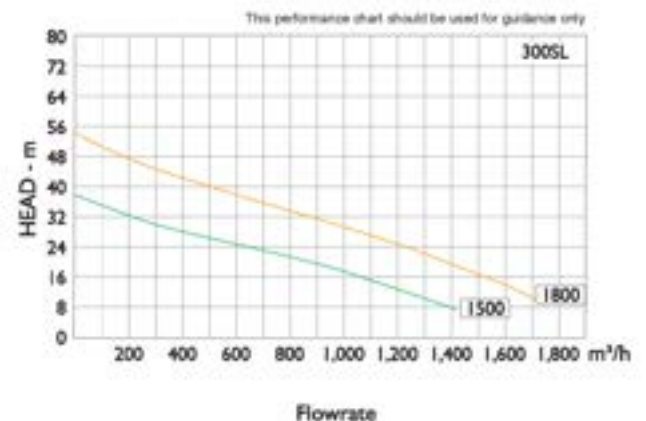
Pump Size:	300 x 300mm
Max Flow m <sup>3</sup> /hr:	1300
Max Head m:	35
Solids Size mm:	100
Max Efficiency %:	75
Performance at BEP:	1380m <sup>3</sup> /hr@28m
Engine Type:	Perkins 1106D/JD 6068/CAT C7
Nominal Speed rpm:	1500
Rated Power kw:	55-90
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 300SM PP1212S14

High flow pumpset ideal for bypass, flood control, dewatering in a compact design.

### SPECIFICATIONS

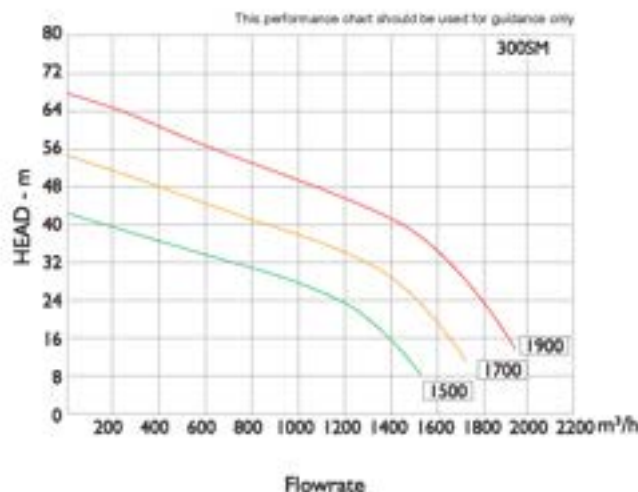
Pump Size:	300 x 300mm
Max Flow m <sup>3</sup> /hr:	2200
Max Head m:	95
Solids Size mm:	60
Max Efficiency %:	80
Performance at BEP:	1380m <sup>3</sup> /hr@36m
Engine Type:	CAT C9/JD 6091/DEUTZ 914
Nominal Speed rpm:	1800
Rated Power kw:	150-275
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 300SH PP1212S17

High pressure solids handling pumpset ideal for bypass, flood control and dewatering with environmental design allowing for continuous pumping in noise sensitive environments.

### SPECIFICATIONS

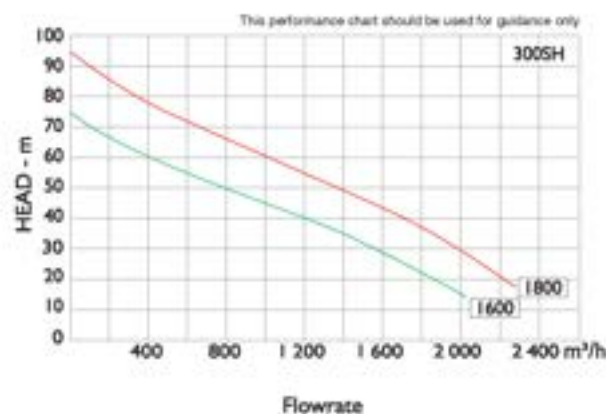
Pump Size:	300 x 300mm
Max Flow m <sup>3</sup> /hr:	2200
Max Head m:	95
Solids Size mm:	90-100
Max Efficiency %:	85
Performance at BEP:	1680m <sup>3</sup> /hr@40m
Engine Type:	CAT C9-15/JD 6091-6135
Nominal Speed rpm:	1800
Rated Power kw:	375
Dry Weight kg:	3500-5500

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 400SM PP1414S17

High flow pumpset ideal for sewage bypass, flood control, dewatering in a compact design.

### SPECIFICATIONS

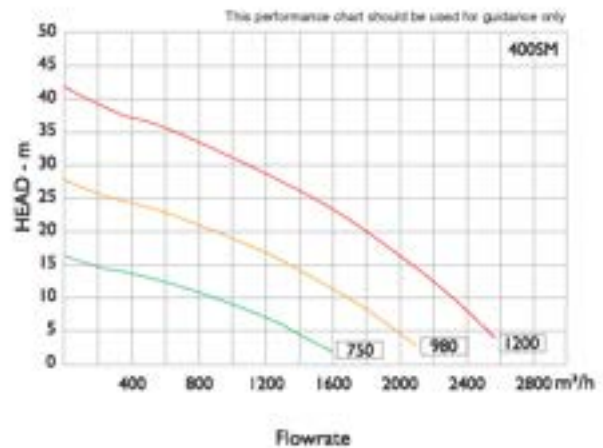
Pump Size:	400 x 400mm
Max Flow m <sup>3</sup> /hr:	2500
Max Head m:	45
Solids Size mm:	100
Max Efficiency %:	72
Performance at BEP:	1680m <sup>3</sup> /hr@22m
Engine Type:	CAT C9/JD 6091
Nominal Speed rpm:	1200
Rated Power kw:	100-250
Dry Weight kg:	5000

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 450SM PP1818S22

High flow pumpset ideal for sewage bypass, flood control, dewatering in a heavy duty site skid design.

### SPECIFICATIONS

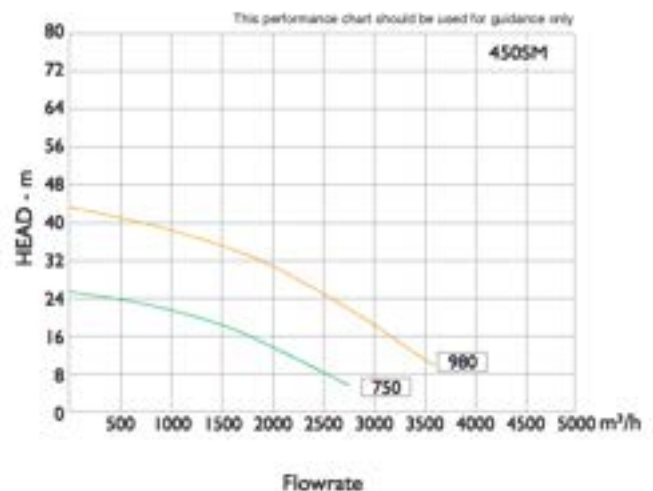
Pump Size:	450 x 450mm
Max Flow m <sup>3</sup> /hr:	3500
Max Head m:	44
Solids Size mm:	150
Max Efficiency %:	80
Performance at BEP:	2600m <sup>3</sup> /hr@21m
Engine Type:	CAT C9/JD 6091
Nominal Speed rpm:	1200
Rated Power kw:	225
Dry Weight kg:	6000

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 450SH PP1818S22

High pressure solids handling pumpset ideal for bypass, flood control and dewatering with environmental design allowing for continuous pumping in noise sensitive environments.

### SPECIFICATIONS

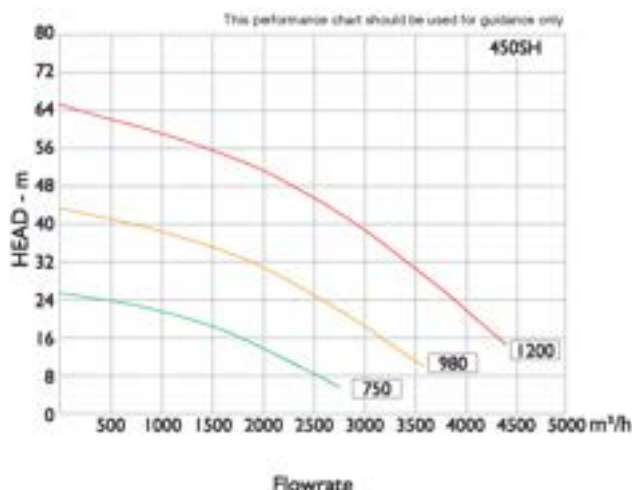
Pump Size:	450 x 450mm
Max Flow m <sup>3</sup> /hr:	4200
Max Head m:	75
Solids Size mm:	150
Max Efficiency %:	80
Performance at BEP:	3200m <sup>3</sup> /hr@42m
Engine Type:	CAT C18ACERT
Nominal Speed rpm:	1200
Rated Power kw:	450
Dry Weight kg:	5000-7000

### FEATURES

- Ductile Iron construction
- Solids Handling
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 80CL PP43C10

General purpose low pressure pumpset ideal for jetting, dewatering making it ideal for general construction work and quarry dewatering.

### SPECIFICATIONS

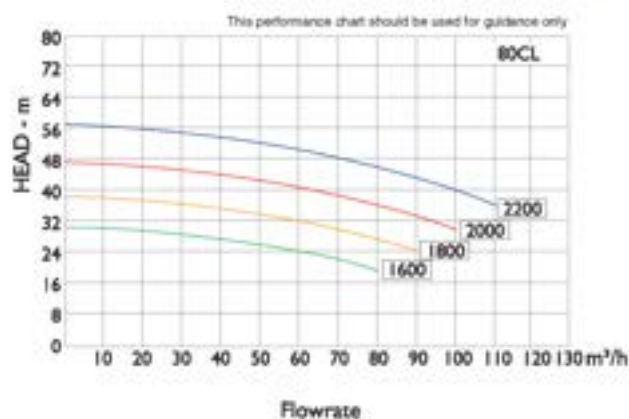
Pump Size:	100 x 80mm
Max Flow m <sup>3</sup> /hr:	120
Max Head m:	48
Solids Size mm:	10
Max Efficiency %:	68
Performance at BEP:	70m <sup>3</sup> /hr@38m
Engine Type:	Perkins 404D/JD 3029/DEUTZ 914
Nominal Speed rpm:	2000
Rated Power kw:	18
Dry Weight kg:	1500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 80CM PP53C14

General purpose medium pressure pumpset ideal for jetting, dewatering making it ideal for general construction work and quarry dewatering.

### SPECIFICATIONS

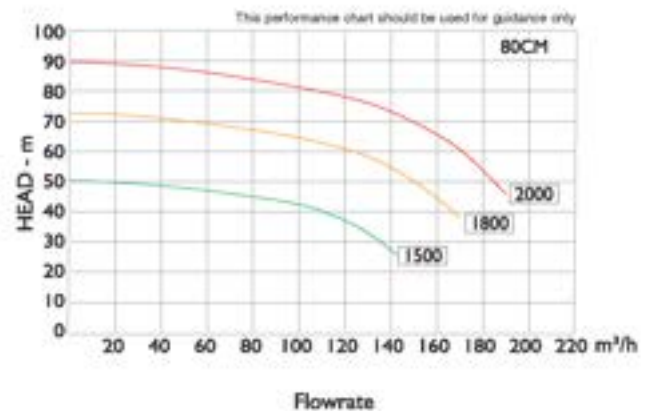
Pump Size:	150 x 80mm
Max Flow m <sup>3</sup> /hr:	160
Max Head m:	90
Solids Size mm:	12
Max Efficiency %:	63
Performance at BEP:	145m <sup>3</sup> /hr@65m
Engine Type:	JCB 444/JD 4045/CAT 4.4/DEUTZ 914
Nominal Speed rpm:	2000
Rated Power kw:	50-75
Dry Weight kg:	2050-3500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 450SM PP1818S22

High pressure clear liquid pump ideal for high head quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

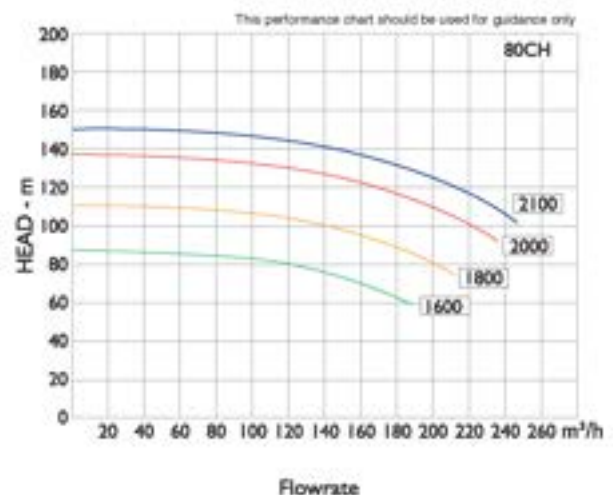
Pump Size:	150 x 80mm
Max Flow m <sup>3</sup> /hr:	240
Max Head m:	155
Solids Size mm:	20
Max Efficiency %:	62
Performance at BEP:	162m <sup>3</sup> /hr@122m
Engine Type:	Perkins 1106D/JD 6068/CAT C7
Nominal Speed rpm:	2200
Rated Power kw:	130
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 80CX PP43C21

Extreme pressure clear liquid pump ideal for high head quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

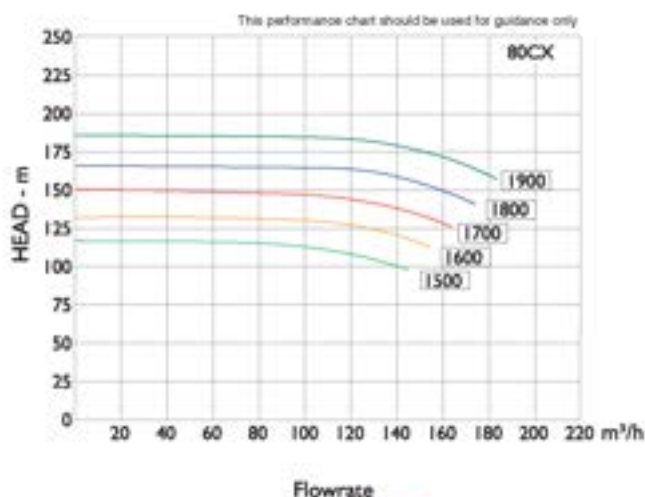
Pump Size:	100 x 80mm
Max Flow m <sup>3</sup> /hr:	125
Max Head m:	218
Solids Size mm:	18
Max Efficiency %:	58
Performance at BEP:	95m <sup>3</sup> /hr@155m
Engine Type:	Perkins 1106D/JD 6068/CAT C7
Nominal Speed rpm:	2200
Rated Power kw:	130
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 100CL PP64C10

Low pressure clear liquid pump ideal for general quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

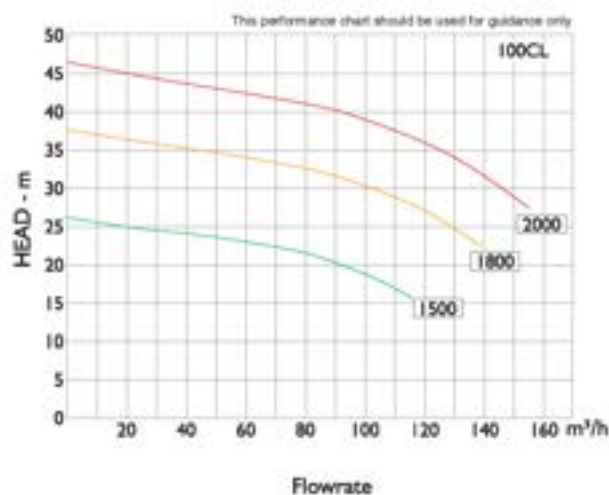
Pump Size:	150 x 100mm
Max Flow m <sup>3</sup> /hr:	160
Max Head m:	47
Solids Size mm:	20
Max Efficiency %:	78
Performance at BEP:	110m <sup>3</sup> /hr@38m
Engine Type:	Perkins 404D/JD 3029/DEUTZ 914
Nominal Speed rpm:	2000
Rated Power kw:	20-30
Dry Weight kg:	1520

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 100CM PP64C13

General purpose medium pressure pumpset ideal for jetting, dewatering making it ideal for general construction work and quarry dewatering.

### SPECIFICATIONS

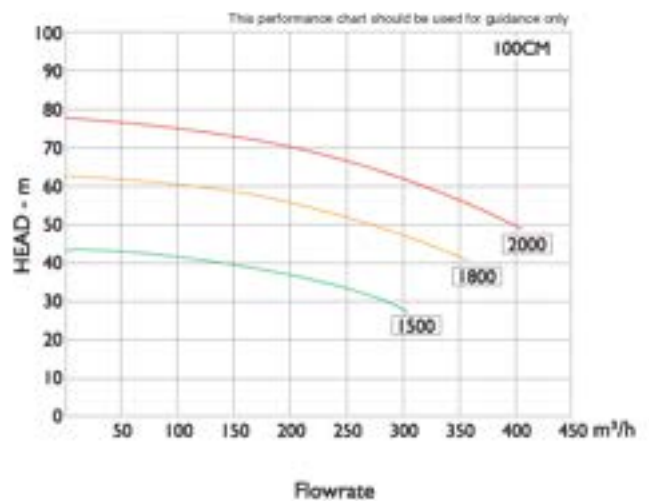
Pump Size:	150 x 100mm
Max Flow m <sup>3</sup> /hr:	325
Max Head m:	77
Solids Size mm:	12
Max Efficiency %:	75
Performance at BEP:	225m <sup>3</sup> /hr@66m
Engine Type:	JCB 444/JD 4045/CAT 4.4/DEUTZ 914
Nominal Speed rpm:	2000
Rated Power kw:	80
Dry Weight kg:	2050-3500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 100CH PP64C17

Extreme pressure clear liquid pump ideal for high head quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

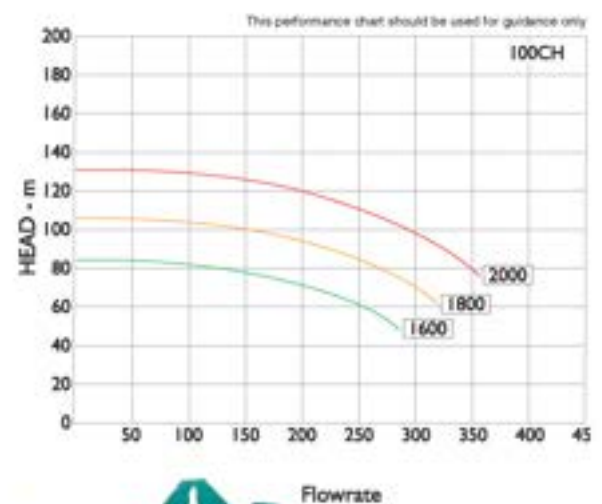
Pump Size:	150 x 100mm
Max Flow m <sup>3</sup> /hr:	320
Max Head m:	155
Solids Size mm:	20
Max Efficiency %:	67
Performance at BEP:	235m <sup>3</sup> /hr@115m
Engine Type:	Perkins 1106D/JD 6068/CAT C7
Nominal Speed rpm:	2000
Rated Power kw:	90-175
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 100CX PP64C21

Extreme pressure clear liquid pump ideal for high head quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

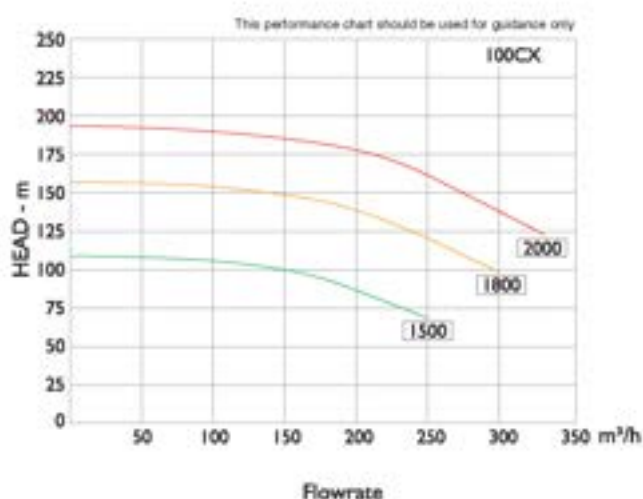
Pump Size:	150 x 100mm
Max Flow m <sup>3</sup> /hr:	300
Max Head m:	195
Solids Size mm:	20
Max Efficiency %:	64
Performance at BEP:	160m <sup>3</sup> /hr@180m
Engine Type:	CAT C9/JD 6091/DEUTZ 914
Nominal Speed rpm:	2000
Rated Power kw:	125-225
Dry Weight kg:	3500-5500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 150CL PP86C14

General purpose low pressure pumpset ideal for jetting, dewatering making it ideal for general construction work and quarry dewatering.

### SPECIFICATIONS

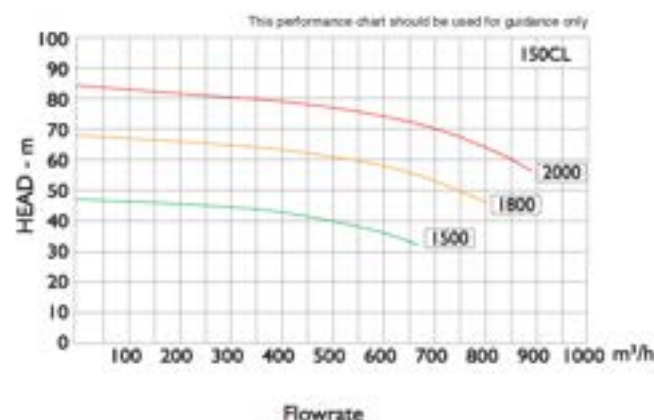
Pump Size:	200 x 150mm
Max Flow m <sup>3</sup> /hr:	900
Max Head m:	82
Solids Size mm:	15
Max Efficiency %:	74
Performance at BEP:	540m <sup>3</sup> /hr@55m
Engine Type:	Perkins 1106D/JD 6068/CAT C7
Nominal Speed rpm:	1800
Rated Power kw:	50-160
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 150CM PP86C17B

Medium pressure clear liquid pump ideal for medium head quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

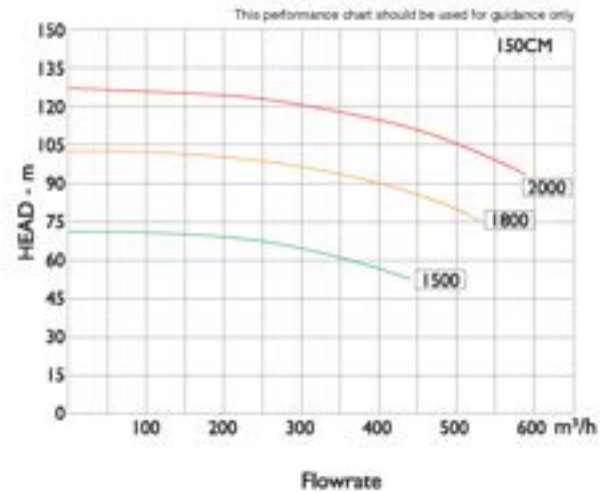
Pump Size:	200 x 150mm
Max Flow m <sup>3</sup> /hr:	450
Max Head m:	125
Solids Size mm:	30
Max Efficiency %:	73
Performance at BEP:	400m <sup>3</sup> /hr@90m
Engine Type:	JD 6091/CAT C9
Nominal Speed rpm:	1900
Rated Power kw:	225
Dry Weight kg:	3500-4000

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 150CH PP86C17

High pressure clear liquid pump ideal for high head quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

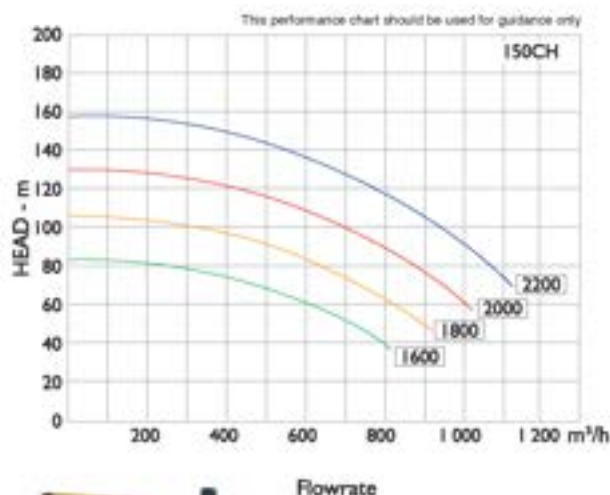
Pump Size:	200 x 150mm
Max Flow m <sup>3</sup> /hr:	850
Max Head m:	135
Solids Size mm:	30
Max Efficiency %:	76
Performance at BEP:	600m <sup>3</sup> /hr@118m
Engine Type:	JD 6135/CAT C15
Nominal Speed rpm:	1900
Rated Power kw:	150-375
Dry Weight kg:	3500-5500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 150CX PP86C21

Extreme pressure clear liquid pump ideal for high head quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

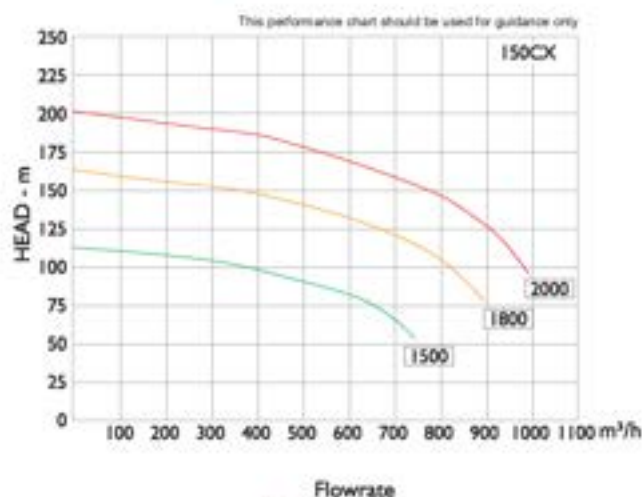
Pump Size:	200 x 150mm
Max Flow m <sup>3</sup> /hr:	900
Max Head m:	202
Solids Size mm:	35
Max Efficiency %:	70
Performance at BEP:	645m <sup>3</sup> /hr@152m
Engine Type:	CAT C18-27/QSK 23
Nominal Speed rpm:	2000
Rated Power kw:	200-550
Dry Weight kg:	4000-8000

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 150CL PP86C14

General purpose low pressure pumpset ideal for jetting, dewatering making it ideal for general construction work and quarry dewatering.

### SPECIFICATIONS

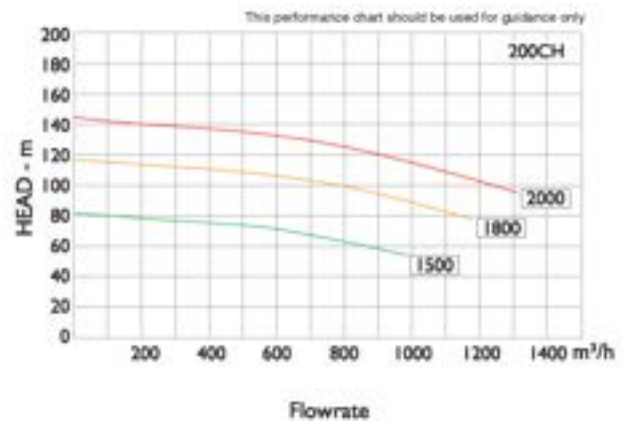
Pump Size:	250 x 200mm
Max Flow m <sup>3</sup> /hr:	1100
Max Head m:	115
Solids Size mm:	30
Max Efficiency %:	78
Performance at BEP:	900m <sup>3</sup> /hr@93m
Engine Type:	CAT C18ACERT
Nominal Speed rpm:	1800
Rated Power kw:	270-575
Dry Weight kg:	3500-5500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections



## Pioneer 250CM PP1010C14

Medium pressure clear liquid pump ideal for quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

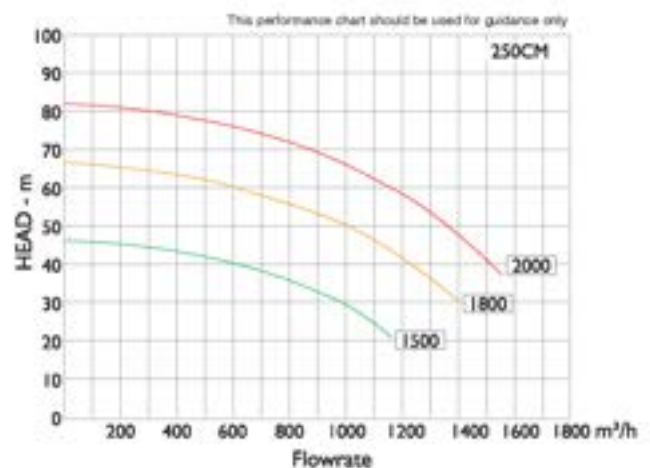
Pump Size:	250 x 250mm
Max Flow m <sup>3</sup> /hr:	1200
Max Head m:	66
Solids Size mm:	40
Max Efficiency %:	83
Performance at BEP:	1000m <sup>3</sup> /hr@52m
Engine Type:	CAT C9/JD 6091
Nominal Speed rpm:	1800
Rated Power kw:	190-225
Dry Weight kg:	3500-5500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





## Pioneer 300CM PP1212C17

Medium pressure clear liquid pump ideal for high flow quarry and mining applications, fire fighting and dewatering.

### SPECIFICATIONS

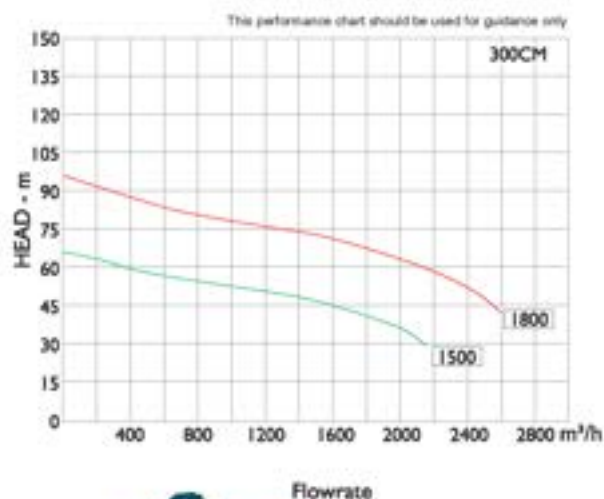
Pump Size:	300 x 300mm
Max Flow m <sup>3</sup> /hr:	2400
Max Head m:	90
Solids Size mm:	30
Max Efficiency %:	85
Performance at BEP:	1750m <sup>3</sup> /hr@70m
Engine Type:	CAT C15/JD 6035
Nominal Speed rpm:	1800
Rated Power kw:	200-400
Dry Weight kg:	3500-5500

### FEATURES

- Ductile Iron construction
- Low NPSHr designs
- High efficiency impeller
- Run-dry seal
- 50 cfm vacuum pump
- Posi-seal priming valve

### OPTIONS

- Open trailer
- Heavy duty skid
- Sound attenuated
- Auto-start panel
- GSM telemetry
- Remote fuel connections





# VERTICAL TURBINE PUMPS



PAGE  
252







## Powered by Engineering

### Research and Development

Sabre R & D department uses a special design software already prepared by Sabre Engineers to create a new impeller and diffuser. Design results will be rechecked by CFD programs before starting the preparation of patterns. This ability gives a great flexibility to create a new pump in a short period with high efficiency.

### Different Material Option

Sabre gives a great material selection option to the customers for different applications such as cast iron, cast steel, non-alloyed and low alloy steel grades, stainless CrNi Steel grades, duplex and superduplex steel grades, Bronze, Ni-Al Bronze and others.

### Test capabilities:

- Performance test
- Noise level testing
- Vibration analysis
- Liquid dye penetrant testing
- Magnetic particle testing
- Radiographic examination of welding
- Ultrasonic examination of raw materials & weldings
- Metallurgical analysis

### Welding Process

Fabrication is made by qualified and certified welders who utilize M.I.G, T.I.G, and innershield welding process.

### Machinery

CNC boring machines up to 2500mm diameter, Vertical & Horizontal lathes and individual production equipment supports an efficient and flexible manufacturing process.

### Coating

Any coating available for potable and nonpotable services.

### High Efficiency

20% of produced energy in the world is consumed by pumps. Saving 30% of this energy is possible with a good system design and well designed pumps. With this awareness our purpose is to produce pumps with high efficiencies up to %93. The most important criteria for Sabre Team is life cycle cost.

### Quality Assurance

Quality Control is a continuous process in Sabre. It starts from the quotation phase, ordering phase, manufacturing process, installation & operation phase, warranty period & after sales operations.

### Pattern Shop

Sabre has complete in house pattern shop powered by CAD-CAM programs. It gives a quick action ability for the new designs and improvements.

### Foundries

Thanks to the location of the factory, Sabre has a wide range of alternative foundries for different materials.

### Test

Sabre has great ability for testing up to 30.000 m<sup>3</sup>/h flow capacity with magnetic flowmeters ranges from ø40mm up to ø1200mm. Test bench has voltage variety from 400V - 690V - 1.000V - 3.300V - 6.300V and the power up to 3600 kW. Test bench is capable of testing the pump in various speeds by frequency converters and fully computerized.

### Assembly

All components are assembled precisely according to the customer specifications for the best efficiency, long service life and the best appearance.







## Features

### Suction Bell

Each suction bell includes entrance guide vanes to prevent prerotation while guiding the liquid flow parallel to the drive shaft for maximum efficiency. Suction bells can be fitted with strainers to restrict entry of foreign objects during operation.

### Impeller

Impellers, enclosed or semi-open, are precisely trimmed and balanced to reduce vibration and wear. Impellers are secured firmly to the shaft by means of a key and a split thrust ring or by a taper coiled for small pump sizes.

### Bowls

Bowl guide vanes are precisely designed for the maximum conversion of kinetic energy to the pressure energy to achieve peak efficiency. The bowls are flanged and the material selection is made according to the pumping fluid. Bowls can be enamelled, plastic or ceramic coated to reduce the friction losses and to maintain a protective layer. Single or dual bronze and rubber bearings provide alignment and dampen vibration. Bowls are supplied with replaceable wear rings.

### Shafts

The pump shaft is divided into three sections: head shaft, line shaft and bowl shaft. Shafts are turned, ground and polished and the material selection varies depending on the application. The shaft is tailor made to the service needs and sized individually for each installation; calculated for maximum torque.

### Discharge Head

The discharge head consists of a surface or underground sectional elbow. Heads are available in high strength cast iron, fabricated steel or other materials that are compatible to the pumped fluid.

Heads may be coated internally to further resist product corrosion. In addition efficiency improvement NSF coatings for potable water are available

### Column Assembly

Column pipes can be threaded or flanged according the size and the customer request. Pipes are machined between the centers to ensure perfect alignment. The lubrication of the column assembly can be in three ways:

**Oil Lubrication:** Oil is supplied to bronze lineshaft bearings by an oiler, secured on the motor base. Oiler can be hand operated or solenoid for automatic lubrication. Oil lubricated columns contain a lineshaft enclosing tube. The suction bell bearing is packed with water resistant grease, ensuring a long period operation.

**Grease Lubrication:** Grease is supplied to bronze lineshaft bearings by a grease pump, secured to the motor base.

**Water Lubrication:** The rubber lineshaft bearings are lubricated by the pumped water. The suction bell bearing is grease lubricated.

### ShaftSeal

Options are provided for reliable sealing and simple maintenance including gland packing and various mechanical seal arrangements.

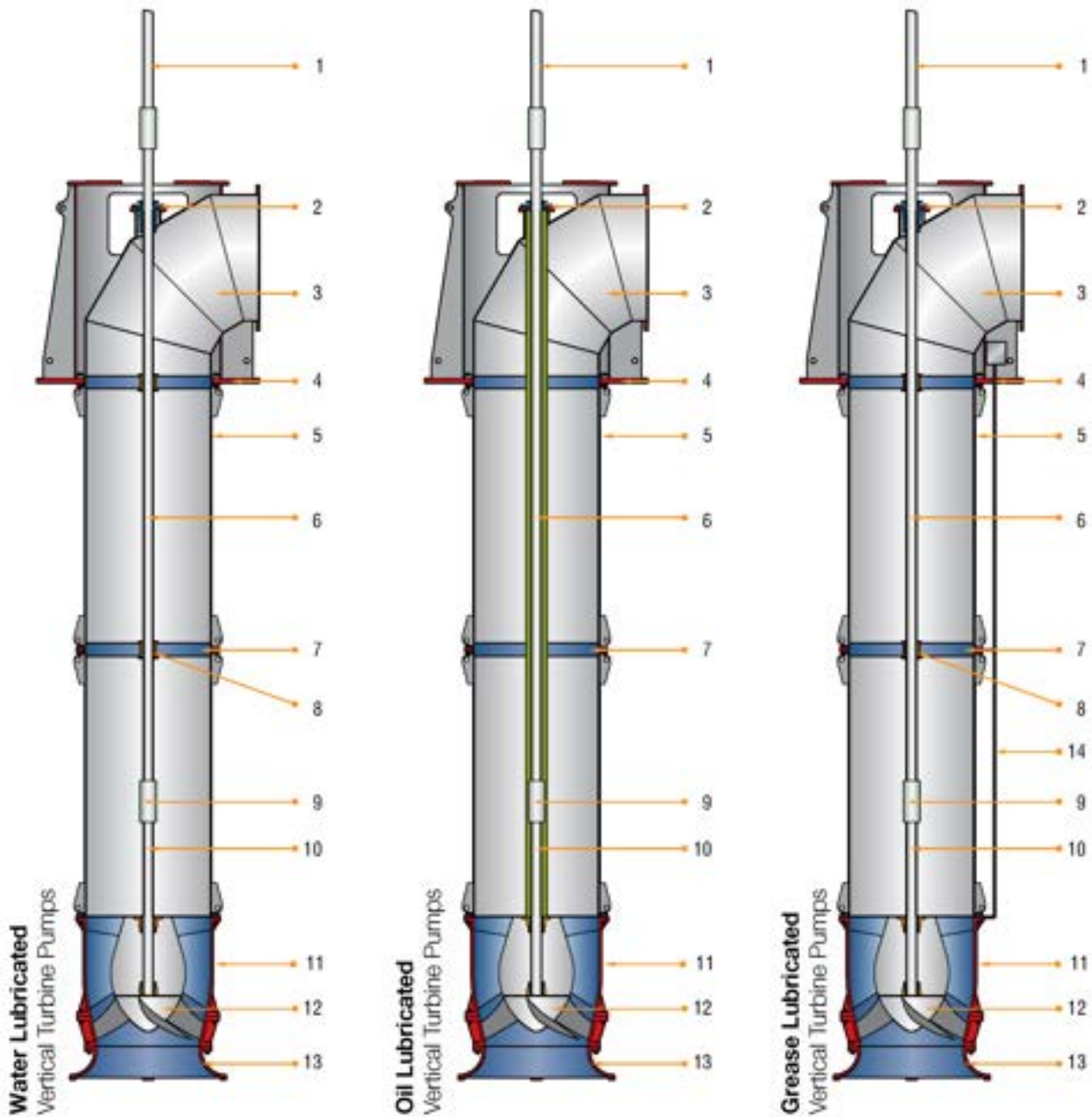
### Drivers

Vertical electric motors are connected directly to the pump. With hollow shaft motors, the pump downthrust is carried by a thrust bearing built-in the motor. The drive shaft extends up through the motor shaft and is properly secured at the top.

With solid shaft motors, the headshaft is connected to a heavy oil lubricated ball bearing thrust assembly, located on the pump base plate. If the thrust load is more than the ball bearing assembly capacity then tilting pad type bearings are located on the base plate.

Bearings are oversized to assure a minimum life of 40,000 hours operation. Horizontal electric motors or internal combustion engines are connected to the pump through suitable right angle gear drive or belt drive.





### Part List For Standard Application

ITEM	DESCRIPTION	MATERIAL
1	Head Shaft	AISI 420
2	Stuffing Box	ASTM A48
3	Discharge Elbow	ASTM A48 / Fabricated Steel
4	Base Plate	ASTM A48 / Fabricated Steel
5	Column Pipe	Fabricated Steel
6	Line Shaft	AISI 420 / AISI 316
7	Bearing Retainer	ASTM A48

ITEM	DESCRIPTION	MATERIAL
8	Bearing	Rubber / SAE 63
9	Shaft Coupling	AISI 420 / AISI 316
10	Pump Shaft	AISI 420 / AISI 316
11	Diffuser	ASTM A48
12	Impeller	ASTM A48 / SAE 63 / AISI 316
13	Suction Bell	ASTM A48
14	Grease Tube	AISI 316



## Performance

### Vertical Flow Turbine Pumps

- Q: 10 - 30.000 m<sup>3</sup>/h capacity & Head up to 600m.
- Water, oil & grease lubricated options

### Axial Flow Turbine Pumps

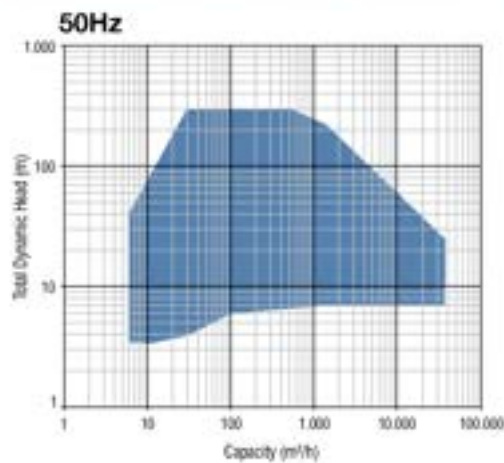
- Q: 900 - 20.000 m<sup>3</sup>/h capacity & Head up to 8m.
- Water, oil & grease lubricated options

### Applications

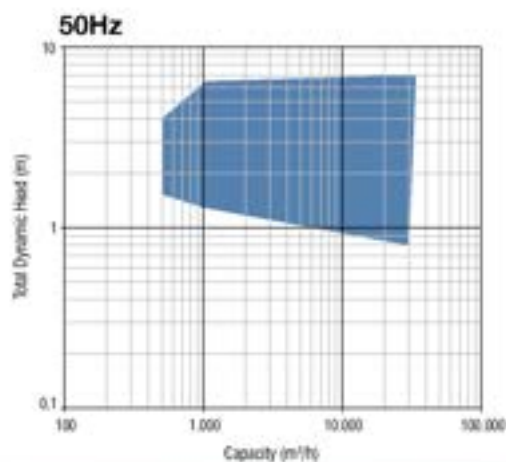
- Municipal water
- Irrigation
- Industrial
- Power generation
- Oil & Gas production
- Mining
- Storm water
- Sump service



## Mixed Flow Vertical Turbine Pumps



## Axial Flow Vertical Turbine Pumps



## Vertical Turbine Pumps Drive Varieties

Vertical Solid Shaft Motor



Vertical Hollow (VHS) Shaft Electric Motor



Right Angle Gear Drive



Vertical Pulley Assembly



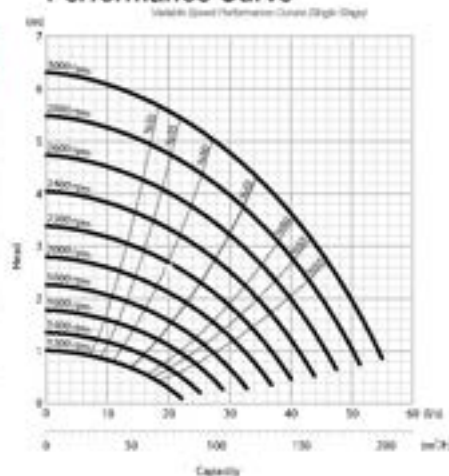


## SVT 0434

SPECIFICATIONS	
No. of vanes	7
Thrust constant (K)	2,526 Kg/m
Pump outside diameter	92 mm
Max. number of stages	40
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	15,875 mm
WR <sup>1</sup>	0,000197 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	5> %-2 8> %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

MATERIAL	
Impellers	Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308) Stainless Steel (ASTM A582 Type 416 - 420)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

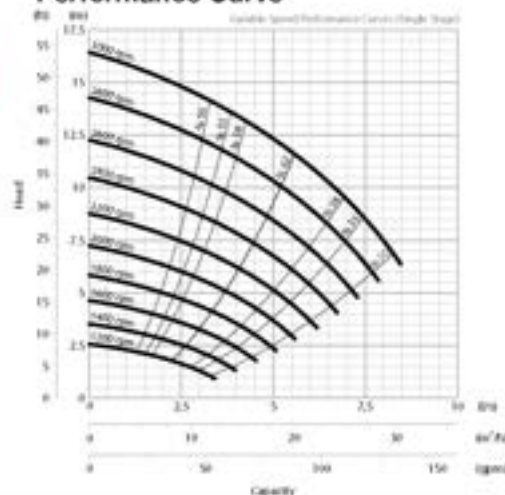
DIMENSIONS (MM)		
A	Minimum required submergence	177,8
B	Bottom of bearing hub to imp. eye	101,6
C	Suction case thread engagement	27
D	Bowl diameter	92
E	Length one-stage assembly	270
F	Additional stage length	76,2
L	Pump length	e + (no. of stages - 1) x f

## SVT 0613

SPECIFICATIONS	
No. of vanes	6
Thrust constant (K)	4,832 Kg/m
Pump outside diameter	141 mm
Max. number of stages	40
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25.4 mm
WR <sup>1</sup>	0,00132 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1> %-5 2> %-3

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

MATERIAL	
Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

DIMENSIONS (MM)		
A	Minimum required submergence	266,7
B	Bottom of bearing hub to imp. eye	165,1
C	Suction case thread engagement	35
D	Bowl diameter	141
E	Length one-stage assembly	289
F	Additional stage length	89
L	Pump length	e + (no. of stages - 1) x f

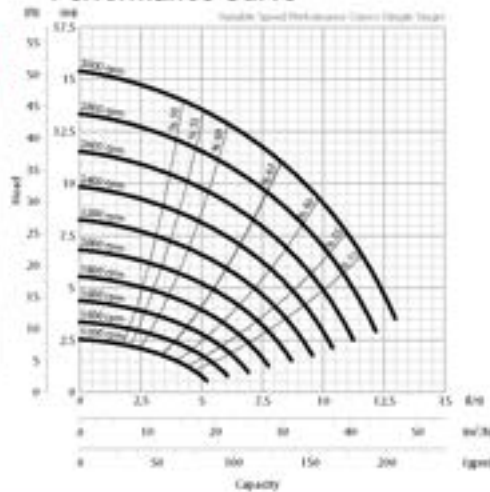


## SVT 0614

**SPECIFICATIONS**

No. of vanes	8
Thrust constant (K)	4,832 Kg/m
Pump outside diameter	141 mm
Max. number of stages	40
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25,4 mm
WR <sup>3</sup>	0,00132 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-5 2 > %-3

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

**Performance Curve**

**Technical Specifications**
**MATERIAL**

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

**DIMENSIONS (MM)**

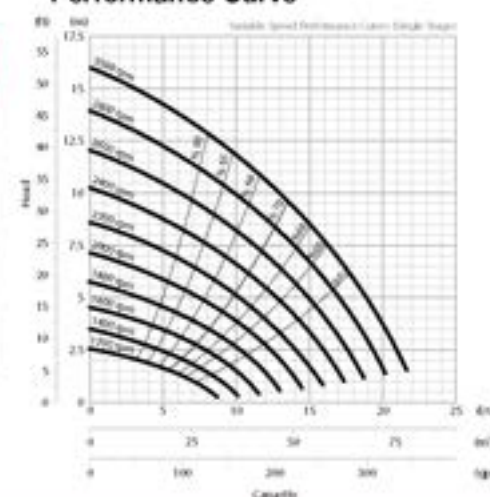
A	Minimum required submergence	266,7
B	Bottom of bearing hub to imp. eye	165,1
C	Suction case thread engagement	35
D	Bowl diameter	141
E	Length one-stage assembly	209
F	Additional stage length	89
L	Pump length	$e + (\text{no. of stages} - 1) \times f$

## SVT 0632

**SPECIFICATIONS**

No. of vanes	4
Thrust constant (K)	4,666 Kg/m
Pump outside diameter	144 mm
Max. number of stages	30
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25,4 mm
WR <sup>3</sup>	0,0018 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-5 2 > %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

**Performance Curve**

**Technical Specifications**
**MATERIAL**

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

**DIMENSIONS (MM)**

A	Minimum required submergence	330
B	Bottom of bearing hub to imp. eye	177,8
C	Suction case thread engagement	35
D	Bowl diameter	144
E	Length one-stage assembly	435
F	Additional stage length	130
L	Pump length	$e + (\text{no. of stages} - 1) \times f$



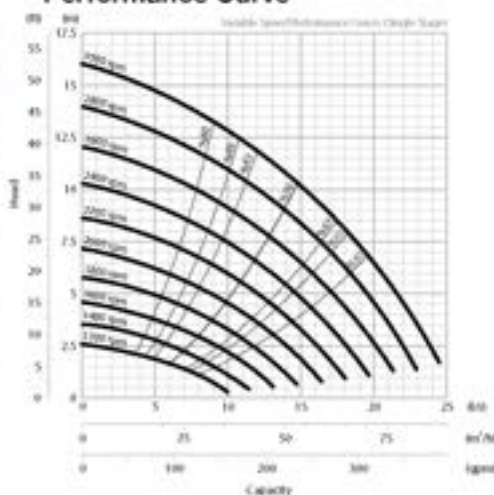
## SVT 0633

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	4,666 Kg/m
Pump outside diameter	144 mm
Max. number of stages	30
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25,4 mm
WR <sup>3</sup>	0,0018 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1> %-5 2> %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	330
B	Bottom of bearing hub to imp. eye	177,8
C	Suction case thread engagement	35
D	Bowl diameter	144
E	Length one-stage assembly	435
F	Additional stage length	130
L	Pump length	$e + (\text{no. of stages} - 1) \times f$

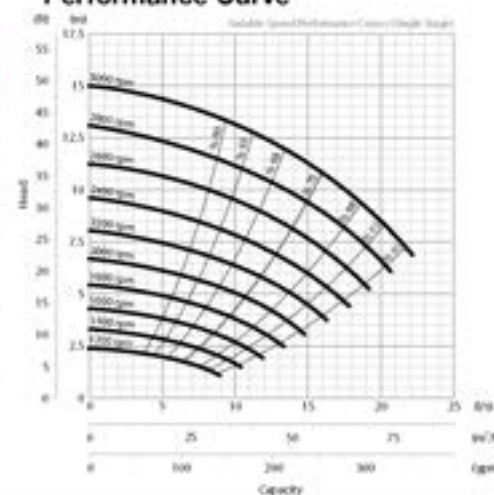
## SVT 0634

### SPECIFICATIONS

No. of vanes	7
Thrust constant (K)	4,666 Kg/m
Pump outside diameter	144 mm
Max. number of stages	30
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25,4 mm
WR <sup>3</sup>	0,0018 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1> %-5 2> %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	330
B	Bottom of bearing hub to imp. eye	177,8
C	Suction case thread engagement	35
D	Bowl diameter	144
E	Length one-stage assembly	435
F	Additional stage length	130
L	Pump length	$e + (\text{no. of stages} - 1) \times f$

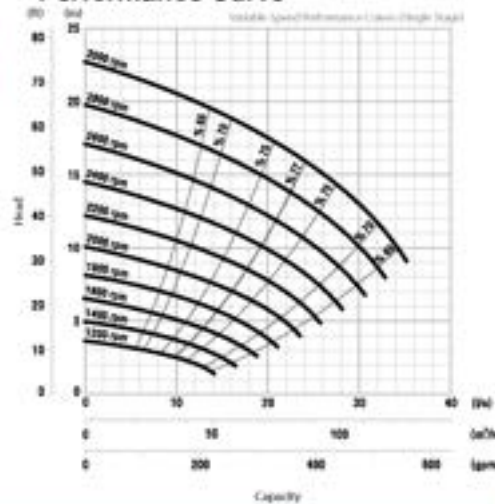


## SVT 073

**SPECIFICATIONS**

No. of vanes	6
Thrust constant (K)	Kg/m
Pump outside diameter	165 mm
Max. number of stages	30
Rotation	CCW
Revolution	2900 rpm
Shaft diameter	25,4 mm
WR <sup>1</sup>	kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-4 2 > %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

**Performance Curve**

**Technical Specifications**
**MATERIAL**

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

**DIMENSIONS (MM)**

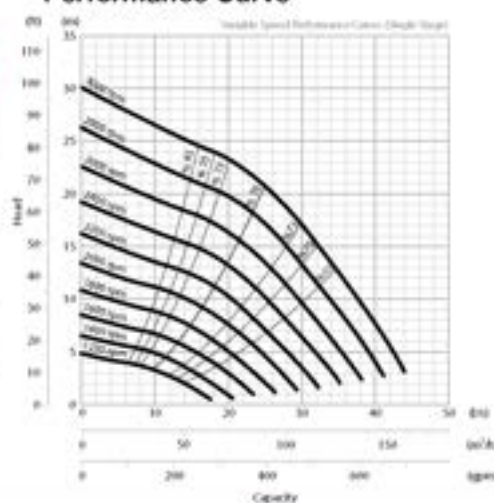
A	Minimum required submergence	300
B	Bottom of bearing hub to imp. eye	178
C	Suction case thread engagement	35
D	Bowl diameter	165
E	Length one-stage assembly	517
F	Additional stage length	125
L	Pump length	$e + (\text{no. of stages} - 1) \times f$

## SVT 0831

**SPECIFICATIONS**

No. of vanes	6
Thrust constant (K)	7,832 Kg/m
Pump outside diameter	190 mm
Max. number of stages	35
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	30,16 mm
WR <sup>1</sup>	0,0063 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-4 2 > %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

**Performance Curve**

**Technical Specifications**
**MATERIAL**

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

**DIMENSIONS (MM)**

A	Minimum required submergence	381
B	Bottom of bearing hub to imp. eye	178
C	Suction case thread engagement	35
D	Bowl diameter	190
E	Length one-stage assembly	561
F	Additional stage length	165
L	Pump length	$e + (\text{no. of stages} - 1) \times f$



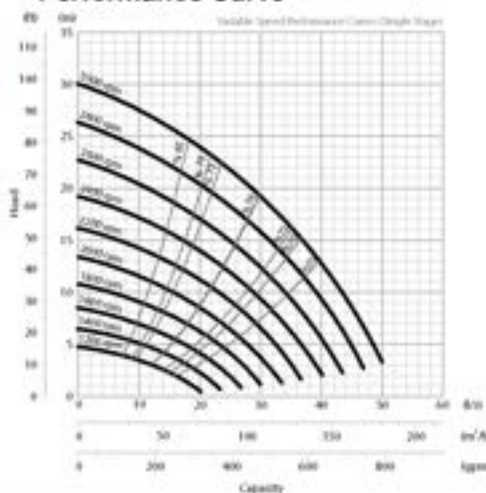
## SVT 0832

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	11,295 Kg/m
Pump outside diameter	190 mm
Max. number of stages	30
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	30,16 mm
WR <sup>3</sup>	0,0067 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1>%-2 2>%-1 5>%-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	381
B	Bottom of bearing hub to imp. eye	178
C	Suction case thread engagement	35
D	Bowl diameter	190
E	Length one-stage assembly	561
F	Additional stage length	165
L	Pump length	e + (no. of stages - 1) x f

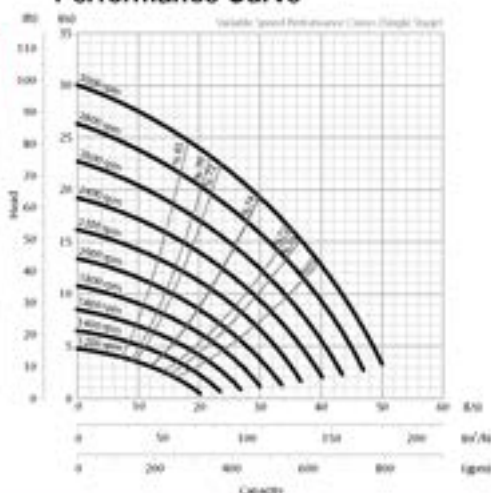
## SVT 0833

### SPECIFICATIONS

No. of vanes	6
Thrust constant (K)	11,295 Kg/m
Pump outside diameter	190 mm
Max. number of stages	30
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	30,16 mm
WR <sup>3</sup>	0,0067 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1>%-2 2>%-1 5>%-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	381
B	Bottom of bearing hub to imp. eye	178
C	Suction case thread engagement	35
D	Bowl diameter	190
E	Length one-stage assembly	561
F	Additional stage length	165
L	Pump length	e + (no. of stages - 1) x f



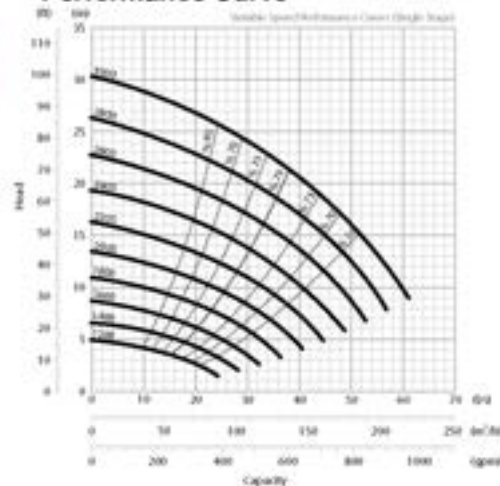
## SVT 0834

### SPECIFICATIONS

No. of vanes	8
Thrust constant (K)	11,295
Pump outside diameter	190 mm
Max. number of stages	30
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	30,16 mm
WR <sup>3</sup>	0,0067 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1>%-2 2>%-1 5>%-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 g/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	381
B	Bottom of bearing hub to imp. eye	178
C	Suction case thread engagement	35
D	Bowl diameter	190
E	Length one-stage assembly	561
F	Additional stage length	165
L	Pump length	$e + (\text{no. of stages} - 1) \times f$

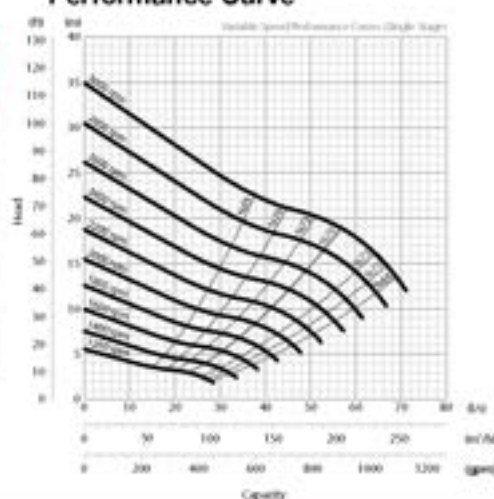
## SVT 0853

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	11,815 Kg/m
Pump outside diameter	192,8 mm
Max. number of stages	30
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	30,16 mm
WR <sup>3</sup>	0,0102 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1>%-4 2>%-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 g/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	457
B	Bottom of bearing hub to imp. eye	228
C	Suction case thread engagement	35
D	Bowl diameter	192,8
E	Length one-stage assembly	623
F	Additional stage length	190,6
L	Pump length	$e + (\text{no. of stages} - 1) \times f$



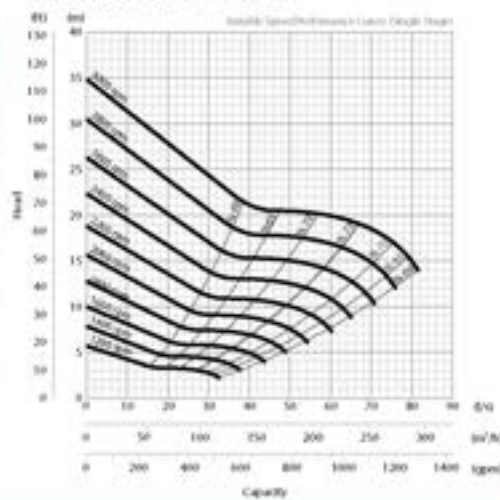
## SVT 0854

### SPECIFICATIONS

No. of vanes	7
Thrust constant (K)	11,815 Kg/m
Pump outside diameter	192,8 mm
Max. number of stages	30
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	30,16 mm
WR <sup>1</sup>	0,0102 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > % -4 2 > % -2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	457
B	Bottom of bearing hub to imp. eye	228
C	Suction case thread engagement	35
D	Bowl diameter	192,8
E	Length one-stage assembly	623
F	Additional stage length	190,6
L	Pump length	e + (no. of stages - 1) x f

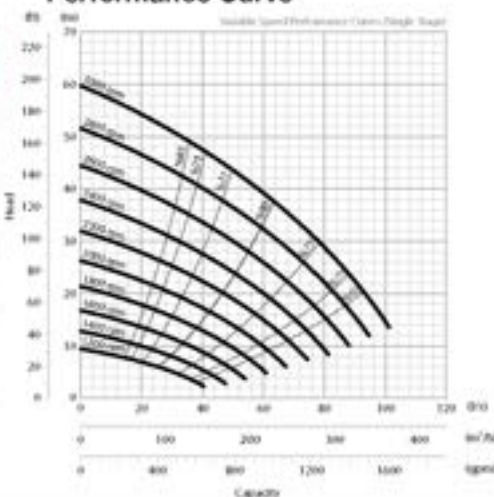
## SVT 1032

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	12,39 Kg/m
Pump outside diameter	238 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	42,86 mm
WR <sup>1</sup>	0,0248 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > % -3 2 > % -1,5 3 > % -1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	533
B	Bottom of bearing hub to imp. eye	280
C	Suction case thread engagement	42
D	Bowl diameter	238
E	Length one-stage assembly	618
F	Additional stage length	212,7
L	Pump length	e + (no. of stages - 1) x f



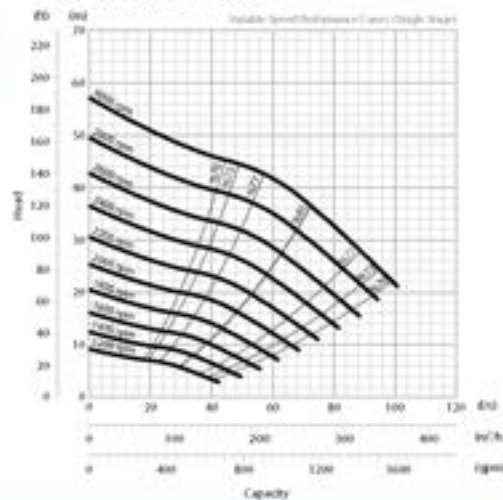
## SVT 1033

### SPECIFICATIONS

No. of vanes	6
Thrust constant (K)	12,39 Kg/m
Pump outside diameter	238 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	42,86 mm
WR <sup>3</sup>	0,0248 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-3 2 > %-1,5 3 > %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	533
B	Bottom of bearing hub to imp. eye	280
C	Suction case thread engagement	42
D	Bowl diameter	238
E	Length one-stage assembly	618
F	Additional stage length	212,7
L	Pump length	$e + (\text{no. of stages} - 1) \times f$

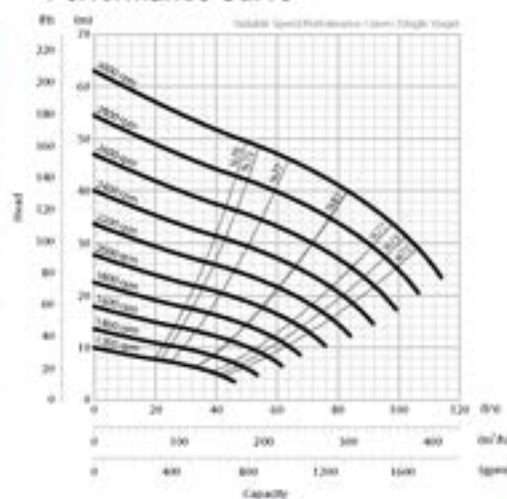
## SVT 1034

### SPECIFICATIONS

No. of vanes	7
Thrust constant (K)	12,39 Kg/m
Pump outside diameter	238 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	42,86 mm
WR <sup>3</sup>	0,0248 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-3 2 > %-1,5 3 > %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	533
B	Bottom of bearing hub to imp. eye	280
C	Suction case thread engagement	42
D	Bowl diameter	238
E	Length one-stage assembly	618
F	Additional stage length	212,7
L	Pump length	$e + (\text{no. of stages} - 1) \times f$



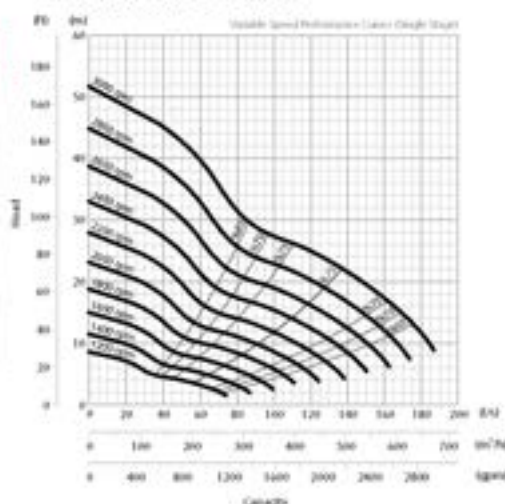
## SVT 1053

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	20,658 Kg/m
Pump outside diameter	248 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	42,86 mm
WR <sup>3</sup>	0,0354 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-2 2 > %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	545
B	Bottom of bearing hub to imp. eye	292
C	Suction case thread engagement	50
D	Bowl diameter	248
E	Length one-stage assembly	685
F	Additional stage length	222,3
L	Pump length	e + (no. of stages - 1) x f

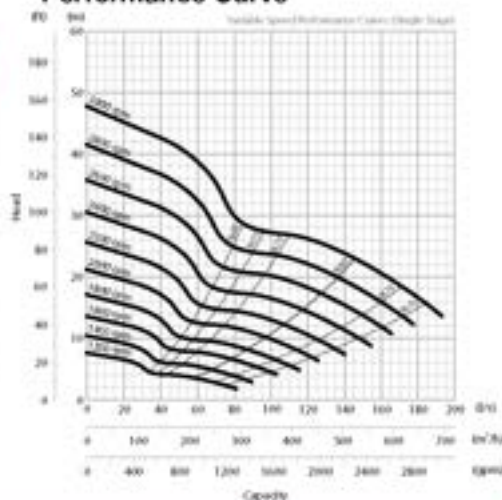
## SVT 1054

### SPECIFICATIONS

No. of vanes	7
Thrust constant (K)	20,658 Kg/m
Pump outside diameter	248 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	42,86 mm
WR <sup>3</sup>	0,0354 kg.m <sup>3</sup>
Efficiency deduction no of stages deduct (%)	1 > %-2 2 > %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	545
B	Bottom of bearing hub to imp. eye	292
C	Suction case thread engagement	50
D	Bowl diameter	248
E	Length one-stage assembly	685
F	Additional stage length	222,3
L	Pump length	e + (no. of stages - 1) x f



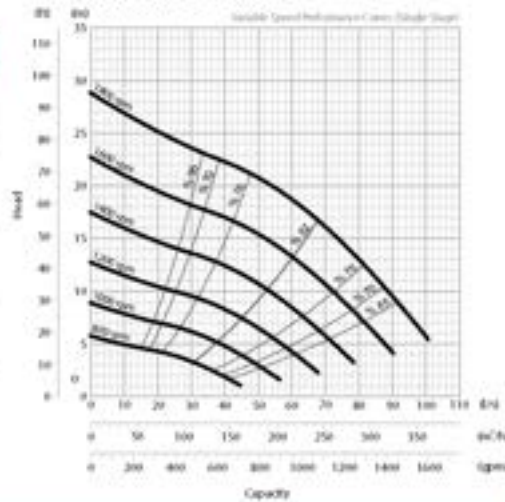
## SVT 1232

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	17,388 Kg/m
Pump outside diameter	291 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,0505 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-3 2 > %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	560
B	Bottom of bearing hub to imp. eye	305
C	Suction case thread engagement	40
D	Bowl diameter	291
E	Length one-stage assembly	755
F	Additional stage length	254
L	Pump length	e + (no. of stages - 1) x f

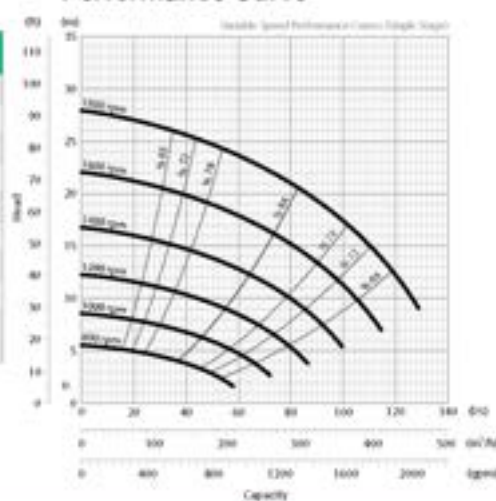
## SVT 1234

### SPECIFICATIONS

No. of vanes	8
Thrust constant (K)	17,388 Kg/m
Pump outside diameter	291 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,0505 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-3 2 > %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	560
B	Bottom of bearing hub to imp. eye	305
C	Suction case thread engagement	40
D	Bowl diameter	291
E	Length one-stage assembly	755
F	Additional stage length	254
L	Pump length	e + (no. of stages - 1) x f



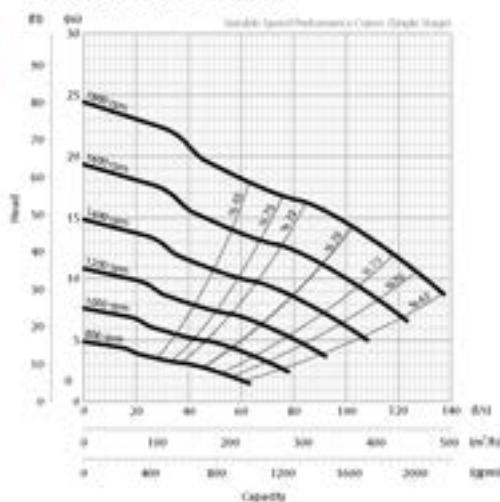
## SVT 1252

## SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	24,52 Kg/m
Pump outside diameter	294 mm
Max. number of stages	17
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,0707 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > % -3 2 > % -1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

## Performance Curve



## Technical Specifications

## MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

## DIMENSIONS (MM)

A	Minimum required submergence	635
B	Bottom of bearing hub to imp. eye	305
C	Suction case thread engagement	57
D	Bowl diameter	294
E	Length one-stage assembly	775
F	Additional stage length	279,4
L	Pump length	e + (no. of stages - 1) x f

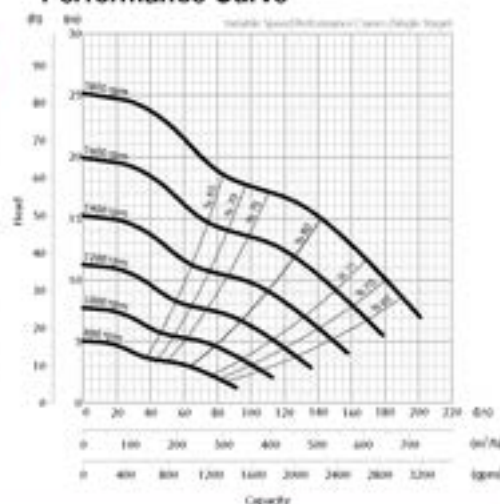
## SVT 1253

## SPECIFICATIONS

No. of vanes	4
Thrust constant (K)	24,52 Kg/m
Pump outside diameter	294 mm
Max. number of stages	16
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,0707 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > % -3 2 > % -1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

## Performance Curve



## Technical Specifications

## MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

## DIMENSIONS (MM)

A	Minimum required submergence	635
B	Bottom of bearing hub to imp. eye	305
C	Suction case thread engagement	57
D	Bowl diameter	294
E	Length one-stage assembly	775
F	Additional stage length	279,4
L	Pump length	e + (no. of stages - 1) x f



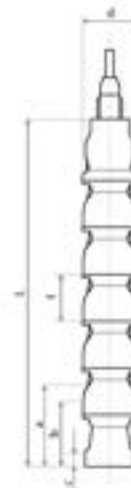
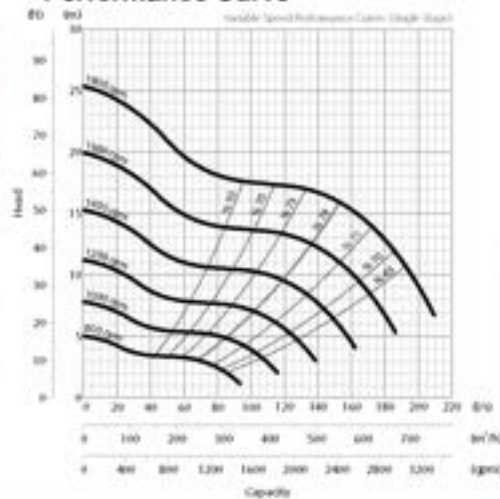
## SVT 1254

### SPECIFICATIONS

No. of vanes	8
Thrust constant (K)	24,52 Kg/m
Pump outside diameter	294 mm
Max. number of stages	15
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,0707 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-3 2 > %-1

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	635
B	Bottom of bearing hub to imp. eye	305
C	Suction case thread engagement	57
D	Bowl diameter	294
E	Length one-stage assembly	775
F	Additional stage length	279,4
L	Pump length	e + (no. of stages - 1) x f

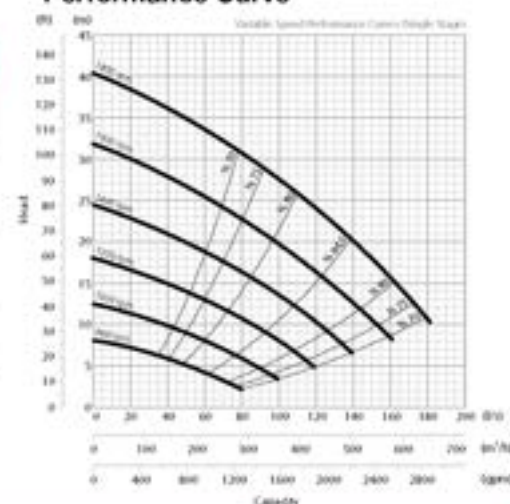
## SVT 1432

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	28,83 Kg/m
Pump outside diameter	365 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,174 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-4 2 > %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	815
B	Bottom of bearing hub to imp. eye	480
C	Suction case thread engagement	175
D	Bowl diameter	365
E	Length one-stage assembly	742
F	Additional stage length	315
L	Pump length	e + (no. of stages - 1) x f



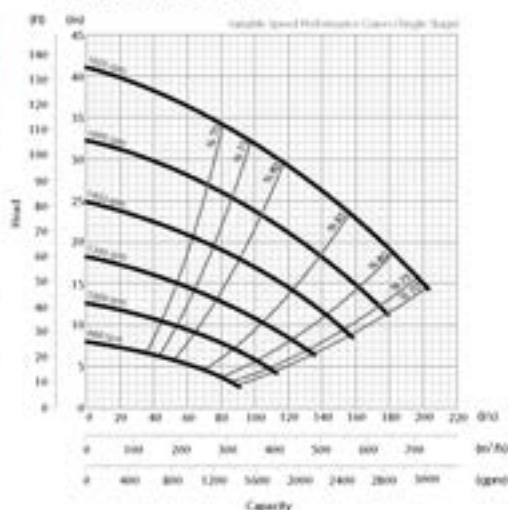
## SVT 1433

### SPECIFICATIONS

No. of vanes	6
Thrust constant (K)	28,83 Kg/m
Pump outside diameter	365 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,174 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-4 2 > %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 g/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	815
B	Bottom of bearing hub to imp. eye	480
C	Suction case thread engagement	175
D	Bowl diameter	365
E	Length one-stage assembly	742
F	Additional stage length	315
L	Pump length	e + (no. of stages - 1) x f

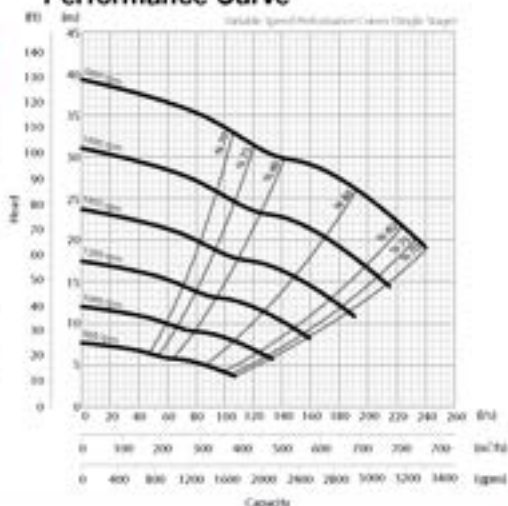
## SVT 1434

### SPECIFICATIONS

No. of vanes	8
Thrust constant (K)	28,83 Kg/m
Pump outside diameter	365 mm
Max. number of stages	20
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>1</sup>	0,174 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-4 2 > %-2

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 g/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	815
B	Bottom of bearing hub to imp. eye	480
C	Suction case thread engagement	175
D	Bowl diameter	365
E	Length one-stage assembly	742
F	Additional stage length	315
L	Pump length	e + (no. of stages - 1) x f



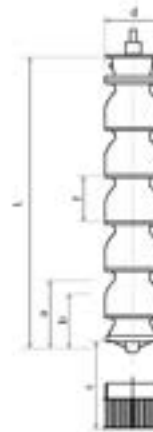
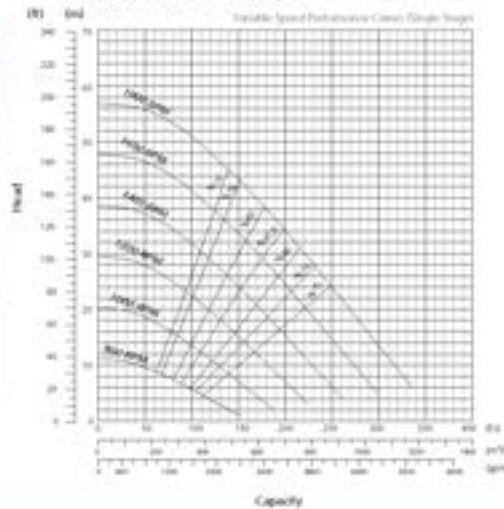
## SVT 1732

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	43,08 Kg/m
Pump outside diameter	430 mm
Max. number of stages	3
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>3</sup>	0,499 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-2 2 > %-1 3 > %-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	865
B	Bottom of bearing hub to imp. eye	426
C	Suction case thread engagement	400
D	Bowl diameter	430
E	Length one-stage assembly	900
F	Additional stage length	390
L	Pump length	e + (no. of stages - 1) x f

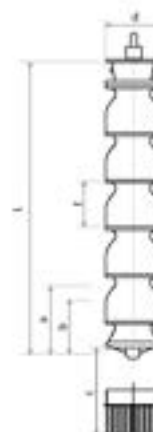
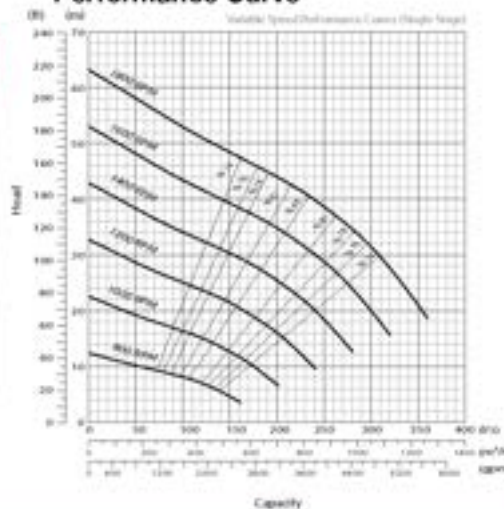
## SVT 1733

### SPECIFICATIONS

No. of vanes	6
Thrust constant (K)	43,08 Kg/m
Pump outside diameter	430 mm
Max. number of stages	3
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>3</sup>	0,499 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-2 2 > %-1 3 > %-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	865
B	Bottom of bearing hub to imp. eye	426
C	Suction case thread engagement	400
D	Bowl diameter	430
E	Length one-stage assembly	900
F	Additional stage length	390
L	Pump length	e + (no. of stages - 1) x f



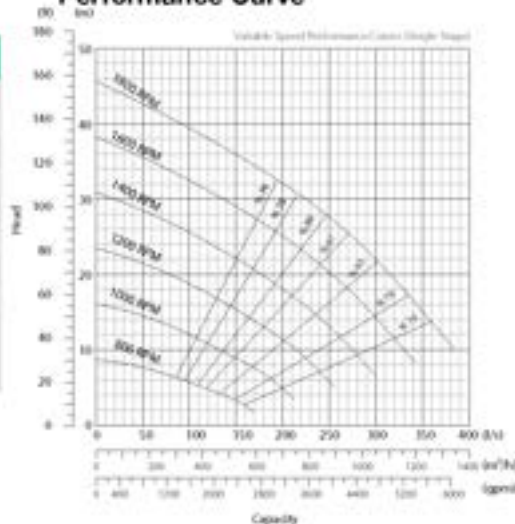
## SVT 1734

### SPECIFICATIONS

No. of vanes	8
Thrust constant (K)	43,08 Kg/m
Pump outside diameter	430 mm
Max. number of stages	3
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>3</sup>	0,499 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > % -2 2 > % -1 3 > % -0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	865
B	Bottom of bearing hub to imp. eye	426
C	Suction case thread engagement	400
D	Bowl diameter	430
E	Length one-stage assembly	900
F	Additional stage length	390
L	Pump length	e + (no. of stages - 1) x f

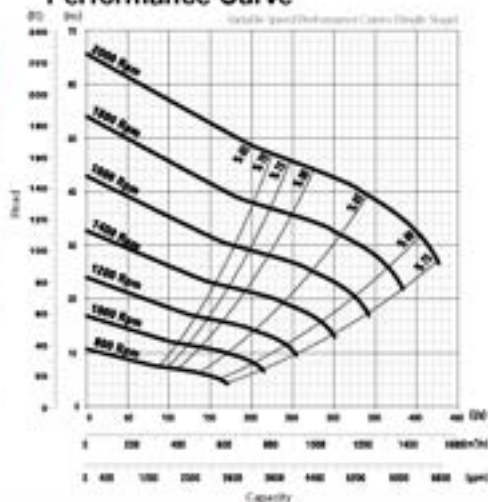
## SVT 1752

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	56,93 Kg/m
Pump outside diameter	430 mm
Max. number of stages	3
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>3</sup>	0,677 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > % -2 2 > % -1 3 > % -0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 30B) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 30B)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	889
B	Bottom of bearing hub to imp. eye	435
C	Suction case thread engagement	400
D	Bowl diameter	430
E	Length one-stage assembly	900
F	Additional stage length	400
L	Pump length	e + (no. of stages - 1) x f



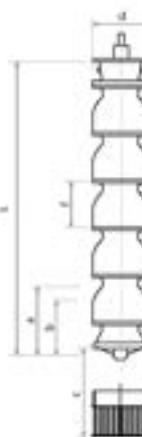
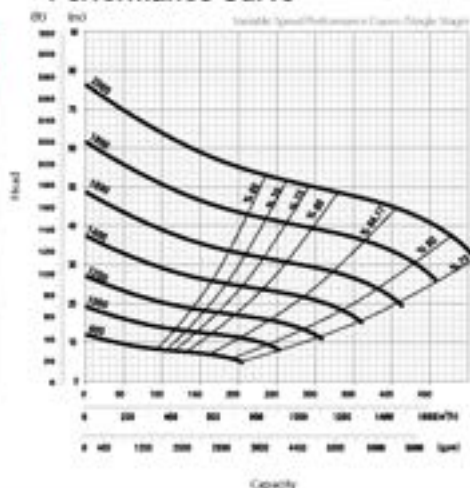
## SVT 1753

### SPECIFICATIONS

No. of vanes	6
Thrust constant (K)	56,93 Kg/m
Pump outside diameter	430 mm
Max. number of stages	2
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>3</sup>	0,677 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-2 2 > %-1 3 > %-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	889
B	Bottom of bearing hub to imp. eye	435
C	Suction case thread engagement	400
D	Bowl diameter	430
E	Length one-stage assembly	900
F	Additional stage length	400
L	Pump length	e + (no. of stages - 1) x f

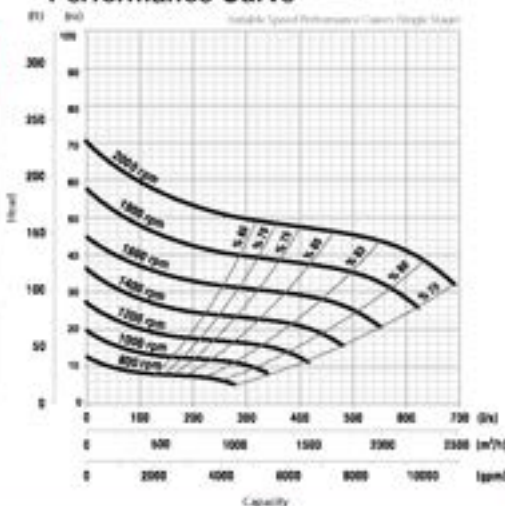
## SVT 1754

### SPECIFICATIONS

No. of vanes	8
Thrust constant (K)	56,93 Kg/m
Pump outside diameter	430 mm
Max. number of stages	3
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	49,21 mm
WR <sup>3</sup>	0,677 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1 > %-2 2 > %-1 3 > %-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	965
B	Bottom of bearing hub to imp. eye	435
C	Suction case thread engagement	400
D	Bowl diameter	430
E	Length one-stage assembly	900
F	Additional stage length	400
L	Pump length	e + (no. of stages - 1) x f



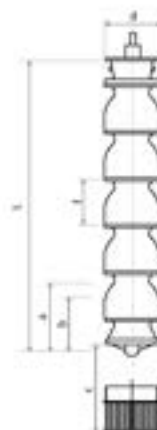
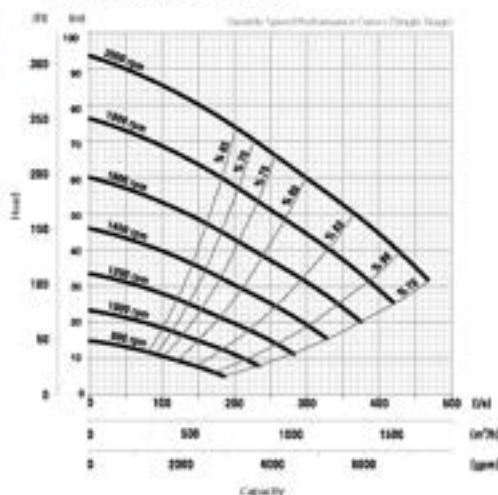
## SVT 2032

### SPECIFICATIONS

No. of vanes	5
Thrust constant (K)	62,26 Kg/m
Pump outside diameter	500 mm
Max. number of stages	3
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	61,91 mm
WR <sup>3</sup>	0,813 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1>%-2 2>%-1 3>%-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	838
B	Bottom of bearing hub to imp. eye	465
C	Suction case thread engagement	450
D	Bowl diameter	500
E	Length one-stage assembly	1005
F	Additional stage length	420
L	Pump length	e + (no. of stages - 1) x f

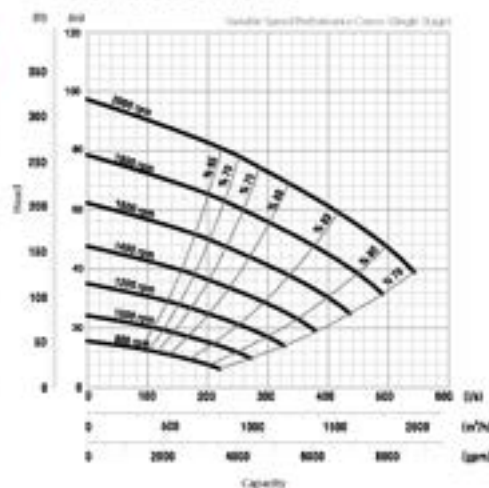
## SVT 2033

### SPECIFICATIONS

No. of vanes	6
Thrust constant (K)	62,26 Kg/m
Pump outside diameter	500 mm
Max. number of stages	3
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	61,91 mm
WR <sup>3</sup>	0,813 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1>%-2 2>%-1 3>%-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 gr/cm<sup>3</sup>

### Performance Curve



### Technical Specifications

#### MATERIAL

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

#### DIMENSIONS (MM)

A	Minimum required submergence	889
B	Bottom of bearing hub to imp. eye	465
C	Suction case thread engagement	450
D	Bowl diameter	500
E	Length one-stage assembly	1005
F	Additional stage length	420
L	Pump length	e + (no. of stages - 1) x f

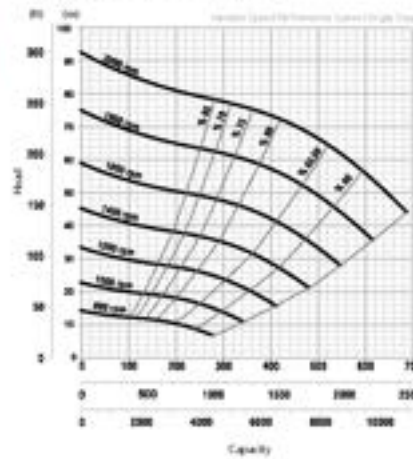


## SVT 2034

**SPECIFICATIONS**

No. of vanes	8
Thrust constant (K)	62,26 Kg/m
Pump outside diameter	500 mm
Max. number of stages	2
Rotation	CCW
Revolution	1450 rpm
Shaft diameter	61,91 mm
WR <sup>1</sup>	0,813 kg.m <sup>2</sup>
Efficiency deduction no of stages deduct (%)	1>%-2 2>%-1 3>%-0

The hydraulic working characteristics have been taken with water at 15°C, at the atmospheric pressure of 1 bar and specific gravity is 1 g/cm<sup>3</sup>

**Performance Curve**

**Technical Specifications**
**MATERIAL**

Impellers	Cast Iron (ASTM A48 Class 308) or Bronze (ASTM B145 4A)
Bowls	Cast Iron (ASTM A48 Class 308)
Pump shaft	Stainless Steel (ASTM A582 Type 416 - 420)
Impeller lock collet	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)
Lineshafts	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1045)
Lineshaft coupling	Stainless Steel (ASTM A582 Type 416 - 420) or Carbon Steel (ASTM A108 - 61 Gr 1035)

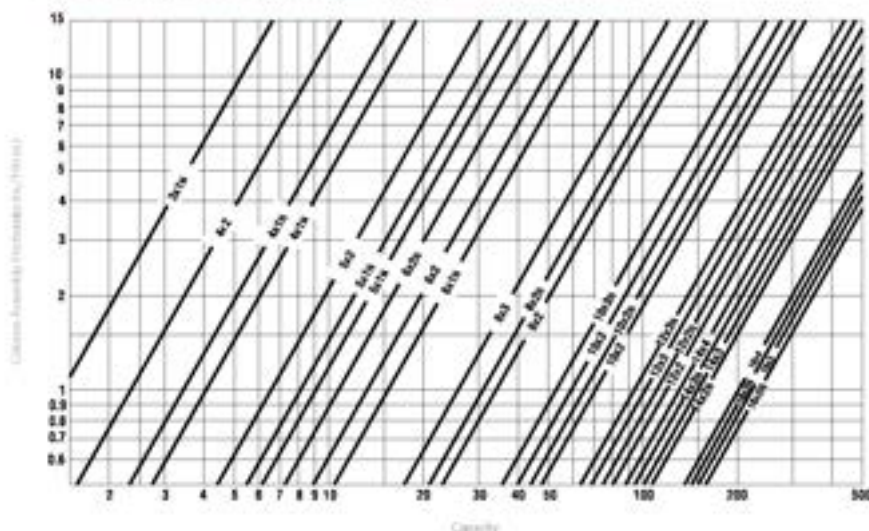
**DIMENSIONS (MM)**

A	Minimum required submergence	950
B	Bottom of bearing hub to imp. eye	465
C	Suction case thread engagement	450
D	Bowl diameter	500
E	Length one-stage assembly	1005
F	Additional stage length	420
L	Pump length	e + (no. of stages - 1) x f





## Column Assembly Friction Losses



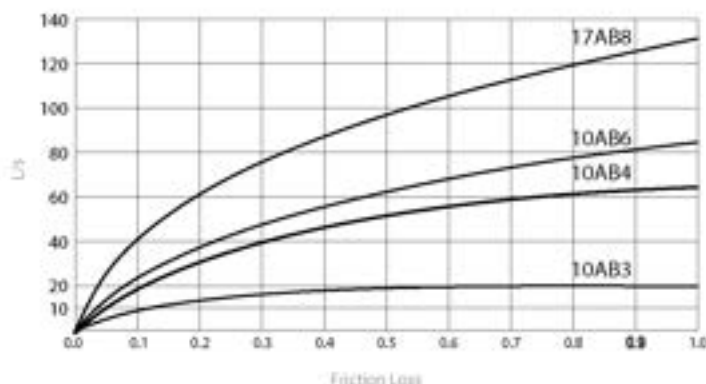
Loss values indicated in this chart are for oil lubricated column assemblies.

### For the water lubricated column assemblies;

- For 3/4" shaft diameter use :1 1/4" curve
- For 1" shaft diameter use :1 1/2" curve
- For 1 3/16" shaft diameter use :2" curve
- For 1 1/2" shaft diameter use :2 1/2" curve
- For 2" shaft diameter use :3" curve

## Discharge Head Friction Losses

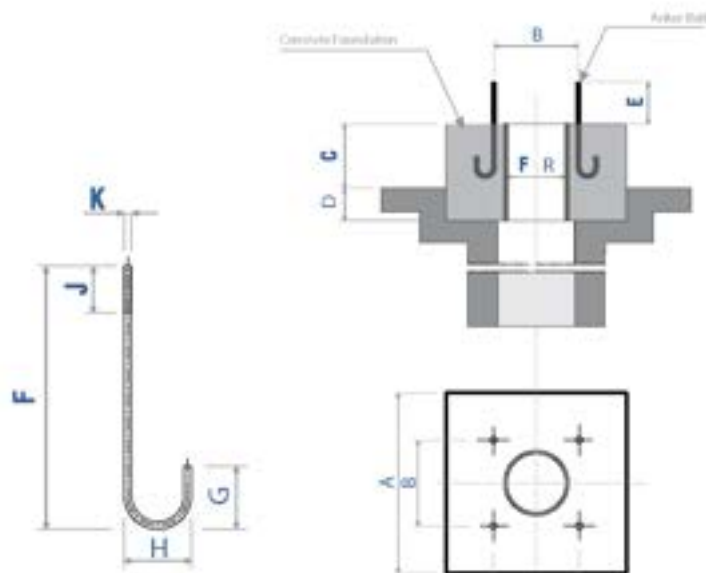
Discharge Head Friction Losses



Sabre discharge heads are designed for minimum hydraulic loss and for maximum stability.

## Discharge Head Friction Losses

	DISCHARGE HEAD TYPE			
	10 AB 3	10 AB 4	10 AB 6	17 AB 8
A	500	560	560	740
B	260	264	267	443
C	200	200	200	300
D	100	100	100	200
E	70	50	115	130
F	200	200	300	400
G	50	50	70	70
H	50	50	50	70
J	40	40	50	50
K	1/2"	5/8"	5/8"	5/8"





# AIR OPERATED DOUBLE DIAPHRAGM PUMPS



PAGE  
314





## Fluid Section Materials



### Aluminium

Medium corrosion and abrasion resistance. Not for use with halogenated hydrocarbons.



### Polypropylene

Wide chemical compatibility. General purpose.



### Conductive Polypropylene

Wide chemical compatibility. General purpose. Groundable.



### Stainless Steel (316 Grade)

High level of corrosion and abrasion resistance.



### Acetal

Wide range of solvent resistance. Withstands extreme fatigue. Good level of abrasion resistance. Groundable for use with flammables. Not for use with acids or bases.



### Ductile Iron

High abrasion resistance.



### Hastelloy

Good resistance to aggressive chemicals in corrosive environments. Compatible with high temperature fluids.



### PVDF

Strong chemical resistance to acids and bases. Good abrasion resistance. High temperature resistance.

## Diaphragm Materials



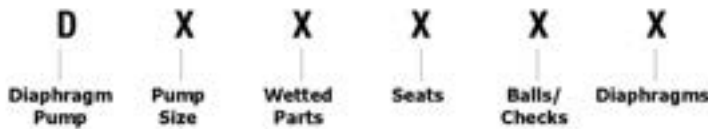
DIAPHRAGM MATERIAL*	DESCRIPTION
PTFE/EPDM Two Piece	Widest chemical compatibility, extreme corrosion resistance, very low frictional coefficient, non-adhesive, high heat resistance.
PTFE/EPDM Overmolded	Same as above. Overmolded design improves wear, durability and cleanability. Longer life than above.
Thermoplastic Polyester Elastomer (TPE)	Good low temp properties. Good abrasion resistance. Often substituted for Buna.
Santoprene	Good abrasion and chemical resistance. OK for use with some solvents (e. g. MEK, Acetone), caustic solutions, dilute acids, and alcohols. Often substituted for EPDM or EPR.
Buna	Good for petroleum-based fluids, water, oils, hydrocarbons and MILD chemicals (e.g. mineral spirits).
Fluoroelastomer (FKM)	High heat resistance. Good resistance to aggressive chemicals including acids and some solvents (e.g. xylene and mineral spirits). Good resistance to steam as well as animal, vegetable, and petroleum oils. Resists unleaded fuels.
Geolast	Good abrasion resistance. Approximately same chemical compatibility as Buna.
Polychloroprene Overmolded (CR)	High resilience. Good with whiskey, wine, beer and natural gas. One source calls an "all purpose Polymer". About 30% higher abrasion resistance than Buna.
EPDM, used with 3A pump (Ethylene Propylene Diene M-class rubber)	High heat resistance. Good resistance to gas permeability and to steam. OK with caustic solutions, dilute acids, ketones and alcohols. Recommended for use with CIP Sanitizing Agent OXONIA.

\*Available materials of construction varies depending on pump model



## Pump Designation

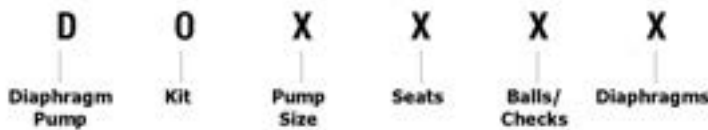
Part numbers are located on ID tag on centre section of all Husky diaphragm pumps.



PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	WETTED PARTS	SEATS	BALLS	DIAPHRAGM
1 = 6.35 mm (1/4") Standard: polypropylene centre section	1 = Acetal (npt)	2 = Acetal	1 = PTFE	1 = PTFE
2 = 6.35 mm (1/4") Remote: polypropylene centre section	2 = Poly (npt)	3 = Stainless Steel	2 = Acetal	5 = TPE
3 = 9.52 mm (3/8") Standard: Aluminium centre section	3 = Aluminium (npt)	4 = Hardened SST	3 = Stainless Steel	6 = Santoprene
5 = 12.7 mm (1/2") Standard: polypropylene centre section	4 = Stainless Steel (npt)	5 = TPE	4 = Hardened SST	7 = Buna N
4 = 12.7 mm (1/2") Remote: polypropylene centre section	5 = PVDF (npt)	6 = Santoprene	5 = TPE	8 = Fluoroelastomer
5 = 19.05 mm (3/4") Standard: polypropylene centre section	6 = Ductile Iron (npt)	7 = Buna N	6 = Santoprene	G = Geolast
4 = 19.05 mm (3/4") Remote: polypropylene centre section	8 = Fluoroelastomer	9 = Polypropylene	7 = Buna N	
25.4 mm (1") refer to Husky 1050 Selector Tool, page 5				
B = 38.1 mm (1-1/2") Standard: Aluminium centre section	A = Acetal * (bsp)	A = PVDF	8 = Fluoroelastomer	
C = 38.1 mm (1-1/2") Remote: Aluminium centre section	B = Poly * (bsp)	G = Geolast	9 = Polypropylene	
T = 38.1 mm (1-1/2") Standard: stainless steel centre section	C = Aluminium (bsp)		A = PVDF	
U = 38.1 mm (1-1/2") Remote: stainless steel centre section	D = Stainless Steel (bsp)	B = SST with viton seal	G = Geolast	
F = 50.8 mm (2") Standard: Aluminium centre section	E = PVDF (bsp)	C = Santoprene with viton seal		
G = 50.8 mm (2") Remote: Aluminium centre section viton seal	F = Ductile Iron (bsp)			
V = 50.8 mm (2") Standard: stainless steel centre section				
V = 76.2 mm (3")	H = 2 npt Alum Extended			
	G = 2 bsp Alum Extended			

## Diaphragm Pump Kit Designation

When selecting a kit, use the same code numbers as for the pumps regarding pump size, seat, ball/checks and diaphragm.



PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	SEATS	BALLS/CHECKS	DIAPHRAGM
1 = 6.35 mm (1/4")	0 = No seat	1 = PTFE	1 = PTFE
3 = 9.52 mm (3/8")	2 = Acetal	2 = Acetal	5 = TPE
5 = 12.7 mm (1/2") and 19.05 mm (3/4") 25.4 mm (1") refer to Husky 1050 Selector Tool, page 5	3 = Stainless Steel	3 = Stainless Steel	6 = Santoprene
B = 38.1 mm (1-1/2") metal pump	4 = Hardened SST	4 = Hardened SST	7 = Buna-N
C = 38.1 mm (1-1/2") plastic pump	5 = TPE	5 = TPE	8 = Fluoroelastomer
F = 50.8 mm (2") metal pump	6 = Santoprene	6 = Santoprene	G = Geolast
G = 50.8 mm (2") plastic pump	7 = Buna N	7 = Buna-N	0 = No Diaphragm
K = 76.2 mm (3")	8 = Fluoroelastomer	8 = Fluoroelastomer	
	9 = Poly	9 = Poly	
	A = PVDF	A = PVDF	
	B = SST with viton seal	G = Geolast	
	C = Santoprene with viton seal	0 = No Balls/Checks	
	G = Geolast		



MODEL	HUSKY 205 PLASTIC	HUSKY 307 PLASTIC	HUSKY 515 PLASTIC	HUSKY 716 METAL	HUSKY 1050 PLASTIC	HUSKY 1050 METAL
Connection Size	6.3 mm (1/4 in)	9.4 mm (3/8 in)	12.7 mm (1/2 in) and 19.1 mm (3/4 in)	19.1 mm (3/4 in)	25.4 mm (1 in)	25.4 mm (1 in)
Thread Type	NPT or BSP	NPT or BSP	NPT or BSP	NPT or BSP	ANSI/DIN Flange	NPT or BSP
Air Valve	Standard and Remote	Standard	Standard and Remote	Standard and Remote	Standard, Smart and Remote	Standard, Smart and Remote
Maximum Flow Rate	19 l/min (5 gpm)	26 l/min (7 gpm)	57 l/min (15 gpm)	61 l/min (16 gpm)	189 l/min (50 gpm)	189 l/min (50 gpm)
Maximum Discharge Pressure	7.0 bar (0.7 MPa - 100 psi)	7.0 bar (0.7 MPa - 100 psi)	7.0 bar (0.7 MPa - 100 psi)	7.0 bar (0.7 MPa - 100 psi)	8.6 bar (0.9 MPa - 125 psi)	8.6 bar (0.9 MPa - 125 psi)
Materials of Construction Available	Polypropylene, PVDF, Acetal	Polypropylene, Acetal	Polypropylene, PVDF, Acetal	Aluminium, 316 Stainless Steel	Polypropylene, Conductive Poly, PVDF	Aluminium, 316 Stainless Steel, Hastelloy
Centre Section Available	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene, Conductive Poly	Coated Aluminium, Polypropylene, Conductive Poly
Pump Weight	0.9 kg (2.0 lb) Polypropylene	2.2 kg (4.75 lb) Acetal	2.9 kg (6.5 lb) Polypropylene	3.9 kg (8.5 lb) Aluminium	8.2 kg (18 lb) Polypropylene	10.4 kg (23 lb) Aluminium
	1.1 kg (2.5 lb) Acetal	2.4 kg (5.2 lb) Polypropylene	3.5 kg (7.8 lb) Acetal	8.2 kg (18 lb) Stainless Steel	11.8 kg (26 lb) PVDF	16.5 - 18.6 kg (36.3 - 41 lb) Stainless Steel
	1.3 kg (2.8 lb) PVDF		3.9 kg (8.5 lb) PVDF			18.6 kg (41 lb) Hastelloy
Maximum Solids	1.5 mm (0.06 in)	1.6 mm (0.063 in)	2.5 mm (0.094 in)	2.5 mm (0.094 in)	3.2 mm (.125 in)	3.2 mm (.125 in)



MODEL	HUSKY 15120 PLASTIC	HUSKY 1590 METAL	HUSKY 2200 PLASTIC	HUSKY 2150 METAL	HUSKY 3300 PLASTIC	HUSKY 3300 METAL
Connection Size	38.1 mm (1-1/2 in)	38.1 mm (1-1/2 in)	50.8 mm (2 in)	50.8 mm (2 in)	76.2 mm (3 in)	76.2 mm (3 in)
Thread Type	DIN/ANSI	NPT or BSP	DIN/ANSI	NPT or BSP	DIN/ANSI	NPT and BSP DIN/ANSI (AL only)
Air Valve	Standard	Standard and Remote	Standard	Standard and Remote	Standard	Standard
Maximum Flow Rate	454 lpm (120 gpm)	379 l/min (100 gpm)	757 l/min (200 gpm)	568 l/min (150 gpm)	1059 l/min (280 gpm)	1135 l/min (300 gpm)**
Maximum Discharge Pressure	8.6 bar (0.9 MPa - 125 psi)	8.3 bar (0.8 MPa - 120 psi)	8.6 bar (0.9 MPa - 125 psi)	8.3 bar (0.8 MPa - 120 psi)	7 bar (0.7 MPa - 100 psi)	8.6 bar (0.9 MPa - 125 psi)
Materials of Construction Available	Polypropylene, PVDF	Aluminium, 316 Stainless Steel	Polypropylene, PVDF	Aluminium, 316 Stainless Steel, Ductile Iron	Polypropylene	Aluminium, 316 Stainless Steel
Centre Section Available	Polypropylene	Coated Aluminium, 316 Stainless Steel	Polypropylene	Coated Aluminium, 316 Stainless Steel	Polypropylene	Aluminium, Polypropylene* (*SST pump only)
Pump Weight	25.9 kg (57 lb) Polypropylene	15.2 kg (33.5 lb) Aluminium	36.3 kg (80 lb) Polypropylene	26.3 kg (58 lb) Aluminium	90.7 kg (200 lb) Polypropylene	68 kg (150 lb) Aluminium
	74 lb (33.6 kg) PVDF	40 kg (86 lb) Stainless Steel	48.1 kg (106 lb) PVDF	50.3 kg (111 lb) Stainless Steel		115.6 kg (255 lb) Stainless Steel
Maximum Solids	6.3 mm (0.25 in)	4.8 mm (0.189 in)	9.5 mm (0.375 in)	6.3 mm (0.25 in)	12.7 mm (0.5 in)	12.7 mm (0.5 in)



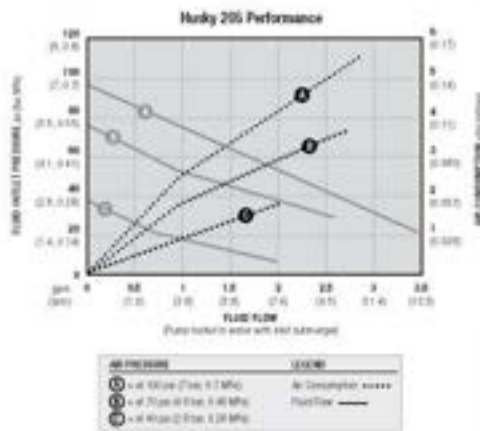
## Popular Models

MATERIAL	PART NUMBER (NPT PORTED)		PART NUMBER (BSP PORTED)		MATERIALS FOR CHECK VALVES	MATERIALS FOR DIAPHRAGMS	FLUID KIT	AIR KIT	AIR CONTROL**
	STANDARD AIR VALVE	REMOTE* AIR VALVE	STANDARD AIR VALVE	REMOTE* AIR VALVE					
Acetal	D11021	D21021	D11021	D21021	Acetal	PTFE	D01021	238853	246946
	D11026	D21026	D11026	D21026	Acetal	Santoprene	D01026	238853	246946
PVDF	D150A1	D250A1	D150A1	D250A1	PVDF	PTFE	D010A1	238853	246946
	D150A6	D250A6	D150A6	D250A6	PVDF	Santoprene	D010A6	238853	246946
Polypropylene	D12091	D22091	D12091	D22091	Polypropylene	PTFE	D01091	238853	246946
	D12096	D22096	D12096	D22096	Polypropylene	Santoprene	D01096	238853	246946

\* Requires CycleFlo or external valve control

\*\* Air control includes air regulator and filter with gauge

## Performance Chart

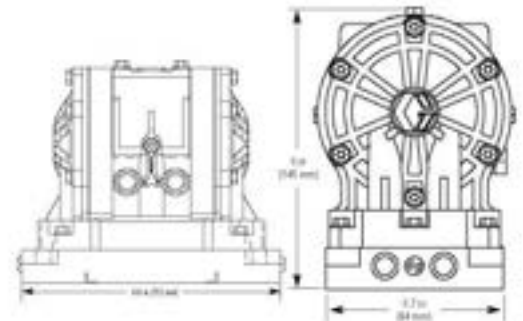


## Typical System Drawings

Husky 205 Wall-Mount with CycleFlo



## Dimensions



## Technical Specifications

HUSKY 205 PLASTIC PUMPS	ACETAL	POLYPROPYLENE	PVDF
Maximum fluid working pressure	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)
Maximum free flow delivery*	18.9 l/min (5.0 gpm)	18.9 l/min (5.0 gpm)	18.9 l/min (5.0 gpm)
Maximum pump speed	250 cpm	250 cpm	250 cpm
Displacement per cycle**	0.045 liter (0.012 gallon)	0.045 liter (0.012 gallon)	0.045 liter (0.012 gallon)
Maximum suction lift (D12096)	3 m (10 ft) dry	3 m (10 ft) dry	3 m (10 ft) dry
Maximum size pumpable solids	1.5 mm (0.06 in)	1.5 mm (0.06 in)	1.5 mm (0.06 in)
Maximum operating temperature	82°C (180°F)	82°C (180°F)	82°C (180°F)
Maximum diaphragm operating temperature***	PTFE 104.4°C (220°F) Santoprene 82.2°C (180°F)	PTFE 104.4°C (220°F) Santoprene 82.2°C (180°F)	PTFE 104.4°C (220°F) Santoprene 82.2°C (180°F)
Typical sound level at 4.9 bar (0.49 MPa - 70 psi) air @ 125 cpm	70 dBA	70 dBA	70 dBA
Maximum air consumption	0.252 m <sup>3</sup> /min (9.0 scfm)	0.252 m <sup>3</sup> /min (9.0 scfm)	0.252 m <sup>3</sup> /min (9.0 scfm)
Air pressure operating range	1.4 to 7 bar (0.14 to 0.7 MPa - 20 to 100 psi)	1.4 to 7 bar (0.14 to 0.7 MPa - 20 to 100 psi)	1.4 to 7 bar (0.14 to 0.7 MPa - 20 to 100 psi)
Air inlet size	1/4 npt(f)	1/4 npt(f)	1/4 npt(f)
Air exhaust port size	1/4 npt(f)	1/4 npt(f)	1/4 npt(f)
Fluid inlet & outlet size****	1/4 npt(f)	1/4 npt(f)	1/4 npt(f)
Weight	1.1 kg (2.5 lb)	0.9 kg (2.0 lb)	1.3 kg (2.8 lb)
Wetted parts (in addition to ball, seat and diaphragm materials which may vary by pump)	Acetal with Stainless Steel fibers, PTFE, Acetal, Santoprene	Glass-filled Polypropylene, Santoprene, PTFE, Polypropylene	PVDF, PTFE, Santoprene
Instruction manual	308652	308652	308652

\*\* Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\* Actual pump performance may be affected by prolonged usage at temperature

\*\*\*\* Hybrid thread allows for either 1/4 npt or 1/4 bspt fitting

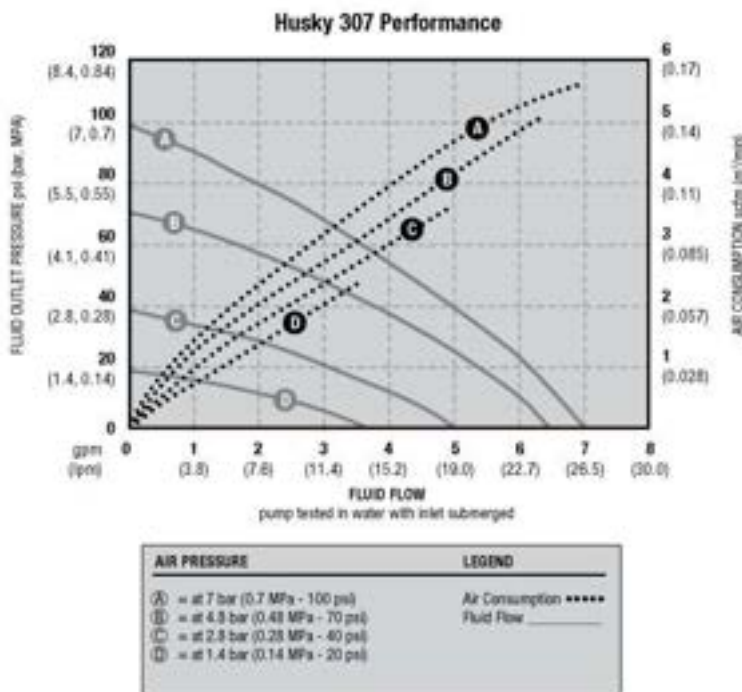


## Popular Models

MATERIAL	PART NUMBER (NPT PORTED)		PART NUMBER (BSP PORTED)		MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	FLUID KIT	AIR KIT	AIR CONTROL*
	STANDARD AIR VALVE	REMOTE AIR VALVE	STANDARD AIR VALVE	REMOTE* AIR VALVE						
Acetal	D31211	-	D3A211	-	Acetal	PTFE	PTFE	D03211	239952	246946
	D31255	-	D3A255	-	Acetal	TPE	TPE	D03255	239952	246946
	D31277	-	D3A277	-	Acetal	Buna	Buna	D03277	239952	246946
	D31311	-	D3A311	-	Stainless Steel	PTFE	PTFE	D03311	239952	246946
Polypropylene	D32211	-	D3B211	-	Acetal	PTFE	PTFE	D03211	239952	246946
	D32255	-	D3B255	-	Acetal	TPE	TPE	D03255	239952	246946
	D32277	-	D3B277	-	Acetal	Buna	Buna	D03277	239952	246946
	D32311	-	D3B311	-	Stainless Steel	PTFE	PTFE	D03311	239952	246946
	D32366	-	D3B366	-	Stainless Steel	Santoprene	Santoprene	D03366	239952	246946
	D32911	-	D3B911	-	Polypropylene	PTFE	PTFE	D03911	239952	246946
	D32955	-	D3B955	-	Polypropylene	TPE	TPE	D03955	239952	246946
	D32966	-	D3B966	-	Polypropylene	Santoprene	Santoprene	D03966	239952	246946
D32977	-	D3B977	-	Polypropylene	Buna	Buna	D03977	239952	246946	

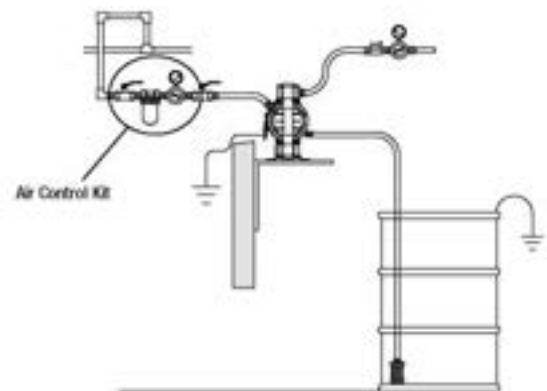
\* Air control includes air regulator and filter with gauge  
 - = not available

## Performance Chart

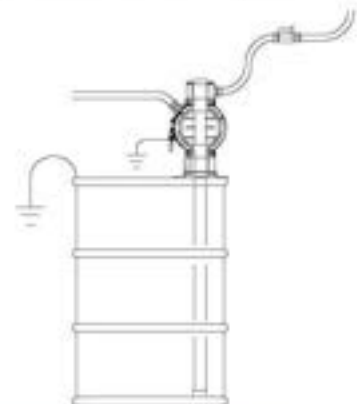


## Typical System Drawings

Husky 307 Wall-Mount with Siphon Feed

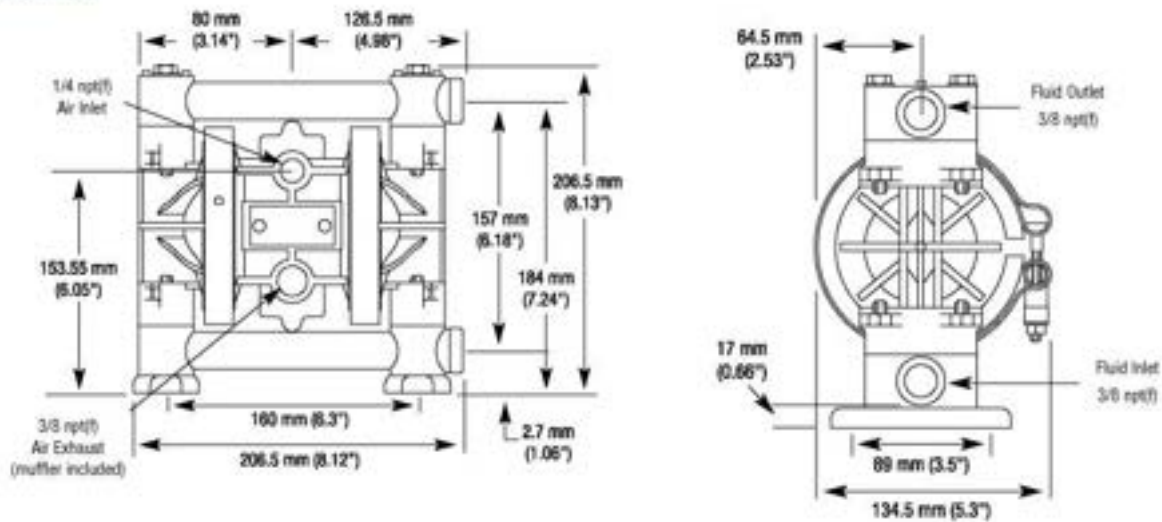


Husky 307 Drum-Mount with Siphon Feed





## Dimensions



## Technical Specifications

HUSKY 307 PLASTIC PUMPS	ACETAL	POLYPROPYLENE
Maximum fluid working pressure	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)
Maximum free flow delivery*	26.5 l/min (7.0 gpm)	26.5 l/min (7.0 gpm)
Maximum pump speed	330 cpm	330 cpm
Displacement per cycle**	0.076 liter (0.02 gallon)	0.076 liter (0.02 gallon)
Maximum suction lift (D31255)	3.7 m (12 ft) dry	3.7 m (12 ft) dry
Maximum size pumpable solids	1.5 mm (0.06 in)	1.5 mm (0.06 in)
Maximum operating temperature	65.5°C (150°F)	65.5°C (150°F)
Maximum diaphragm operating temperature***		
PTFE	104.4°C (220°F)	104.4°C (220°F)
Santoprene	82.2°C (180°F)	82.2°C (180°F)
Buna-N	82.2°C (180°F)	82.2°C (180°F)
TPE	65.5°C (150°F)	65.5°C (150°F)
Typical sound level at 3.5 bar (0.35 MPa-50 psi) air @ 50 cpm	75 dBA	75 dBA
Maximum air consumption	0.17 m <sup>3</sup> /min (6 scfm)	0.17 m <sup>3</sup> /min (6 scfm)
Air pressure operating range	1.4 to 8.4 bar (0.14 to 0.84 MPa-20 to 100 psi)	1.4 to 8.4 bar (0.14 to 0.84 MPa-20 to 100 psi)
Air inlet size	1/4 npt(f) or bspt(f)	1/4 npt(f) or bspt(f)
Fluid inlet & outlet size****	3/8 npt(f)	3/8 npt(f)
Weight	2.4 kg (5.2 lb)	2.2 kg (4.75 lb)
Wetted parts (in addition to ball, seat and diaphragm materials which may vary by pump)	Acetal with Stainless Steel fibers, PTFE	Polypropylene, PTFE
Instruction manual	308553	308553

\*Flow rates are with muffler and do not vary based on diaphragm material

\*\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\*Actual pump performance may be affected by prolonged usage at temperature



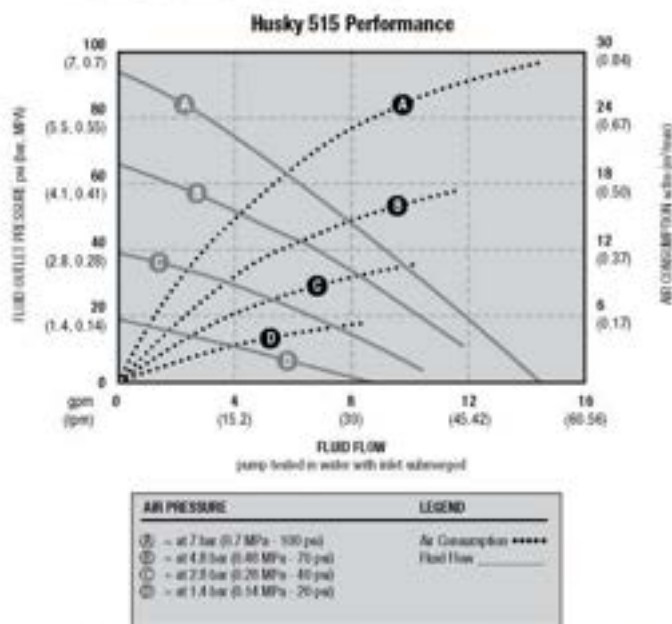
Popular Models

MATERIAL	PART NUMBER (NPT PORTED)		PART NUMBER (BSP PORTED)		MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	FLUID KIT	AIR KIT	AIR CONTROL**
	STANDARD AIR VALVE	REMOTE AIR VALVE	STANDARD AIR VALVE	REMOTE* AIR VALVE						
Acetal	D51211	D41211	D5A211	D4A211	Acetal	PTFE	PTFE	D05211	241657	246946
	D31255	D41255	D3A255	D4A255	Acetal	TPE	TPE	D03255	241657	246946
	D51277	D41277	D5A277	D4A277	Acetal	Buna	Buna	D05277	241657	246946
	D51311	D41311	D5A311	D4A311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D51331	D41331	D5A331	D4A331	Stainless Steel	Stainless Steel	PTFE	D05331	241657	246946
	D51D05	D41D05	D5AD05	D4AD05	Duckbill		TPE	D05D05	241657	246946
	D51D06	D41D06	D5AD06	D4AD06	Duckbill		Santoprene	D05D06	241657	246946
	D51D07	D41D07	D5AD07	D4AD07	Duckbill		Buna	D05D07	241657	246946
Polypropylene	D52211	D42211	D5B211	D4B211	Acetal	PTFE	PTFE	D05211	241657	246946
	D52277	D42277	D5B277	D4B277	Acetal	Buna	Buna	D05277	241657	246946
	D52311	D42311	D5B311	D4B311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D52331	D42331	D5B331	D4B331	Stainless Steel	Stainless Steel	PTFE	D03311	241657	246946
	D52336	D42336	D5B336	D4B336	Stainless Steel	Stainless Steel	Santoprene	D05336	241657	246946
	D52911	D42911	D5B911	D4B911	Polypropylene	PTFE	PTFE	D05911	241657	246946
	D52955	D42955	D5B955	D4B955	Polypropylene	TPE	TPE	D05955	241657	246946
	D52966	D42966	D5B966	D4B966	Polypropylene	Santoprene	Santoprene	D03966	241657	246946
	D52977	D42977	D5B977	D4B977	Polypropylene	Buna	Buna	D03977	241657	246946
	D52988	D42988	D5B988	D4B988	Polypropylene	Fluoroelastomer	Fluoroelastomer	D05988	241657	246946
	D52D05	D42D05	D5BD05	D4BD05	Duckbill		TPE	D05D05	241657	246946
	D52D06	D42D06	D5BD06	D4BD06	Duckbill		Santoprene	D05D06	241657	246946
D52D07	D42D07	D5BD07	D4BD07	Duckbill		Buna	D05D07	241657	246946	
PVDF	D55A11	D45A11	D5EA11	D4EA11	PVDF	PTFE	PTFE	D05A11	241657	246946
	D55A88	D45A88	D5EA88	D4EA88	PVDF	Fluoroelastomer	Fluoroelastomer	D05A88	241657	246946

\*Required Cycleflo or external valve control

\*\* Air control includes air regulator and filter with gauge

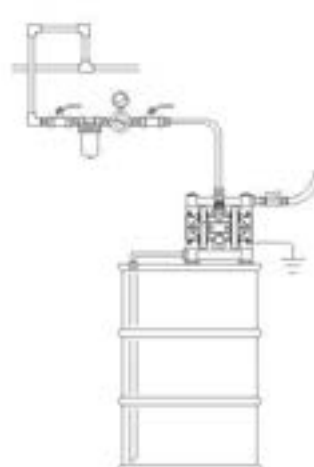
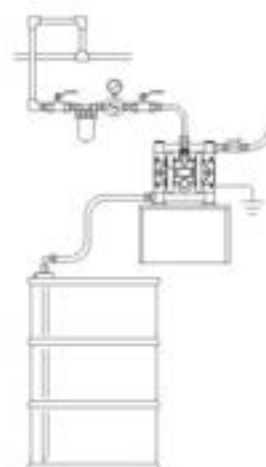
Performance Chart



Typical System Drawings

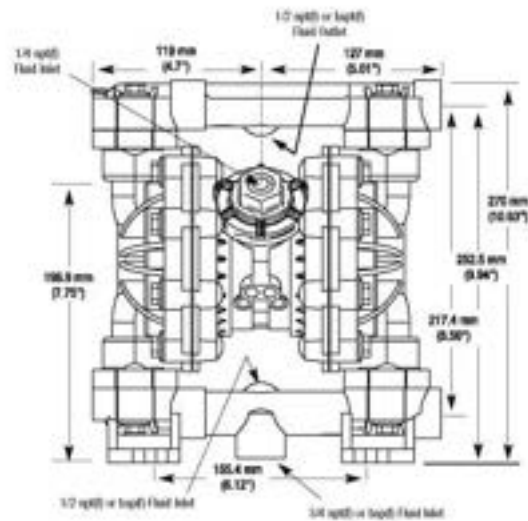
Husky 515 Wall-Mount with Drum Feed

Husky 515 Drum-Mount with Siphon Feed





## Dimensions



## Technical Specifications

HUSKY 515 PLASTIC PUMPS	ACETAL	POLYPROPYLENE	PVDF
Maximum fluid working pressure	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)
Maximum free flow delivery*	57 l/min (15 gpm)	57 l/min (15 gpm)	57 l/min (15 gpm)
Maximum pump speed	400 cpm	400 cpm	400 cpm
Displacement per cycle**	0.15 liter (0.04 gallon)	0.15 liter (0.04 gallon)	0.15 liter (0.04 gallon)
Maximum suction lift (D31255)	4.5 m (15 ft) dry	4.5 m (15 ft) dry	4.5 m (15 ft) dry
Maximum size pumpable solids	2.5 mm (0.09 in)	2.5 mm (0.09 in)	2.5 mm (0.09 in)
Maximum operating temperature	82°C (180°F)	66°C (150°F)	82°C (180°F)
Maximum diaphragm operating temperature***			
PTFE	104.4°C (220°F)	104.4°C (220°F)	104.4°C (220°F)
Santoprene	82.2°C (180°F)	82.2°C (180°F)	82.2°C (180°F)
Buna-N	82.2°C (180°F)	82.2°C (180°F)	82.2°C (180°F)
TPE	65.5°C (150°F)	65.5°C (150°F)	65.5°C (150°F)
Fluoroelastomer	121.1°C (250°F)	121.1°C (250°F)	121.1°C (250°F)
Typical sound level at 4.9 bar (0.49 MPa - 70 psi) air @ 125 cpm	74 dBA	74 dBA	74 dBA
Maximum air consumption	0.672 m <sup>3</sup> /min (28 scfm)	0.672 m <sup>3</sup> /min (28 scfm)	0.672 m <sup>3</sup> /min (28 scfm)
Air pressure operating range	2.1 to 7 bar (0.21 to 0.7 MPa - 30 to 100 psi)	2.1 to 7 bar (0.21 to 0.7 MPa - 30 to 100 psi)	2.1 to 7 bar (0.21 to 0.7 MPa - 30 to 100 psi)
Air inlet size	1/4 npt(f)	1/4 npt(f)	1/4 npt(f)
Air exhaust port size	3/8 npt(f)	3/8 npt(f)	3/8 npt(f)
Fluid inlet & outlet size****	1/2 npt(f) or bspt(f)	1/2 npt(f) or bspt(f)	1/2 npt(f) or bspt(f)
Weight	3.5 kg (7.8 lb)	2.9 kg (6.5 lb)	3.9 kg (8.5 lb)
Wetted parts (in addition to ball, seat and diaphragm materials which may vary by pump)	Groundable Acetal, PTFE, SST	Polypropylene, PTFE, SST	PVDF, PTFE
Instruction manual	308951	308951	308951

\*Flow rates are with muffler and do not vary based on diaphragm material

\*\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\*Actual pump performance may be affected by prolonged usage at temperature



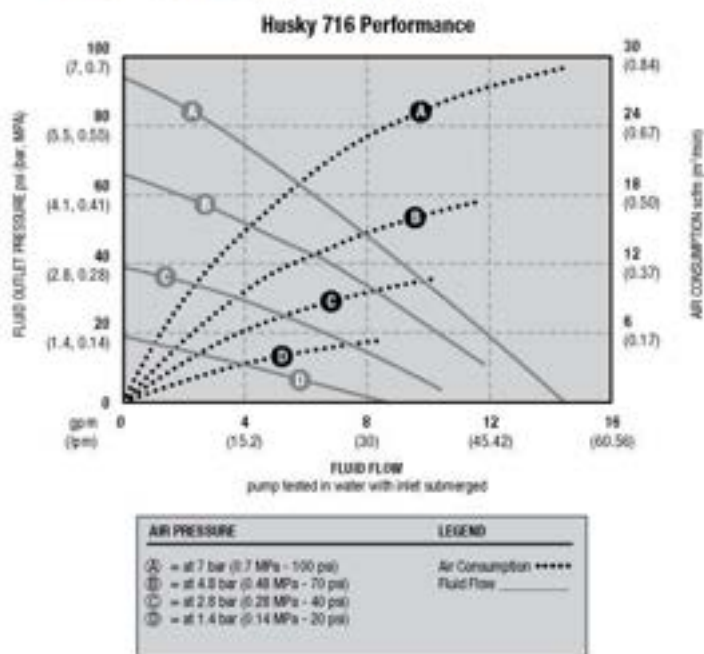
Popular Models

MATERIAL	PART NUMBER (NPT PORTED)		PART NUMBER (BSP PORTED)		MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	FLUID KIT	AIR KIT	AIR CONTROL**
	STANDARD AIR VALVE	REMOTE AIR VALVE	STANDARD AIR VALVE	REMOTE* AIR VALVE						
Aluminium	D53211	D43211	D5C211	D4C211	Acetal	PTFE	PTFE	D05211	241657	246946
	D53255	D43255	D5C255	D4C255	Acetal	TPE	TPE	D05255	241657	246946
	D53277	D43277	D5C277	D4C277	Acetal	Buna	Buna	D05277	241657	246946
	D53288	D43288	D5C288	D4C288	Acetal	Fluoroelastomer	Fluoroelastomer	D05288	241657	246946
	D53311	D43311	D5C311	D4C311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D53331	D43331	D5C331	D4C331	Stainless Steel	Stainless Steel	PTFE	D05331	241657	246946
	D53355	D43355	D5C355	D4C355	Stainless Steel	TPE	TPE	D05355	241657	246946
	D53366	D43366	D5C366	D4C366	Stainless Steel	Santoprene	Santoprene	D05366	241657	246946
	D53377	D43377	D5C377	D4C377	Stainless Steel	Buna	Buna	D05377	241657	246946
	D53388	D43388	D5C388	D4C388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D05388	241657	246946
	D53911	D43911	D5C911	D4C911	Polypropylene	Polypropylene	Polypropylene	D05911	241657	246946
	D53955	D43955	D5C955	D4C955	Polypropylene	TPE	TPE	D05955	241657	246946
	D53966	D43966	D5C966	D4C966	Polypropylene	Santoprene	Santoprene	D05966	241657	246946
	D53977	D43977	D5C977	D4C977	Polypropylene	Buna	Buna	D05977	241657	246946
	D53D05	D43D05	D5CD05	D4CD05		Duckbill	TPE	D05D05	241657	246946
	D53D06	D43D06	D5CD06	D4CD06		Duckbill	Santoprene	D05D06	241657	246946
D53D07	D43D07	D5CD07	D4CD07		Duckbill	Buna	D05D07	241657	246946	
Stainless Steel	D54211	D44211	D5D211	D4D211	Acetal	PTFE	PTFE	D05211	241657	246946
	D54311	D44311	D5D311	D4D311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D54331	D44331	D5D331	D4D331	Stainless Steel	Stainless Steel	PTFE	D05331	241657	246946
	D54335	D44335	D5D335	D4D335	Stainless Steel	Stainless Steel	TPE	D05335	241657	246946
	D54336	D44336	D5D336	D4D336	Stainless Steel	Stainless Steel	Santoprene	D05336	241657	246946
	D54355	D44355	D5D355	D4D355	Stainless Steel	TPE	TPE	D05355	241657	246946
	D54366	D44366	D5D366	D4D366	Stainless Steel	Stainless Steel	Santoprene	D05366	241657	246946
	D54377	D44377	D5D377	D4D377	Stainless Steel	Buna	Buna	D05377	241657	246946
	D54388	D44388	D5D388	D4D388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D05388	241657	246946
	D54911	D44911	D5D911	D4D911	Polypropylene	PTFE	PTFE	D05911	241657	246946
D54966	D44966	D5D966	D4D966	Polypropylene	Santoprene	Santoprene	D05966	241657	246946	

\*Required Cycleflo or external valve control

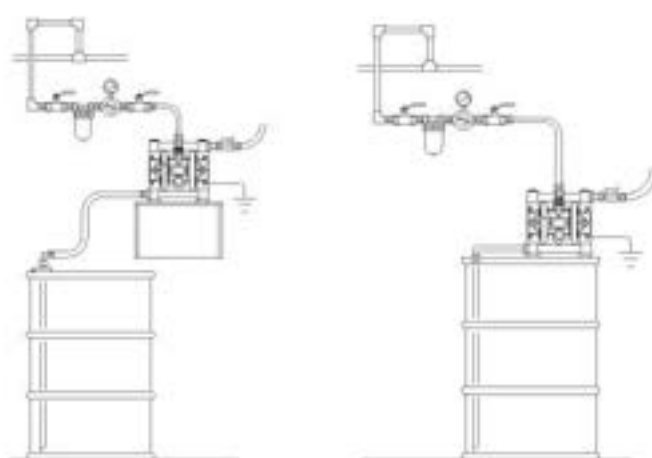
\*\* Air control includes air regulator and filter with gauge.

Performance Chart



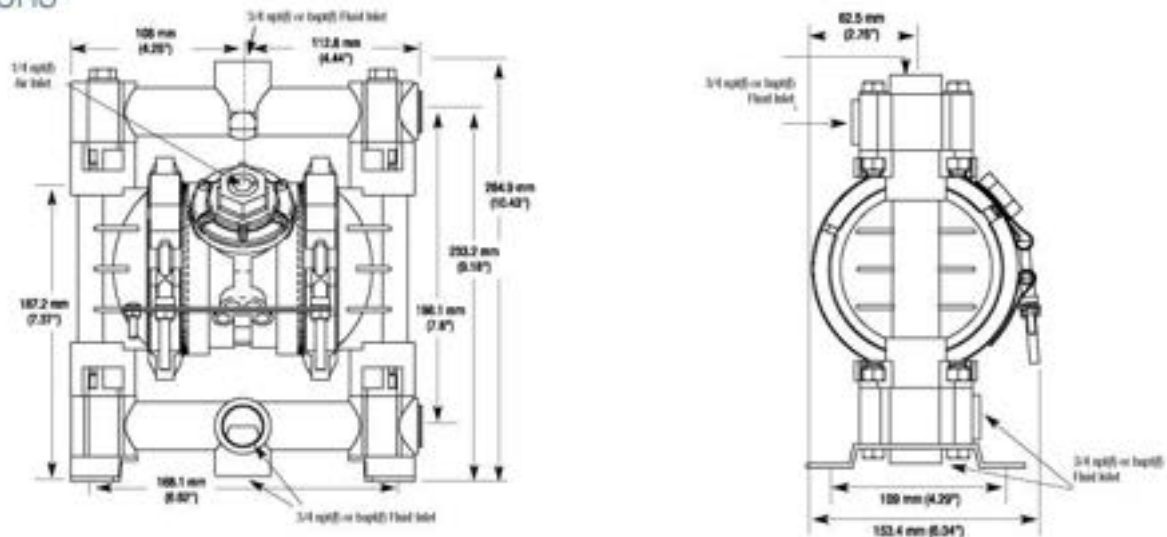
Typical System Drawings

Husky 716 Wall-Mount with Drum Feed Husky 716 Drum-Mount with Siphon Feed





## Dimensions



## Technical Specifications

HUSKY 716 METAL PUMPS	ALUMINIUM	STAINLESS STEEL
Maximum fluid working pressure	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)
Maximum free flow delivery*	61 l/min (16 gpm)	61 l/min (16 gpm)
Maximum pump speed	400 cpm	400 cpm
Displacement per cycle**	0.15 liter (0.04 gallon)	0.15 liter (0.04 gallon)
Maximum suction lift	4.5 m (15 ft) dry	4.5 m (15 ft) dry
Maximum size pumpable solids	2.5 mm (0.09 in)	2.5 mm (0.09 in)
Maximum diaphragm operating temperature***		
PTFE	104.4°C (220°F)	104.4°C (220°F)
Santoprene	82.2°C (180°F)	82.2°C (180°F)
Buna-N	82.2°C (180°F)	82.2°C (180°F)
TPE	65.5°C (150°F)	65.5°C (150°F)
Fluoroelastomer	121.1°C (250°F)	121.1°C (250°F)
Typical sound level at 4.9 bar (0.49 MPa - 70 psi) air @ 125 cpm	74 dBA	74 dBA
Maximum air consumption	0.672 m <sup>3</sup> /min (28 scfm)	0.672 m <sup>3</sup> /min (28 scfm)
Air pressure operating range	2.1 to 7 bar (0.21 to 0.7 MPa - 30 to 100 psi)	2.1 to 7 bar (0.21 to 0.7 MPa - 30 to 100 psi)
Air inlet size	1/4 npt(f)	1/4 npt(f)
Air exhaust port size	3/8 npt(f)	3/8 npt(f)
Fluid inlet & outlet size****	1/2 npt(f) or bspt(f)	1/2 npt(f) or bspt(f)
Weight	3.9 kg (8.5 lb)	8.2 kg (18 lb)
Wetted parts (in addition to ball, seat and diaphragm materials which may vary by pump)	Aluminium, Stainless Steel, PTFE, Buna-N, Santoprene, Zinc-Plated Steel	Acetal, Polypropylene, Stainless Steel, Polyester, Santoprene, Fluoroelastomer, Nickel-Plated Brass, Epoxy-Coated Steel
Instruction manual	300981	300981

\*Flow rates are with muffler and do not vary based on diaphragm material

\*\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\*Actual pump performance may be affected by prolonged usage at temperature

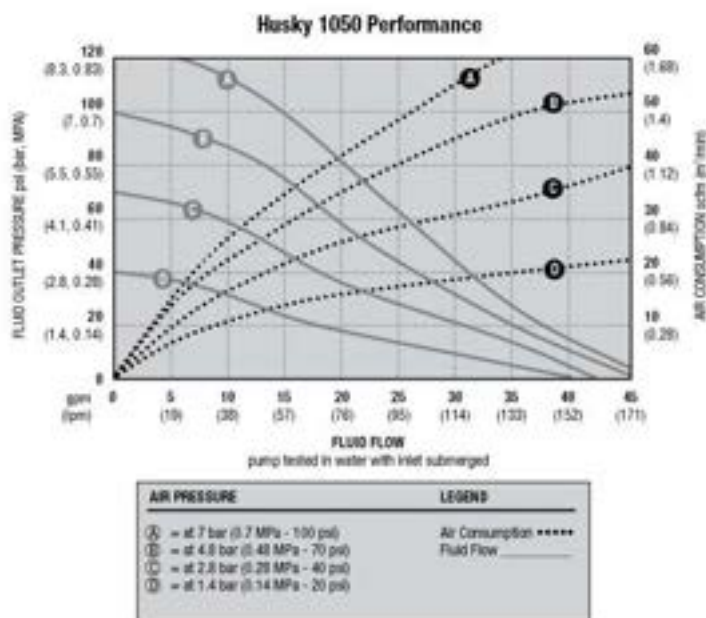


# HUSKY 1050 PLASTIC

## Popular Models

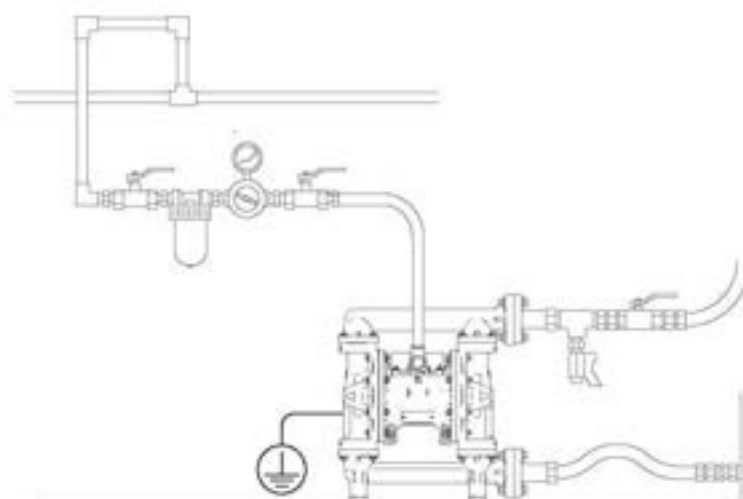
MATERIAL	PART NUMBER	MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	AIR VALVE REPLACEMENT KIT	SEAT KIT	BALL KIT	DIAPHRAGM KIT	FLANGE
	STANDARD AIR VALVE								
Polypropylene	649001	Polypropylene	Santoprene	Santoprene	248773	248773	248646	248627	Centre
	649006	Polypropylene	PTFE	PTFE/EPDM 2 Piece	248773	248635	248645	248627	Centre
Conductive Polypropylene	649034	Polypropylene	PTFE	PTFE/EPDM 2 Piece	248773	248635	248645	248627	End
	649218	Acetal	PTFE	PTFE/EPDM 2 Piece	248775	248630	248645	248627	End
PVDF	649211	316 SST	PTFE	PTFE/EPDM 2 Piece	248775	248637	248645	248627	End
	649392	316 SST	PTFE	PTFE/EPDM 2 Piece	248773	248637	248645	248627	End
	649398	PVDF	PTFE	PTFE/EPDM 2 Piece	248773	24C721	248645	248627	End

## Performance Chart



## Typical System Drawings

Husky 1050 Floor-Mount



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

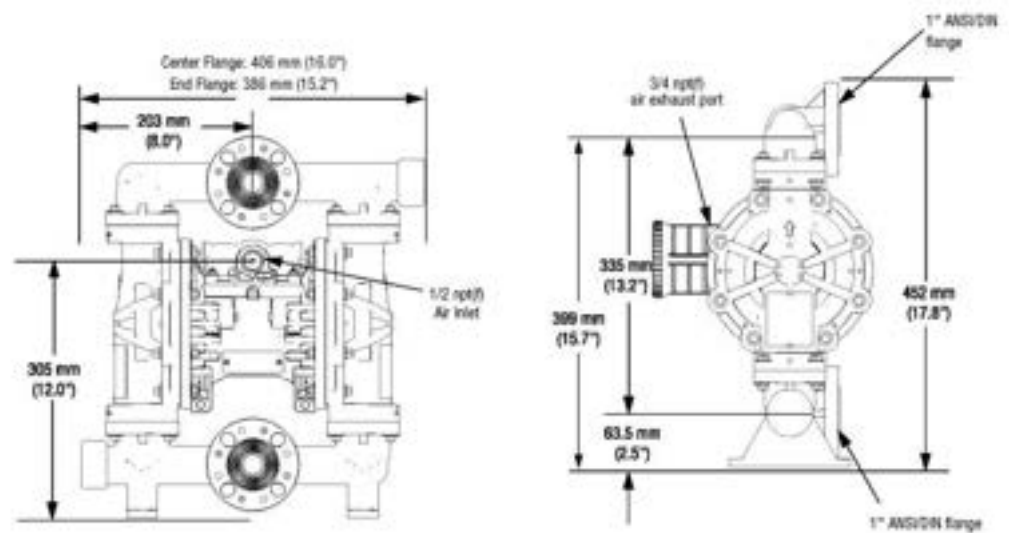
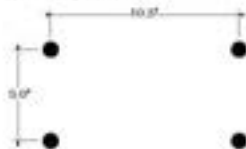


# HUSKY 1050 PLASTIC



## Dimensions

Mounting Pattern



## Technical Specifications

HUSKY 1050 PLASTIC PUMPS	CONDUCTIVE POLYPROPYLENE	POLYPROPYLENE	PVDF
Maximum fluid working pressure	8.6 bar (0.86 MPa - 125 psi)	8.6 bar (0.86 MPa - 125 psi)	8.6 bar (0.86 MPa - 125 psi)
Maximum free flow delivery	189 l/min (50 gpm)	189 l/min (50 gpm)	189 l/min (50 gpm)
Maximum pump speed	280 cpm	280 cpm	280 cpm
Displacement per cycle	0.64 liters (0.17 gal)	0.64 liters (0.17 gal)	0.64 liters (0.17 gal)
Maximum suction lift	4.9 m (16 ft) dry, 8.8 m (29 ft) wet	4.9 m (16 ft) dry, 8.8 m (29 ft) wet	4.9 m (16 ft) dry, 8.8 m (29 ft) wet
Maximum size pumpable solids	3.2 mm (1/8 in)	3.2 mm (1/8 in)	3.2 mm (1/8 in)
Sound Power*			
at 4.8 bar (0.48 MPa - 70 psi) and 50 cpm	78 dBA	78 dBA	78 dBA
at 7.0 bar (0.7 MPa - 100 psi) and full flow	90 dBA	90 dBA	90 dBA
Sound Pressure**			
at 4.8 bar (0.48 MPa - 70 psi) and 50 cpm	84 dBA	84 dBA	84 dBA
at 7.0 bar (0.7 MPa - 100 psi) and full flow	96 dBA	96 dBA	96 dBA
Typical sound level at 4.9 bar (0.49 MPa - 70 psi) air @ 125 cpm	74 dBA	74 dBA	74 dBA
Maximum air consumption	67 scfm	67 scfm	67 scfm
Air consumption at 4.8 bar (0.48 MPa - 70 psi) / 76 l/min (20 gpm)	25 scfm	25 scfm	25 scfm
Air pressure operating range	1.4-8.6 bar (0.14-0.86 MPa / 20-125 psi)	1.4-8.6 bar (0.14-0.86 MPa / 20-125 psi)	1.4-8.6 bar (0.14-0.86 MPa / 20-125 psi)
Air inlet size	1/2 npt(f)	1/2 npt(f)	1/2 npt(f)
Fluid inlet size	1 in raised face ANSI/DIN flange	1 in raised face ANSI/DIN flange	1 in raised face ANSI/DIN flange
Fluid outlet size	1 in raised face ANSI/DIN flange	1 in raised face ANSI/DIN flange	1 in raised face ANSI/DIN flange
Weight	8.2 kg (18 lb)	8.2 kg (18 lb)	11.8 kg (26 lb)
Wetted parts	polypropylene and material(s) chosen for seat, ball, and diaphragm options	polypropylene and material(s) chosen for seat, ball, and diaphragm options	PVDF and material(s) chosen for seat, ball, and diaphragm options
Non-wetted Parts			
Centre	polypropylene	polypropylene	polypropylene
Bolts	stainless steel	stainless steel	stainless steel
Instruction manual	312877	312877	312877
Repair/parts manual	313435	313435	313435

\* Sound power measured per ISO-9614-2.

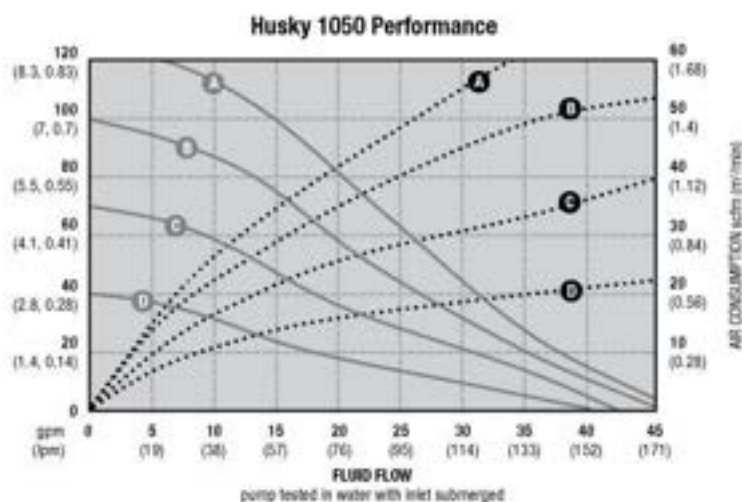
\*\* Sound pressure was tested 1 m (3.28 ft) from equipment.

**HUSKY 1050 METAL**

## Popular Models

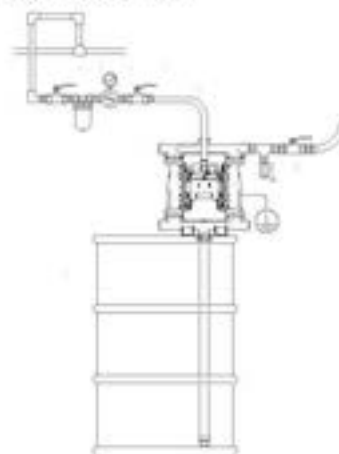
MATERIAL	PART NUMBER		MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	AIR VALVE REPLACEMENT KIT	SEAT KIT	BALL KIT	DIAPHRAGM KIT
	STANDARD AIR VALVE	REMOTE AIR VALVE							
Aluminium	647666	647502	Thermoplastic Polyester Elastomer	Acetal	Thermoplastic Polyester Elastomer	24B766	24B634	24B639	24B624
	647016 (UL Certified)		Thermoplastic Polyester Elastomer	Acetal	Thermoplastic Polyester Elastomer	24B766	24B634	24B639	24B624
	647075	647561	Acetal	PTFE	PTFE/EPDM 2 Piece	24B766	24B630	24B645	24B627
	647040	647526	Geolast	Geolast	Geolast	24B766	24B633	24B641	24B623
	647035	647521	Santoprene	Santoprene	Santoprene	24B766	24B636	24B646	24B628
	647028	647514	316 SST	PTFE	PTFE/EPDM 2 Piece	24B766	24B637	24B645	24B627
	647004	647490	Polypropylene	PTFE	PTFE/EPDM 2 Piece	24B766	24B635	24B645	24B627
Stainless Steel	651009	651125	316 SST	PTFE	PTFE/EPDM 2 Piece	24B766	24B637	24B645	24B627
Hastelloy	651440		FKM	PTFE	PTFE/EPDM 2 Piece	24B765	24B638	24B645	24B627

## Performance Chart

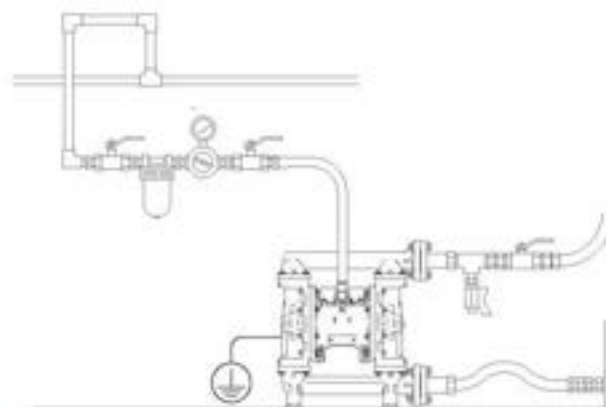


## Typical System Drawings

Husky 1050 Bung-Mount



Husky 1050 Floor-Mount



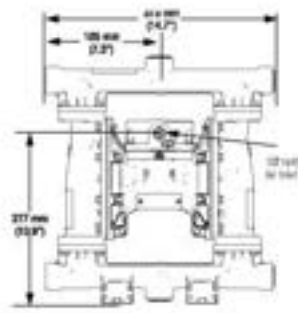
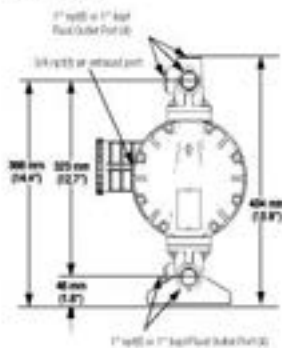


## HUSKY 1050 METAL

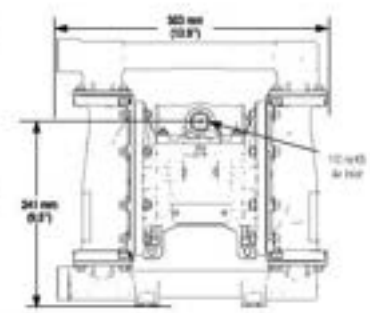
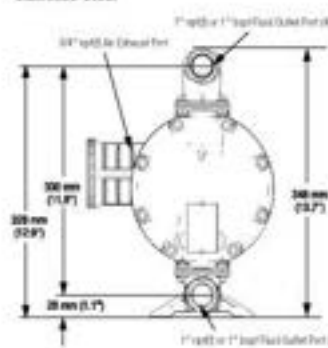


## Dimensions

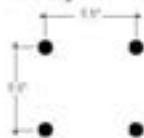
## Aluminium



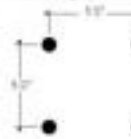
## Stainless Steel



## Mounting Pattern



## Mounting Pattern



## Technical Specifications

HUSKY 1050 METAL PUMPS	ALUMINIUM	STAINLESS STEEL	HASTELLOY
Maximum fluid working pressure	8.6 bar (0.86 MPa - 125 psi)	8.6 bar (0.86 MPa - 125 psi)	8.6 bar (0.86 MPa - 125 psi)
Maximum free flow delivery*	189 l/min (50 gpm)	189 l/min (50 gpm)	189 l/min (50 gpm)
Maximum pump speed	280 cpm	280 cpm	280 cpm
Displacement per cycle**	0.64 liters (0.17 gal)	0.64 liters (0.17 gal)	0.64 liters (0.17 gal)
Maximum suction lift	4.9 m (16 ft) dry, 8.8 m (29 ft) wet	4.9 m (16 ft) dry, 8.8 m (29 ft) wet	4.9 m (16 ft) dry, 8.8 m (29 ft) wet
Maximum size pumpable solids	3.2 mm (1/8 in)	3.2 mm (1/8 in)	3.2 mm (1/8 in)
Sound Power*			
at 4.8 bar (0.48 MPa - 70 psi) and 50 cpm	78 dBA	78 dBA	78 dBA
at 7.0 bar (0.7 MPa - 100 psi) and full flow	90 dBA	90 dBA	90 dBA
Sound Pressure**			
at 4.8 bar (0.48 MPa - 70 psi) and 50 cpm	84 dBA	84 dBA	84 dBA
at 7.0 bar (0.7 MPa - 100 psi) and full flow	96 dBA	96 dBA	96 dBA
Typical sound level at 4.9 bar (0.49 MPa - 70 psi) air @ 125 cpm	74 dBA	74 dBA	74 dBA
Maximum air consumption	67 scfm	67 scfm	67 scfm
Air consumption at 4.8 bar (0.48 MPa - 70 psi) / 76 l/min (20 gpm)	25 scfm	25 scfm	25 scfm
Air pressure operating range	1.4-8.6 bar (0.14-0.86 MPa / 20-125 psi)	1.4-8.6 bar (0.14-0.86 MPa / 20-125 psi)	1.4-8.6 bar (0.14-0.86 MPa / 20-125 psi)
Air inlet size	1/2 npt(f)	1/2 npt(f)	1/2 npt(f)
Fluid inlet size	1 in npt(f) or 1 in bspt	1 in npt(f) or 1 in bspt	1 in npt(f) or 1 in bspt
Fluid outlet size	1 in npt(f) or 1 in bspt	1 in npt(f) or 1 in bspt	1 in npt(f) or 1 in bspt
Weight	10.5 kg (23 lb)	with conductive polypropylene centre 16.5 kg (36.3 lb) with polypropylene centre 16.9 kg (37.3 lb) with Aluminium centre 18.8 kg (41.4 lb)	18.6 kg (41 lb)
Wetted parts	Aluminium and material(s) chosen for seat, ball, and diaphragm options	stainless steel and material(s) chosen for seat, ball, and diaphragm options	hastelloy, stainless steel and material(s) chosen for seat, ball, and diaphragm options
Non-wetted Parts			
Centre Bolts	Aluminium coated carbon steel	polypropylene stainless steel    Aluminium stainless steel	polypropylene stainless steel
Instruction manual	312877	312877	312877
Repair/parts manual	313435	313435	313435

\* Sound power measured per ISO-9614-2. \*\* Sound pressure was tested 3.28 ft (1 m) from equipment.

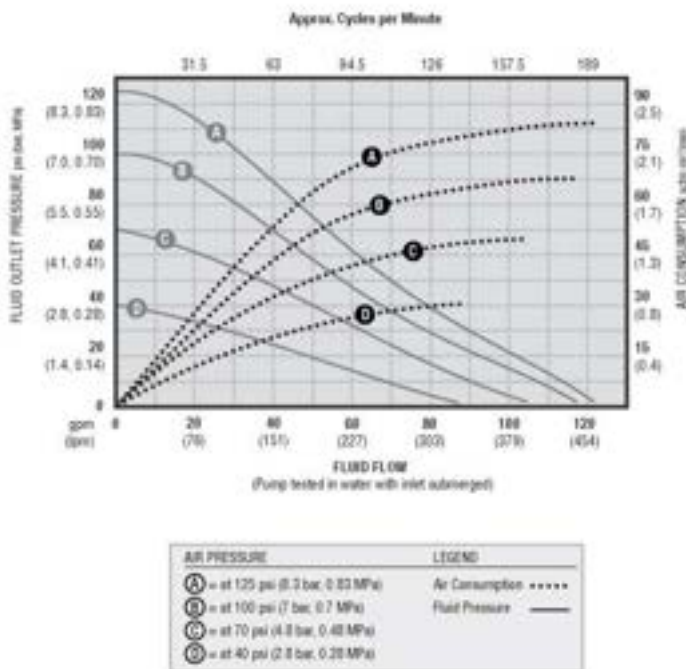


# HUSKY 15120 PLASTIC

## Popular Models

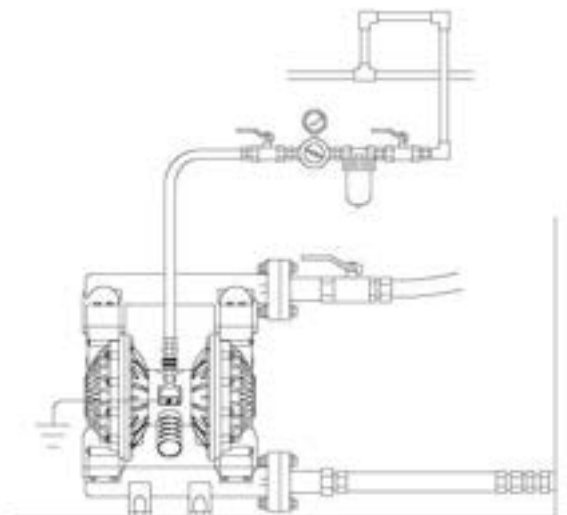
PART NUMBER	AIR SECTION	FLUID SECTION	PORTING	SEAT	BALL	DIAPHRAGM	AIR VALVE REPLACEMENT KIT	SEAT KIT	BALL KIT	DIAPHRAGM KIT
654504	Polypropylene	Polypropylene	Centre	Polypropylene	PTFE	2-Piece PTFE	248773	24W225	24W228	24W220
654505	Polypropylene	Polypropylene	Centre	Polypropylene	PTFE	PTFE OM	248773	24W225	24W228	24W217
654511	Polypropylene	Polypropylene	End	Polypropylene	PTFE	2-Piece PTFE	248773	24W225	24W228	24W220
654512	Polypropylene	Polypropylene	End	Polypropylene	PTFE	PTFE OM	248773	24W225	24W228	24W217
654500	Polypropylene	Polypropylene	Centre	Polypropylene	Santoprene	Santoprene	248773	24W225	24W229	24W218
654507	Polypropylene	Polypropylene	End	Polypropylene	Santoprene	Santoprene	248773	24W225	24W229	24W218
654517	Polypropylene	Polypropylene	Centre	SST	FKM	FKM	248773	24W227	24W230	24W219
654518	Polypropylene	Polypropylene	Centre	SST	PTFE	2-Piece PTFE	248773	24W227	24W228	24W220
654519	Polypropylene	Polypropylene	Centre	SST	PTFE	PTFE OM	248773	24W227	24W230	24W217
654523	Polypropylene	Polypropylene	End	SST	FKM	FKM	248773	24W227	24W228	24W219
654524	Polypropylene	Polypropylene	End	SST	PTFE	2-Piece PTFE	248773	24W227	24W228	24W220
654525	Polypropylene	Polypropylene	End	SST	PTFE	PTFE OM	248773	24W227	24W229	24W217
654526	Polypropylene	Polypropylene	Centre	Santoprene	Santoprene	Santoprene	248773	24W226	24W229	24W218
654528	Polypropylene	Polypropylene	End	Santoprene	Santoprene	Santoprene	248773	24W226	24W229	24W218
654544	Polypropylene	PVDF	End	PVDF	FKM	FKM	248773	24W223	24W230	24W219
654546	Polypropylene	PVDF	End	PVDF	PTFE	2-Piece PTFE	248773	24W223	24W228	24W220
654547	Polypropylene	PVDF	End	PVDF	PTFE	PTFE OM	248773	24W223	24W228	24W217

## Performance Chart



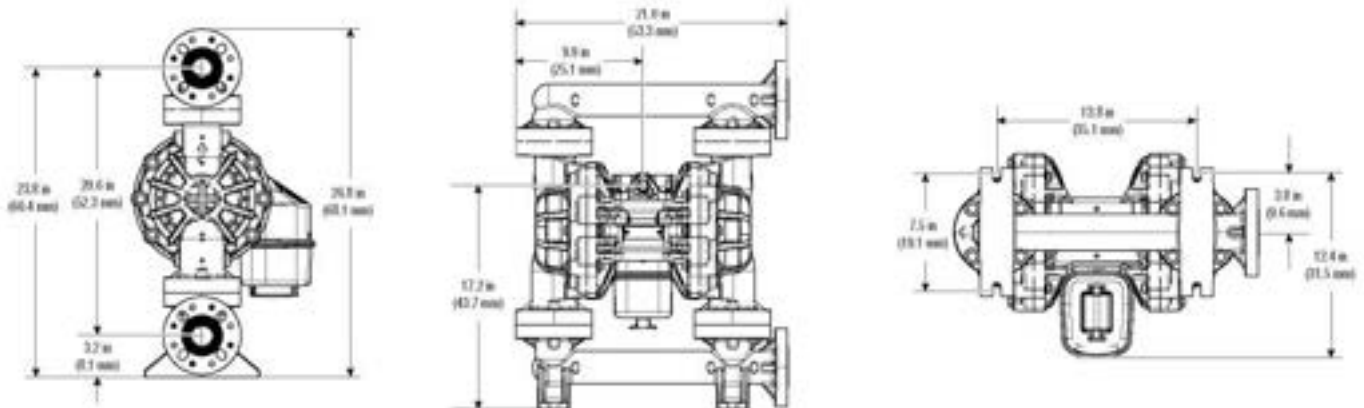
## Typical System Drawings

Husky 1590 Above Ground Gravity Feed





## Dimensions



## Technical Specifications

HUSKY 15120 PLASTIC PUMPS	POLYPROPYLENE	PVDF
Maximum fluid working pressure	8.4 bar (0.84 MPa-120 psi)	8.4 bar (0.84 MPa-120 psi)
Maximum free flow delivery*	454 l/min (120 gpm)	454 l/min (120 gpm)
Maximum pump speed	190 cpm	190 cpm
Displacement per cycle**	2.4 liter (0.63 gallon)	2.4 liter (0.63 gallon)
Maximum suction lift (DB2366)	4.9 m (16 ft) dry	4.9 m (16 ft) dry
Maximum size pumpable solids	6.3 mm (0.25 in)	6.3 mm (0.25 in)
Maximum operating temperature***	65.5°C (150°F)	107°C (225°F)
Maximum diaphragm operating temperature***		
PTFE	65.5°C (150°F)	104.4°C (220°F)
PTFE overmolded diaphragm	65.5°C (150°F)	82.2°C (180°F)
Santoprene	65.5°C (150°F)	82.2°C (180°F)
Buna-N	65.5°C (150°F)	82.2°C (180°F)
TPE	65.5°C (150°F)	65.5°C (150°F)
Fluoroelastomer	65.5°C (150°F)	107°C (225°F)
Geolast	65.5°C (150°F)	65.5°C (150°F)
Typical sound level at 4.9 bar (0.49 MPa-70 psi) air @ 125 cpm	90.9 dBA	90.9 dBA
Maximum air consumption	2.4 m <sup>3</sup> /min. (85 scfm)	2.4 m <sup>3</sup> /min. (85 scfm)
Air pressure operating range	1.4 to 8.4 bar (0.14 to 0.84 MPa-20 to 120 psi)	1.4 to 8.4 bar (0.14 to 0.84 MPa-20 to 120 psi)
Air inlet size	1/2 npt(f)	1/2 npt(f)
Fluid inlet & outlet size	1-1/2 npt(f) or bspt(f)	1-1/2 npt(f) or bspt(f)
Weight	25.9 kg (57 lb)	33.5 kg (74 lb)
Instruction manual	3A2888	3A2888

\*Flow rates are with muffler and do not vary based on diaphragm material

\*\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\*Actual pump performance may be affected by prolonged usage at temperature

# HUSKY 1590 METAL

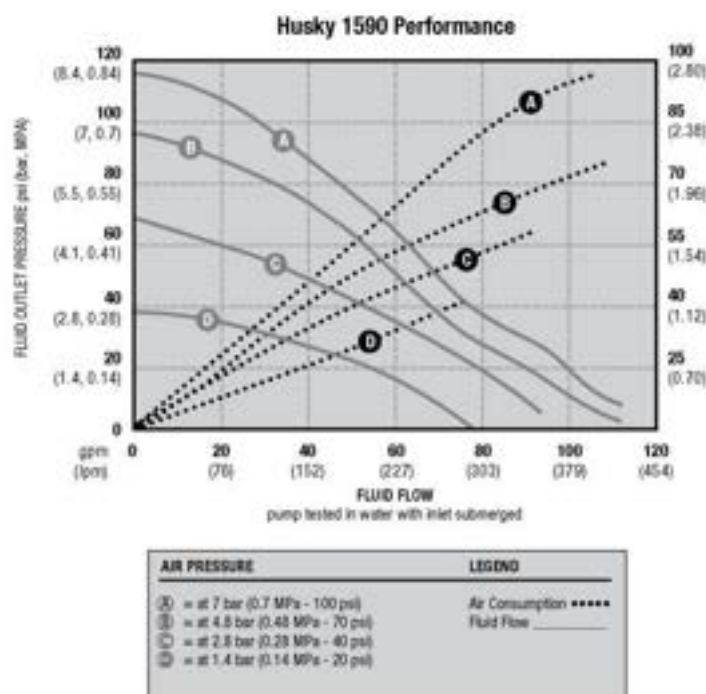
## Popular Models

MATERIAL	PART NUMBER (NPT PORTED)		PART NUMBER (BSP PORTED)		MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	FLUID KIT	AIR KIT	AIR CONTROL**
	STANDARD AIR VALVE	REMOTE* AIR VALVE	STANDARD AIR VALVE	REMOTE* AIR VALVE						
<b>Standard Pumps with Aluminium Centre Section</b>										
Aluminium	DB3311	DC3311	DBC311	DCC311	Stainless Steel	PTFE	PTFE	D0B311	236273	246947
	DB3341		DBC341		Hardened SST	Buna	Buna	D0B331	236273	246947
	DB3366	DC3366	DBC366	DCC366	Stainless Steel	Buna	Buna	D0B366	236273	246947
	DB3377	DC3377	DBC377	DCC377	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D0B377	236273	246947
	DB3525	DC3525	DBC525	DCC525	TPE	PTFE	PTFE	D0B525	236273	246947
	DB3555		DBC555		TPE	TPE	TPE	D0B555	236273	246947
	DB3666	DC3666	DBC666	DCC666	Santoprene	Santoprene	Santoprene	D0B666	236273	246947
	DB3777	DC3777	DBC777	DCC777	Buna	Buna	Buna	D0B777	236273	246947
	DB3888	DC3888	DBC888	DCC888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	236273	246947
	DB3GGG	DC3GGG	DBC999	DCC999	Geolast	Geolast	Geolast	D0B999	236273	246947
Stainless Steel	DB4311	DC4311	DBC411	DCC411	Stainless Steel	PTFE	PTFE	D0B311	236273	246947
	DB4341		DBC441		Stainless Steel	Hardened SST	Fluoroelastomer	D0B341	236273	246947
	DB4377	DC4377	DBC377	DCC377	Stainless Steel	Buna	PTFE	D0B377	236273	246947
	DB4525		DBC525		TPE	Acetal	Fluoroelastomer	D0B525	236273	246947
	DB4666	DC4666	DBC666	DCC666	Santoprene	Santoprene	Santoprene	D0B666	236273	246947
	DB4777	DC4777	DBC777	DCC777	Buna	Buna	Buna	D0B777	236273	246947
	DB4888	DC4888	DBC888	DCC888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	236273	246947
	DB4GGG	DC4GGG	DBC999	DCC999	Geolast	Geolast	Geolast	D0B999	236273	246947
	DB4911		DBC911		Polypropylene	PTFE	PTFE	D0B911	236273	246947
	<b>Corrosion Resistant Pumps with Stainless Steel Centre Section</b>									
Stainless Steel	DT4311	DU4311	DTD311	DUD311	Stainless Steel	PTFE	PTFE	D0B311	255061	246947
	DT4377	DU4377	DTD377	DUD377	Stainless Steel	Buna	Buna	D0B377	255061	246947
	DT4388	DU4388	DTD388	DUD388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D0B388	255061	246947
	DT4666	DU4666	DTD666	DUD666	Santoprene	Santoprene	Santoprene	D0B666	255061	246947
	DT4888	DU4888	DTD888	DUD888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	255061	246947
	DT4911	DU4911	DTD911	DUD911	Polypropylene	PTFE	PTFE	D0B911	255061	246947

\*Requires CycleFlo or external valve control

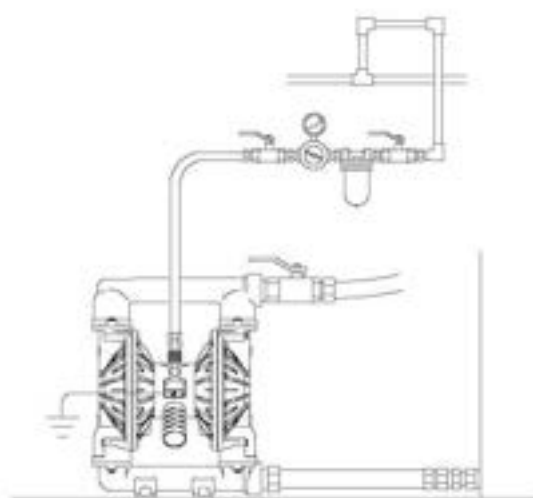
\*\* Air control includes air regulator and filter with gauge

## Performance Chart



## Typical System Drawings

Husky 1590 Above Ground Gravity Feed

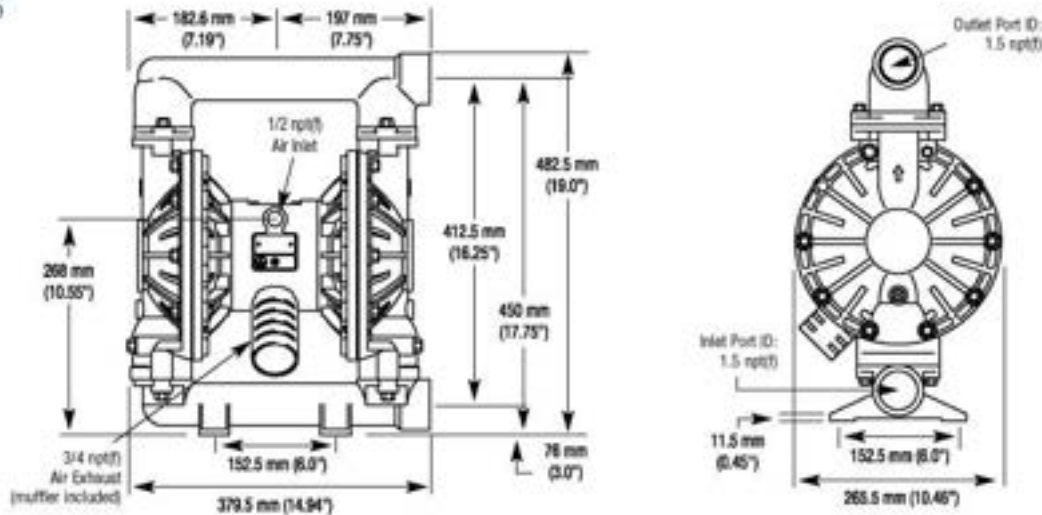




## HUSKY 1590 METAL



## Dimensions



Outlet Port ID:



## Technical Specifications

HUSKY 1590 METAL PUMPS	ALUMINIUM	STAINLESS STEEL
Maximum fluid working pressure	8.4 bar (0.84 MPa-120 psi)	8.4 bar (0.84 MPa-120 psi)
Maximum free flow delivery*	378.5 l/min (100 gpm)	378.5 l/min (100 gpm)
Maximum pump speed	200 cpm	200 cpm
Displacement per cycle**	1.96 liter (0.5 gallon)	1.96 liter (0.5 gallon)
Maximum suction lift (DB2366)	6.1 m (20 ft) dry	6.1 m (20 ft) dry
Maximum size pumpable solids	4.8 mm (0.19 in)	4.8 mm (0.19 in)
Maximum operating temperature***	65.5°C (150°F)	65.5°C (150°F)
Maximum diaphragm operating temperature***		
PTFE	104.4°C (220°F)	104.4°C (220°F)
Santoprene	82.2°C (180°F)	82.2°C (180°F)
Buna-N	82.2°C (180°F)	82.2°C (180°F)
TPE	65.5°C (150°F)	65.5°C (150°F)
Fluoroelastomer	121.1°C (250°F)	121.1°C (250°F)
Geolast	65.5°C (150°F)	65.5°C (150°F)
Typical sound level at 70 psi (4.9 bar, 0.49 MPa) air @ 125 cpm	77 dBA	77 dBA
Maximum air consumption	3.5 m <sup>3</sup> /min. (125 scfm)	3.5 m <sup>3</sup> /min. (125 scfm)
Air pressure operating range	1.4 to 8.4 bar (0.14 to 0.84 MPa-20 to 120 psi)	1.4 to 8.4 bar (0.14 to 0.84 MPa-20 to 120 psi)
Air inlet size	1/2 npt(f)	1/2 npt(f)
Fluid inlet & outlet size	1-1/2 npt(f) or bspt(f)	1-1/2 npt(f) or bspt(f)
Weight	15.2 kg (33.5 lb)	40 kg (86 lb)
Weight with stainless steel centre section	not available	44.8 kg (98.8 lb)
Instruction manual	308441	308441

\*Flow rates are with muffler and do not vary based on diaphragm material

\*\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\*Actual pump performance may be affected by prolonged usage at temperature



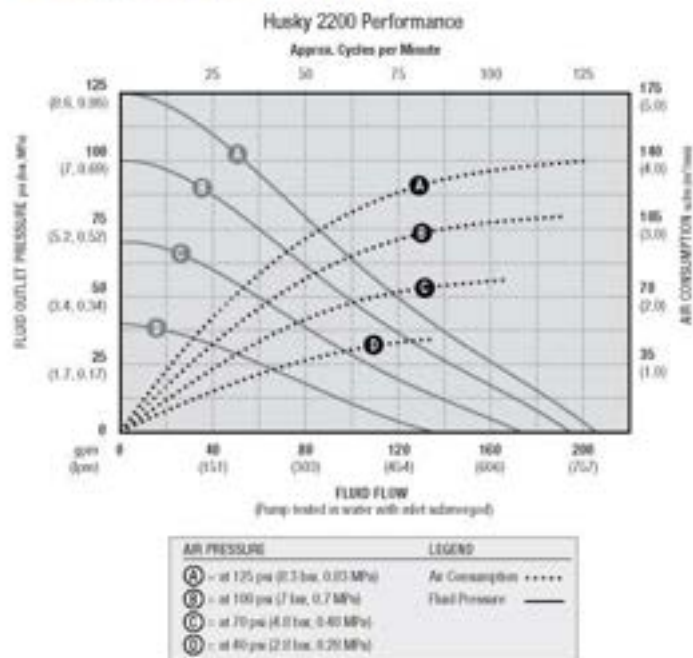
## Popular Models

PART NUMBER	AIR SECTION	FLUID SECTION	PORTING	SEAT	BALL	DIAPHRAGM	AIR VALVE REPLACEMENT KIT	SEAT KIT	BALL KIT	DIAPHRAGM KIT
653504	Polypropylene	Polypropylene	Centre	Polypropylene	PTFE	2-Piece PTFE	24V231	24V248	24V251	24V244
653505	Polypropylene	Polypropylene	Centre	Polypropylene	PTFE	PTFE OH	24V231	24V248	24V251	24V241
653511	Polypropylene	Polypropylene	End	Polypropylene	PTFE	2-Piece PTFE	24V231	24V248	24V251	24V244
653512	Polypropylene	Polypropylene	End	Polypropylene	PTFE	PTFE OH	24V231	24V248	24V251	24V241
653500	Polypropylene	Polypropylene	Centre	Polypropylene	Santoprene	Santoprene	24V231	24V248	24V252	24V242
653507	Polypropylene	Polypropylene	End	Polypropylene	Santoprene	Santoprene	24V231	24V248	24V252	24V242
653517	Polypropylene	Polypropylene	Centre	SST	FKM	FKM	24V231	24V250	24V253	24V243
653518	Polypropylene	Polypropylene	Centre	SST	PTFE	2-Piece PTFE	24V231	24V250	24V251	24V244
653519	Polypropylene	Polypropylene	Centre	SST	PTFE	PTFE OH	24V231	24V250	24V251	24V241
653523	Polypropylene	Polypropylene	End	SST	FKM	FKM	24V231	24V250	24V253	24V243
653524	Polypropylene	Polypropylene	End	SST	PTFE	2-Piece PTFE	24V231	24V250	24V251	24V244
653525	Polypropylene	Polypropylene	End	SST	PTFE	PTFE OH	24V231	24V250	24V251	24V241
653526	Polypropylene	Polypropylene	Centre	Santoprene	Santoprene	Santoprene	24V231	24V249	24V252	24V242
653528	Polypropylene	Polypropylene	End	Santoprene	Santoprene	Santoprene	24V231	24V249	24V252	24V242
653544	Polypropylene	PVDF	End	PVDF	FKM	FKM	24V231	24V247	24V253	24V243
653546	Polypropylene	PVDF	End	PVDF	PTFE	2-Piece PTFE	24V231	24V247	24V251	24V244
653547	Polypropylene	PVDF	End	PVDF	PTFE	PTFE OH	24V231	24V247	24V251	24V241

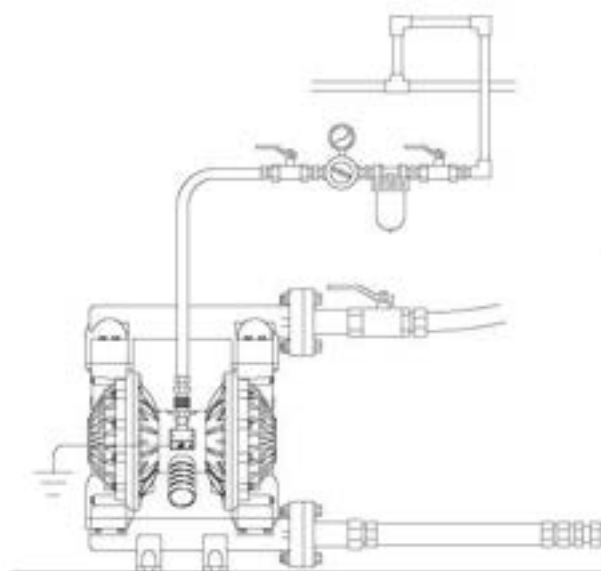
\*Requires CycleFlo or external valve control

\*\* Air control includes air regulator and filter with gauge

## Performance Chart



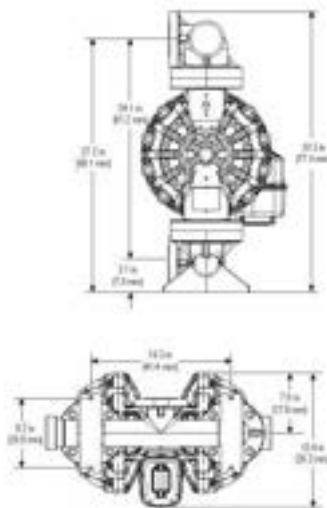
## Typical System Drawings



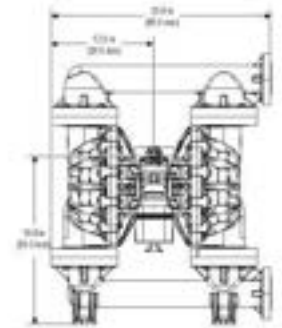
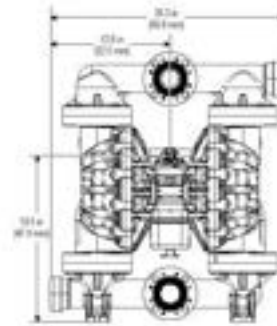
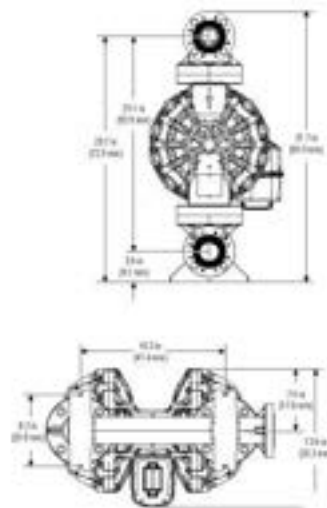


## Dimensions

Center Flange



End Flange



## Technical Specifications

HUSKY 2200 PLASTIC PUMPS	POLYPROPYLENE	PVDF
Maximum fluid working pressure	8.6 bar (0.86 MPa-125 psi)	8.6 bar (0.86 MPa-125 psi)
Maximum free flow delivery*	757 l/min (200 gpm)	757 l/min (200 gpm)
Maximum pump speed		
Standard diaphragm	125 cpm	125 cpm
Overmolded diaphragm	155 cpm	155 cpm
Displacement per cycle**		
Standard diaphragm	6.1 liter (1.6 gallon)	6.1 liter (1.6 gallon)
Overmolded diaphragm	1.3 liter (4.9 gallon)	1.3 liter (4.9 gallon)
Maximum suction lift (DB2366)	4.9 m (16 ft) dry	4.9 m (16 ft) dry
Maximum size pumpable solids	6.3 mm (0.25")	6.3 mm (0.25")
Maximum operating temperature***	65.5°C (150°F)	107°C (225°F)
Maximum diaphragm operating temperature***		
PTFE	65.5°C (150°F)	104.4°C (220°F)
PTFE overmolded diaphragm	65.5°C (150°F)	82.2°C (180°F)
Santoprene	65.5°C (150°F)	82.2°C (180°F)
Buna-N	65.5°C (150°F)	82.2°C (180°F)
TPE	65.5°C (150°F)	65.5°C (150°F)
Fluoroelastomer	65.5°C (150°F)	107°C (225°F)
Geolast	65.5°C (150°F)	65.5°C (150°F)
Typical sound level at 4.9 bar (0.49 MPa-70 psi) air @ 50 cpm	95.2 dBA	90.9 dBA
Maximum air consumption		
Standard diaphragm	4.0 m <sup>3</sup> /min (175 scfm)	4.0 m <sup>3</sup> /min (175 scfm)
Overmolded diaphragm	4.4 m <sup>3</sup> /min (157 scfm)	4.4 m <sup>3</sup> /min (157 scfm)
Air pressure operating range	1.4 to 8.6 bar (0.14 to 0.86 MPa-20 to 125 psi)	1.4 to 8.6 bar (0.14 to 0.86 MPa-20 to 125 psi)
Air inlet size	3/4 npt(f)	3/4 npt(f)
Fluid inlet & outlet size	2 npt(f) or bspt(f)	2 npt(f) or bspt(f)
Weight	36.3 kg (80 lb)	48.1 kg (106 lb)
Instruction manual	3A2578	3A2578

\*Flow rates are with muffler and do not vary based on diaphragm material

\*\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\*Actual pump performance may be affected by prolonged usage at temperature

# HUSKY 2150 METAL

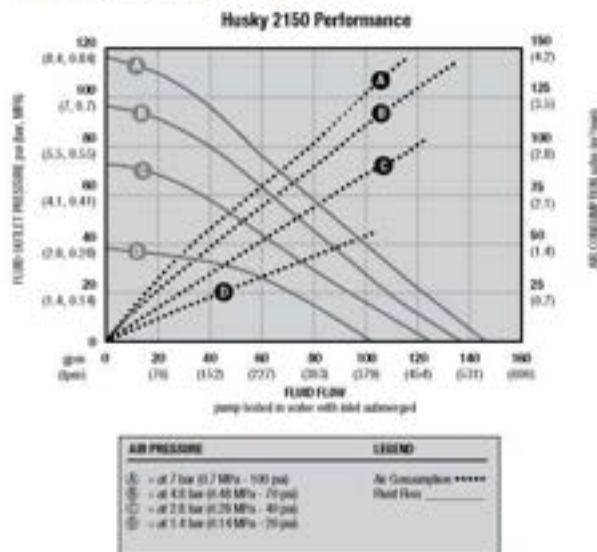
## Popular Models

MATERIAL	PART NUMBER (NPT PORTED)		PART NUMBER (BSP PORTED)		MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	FLUID KIT	AIR KIT	AIR CONTROL**	
	STANDARD AIR VALVE	REMOTE* AIR VALVE	STANDARD AIR VALVE	REMOTE* AIR VALVE							
<b>Standard Pumps with Aluminium Centre Section</b>											
Aluminium***	DF3311	DG3311	DFC311	DGC311	Stainless Steel	PTFE	PTFE	D0F311	236273	246947	
	DF3341	DG3341	DFC341	DGC341	Stainless Steel	Hardened SST	PTFE	D0F341	236273	246947	
	DF3366	DG3366	DFC366	DGC366	Stainless Steel	Santoprene	Santoprene	D0F366	236273	246947	
	DF3377	DG3377	DFC377	DGC377	Stainless Steel	Buna	Buna	D0F377	236273	246947	
	DF3525	DG3525	DFC525	DGC525	TPE	Acetal	TPE	D0F525	236273	246947	
	DF3555	DG3555	DFC555	DGC555	TPE	TPE	TPE	D0F555	236273	246947	
	DF3666	DG3666	DFC666	DGC666	Santoprene	Santoprene	Santoprene	D0F666	236273	246947	
	DF3777	DG3777	DFC777	DGC777	Buna	Buna	Buna	D0F777	236273	246947	
	DF3888	DG3888	DFC888	DGC888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0F888	236273	246947	
	DF3GGG	DG3GGG	DFCGGG	DGCGGG	Geolast	Geolast	Geolast	D0FGGG	236273	246947	
	DF3911	DG3911	DFC911	DGC911	Polypropylene	PTFE	PTFE	D0F911	236273	246947	
	DF3977	DG3977	DFC977	DGC977	Polypropylene	Buna	Buna	D0F977	236273	246947	
	Stainless Steel	DF4311	DG4311	DFD311	DGD311	Stainless Steel	PTFE	PTFE	D0F311	236273	246947
		DF4341	DG4341	DFD341	DGD341	Stainless Steel	Hardened SST	PTFE	D0F341	236273	246947
DF4366		DG4366	DFD366	DGD366	Stainless Steel	Santoprene	Santoprene	D0F366	236273	246947	
DF4377		DG4377	DFD377	DGD377	Stainless Steel	Buna	Buna	D0F377	236273	246947	
DF4525		DG4525	DFD525	DGD525	TPE	Acetal	TPE	D0F525	236273	246947	
DF4666		DG4666	DFD666	DGD666	Santoprene	Santoprene	Santoprene	D0F666	236273	246947	
DF4777		DG4777	DFD777	DGD777	Buna	Buna	Buna	D0F777	236273	246947	
DF4888		DG4888	DFD888	DGD888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0F888	236273	246947	
DF4GGG		DG4GGG	DFDGGG	DGDGGG	Geolast	Geolast	Geolast	D0FGGG	236273	246947	
DF4911		DG4911	DFD911	DGD911	Polypropylene	PTFE	PTFE	D0F911	236273	246947	
Ductile		DF6311	DG6311	DFF311	DGF311	Stainless Steel	PTFE	PTFE	D0F311	236273	246947
		DF6366	DG6366	DFF366	DGF366	Stainless Steel	Santoprene	Santoprene	D0F366	236273	246947
		DF6441	DG6441	DFF441	DGF441	Hardened SST	Hardened SST	PTFE	D0F441	236273	246947
		DF6466	DG6466	DFF466	DGF466	Hardened SST	Santoprene	Santoprene	D0F466	236273	246947
	DF6525	DG6525	DFF525	DGF525	TPE	Acetal	TPE	D0F525	236273	246947	
	DF6666	DG6666	DFF666	DGF666	Santoprene	Santoprene	Santoprene	D0F666	236273	246947	
	DF6A11	DG6A11	DFFA11	DGFA11	PVDF	PTFE	PTFE	D0FA11	236273	246947	
	DF6A88	DG6A88	DFFA88	DGFA88	PVDF	Fluoroelastomer	Fluoroelastomer	D0FA88	236273	246947	
DF6GGG	DG6GGG	DFFGGG	DGFGGG	Geolast	Geolast	Geolast	D0FGGG	236273	246947		
<b>Corrosion Resistant Pumps with Stainless Steel Centre Section</b>											
Stainless Steel	DV4311	DG4311	DVD311	DGD311	Stainless Steel	PTFE	PTFE	D0F311	255061	246947	
	DV4377	DG4377	DVD377	DGD377	Stainless Steel	Buna	Buna	D0F377	255061	246947	
	DV4388	DG4388	DVD388	DGD388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D0F388	255061	246947	
	DV4666	DG4666	DVD666	DGD666	Santoprene	Santoprene	Santoprene	D0F666	255061	246947	
	DV4888	DG4888	DVD888	DGD888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0F888	255061	246947	
	DV4911	DG4911	DVD911	DGD911	Polypropylene	PTFE	PTFE	D0F911	255061	246947	

\*Requires CycleFlo or external valve control. \*\* Air control includes air regulator and filter with gauge.

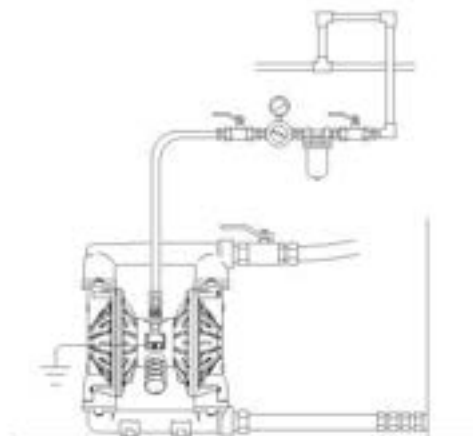
\*\*\* Also available in Extended Height version; use DFH or DFG designations

## Performance Chart



## Typical System Drawings

Husky 2150 Above Ground Gravity Feed

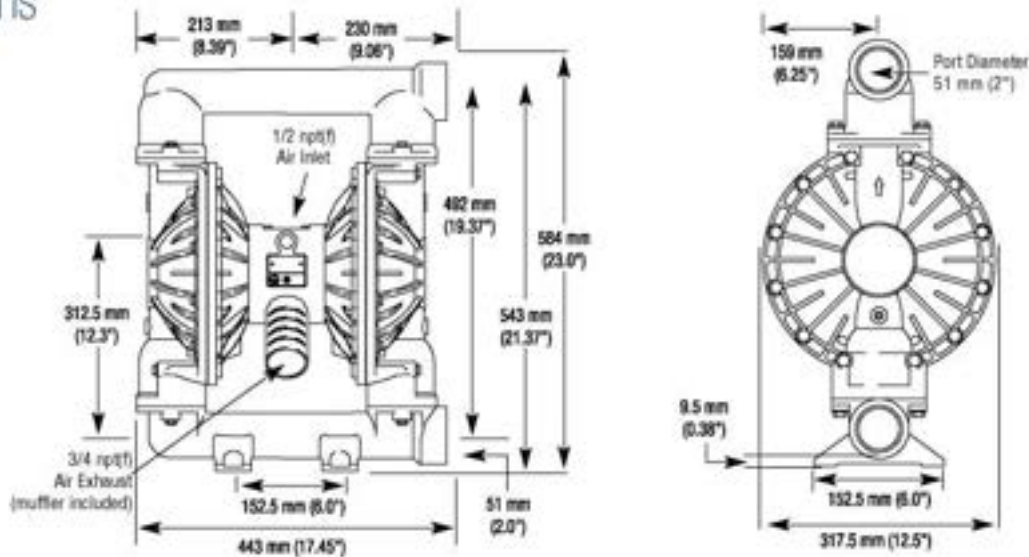




## HUSKY 2150 METAL



## Dimensions



## Technical Specifications

HUSKY 2150 METAL PUMPS	ALUMINIUM	STAINLESS STEEL	DUCTILE IRON
Maximum fluid working pressure	8.4 bar (0.84 MPa-120 psi)	8.4 bar (0.84 MPa-120 psi)	8.4 bar (0.84 MPa-120 psi)
Maximum free flow delivery*	568 l/min (150 gpm)	568 l/min (150 gpm)	568 l/min (150 gpm)
Maximum pump speed	145 cpm	145 cpm	145 cpm
Displacement per cycle**	3.90 liter (1.03 gallon)	3.90 liter (1.03 gallon)	3.90 liter (1.03 gallon)
Maximum suction lift (DF3666)	6.1 m (20 ft) dry	6.1 m (20 ft) dry	6.1 m (20 ft) dry
Maximum size pumpable solids	6.3 mm (0.25")	6.3 mm (0.25")	6.3 mm (0.25")
Maximum diaphragm operating temperature***			
PTFE	104.4°C (220°F)	104.4°C (220°F)	104.4°C (220°F)
Santoprene	82.2°C (180°F)	82.2°C (180°F)	82.2°C (180°F)
Buna-N	82.2°C (180°F)	82.2°C (180°F)	82.2°C (180°F)
TPE	65.5°C (150°F)	65.5°C (150°F)	65.5°C (150°F)
Fluoroelastomer	121.1°C (250°F)	121.1°C (250°F)	121.1°C (250°F)
Geolast	65.5°C (150°F)	65.5°C (150°F)	65.5°C (150°F)
Typical sound level at 4.9 bar (0.49 MPa-70 psi) air @ 125 cpm	78 dBA	78 dBA	78 dBA
Maximum air consumption	4.9 m <sup>3</sup> /min (175 scfm)	4.9 m <sup>3</sup> /min (175 scfm)	4.9 m <sup>3</sup> /min (175 scfm)
Air pressure operating range	1.4 to 8.4 bar (0.14 to 0.84 MPa / 20 to 120 psi)	1.4 to 8.4 bar (0.14 to 0.84 MPa / 20 to 120 psi)	1.4 to 8.4 bar (0.14 to 0.84 MPa / 20 to 120 psi)
Air inlet size	1/2 npt(f)	1/2 npt(f)	1/2 npt(f)
Fluid inlet & outlet size	51 mm (2 in) npt(f) or bspt(f)	51 mm (2 in) npt(f) or bspt(f)	51 mm (2 in) npt(f) or bspt(f)
Weight	26.3 kg (58 lb) 28.1 kg (62 lb) - Extended	50 kg (111 lb)	59 kg (130 lb)
Weight with stainless steel centre section	not available	60 kg (134 lb)	not available
Instruction manual	308368	308368	308368

\*Flow rates are with muffler and do not vary based on diaphragm material

\*\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

\*\*\*Actual pump performance may be affected by prolonged usage at temperature



# HUSKY 3300 PLASTIC

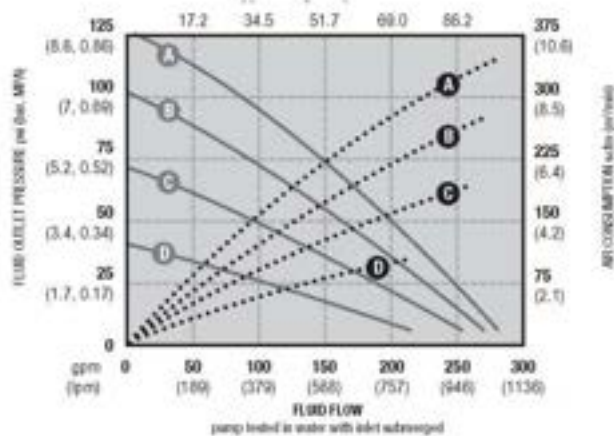
## Popular Models

MATERIAL	PART NUMBER	MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	AIR VALVE REPLACEMENT KIT	SEAT KIT	BALL KIT	DIAPHRAGM KIT	O-RING KIT
Polypropylene	652404	Polypropylene	PTFE	2 pc PTFE	24K857	24K933	24K943	24K905	24K927
	652400	Polypropylene	Santoprene	Santoprene	24K857	24K933	24K944	24K902	24K927
	652423	Santoprene	Santoprene	Santoprene	24K857	24K934	24K944	24K902	24K927
	652414	Stainless Steel	PTFE	2 pc PTFE	24K857	24K935	24K943	24K905	24K927
	652402	Polypropylene	FKM	FKM	24K857	24K933	24K945	24K903	24K927

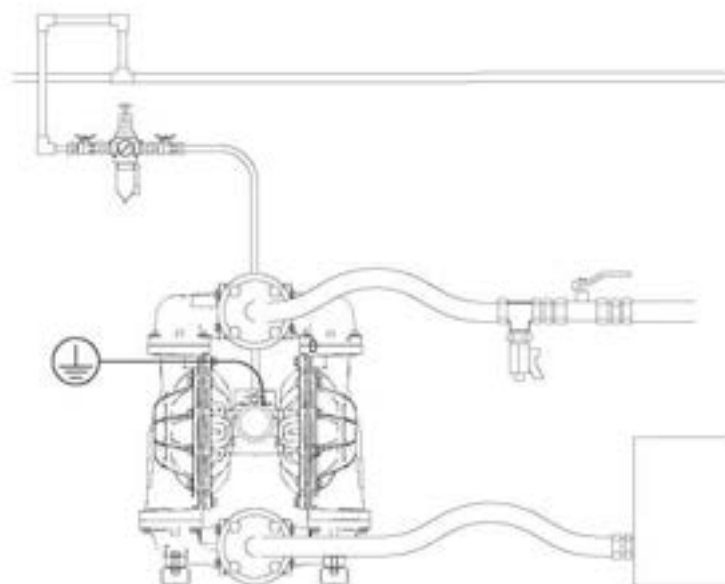
## Performance Chart

### Husky 3300 Performance

Approx. Cycles per Minute



## Typical System Drawings



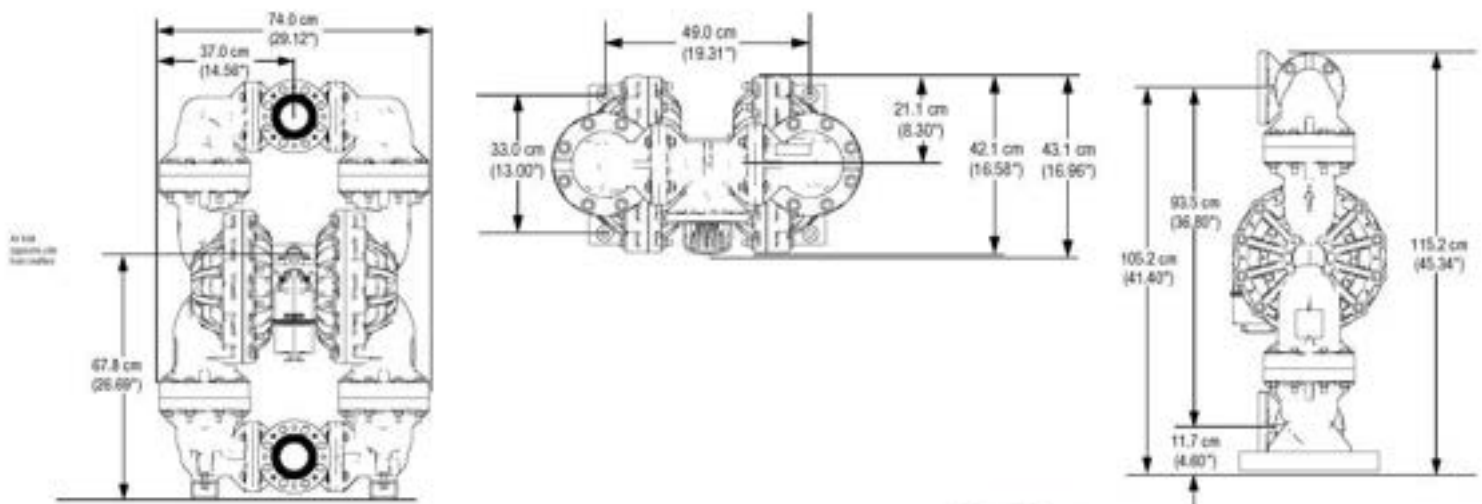
### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.



## Dimensions



## Technical Specifications

HUSKY 3300 PLASTIC PUMPS	POLYPROPYLENE
Maximum fluid working pressure	7.0 bar (0.7 MPa, 100 psi)
Maximum free flow delivery*	
Standard diaphragms at 7.0 bar (0.7 MPa, 100 psi)	1,059 l/min (280 gpm)
Overmolded diaphragms at 7.0 bar (0.7 MPa, 100 psi)	984 l/min (260 gpm)
Maximum pump speed*	
Standard diaphragms at 7.0 bar (0.7 MPa, 100 psi)	97 cpm
Overmolded diaphragms at 7.0 bar (0.7 MPa, 100 psi)	130 cpm
Maximum suction lift * (varies widely based on ball/seat selection and wear, operating speed, material properties, and other variables)	2.4 m (8 ft) dry 8.5 m (28 ft) wet
Maximum size pumpable solids	13 mm (0.5 in)
Noise (dBA)**	
Sound Power at 3.4 bar (50 psi) and 50 cpm	99.1 dBA
Sound Power at 8.3 bar (120 psi) and full flow	106.1 dBA
Sound Pressure at 3.4 bar (50 psi) and 50 cpm	91.5 dBA
Sound Pressure at 8.3 bar (120 psi) and full flow	98.2 dBA
Maximum air consumption	7.8 m <sup>3</sup> /min. (275 scfm)
Air pressure operating range	1.4 to 7.0 bar (0.14 to 0.7 MPa, 20 to 100 psi)
Air inlet size	3/4 npt(f)
Fluid inlet & outlet size	76.2 mm (3 in) ANSI/DSN flange
Weight	91 kg (200 lb)
Instruction manual	3A0410
Repair/parts manual	3A0411

\* Maximum values with water as media at ambient temperature. Water level is approximately 0.9m (3 feet) above pump inlet.

\*\* Startup pressures and displacement per cycle may vary based on suction condition, discharge head, air pressure, and fluid type.

\*\*\* Sound power measured per ISO-9614-2. Sound pressure was tested 1 m (3.28 ft) from equipment.

\*\*\* Actual pump performance may be affected by prolonged usage at temperature

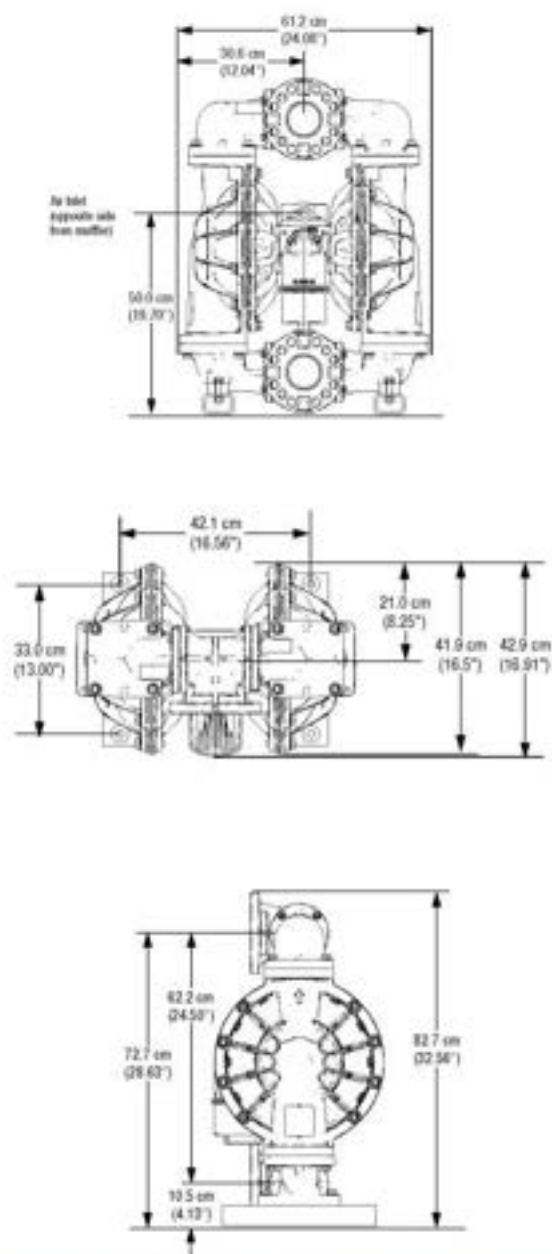
**HUSKY 3300 METAL**

## Popular Models

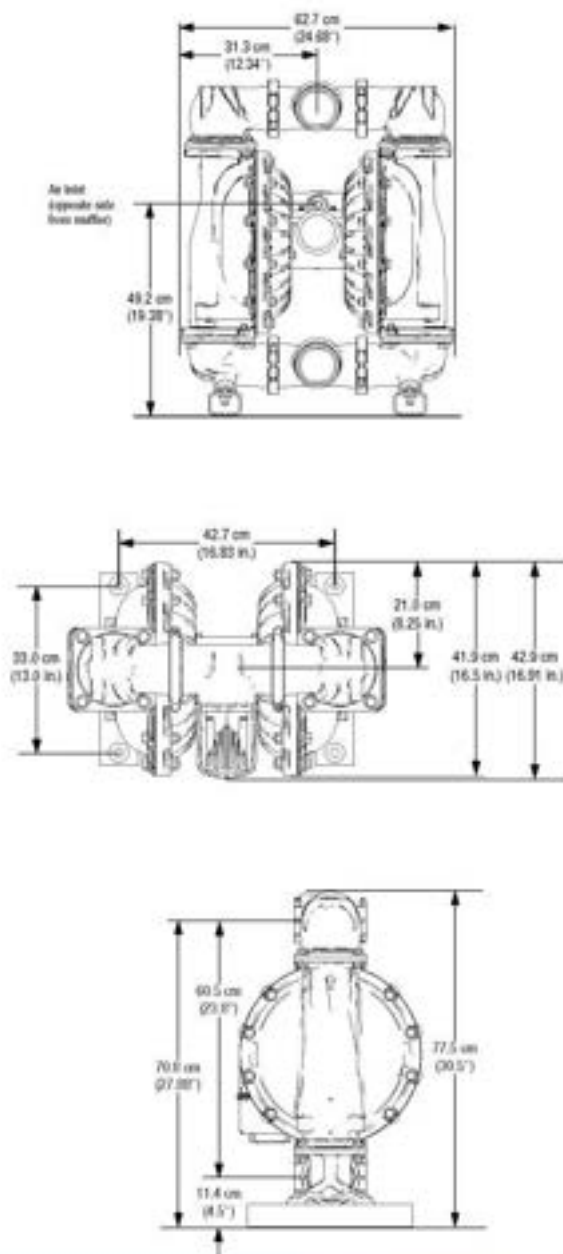
MATERIAL	PART NUMBER	MATERIALS SEATS	MATERIALS BALLS	MATERIALS DIAPHRAGMS	AIR VALVE REPLACEMENT KIT	SEAT KIT	BALL KIT	DIAPHRAGM KIT	O-RING KIT
Aluminium	652002	TPE	Acetal	TPE	24K855	24K932	24K937	24K901	24K909
	652046	Geolast	Geolast	Geolast	24K855	24K931	24K939	24K900	24K909
	652021	Stainless Steel	PTFE	2 pc PTFE	24K855	24K935	24K943	24K905	24K927
	652081	Acetal	PTFE	2 pc PTFE	24K855	24K928	24K943	24K905	24K927
Stainless Steel	652036	Santoprene	Santoprene	Santoprene	24K855	24K934	24K944	24K902	24K909
	652804	Stainless Steel	PTFE	2 pc PTFE	24K857	24K935	24K943	24K905	24K927
	652812	Santoprene	Santoprene	Santoprene	24K857	24K934	24K944	24K902	24K927

## Dimensions

Aluminium

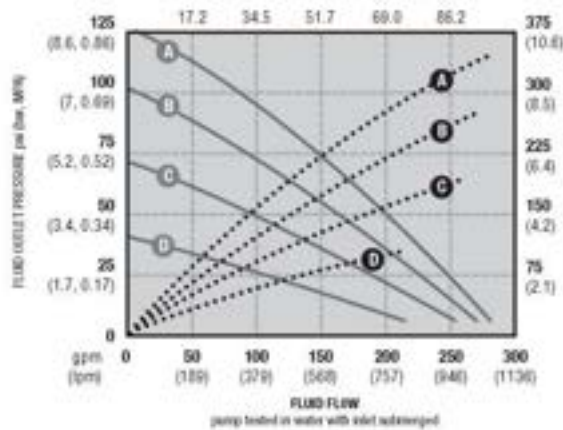


Stainless Steel

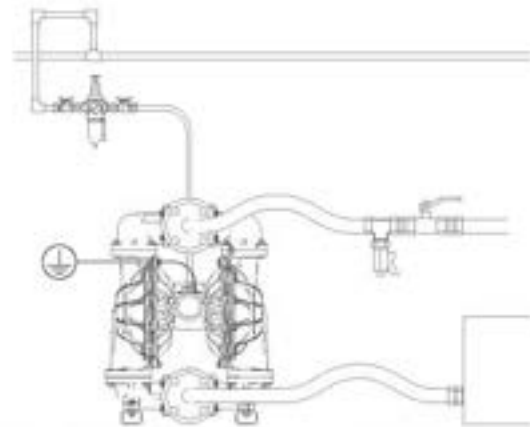




## Performance Chart

**Husky 3300 Performance**  
 Approx. Cycles per Minute


## Typical System Drawings



## Technical Specifications

HUSKY 3300 METAL PUMPS	ALUMINIUM	STAINLESS STEEL
Maximum fluid working pressure with Aluminium Centre Section	8.6 bar (0.86 MPa, 125 psi)	8.6 bar (0.86 MPa, 125 psi)
Maximum fluid working pressure with Polypropylene Centre Section		7.0 bar (0.7 MPa, 100 psi)
Maximum free flow delivery*		
Standard diaphragms at 8.6 bar (0.86 MPa, 125 psi)	1,135 l/min (300 gpm)	1,135 l/min (300 gpm)
Standard diaphragms at 7.0 bar (0.7 MPa, 100 psi)	1,059 l/min (280 gpm)	1,059 l/min (280 gpm)
Overmolded diaphragms at 8.6 bar (0.86 MPa, 125 psi)	1,022 l/min (270 gpm)	1,022 l/min (270 gpm)
Overmolded diaphragms at 7.0 bar (0.7 MPa, 100 psi)	984 l/min (260 gpm)	984 l/min (260 gpm)
Maximum pump speed*		
Standard diaphragms at 8.6 bar (0.86 MPa, 125 psi)	103 cpm	103 cpm
Standard diaphragms at 7.0 bar (0.7 MPa, 100 psi)	97 cpm	97 cpm
Overmolded diaphragms at 8.6 bar (0.86 MPa, 125 psi)	135 cpm	135 cpm
Overmolded diaphragms at 7.0 bar (0.7 MPa, 100 psi)	130 cpm	130 cpm
Maximum suction lift *		
(varies widely based on ball/seat selection and wear, operating speed, material properties, and other variables)	2.4 m (8 ft) dry 8.5 m (28 ft) wet	2.4 m (8 ft) dry 8.5 m (28 ft) wet
Maximum size pumpable solids	13 mm (0.5 in)	13 mm (0.5 in)
Noise (dBA)**		
Sound Power at 3.4 bar (50 psi) and 50 cpm	99.1 dBA	99.1 dBA
Sound Power at 8.3 bar (120 psi) and full flow	106.1 dBA	106.1 dBA
Sound Pressure at 3.4 bar (50 psi) and 50 cpm	91.5 dBA	91.5 dBA
Sound Pressure at 8.3 bar (120 psi) and full flow	98.2 dBA	98.2 dBA
Maximum air consumption with Aluminium Centre Section	9.5 m <sup>3</sup> /min. (335 scfm)	9.5 m <sup>3</sup> /min. (335 scfm)
Maximum air consumption with Polypropylene Centre Section		7.8 m <sup>3</sup> /min. (275 scfm)
Air pressure operating range with Aluminium Centre Section	1.4 to 8.6 bar (0.14 to 0.86 MPa - 20 to 125 psi)	1.4 to 8.6 bar (0.14 to 0.86 MPa - 20 to 125 psi)
Air pressure operating range with Polypropylene Centre Section		1.4 to 7.0 bar (0.14 to 0.7 MPa - 20 to 100 psi)
Air inlet size	3/4 npt(f)	3/4 npt(f)
Fluid inlet & outlet size	76.2 mm (3 in) npt or bspt with ANSI/DIN flange	76.2 mm (3 in) npt or bspt
Weight	68 kg (150 lb)	116 kg (255 lb)
Instruction manual	3A0410	3A0410
Repair/parts manual	3A0411	3A0411

\* Maximum values with water as media at ambient temperature. Water level is approximately 0.9m (3 feet) above pump inlet.

\*\* Startup pressures and displacement per cycle may vary based on suction condition, discharge head, air pressure, and fluid type.

\*\*\* Sound power measured per ISO-9614-2. Sound pressure was tested 1 m (3.28 ft) from equipment.

**HUSKY DRUM PACKAGES**

## Ordering Information

208 LITER (55 GALLON) SIZE		PUMP COMPONENTS				DRUM KIT COMPONENTS			EASY OUT SEAL AND MOUNTING BASE
PACKAGE NUMBER	PUMP TYPE	PUMP NUMBER*	SEATS	BALLS	DIAPHRAGMS	DRUM KIT NUMBER**	TUBE MATERIAL	TUBE PART NUMBER	
233051	Husky 515 Polypropylene	241565	Polypropylene	PTFE	PTFE	233045	Polypropylene	196096	233073
233052	Husky 515 Acetal	241564	Acetal	PTFE	PTFE	233047	Stainless Steel	196094	233074
233053	Husky 515 Acetal	241564	Acetal	PTFE	PTFE	233046	Aluminium	195095	233074
233054	Husky 716 Aluminium	243305	Acetal	Santoprene	Santoprene	233046	Aluminium	196095	233074
233055	Husky 716 Aluminium	243305	Acetal	Buna	Buna	233046	Aluminium	196095	233074
233056	Husky 716 Aluminium	243307	Acetal	PTFE	PTFE	233046	Aluminium	196095	233074
233057	Husky 716 Stainless Steel	D54311	Stainless Steel	PTFE	PTFE	233048	Stainless Steel	196094	233076

## ACCESSORIES

246946	Air Regulator/Filter
208536	Air Line Quick Coupler
169970	Quick Coupler Nipple

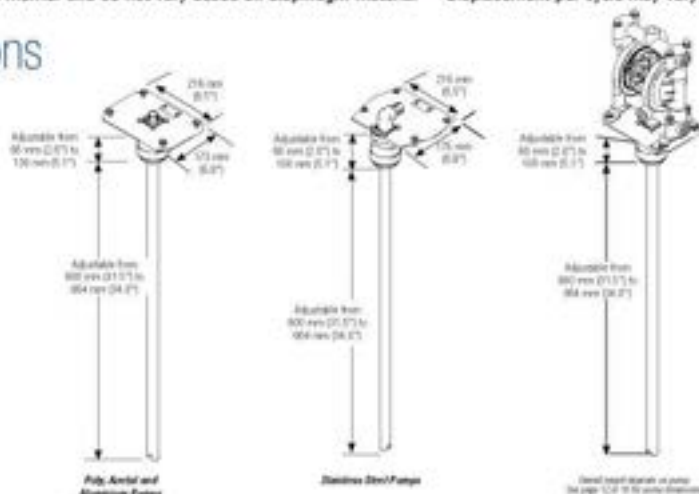


## Technical Specifications

HUSKY 208 LITER (55 GAL) TRANSFER PUMP	ACETAL HUSKY 515	POLYPROPYLENE HUSKY 515	ALUMINIUM HUSKY 716	STAINLESS STEEL HUSKY 716
Maximum fluid working pressure	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)	7 bar (0.7 MPa - 100 psi)
Maximum free flow delivery*	57 l/min (15 gpm)	57 l/min (15 gpm)	61 l/min (16 gpm)	61 l/min (16 gpm)
Maximum pump speed	400 cpm	400 cpm	400 cpm	400 cpm
Displacement per cycle**	0.15 liter (0.04 gallon)	0.15 liter (0.04 gallon)	0.15 liter (0.04 gallon)	0.15 liter (0.04 gallon)
Maximum size pumpable solids	2.5 mm (0.094 in)	2.5 mm (0.094 in)	2.5 mm (0.094 in)	2.5 mm (0.094 in)
Typical sound level at 4.9 bar (0.49 MPa - 70 psi) air @ 50 cpm	67 dBA	67 dBA	67 dBA	67 dBA
Maximum air consumption	0.672 m <sup>3</sup> /min (28 scfm)	0.672 m <sup>3</sup> /min (28 scfm)	0.672 m <sup>3</sup> /min (28 scfm)	0.672 m <sup>3</sup> /min (28 scfm)
Air pressure operating range	1.8 to 7 bar (0.18 to 0.7 MPa - 25 to 100 psi)	1.8 to 7 bar (0.18 to 0.7 MPa - 25 to 100 psi)	1.8 to 7 bar (0.18 to 0.7 MPa - 25 to 100 psi)	1.8 to 7 bar (0.18 to 0.7 MPa - 25 to 100 psi)
Air inlet size	1/4 npt(f)	1/4 npt(f)	1/4 npt(f)	1/4 npt(f)
Air exhaust port size	3/8 npt(f)	3/8 npt(f)	3/8 npt(f)	3/8 npt(f)
Fluid inlet size	3/4 npt(f)	3/4 npt(f)	3/4 npt(f)	3/4 npt(f)
Fluid outlet size	1/2 and 3/4 npt(f)	1/2 and 3/4 npt(f)	3/4 npt(f)	3/4 npt(f)
Wetted parts (fluid covers and manifolds)	groundable acetal, PTFE	polypropylene, PTFE	Aluminium, stainless steel, PTFE, zinc-plated steel	stainless steel, PTFE
Pump weight	3.5 kg (7.8 lb)	2.9 kg (6.5 lb)	3.9 kg (8.5 lb)	8.2 kg (18 lb)
Drum package weight	5.6 kg (12.3 lb)	4.8 kg (10.5 lb)	5.9 kg (13.0 lb)	12.5 kg (27.5 lb)
tube material	Aluminium	polypropylene	Aluminium	stainless steel
Drum kit weight	2.0 kg (4.5 lb)	1.8 kg (4.0 lb)	2.0 kg (4.5 lb)	2.9 kg (6.5 lb)
easy-out seal material	Aluminium	polypropylene	acetal	acetal
Drum package instruction manual	309116	309116	309116	309116
Instruction manual	308981	308981	308981	308981

\* Flow rates are with muffler and do not vary based on diaphragm material \*\* Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

## Dimensions





# HUSKY DRUM PACKAGES



## Ordering Information

PART NUMBER	HUSKY 200 L (55 GAL) DISPENSING PACKAGE
231418	Husky 515 acetal pump 241564, stainless steel drum cover 238283, heavy-duty agitator 238157, air-powered drum cover elevator 237746, air controls, hose and dispense valve
231419	Husky 515 acetal pump, stainless steel drum cover, heavy-duty agitator, drum cover elevator



## Technical Specifications

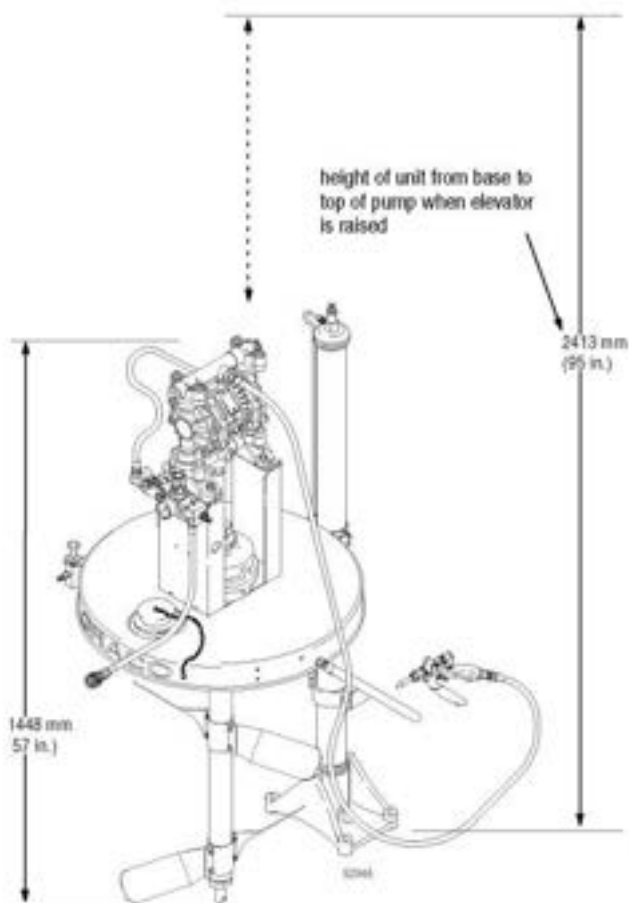
HUSKY 515 ON TWISTORK AGITATOR	
Maximum air input pressure	7 bar (100 psi)
Maximum fluid output pressure	7 bar (100 psi)
Maximum siphon flow rate with 100 cps material	45.4 l/min (12 gpm)
with 1000 cps material	4.54 l/min (1.2 gpm)
Air inlet	Quick-coupler, nipple (pin)
Fluid outlet size	3/4 npt(f)
Maximum recommended agitator speed	800 rpm
Agitator air consumption at 400 rpm	0.07 m <sup>3</sup> /min (2.5 scfm)
at 800 rpm	0.16 m <sup>3</sup> /min (5.7 scfm)
Pump air consumption at 45.4 l/min (12 gpm)	approximately
Maximum operating temp.	66° C (150° F)
Weight	14.5 kg (32 lb)
Maximum noise level*	85 dB(A)
Instruction manual	308656

\* Tested to CAGI-PNEUROP-1969

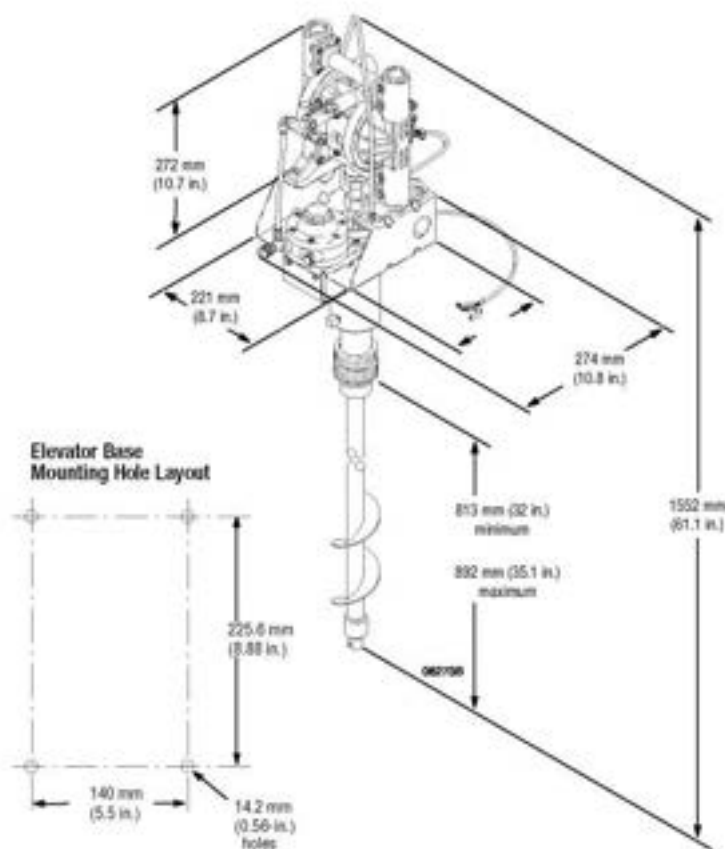
\*\* See the individual component instruction manuals for service instructions and technical data for the Husky 200 l (55 gal) Dispensing Packages.

## Dimensions

Husky 55 gal Dispensing Package



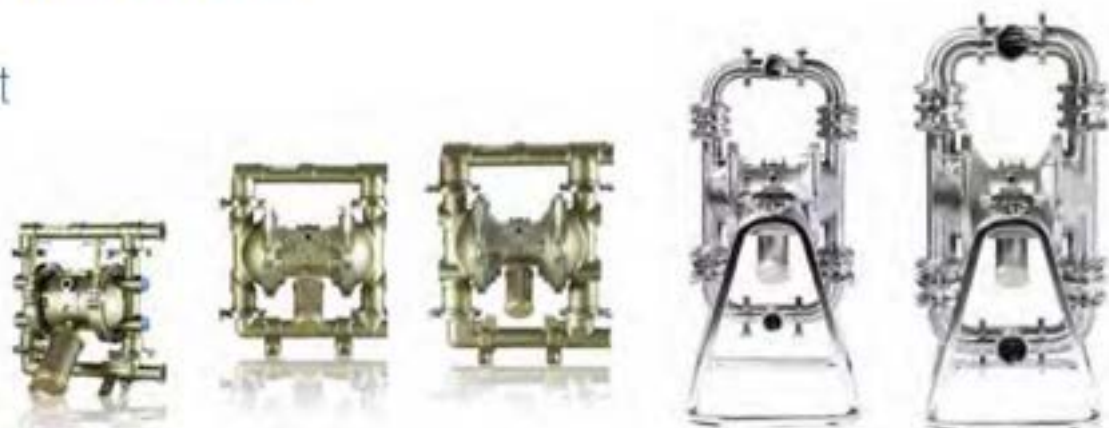
Husky Twistork Package





## SANIFORCE SERIES

## Selection Chart



	1040	1590	2150	1590 HS	3150 HS
<b>Max Flow Rate</b>	40 gpm (151 lpm)	90 gpm (341 lpm)	150 gpm (568 lpm)	90 gpm (340 lpm)	150 gpm (568 lpm)
<b>Max Fluid Pressure</b>	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)
<b>Check Style</b>	Ball	Ball	Ball	Ball	Ball and Flapper
<b>Suction Lift (Wet)</b>	29 ft (8.84 m)	29 ft (8.84 m)	29 ft (8.84 m)	28 ft (8.5 m)	Ball = 18 ft (5.5 m) Flapper = 10 ft (3 m)
<b>Max Pumpable Solids</b>	1/8 in (3.2 mm)	3/16 in (4.8 mm)	1/4 in (6.3 mm)	5/8 in (15.9 mm)	Ball = 1 in (25.4 mm) Flapper = 2.5 in (63.5 mm)
<b>Viscosity Range</b>	Up to 10,000 cps	Up to 15,000 cps	Up to 20,000 cps	Up to 25,000 cps	Up to 20,000 cps
<b>Flyer</b>	320462	320462	320462	338499	338499
<b>Instruction Manual</b>	311879	311879	311879	310622	310622



	1590 3A	3150 3A	MEAT/ POULTRY	SANIFORCE 6:1 PISTON PUMP	SANIFORCE 5:1 PISTON PUMP	SANIFORCE 12:1 PISTON PUMP
<b>Max Flow Rate</b>	90 gpm (340 lpm)	150 gpm (568 lpm)	150 gpm (568 lpm)	4 gpm (15 lpm)	14 gpm (53 lpm)	8.5 gpm (32 lpm)
<b>Max Fluid Pressure</b>	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	600 psi (41 bar, 4.1 MPa)	400 psi (28 bar, 2.8 MPa)	1200 psi (83 bar, 8.3 MPa)
<b>Check Style</b>	Ball	Ball	Flapper	Double ball or Priming piston	Double ball or Priming piston	Priming piston
<b>Suction Lift (Wet)</b>	28 ft (8.5 m)	18 ft (5.5 m)	10 ft (3 m)	N/A	N/A	N/A
<b>Max Pumpable Solids</b>	5/8 in (15.9 mm)	1 in (25.4 mm)	2.5 in (6.3 cm)	1/8 in (3.2 mm)	1/4 in (6.4 mm)	1/4 in (6.4 mm)
<b>Viscosity Range</b>	Up to 15,000 cps	Up to 20,000 cps	Up to 25,000 cps	Siphon: Up to 5,000 cps Immersion: Up to 100,000 cps	Siphon: Up to 5,000 cps Immersion: Up to 100,000 cps	Siphon: Up to 5,000 cps Immersion: Up to 100,000 cps
<b>Flyer</b>	338499	338499	338067	338591	338591	338591
<b>Instruction Manual</b>	310622	310622	310622	3A0733	3A0734	3A0735



## SANIFORCE SERIES



## Selection Chart



	SANIFORCE 6:1 DRUM UNLOADER	SANIFORCE 5:1 DRUM UNLOADER	SANIFORCE 12:1 DRUM UNLOADER	SANIFORCE 3150 HS DRUM UNLOADER
Max Flow Rate	4 gpm (15 lpm)	14 gpm (53 lpm)	8.5 gpm (32 lpm)	60 gpm (234 lpm) to 100 gpm (390 lpm)
Max Fluid Pressure	600 psi (41 bar, 4.1 MPa)	400 psi (28 bar, 2.8 MPa)	1200 psi (83 bar, 8.3 MPa)	120 psi (8 bar, 0.8 MPa)
Pump Style	Double ball or priming piston	Double ball or priming piston	Priming piston	Ball and flapper
Controls	Manual	Manual	Manual	Manual
Viscosity Range Double Ball: Priming Piston:	25,000-60,000 cps 60,000-500,000 cps	25,000-60,000 cps 60,000-500,000 cps	60,000-500,000 cps	25,000-100,000 cps
Flyer	338590	338590	338590	338590
Instruction Manual	3A0591	3A0591	3A0591	3A0591



	SANIFORCE 2150 DRUM UNLOADER	SANIFORCE BES	SANIFORCE 3150 BES
Max Flow Rate	60 gpm (234 lpm) to 100 gpm (390 lpm)	28 gpm (106 lpm) to 54 gpm (204 lpm)	120 gpm (468 lpm) to 300 gpm (1,135 lpm)
Max Fluid Pressure	120 psi (8 bar, 0.8 MPa)	400 psi (27.5 bar, 2.7 MPa) to 1000 psi (70 bar, 7 MPa)	120 psi (8 bar, 0.8 MPa)
Pump Style	Ball	Double ball or priming piston	Ball and flapper
Controls	Manual	Manual and Electronic	Manual and Electronic
Viscosity Range Double Ball: Priming Piston:	25,000-100,000 cps	25,000-500,000 cps	25,000-100,000 cps
Flyer	338590	338589	338589
Instruction Manual	3A0591	311163	311163



## SANIFORCE SERIES

## Ordering Information

SANIFORCE 1040						
PART NUMBER	SIZE	SEATS	O-RINGS	BALLS	DIAPHRAGMS	
FD1111	1.5"	SST	PTFE	PTFE	PTFE	
FD1122	1.5"	SST	PTFE	Santoprene	Santoprene	
FD1211	1.5"	SST	EPDM	PTFE	PTFE	
FD1222	1.5"	SST	EPDM	Santoprene	Santoprene	
FD1113	1.5"	SST	PTFE	PTFE	Overmolded PTFE	
FD1213	1.5"	SST	EPDM	PTFE	Overmolded PTFE	
FD1132	1.5"	SST	PTFE	Weighted Polychloroprene	Santoprene	
FD1232	1.5"	SST	EPDM	Weighted Polychloroprene	Santoprene	



SANIFORCE 1590						
PART NUMBER	SIZE	SEATS	O-RINGS	BALLS	DIAPHRAGMS	
FD2111	2"	SST	PTFE	PTFE	PTFE	
FD2122	2"	SST	PTFE	Santoprene	Santoprene	
FD2211	2"	SST	EPDM	PTFE	PTFE	
FD2222	2"	SST	EPDM	Santoprene	Santoprene	
FD2113	2"	SST	PTFE	PTFE	Overmolded PTFE	
FD2213	2"	SST	EPDM	PTFE	Overmolded PTFE	
FD2132	2"	SST	PTFE	Weighted Polychloroprene	Santoprene	
FD2232	2"	SST	EPDM	Weighted Polychloroprene	Santoprene	



SANIFORCE 2150						
PART NUMBER	SIZE	SEATS	O-RINGS	BALLS	DIAPHRAGMS	
FD3111	2.5"	SST	PTFE	PTFE	PTFE	
FD3122	2.5"	SST	PTFE	Santoprene	Santoprene	
FD3211	2.5"	SST	EPDM	PTFE	PTFE	
FD3222	2.5"	SST	EPDM	Santoprene	Santoprene	
FD3113	2.5"	SST	PTFE	PTFE	Overmolded PTFE	
FD3213	2.5"	SST	EPDM	PTFE	Overmolded PTFE	
FD3132	2.5"	SST	PTFE	Weighted Polychloroprene	Santoprene	
FD3232	2.5"	SST	EPDM	Weighted Polychloroprene	Santoprene	



## Fluid Repair Kits

KITS	O-RINGS	BALLS	DIAPHRAGMS
<b>1040 Fluid Repair Kits</b>			
FK1111	PTFE	PTFE	PTFE
FK1122	PTFE	Santoprene	Santoprene
FK1211	EPDM	PTFE	PTFE
FK1222	EPDM	Santoprene	Santoprene
FK1113	PTFE	PTFE	Overmolded PTFE
FK1213	EPDM	PTFE	Overmolded PTFE
FK1132	PTFE	Weighted CR	Santoprene
FK1232	EPDM	Weighted CR	Santoprene
<b>1590 Fluid Repair Kits</b>			
FK2111	PTFE	PTFE	PTFE
FK2122	PTFE	Santoprene	Santoprene
FK2211	EPDM	PTFE	PTFE
FK2222	EPDM	Santoprene	Santoprene
FK2113	PTFE	PTFE	Overmolded PTFE
FK2213	EPDM	PTFE	Overmolded PTFE
FK2132	PTFE	Weighted CR	Santoprene
FK2232	EPDM	Weighted CR	Santoprene
<b>2150 Fluid Repair Kits</b>			
FK3111	PTFE	PTFE	PTFE
FK3122	PTFE	Santoprene	Santoprene
FK3211	EPDM	PTFE	PTFE
FK3222	EPDM	Santoprene	Santoprene
FK3113	PTFE	PTFE	Overmolded PTFE
FK3213	EPDM	PTFE	Overmolded PTFE
FK3132	PTFE	Weighted CR	Santoprene
FK3232	EPDM	Weighted CR	Santoprene

## Technical Specifications

	1040 FDA	1590 FDA	2150 FDA
<b>Maximum fluid working pressure</b>	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)
<b>Air pressure operating range</b>	20-120 psi (1.4-8 bar, 0.14-0.8 MPa)	20-120 psi (1.4-8 bar, 0.14-0.8 MPa)	20-120 psi (1.4-8 bar, 0.14-0.8 MPa)
<b>Maximum air consumption</b>	50 scfm	130 scfm	175 scfm
<b>Air consumption</b>	18 scfm at 70 psi/20 gpm	42 scfm at 70 psi/50 gpm	70 scfm at 70 psi/80 gpm
<b>Maximum free-flow delivery</b>	40 gpm (151 lpm)	90 gpm (341 lpm)	150 gpm (568 lpm)
<b>Gallons (liters) per cycle</b>	0.16 (0.57)*	0.5 (1.9)*	0.97 (3.67)*
<b>Maximum suction lift</b>	29 ft (8.83 m) wet, 16 ft (4.87 m) dry	29 ft (8.83 m) wet, 14 ft (4.27 m) dry	29 ft (8.83 m) wet, 16 ft (4.87 m) dry
<b>Maximum size pumpable solids</b>	1/8 in (3.2 mm)	3/16 in (4.8 mm)	1/4 in (6.3 mm)
<b>Air inlet size</b>	0.5 in npt(f)	0.5 in npt(f)	0.5 in npt(f)
<b>Fluid inlet/outlet size</b>	1.5 in sanitary flange	2 in sanitary flange	2.5 in sanitary flange
<b>Weight - All models</b>	55 lb (24.9 kg)	89 lb (40 kg)	147 lb (66.7 kg)
<b>Flyer</b>	320462	320462	320462
<b>Instruction manual</b>	311879	311879	311879

**MAXIMUM FLUID OPERATING TEMPERATURE IS BASED ON THE FOLLOWING MAXIMUM DIAPHRAGM, BALL, AND SEAT TEMPERATURE RATINGS**

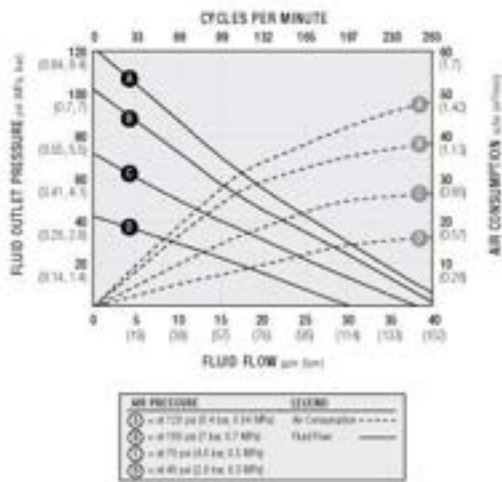
<b>Stainless steel</b>	250°F (121.1°C)	250°F (121.1°C)	250°F (121.1°C)
<b>PTFE</b>	220°F (104.4°C)	220°F (104.4°C)	220°F (104.4°C)
<b>Santoprene</b>	180°F (82.2°C)	180°F (82.2°C)	180°F (82.2°C)
<b>EPDM</b>	275°F (135°C)	275°F (135°C)	275°F (135°C)
<b>Polychloroprene</b>	200°F (93.3°C)	200°F (93.3°C)	200°F (93.3°C)

\*Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

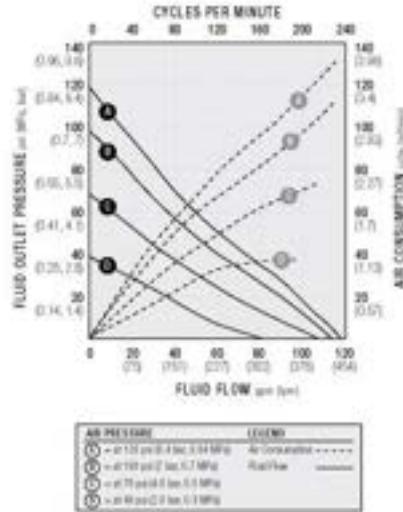


## Performance Charts

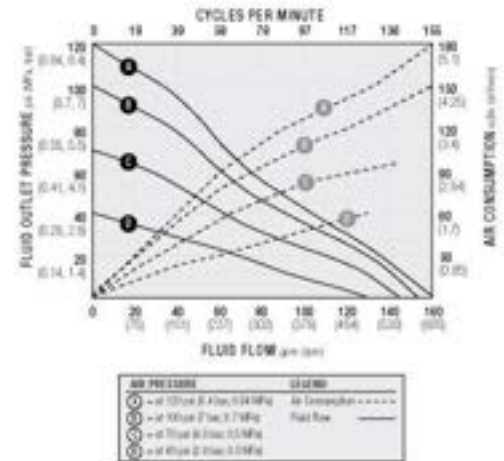
1040



1590

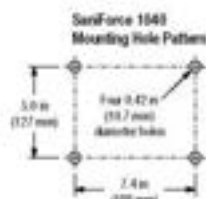
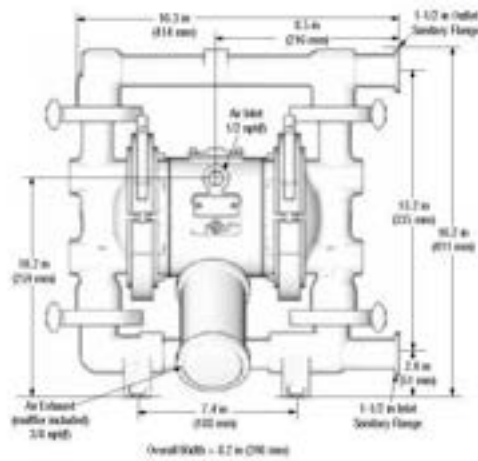


2150

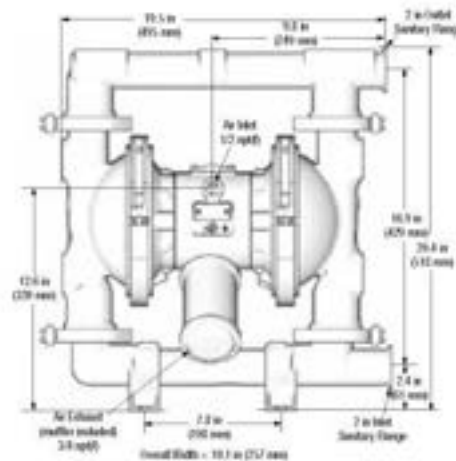


## Dimensions

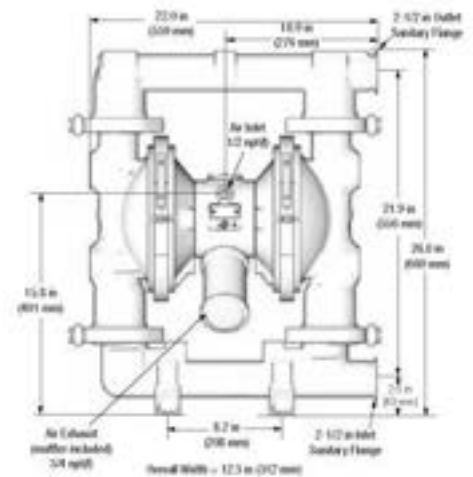
1040



1590



2150





## SANIFORCE SERIES

## Ordering Information

## SANIFORCE 1590 HS BALL PUMPS

PART NUMBER	TYPE	INLET	BALL	DIAPHRAGMS
SBBAAA	Ball	2 in x 2 in	PTFE	Overmolded EPDM
SBBAA11	Ball	2 in x 2 in	PTFE	PTFE
SABA13	Ball	2 in x 2 in	PTFE	Overmolded PTFE*
SBBAA13	Ball	2 in x 2 in	PTFE	Overmolded PTFE
SBBAA22	Ball	2 in x 2 in	Santoprene	Santoprene

\*Includes leak detector

## SANIFORCE 1590 KITS AND ACCESSORIES

PART NUMBER	TYPE
255058	Overmolded EPDM diaphragm kit
255059	Santoprene diaphragm kit
255060	PTFE diaphragm kit
112421	Santoprene ball (quantity one)
112419	PTFE ball (quantity one)
255122	Air valve repair kit 3A
15D990	Leak detector



## SANIFORCE 3150 HS BALL PUMPS

PART NUMBER	TYPE	INLET/OUTLET	BALL	DIAPHRAGMS
SA13A1	Ball Check	1.5 in x 1.5 in	PTFE	Overmolded PTFE/EPDM
SA23A1	Ball Check	2 in x 2 in	PTFE	Overmolded PTFE/EPDM
SA3AA1	Ball Check	3 in x 3 in	PTFE	Overmolded EPDM
SA33A1	Ball Check	3 in x 3 in	PTFE	Overmolded PTFE/EPDM
SA4AA1	Ball Check	4 in x 4 in	PTFE	Overmolded EPDM
SA43A1	Ball Check	4 in x 4 in	PTFE	Overmolded PTFE/EPDM
SA53A1	Ball Check	3 in x 2 in	PTFE	Overmolded PTFE/EPDM
SA3361	Ball Check	3 in x 3 in	Santoprene	Overmolded PTFE/EPDM
SB2AA1	Ball Check	2 in x 2 in	PTFE	Overmolded EPDM
SB3AA1	Ball Check	3 in x 3 in	PTFE	Overmolded EPDM
SB2661	Ball Check	2 in x 2 in	Santoprene	Santoprene
SB3661	Ball Check	3 in x 3 in	Santoprene	Santoprene
SB2771	Ball Check	2 in x 2 in	Buna-N	Buna-N
SB3771	Ball Check	3 in x 3 in	Buna-N	Buna-N
SB2881	Ball Check	2 in x 2 in	Fluoroelastomer	Fluoroelastomer
SB3881	Ball Check	3 in x 3 in	Fluoroelastomer	Fluoroelastomer



Flapper Check Valve



Ball Check Valve



## SANIFORCE 3150 HS FLAPPER PUMPS

PART NUMBER	TYPE	INLET/OUTLET	DIAPHRAGM
SF3AF1	Flapper	3 in x 3 in	Overmolded EPDM
SF4AF1	Flapper	4 in x 4 in	Overmolded EPDM
SF36F1	Flapper	3 in x 3 in	Santoprene
SF46F1	Flapper	4 in x 4 in	Santoprene
SF37F1	Flapper	3 in x 3 in	Buna-N
SF47F1	Flapper	4 in x 4 in	Buna-N
SF38F1	Flapper	3 in x 3 in	Fluoroelastomer
SF48F1	Flapper	4 in x 4 in	Fluoroelastomer

## SANIFORCE 3150 HS ACCESSORIES

PART NUMBER	TYPE
16E975	Conversion kit: Ball to flapper, includes four flapper assemblies
15H461	3A Conversion kit: Flapper to ball, includes four housing retainers (balls need to be ordered separately)
15E285	Conversion kit: Flapper to ball, includes four housing retainers (balls need to be ordered separately)
112359	PTFE ball (order quantity four)
112361	Santoprene ball (order quantity four)
253225	Santoprene diaphragm kit
15B492	Buna-N ball (order quantity four)
253223	Buna-N diaphragm kit
15B491	Fluoroelastomer ball (order quantity four)
253222	Fluoroelastomer diaphragm kit
253224	Overmolded EPDM diaphragm kit
253628	Overmolded PTFE diaphragm kit
15D990	Leak detector kit



## Technical Specifications

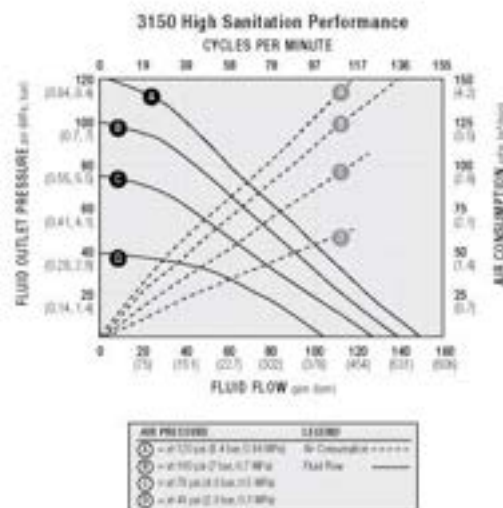
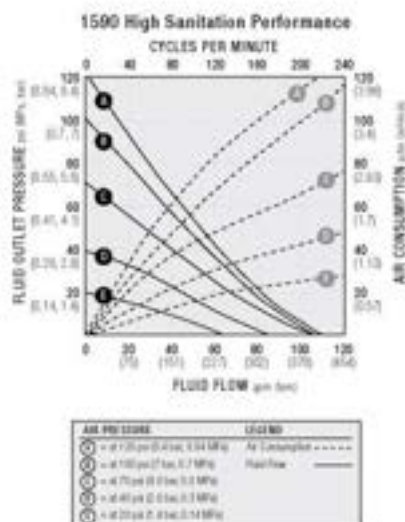
	1590
Maximum fluid working pressure	120 psi (8 bar, 0.8 MPa)
Maximum free-flow delivery	90 gpm (340 lpm)
Maximum suction lift	28 ft (8.5 m) wet, 15 ft (4.57 m) dry
Maximum size pumpable solids	5/8 in (15.9 mm)
Air pressure operating range	20-120 psi (1.4-8 bar, 0.14-0.8 MPa)
Maximum air consumption	125 scfm
Air consumption at 70 psi air inlet pressure/60 gpm	50 scfm
Maximum pump speed	200 cpm
*Gallons (liters) per cycle	0.5 (1.96)
**Maximum noise level at 100 psi, full flow	90 dBA
**Sound power level	103 dBA
**Noise level at 70 psi and 50 cpm	85 dBA
Air inlet size	0.5 in npt(f)
Weight	97 lb (44 kg)
Flyer	338499
Instruction manual	310622
<b>MAXIMUM FLUID OPERATING TEMPERATURE IS BASED ON THE FOLLOWING MAXIMUM DIAPHRAGM, BALL, AND SEAT TEMPERATURE RATINGS</b>	
PTFE	220°F (104.4°C)
Santoprene	180°F (82.2°C)
3A Approved EPDM	275°F (135°C)

\* Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type  
 \*\* Noise levels measured with the pump mounted on the stand. Sound power measured per ISO Standard 9614-1

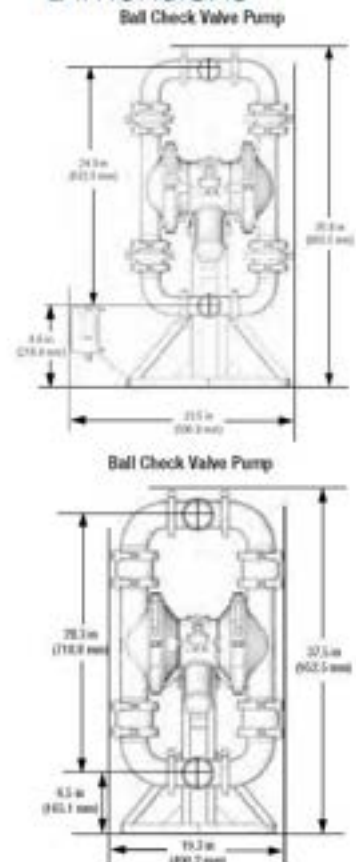
	3150
Maximum fluid working pressure	120 psi (8 bar, 0.8 MPa)
Maximum free-flow delivery*	150 gpm (568 lpm)
Maximum suction lift - ball	18 ft (5.4 m) wet, 9 ft (2.7 m) dry
Maximum suction lift - flapper	10 ft (3.0 m) wet, 5 ft (1.5 m) dry
Maximum size pumpable solids - ball	1 in (25.4 mm)
Maximum size pumpable solids - flapper	2.5 in (63.5 mm)
Air pressure operating range	20-120 psi (1.4 to 8.4 bar, 0.14 to 0.84 MPa)
Maximum air consumption	175 scfm
Air consumption at 70 psi air inlet pressure/60 gpm	50 scfm
Maximum pump speed	145 cpm
*Gallons (liter) per cycle	1.03 (3.90)
**Maximum noise level at 100 psi, full flow	90 dBA
**Sound power level	103 dBA
**Noise level at 70 psi and 50 cpm	85 dBA
Fluid inlet & outlet size (determined by part number)	Tri-clamp connections
Air inlet size	0.5 in npt(f)
Weight	145 lb (65 kg)
Flyer	338499
Instruction manual	310622
<b>MAXIMUM DIAPHRAGM OPERATING TEMPERATURE</b>	
Santoprene	180°F (82.2°C)
Buna-N	180°F (82.2°C)
PTFE	220°F (104.4°C)
Fluoroelastomer	250°F (121°C)
EPDM	275°F (135°C)

\* Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type  
 \*\* Noise levels measured with the pump mounted on the stand. Sound power measured per ISO Standard 9614-1

## Performance Charts



## Dimensions





## SANIFORCE SERIES 3A CERTIFIED PUMPS

### Ordering Information

SANIFORCE 1590 3A PUMPS				
PART NUMBER	TYPE	INLET	BALL	DIAPHRAGMS
SABAAA	3A Approved	2 in x 2 in	PTFE	Overmolded EPDM



SANIFORCE 3150 3A PUMPS				
PART NUMBER	TYPE	INLET	BALL	DIAPHRAGMS
SA1AAA	3A Approved	1.5 in x 1.5 in	PTFE	Overmolded EPDM
SA2AAA	3A Approved	2 in x 2 in	PTFE	Overmolded EPDM
SA3AAA	3A Approved	3 in x 3 in	PTFE	Overmolded EPDM
SA4AAA	3A Approved	4 in x 4 in	PTFE	Overmolded EPDM
SA5AAA	3A Approved	3 in x 2 in	PTFE	Overmolded EPDM



### Technical Specifications

	1590 3A CERTIFIED	3150 3A CERTIFIED
Maximum fluid working pressure	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)
Maximum free-flow delivery**	90 gpm (340 lpm)	150 gpm (568 lpm)
Maximum suction lift - ball	28 ft (8.5 m) wet, 15 ft (4.5 m) dry	18 ft (5.5 m) wet, 9 ft (2.7 m) dry
Maximum suction lift - flapper	N/A	10 ft (3.0 m) wet, 5 ft (1.5 m) dry
Maximum size pumpable solids - ball	5/8 in (15.8 mm)	1 in (25.4 mm)
Maximum size pumpable solids - flapper	N/A	2.5 in (63.5 mm)
Typical sound level at 70 psi air (4.9 bar) air @ 50 cpm	85 dBA	85 dBA
Air pressure operating range	20-120 psi (1.4 to 8.4 bar, 0.14 to 0.84 MPa)	20-120 psi (1.4 to 8.4 bar, 0.14 to 0.84 MPa)
Air inlet size	0.5 in npt(f)	0.5 in npt(f)
Fluid inlet & outlet size (determined by part number)	Tri-clamp connections	Tri-clamp connections
Weight	97 lb (44 kg)	145 lb (65 kg)
Flyer	338499	338499
Instruction manual	310622	310622
MAXIMUM DIAPHRAGM OPERATING TEMPERATURE		
Santoprene	180°F (82.2°C)	180°F (82.2°C)
Buna-N	N/A	180°F (82.2°C)
PTFE	220°F (104.4°C)	220°F (104.4°C)
Fluoroelastomer	N/A	250°F (121°C)
EPDM	275°F (135°C)	275°F (135°C)

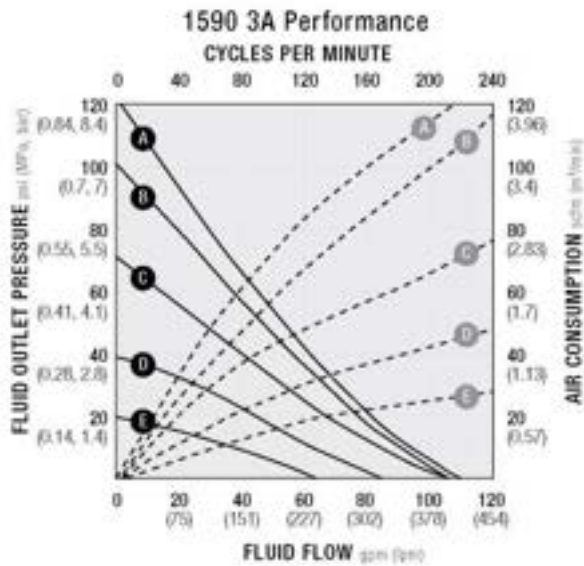
\*\* Flow rates are with muffler and do not vary based on diaphragm material. Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type.



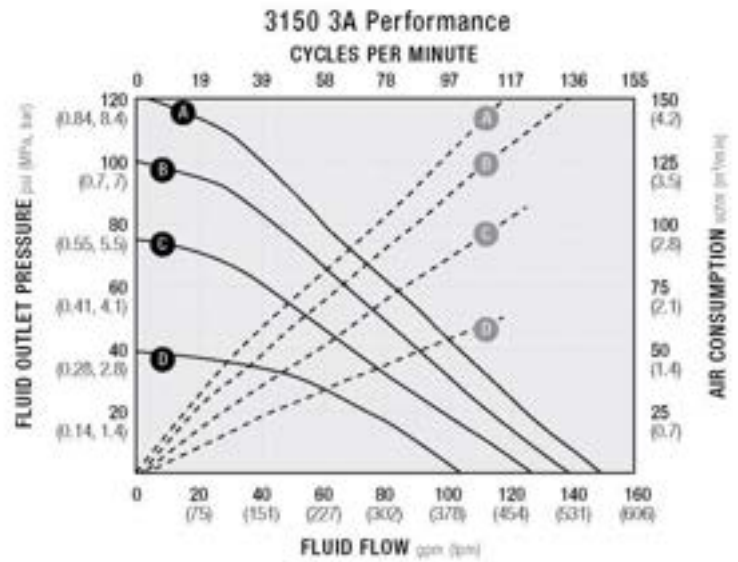
# SANIFORCE SERIES 3A CERTIFIED PUMPS



## Performance Charts



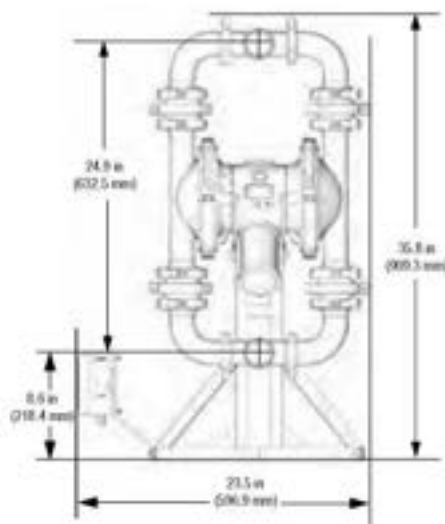
AIR PRESSURE	LEGEND
A = at 120 psi (8.4 bar, 0.84 MPa)	Air Consumption - - - - -
B = at 100 psi (7 bar, 0.7 MPa)	Fluid Flow - - - - -
C = at 70 psi (4.8 bar, 0.5 MPa)	
D = at 40 psi (2.8 bar, 0.3 MPa)	
E = at 20 psi (1.4 bar, 0.14 MPa)	



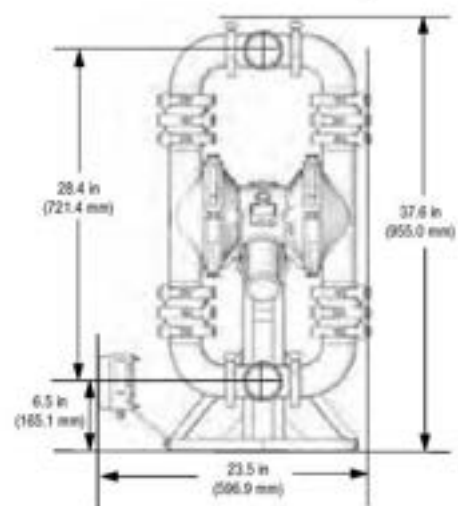
AIR PRESSURE	LEGEND
A = at 120 psi (8.4 bar, 0.84 MPa)	Air Consumption - - - - -
B = at 100 psi (7 bar, 0.7 MPa)	Fluid Flow - - - - -
C = at 70 psi (4.8 bar, 0.5 MPa)	
D = at 40 psi (2.8 bar, 0.3 MPa)	

## Dimensions

3A Ball Check Valve Pump



3A Ball Check Valve Pump





## SANIFORCE SERIES 3A CERTIFIED PUMPS

### Ordering Information

PART NUMBER	TYPE	INLET/OUTLET SIZE	DIAPHRAGMS
SFP6F1	Flapper	3 in x 3 in	Santoprene
SFP7F1	Flapper	3 in x 3 in	Buna-N
SFP8F1	Flapper	3 in x 3 in	Fluoroelastomer
SFP9F1	Flapper	3 in x 3 in	Overmolded EPDM



ACCESSORIES	
PART NUMBER	DESCRIPTION
253225	Santoprene diaphragm kit
253223	Buna-N diaphragm kit
253222	Fluoroelastomer diaphragm kit
253224	Overmolded EPDM diaphragm kit
15D990	Leak detector kit



Flapper Check Valve

### Technical Specifications

	MEAT AND POULTRY
Maximum fluid working pressure	120 psi (8 bar, 0.8 MPa)
Maximum free-flow delivery*	150 gpm (568 lpm)
Maximum suction lift	10 ft (3.0 m) wet
Maximum size pumpable solids	2.5 in (63.5 mm)
Typical sound level at 70 psi air (4.9 bar) air @ 50 cpm	85 dBA
Air pressure operating range	20-120 psi (1.4 to 8.4 bar, 0.14 to 0.84 MPa)
Air inlet size	0.5 in npt(f)
Fluid inlet & outlet size (determined by part number)	Tri-clamp connections
Weight	145 lb (65 kg)
Flyer	338067
Instruction manual	310622
MAXIMUM DIAPHRAGM OPERATING TEMPERATURE	
Santoprene	180°F (82.2°C)
Buna-N	180°F (82.2°C)
Fluoroelastomer	250°F (121°C)
EPDM	275°F (135°C)

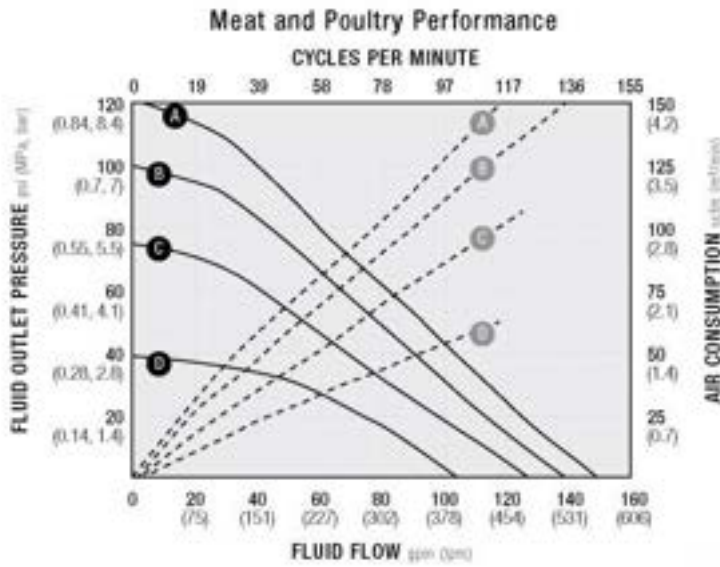
\*\* Flow rates are with muffler and do not vary based on diaphragm material. Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type.



# SANIFORCE SERIES 3A CERTIFIED PUMPS



## Performance Chart



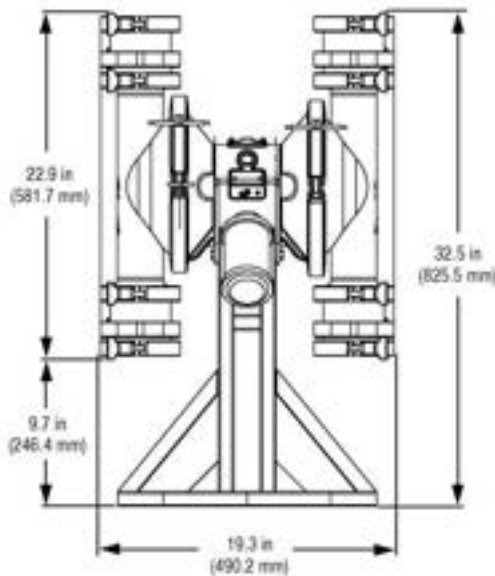
AIR PRESSURE	LEGEND
A - at 120 psi (8.4 bar, 0.84 MPa)	Air Consumption - - - -
B - at 100 psi (7 bar, 0.7 MPa)	Fluid Flow - - - -
C - at 70 psi (4.8 bar, 0.5 MPa)	
D - at 40 psi (2.8 bar, 0.3 MPa)	

**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...  
 Call 1300 225 786 to discuss your requirements.

## Dimensions

### Flapper Check Valve Pumps





## ACCESSORIES

## Ordering Information

PTFE/EDPM HEAVY-DUTY OVERMOLDED DIAPHRAGMS							
PUMP PART NO.	PUMP SIZE	INLET/OUTLET	AIR MOTOR	FLUID SECTION	SEATS	BALLS	O-RINGS
FD1113	1 in	1.5 in	SST	SST	SST	PTFE	PTFE
FD1213	1 in	1.5 in	SST	SST	SST	PTFE	EPDM
FD2113	1.5 in	2 in	SST	SST	SST	PTFE	PTFE
FD2213	1.5 in	2 in	SST	SST	SST	PTFE	EPDM
FD3113	2 in	2.5 in	SST	SST	SST	PTFE	PTFE
FD3213	2 in	2.5 in	SST	SST	SST	PTFE	EPDM



HIGH SANITATION PTFE/EDPM HEAVY-DUTY OVERMOLDED DIAPHRAGMS						
PUMP PART NO.	PUMP SIZE	INLET/OUTLET	AIR MOTOR	FLUID SECTION	SEATS	BALLS
<b>1590 High Sanitation Pump</b>						
SABA13*	1.5 in	2 in	SST	SST	SST	PTFE
S8BA13	1.5 in	2 in	SST	SST	SST	PTFE
<b>3150 High Sanitation Pump</b>						
SA13A1	2 in	1.5 in	SST	SST	SST	PTFE
SA23A1	2 in	2 in	SST	SST	SST	PTFE
SA33A1	2 in	3 in	SST	SST	SST	PTFE
SA3361	2 in	3 in	SST	SST	SST	Santoprene
SAS3A1	2 in	3 in x 2 in	SST	SST	SST	PTFE
SA43A1	2 in	4 in	SST	SST	SST	PTFE



\*Includes leak detector

HIGH SANITATION AND INDUSTRIAL REPAIR KITS*	
PUMP PART NO.	DESCRIPTION
253626	For 1 inch pump size, diaphragm repair kit
253627	For 1.5 inch pump size, diaphragm repair kit
253628	For 2 inch pump size, diaphragm repair kit

\*To replace PTFE overmolded diaphragms

HIGH SANITATION AND INDUSTRIAL UPGRADE KITS*	
PUMP PART NO.	DESCRIPTION
289224	Upgrade kit for 1 inch pump
289225	Upgrade kit for 1.5 inch pump
289226	Upgrade kit for 2 inch pump

Includes new airside diaphragm plate for replacement of standard bolt-through diaphragm.

SANIFORCE 1040, 1590 & 2150 PUMP REPAIR KITS	
PUMP PART NO.	DESCRIPTION
FK1113	For 1 inch pump size, with PTFE o-rings
FK1213	For 1 inch pump size, with EPDM o-rings
FK2113	For 1.5 inch pump size, with PTFE o-rings
FK2213	For 1.5 inch pump size, with EPDM o-rings
FK3113	For 2 inch pump size, with PTFE o-rings
FK3213	For 2 inch pump size, with EPDM o-rings

\*To replace PTFE overmolded diaphragms

## Technical Specifications

OVERMOLDED DIAPHRAGMS	
Material/Construction on wetted side	FDA-Compliant PTFE
Material/Construction on air side	FDA-Compliant EPDM
Temperature range	14°F to 180°F (-10°C to 82°C)
Flex life	5x original Graco 2-piece PTFE diaphragm sets
Safety	Complies to FDA21CFR 177.1550 (PTFE) and FDA21CFR 177.2600 (EPDM)

**DID YOU KNOW?**

Over moulded diaphragms last 3 times longer!

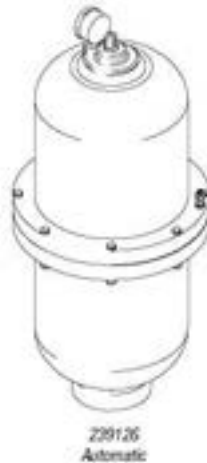
Call 1300 225 786 for more info



## Ordering Information

HUSKY 750, 3/4" NPT(F) SURGE SUPPRESSORS			
AUTOMATIC	POLYPROPYLENE WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING	STAINLESS STEEL WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING	ACETAL WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING
Weight	4.1 kg (9 lb)	7.3 kg (16 lb)	4.1 kg (9 lb)
Suppressor with Buna-N bladder	239096	239095	239094
Suppressor with PTFE bellows	239121	239123	239125
Suppressor with Fluoroelastomer bladder	239122	239124	not available
ADJUSTABLE	POLYPROPYLENE WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING	STAINLESS STEEL WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING	ACETAL WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING
Weight	4.1 kg (9 lb)	7.3 kg (16 lb)	4.1 kg (9 lb)
Suppressor with Buna-N bladder	239091	239090	239089
Suppressor with PTFE bellows	239129	239131	239133
Suppressor with Fluoroelastomer bladder	239130	239132	not available

HUSKY 2000, 2 IN NPT(F) SURGE SUPPRESSORS		
AUTOMATIC	POLYPROPYLENE WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING	STAINLESS STEEL WETTED BOTTOM HOUSING, POLYPROPYLENE NON-WETTED TOP HOUSING
Weight	8.2 kg (18 lb)	16.3 kg (36 lb)
Suppressor with Buna-N bladder	239092	239093
Suppressor with PTFE bellows	239128	239126
Suppressor with Fluoroelastomer bladder	not available	239127
ADJUSTABLE	POLYPROPYLENE WETTED BOTTOM HOUSING AND NON-WETTED TOP HOUSING	STAINLESS STEEL WETTED BOTTOM HOUSING, POLYPROPYLENE NON-WETTED TOP HOUSING
Weight	8.2 kg (18 lb)	16.3 kg (36 lb)
Suppressor with Buna-N bladder	239087	239088
Suppressor with PTFE bellows	239136	239134
Suppressor with Fluoroelastomer bladder	not available	239135



## Technical Specifications

SURGE SUPPRESSORS	HUSKY 750	HUSKY 2000
Max. air input pressure	8.4 bar (0.84 MPa, 120 psi)	8.4 bar (0.84 MPa, 120 psi)
Air line connection	1/4 npt	1/4 npt
Fluid inlet size	3/4" npt(f)	2" npt(f)
Instruction manual	308703	308703



## ACCESSORIES

## Ordering Information

HUSKY 205	PART NO.	HUSKY 515 AND HUSKY 716	PART NO.
<b>AIR CONTROLS</b>		<b>AIR CONTROLS</b>	
Regulator / Filter Assembly 1/4" npt(f) (6.35 mm)	246946	Regulator / Filter Assembly 6.35 mm (1/4" npt(f))	246946
Quick Connect Air Coupler 1/4" npt (6.35 mm)	208536	Quick Connect Air Coupler 6.35 mm (1/4" npt)	208536
Quick Connect Air Nipple 1/4" npt (6.35 mm) mbe	169970	Quick Connect Air Nipple 6.35 mm (1/4" npt) mbe	169970
Air Shut Off Valve 1/4" npt (6.35 mm), bleed type, relieves trapped air downline of valve	110223	Air Shut Off Valve 6.35 mm (1/4" npt), bleed type, relieves trapped air downline of valve	110223
Air Runaway Valve (stops pump from cavitating when empty)	224040	Air Runaway Valve (stop pump from cavitating when empty)	224040
Air Muffler (comes with pump)	114174	Air Muffler (comes with pump)	112933
<b>208 LITER (55-GALLON) SIPHON KITS</b>		<b>Centre Section Conversion Kit (converts an old style Husky 715 to a Husky 515/716)</b>	
Polypropylene Suction Kit (includes siphon hose, tube and connectors)	239142	Centre Section Conversion Kit (converts an old remote style Husky 715 to a Husky 515/716)	241664
Acetal Suction Kit (includes siphon hose, tube and connectors)	239143	<b>208 LITER (55-GALLON) SIPHON KITS</b>	
PVDF Suction Kit (includes siphon hose, tube and connectors)	239144	Drum Kit (includes "easy out seal" mounting base and siphon tube). Best used with a wall mounted Husky 515 or 716 model. Pump models can be mounted to base, but may require opening bottom inlet. See 309116 for details.	
<b>REMOTE PUMP CONTROLLERS</b>		Mounting Base with a Polypropylene Siphon Tube	
CycleFlo (cpm rate and batch control) 120V	195264	Mounting Base with a Aluminium Siphon Tube	233045
CycleFlo (cpm rate and batch control) 240V	196706	Mounting Base with a Stainless Steel Siphon Tube (used with non sst pumps)	233046
CycleFlo II (rate controller with solenoid valve) 120V	195265	Mounting Base with a Stainless Steel Siphon Tube (for sst pump only)	233047
<b>Wall Mounting Bracket</b>		<b>REMOTE PUMP CONTROLLERS</b>	
Wall mounting bracket for Husky 205 pumps	224835	CycleFlo (cpm rate and batch control) 120V	195264
<b>HUSKY 307</b>		CycleFlo (cpm rate and batch control) 240V	
<b>AIR CONTROLS</b>		CycleFlo II (rate controller with solenoid valve) 120V	
Regulator / Filter Assembly 1/4" npt(f) (6.35 mm)	246946	<b>SPLIT MANIFOLD KITS (Husky 515 only)</b>	
Quick Connect Air Coupler 1/4" npt (6.35 mm)	208536	By varying the manifold kits, pumps can be configured in different ways (one inlet and two outlets, two inlets and one outlet, and two inlets and two outlets, etc), allowing for system flexibility. Pumps need to be ordered separately. See manual 308951 for details.	
Quick Connect Air Nipple 1/4" npt (6.35 mm) mbe	169970	Polypropylene Inlet Manifolds	
Air Shut Off Valve 1/4" npt (6.35 mm), bleed type, relieves trapped air downline of valve	110223	Polypropylene Outlet Manifolds	
Air Runaway Valve (stop pump from cavitating when empty)	224040	Acetal Inlet Manifolds	
Air Muffler (comes with pump)	112933	Acetal Outlet Manifolds	
<b>208 LITER (55-GALLON) SIPHON KITS</b>		PVDF Inlet Manifolds	
Polypropylene Suction Kit (includes siphon hose, tube and connectors)	235502	PVDF Outlet Manifolds	
Acetal Suction Kit (includes siphon hose, tube and connectors)	235500	<b>Wall Mounting Bracket</b>	
<b>REMOTE PUMP CONTROLLERS</b>		Wall mounting bracket for Husky 515 & Husky 716 pumps	
Husky 307 pumps are not equipped to run in remote mode	not available	<b>MISCELLANEOUS ACCESSORIES</b>	
<b>SPLIT MANIFOLD KITS</b>		Duckbill Replacement Parts (urethane) for 515 and 716 Husky Pumps	
By varying the manifold kits, pumps can be configured in different ways (one inlet and two outlets, two inlets and one outlet, and two inlets and two outlets, etc), allowing for system flexibility. Pumps need to be ordered separately. One kit is required for each side (top or bottom). See 308439 for details.		<b>SURGE SUPPRESSORS</b>	
Acetal Split Manifold Kit	237211	Surge suppressors are designed to reduce the pulsation caused during pump changeover. The suppressor construction is generally closely matched with the pump's material (Stainless Steel with Stainless Steel, Acetal with Aluminium, etc.) and are available in either an adjustable or automatic version. See 308703 for details.	
Polypropylene Split Manifold Kit	237210	<b>Automatic Husky 750, 19.05 mm (3/4")</b>	
Rubber Foot Kit	236452	Polypropylene (wetted bottom and top housings) with a Buna N bladder	
<b>Wall Mounting Bracket</b>		- with PTFE bellows	
Wall mounting bracket for Husky 307 pumps	224835	- with a Fluoroelastomer bladder	
		Stainless Steel (wetted bottom and top housings) with a Buna N bladder	
		- with PTFE bellows	
		- with a Fluoroelastomer bladder	
		Acetal (wetted bottom and top housings) with a Buna N bladder	
		- with PTFE bellows	
		<b>Adjustable Husky 750, 3/4" (19.05 mm)</b>	
		Polypropylene (wetted bottom and top housings) with a Buna N bladder	
		- with PTFE bellows	
		- with a Fluoroelastomer bladder	
		Stainless Steel (wetted bottom and top housings) with a Buna N bladder	
		- with PTFE bellows	
		- with a Fluoroelastomer bladder	
		Acetal (wetted bottom and top housings) with a Buna N bladder	
		- with PTFE bellows	
		<b>PTFE/EPDM Overmolded Diaphragms</b>	
		Upgrade kit for 0.5 in (1.27 cm) and 0.75 in (1.905 cm) pump	
		24N321	
		<b>LEAK DETECTOR</b>	
		Leak detectors are designed to shut off the pump in the event a diaphragm fails. The leaking material flows out the air section and is captured by the leak detector reservoir. Once the reservoir is filled, a signal is sent that would shut off the pump. These detectors should only be used when a massive failure is allowed.	
		Polypropylene Housings with PVC Wetted Parts	
		Shut Off Valve Kit (used in conjunction with 239080)	
		<b>Wall Mounting Bracket</b>	
		Wall mounting bracket for Husky 205 pumps	
		224835	



## Ordering Information

HUSKY 1050, 1590, 2150	PART NO.
<b>AIR CONTROLS</b>	
Regulator / Filter Assembly 1/2" npt(f) (12.7 mm)	246947
Quick Connect Air Coupler 1/2" npt (12.7 mm)	110199
Quick Connect Air Nipple 1/2" npt (12.7 mm) mbe	110196
Air Shut Off Valve 1/2" npt (12.7 mm), bleed type, relieves trapped air downline of valve	110225
Air Runaway Valve (stop pump from cavitating when empty)	224040
Air Muffler (comes with pump) 1050 pumps	240642
Air Muffler (comes with pump) 1590 and 2150 pumps	102656
Centre Section Conversion KR (converts an Aluminium centre section to st. Includes air covers).	
- Husky 1590	246451
- Husky 2150	246452
<b>208 LITER (55-GALLON) SIPHON KIT</b>	
Siphon kit is used for drawing fluids from 55-gallon sized containers, through a 2" bung opening. Kit comes with carbon steel tube, 8' (2.44 m) polyethylene hose and couplings	222916
<b>REMOTE PUMP CONTROLLERS</b>	
CycleFlo (cpm rate and batch control) 120V	195264
CycleFlo (cpm rate and batch control) 240V	196706
CycleFlo II (rate controller with solenoid valve) 120V	195265
<b>Dual Inlet Manifold</b>	
Aluminium Husky 1050 only	240205
<b>Conversion Kits</b>	
Remote Valve Conversion Kit for Aluminium Husky 1050 only	240037
Remote Valve Conversion Kit for Polypropylene Husky 1050 only	240038
Remote Valve Conversion Kit for Conductive Polypropylene Husky 1050 only	240039
<b>SURGE SUPPRESSORS</b>	
Surge suppressors are designed to reduce the pulsation caused during pump changeover. The suppressor construction is generally closely matched with the pump's material (Stainless Steel with Stainless Steel, Acetal with Aluminium, etc.) and are available in either an adjustable or automatic version. See 308703 for details.	
<b>Automatic Husky 2000, 50.8 mm (2")</b>	
Polypropylene (wetted bottom and top housings) with a Buna N bladder	239092
- with PTFE bellows	239128
Stainless Steel (wetted bottom and top housings) with a Buna N bladder	239093
- with PTFE bellows	239126
- with a Fluoroelastomer bladder	239127
<b>Adjustable Husky 2000, 50.8 mm (2")</b>	
Polypropylene (wetted bottom and top housings) with a Buna N bladder	239087
- with PTFE bellows	239136
Stainless Steel (wetted bottom and top housings) with a Buna N bladder	239088
- with PTFE bellows	239134
- with a Fluoroelastomer bladder	239135

HUSKY 1050, 1590, 2150 (CONTINUED)	PART NO.
<b>PTFE/EPDM Overmolded Diaphragms</b>	
Industrial upgrade kits – includes new airside diaphragm plate	
- Upgrade kit for 2.54 cm (1") Husky 1040 pump	289224
- Upgrade kit for 2.54 cm (1") Husky 1050 pump	248626
- Upgrade kit for 3.81 cm (1.5") pump	289225
- Upgrade kit for 5.08 cm (2") pump	289226
<b>UL PUMPS</b>	
For use with leaded and unleaded fuels	
- Husky 1050 for use with leaded fuel (seat, ball, diaphragm)	647016
- Same as 236265, maximum inlet of 3.4 bar (0.3 MPa - 50 psi)	647648
<b>LEAK DETECTOR</b>	
Leak detectors are designed to shut off the pump in the event a diaphragm fails. The leaking material flows out the air section and is captured by the leak detector reservoir. Once the reservoir is filled, a signal is sent that would shut off the pump. These detectors should only be used when a massive failure is allowed.	
Polypropylene Housings with PVC Wetted Parts	239080
Shut Off Valve Kit (used in conjunction with 239080)	113870
<b>Wall Mounting Bracket</b>	
Wall mounting bracket for Husky 1050 pumps - NOT FOR HASTELLOY OR STAINLESS STEEL	24C637
<b>MISCELLANEOUS ACCESSORIES</b>	
Flange Kits. Used to transition a flanged pump to a npt connection to transition from a threaded connection to a flange. It is recommended that the flange kit be compatible with the pump material.	
Polypropylene 24.14 mm (1") flange for Husky 1050 D72XXX pumps.	239005
1" ANSI x 1" npt (f)	
Stainless Steel 24.14 mm (1") flange for Husky 1050 D71XXX and D74XXX pumps 1" ANSI x 1" npt (f)	239008
PVDF 24.14 mm (1") flange for Husky 1050 D75XXX pump 1" ANSI x 1" npt (f)	239009
Polypropylene 36.84 mm (1-1/2") flange for Husky 1590 DB2XXX pump 1-1/2" ANSI x 1-1/2" (f)	239006
PVDF 36.84 mm (1-1/2") flange for Husky 1590 DB5XXX pump.	239010
1-1/2" ANSI x 1-1/2" (f)	
Polypropylene 48.28 mm (2") flange for Husky 2150 DF2XXX pump.	239007
2" ANSI x 2" (f)	
PVDF 48.28 mm (2") flange for Husky 2150 DF5XXX pump 2" ANSI x 2" (f)	239011

HUSKY 3300	PART NO.
<b>AIR CONTROLS</b>	
Regulator / Filter Assembly 3/4" npt(f) (19.5 mm)	246948
Quick Connect Air Coupler 3/4" npt (19.5 mm) - female	110200
Quick Connect Air Nipple 3/4" npt (19.5 mm) mbe - male	110197
Air Shut Off Valve 3/4" npt (19.5 mm), bleed type, relieves trapped air downline of valve	110226
Air Runaway Valve (stop pump from cavitating when empty)	224040
Air Muffler (comes with pump)	24P932
<b>208 Liter (55-GALLON) SIPHON KITS</b>	
Typically, 3" pumps are not used for emptying 208 liter (55-gallon) containers	N/A
<b>REMOTE PUMP CONTROLLERS</b>	
Husky 3300 pumps are not equipped to run in remote mode	N/A
<b>SPLIT MANIFOLD KITS</b>	
There are no Husky 3300 with a split manifold option	N/A
<b>SURGE SUPPRESSORS</b>	
Surge suppressors are designed to reduce the pulsation caused during pump changeover. The suppressor construction is generally closely matched with the pump's material (Stainless Steel with Stainless Steel, Acetal with Aluminium, etc.) and are available either in adjustable or automatic version. See 308703 for details.	
<b>Automatic Husky 2000, 50.8 mm (2 in)</b>	
Polypropylene (wetted bottom and top housings) with a Buna N bladder	239092
with PTFE bellows	239128
Manual Husky 2000, 50.8 mm (2 in)	239087
Polypropylene (wetted bottom and top housings) with a Buna N bladder	239136
with PTFE bellows	239134
<b>DATATRACK KITS*</b>	
Aluminium Pulse Count & Runaway Protection	24K861
Aluminium Pulse Count Only	24B795
Polypropylene Pulse Count & Runaway Protection	24K862
Polypropylene Pulse Count Only	24B794

\* Kit includes replacement airvalve compatible with solenoid



## Ordering Information

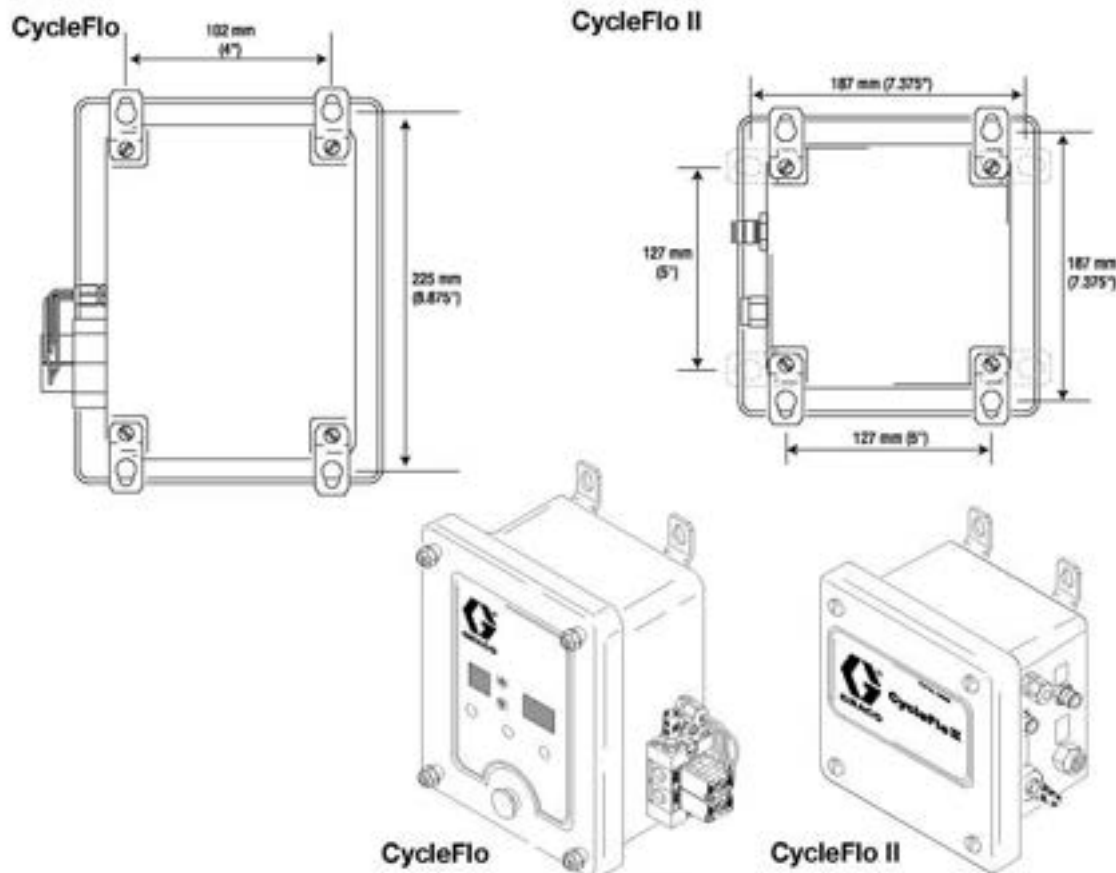
195264	CycleFlo Pneumatic pump controller, 120V
196706	CycleFlo Pneumatic pump controller, 240V
195265	CycleFlo II Pneumatic pump controller, 120V
309003	CycleFlo Instruction Manual
309004	CycleFlo II Instruction Manual

### Product Selector

Highlighted areas indicate the different sizes of remote pumps and available materials of construction for seats, balls and diaphragms that can be used with the CycleFlo and CycleFlo II controller.

PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	WETTED PARTS	SEATS	BALLS	DIAPHRAGM
2 = 6.35 mm (1/4") Remote: polypropylene centre section	1 = Acetal (npt)	0 = Seat with ball	1 = PTFE	1 = PTFE
4 = 12.7 mm (1/2") Remote: polypropylene centre section	2 = Poly (npt)	2 = Acetal	2 = Acetal	5 = TPE
4 = 19.05 mm (3/4") Remote: polypropylene centre section	3 = Aluminium (npt)	3 = Stainless Steel	3 = Stainless Steel	6 = Santoprene
8 = 25.4 mm (1") Remote: Aluminium centre section	4 = Stainless Steel (npt)	4 = Hardened SST	4 = Hardened SST	7 = Buna N
5 = 25.4 mm (1") Remote: stainless steel centre section	5 = PVDF (npt)	5 = TPE	5 = TPE	8 = Fluoroelastomer
C = 38.1 mm (1-1/2") Remote: Aluminium centre section	6 = Ductile Iron (npt)	6 = Santoprene	6 = Santoprene	G = Geolast
U = 38.1 mm (1-1/2") Remote: stainless steel centre section		7 = Buna N	7 = Buna N	
G = 50.8 mm (2") Remote: Aluminium centre section	A = Acetal * (bsp)	8 = Fluoroelastomer	8 = Fluoroelastomer	
W = 50.8 mm (2") Remote: stainless steel centre section	B = Poly * (bsp)	9 = Polypropylene	9 = Polypropylene	
	C = Aluminium (bsp)	A = PVDF	A = PVDF	
	D = Stainless Steel (bsp)	G = Geolast	G = Geolast	
	E = PVDF (bsp)			
	F = Ductile Iron (bsp)	B = SST with viton seal		
		C = Santoprene with viton seal		
	H = 2 npt Alum Extended			
	G = 2 bsp Alum Extended	D = Urethane Duckbill		

## Mounting Dimensions



\* Displacement values are estimates based on average running conditions.



## How To Determine The Best Remote Pump:

1. Configure the best seat, ball and diaphragm combination, as well as fluid wetted parts, based on material compatibility and application requirements.
  - If the material is a mild acid, the choice could be a DX2911.
2. Determine dispense time and volume accuracy.
  - In two minutes, 185 liter (50 gallons) need to be dispensed  $\pm 5\%$  accuracy
3. Use the displacement volume chart below to choose the pump size with an outlet volume/cycle that is most closely divisible into your required flow.\*
  - Husky 1590 produces 1.85 l/cycle (.5 gal/cycle)
  - Husky 2150 produces 3.8 l/cycle (1.03 gal/cycle)

	HUSKY 205	HUSKY 515	HUSKY 716	HUSKY 1050	HUSKY 1590	HUSKY 2150
Volume/cycle	1/4"	1/2"	3/4"	1"	1-1/2"	2"
Cubic centimeters (cc)	46	150	150	644	1960	3000
Liters	0.05	0.15	0.15	0.64	1.96	3.9
Grams (assumes s.g = 1.0)	46	150	150	644	1960	3000
Kilograms (kg)	0.05	0.15	0.15	0.64	1.96	3.9
Gallons	0.01	0.04	0.04	0.17	0.50	1.03
Quarts	0.05	0.16	0.16	0.68	2.0	4.12
Pints	0.1	0.32	0.32	1.36	4.0	8.24
Ounces	1.54	5.12	5.12	21.8	64.0	131.84
Cubic inch	2.77	9.24	9.24	39.27	115.5	237.93

4. Determine the number of cycles required. Calculate the dispense time by dividing required flow by outlet volume per cycle.
  - Husky 1590 = 185 l / 1.85 l/cycle (50 gal / 0.5 gal/cycle) = 100 cycles
  - Husky 2150 = 185 l / 3.8 l/cycle (50 gal/1.03 gal/cycle) = 48.55 cycles
5. Determine if cycle output is within the dispense accuracy required.
  - Husky 2150 requires 48.55 cycles to pump 185 liter (50 gallons). Only full cycles are possible, so either 48 or 49 cycles can be counted. At the 48 cycle count, dispense would be 183 liter (49.44 gallons). At the 49 cycle count, dispense would be 187 liter (50.47 gallons).
  - Husky 1590 requires 100 cycles to pump 185 liter (50 gallons). No partial cycles required.
6. After determining the best size, use the pump ordering matrix to decide which remote centre section is most suitable for the application – DC2911 (Aluminium centre section) or DU5911 (stainless steel centre section).
  - Since a mild acid is being pumped, DC2911, an Aluminium centre section would be the best choice.





# PISTON PUMPS & DRUM UNLOADING SYSTEMS



PAGE  
360





## SANITARY PISTON PUMPS

### Ordering Information

6:1 PISTON PUMP					
PART NUMBER	PUMP TYPE	PUMP LENGTH	INLET TYPE	PACKINGS	WEIGHT LB (KG)
24E840	Double Ball	Drum Length	1.44 in (3.6 cm) Slotted	Buna, Nylon, Nitrile, & Polychloroprene	36.9 (16.7)
24G740	Double Ball	Drum Length (Ram Package)	6 in (15.2 cm) Clamp	Buna, Nylon, Nitrile, & Polychloroprene	38 (17)
24E839	Double Ball	Drum Length	1.44 in (3.6 cm) Slotted	PTFE	36.9 (16.7)
24E838	Double Ball	Stubby	2.5 in (6.3 cm) Clamp	Buna, UHMWPE & Polychloroprene	28.9 (13.1)
24E837	Double Ball	Stubby	2.5 in (6.3 cm) Clamp	PTFE	36.9 (16.7)
24E836	Priming Piston	Stubby	2.3 in (5.8 cm) Priming Piston	Buna, Nylon, Nitrile & Polychloroprene	33.8 (16.8)
24G739	Priming Piston	Stubby (Ram Package)	6 in (15.2 cm) Clamp	Buna, Nylon, Nitrile & Polychloroprene	35 (16)
24F942	Double Ball	Bin Length 48.5 in (123 cm)	1.44 in (3.6 cm) Slotted	Buna, Nylon, Nitrile, & Polychloroprene	39.7 (18)

5:1 PISTON PUMP					
PART NUMBER	PUMP TYPE	PUMP LENGTH	INLET TYPE	PACKINGS	WEIGHT LB (KG)
24F195	Double Ball	Drum Length (Bung Mount)	4 in (10.2 cm) Slotted	Buna, PTFE, UHMWPE & FKM	119 (54.1)
24E833	Double Ball	Stubby	4 in (10.2 cm) Slotted	Buna, PTFE, UHMWPE & FKM	91.3 (41.4)
24G742	Double Ball	Drum Length (Ram Package)	6 in (15.2 cm) Clamp	Buna, PTFE, UHMWPE & FKM	95 (43)
24E831	Priming Piston	Drum Length	4 in (10.2 cm) Priming Piston	Buna, PTFE, UHMWPE, Polychloroprene, Nylon & FKM	95.3 (43.2)
24G741	Priming Piston	Drum Length (Ram Package)	6 in (15.2 cm) Clamp	Buna, PTFE, UHMWPE, Polychloroprene, Nylon & FKM	99 (45)
24F196	Double Ball	Stubby	90 degree elbow 2.5 in (6.3 cm) Clamp	Buna, FKM, PTFE & UHMWPE	93.1 (42.2)
24F197	Double Ball	Stubby (BES Mount)	4 in (10.2 cm) Clamp	Buna, PTFE, Silicone, FKM & UHMWPE	90.6 (41.1)

12:1 PISTON PUMP					
PART NUMBER	PUMP TYPE	PUMP LENGTH	INLET TYPE	PACKINGS	WEIGHT LB (KG)
24F625	Priming Piston	Stubby (Ram Package)	6 in (15.2 cm) Clamp	Acetal, PTFE, Nitrile and UHMWPE	122 (55)
24F626*	Priming Piston	Stubby (Ram Package)	6 in (15.2 cm) Clamp	Acetal, PTFE, Nitrile and UHMWPE	122 (55)

\*For use with viscous sticky material

### Technical Specifications

	6:1 PISTON PUMP	5:1 PISTON PUMP	12:1 PISTON PUMP
Fluid to air pressure ratio	6:1	5:1	12:1
Maximum fluid pressure	600 psi (41 bar, 4.1 MPa)	400 psi (28 bar, 2.8 MPa)	1200 psi (83 bar, 8.3 MPa)
Maximum fluid flow at 60 cpm	4.0 gpm (15.1 lpm)	14 gpm (53 lpm)	8.5 gpm (32 lpm)
Air consumption at 60 cpm	29 cfm at 100 psi	69 cfm at 80 psi	116 cfm at 100 psi
Volume per cycle	0.067 gal (0.25 l)	0.23 gal (0.87 l)	0.14 gal (0.54 l)
Maximum operating temperature (fluid)	250°F (121°C)	140°F (60°C)	160°F (71°C)
Maximum operating temperature (air motor)	120°F (49°C)	120°F (49°C)	120°F (49°C)
Maximum size pumpable solids	0.13 in (0.32 cm)	0.25 in (0.64 cm)	0.25 in (0.64 cm)
Maximum air input pressure	100 psi (7 bar, 0.7 MPa)	80 psi (5.5 bar, 0.6 MPa)	100 psi (7 bar, 0.7 MPa)
Air inlet size	1/2 npsm(f)	1/2 npsm(f)	1/2 npsm(f)
Fluid outlet size	1-1/2 in (3.8 cm) Tri-Clamp	2 in (5.1 cm) Tri-Clamp	2 in (5.1 cm) Tri-Clamp
Fluid inlet	1-1/2 in (3.8 cm) Tri-Clamp*	2.5 in (6.3 cm) Tri-Clamp (24F196 only)	6 in (15.2 cm) Tri-Clamp
Flyer	338591	338591	338591
Instruction manual	3A0733	3A0734	3A0735

\*Select sizes





## SANITARY PISTON PUMPS

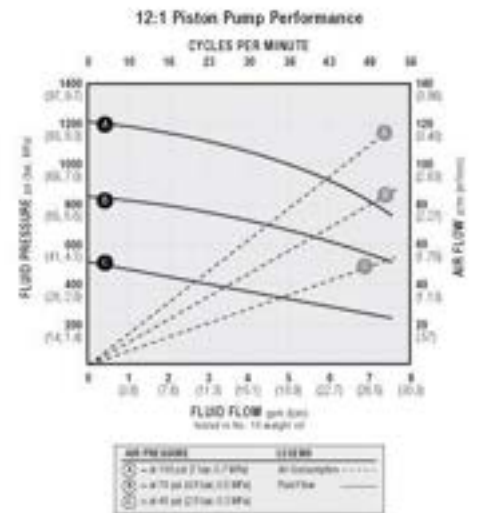
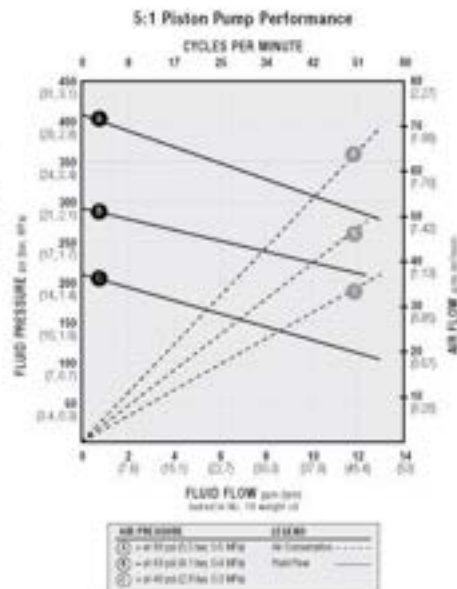
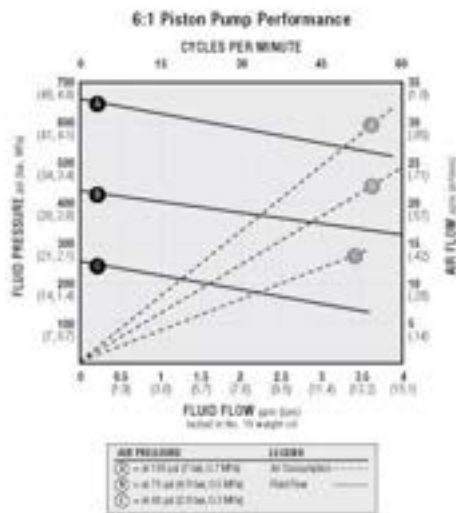


## Performance Charts

6:1

5:1

12:1

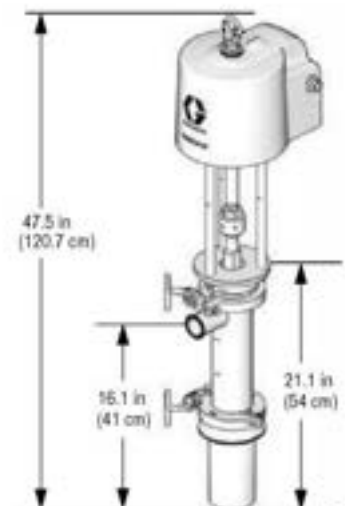
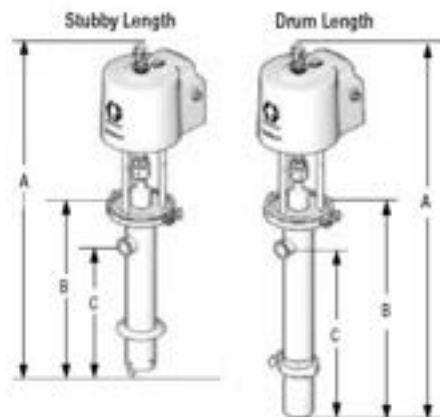
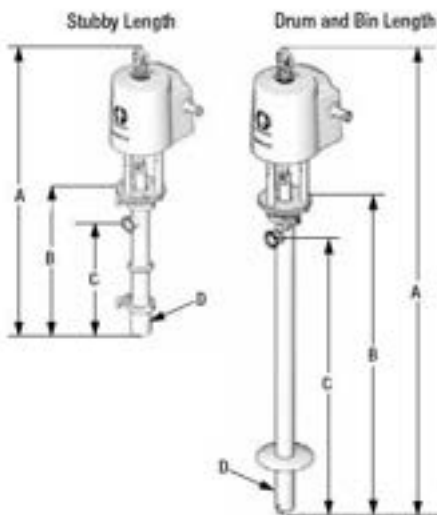


## Dimensions

6:1

5:1

12:1



MODEL	PUMP STYLE	A IN (CM)	B IN (CM)	C IN (CM)	D (OD) IN (CM)
24E836	Stubby	39.2	19.5	15.1	2.1
24E837		(99.5)	(50)	(38)	(5.4)
24E838					
24G739	Drum Length	60.5	41	36.4	2.1
24G740		(153.7)	(104)	(92)	(5.4)
24E839					
24E840	Bin Length	73	53.5	48.9	2.1
24F942		(185.4)	(135.9)	(124.2)	(5.4)

MODEL	PUMP STYLE	A IN (CM)	B IN (CM)	C IN (CM)
24G742	Double Ball, Stubby	51.5 (131)	25.9 (66)	20.4 (52)
24E833				
24F196	Double Ball, Stubby with inlet	56.3 (143)	30.7 (78)	25.2 (64)
24F197	Double Ball, Bin Length	50.4 (128)	24.8 (63)	19.3 (49)
24G741	Priming Piston, Drum Length	57.0 (145)	31.3 (80)	25.9 (66)
24E831	Priming Piston, Drum Length			
24F195	Double Ball, Drum Length	67.9 (172)	42.3 (107)	36.8 (93)



## SANITARY DRUM UNLOADER

### Ordering Information

6:1 DRUM UNLOADER							
PART NUMBER	PUMP NUMBER	PUMP TYPE	RAM MATERIAL	RAM PLATE NO.	INFLATABLE SEAL NO.	CONTROL TYPE	WEIGHT LB (KG)
24D776	24G739	Priming Piston	SST	16G240	16G242	Exposed	353 (160)
24D780	24G739	Priming Piston	CS*	16G240	16G242	Exposed	372 (169)
24D782	24G739	Priming Piston	SST	16G240	16G242	Enclosed SST	367 (166)
24D788	24G740	Double Ball	SST	16G240	16G242	Exposed	356 (161)
24D792	24G740	Double Ball	CS*	16G240	16G242	Exposed	375 (170)
24D794	24G740	Double Ball	SST	16G240	16G242	Enclosed SST	370 (168)



5:1 DRUM UNLOADER							
PART NUMBER	PUMP NUMBER	PUMP TYPE	RAM MATERIAL	RAM PLATE NO.	INFLATABLE SEAL NO.	CONTROL TYPE	WEIGHT LB (KG)
24D708	24G741	Priming Piston	SST	16G240	16G242	Exposed	413 (187)
24D712	24G741	Priming Piston	CS*	16G240	16G242	Exposed	433 (196)
24D714	24G741	Priming Piston	SST	16G240	16G242	Enclosed SST	428 (194)
24D720	24G742	Double Ball	SST	16G240	16G242	Exposed	417 (189)
24D724	24G742	Double Ball	CS*	16G240	16G242	Exposed	437 (198)
24D726	24G742	Double Ball	SST	16G240	16G242	Enclosed SST	432 (196)



12:1 DRUM UNLOADER							
PART NUMBER	PUMP NUMBER	PUMP TYPE	RAM MATERIAL	RAM PLATE NO.	INFLATABLE SEAL NO.	CONTROL TYPE	WEIGHT LB (KG)
24D647	24F625	Priming Piston	SST	16G240	16G242	Exposed	440 (200)
24D651	24F625	Priming Piston	CS*	16G240	16G242	Exposed	459 (208)
24D653	24F625	Priming Piston	SST	16G240	16G242	Enclosed SST	454 (206)
24F188**	24F626	Priming Piston	SST	16G240	16G242	Exposed	440 (200)
24F189**	24F626	Priming Piston	CS*	16G240	16G242	Exposed	459 (208)
24F190**	24F626	Priming Piston	SST	16G240	16G242	Enclosed SST	454 (206)



\*CS = Painted carbon steel. \*\*For use with viscous material.

### Technical Specifications

DRUM UNLOADERS	6:1 DOUBLE BALL PUMP	6:1 PRIMING PISTON	5:1 DOUBLE BALL PUMP	5:1 PRIMING PISTON	12:1 PRIMING PISTON	3150 HIGH SANITATION	2150 HIGH SANITATION
Max fluid pressure	600 psi (41 bar, 4.1 MPa)	600 psi (41 bar, 4.1 MPa)	400 psi (28 bar, 2.8 MPa)	400 psi (28 bar, 2.8 MPa)	1200 psi (83 bar, 8.3 MPa)	120 psi (8.3 bar, 0.83 MPa)	120 psi (8.3 bar, 0.83 MPa)
Max flow at 60 cpm	4.0 gpm (15.1 lpm)	4.0 gpm (15.1 lpm)	14 gpm (53 lpm)	14 gpm (53 lpm)	8.5 gpm (32 lpm)	60 gpm (227 lpm)	60 gpm (227 lpm)
Max flow at 100 cpm	-	-	-	-	-	100 gpm (378 lpm)	100 gpm (378 lpm)
Viscosity range of packings	25,000- 100,000 cps	60,000- 500,000 cps	25,000- 100,000 cps	60,000- 500,000 cps	60,000- 500,000 cps	25,000- 100,000 cps	25,000- 100,000 cps
Max inlet air pressure	100 psi (7 bar, 0.7 MPa)	100 psi (7 bar, 0.7 MPa)	80 psi (5.5 bar, 0.6 MPa)	80 psi (5.5 bar, 0.6 MPa)	100 psi (7 bar, 0.7 MPa)	120 psi (8.3 bar, 0.8 MPa)	120 psi (8.3 bar, 0.8 MPa)
Air inlet size (enclosed, exposed controls)	1/2 npt(f), 3/4 npt(f)	1/2 npt(f), 3/4 npt(f)	1/2 npt(f), 3/4 npt(f)	1/2 npt(f), 3/4 npt(f)	1/2 npt(f), 3/4 npt(f)	1/2 npt(f), 3/4 npt(f)	1/2 npt(f), 3/4 npt(f)
Evacuation efficiency	99%	99%	99%	99%	99%	99%	99%
Flyer	338590	338590	338590	338590	338590	338590	338590
Instruction manual	3A0591	3A0591	3A0591	3A0591	3A0591	3A0591	3A0591

\* Flow rates based on full displacement of lower and S.G. = 1



# SANITARY DRUM UNLOADER



## 3150 HS DRUM UNLOADER

PART NUMBER	PUMP NUMBER	PUMP TYPE	RAM MATERIAL	RAM PLATE NO.	INFLATABLE SEAL NO.	CONTROL TYPE	WEIGHT LB (KG)	DIAPHRAGM MATERIAL	BALL MATERIAL
24D922	24C124	Ball	SST	16G241	16G242	Exposed	428 (194)	Overmolded EPDM, 3A	PTFE
24D926	24C124	Ball	CS*	16G241	16G242	Exposed	443 (201)	Overmolded EPDM, 3A	PTFE
24D928	24C124	Ball	SST	16G241	16G242	Enclosed SST	442 (200)	Overmolded EPDM, 3A	PTFE
24D932	248273	Ball	CS*	16G241	16G242	Exposed	443 (201)	Santoprene	Santoprene
24D936	248273	Ball	SST	16G241	16G242	Enclosed SST	442 (200)	Santoprene	Santoprene
24D940	248273	Ball	SST	16G241	16G242	Exposed	428 (194)	Santoprene	Santoprene
24D944	248274	Flapper	SST	16G241	16G242	Exposed	428 (194)	Santoprene	-
24D948	248274	Flapper	CS*	16G241	16G242	Exposed	443 (201)	Santoprene	-
24D952	248274	Flapper	SST	16G241	16G242	Enclosed SST	442 (200)	Santoprene	-

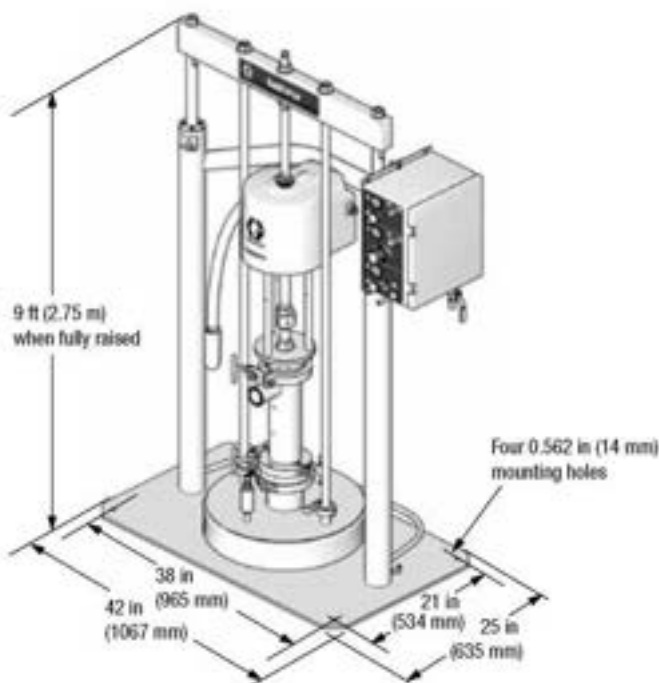
## SANIFORCE 2150 DRUM UNLOADER

PART NUMBER	PUMP NUMBER	PUMP TYPE	RAM MATERIAL	RAM PLATE NO.	INFLATABLE SEAL NO.	CONTROL TYPE	WEIGHT LB (KG)	DIAPHRAGM MATERIAL	BALL MATERIAL
24G542	24G743	Ball	SST	16G241	16G242	Exposed	450 (204)	Overmolded PTFE	PTFE
24F191	24G743	Ball	CS*	16G241	16G242	Exposed	464 (210)	Overmolded PTFE	PTFE
24G543	24G743	Ball	SST	16G241	16G242	Enclosed SST	464 (210)	Overmolded PTFE	PTFE
24F192	24G744	Ball	SST	16G241	16G242	Exposed	450 (204)	Santoprene	Weighted polychloroprene
24F193	24G744	Ball	CS*	16G241	16G242	Exposed	464 (210)	Santoprene	Weighted polychloroprene
24F194	24G744	Ball	SST	16G241	16G242	Enclosed SST	464 (210)	Santoprene	Weighted polychloroprene

CS = Painted carbon steel.

## Dimensions

### SaniForce Drum Unloader



SaniForce 3150 Drum Unloader

SaniForce 2150 Drum Unloader





## SANITARY BIN EVACUATION SYSTEM

### Ordering Information

BES						
PART NUMBER	MAX. WORKING FLUID PRESSURE PER PUMP PSI (BAR, MPA)	PUMP PART NO.	PUMP QUANTITY	PUMP DESCRIPTION	CONTROL TYPE	BIN MANUF.
BESA4C	400 (28, 2.8)	24G742	2	SaniForce 5:1	Manual	Pallecon
BESA7A	400 (28, 2.8)	24G742	2	SaniForce 5:1	Electronic	Plywood
BESA7C	400 (28, 2.8)	24G742	2	SaniForce 5:1	Manual	Plywood
BESA7F	400 (28, 2.8)	24G742	2	SaniForce 5:1	Electronic	Plywood
BESB7B	400 (28, 2.8)	24G742	4	SaniForce 5:1	Electronic	Plywood
BESB7D	400 (28, 2.8)	24G742	4	SaniForce 5:1	Manual	Plywood
BESE1A	1200 (83, 8.3)	24F625	2	SaniForce 12:1	Electronic	Arena
BESE1C	1200 (83, 8.3)	24F625	2	SaniForce 12:1	Manual	Arena
BESE5C	1200 (83, 8.3)	24F625	2	SaniForce 12:1	Manual	Pallecon
BESF6B	1200 (83, 8.3)	24F625	4	SaniForce 12:1	Electronic	Arena
BESF6D	1200 (83, 8.3)	24F625	4	SaniForce 12:1	Manual	Arena
BESF9B	1200 (83, 8.3)	24F625	4	SaniForce 12:1	Electronic	TNT
BESF9D	1200 (83, 8.3)	24F625	4	SaniForce 12:1	Manual	TNT



Note: Systems can be special ordered for bin types other than plywood, arena and pallecon.  
Contact your sales rep for additional information.

### Technical Specifications

BES				
DRUM UNLOADERS	BESAXX	BESBXX	BESEXX	BESFXX
Max. working fluid pressure	400 psi (28 bar, 2.8 MPa)		1200 psi (83 bar, 8.3 MPa)	1200 psi (83 bar, 8.3 MPa)
Compressed air requirement	80-100 psi (5.5-7 bar, 0.55-0.7 MPa)		80-100 psi (5.5-7 bar, 0.55-0.7 MPa)	80-100 psi (5.5-7 bar, 0.55-0.7 MPa)
Pneumatic control panel specifications				
Max. inlet air pressure	80 psi (5.5 bar, 0.55 MPa)		100 psi (7 bar, 0.7 MPa)	100 psi (7 bar, 0.7 MPa)
Air inlet size	3/4 in npt(f)		3/4 in npt(f)	3/4 in npt(f)
Air inlet pump	1/2 in npt(f)		1/2 in npt(f)	1/2 in npt(f)
Fluid displacement (each pump)	0.23 gal/cycle (0.87 l/cycle)		0.14 gal/cycle (0.52 l/cycle)	0.14 gal/cycle (0.52 l/cycle)
Max. flow @ 60 cpm*	28 gpm (106 lpm)	56 gpm (212 lpm)	17 gpm (64 lpm)	34 gpm (128 lpm)
Pressure ratio	5:1		12:1	12:1
Air consumption (each pump) at 40 psi (2.8 bar, 0.28 MPa)	~2.95 scfm per gpm		~7.5 scfm per gpm	~7.5 scfm per gpm
Pump outlet	2 in tri-clamp		2 in tri-clamp	2 in tri-clamp
Communication	RS232 Serial		RS232 Serial	RS232 Serial
Electrical requirements	110 VAC (60 Hz), 15A		110 VAC (60 Hz), 15A	110 VAC (60 Hz), 15A
Overall dimensions in (m)	69 W x 60 D x 118.8 H (1.72 W x 1.52 D x 3.0 H)		69 W x 60 D x 118.8 H (1.72 W x 1.52 D x 3.0 H)	69 W x 60 D x 118.8 H (1.72 W x 1.52 D x 3.0 H)
Evacuation efficiency	2 pumps: 98%   4 pumps: 99%		N/A	N/A
Flyer	338589		338589	338589
Instruction manual	311163		311163	311163

\* Flow rates based on full displacement of lower and S.G. = 1

Note: Graco's BES packages are available for a variety of manufacturers' bins and custom systems can be built upon request. Contact Graco at 1-800-543-0339 for more information.



# SANITARY BIN EVACUATION SYSTEM



3150 BES					
PART NUMBER	TYPE	BIN MANUF.	CONTROL TYPE	OUTLET SIZE	DIAPHRAGM/BALL MATERIAL**
BES3P3	Ball	Plywood	Manual	3 in (76 mm)	Santoprene/ PTFE
BES3P1	Ball	Plywood	Electronic	3 in (76 mm)	Santoprene/ PTFE
BES4P3	Flapper	Plywood	Manual	3 in (76 mm)	Santoprene/ N/A
BES8B3	Ball	Pallecon	Manual	3 in (76 mm)	Overmolded EPDM, 3A
BES3A1	Ball	Arena	Electronic	3 in (76 mm)	Santoprene/ PTFE
BES4A1	Flapper	Arena	Electronic	3 in (76 mm)	Santoprene/ N/A

Note: Contact marketing for ordering information on non-plywood bins.  
 \*\*3A Approved EPDM diaphragm is available for heavy duty applications.



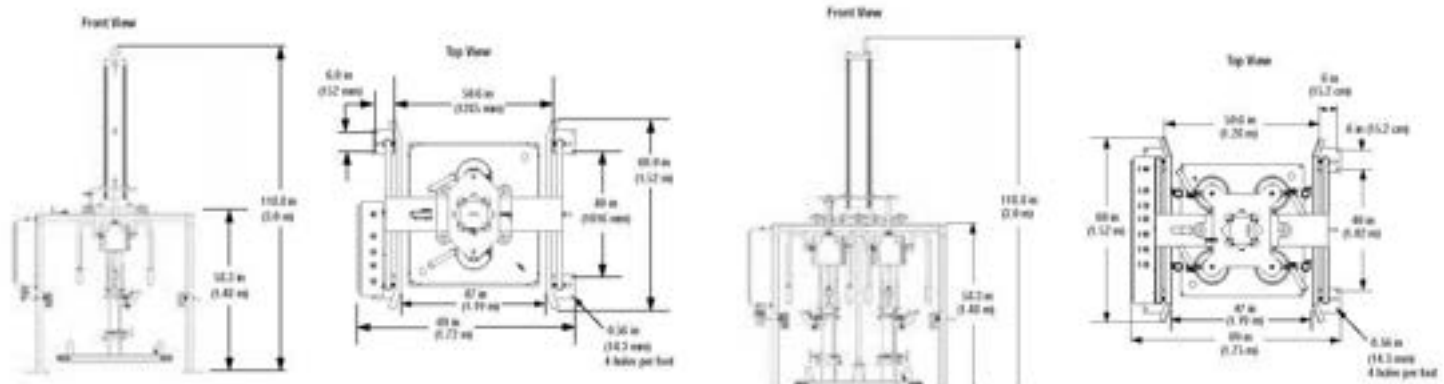
## Technical Specifications

BES		
DRUM UNLOADERS	BES3XX	BES4XX
Max. working fluid pressure	120 psi (8.4 bar, 0.84 MPa)	
Compressed air requirement	80-120 psi (5.5-8.4 bar, 0.55-0.84 MPa)	
Pneumatic control panel specifications		
Max. inlet air pressure	120 psi (8.4 bar, 0.84 MPa)	
Air inlet size	3/4 in npt(f)	
Air inlet pump	1/2 in npt(f)	
Fluid displacement (each pump)	1.03 gal/cycle (3.89 l/cycle)	
Max. flow @ 145 cpm*	300 gpm (1,135 lpm)	
Pressure ratio	1:1	
Air consumption (each pump) at 70 psi (0.48 MPa, 4.8 bar)	~0.8 scfm per gpm	
Pump outlet	3 in tri-clamp	
Max. suction lift	18 ft (5.5 m) wet	10 ft (3.0 m) wet
Max. diaphragm operating temperature (Santoprene, 3A Approved EPDM)	180°F (82.2°C), 275°F (135°C)	
Typical sound level at 70 psi (4.9 bar) air @ 50 cpm	85 dBA	
Weight	3,000 lb (1,360 kg)	
Flyer	338589	
Instruction manual	311163	

\* Flow rates are with muffler and slightly vary based on diaphragm material. Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type.

## Dimensions

### SaniForce BES





# SANITARY PISTON PUMPS

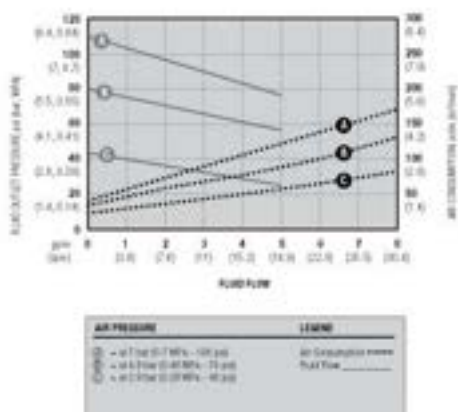
## Ordering Information

PART NO.	CONSTRUCTION	PACKING
226940	Drum/CS/SST (UL, CE)	T8L
226941	Drum/CS/SST (UL, CE)	PE
226942	Drum/SST (UL, CE)	PE
226943	Stubby/CS/SST (UL, CE)	L
226944	Stubby/CS/SST (UL, CE)	PE
226945	Stubby/SST (UL, CE)	PE
226946	Drum/CS/SST (CE)	T
237129	Drum/SST (CE)	T
237130	Stubby/CS (CE)	L
237131	Stubby/CS (CE)	T
237132	Stubby/CS (CE)	T
237133	Drum/CS (CE)	L
237134	Drum/CS (CE)	T

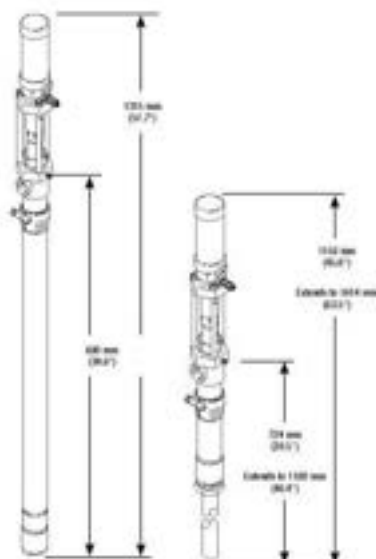
N = Neoprene      SST = 304 Stainless Steel  
 L = Leather        CS = Carbon Steel  
 T = PTFE            PE = Polyethylene

## Performance Charts

Fast-Flo 1:1 Performance



## Dimensions



## Technical Specifications

FAST-FLO 1:1	PRIMING PISTON
Maximum fluid working pressure	12.4 bar (1.24 MPa - 180 psi)
Maximum pump speed	100 cpm
Pump cycles per liter	6.5
Maximum air input pressure	12.4 bar (1.24 MPa - 180 psi)
Maximum operating temperature	49°C (120°F)
Typical sound level	72 dBA
Air inlet	1/4 npt (f)
Fluid outlet	3/4 npt (f)
Weight	9.07 kg (20 lbs) Drum; 4.99 kg (11 lbs) Stubby
Instruction Manual	307427

### PISTON PUMPS WITH SEALED WET CUP

INK PUMP PACKAGE PART NO.	SERIES	RATIO	DATATRAK	REMOTE DATATRAK	POWER SOURCE	DISPLACEMENT PUMP SIZE	MAXIMUM AIR OR HYDRAULIC INPUT PRESSURE BAR (MPa-PSI)	MAXIMUM FLUID WORKING PRESSURE BAR (MPa-PSI)
258744	A	14:1			Air	500 cc	7.0 (0.7-100)	97 (9.7-1400)
258745	A	14:1	x		Air	500 cc	7.0 (0.7-100)	97 (9.7-1400)
258746	A	14:1		x	Air	500 cc	7.0 (0.7-100)	97 (9.7-1400)
258747	A	23:1			Air	500 cc	7.0 (0.7-100)	159 (15.9-2300)
258748	A	23:1	x		Air	500 cc	7.0 (0.7-100)	159 (15.9-2300)
258749	A	23:1		x	Air	500 cc	7.0 (0.7-100)	159 (15.9-2300)
258750	A	26:1			Air	500 cc	7.0 (0.7-100)	179 (17.9-2600)
258751	A	26:1	x		Air	500 cc	7.0 (0.7-100)	179 (17.9-2600)
258752	A	26:1		x	Air	500 cc	7.0 (0.7-100)	179 (17.9-2600)
258753	A	1.6:1			Hydraulic Oil	500 cc	103 (10-1500)	159 (15.9-2300)

### MOTOR CONVERSION KITS

PART NO.	DESCRIPTION
24C743	To install an L200CM Check-Mate displacement pump on an existing King air motor
24C744	To install an L500CM Check-Mate displacement pump on an existing King air motor
24D625	To install an L500CM Check-Mate displacement pump on an existing Viscount II hydraulic motor

### PUMPS WITH SEALED WET CUP

Stroke length	
Pneumatic	120.65 mm (4.75 in)
Hydraulic	119.13 mm (4.69 in)
Maximum fluid operating temperature	82.3° C (180° F)
Air or Hydraulic Inlet Size	3/4 npt (f)
Fluid outlet size	200 cc displacement pump: 1 npt (f) 500 cc displacement pump: 1-1/2 npt (f)
Maximum pump speed	60 cpm

(Do not exceed maximum recommended speed of fluid pump, to prevent premature pump wear)

### OTHER

PART NO.	DESCRIPTION
222780	Floor Stand Kit (See manual 307971)





## SANITARY PISTON PUMPS



NAME OF PUMP	SENATOR 19:1	VISCOUNT II 1900	BULLDOG 31:1	VISCOUNT II 3100	BULLDOG 12:1	VISCOUNT II 1200	KING 24:1	VISCOUNT II 2400	PRESIDENT 20:1
Lower size	800	800	800	800	2100	2100	2100	2100	450
Maximum fluid pressure	131 bar (13.1 MPa-1900 psi)	131 bar (13.1 MPa-1900 psi)	213 bar (21.3 MPa-3100 psi)	213 bar (21.3 MPa-3100 psi)	82.8 bar (8.28 MPa-1200 psi)	82.8 bar (8.28 MPa-1200 psi)	165 bar (16.5 MPa-2400 psi)	165 bar (16.5 MPa-2400 psi)	140 bar (14 MPa-2000 psi)
Maximum motor inlet pressure	6.9 bar (0.69 MPa-100 psi (air))	31 bar (3.1 MPa-450 psi (oil))	6.9 bar (0.69 MPa-100 psi (air))	51.7 bar (5.1 MPa-750 psi (oil))	6.9 bar (0.69 MPa-100 psi (air))	51.7 bar (5.1 MPa-750 psi (oil))	6.9 bar (0.69 MPa-100 psi (air))	103 bar (10.3 MPa-1500 psi) (oil)	7 bar (0.7 MPa-100 psi)
Flow rate @ 60 cpm	10.6 l/min (2.8 gpm)	10.6 l/min (2.8 gpm)	10.6 l/min (2.8 gpm)	10.6 l/min (2.8 gpm)	28.4 l/min (7.5 gpm)	28.4 l/min (7.5 gpm)	28.4 l/min (7.5 gpm)	28.4 l/min (7.5 gpm)	4.5 l/min (1.2 gpm)
Cfm or gpm required per gallon	24 cfm	16.2 l/min (4.3 gpm)	32 cfm	16.2 l/min (4.3 gpm)	20 cfm	6 l/min (1.6 gpm)	25 cfm	6 l/min (1.6 gpm)	35 cfm
Fluid pump outlet size	1" npt (f)	1" npt (f)	1" npt (f)	1" npt (f)	1-1/2" npt (m)	1-1/2" npt (m)	1-1/2" npt (m)	1-1/2" npt (m)	3/4" npt (f)
Motor inlet size	3/4" npt (f)	3/4" npt (f)	3/4" npt (f)	3/4" npt (f)	3/4" npt (f)	3/4" npt (f)	3/4" npt (f)	3/4" npt (f)	1/2" npt (f)
Weight of pump	73 kg (160 lb)	80 kg (177 lb)	73 kg (160 lb)	80 kg (177 lb)	65 kg (142 lb)	89 kg (196 lb)	73 kg (160 lb)	89 kg (196 lb)	22.7 kg (50 lb)
Instruction manual	308351	308351	308351	308351	308149	308149	308149	308149	308017
<b>BIN SUPPLY</b>									
Pump	246941	246938	246940	246938	246935	246937	246936	246937	246933
Air controls: FRL, 1/2"	217072		217072		217072		217072		
Air controls: FRL, 3/8" (f)									110150
Air run away control, 3/4"	224040		224040		224040		224040		224040
Air speed control, 1/2" (f)	510441		510441		510441		510441		510441
Floor stand (3" inlet)	222780	222780	222780	222780	222780	222780	222780	222780	222780
Hydraulic controls*		236865		236865		236865		236865	
Outlet hydraulic hose connector 1" (m) x 1-1/2" (f), 100 bar (1500 psi) rated		Not included		Not included		Not included		Not included	
<b>MISC. INFORMATION</b>									
Pump lower section	246939	246939	246939	246939	246934	246934	246934	246934	246932
Ram plate replacement seals	165601	165601	165601	165601	165601	165601	165601	165601	165601

\*Hydraulic controls include hydraulic flow and pressure control, ball valves, 1 m (3 ft) supply and return hose



19:1 Senator



31:1 Bulldog



12:1 Bulldog



Viscount II 2100



24:1 King



20:1 President









# PULSATION DAMPENERS

**BIACOH™**  
FLUID CONTROL

PAGE  
370



**BIACOH**  
 FLUID CONTROL

**The patented SPILLSTOP Leak Containment System**

attaches directly to the exhaust of an air operated diaphragm pump. When pump diaphragms fail, SPILLSTOP captures dangerous and/or expensive process fluid in an internal receptacle while raising a float switch to automatically shut down the pump. SPILLSTOP can also be configured to sound a warning alarm and/or initiate a backup pump switchover.


**SENTRY Inlet Stabilizers**

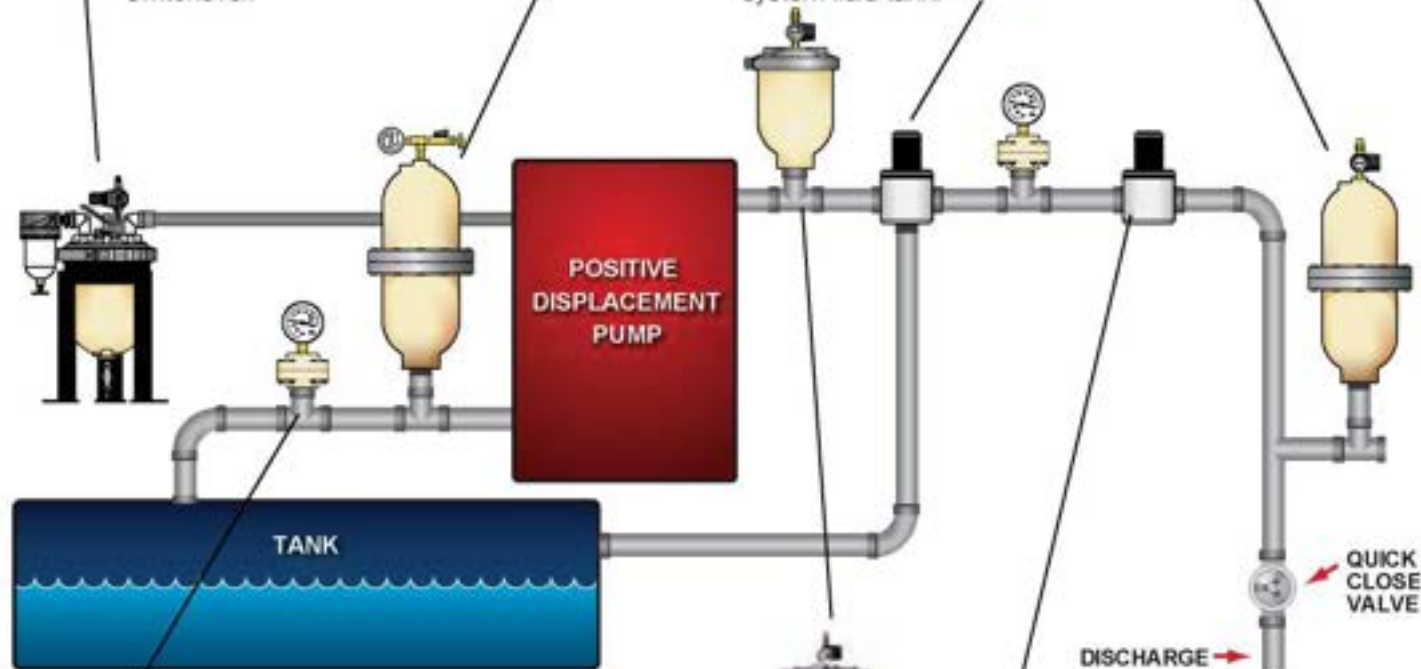
accumulate liquid at the pump's inlet to ensure complete chamber fill and extend the service life of all inlet system components. The patented "J" Model air control allows you to adjust for pressure or vacuum settings depending on whether pump operation is under suction lift or positive inlet conditions.


**SENTINEL Pressure Relief Valves**

protect pumping systems from overpressure damage caused by defective equipment or a blockage in the system line. When the pressure in the system exceeds the preset pressure of the valve, the diaphragm is held against the valve seat by an internal spring. When the preset pressure is exceeded, the diaphragm is forced up and the system fluid flows out the relief port and back to the system fluid tank.


**SENTRY Surge Suppressors**

eliminate hydraulic shock and water hammer caused by quick-closing valves, back surge and pump startup/shutdown. Without suppression, shock waves will continue to oscillate back and forth until dissipated by friction or system component failure occurs.


**SENTINEL Diaphragm Seals**

employ a chemically resistant diaphragm to effectively isolate process fluids from gauges and other process instrumentation.



This durable diaphragm allows SENTINEL to accurately transfer process pressure without direct contact with hazardous or corrosive fluids.

**SENTRY Pulsation Dampeners**

use a compressed gas separated from the process fluid by a bladder to act as a shock absorber. During the pump's discharge stroke, fluid pressure displaces the bladder compressing the trapped gas. Compressed gas expands during the pump's inlet stroke, forcing the bladder to push accumulated fluid back into the discharge line. This fills the void created by the cycle shift and dampens pulsations and vibration up to 99%.


**SENTINEL Back Pressure Valves**

enhance system performance by applying a continuous back pressure to the pump. The diaphragm is held against the valve seat by an internal ring. When the valve's preset pressure is exceeded, the diaphragm is forced up and system fluid flows through the valve to the injection point.



SENTRY III 4 in<sup>3</sup> (0.06 L) - Dome Top

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Plastic	CPVC Polypropylene (PP) PTFE PVC PVDF	Aflas Buna-N Buna-N (Food Grade) EPDM Hypalon Neoprene PTFE PVC	0.375" to 0.5" (10 to 15 mm)	FNPT BSP ANSI Flange DN Flange Socket Weld Tri-Clamp	150 psi (10.3 bar)	Adjustable Chargeable	0.91 to 1.81 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing
 Metal	Alloy 20 (A20) Hastelloy C (HAST) Stainless Steel (SS) Stainless Steel - 30 RA Polished (SSP)	Santoprene Silicone (Food Grade) Viton	0.375" to 0.75" (10 to 20 mm)		1000 psi (68.9 bar)		1.81 to 2.72 kg	

PLASTIC SERIES	WETTED / NON- WETTED	METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
04PP 04PVC 04X K1105 T1010 T1050	PP / PP PVC / PVC CPVC / CPVC PVDF / PVDF PTFE / PTFE PTFE / PTFE	1120 1170 1175 1185 7325 8325	SS / SS A20 / A20 A20 / SS HAST / SS SS / SS SSP / SSP	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD

 SENTRY III 10 in<sup>3</sup> (0.16 L) - Dome Top

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Plastic	Acetal Acetal - Conductive CPVC Polypropylene (PP) PTFE PVC PVDF	Aflas Buna-N Buna-N (Food Grade) EPDM Hypalon Neoprene PTFE PVC	0.375" to 0.5" (10 to 15 mm)	FNPT BSP ANSI Flange DN Flange Socket Weld Tri-Clamp	150 psi (10.3 bar)	Adjustable Chargeable Inlet Stabilizer	2.72 to 4.54 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing
 Metal	Alloy 20 (A20) Hastelloy C (HAST) Stainless Steel (SS) Stainless Steel - 30 RA Polished (SSP)	Santoprene Silicone (Food Grade) Viton	0.375" to 0.75" (10 to 20 mm)		1000 psi (68.9 bar)		6.35 to 8.16 kg	

PLASTIC SERIES	WETTED / NON-WETTED	METAL SERIES	WETTED / NON-WETTED	ACCESSORIES
10X 10PP 11X D1000 DC1005 K1005 T1000 T1012	CPVC / CPVC PP / PP PVC / PVC Acetal / Acetal Acetal-Cond / Acetal-Cond PVDF / PVDF PTFE / PTFE PTFE / PTFE	1020 1070 1075 1080 1085 7320 8320	SS / SS A20 / A20 A20 / SS HAST / HAST HAST / SS SS / SS SSP / SSP	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD

## SENTRY II 36 in<sup>3</sup> (0.59 L) - Flat Top

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
Plastic	Acetal CPVC Polypropylene (PP) PTFE PVC PVDF	Aflas Buna-N Buna-N (Food Grade) EPDM Hypalon Neoprene PTFE	0.5" to 1" (15 to 25 mm)	FNPT BSP ANSI Flange DN Flange Socket Weld Tri-Clamp	150 psi (10.3 bar)	Adjustable Automatic Chargeable	2.72 to 4.54 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing
Metal	Alloy 20 (A20) Carbon Steel (CS) Hastelloy C (HAST) Stainless Steel (SS) Stainless Steel - 30 RA Polished (SSP)	Santoprene Silicone (Food Grade) Viton	0.75" to 1.5" (20 to 40 mm)		1000 psi (68.9 bar)		6.35 to 8.16 kg	

PLASTIC SERIES	WETTED / NON- WETTED	METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
601 1301 1305 1311 1315 1341 1401 1801	PTFE / PTFE PP / PP PP / PP PVC / PVC PVC / PVC CPVC / PVC PVDF / PP Acetal / PP	3120 3124 3140 3174 3175 3185 7225 8225	SS / SS SS / CS CS / CS A20 / CS A20 / SS HAST / SS SS / SS SSP / SSP	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD

## SENTRY II 85 in<sup>3</sup> (1.40 L) - Dome Top

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
Plastic	Acetal CPVC Polypropylene (PP) Polypropylene - Conductive PTFE PVC PVDF (to 250 psi)	Aflas Buna-N Buna-N (Food Grade) EPDM Hypalon Neoprene PTFE	0.5" to 1" (15 to 25 mm)	FNPT BSP ANSI Flange DN Flange Socket Weld Tri-Clamp	250 psi (17.2 bar)	Adjustable Automatic Chargeable Inlet Stabilizer	3.18 to 4.08 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing
Metal	Alloy 20 (A20) Carbon Steel (CS) Hastelloy C (HAST) Stainless Steel (SS) Stainless Steel - 30 RA Polished (SSP)	Santoprene Silicone (Food Grade) Viton	0.75" to 1.5" (20 to 40 mm)		1000 psi (68.9 bar)		6.80 to 8.62 kg	

PLASTIC SERIES	WETTED / NON- WETTED	METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
301 305 311 321 331 401 421 651 661 801	PP / PP PP / PP PVC / PVC PP- Cond / PP- Cond CPVC / CPVC PVDF / PP PVDF / PVDF PTFE / PTFE PTFE / PTFE Acetal / PP	3020 3024 3040 3075 3085 7220 8220	SS / SS SS / CS CS / CS A20 / SS HAST / SS SS / SS SSP / SSP	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD



SENTRY I 175 in<sup>3</sup> (2.87 L) - Flat Top

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Plastic	Noryl (non-wetted only) Polypropylene (PP) PTFE PVC PVDF	Aflas Buna-N EPDM Hypalon Neoprene PTFE	1.5" to 2" (40 to 50 mm)	FNPT BSP ANSI Flange DN Flange Socket Weld Tri-Clamp	150 psi (10.3 bar)	Adjustable Automatic Chargeable	8.16 to 9.98 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing
 Metal	Alloy 20 (A20) Carbon Steel (CS) Hastelloy C (HAST) Stainless Steel (SS) Stainless Steel - 30 RA Polished (SSP)	Santoprene Silicone (Food Grade) Viton	1.5" to 2.5" (40 to 70 mm)		1000 psi (68.9 bar)		15.42 to 16.78 kg	

PLASTIC SERIES	WETTED / NON- WETTED	METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
501	PTFE / PTFE	2175	A20 / SS	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AODD
901	PP / Noryl	2185	HAST / SS	
905	PP / Noryl	2500	SS / Noryl	
911	PVC / Noryl	2520	SS / SS	
915	PVC / Noryl	2700	CS / Noryl	
1201	PVDF / Noryl	2720	CS / CS	
1221	PVDF / PVDF	7125	SS / SS	
		8125	SSP / SSP	

 SENTRY I 370 in<sup>3</sup> (6.06 L) - Dome Top

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Plastic	Polypropylene (PP) PTFE PVC PVDF	Aflas Buna-N EPDM Hypalon Neoprene PTFE	1.5" to 2" (40 to 50 mm)	FNPT BSP ANSI Flange DN Flange Socket Weld Tri-Clamp	200 psi (13.7 bar)	Adjustable Automatic Chargeable Inlet Stabilizer	10.80 to 12.25 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing
 Metal	Alloy 20 (A20) Carbon Steel (CS) Hastelloy C (HAST) Stainless Steel (SS) Stainless Steel - 30 RA Polished (SSP)	Santoprene Silicone (Food Grade) Viton	2" to 2.5" (50 to 70 mm)		1000 psi (68.9 bar)		19.05 to 22.68 kg	

PLASTIC SERIES	WETTED / NON- WETTED	METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
101	PP / PP	2075	A20 / SS	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AODD
105	PP / PP	2085	HAST / SS	
111	PVC / PVC	2400	SS / PP	
115	PVC / PVC	2420	SS / SS	
201	PVDF / PP	2425	SS / CS	
221	PVDF / PVDF	2600	CS / PP	
551	PTFE / PTFE	2620	CS / CS	
		7120	SS / SS	
		8121	SSP / SSP	

## SENTRY IV 1155 in<sup>3</sup> (18.9 L; 5 gallon)L

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Plastic	Polypropylene (PP)		3" (80 mm)		90 psi (6.2 bar)		14.97 to 16.33 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PMI Testing Bolt Tensile Testing Customer Specified Testing
 Metal	Aluminum (AL) Alloy 20 (A20) Epoxy Coated Aluminum (ECAL) Carbon Steel (CS) Epoxy Coated Carbon Steel (ECCS) Hastelloy C (HAST) Stainless Steel (SS) Stainless Steel - 30 RA Polished (SSP) Duplex Stainless Steel (DSS)	Buna-N EPDM Hypalon Neoprene PTFE Silicone (Food Grade) Viton	3" to 6" (80 to 150 mm)	ANSI Flange DN Flange Hammer Union Tri-Clamp NPTF	275 psi (18.9 bar)	Adjustable Automatic Chargeable Inlet Stabilizer	32.66 to 37.19 kg	

PLASTIC SERIES	WETTED / NON- WETTED
P4000	PP / PP

METAL SERIES	WETTED / NON- WETTED
4000	AL / AL
4015	ECAL/ ECAL
4020	SS / SS
4030	CS / AL
4040	CS / CS
4045	ECCS/ ECCS
4046	ECCS/ AL
4050	SS / AL
4060	SS / CS
4065	SS / ECCS
4070	A20 / A20
4075	A20 / SS
4080	HAST / HAST
4085	HAST / SS
7420	SS / SS
8420	SSP / SSP

ACCESSORIES
Charging Kits
Bladder Replacement Kits
Hardware Replacement Kits
Pressure Relief Valves
Back Pressure Valves
Gauge Guards
Gauge Upgrades
Spill Containment for AOOD

## SENTRY V 2310 in<sup>3</sup> (37.9 L; 10 gallon)

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Metal	Carbon Steel (CS) Epoxy Coated Carbon Steel (ECCS) 316 Stainless Steel (SS) Duplex Stainless Steel (DSS)	Buna-N EPDM Hypalon Neoprene Silicone (Food Grade) Viton	3" to 6" (80 to 150 mm)	ANSI Flange DN Flange	275 psi (18.9 bar)	Adjustable Automatic Chargeable Inlet Stabilizer	65.77 to 70.31 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PMI Testing Bolt Tensile Testing Customer Specified Testing

PLASTIC SERIES	WETTED / NON- WETTED
5040	CS / CS
5045	ECCS / ECCS
5420	SS / SS
5440	CS / CS
5445	ECCS / ECCS
5620	SS / SS

ACCESSORIES
Charging Kits
Bladder Replacement Kits
Hardware Replacement Kits
Pressure Relief Valves
Back Pressure Valves
Gauge Guards
Gauge Upgrades
Spill Containment for AOOD



CIP 275 in<sup>3</sup> (4.50 L)

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
Metal 	Stainless Steel – 30 RA Polished (SSP)	EPDM (Food Grade) Silicone (Pharma Grade)	2.5" (70 mm)	Tri-Clamp	150 psi (10.3 bar)	8 to 10 lbs (3.63 to 4.54 kg)	5.44 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PMI Testing Bolt Tensile Testing Customer Specified Testing

METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
275	SSP	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD

 SENTRY 2" AL 577 in<sup>3</sup> (9.46 L)

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
Metal 	Aluminum (AL)	Buna-N EPDM Neoprene Viton	2" (50 mm)	FNPT BSP ANSI Flange DN Flange	150 psi (10.3 bar)	Adjustable Automatic Chargeable Inlet Stabilizer	14.51 to 17.24 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PMI Testing Bolt Tensile Testing Customer Specified Testing

METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
577	AL / AL	Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD

SENTRY XPA, XPX, XPH 8, 12, 24 in<sup>3</sup> (0.13, 0.20, 0.39 L)

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 XPA/XPX	Stainless Steel (SS) Duplex Stainless Steel (DSS)	Buna-N EPDM PTFE Viton	0.5" (12 mm)	Autoclave FNPT BSP ANSI Flange DN Flange RTJ Flange Socket Weld	XPA: 7500 psi (517.1 bar) XPX: 15000 psi (1034.2 bar)	Chargeable Gauge Adaptor	XPA: 4.54 to 6.90 kg XPX: 20.0 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing
 XPH				HP Flow-Through	XPH: 7500 psi (517.1 bar)		XPH: 4.54 to 6.90 kg	

SERIES	SIZE	WETTED / NON- WETTED
XPA_-08 / XPH_-08	8 in <sup>3</sup> / 0.13 L	SS / SS
XPA_-08 / XPH_-08	12 in <sup>3</sup> / 0.20 L	SS / SS
XPA_-12 / XPH_-12	12 in <sup>3</sup> / 0.20 L	SS / SS
XPA_-24 / XPH_-24	24 in <sup>3</sup> / 0.39 L	SS / SS

ACCESSORIES
Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD

ABOUT
The XPH model's unique design allows it to effectively remove both hydraulic pulses and acoustic pulses. The flow-through inlet is specifically designed to remove high frequency pulses greater than 15 Hz. Residual pulsations of less than 1% can be achieved with the flow-through design versus a single inlet/outlet dampener. (See performance chart on p. 24)

SENTRY Tef-Guard 12 in<sup>3</sup> (0.20 L)

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	AIR CONTROL TYPE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 <b>Metal</b>	Wetted/Non wetted Stainless Steel (SS)/ Stainless Steel (SS) (Metal Series TG12SS)	PTFE	0.5" (12 mm)	FNPT BSP ANSI Flange DN Flange Socket Weld	2,000 psi (137.8 bar)	Chargeable	5.44 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PHI Testing Bolt Tensile Testing Customer Specified Testing

ACCESSORIES
Charging Kits Bladder Replacement Kits Hardware Replacement Kits Pressure Relief Valves Back Pressure Valves Gauge Guards Gauge Upgrades Spill Containment for AOOD



## SENTINEL Gauge Guard / Diaphragm Seal - Supporting Products

SERIES MATERIAL	BODY MATERIAL	BLADDER MATERIAL	INLET SIZE	INLET TYPE	MAX PRESSURE	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Plastic	Polypropylene (PP) PVC PVDF	EPDM PTFE Viton	1/2" (12.7 mm)	FNPT BSP Socket Weld Union Fitting	200 psi (13.7 bar)	0.5 to 0.9 kg	ATEX ISO 9001:2008 NAFTA CRN PED ARRA 3.1 Cert. Material Cert. Cert. of Origin Hydrostatic Testing Dye Penetrant Test X-Ray/Radiography PMI Testing Bolt Tensile Testing Customer Specified Testing
 Metal	Stainless Steel (SS)		1/2" (12.7 mm)		1000 psi (68.9 bar)	0.9 to 1.4 kg	

METAL SERIES	WETTED / NON- WETTED	METAL SERIES	WETTED / NON- WETTED	ACCESSORIES
GK RC RPVC RP	PVDF / PVDF CPVC / CPVC PVC / PVC PP / PP	SS	SS / SS	SENTINEL Diaphragm Seals employ a chemically resistant diaphragm to effectively isolate process fluids from gauges and other process instrumentation. This durable diaphragm allows SENTINEL to accurately transfer process pressure without direct contact with hazardous or corrosive fluids.

## SPILLSTOP Leak Containment - Supporting Products

SERIES MATERIAL	BODY MATERIAL	LID MATERIAL	INLET SIZE	INLET TYPE	ADD ON	AIR INLET	EST. SHIPPING WEIGHT	CERTIFICATIONS & TESTING
 Traditional	Hastelloy C (HAST) Polypropylene (PP) PVC PVDF Stainless Steel (SS)	Noryl PVDF Stainless Steel	3/4-1" (19-25 mm)	FNPT BSP	Whistle Electronic Switch	1/4" (6.4 mm)	11.3 to 25.0 kg	ATEX ISO 9001:2008 NAFTA ARRA 3.1 Cert. Material Cert. Cert. of Origin
 Electronic	Polypropylene (PP) PVC PVDF Stainless Steel (SS)	N/A	1/2" (12.7 mm)		Control Box Electronic Accessories	N/A	4.5 to 6.8 kg	

REGULAR SERIES	HOUSING/LID	ELECTRONIC SERIES	HOUSING/LID	ABOUT
SPS-10 SPS-11 SPS-20 SPS-21 SPS-30 SPS-31 SPS-33 SPS-39 SPS-80	PP / NORYL PVC / NORYL SS / NORYL SS / SS PVDF / NORYL PVDF / PVDF PVDF / PVDF PVDF / NORYL HAST / NORYL	SPE-10 SPE-11 SPE-21 SPE-31	PP / PP PVC / PVC SS / SS PVDF / PVDF	The SPILLSTOP Leak Containment System attaches directly to the exhaust of an air operated diaphragm pump. When pump diaphragms fail, SPILLSTOP captures dangerous and/or expensive process fluid in an internal receptacle while raising a float switch to automatically shut down the pump. SPILLSTOP can also be configured to sound a warning alarm and/or initiate a backup pump switchover.

## SENTINEL™ PRESSURE RELIEF VALVE

SENTINEL Pressure Relief Valves protect pumping systems from over-pressure damage caused by defective equipment or a blockage in the system line. They consist of a spring and diaphragm that is pushed down on a seat to a preset adjustable pressure setting. Once the pressure is exceeded, the seat is lifted off the relief port and the excess fluid pressure flows back to a holding tank or the suction side of the pump. When the pressure is reduced, the spring pushes the seat back over the discharge port.



## SENTINEL™ BACK PRESSURE VALVE

SENTINEL Back Pressure Valves enhance system performance by applying a continuous back pressure to the pump. The diaphragm is held against the valve seat by an internal ring. When the valve's present pressure is exceeded, the diaphragm is forced up and system fluid flows through the valves to the injection point.



## SENTINEL™ CHECK VALVE &amp; BALL VALVE

By preventing reverse flow, SENTINEL Check Valves and Ball Valves can be used as one-way valves, injection valves, or to prevent backflow. The internal ball or poppet functions as a positive shutoff to ensure process fluid does not go back up the line.



## TRACKING GAUGE

Attachable Tracking Gauge captures the maximum system pressure and spikes with the additional tracking needle. Options with pressure ratings 0-2000 PSI/BAR and a 4.5" gauge face.



## CHARGING KIT

Charging Hose Kit for Blacoh CT, H, TG or XP models. Includes an 8' (2.4 m) length of hose with a 1/4" (6mm) NPT male fitting at one end for connection to a regulator at the nitrogen source and a charging fitting and gauge on the opposite end.



## Air Control Types

TYPE	DESCRIPTION	MAX PRESSURE	INSTALLATION
<b>ADJUSTABLE</b> 	<ul style="list-style-type: none"> <li>- Mounted on single port</li> <li>- Self relieving regulator</li> <li>- Gauge and one-way check valve</li> <li>- Compressed air line must be permanently attached to the regulator</li> </ul>	150 psi (10.3 bar)	<ul style="list-style-type: none"> <li>- Within 10 pipe diameters of pump discharge</li> <li>- Connect to a constant source of air</li> <li>- Do NOT use oxygen</li> <li>- Charge dampener to 80% of operating pressure</li> <li>- Adjust dampener PSI to minimize pulse level</li> </ul>
<b>AUTOMATIC</b> 	<ul style="list-style-type: none"> <li>- Mounted on single port</li> <li>- Automatic valve assembly on center port</li> <li>- Gauge and one-way check valve</li> <li>- Automatically self adjusts as system pressure increases/decreases and resets when system restarts</li> </ul>	150 psi (10.3 bar)	<ul style="list-style-type: none"> <li>- Within 10 pipe diameters of pump discharge</li> <li>- Connect to a constant source of air</li> <li>- Do NOT use oxygen</li> <li>- Dampener gauge will read system pressure</li> <li>- No further adjustments are needed</li> </ul>
<b>CHARGEABLE</b> 	<ul style="list-style-type: none"> <li>- Gauge and charging valve</li> <li>- Leak-proof operation in corrosive environments</li> <li>- No permanent source of compressed gas</li> <li>- Manually bled or charged to required pressure</li> </ul>	10,000 psi (689.5 bar)	<ul style="list-style-type: none"> <li>- Within 10 pipe diameters of pump discharge</li> <li>- Charge to recommended percentage of system operating pressure with compressed air or clean dry nitrogen</li> <li>- Do NOT use oxygen</li> </ul>
<b>INLET STABILIZER</b> 	<ul style="list-style-type: none"> <li>- Adjustable for suction lift or positive inlet conditions</li> <li>- Consists of compound pressure gauge, a pressure/vacuum tight ball valve and a Venturi valve</li> </ul>	30 inHg (30 psi) (2.1 bar)	<ul style="list-style-type: none"> <li>- Within 10 pipe diameters of pump discharge</li> <li>- Use compressed air line and air chuck to pressurize or create a vacuum</li> <li>- Do NOT use oxygen</li> <li>- Vacuum charge to 5-7 inHg for suction lift or charge to 50% of static inlet pump pressure for flooded suction</li> </ul>





## Bladders & Bellows - Size & Materials

CAPACITY	BLADDERS	PTFE BELLOWS	CAPACITY	BLADDERS	PTFE BELLOWS
4 to 10 in <sup>3</sup> (0.06 to .16 L)			175 to 370 in <sup>3</sup> (2.87 to 6.06 L)		
8 in <sup>3</sup> (0.13 L)			275 in <sup>3</sup> (4.50 L)		
12 in <sup>3</sup> (0.20 L)			577 in <sup>3</sup> (9.46 L)		
24 in <sup>3</sup> (0.39 L)			1155 in <sup>3</sup> (5 gal) (18.93 L)		
36 to 85 in <sup>3</sup> (0.59 to 1.40 L)			2310 in <sup>3</sup> (10 gal) (37.85 L)		

## Bladders & Bellows - Size & Materials

CAPACITY	BLADDERS	PTFE BELLOWS
Aflas	-18°C to +204°C	High temperature, petroleum based chemicals, strong acids and bases.
Buna	-12°C to +82°C	Good flex life; use with petroleum, solvents and oil-based fluids.
FDA Buna	-12°C to +82°C	FDA-approved food grade; similar characteristics of regular Buna.
EPDM	-51°C to +138°C	Use in extreme cold; good chemical resistance with ketones, caustics.
Hypalon	-29°C to +135°C	Excellent abrasion resistance; good in aggressive acid applications.
Neoprene	-18°C to +93°C	Good abrasion resistance and flex; use with moderate chemicals.
PTFE	-29°C to +104°C	Bellows design; excellent flex life; use with highly aggressive fluids.
Santoprene	-29°C to +107°C	Excellent choice as a low cost alternative for PTFE in many applications.
FDA Silicone	-29°C to +149°C	FDA-approved food grade material; for use in food and pharmaceutical processing.
USP Class VI Silicone	-29°C to +149°C	Pharmaceutical grade material; for use in food and pharmaceutical processing.
Viton®	-23°C to +177°C	Use in hot and aggressive fluids; good with aromatics, solvents, acids and oils.

## Testing & Certifications

TESTING & ENGINEERING	PARTS	PART NUMBER	NOTES
STANDARD UNIT TEST CERTIFICATION	ALL UNITS	DOC-TEST CERT	STANDARD BFC TEST PERFORMED ON ALL UNITS NO MODIFICATIONS TO TESTING PROCEDURE
HYDROSTATIC TEST & CERTIFICATE	ALL UNITS	DOC-HYDRO	STANDARD BFC FORMAT DOCUMENT
HYDROSTATIC TEST & CERTIFICATE – WITNESSED	ALL UNITS	DOC-HYDRO TEST-WITNESSED	CONSULT FACTORY FOR DETAILS
XRAY EXAM & DYE PENETRANT TEST	METAL UNITS	DOC-XRAYDYE	CONSULT FACTORY FOR DETAILS
DYE PENETRANT TEST	METAL UNITS	DOC-DYE	CONSULT FACTORY FOR DETAILS
XRAY/RADIOGRAPHY	METAL UNITS	DOC-XRAY	CONSULT FACTORY FOR DETAILS
POSITIVE MATERIAL IDENTIFICATION	ALL METAL HOUSINGS	DOC-PMI	CONSULT FACTORY FOR DETAILS
BOLT TENSILE TEST REPORT	BOLTS	DOC-BOLT	STANDARD BFC FORMAT DOCUMENT
GAUGE TESTING	GAUGES	DOC-GAUGE	STANDARD BFC FORMAT DOCUMENT
SPILLSTOP UNIT TESTING	SPILLSTOP	DOC-TEST-SS	STANDARD BFC FORMAT DOCUMENT
CUSTOMER OR THIRD PARTY INSPECTION		CONTACT FACTORY	CONSULT FACTORY FOR DETAILS
ASME CALCULATIONS		ASME CALC	CONSULT FACTORY FOR DETAILS

ORDER DOCUMENTATION	PARTS	PART NUMBER	NOTES
NAFTA CERTIFICATION	NORTH AMERICA ORDERS	DOC-NAFTA	
CERTIFICATION OF ORIGIN	ANY ITEM	DOC-COO	STANDARD BFC FORMAT DOCUMENT
CERT OF CONFORMANCE FOR ORDER	ANY ORDER	COC	STANDARD BFC FORMAT DOCUMENT
EC ATEX DECLARATION OF CONFORMITY	ALL ATEX UNITS	DOC-EC	STANDARD BFC FORMAT DOCUMENT
EC ATEX DECLARATION OF CONFORMITY IN GERMAN	ALL ATEX UNITS	DOC-EC-GR	STANDARD BFC FORMAT DOCUMENT
EC PED DECLARATION OF CONFORMITY	ALL PED UNITS	DOC-EC-PED	STANDARD BFC FORMAT DOCUMENT
EC WORK TEST CERTIFICATE	ALL PED UNITS	DOC-EC-WORK	STANDARD BFC FORMAT DOCUMENT
DOCUMENTATION-NON STANDARD-CUSTOMER SPECIFIED		DOC-CS	THIS IS A MINIMUM FEE. MAY VARY BY ORDER. CONSULT FACTORY.

CERTIFICATES OF ORIGIN	PARTS	PART NUMBER	NOTES
CERTIFICATE OF ARRA BUY AMERICAN ACT	ALL	DOC-ARRA	STANDARD BFC FORMAT DOCUMENT
CERTIFICATE OF PRODUCTS MADE IN USA	ALL	DOC-COO-USA	STANDARD BFC FORMAT DOCUMENT
CERTIFICATE OF PRODUCTS MADE IN USA (FOR KOREA)	ALL - USE FOR KOREA ONLY	DOC-COO-USA-K	COMPLIANCE TO KOREA-USA FREE TRADE AGREEMENT-STANDARD BFC DOCUMENT
CERTIFICATE OF PRODUCTS MADE IN USA (FOR NIKKISO KOREA)	ALL - USE FOR NIKKISO KOREA ONLY	DOC-COO-USA-NIK	COMPLIANCE TO KOREA-USA FREE TRADE AGREEMENT-STANDARD BFC DOCUMENT



## Testing & Certifications

MATERIAL CERTIFICATION	PARTS	PART NUMBER	NOTES
MATERIAL CERTIFICATION & CERTIFICATE OF CONFORMANCE	SENTRY PRODUCT (NO LOT NUMBERS)	DOC-MC-SENTRY	STANDARD BFC FORMAT DOCUMENT
MATERIAL CERTIFICATION & CERTIFICATE OF CONFORMANCE	SPILL STOP PRODUCT (NO LOT NUMBERS)	DOC-MC-SS	STANDARD BFC FORMAT DOCUMENT
MATERIAL CERTIFICATION & CERTIFICATE OF CONFORMANCE	GAUGE GUARD PRODUCT (NO LOT NUMBERS)	DOC-MC-SS	STANDARD BFC FORMAT DOCUMENT
CERTIFICATE OF CONFORMANCE TO PO	ALL ORDERS	DOC-COC	STANDARD BFC FORMAT DOCUMENT
MATERIAL CERTIFICATION & CERTIFICATE OF CONFORMANCE	BLADDER	DOC-MCB	STANDARD BFC FORMAT DOCUMENT
MATERIAL CERTIFICATION & CERTIFICATE OF CONFORMANCE	WETTED & NONWETTED HOUSING	DOC-MCWN	STANDARD BFC FORMAT DOCUMENT
MATERIAL CERTIFICATION & CERTIFICATE OF CONFORMANCE	WETTED HOUSING & BLADDER	DOC-MCWB	STANDARD BFC FORMAT DOCUMENT
MATERIAL CERTIFICATION & CERTIFICATE OF CONFORMANCE	WETTED & NONWETTED HOUSING, BLADDER	DOC-MCWNB	STANDARD BFC FORMAT DOCUMENT
CERTIFICATION OF OIL FREE WETTED ASSEMBLY	WETTED HOUSING OF UNIT	DOC-OIL	STANDARD BFC FORMAT DOCUMENT
MILL TEST REPORT (MTR) CHEMICAL COMPOSITION & HEAT NUMBER	WETTED HOUSING - METAL ONLY	DOC-MTR-METAL-W	CHEMISTRY REPORT FROM FOUNDRY (NOT AVAILABLE ON ALL PRODUCT)
MILL TEST REPORT (MTR) CHEMICAL COMPOSITION & HEAT NUMBER	WETTED, NONWETTED HOUSING - METAL ONLY	DOC-MTR-METAL-WN	CHEMISTRY REPORT FROM FOUNDRY (NOT AVAILABLE ON ALL PRODUCT)
3.1 (EN10204) CERTIFICATION	WETTED HOUSING - METAL ONLY	DOC-CERT 3.1-W	CHEMISTRY REPORT FROM FOUNDRY (NOT AVAILABLE ON ALL PRODUCT)
3.1 (EN10204) CERTIFICATION	WETTED, NONWETTED HOUSING - METAL ONLY	DOC-CERT 3.1-WN	CHEMISTRY REPORT FROM FOUNDRY (NOT AVAILABLE ON ALL PRODUCT)
3.1 (EN10204) CERTIFICATION & HYDRO TESTING	SENTRY PRODUCTS	DOC-CERT 3.1H	CHEMISTRY REPORT FROM FOUNDRY & HYDRO TEST (NOT AVAILABLE ON ALL PRODUCT)
CE STATEMENT	VARIOUS	DOC-CE1	COMPLIANCE WITH PED CAT 1, GROUP 1 (NOT AVAILABLE ON ALL PRODUCT)
SILICONE FREE STATEMENT	ALL PRODUCTS	DOC-SILICONE	STANDARD BFC FORMAT DOCUMENT

DRAWINGS	PARTS	PART NUMBER	NOTES
STANDARD PRODUCT OUTLINE DRAWING	ALL UNITS	N/A	AVAILABLE AT WWW.BLACOH.COM
STANDARD CERTIFIED PRODUCT OUTLINE DRAWING	ALL UNITS	N/A	SIGNED & DATED BY BLACOH ENGINEERING DEPT
SPECIAL CERTIFIED PRODUCT OUTLINE DRAWING	ALL UNITS	N/A	SIGNED & DATED BY BLACOH ENGINEERING DEPT

CERTIFICATES OF ORIGIN	PARTS	PART NUMBER	NOTES
CUSTOMER SUPPLIED GAUGE MOUNTED ON PRODUCT		CSG	
FILLING OF GAUGE GUARD - 2" AND UNDER	GAUGE GUARDS	FILL	CAN BE ANY TYPE OF INSTRUMENTATION
FILLING OF GAUGE GUARD - 3" AND OVER	GAUGE GUARDS	FILL-3	CAN BE ANY TYPE OF INSTRUMENTATION
FILL, MINERAL OIL, 2" INSTRUMENTS AND UNDER	GAUGE GUARDS	FILL-M	CAN BE ANY TYPE OF INSTRUMENTATION
FILL, MINERAL OIL, 3" INSTRUMENTS AND OVER	GAUGE GUARDS	FILL-M	CAN BE ANY TYPE OF INSTRUMENTATION
LABOR		LABOR	PER HOUR
FILL FOR SPECIAL INSTRUMENTATION		FILL-SPECIAL	VARIES BY TYPE
PMT BY WIRE TRANSFER UNDER \$1,000		BANK	BANK FEE CHARGED FOR SMALL WIRES
DROP SHIP OUTSIDE THE UNITED STATES	ANY ORDER	DROP SHIP	THIS IS A MINIMUM FEE. MAY VARY BY ORDER. CONSULT FACTORY.
CANCELLATION FEE	ANY ORDER	CANCEL	

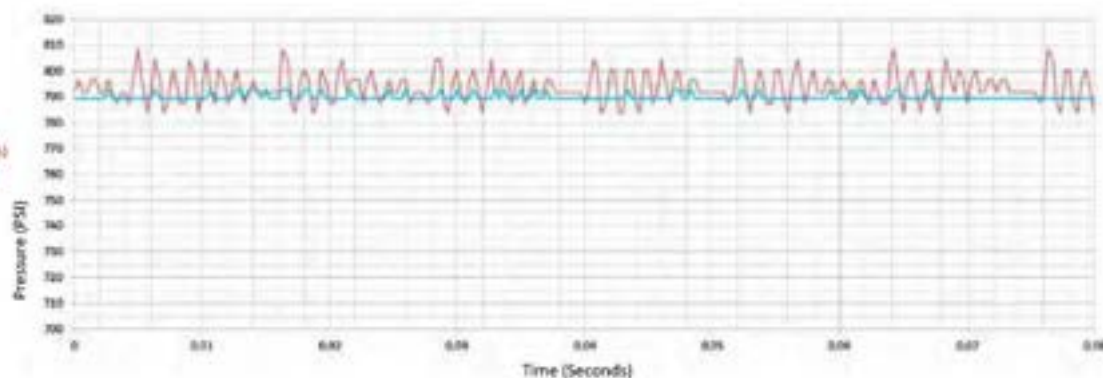


## Performance Charts

### Triplex Pump

With SENTRY XPH Dampener

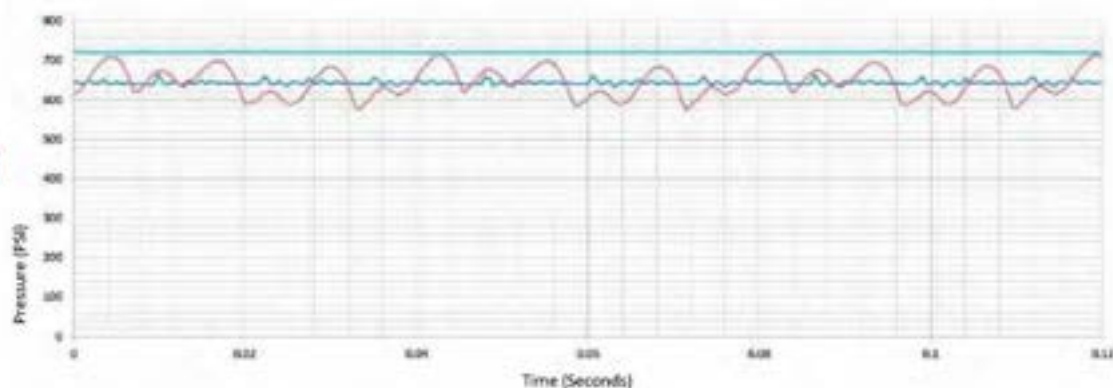
- Without Dampener (1715 rpm, 757 pulses/s)
- With XPH Flow-Thru Dampener (± 4 PSI)



### Triplex Pump

With SENTRY XP Dampeners

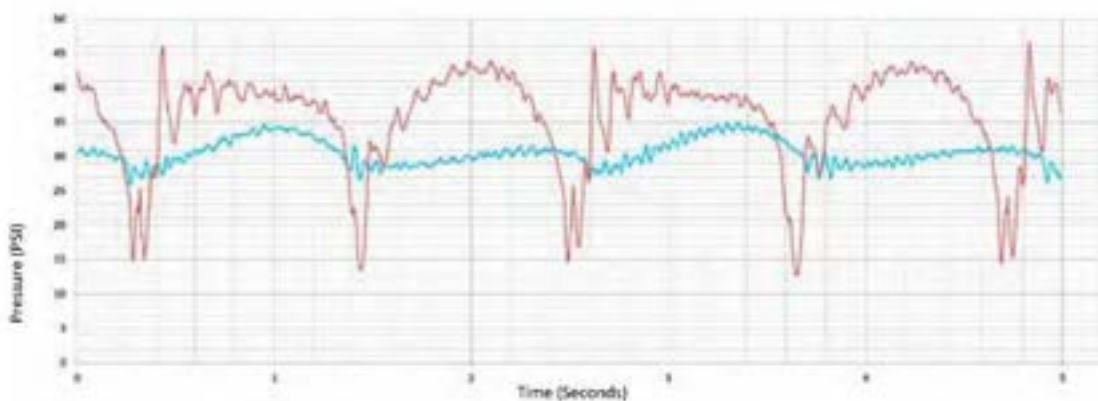
- Without Dampener
- With XPA Dampener
- With XPH Flow-Thru Dampener



### 2" AODD Pump

With SENTRY I Dampener

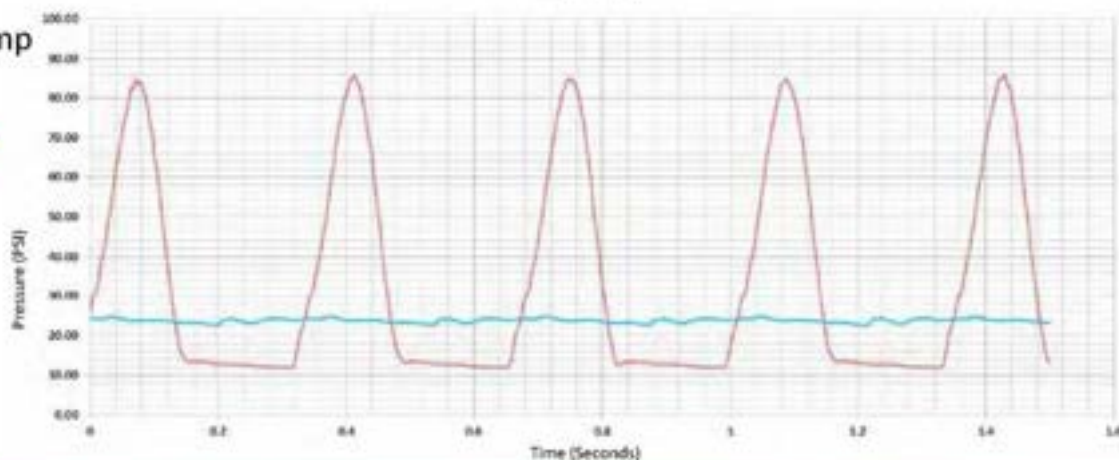
- Without Dampener
- With Dampener



### 1" Metering Pump

With SENTRY II Dampener

- Without Dampener
- With Dampener

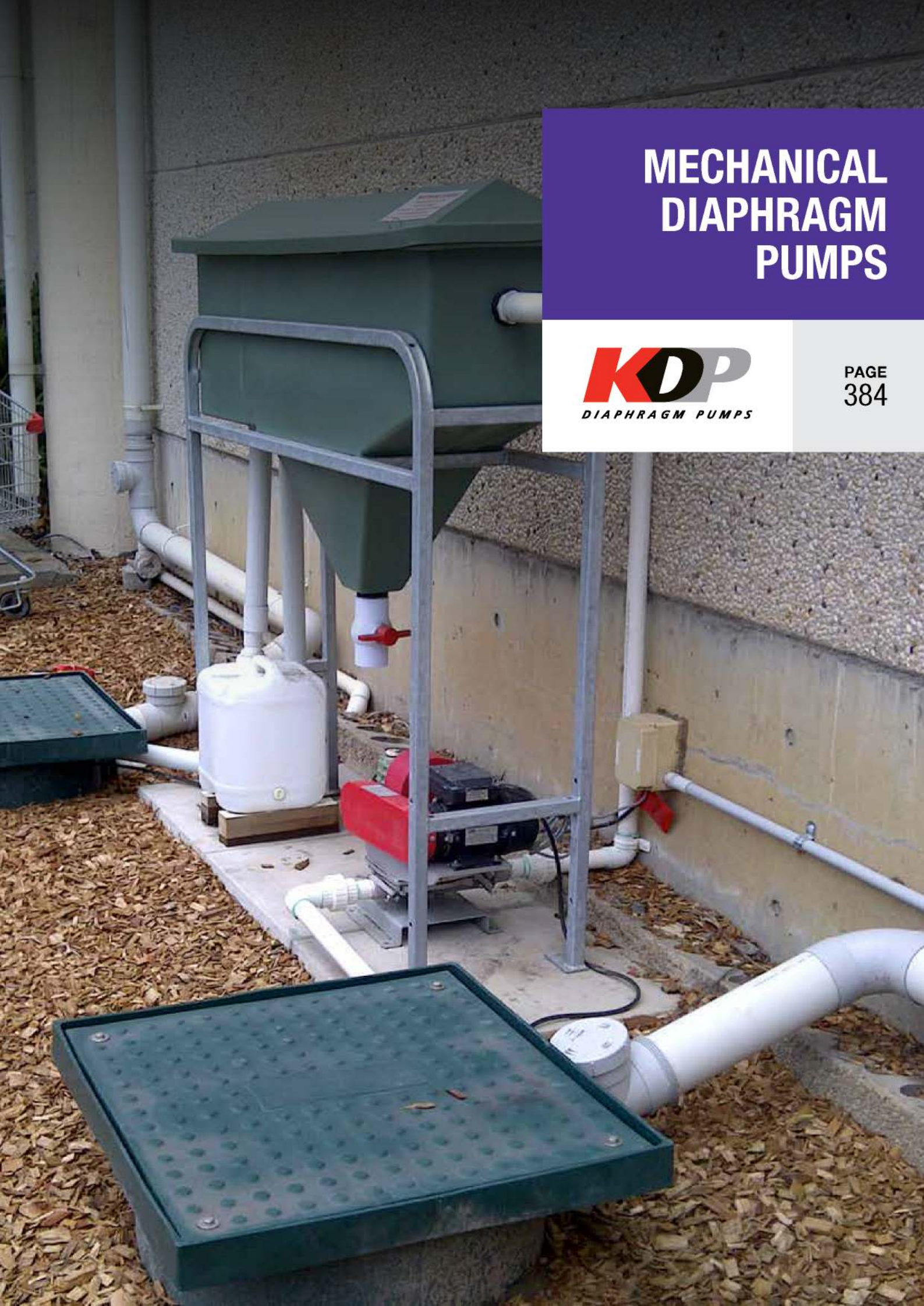




# MECHANICAL DIAPHRAGM PUMPS

**KDP**  
DIAPHRAGM PUMPS

PAGE  
384







## OVERVIEW

The KDP is a mechanical diaphragm pump that uses a heavy duty gear box coupled to an eccentric block to actuate the diaphragm. It is belt driven by pulleys which enables it to use a variety of drive options.

With its heavy duty construction, ability to run dry and self-prime, the KDP pump is suitable for a wide range of applications including dewatering, transfer, oil skimming & oil/water separation.

- Applications:
- Dewatering excavation
  - Raw sewage
  - Pool maintenance and construction
  - Waste treatment plants
  - Oil skimming
  - Bore desludging
  - Oil/Water separators
  - Machine sumps
  - Priming large centrifugal pumps
  - Industrial wastes
  - Liquid manure
  - Septic tank cleaning
  - Drum emptying
  - Abattoirs
  - Poultry processing and Spillage mop up.

- Features:
- Suction lifts to 7.5m
  - Rapid self priming
  - Will run dry without damage
  - Heavy duty
  - Will operate on snor
  - Will handle abrasive liquids
  - Will pass solids up to 80% port size
  - Compact construction
  - TEFC electric motors fitted as standard
  - Special electric motor enclosures as an option






**MATERIALS OF CONSTRUCTION**

COMPONENT	STANDARD	OPTIONAL
Wetted (Casing and Ports)	Aluminium	Cast Iron / 316 Stainless Steel
Diaphragm	Buna-N (NITRILE)	Neoprene / Viton
Flap Valve / Gasket	Buna-N (NITRILE)	Polyurethane
Valve Seat	316 Stainless Steel	


**CARRY FRAME**

All sizes can be fitted with a carry frame



KDP50 and KDP76 can be supplied with a petrol engine which enables increased portability in applications such as:

**PETROL/DIESEL**

Site Dewatering
Excavation Dewatering
Pool Maintenance / Construction
Construction Sites



All pump sizes are available with the following electric motor options:

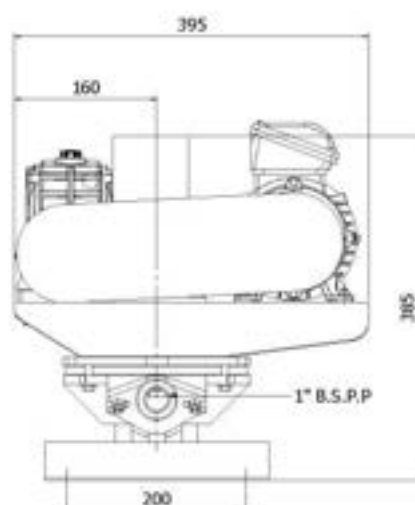
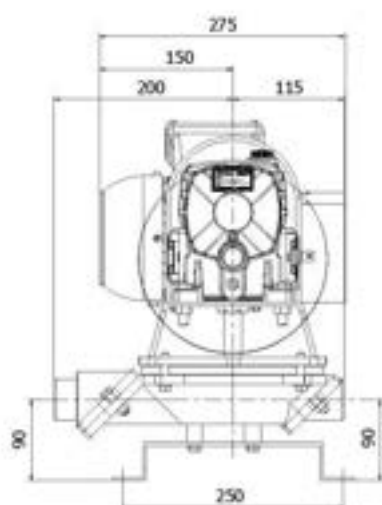
**ELECTRIC**

240V (Single Phase)
415V (Three Phase)
415V (Three Phase), Ex'e
415V (Three Phase), Ex'd



## KDP 25

Model No.	KDP25
Connections	25mm(1")
Nominal flow rate	16-25 l/min
Suction lift	7.5m
Discharge head	6.0m
Solid size	15mm
Motor size	0.37kW
Weight	25kg

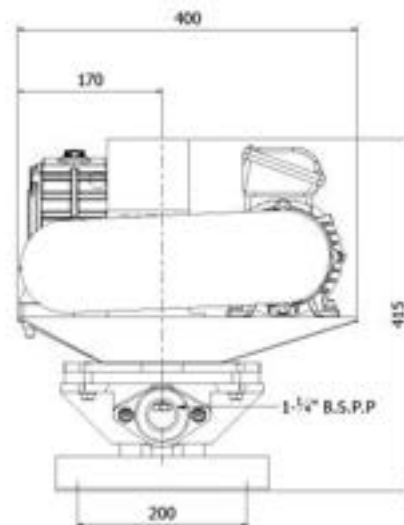
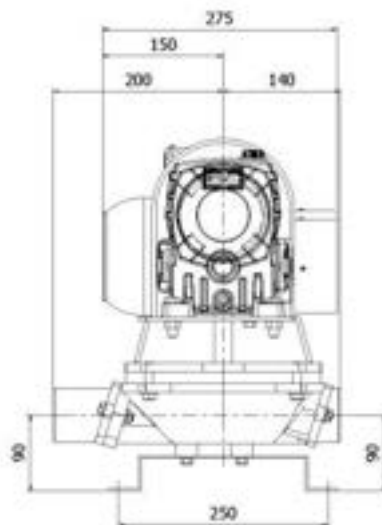


PART NO.	MODEL NO.	DESCRIPTION	TYPE	AMPS	KW
660000	KDB25-100	KD Pump with no motor (Bare)	Bare	N/A	N/A
660006	KDB25-150	KD Pump with no motor (Bare)	Bare	N/A	N/A
660060	KD525-100	KD Pump with 240 Volt Motor	240 Volt	2.8	0.37kW
660066	KD525-150	KD Pump with 240 Volt Motor	240 Volt	2.8	0.37kW
660096	KDT25-100	KD Pump with 415 Volt Motor	415 Volt	1.2	0.37kW
660102	KDT25-150	KD Pump with 415 Volt Motor	415 Volt	1.2	0.37kW
660114	KDTE25-100	KD Pump with 415 Volt Ex(e) Motor	415 Volt Ex E	1.2	0.37kW
660138	KDTE25-150	KD Pump with 415 Volt Ex(e) Motor	415 Volt Ex E	1.2	0.37kW
660144	KDTD25-100	KD Pump with 415 Volt Ex(d) Motor	415 Volt Ex D	1.2	0.37kW
660174	KDTD25-150	KD Pump with 415 Volt Ex(d) Motor	415 Volt Ex D	1.2	0.37kW





KDP 32	
Model No.	KDP32
Connections	32mm(1 1/4")
Nominal flow rate	33 l/min
Suction lift	7.5m
Discharge head	6.0m
Solid size	20mm
Motor size	0.37 kW
Weight	30kg

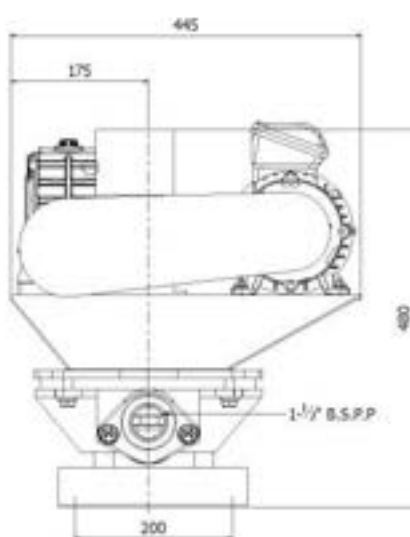
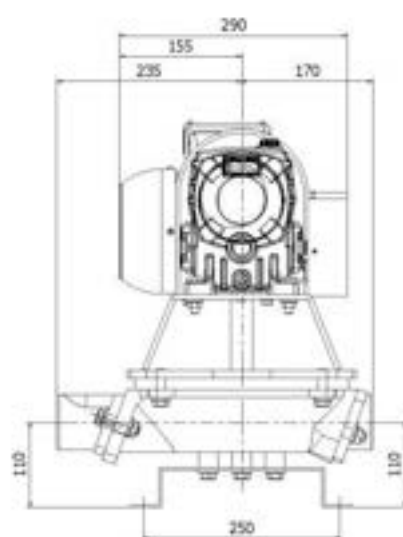


PART NO.	MODEL NO.	DESCRIPTION	TYPE	AMPS	KW
660012	KDB32-200	KD Pump with no motor (Bare)	Bare	N/A	N/A
660072	KDS32-200	KD Pump with 240 Volt Motor	240 Volt	2.8	0.37kW
660108	KDT32-200	KD Pump with 415 Volt Motor	415 Volt	1.2	0.37kW
660150	KDTE32-200	KD Pump with 415 Volt Ex(e) Motor	415 Volt Ex E	1.2	0.37kW
660180	KDTD32-200	KD Pump with 415 Volt Ex(d) Motor	415 Volt Ex D	1.2	0.37kW



## KDP 38

Model No.	KDP38
Connections	38mm(1 1/2")
Nominal flow rate	50 l/min
Suction lift	7.5m
Discharge head	6.0m
Solid size	25mm
Motor size	0.75 kW
Weight	42kg

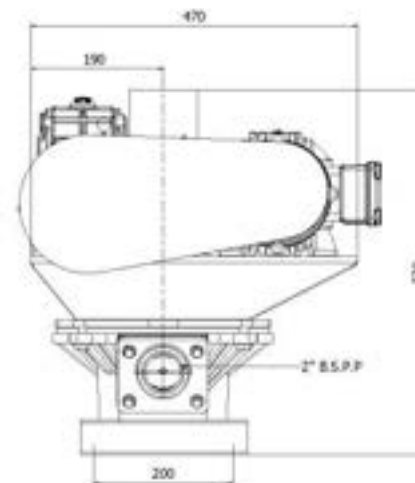
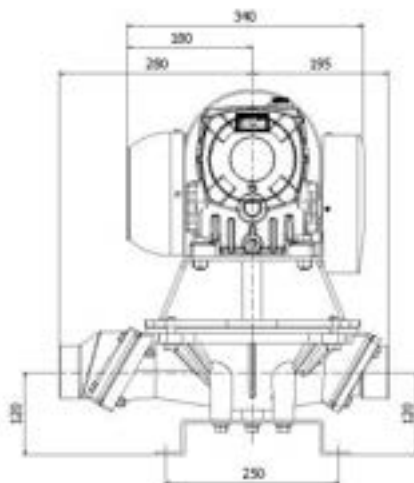


PART NO.	MODEL NO.	DESCRIPTION	TYPE	AMPS	KW
660018	KDB38-300	KD Pump with no motor (Bare)	Bare	N/A	N/A
660078	KDS38-300	KD Pump with 240 Volt Motor	240 Volt	4.75	0.75kW
660120	KDT38-300	KD Pump with 415 Volt Motor	415 Volt	1.77	0.75kW
660156	KDTE38-300	KD Pump with 415 Volt Ex(e) Motor	415 Volt Ex E	1.77	0.75kW
660186	KDTD38-300	KD Pump with 415 Volt Ex(d) Motor	415 Volt Ex D	1.77	0.75kW





KDP 50	
Model No.	KDP50
Connections	50mm(2")
Nominal flow rate	100 l/min
Suction lift	7.5m
Discharge head	6.0m
Solid size	35mm
Motor size	1.1 kW
Weight	55kg

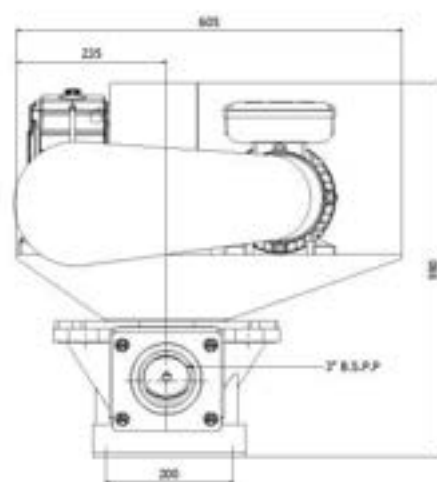
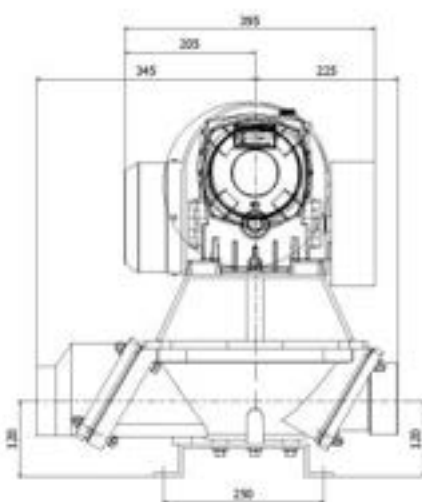


PART NO.	MODEL NO.	DESCRIPTION	TYPE	AMPS	KW
660024	KDB50-600	KD Pump with no motor (Bare)	Bare	N/A	N/A
660036	KDD50-600	KD Pump with Diesel Engine	Diesel	N/A	N/A
660048	KDE50-600	KD Pump with Petrol Engine	Petrol	N/A	4hp
660084	KDS50-600	KD Pump with 240 Volt Motor	240 Volt	6.61	1.1kW
660126	KDT50E-600	KD Pump with 415 Volt Motor	415 Volt	2.6	1.1kW
660162	KDTE50-600	KD Pump with 415 Volt Ex(e) Motor	415 Volt Ex E	2.6	1.1kW
660192	KDTE50-600	KD Pump with 415 Volt Ex(d) Motor	415 Volt Ex D	2.6	1.1kW



## KDP 76

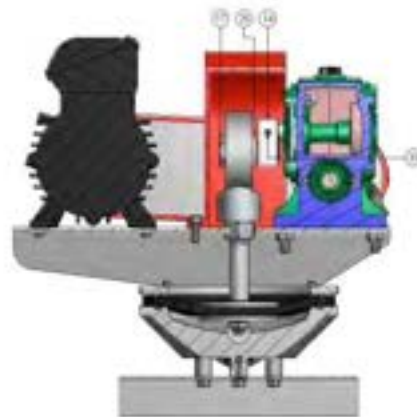
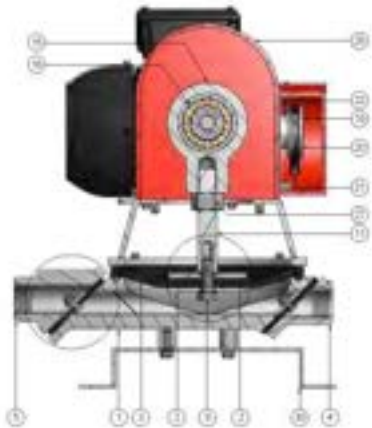
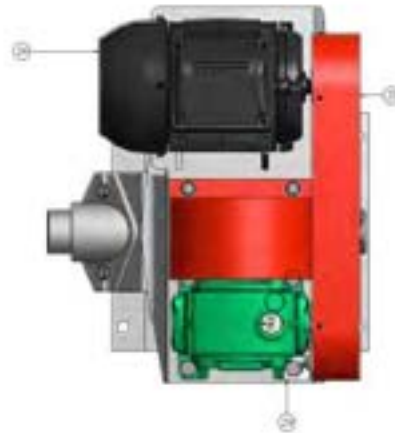
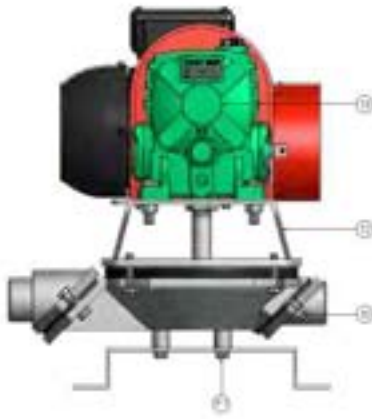
Model No.	KDP76
Connections	76mm(3")
Nominal flow rate	210 l/min
Suction lift	7.5m
Discharge head	6.0m
Solid size	50mm
Motor size	1.5 kW
Weight	72kg



PART NO.	MODEL NO.	DESCRIPTION	TYPE	AMPS	KW
660030	KDB76-120	KD Pump with no motor (Bare)	Bare	N/A	N/A
660042	KDD76-120	KD Pump with Diesel Engine	Diesel	N/A	N/A
660054	KDE76-120	KD Pump with Petrol Engine	Petrol	N/A	4hp
660090	KDS76-120	KD Pump with 240 Volt Motor	240 Volt	8.77	1.5kW
660132	KDT76-120	KD Pump with 415 Volt Motor	415 Volt	3.4	1.5kW
660168	KDTE76-120	KD Pump with 415 Volt Ex(e) Motor	415 Volt Ex E	3.4	1.5kW
660198	KDTD76-120	KD Pump with 415 Volt Ex(d) Motor	415 Volt Ex D	3.4	1.5kW



## PARTS DRAWING



ITEM NO.	DESCRIPTION
1	Aluminium Bowl
2	Diaphragm plate
3	Nitrile diaphragm
4	Aluminium suction port
5	Aluminium discharge port
6	Stainless steel valve seat
7	Nitrile valve seat gasket
8	Nitrile flap valve
9	Diaphragm plate bolt
11	Connecting rod
12	Drive support housing
13	Worm gear speed reducer - Ratio 30:1
14	Eccentric block
15	Eccentric bearing housing
16	Bearing - 6305
17	Eccentric bolt & washer
18	Circlip

ITEM NO.	DESCRIPTION
19	Gearbox pulley
20	Motor pulley
21	V-Belt
22	Pulley guard backplate - SS 304
23	Pulley guard - Plastic
24	Electric motor
25	Nitrile O-Ring
26	Eccentric bolt spacer
27	Connecting rod nut
28	Eccentric guard - Plastic
29	Pulley guard backplate support bracket
30	Baseplate - Mild steel - Galvanised
31	Flanged hex nut
32	Hex head bolt
33	Grub screw
34	Washer



1 x Vee Belt



1 x Diaphragm



2 x Flap Valve Assemblies



2 x Flap Valve Gaskets

2 x Diaphragm plate  
O-rings or gaskets

PART NO.	DESCRIPTION
680090	KWIKFLO KDP-25 SERVICE KIT
680176	KWIKFLO KDP-32 SERVICE KIT
680250	KWIKFLO KDP-38 SERVICE KIT
680332	KWIKFLO KDP-50 SERVICE KIT
680412	KWIKFLO KDP-76 SERVICE KIT



# GEAR PUMPS



PAGE  
394



PAGE  
424

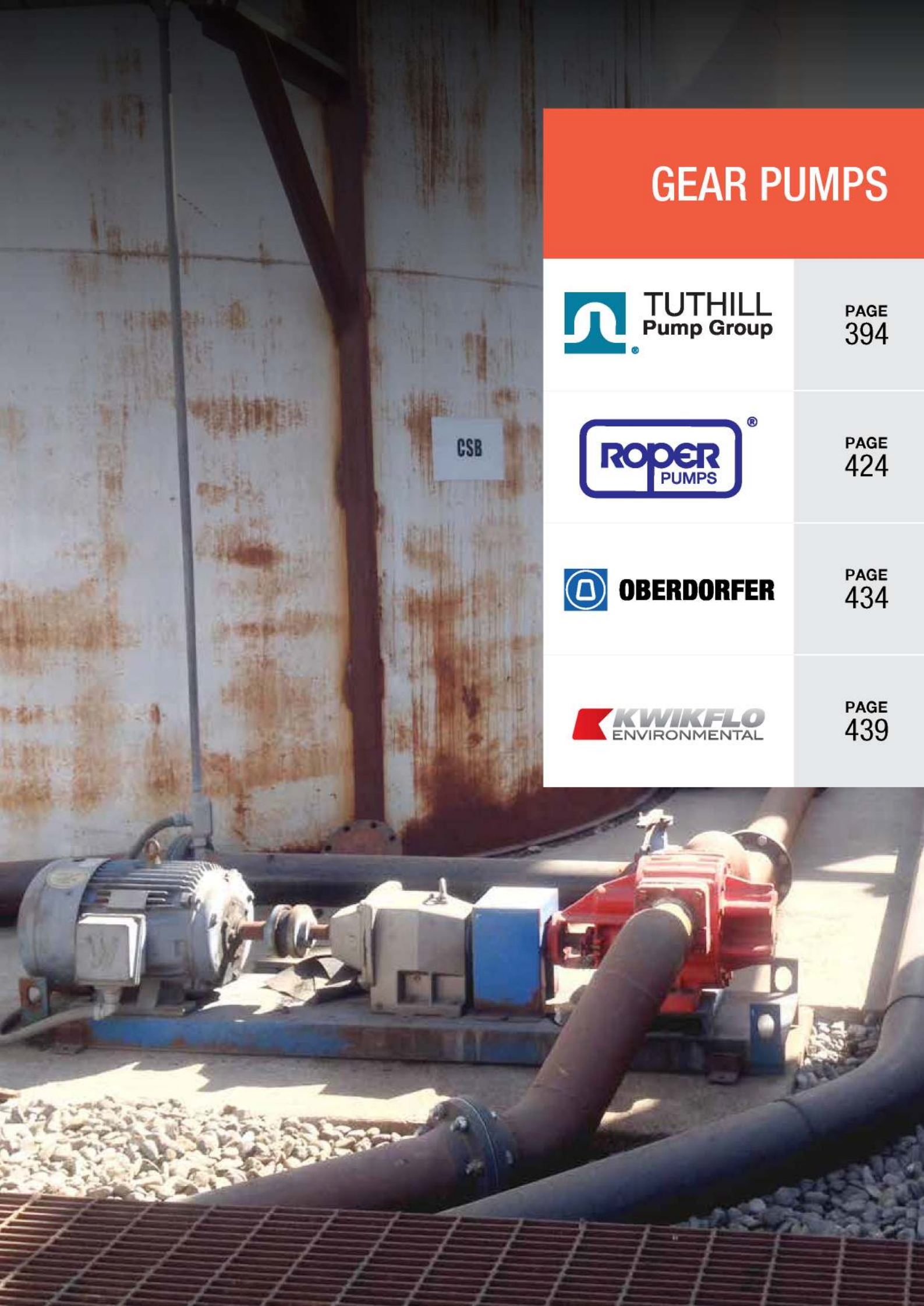


PAGE  
434



PAGE  
439

CSB







## PROCESS PUMPS

Gear pumps are a type of rotary positive displacement pump, meaning they pump a constant amount of fluid for each revolution. Gear pumps transfer fluid by gears coming in and out of mesh to create a low-pulsating pumping action. Gear pumps are able to pump at high pressures and excel at pumping high viscosity liquids efficiently.

Therefore a gear pump is well suited for handling viscous liquids such as fuel and lubricating oils. Gear pumps are not suited for pumping solids and abrasive liquids.

Internal and external gear pumps are the two basic types of gear pumps. Both the internal and external gear pumps have an idler gear that is driven by the driving gear and both use the same method of gears coming in and out of mesh to create a pumping action. The main differences between the two gear pumps are the placement of the gears and where the fluid is trapped.



### Gear Pump Types

#### Internal Gear Pumps - Tuthill

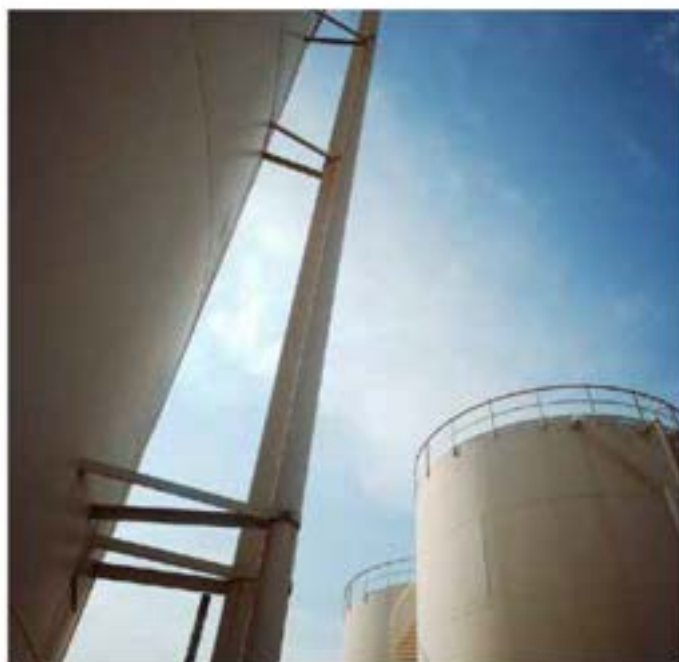
The internal gear pump has an external gear with a smaller internal gear inside of it. Since the internal gear is smaller when the gears come out of mesh on the intake side it creates pockets, between the external and internal gears teeth, which is where the fluid is transported. Internal gear pumps are ideal for pumping high viscosity fluids, but pumping large solids can damage the pump.

#### External Gear Pumps - Roper(Helical), Koshin, KGC, Oberdorfer (Spur Gear Pumps).

The external gear has two identical gears that rotate against each other to create a pumping action. The fluid travels from the intake to the discharge side of the pump between the gear's teeth and pump casing. External gear pumps are used more for applications that call for high pressure or high flow.



CHEMICAL PROCESSING



ASPHALT PRODUCTION

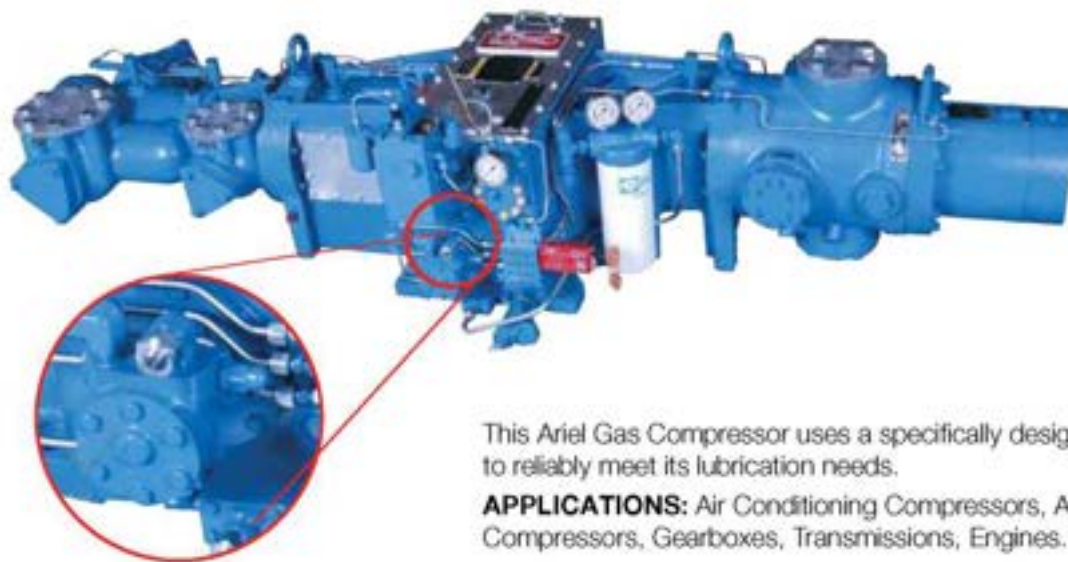


The L & C Series cast iron positive displacement pumps have been the industry standard for Lubrication & Circulation for over 75 years. They were originally designed under James B. Tuthill, the company's founder, in the 1920s. For eight decades, Tuthill has worked to improve these pumps to fit an ever-growing range of lubrication applications. The result is a family of reliable internal gear pumps that are ideal for custom OEM lubricating, low pressure hydraulic, transfer, circulating, burner oil and many other industrial pump applications.



#### Flexibility and Reliability to Meet Your Needs!

L & C series pumps are precisely machined and assembled with only two moving parts, so they achieve and retain their reliability over a wider range of viscosities than alternative pump designs. They are also available with Tuthill's unique reversing feature, as well as mounting, driving and sealing options to suit all your applications.



This Ariel Gas Compressor uses a specifically designed Tuthill L Series Pump to reliably meet its lubrication needs.

**APPLICATIONS:** Air Conditioning Compressors, Air Compressors, Gas Compressors, Gearboxes, Transmissions, Engines.

#### DID YOU KNOW?

That All Pumps can couple these pumps to almost any motor or engine type?

To find out more call 1300 255 786

#### Perfect Match For Many OEMs.

Original Equipment Manufacturers worldwide incorporate Tuthill internal gear pumps into their products for lubrication and transfer service. This widespread acceptance is a result of product performance and reliability.

It is also a result of the Tuthill Business System. The process begins with listening to the wants and needs of our customers and the marketplace. This enables us to quickly engineer customised solutions that provide maximum value and have made us the leading source for custom OEM positive displacement pumps.

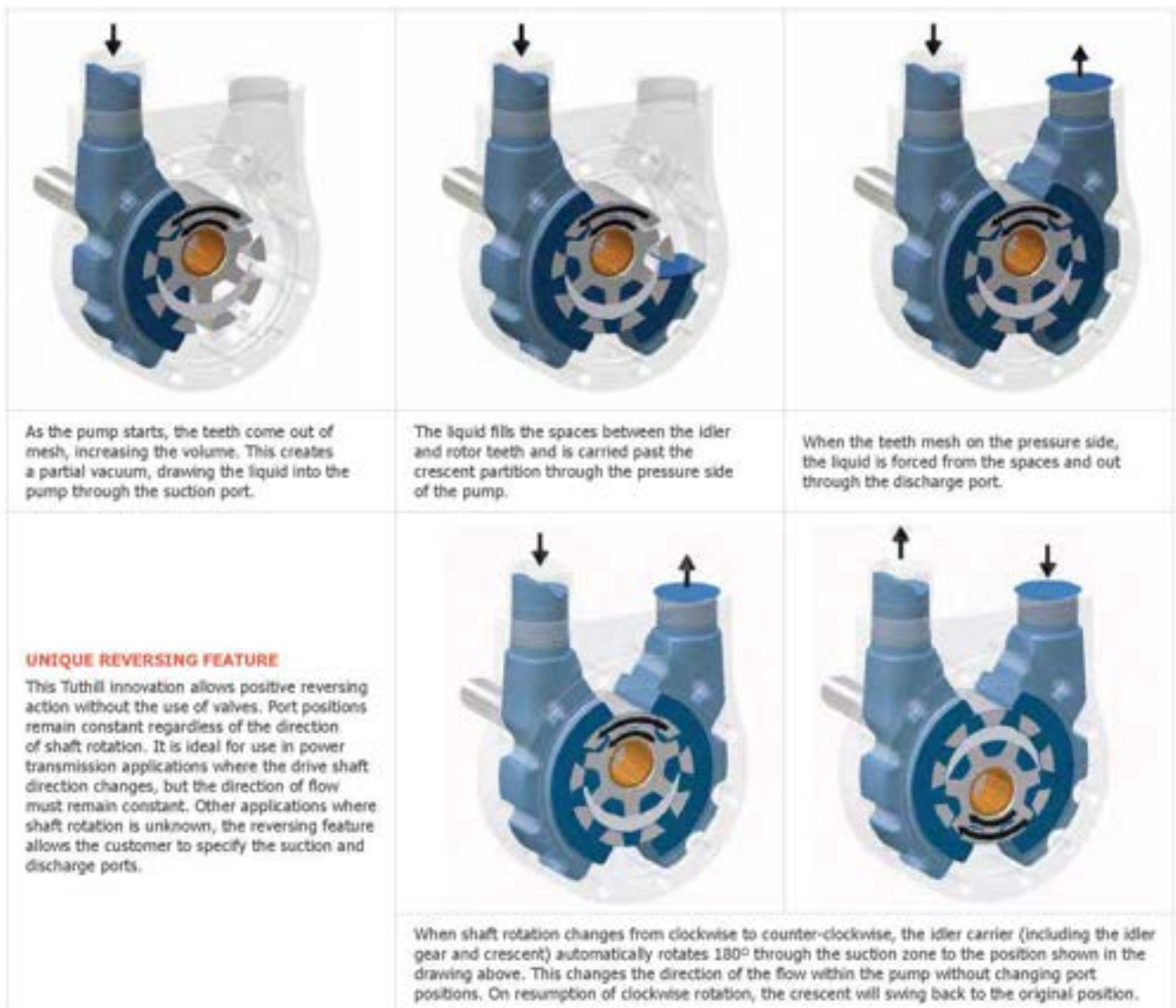


L & C Series Pumps' **SIMPLE, COMPACT DESIGN** offers high efficiency and longer life!

## The Pumping Principle

Tuthill L & C Series cast iron pumps employ the internal gear pumping principle. There are only two moving parts. Pumping action is based on a rotor, idler gear and a cover cast with a crescent-shaped partition.

This design allows the pump to handle a wide range of viscosities while sustaining a constant flow regardless of pressure. The non-pulsating flow also runs substantially quieter than other pump designs. With minimal to moderate wear, our internal gear pumps outperform other pumping technologies.





## L & C SERIES



### L Series Pump Range

- Internal gear pump design
- Compact and flexible drive options
- Available with Tuthill's Reversing Feature
- Flow rates to 3m<sup>3</sup>/hr
- Pressures to 34.5 bar
- Standard with single mechanical seal
- Cast iron construction

### Cartridge Pumps

- Internal gear cartridge pump design
- Compact design mounts directly to OEM equipment
- Multiple porting and driving options
- Flow rates to 1.4m<sup>3</sup>/hr
- Pressures to 10.3 bar
- Cast iron construction



#### DID YOU KNOW?

That All Pumps can couple these pumps to almost any motor or engine type?

To find out more call 1300 255 786



#### L SERIES SPECIFICATIONS - CAST IRON CONSTRUCTION

##### NOMINAL FLOW RATE

MODEL	US GPM		RPM	L/MIN		RPM
000LE	0.5	⊕	1800	1.9	⊕	1800
00LE	1.0	⊕	1800	3.8	⊕	1800
0LE	1.8	⊕	1800	6.8	⊕	1800
1LE	3.0	⊕	1800	11.4	⊕	1800
2LE	5.6	⊕	1800	21.2	⊕	1800
5LE*	13.0	⊕	1800	49.2	⊕	1800

Pressures to 500 PSI (34.4 bar)

Temperatures to 475°F (246°C)

Viscosities from 32 SSU to 5000 SSU (1 to 1078 cst)

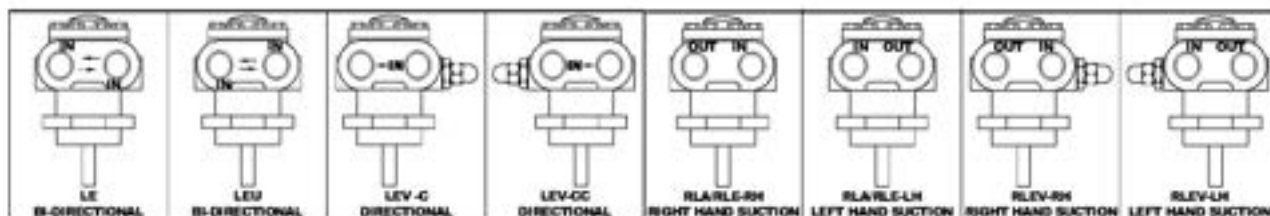
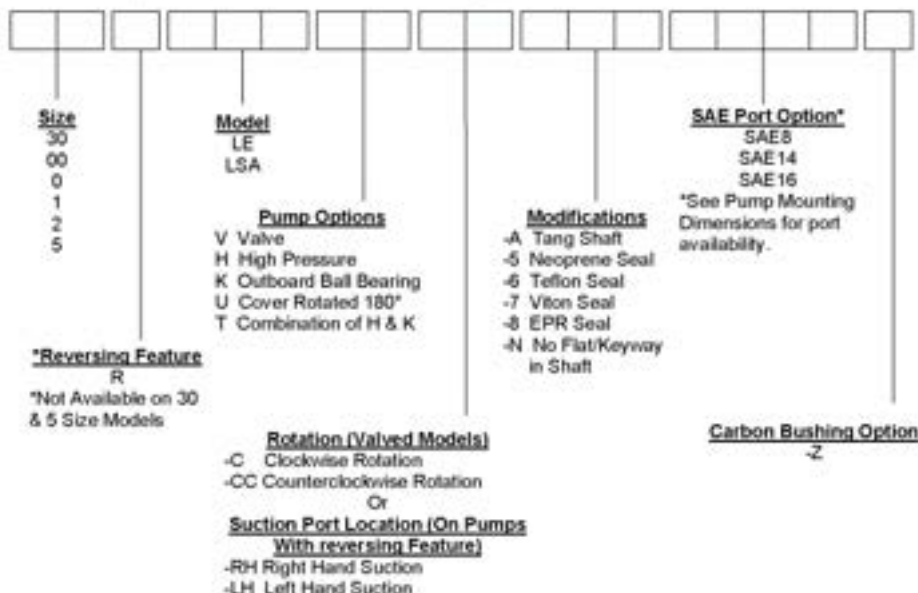
For speeds above 1800 RPM and/or viscosities above 5000 SSU consult factory

\*Pressures to 300 psi (20.7 bar)

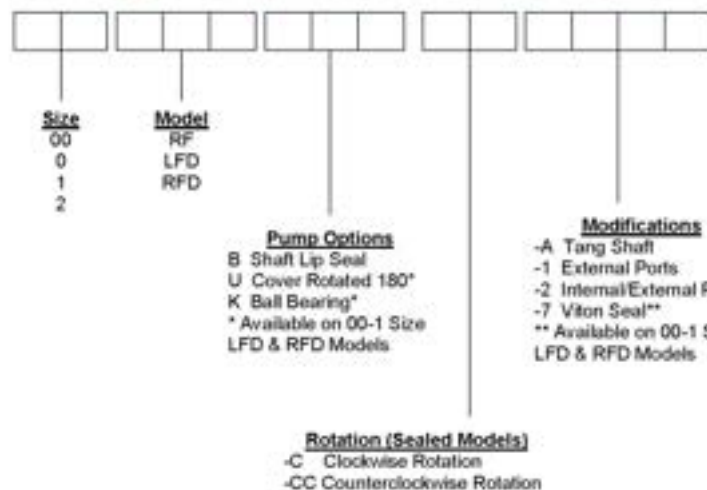
# L & C SERIES

## L Pump Model Number System

- 1) PUMP'S MODEL NUMBER IS LOCATED IN BETWEEN THE PUMP PORTS.
- 2) ROTATION AND SUCTION (IN) AND DISCHARGE (OUT) ARE STAMPED AS WELL.

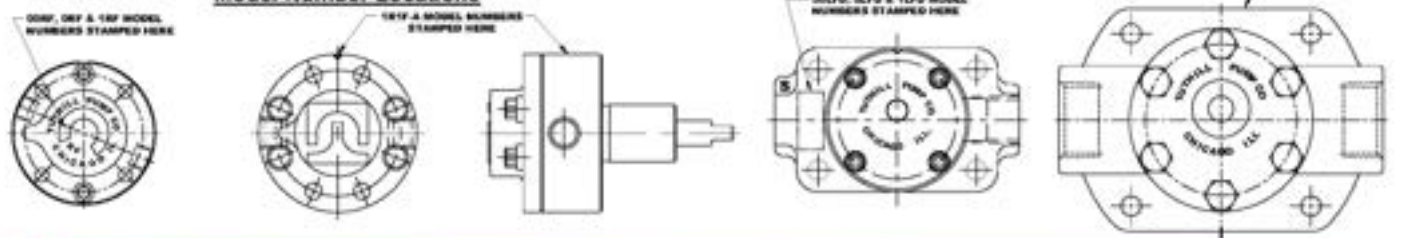


## Cartridge Pump Model Number System

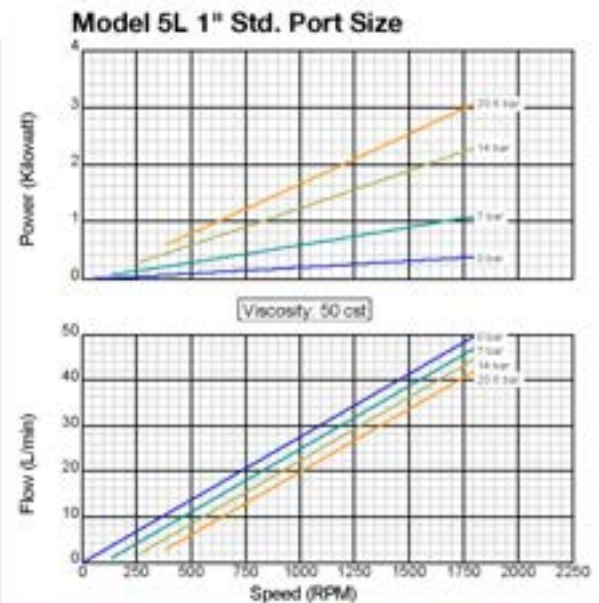
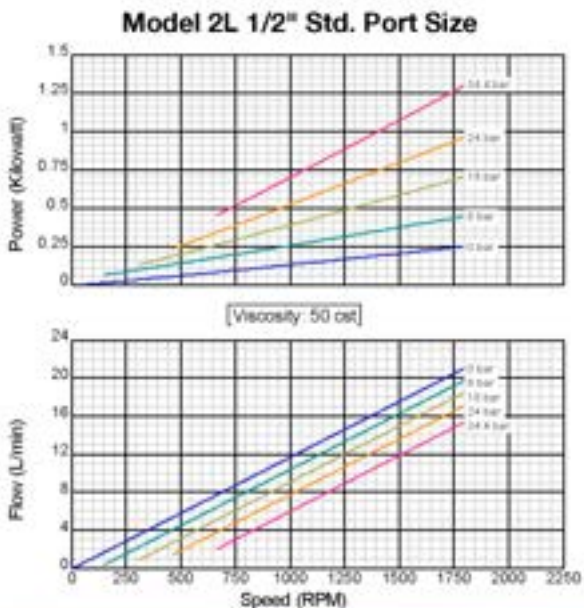
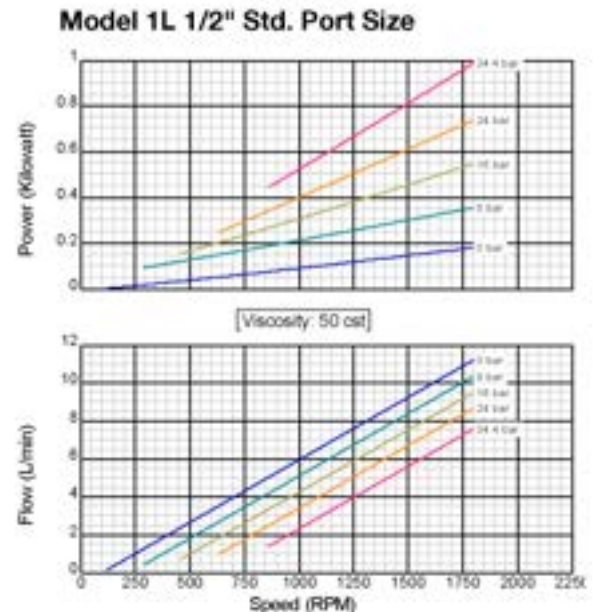
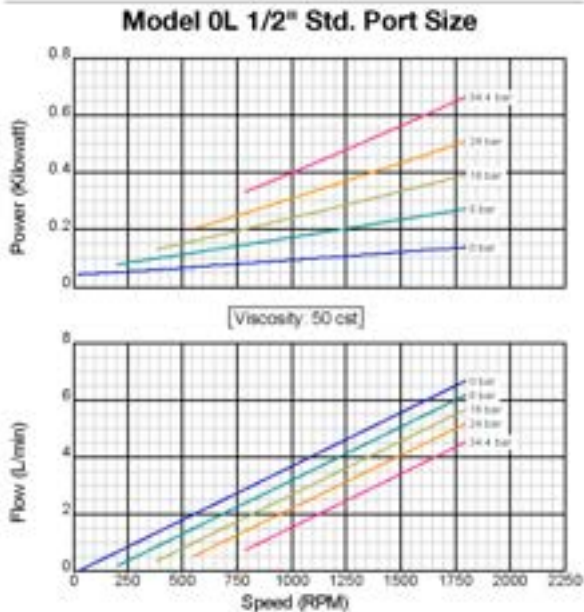
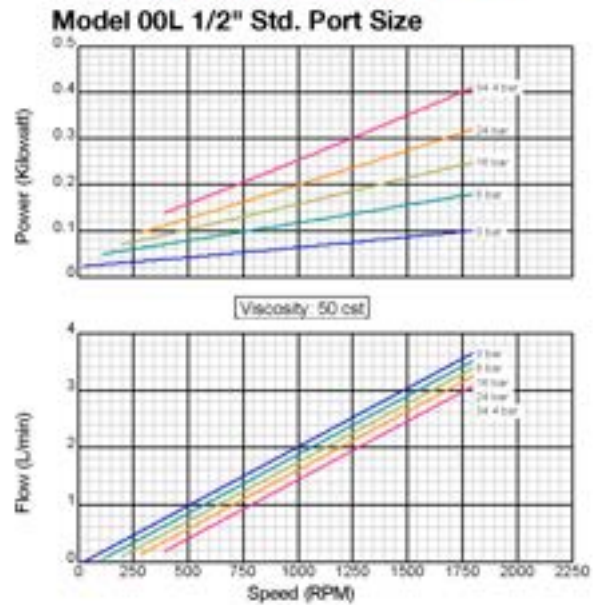
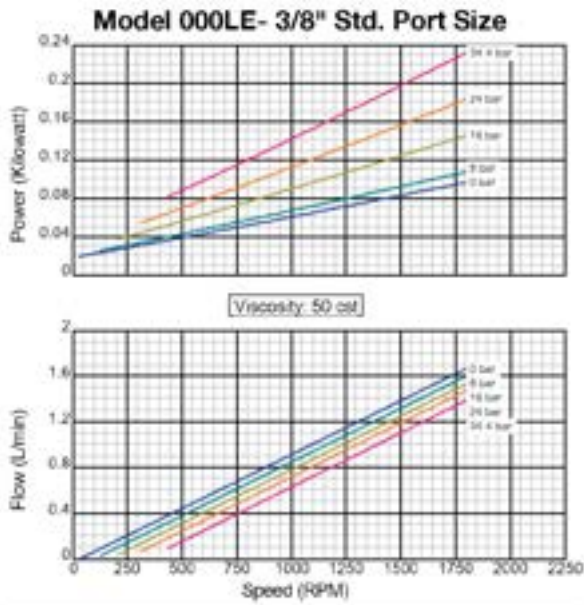


- Note:
1. Shaft seal not available on RF model pumps.
  2. 1R1F-A pump available as shown.

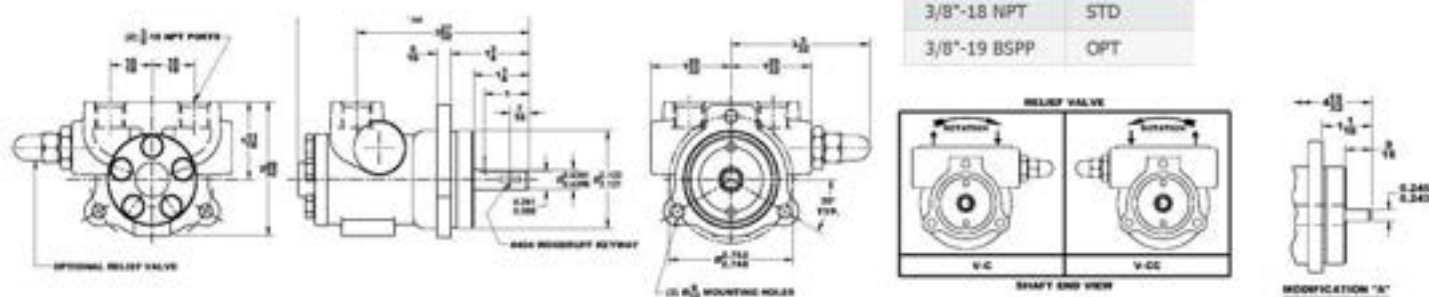
### Model Number Locations



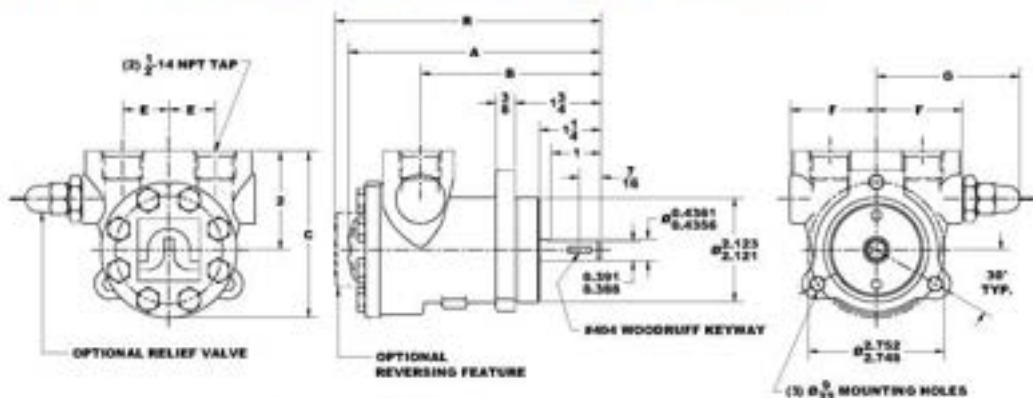




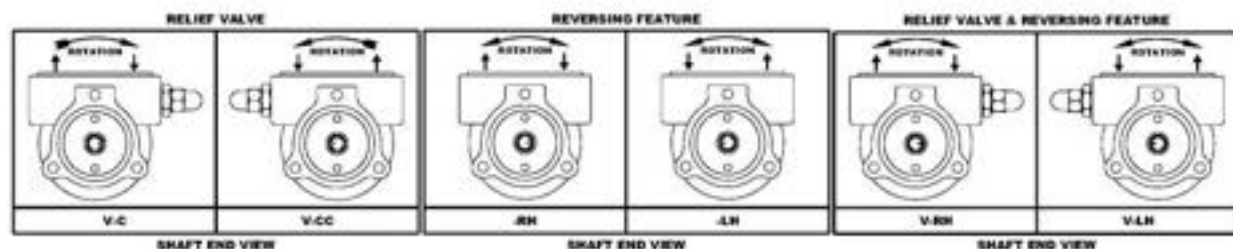
### 000LE Pump Mounting Dimensions



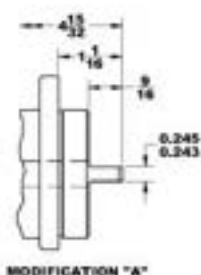
### 00, 0, 1, and 2LE Pump Mounting Dimensions



PUMP MODEL		OVERALL LENGTH		B	C	E	F	G
BI-ROTATIONAL	REVERSING	BI-ROT.	REV.					
		A	R					
00LE	00RLE	4 15/16	5 3/16	3 15/32	3 15/32	15/16	1 29/32	3 3/32
0LE	0RLE	4 15/16	5 3/16	3 15/32	3 15/32	15/16	1 29/32	3 3/32
1LE	-	5 3/32	-	3 5/8	3 5/16	15/16	1 3/4	3 1/8
-	1RLE	-	5 1/4	3 17/32	3 5/16	15/16	1 3/4	3 1/8
2LE	2RLE	5 15/16	6 1/16	4 7/16	3 5/8	15/16	1 3/4	3 1/8

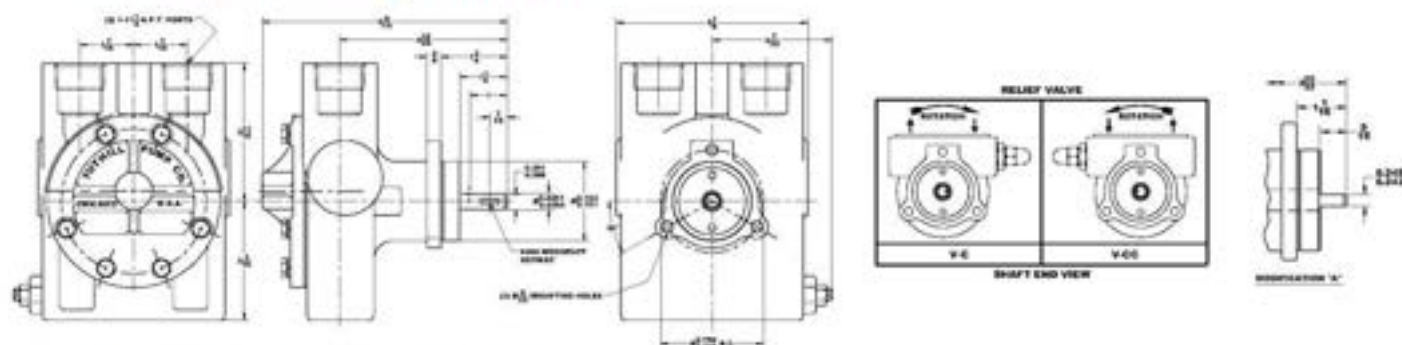


PORT SIZE	PUMP MODEL				
	00LE	0LE	1LE	2LE	
1/2"-14 NPT	STD.	STD.	STD.	STD.	
3/4"-16 UNF (SAE 8)	OPT	OPT	OPT	OPT	
1/2"-14 BSPP	OPT	OPT	OPT	OPT	

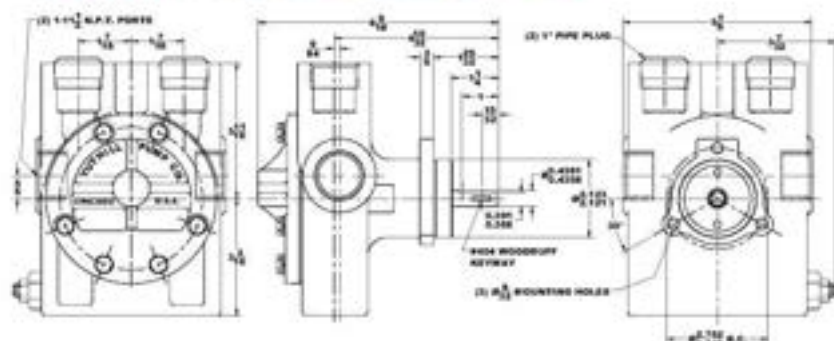




## 5LE Pump Mounting Dimensions



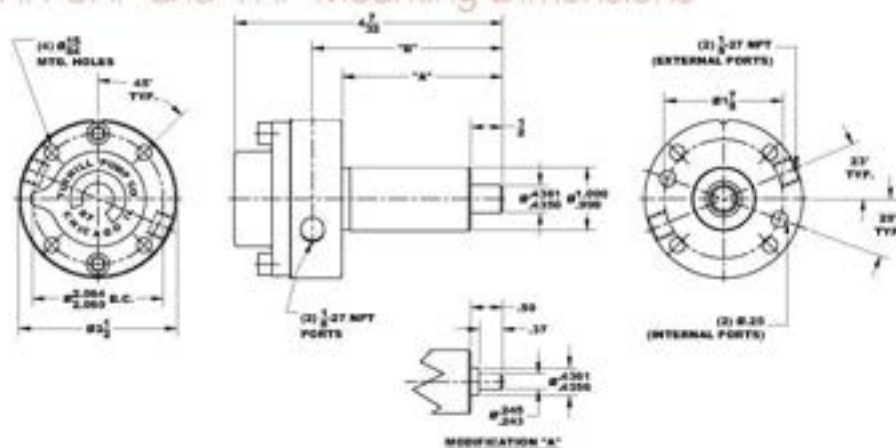
## 5LE With Optional Side Porting



### PORT TYPES

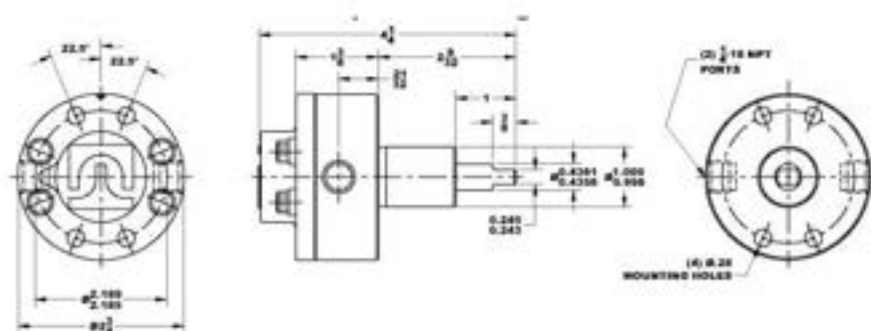
1"-11 1/2 NPT	STD
1 3/16"-12 UNC (SAE 14)	OPT
1 5/16"-12 UNC (SAE 16)	OPT
1"-11 BSPP	OPT

## 00RF, 0RF and 1RF Mounting Dimensions



MODEL #	"A"	"B"
00RF	2 17/32	3
0RF	2 17/32	3
1RF	2 9/32	2 29/32

## 1R1F-A Pump Mounting Dimensions







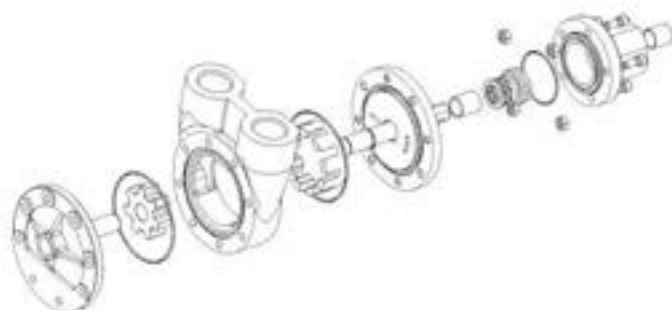


## C Series Pump Range

- Internal gear pump design
- Flexible mounting, sealing and driving options
- Available with Tuthill's Reversing Feature
- Flow rates to 19m<sup>3</sup>/hr
- Pressures to 20.7 bar
- Standard with O-ring case seals
- Cast iron construction

## Stripped Pumps

- Internal gear pump design
- Partial pump assemblies built directly into OEM equipment
- Available with Tuthill's Reversing Feature
- Flow rates to 19m<sup>3</sup>/hr
- Pressures to 10.3 bar



### C SERIES SPECIFICATIONS - CAST IRON CONSTRUCTION

#### NOMINAL FLOW RATE

MODEL	US GPM		L/MIN		RPM
2C	9.5	⊕	36.0	⊕	1800 RPM
3C	18.0	⊕	68.1	⊕	1800 RPM
4C	36.0	⊕	136.3	⊕	1800 RPM
5C	60.0	⊕	227.1	⊕	1800 RPM
6C	84.0	⊕	310.4	⊕	1800 RPM

Pressures up to 500 PSI (34.4bar)

Temperatures to 475°F (246°C)

Viscosities from 32 SSU to 25000 SSU (1 to 5194 cSt)

For speeds above 1800 RPM and/or viscosities above 25000 SSU consult factory

\* Pressures to 300 PSI (20.7 bar)

#### 2C2F-6C2F (Shaft Lip Seal):

Model C2F pumps were specifically developed for flange mounting applications and for close coupling to Tuthill's special motors to provide extremely compact close-coupled combinations. Model C2F pumps are supplied with a single spring-loaded lip seal, and can handle inlet pressures to 25 PSI. Designed for direct drive service, these pumps incorporate precision bronze bearings and may be also supplied with a shaft modification for driving the pump directly from existing shafts without couplings. The C2F pumps have a maximum differential capability of 100 PSI.

#### 2C2FA-6C2FA (Seal less Design):

Model C2FA pumps are similar in construction to the C2F pumps. They are supplied without a seal for use on OEM built-in applications. The C2FA pumps have a maximum differential capability of 100 PSI.

#### 2C2E-6C2E (Shaft Lip Seal With Foot Mount):

For direct-drive service, the C2E pumps have been designed to provide the maximum in compactness. C2E pumps have a spring-loaded lip seal and precision bronze bearings similar to the C2F models. C2EN pumps have an outboard ball bearing and were specifically developed for use with belt drives or similar applications where a side load is applied to the pump shaft. Both C2E and C2EN have an integral mounting foot for a variety of mounting arrangements. Both models can handle inlet pressure to 25 PSI and maximum differential pressures to 100 PSI.

#### 2C2B-6C2B & 4312-4316 & 4332-4336 (Shaft Mechanical Seal):

Model C2B/4300 pumps are designed for flange or foot mounting applications. They may also be adapter mounted to "C" face electric motors. C2B/4300 pumps are provided with a mechanical seal capable of handling inlet pressures to 250 PSI at a standard 1725-RPM motor speed with a maximum discharge pressure of 300 PSI. The maximum differential for this pump is 150 PSI. For side load applications an outboard ball bearing feature is available as well.

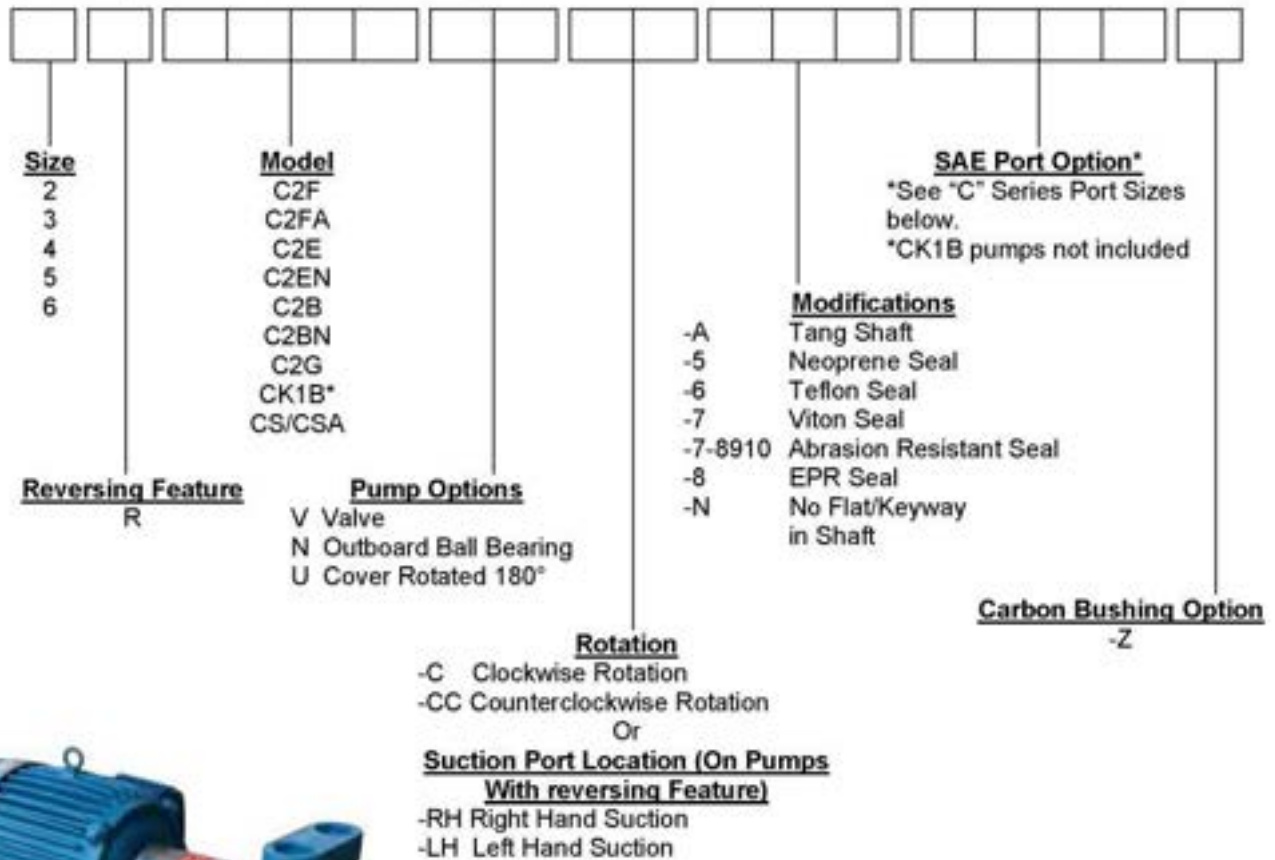
#### 2CK1B-6CK1B (Shaft Mechanical Seal):

Model CK1B pumps are designed for differential pressures to 250 PSI and incorporate a double ball bearing with an inboard heavy-duty roller bearing. They may also be adapter mounted to "C" face electric motors. CK1B pumps are supplied with a mechanical seal capable of handling inlet pressures to 250 PSI at a standard 1725-RPM motor speed with a maximum discharge pressure of 300 PSI. 2C2G-6C2G & 4212-4216 & 4232-4236 (Packing Seal With Foot Mount): Model C2G/4200 pumps have spring loaded Teflon V-rings (Graphite Impregnated) as the shaft seal. They are capable of handling inlet pressures to 25 PSI and differential pressures to 100 PSI.

#### 1ACS, 2-4CS, 6ACS & 1CSA-6CSA (Stripped Pumps):

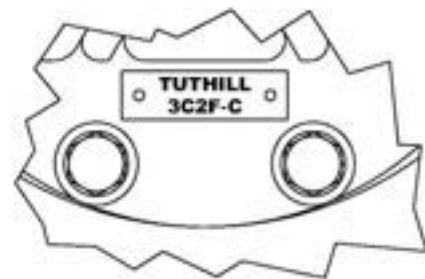
Tuthill's C Series pumps are available in stripped form for use in volume OEM applications where a pump is to be built directly into a piece of equipment.

### C Pump Model Number System



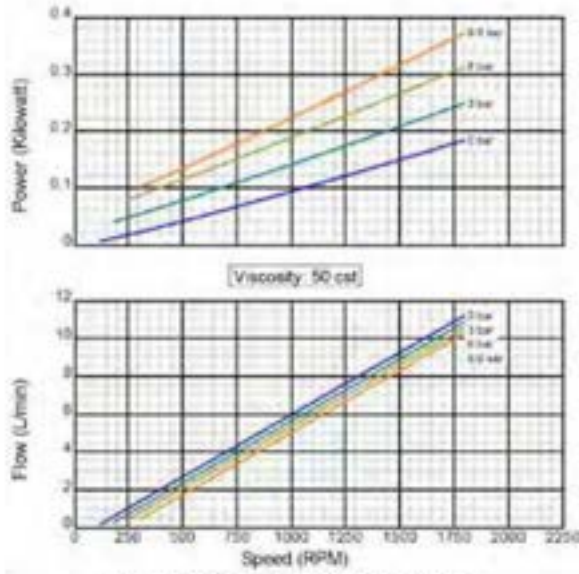
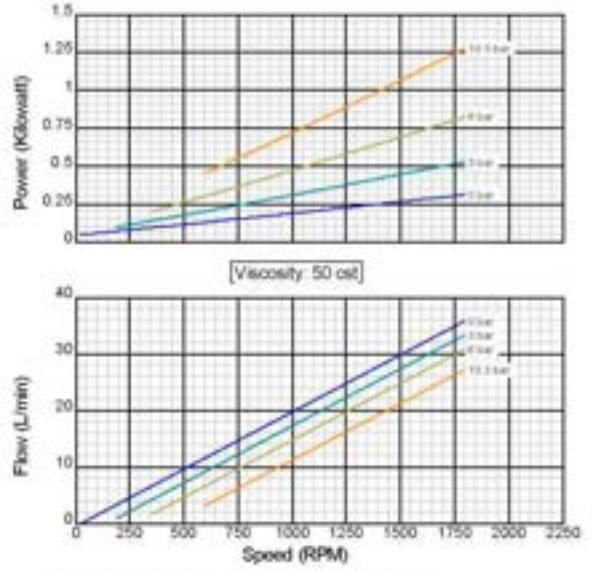
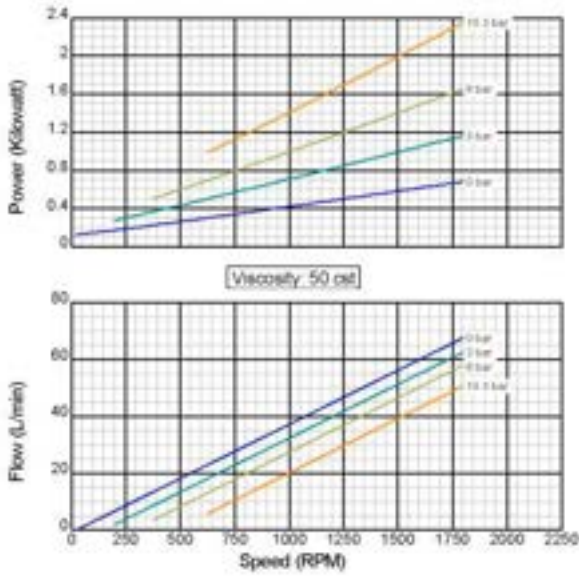
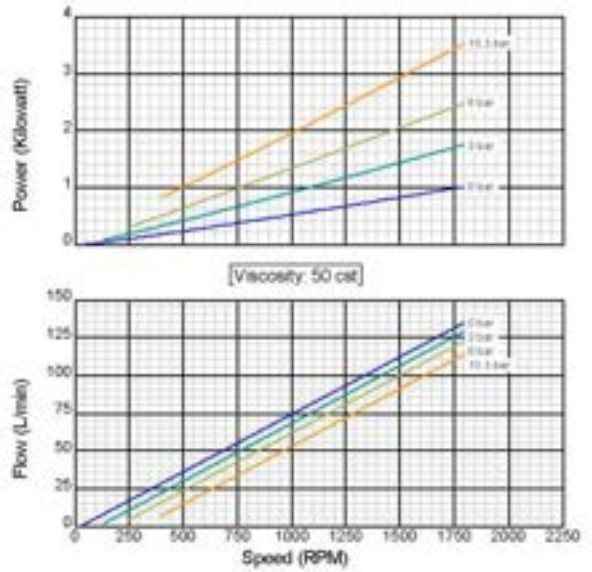
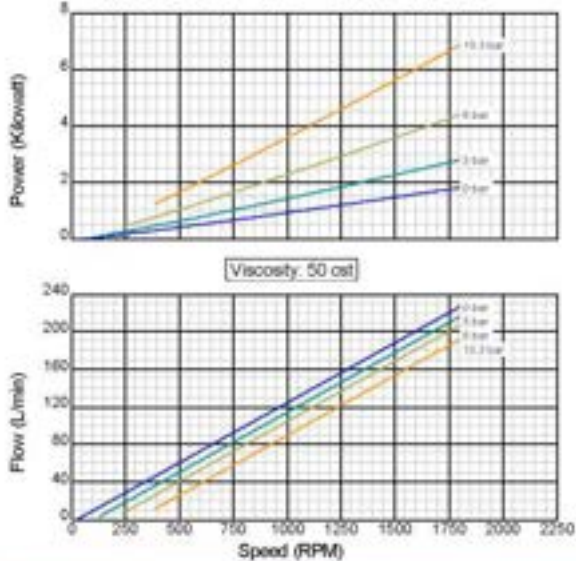
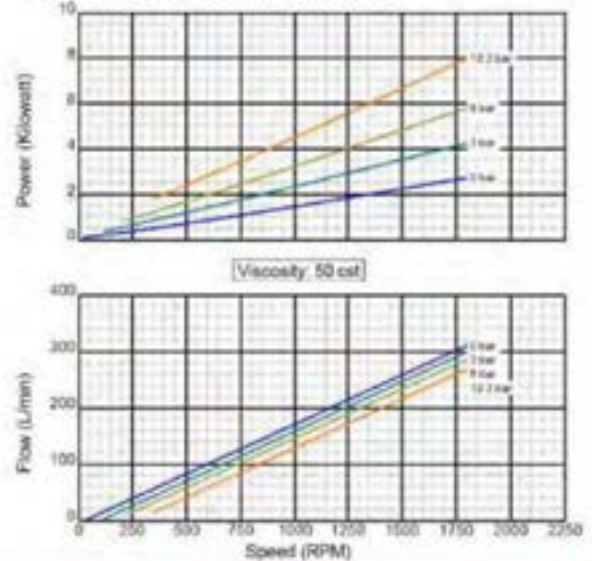
### Model Number Location

Stamped on a metal tag on the cover

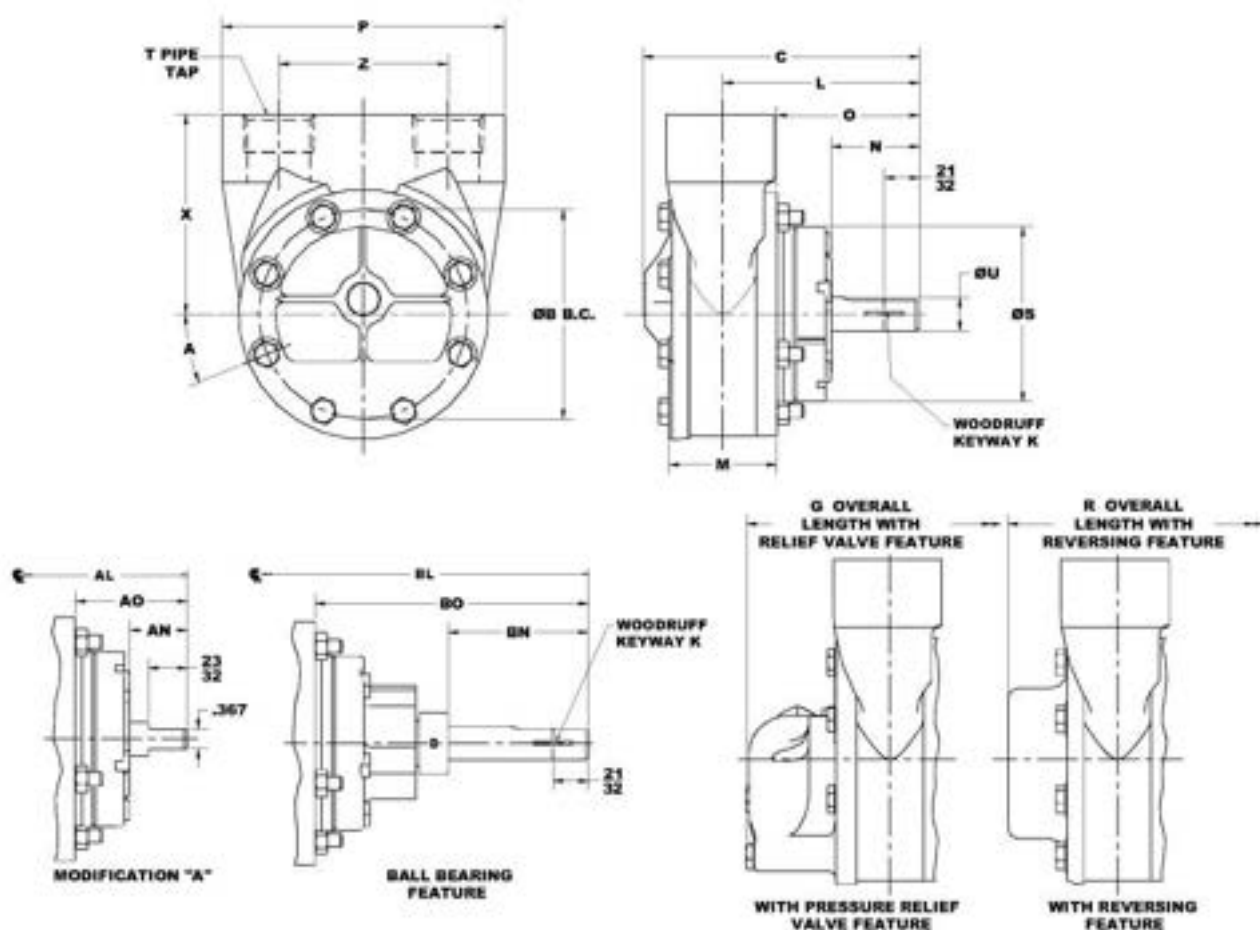


PORT		PUMP SIZE				
STYLE	SIZE	2	3	4	5	6
NPT	1"	STD.	-	-	-	-
	1 1/4"	-	STD.	-	-	-
	1 1/2"	-	-	STD.	STD.	-
	2"	-	-	-	-	STD.
BSPP	1"	OPT.	-	-	-	-
	1 1/4"	-	OPT.	-	-	-
	1 1/2"	-	-	OPT.	OPT.	-
BSPT	1"	OPT.	-	-	-	-
	1 1/4"	-	OPT.	-	-	-
SAE	14	OPT.	-	-	-	-
	16	OPT.	OPT.	-	-	-
	20	-	OPT.	OPT.	-	-
	24	-	-	OPT.	OPT.	-
	32	-	-	-	-	OPT.



**Model 1C- 3/8" Std. Port Size**

**Model 2C 1" Std. Port Size**

**Model 3C 1-1/4" Std. Port Size**

**Model 4C 1- 1/2" Std. Port Size**

**Model 5C 1- 1/2" Std. Port Size**

**Model 6C 2" Std. Port Size**


## 2C2F-6C2F Pump Mounting Dimensions

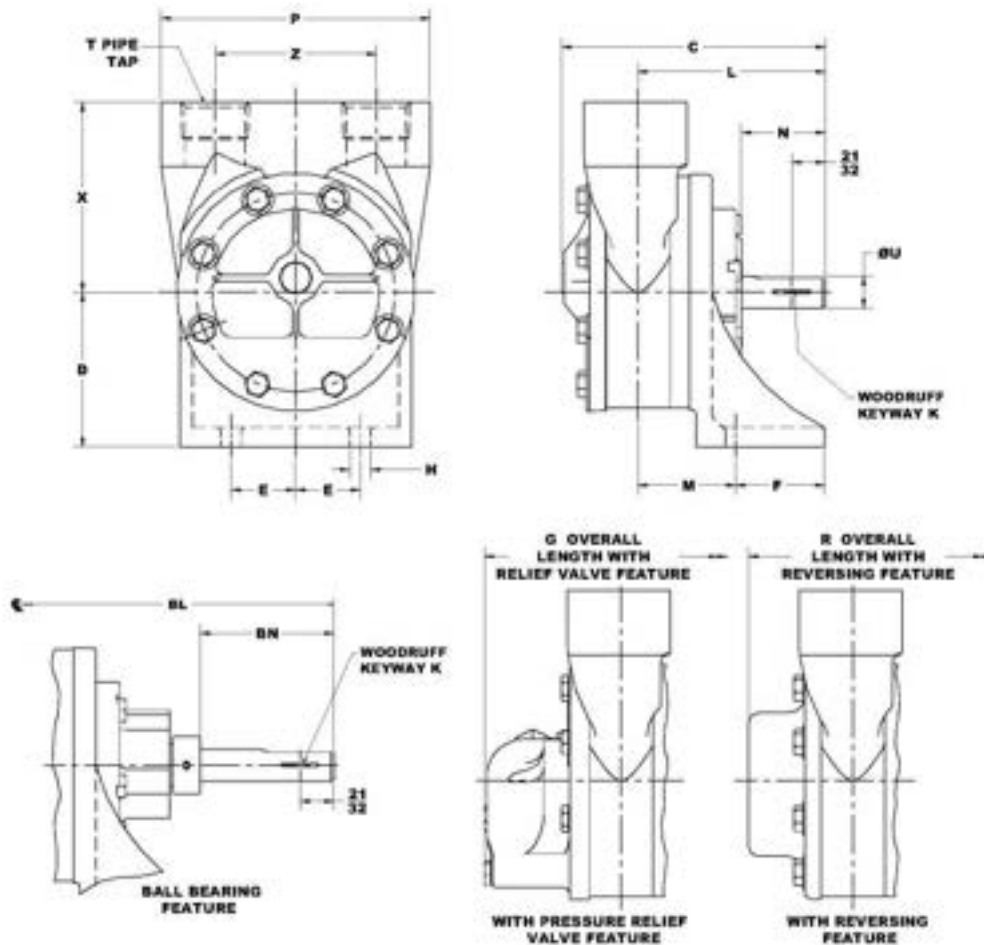


MODEL	A	B	C	R	G	K	L	M	N	O	P	S
2C2F	22 1/2°	3 7/8	5 1/8	5 21/32	6 7/32	#406	3 5/8	2	1 5/8	2 5/8	5 7/32	3 1/4
3C2F	22 1/2°	5 1/8	6 17/32	6 7/8	7 17/32	#606	4 13/16	2 5/16	2 3/32	3 7/16	6 5/8	3 1/4
4C2F	22 1/2°	5 1/8	7 27/32	7 9/16	8 7/32	#606	4 29/32	3	2 3/32	3 7/16	6 1/2	3 1/4
5C2F	17°	6 5/8	9 1/16	11 5/8	10 3/4	#808	5 3/4	4 5/16	2 3/8	3 3/8	7 1/2	3 1/4
6C2F	17°	6 5/8	9 1/2	12 1/8	10 3/4	#808	6	4 13/16	2 3/8	3 3/8	8 1/8	3 1/4

MODEL	T	U	X	Z	AL	AN	AO	BL	BN	BO
2C2F	1" NPT	5/8	3 11/16	3 1/8	3 1/16	1 1/16	2 1/16	6 1/16	2 19/32	5 1/32
3C2F	1 1/4" NPT	3/4	4 7/8	4 1/8	3 7/16	23/32	2 1/16	6 13/16	2 25/32	5 7/16
4C2F	1 1/2" NPT	3/4	4 1/8	3 3/4	3 17/32	23/32	2 1/16	6 29/32	2 25/32	5 7/16
5C2F	1 1/2" NPT	1	5	4 3/4	4 1/4	7/8	1 7/8	6 7/8	1 29/32	4 1/2
6C2F	2" NPT	1	4 3/4	4 3/4	4 1/2	7/8	1 7/8	7 1/8	1 29/32	4 1/2



## 2C2E-6C2E Pump Mounting Dimensions



MODEL	C	R	G	D	E	F	H	K	L	M	N	P
2C2E	5 1/8	5 21/32	6 7/32	3	1 1/4	1 19/32	13/32	#406	3 5/8	1 29/32	1 5/8	5 7/32
3C2E	6 17/32	6 7/8	7 17/32	3 7/8	1 1/2	SLOT	15/32	#606	4 13/16	SLOT	2 3/32	6 5/8
4C2E	7 27/32	7 9/16	8 7/32	3 7/8	1 1/2	SLOT	15/32	#606	4 29/32	SLOT	2 3/32	6 1/2
5C2E	10 3/16	12 3/4	11 3/8	4 3/4	1 1/2	SLOT	15/32	#808	6 7/8	SLOT	3 1/2	7 1/2
6C2E	10 5/8	13 1/4	11 7/8	4 3/4	1 1/2	SLOT	15/32	#808	7 1/8	SLOT	3 1/2	8 1/8

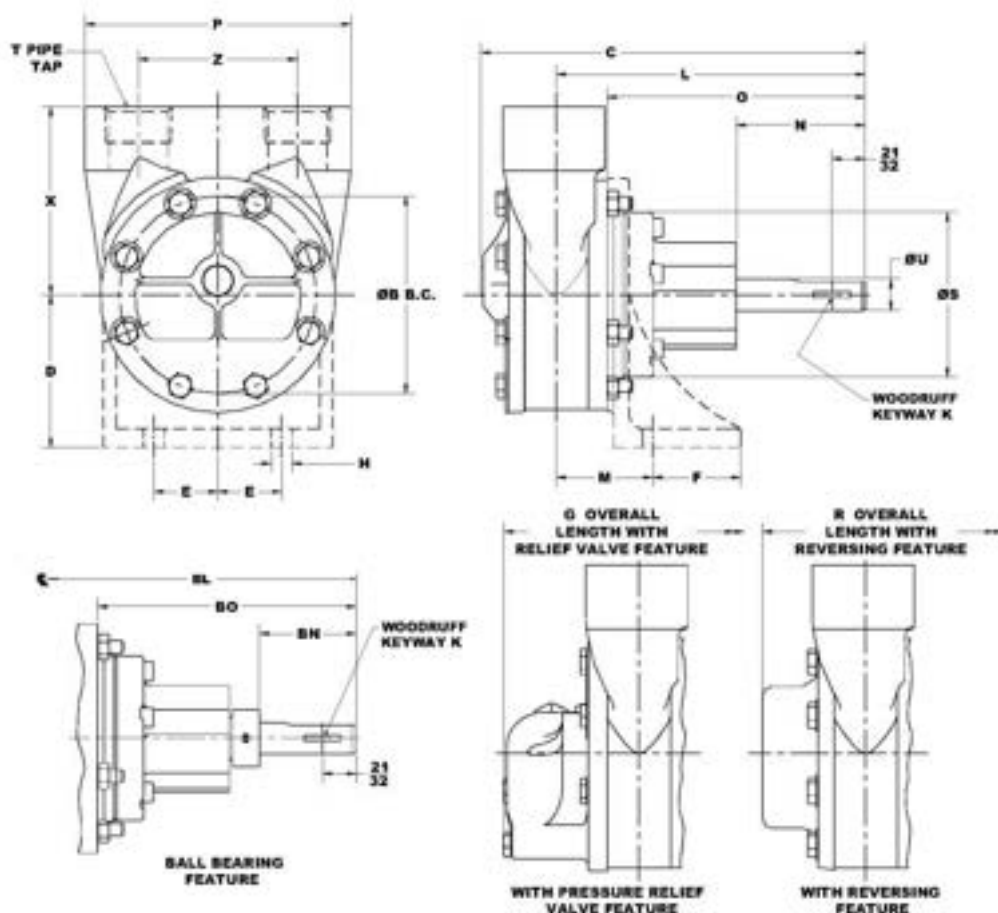
MODEL	T	U	X	Z	BL	BN
2C2E	1" NPT	5/8	3 11/16	3 1/8	6 1/16	2 19/32
3C2E	1 1/4" NPT	3/4	4 7/8	4 1/8	6 13/16	2 25/32
4C2E	1 1/2" NPT	3/4	4 1/8	3 3/4	6 29/32	2 25/32
5C2E	1 1/2" NPT	1	5	4 3/4	6 7/8	1 29/32
6C2E	2" NPT	1	4 3/4	4 3/4	7 1/8	1 29/32

**DID YOU KNOW?**

That All Pumps can couple these pumps to almost any motor or engine type?

To find out more call 1300 255 786

## 2C2B-6C2B Pump Mounting Dimensions



MODEL	C	R	G	D	E	F	H	K	L	M	N	O
2C2B	7 9/16	8 3/32	8 21/32	3	1 1/4	1 19/32	13/32	#406	6 1/16	1 29/32	2 17/32	5 1/16
3C2B	8 17/32	8 7/8	9 17/32	3 7/8	1 1/2	SLOT	15/32	#606	6 13/16	SLOT	2 1/2	5 7/16
4C2B	9 27/32	9 9/16	10 7/32	3 7/8	1 1/2	SLOT	15/32	#606	6 29/32	SLOT	2 1/2	5 7/16
5C2B	11 15/16	14 1/2	13 1/8	4 3/4	1 1/2	SLOT	15/32	#808	8 5/8	SLOT	3 13/32	6 1/4
6C2B	12 3/8	15	13 5/8	4 3/4	1 1/2	SLOT	15/32	#808	8 7/8	SLOT	3 13/32	6 1/4

MODEL	P	S	T	U	X	Z	BL	BN	BO
2C2B	5 7/32	3 1/4	1" NPT	5/8	3 11/16	3 1/8	6 1/16	1 27/32	5 1/16
3C2B	6 5/8	3 3/4	1 1/4" NPT	3/4	4 7/8	4 1/8	6 13/16	1 25/32	5 7/16
4C2B	6 1/2	3 3/4	1 1/2" NPT	3/4	4 1/8	3 3/4	6 29/32	1 25/32	5 7/16
5C2B	7 1/2	3 3/4	1 1/2" NPT	1	5	4 3/4	8 5/8	2 9/16	6 1/4
6C2B	8 1/8	3 3/4	2" NPT	1	4 3/4	4 3/4	8 7/8	2 9/16	6 1/4



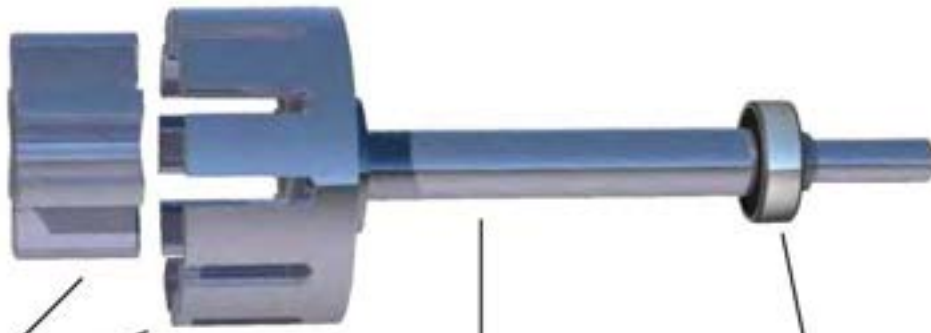
## Tuthill GlobalGear® Process Pumps

### The Pump designed for you!

You told us what you needed in a high-performance process pump – we heard you loud and clear. Our answer is the GlobalGear® Process Pump Series. From the cost-effective GG015 to the workhorse GG250, the entire GlobalGear® Series employs tougher, more reliable parts that have never been easier to service and maintain. Numerous engineering and mechanical patents make our innovative, modular design uniquely equipped to handle the growth and change of your business's needs. And GlobalGear®'s ability to reduce expensive inventories and provide alternatives with minimal switching costs saves you valuable time and money. Tuthill has created the Pump designed for You – the GlobalGear® Process Pump.



### GlobalGear® Pumps are TOUGHER AND MORE RELIABLE.



#### TOUGH GEARS

The rotor and idler gears are made of tough materials, which can handle the stresses of high-viscosity and high-pressure operation.

#### PATENTED LUBRICATION FEATURE

Revolutionary lubrication method extends overall life by reducing friction.

#### STRONG SHAFT DESIGN

Models employ high-strength shaft materials. This, along with oversized shaft diameters, ensures a strong, reliable shaft.

#### ROBUST BEARING

Oversized ball bearings are used to ensure years of trouble-free operation.

#### STANDARD SHAFT SIZES

Standard shaft sizes let you use seals you probably already have for other rotating equipment.

#### SPARE DRIVE MODULES

The back pull-out design allows you to stock a spare drive module instead of a complete pump.



#### BACK PULL-OUT

The back pull-out design greatly reduces down-time for service—the pump can be repaired without disturbing piping or shaft alignment.



#### INLINE SEAL ACCESS

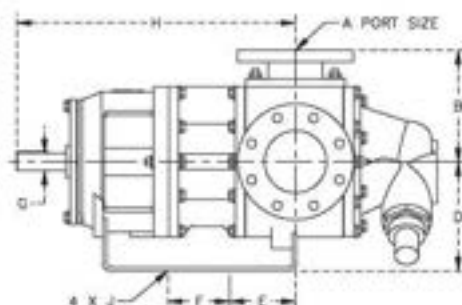
Inline seal access design reduces seal maintenance time—the seal can be removed without disturbing the piping or shaft alignment.

**NO PIPING CHANGES**

GlobalGear® mounting dimensions match those of most other gear pumps.

**NO DRIVE CHANGES**

At any given speed, the GlobalGear®'s flow rates match those of most other gear pumps.



## GLOBAL GEAR SPECIFICATIONS - CAST IRON AND CARBON STEEL

MODEL	MAX RPM	USGPM	NOMINAL FLOW RATE	M <sup>3</sup> /HR
GG015	1800	15	1750 RPM	2.8
GG030	1800	30	1750 RPM	5.7
GG050	1500	38	1150 RPM	6.9
GG070	1500	50	1150 RPM	9.1
GG080	1500	60	1150 RPM	10.9
GG090	1500	75	1150 RPM	13.7
GG120	1200	75	780 RPM	20.0
GG130	1000	100	780 RPM	27.0
GG200	1000	135	640 RPM	31.0
GG210	800	140	520 RPM	32.0
GG250	640	200	640 RPM	45.4
GG500*	520	500	520 RPM	113.5
GG550*	500	550	500 RPM	124.5

Pressures to 200 psi (13.8 bar)  
Temperatures to 600°F (316°C)  
Viscosities to 1,000,000 ssu (220,000 cst)

\*Pressures to 150 PSI (10 bar)  
\*Temperatures to 400°F (204°C)

## GLOBAL GEAR SPECIFICATIONS - STAINLESS STEEL

MODEL	MAX RPM	USGPM	NOMINAL FLOW RATE	M <sup>3</sup> /HR
GG015	1200	10	1150	1.8
GG030	1200	20	1150	3.7
GG050	1000	25	780	5.7
GG070	1000	35	780	7.9
GG080	1000	40	780	9.1
GG090	1000	50	780	11.4
GG120	800	50	520	11.4
GG130	640	65	520	14.8
GG200	640	90	420	20.5
GG210	520	110	420	25.0
GG250*	520	160	520	36.3

Pressures to 150 psi (10.3 bar)  
Temperatures to 500°F (260°C)  
Viscosities to 1,000,000 ssu (220,000 cst)

\*Pressures to 100 psi (6.9 bar)

**Modular Ports**

Several port styles are available to match your piping needs:

- 90° (shown) or 180° port options
- NPT tapped
- BSPT tapped
- ANSI 125#/150# flanged
- ANSI 250#/300# flanged
- ISO PN16 flanged
- ISO PN40 flanged

Each pump size has numerous port size choices to minimise piping losses. For example, GG200 size offers these choices:

- 2" or 50mm
- 2 1/2" or 65mm
- 3" or 80mm
- 4" or 100mm

**Modular Seal Chamber**

Modular seal chamber provides a choice of packing, mechanical seal or cartridge seal – without changing major pump components. Our patented bracket and seal enhance the already flexible and versatile design.





## GLOBALGEAR® Series Model Number System

Pump Series	Pump Size	Material of Construction	Port Position & Rotation	Relief Valve	Sealing Method	Seal Type	Seal Flush	Port Type	Port Size	Shaft Dimensions	Bushings & Pin	Tutriding	Jackets	Clearances
G G	2 1 0	I	A	V	M	A	1	A	K	I	A	0	0	0

**Pump Series**

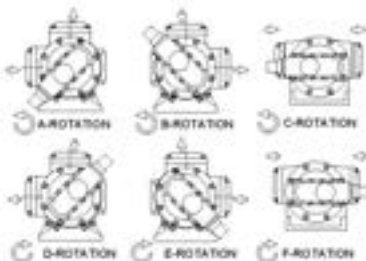
GG = complete pump  
GD = drive module

**Pump Size**

015 = nominal 15 GPM at 1800 RPM  
030 = nominal 30 GPM at 1800 RPM  
050 = nominal 50 GPM at 1500 RPM  
070 = nominal 70 GPM at 1500 RPM  
080 = nominal 80 GPM at 1500 RPM  
090 = nominal 90 GPM at 1500 RPM  
120 = nominal 120 GPM at 1200 RPM  
130 = nominal 130 GPM at 1000 RPM  
200 = nominal 200 GPM at 1000 RPM  
210 = nominal 210 GPM at 800 RPM  
250 = nominal 200 GPM at 640 RPM  
500 = nominal 500 GPM at 520 RPM  
550 = nominal 550 GPM at 500 RPM

**Material of Construction**

I = iron  
S = stainless steel

**Port Position & Rotation**

**Relief Valve**

0 = none  
V = internal  
R = return-to-tank

**Sealing Method**

P = packing  
I = IB mechanical seal (behind rotor)  
M = OB mechanical seal (in stuffing box)  
C = cartridge mechanical seal

**Seal Type**

A = standard packing (graphite/PTFE)  
B = hi-temp packing (graphite/PTFE)  
C = food-grade packing (pure PTFE)  
D = Buna mechanical seal  
E = Viton mechanical seal  
F = PTFE mechanical seal  
H = abrasion-resistant mech. seal (Viton)  
L = general purpose single cartridge seal (<7,500 SSU)  
N = process single cartridge seal (<75,000 SSU)  
T = TuffSeal cartridge lip seal (Viton o-rings)

**Seal Flush**

0 = none  
1 = internal vent to suction (API Plan 13)

**Port Type**

0 = none  
A = FNPT  
B = FBSP  
C = ANSI 125# flanged (C.I. only)  
D = ANSI 150# flanged  
E = ANSI 250# flanged (C.I. only)  
F = ANSI 300# flanged  
G = ISO PN16 flanged  
H = ISO PN40 flanged

**Port Size**

0 = none  
F = 1" or 25mm  
G = 1-1/4" or 30mm  
H = 1-1/2" or 40mm  
I = 2" or 50mm  
J = 2-1/2" or 65mm  
K = 3" or 80mm  
L = 4" or 100mm  
M = 5" or 125mm  
N = 6" or 150mm

**Shaft Dimensions**

I = Inch seal & coupling  
M = Metric seal & coupling

**Bushings & Pin**

A = bronze idler & bracket  
B = bronze idler with greasable pin, bronze bracket  
C = carbon idler, bronze bracket  
D = carbon idler & bracket  
E = hi-temp carbon idler & bracket  
F = T.C. idler with std pin, bronze bracket  
G = T.C. idler with C.O. coated pin, bronze bracket  
H = T.C. idler with std pin, T.C. bracket with hardened shaft  
I = T.C. idler & bracket with C.O. coated pin & hardened shaft

**Tutriding**

0 = none  
1 = Tuttrided rotor head, idler, cover  
2 = Tuttrided rotor head, idler, cover, housing

**Jackets**

0 = none  
1 = cover only  
2 = bracket only  
3 = cover and bracket

**Clearances**

0 = standard (<7500 SSU, 20° to 150°F)  
A = 7500 to 75,000 SSU  
B = 75,000 to 750,000 SSU  
C = > 750,000 SSU  
D = -100°F to +20°F  
E = 150°F to 200°F  
F = 200°F to 300°F  
G\* = 300°F to 400°F (see note)  
H\* = 400°F to 500°F (see note)  
I\* = 500°F to 600°F (see note)

\* Note: Pumps with G, H or I in this position include hi-temp package (paint, bearing & gaskets).

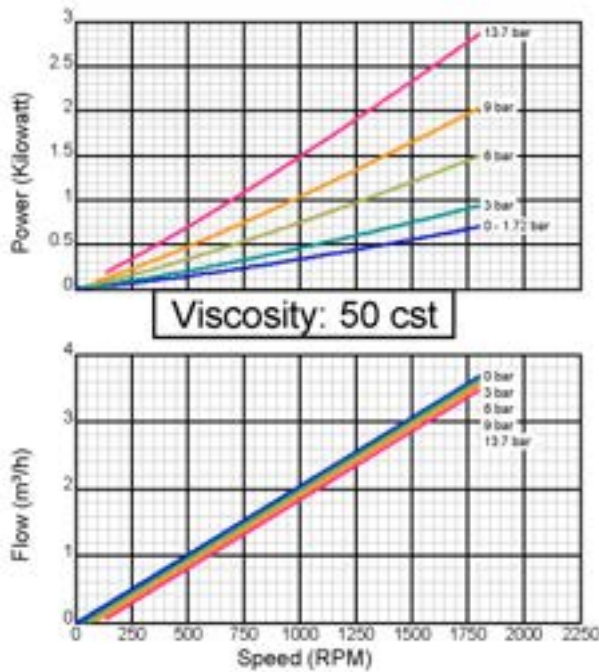
**Abbreviations:**

C.I. = Cast Iron  
T.C. = Tungsten Carbide  
C.O. = Chrome Oxide

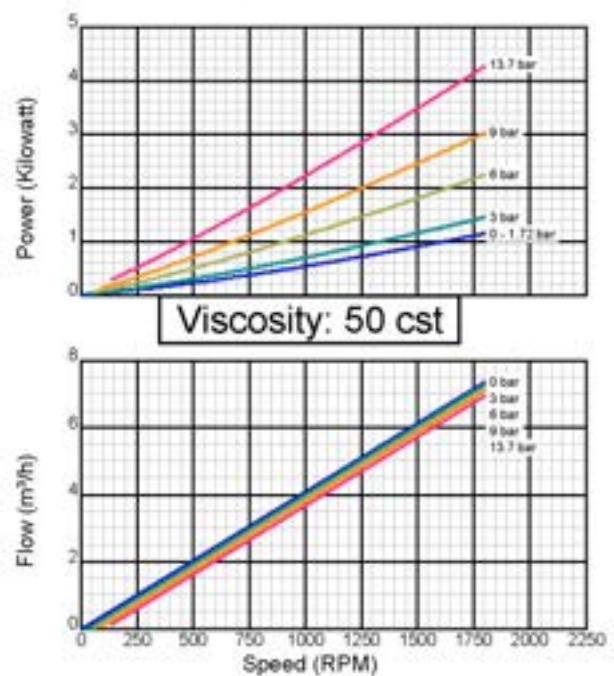
**For special pumps with any feature not described above**

Pump Series	Pump Size	Matl	Special Indicator	Year of Design	Sequential Special Number
G G	2 1 0	I	- X	0 1	5 6

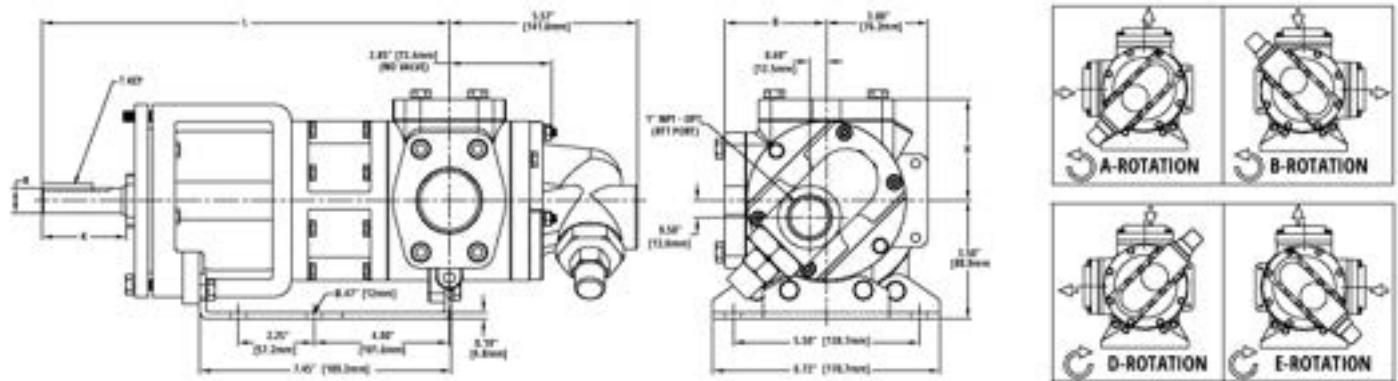
GG015I-1 1/2" Ports



GG030I-1 1/2" Ports



## GG015-GG030 with Angle Ports (Flanged Only) Mounting Dimensions



### SHAFT DIMENSIONS

SHAFT DESIGN	K	R	T	L
INCH (")	2.10	0.75	3/16 x 3/16 x 1.5	12.07
METRIC (MM)	35	16	5 x 5 x 25	264

### PORT DIMENSIONS

PORT TYPE	B
ANSI	4.00" [102mm]

### BACK PULL-OUT DIMENSIONS

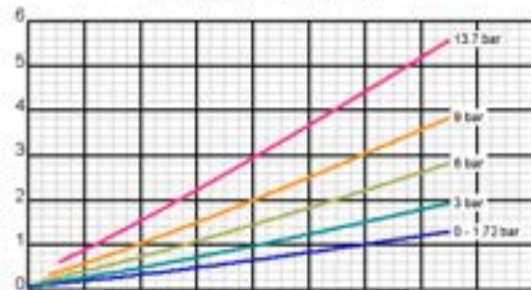
SIZE	MIN SPACER
GG015	1.60" [41mm]
GG030	2.22" [56mm]

### FACE TYPE

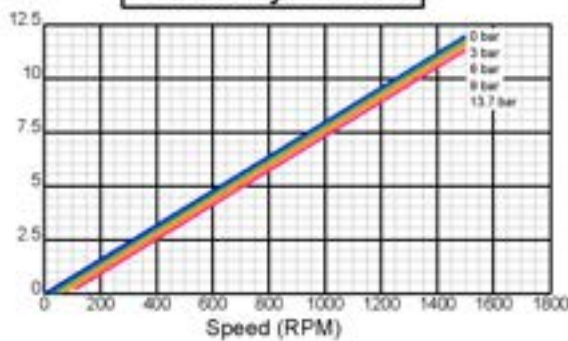
FACE TYPE	SIZE-RATING
RAISED FACE	1 1/2" & 2" - ANSI 250#
FLAT FACE	1 1/2" & 2" - ANSI 125# 2" - ANSI 150#



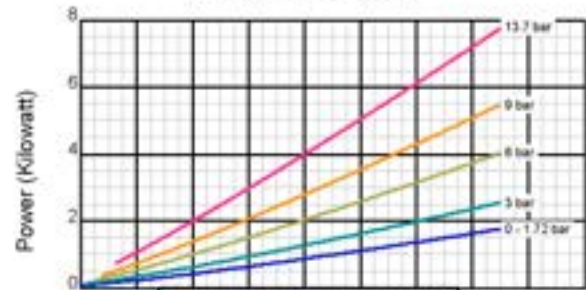
GG050I-1 1/2" Ports



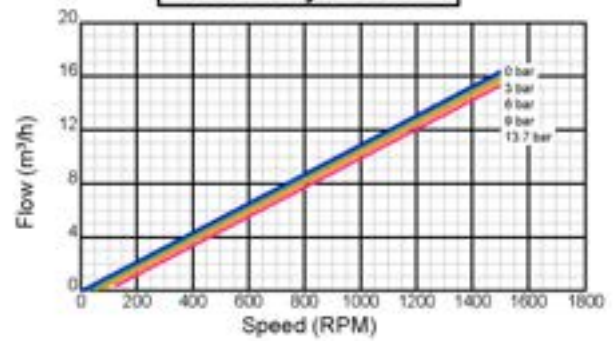
Viscosity: 50 cst



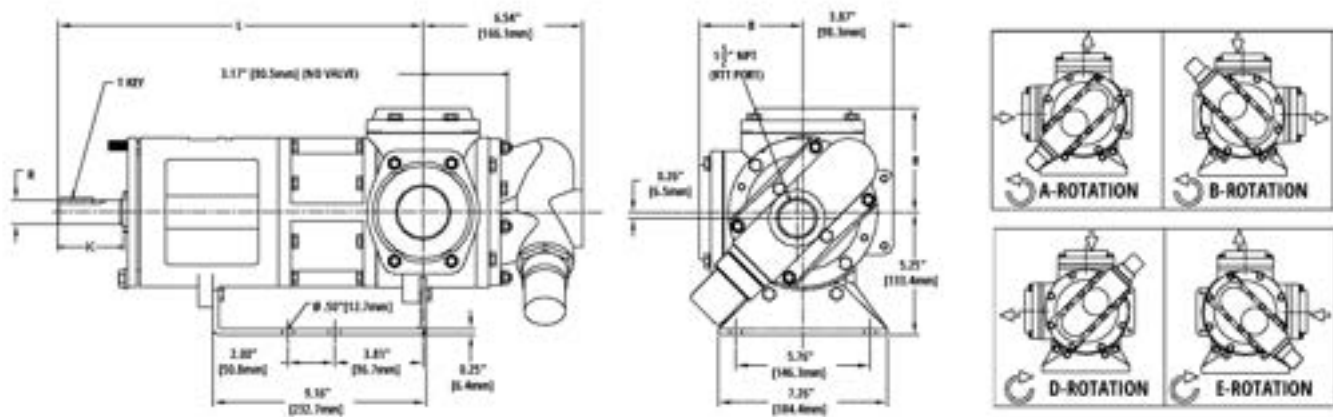
GG070I-1 1/2" Ports



Viscosity: 50 cst



## GG050-GG070 with Angle Ports (NPT &amp; Flange/Iron Only) Mounting Dimensions



## SHAFT DIMENSIONS

SHAFT DESIGN	K	R	T	L
INCH (")	2.67	1.00	1/4 x 1/4 x 1.5	15.63
METRIC (MM)	64.5	27	8 x 7 x 45	343

## PORT DIMENSIONS

PORT TYPE	B
2" FNPT	4.50" [114mm]
ANSI	5.35" [136mm]

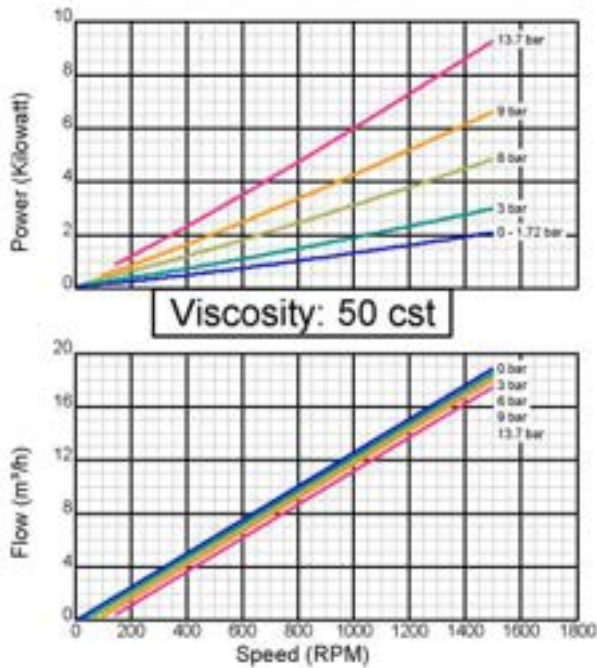
## BACK PULL-OUT DIMENSIONS

SIZE	MIN SPACER
GG050	2.21" [56mm]
GG070	2.61" [66mm]

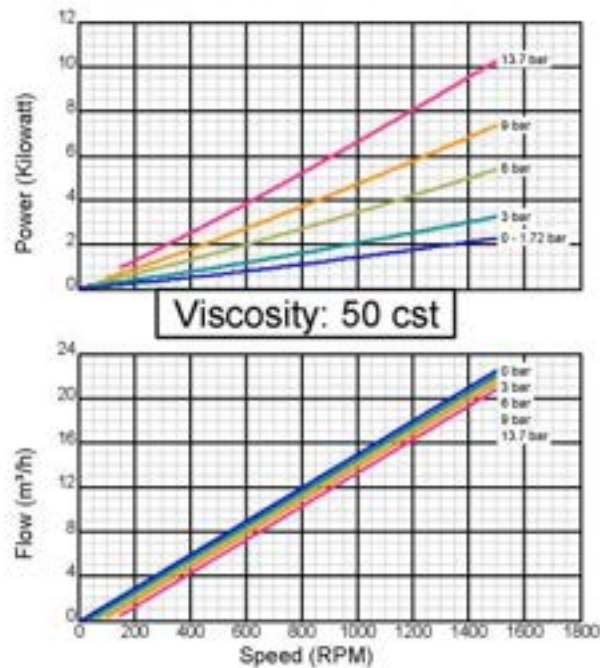
## FACE TYPE

FACE TYPE	SIZE-RATING
RAISED FACE	Any Offered Size - ANSI 250#
FLAT FACE	Any Offered Size - ANSI 125#

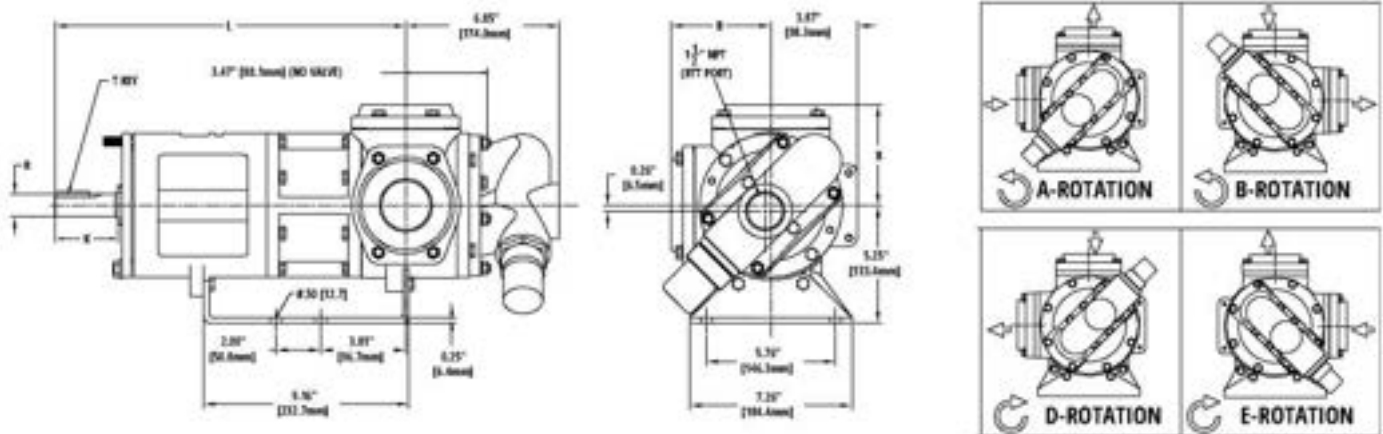
GG080I-1 1/2" Ports



GG090I-1 1/2" Ports



GG080 - GG090 with Angle Ports (NPT & Flange) Mounting Dimensions



SHAFT DIMENSIONS				
SHAFT DESIGN	K	R	T	L
INCH (")	2.67	1.00	1/4 x 1/4 x 1.5	15.68
METRIC (MM)	69.8	27	8 x 7 x 45	350

PORT DIMENSIONS	
PORT TYPE	B
2" FNPT	4.50" [114mm]
ANSI 125# /150#	4.63" [118mm]
2" ANSI 250#	5.81" [148mm]

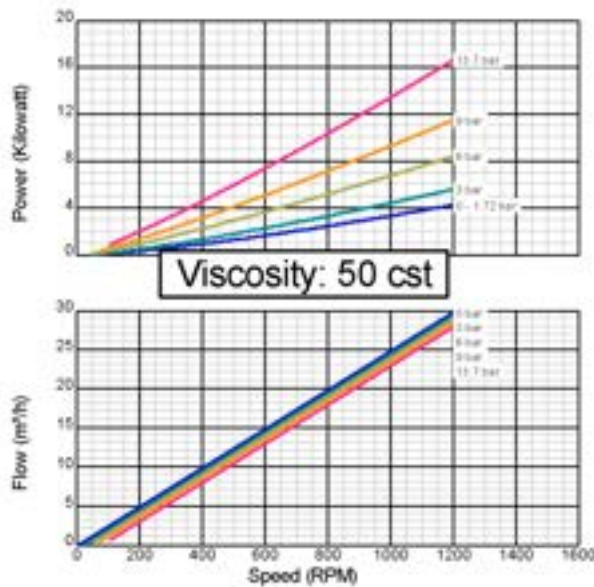
BACK PULL-OUT DIMENSIONS	
SIZE	MIN SPACER
GG080	2.80" [71mm]
GG090	3.08" [78mm]

FACE TYPE	
	SIZE-RATING
RAISED FACE	3" ANSI - 150#
	2" - ANSI 250#
FLAT FACE	3" - ANSI 125#
	2" & 3" - ANSI 150# 2" - ANSI 250#

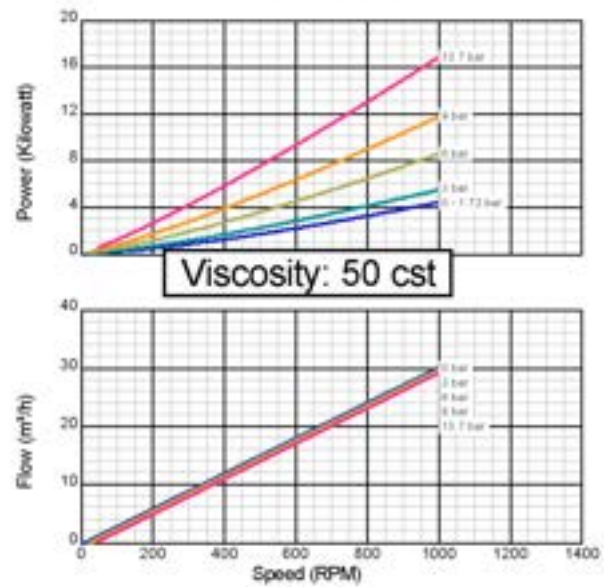


## GLOBAL GEAR SERIES

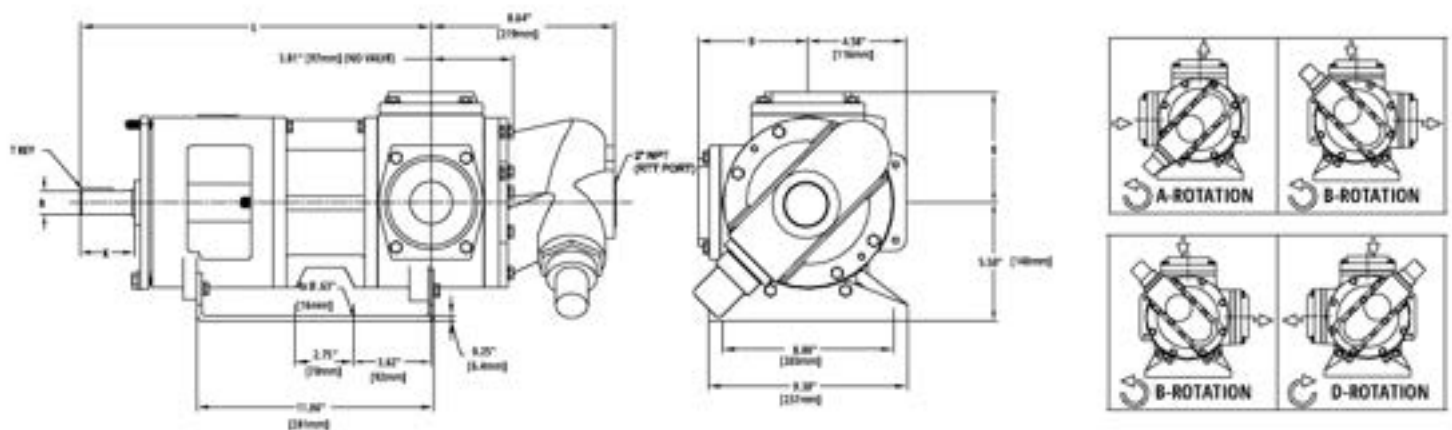
## GG120I- 2" Ports



## GG130I- 2" Ports



## GG120 - GG130 with Angle Ports (Cl &amp; SS Only) Mounting Dimensions



## SHAFT DIMENSIONS

SHAFT DESIGN	K	R	T	L
INCH (")	2.41	1.125	1/4 x 1/4 x 2	16.38
METRIC (MM)	75	32	10 X 8 X 45	430

## PORT DIMENSIONS

PORT TYPE	B
2" FNPT	5.12" [130mm]
2" ANSI 150#	5.25" [133mm]
3" ANSI 125# / 150#	5.25" [133mm]
3" ANSI 250# / 300#	5.62" [143mm]

## BACK PULL-OUT DIMENSIONS

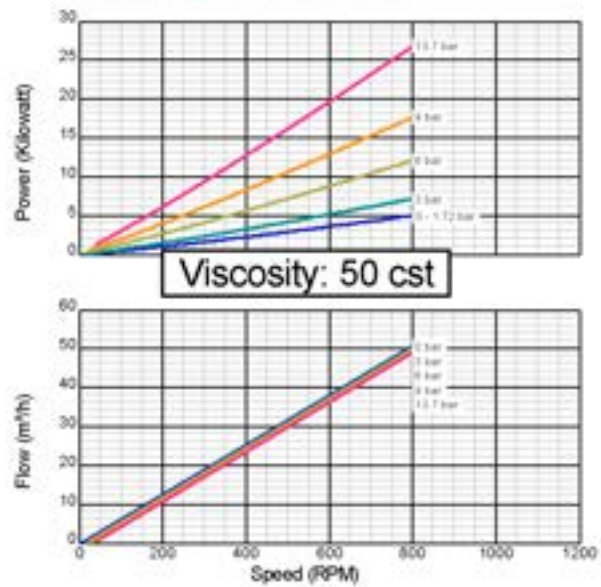
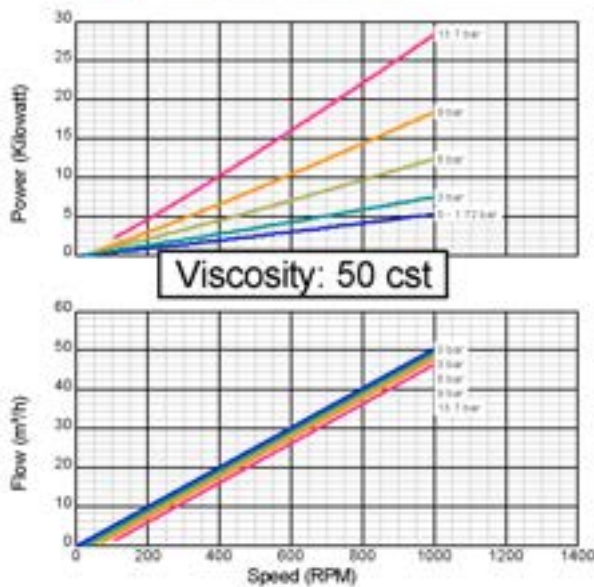
SIZE	MIN SPACER
GG120	3.31" [84 mm]
GG130	3.73" [95 mm]

## FACE TYPE

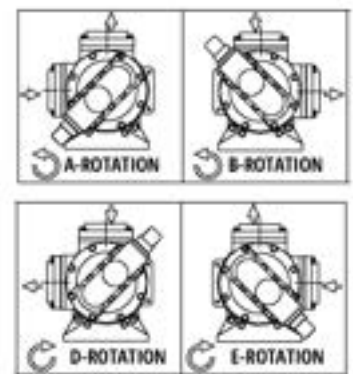
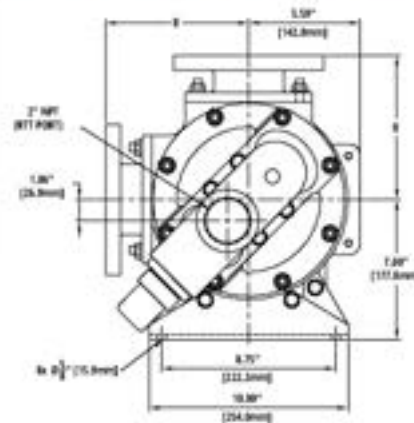
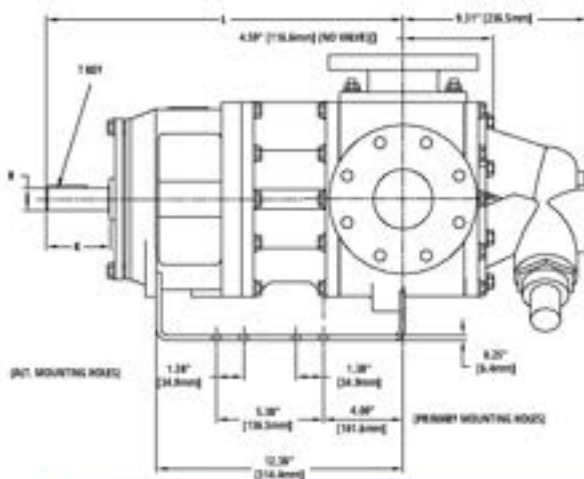
FACE TYPE	SIZE-RATING
RAISED FACE	3"- ANSI 125#, 150#, & 250#
FLAT FACE	2"- ANSI 150#

GG200- 2" Ports

GG210- 2" Ports



GG200 - GG210 with Angle Ports (NPT & Flange) Mounting Dimensions



SHAFT DIMENSIONS				
SHAFT DESIGN	K	R	T	L
INCH (")	3.04	1.125	1/4 x 1/4 x 2	17.85
METRIC (MM)	67	32	10 x 8 x 45	443

PORT DIMENSIONS	
PORT TYPE	B
2" FNPT (200 Size only)	6.56" [167mm]
ANSI flanged	7.19" [183mm]

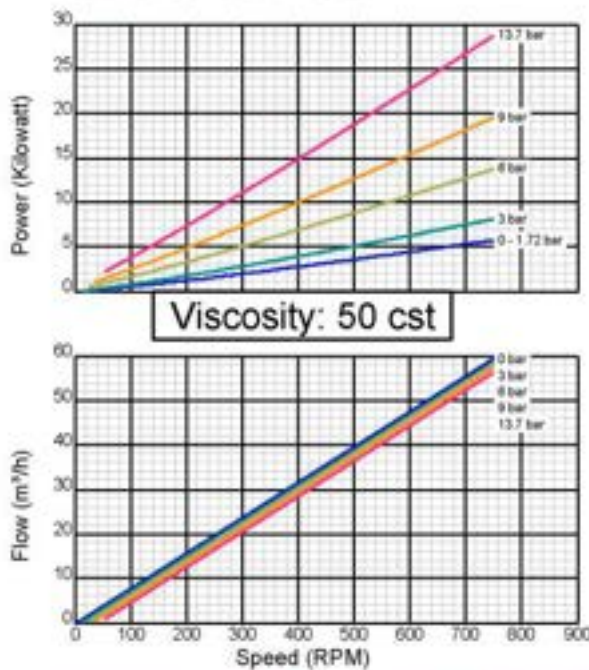
BACK PULL-OUT DIMENSIONS	
SIZE	MIN SPACER
GG200	4.01" [102mm]
GG210	4.61" [117mm]

FACE TYPE	
	SIZE-RATING
RAISED FACE	4" ANSI 125# 8150#
	3" ANSI 250#
FLAT FACE	4" ANSI 250# (210 Size Only)
	2.5" ANSI 125# (200 Size Only)
	3" ANSI 125#

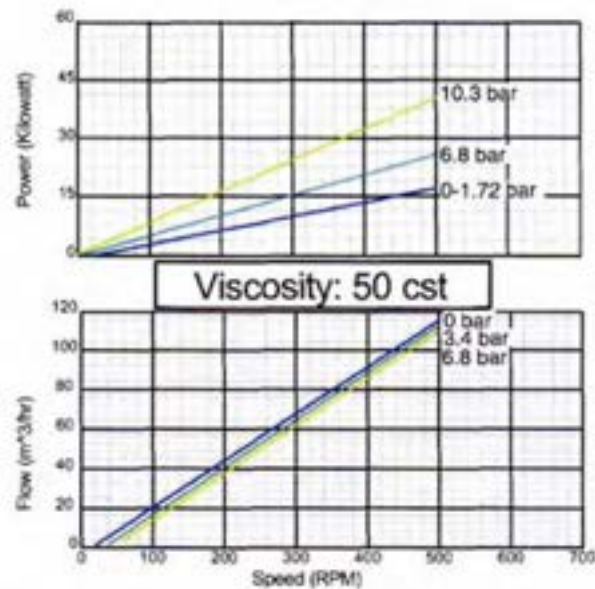


## GLOBAL GEAR SERIES

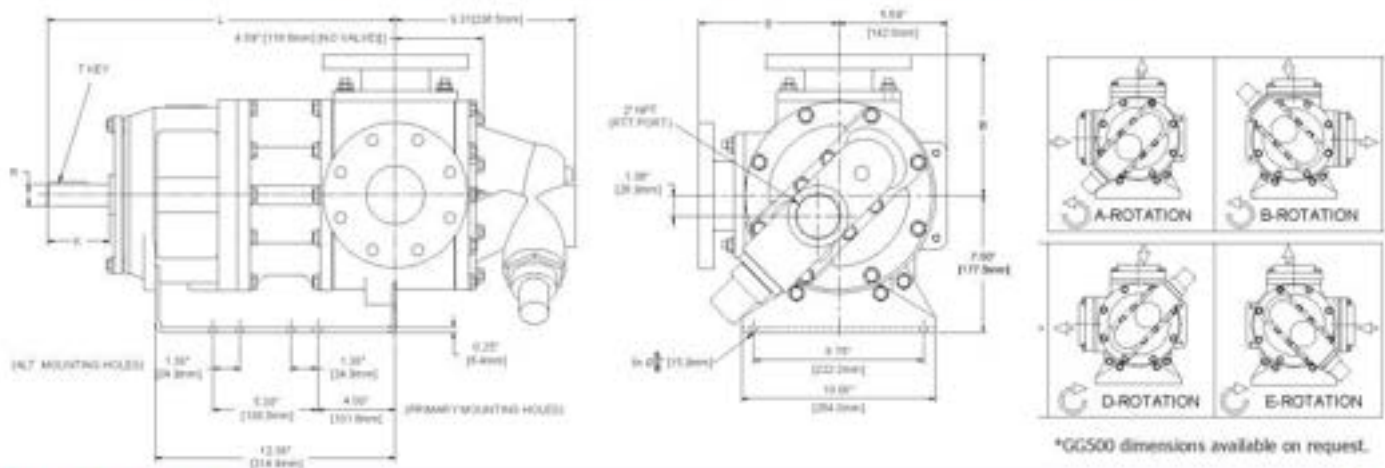
## GG250I- 2" Ports



## GG500I- 2" Ports



## GG250-with Angle Ports (NPT &amp; Flange) Mounting Dimensions\*



## SHAFT DIMENSIONS

SHAFT DESIGN	K	R	T	L
INCH (")	4.30	1.438	3/8 x 3/8 x 2.5	19.25
METRIC (MM)	100	35	10 x 8 x 63	489

## PORT DIMENSIONS

PORT TYPE	B
FNPT or FBSP tapped	6.56" [167mm]
ANSI or ISO flanged	7.19" [183mm]

## BACK PULL-OUT DIMENSIONS

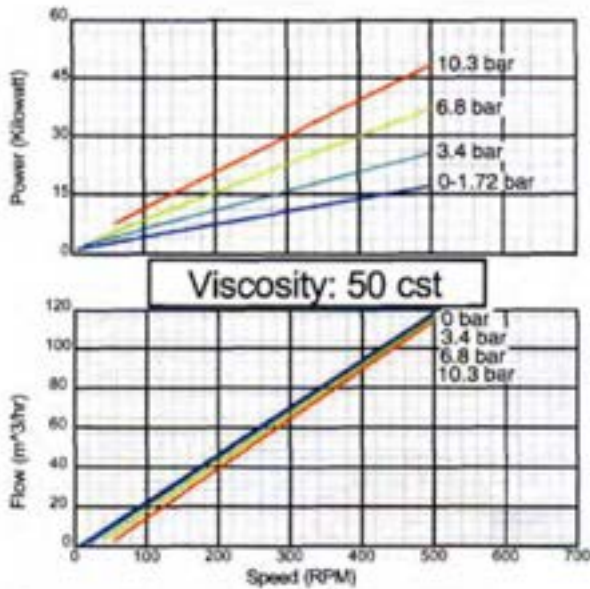
SIZE	MIN SPACER
GG250	4.73" [120mm]
GG500	6.63" [168.4mm]

## FACE TYPE

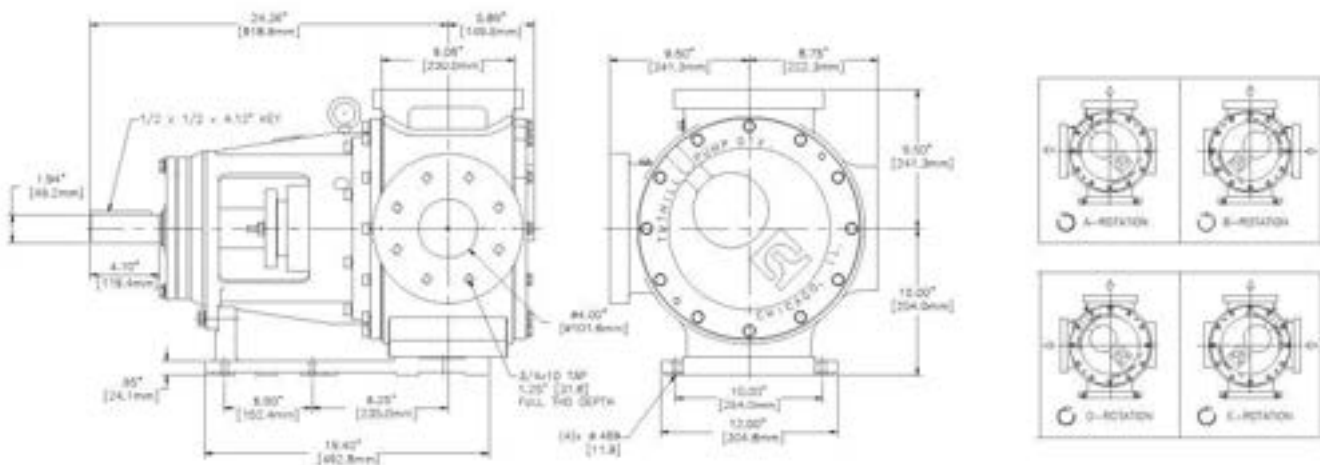
FACE TYPE	SIZE-RATING
RAISED FACE	4"-ANSI 125# thru 300#
	100mm-ISO PN16 & 40
	2"-ANSI 125# thru 300#
	2.5"-ANSI 125# / #
FLAT FACE	3"-ANSI 125#
	50mm-ISO PN40
	65mm-ISO PN16
	80mm-ISO PN40



## GG550I- 4" Ports



## GG550-with Angle Ports (NPT & Flange) Mounting Dimensions\*



### BACK PULL-OUT DIMENSIONS

SIZE	MIN SPACER
GG550	7.18" [182.4mm]





## HEAVY DUTY SERIES

## Tuthill Industrial Duty Process Pump

Tuthill HD Industrial Duty process pumps are designed for the most demanding applications

- Slurries, high viscosity fluids, suspended solids, chemicals, polymers, pharmaceuticals, foods, and shear sensitive fluids.

They are available in a wide range of sizes with differential pressures to 450 PSI and viscosities to 4,400,000 cst.



## Tuthill Standard Duty Process Pump

Tuthill Standard Duty HD process pumps were developed particularly for sanitary applications and have established outstanding performance records in the food processing and chemical processing markets.

The faceplate and impellers of Tuthill's Standard Duty HD process pumps may be quickly removed for easy cleaning and inspection without removal of the process piping. Since the bearing surfaces are located within the pump faceplate, there are only two stuffing boxes, fitted with Teflon<sup>®</sup> impregnated graphite packing, pure Teflon<sup>®</sup> packing, or mechanical seal. All materials used in 316 stainless steel pumps are compatible with food products and are USDA approved.



-  External timing gears in separate oil filled reservoir provide safe, non-contact synchronous impeller action.
-  Oil lubricated roller bearings provide support for maximum radial loading in models 70A, 120A, 330 and 600.
-  Constant diameter shafts (no steps in torque transmission areas) for maximum strength and minimum deflection.
-  Housing bushing, positioned under maximum radial load, assuring minimum shaft deflection.
-  Packing and stuffing box is standard construction. Packing gland is split and constructed in 316SS. Pumps can also be outfitted with mechanical seals.
-  Impellers provided in single lobe or double lobe design.
-  No metal to metal contact in fluid chamber.
-  Housing and gear case are foot mounted to minimise distortion and vibration.
-  Heavy duty, grease lubricated, double-row ball bearings for combined radial loading and axial positioning.
-  Casings and gear case are precision machined and dowel pin aligned. Procedure results in full interchangeability should field replacement be required.
-  Faceplate (cover) accessible and easily removable for easy cleaning and inspection.
-  Wingnuts allow easy removal of impeller for cleaning and inspection.
-  Faceplate bushings provide simple bearing supports for the impellers - no cantilevered shafts as in some competitive designs.



### DOUBLE LOBE IMPELLERS

Available for higher operating speeds.



### SINGLE LOBE IMPELLERS

Single lobe impellers provide maximum strength for highly viscous fluids and slurries, and high discharge pressure as well as minimal shear characteristics on the fluids.



### EXTERNAL TIMING GEARS

Timing gears are separated from the fluid chamber, thus eliminating a source of agitation and breakdown of the material being pumped.



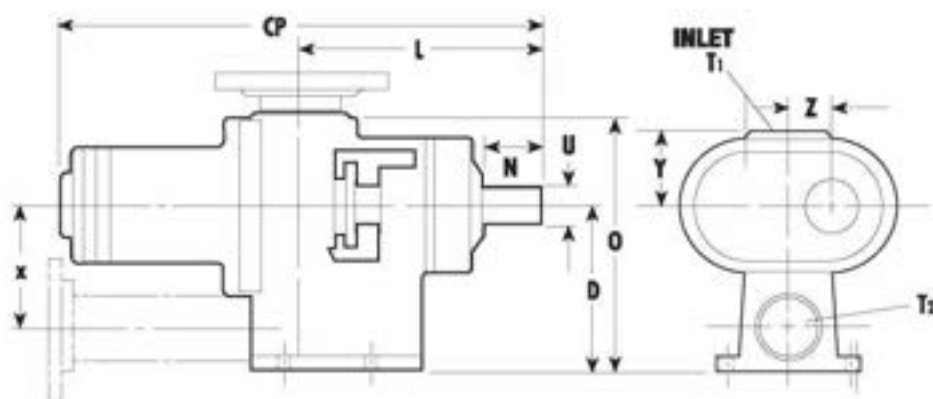
### STANDARD DUTY SHAFT/IMPELLER



### STANDARD DUTY PUMP FLUID CHAMBER

Faceplate and impellers may be quickly removed for easy cleaning and inspection.

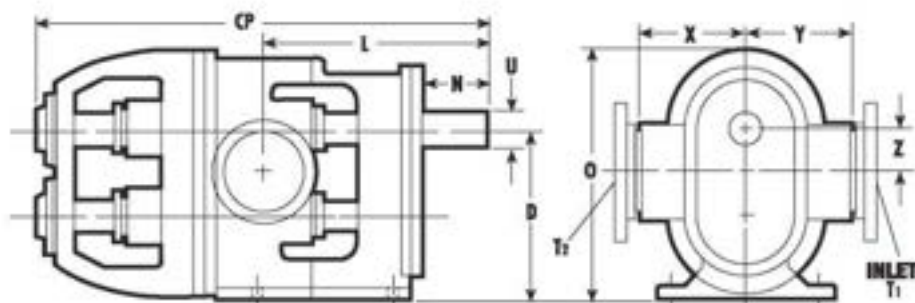
## MODELS HD 30A, 2A, 3A, 70A, 120A &amp; 330



MODEL	T1		T2		PER 100 REV		MAX DIFF PRESSURE		MAX GPM PUMPING ELEMENT		CP	D		L		N		O		U		Z		Y		Z		WEIGHT	
	IN	MM	IN	MM	GAL	LTR	PSI	BAR	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	LB
30A	1"	38	1"	38	5.5	21	150	10.3	450	38"	476	5"	146	10"	270	2"	54	8"	225	1	25	4	102	3"	79	1"	32	100	45
2A	2	51	2	51	15.0	57	150	10.3	450	24"	629	8"	210	14"	371	3"	79	12"	321	3"	79	5"	146	4"	111	2	51	230	113
3A	3	76	3	76	30.0	114	150	10.3	450	24"	629	8"	210	13"	349	3"	79	12"	321	1"	25	5"	146	4"	111	2	51	270	122
70A	3	76	2	51	15.0	57	450	31.0	450	24"	619	8"	216	12"	321	3"	89	13"	337	1"	48	6"	159	4"	121	2"	64	280	127
120A	4	102	3	76	30.0	114	450	31.0	450	24"	619	8"	216	12"	324	3"	89	13"	337	3"	48	6"	159	4"	121	2"	64	300	136
330	5	127	4	102	70.0	265	450	31.0	450	29"	740	10"	273	14"	362	4	102	16"	429	2"	57	7"	200	6"	156	3"	81	530	249

**CAUTION:** THE FLUID BEING PUMPED MUST ALWAYS BE SPECIFIED. APPLICATIONS ABOVE 200 PSI/13.8 BAR, 350°F/177°C, OR 200 RPM MUST BE REVIEWED BY TUTHILL TO ENSURE PROPER PUMP SELECTION.

## MODEL HD 600



MODEL	T1		T2		PER 100 REV		MAX DIFF PRESSURE		MAX GPM PUMPING ELEMENT		CP	D		L		N		O		U		Z		Y		Z		WEIGHT	
	IN	MM	IN	MM	GAL	LTR	PSI	BAR	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	LB
600	6	152	6	152	240.0	560	450	31.0	450	36"	929	13"	349	18"	471	5"	138	20"	514	2"	64	9	229	9	229	3"	89	900	408

## DID YOU KNOW?

That All Pumps can couple these pumps to almost any motor or engine type?

To find out more call 1300 255 786



## HEAVY DUTY SERIES



### Heavy Duty Pump Features

**HIGH VISCOSITY** Tuthill HD pumps can handle materials with viscosities to 4,400,000 cst...including silicones, adhesives, pastes, slurries, suspended solids, semi-solids, etc.

**HIGH PRESSURE** Some models can be furnished suitable to operate at differential pressures to 450 PSI.

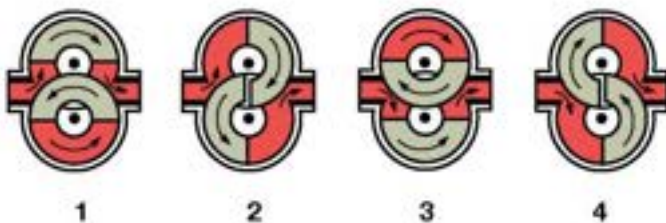
**RUN DRY WITHOUT DAMAGE** The slow positive movement of the impellers and the lack of contact between rotating and stationary elements in the fluid chamber allows HD pumps to run dry without damage. They can operate efficiently where other positive displacement pumps may fail.

**HIGH TEMPERATURE** Pumps can be furnished suitable for use with fluid temperatures to 525°F.

**HIGH VACUUM** Tuthill HD pumps are self-priming and able to operate under high vacuum/low NPSH conditions as well as pressurised inlet conditions.

**EXTERNAL BEARING CHAMBER** Material being pumped through the fluid chamber is separated from lubricated bearings or gear lubricant chambers, eliminating contamination.

#### NO METAL-TO-METAL CONTACT IN THE COMPLETELY ISOLATED FLUID CHAMBER



1. Top impeller has started suction cycle and is completing the discharge cycle. Lower impeller is transferring liquid from the suction to the discharge side of the pump.
2. Top impeller completes suction cycle. Lower impeller starting to discharge.
3. Top impeller is transferring liquid from suction to discharge. Lower impeller has started the suction cycle and is finishing the discharge cycle.
4. Top impeller starting discharge cycle. Lower impeller finishing suction cycle.

**SHAFT SEALS** Standard shaft sealing is Teflon® impregnated graphite packing. Pumps are also available with lantern rings, special packings, and triple lip cartridge or mechanical seals.

**EXTERNALLY TIMED GEARS** Timing gears are separated from the fluid chamber, thus eliminating a source of agitation and breakdown of the material being pumped as well as providing a clean source of gear lubrication.

**SLOW SPEED FOR LONGER WEAR AND LOWER SHEAR** Slow speed operation of these pumps creates slow internal velocities which result in increased wear life, impart less shear to the product, and enable the pump to handle high viscosity fluids.

**REVERSIBLE** The direction of flow may be reversed simply by changing the direction of rotation.

**HIGH VACUUM** Tuthill HD pumps are self-priming and able to operate under high vacuum/low NPSH conditions as well as pressurised inlet conditions.

**MATERIALS OF CONSTRUCTION** HD Process pumps are provided as standard in 316 stainless steel or ductile iron. Exotic alloys are also available on a special order basis.

#### STANDARD MATERIALS OF CONSTRUCTION

	INDUSTRIAL	STANDARD
Housing	Ductile Iron	Ductile Iron
	316 Stainless Steel	316 Stainless Steel
Housing Bearing	DU*	Bronze
	Carbon	Carbon
Faceplate	Ductile Iron	Ductile Iron
	316 Stainless Steel	316 Stainless Steel
Faceplate Bearing	Outboard Ball Bearing	Ductile Iron
		Carbon
Impellers	Ductile Iron	Ductile Iron
	316 Stainless Steel	316 Stainless Steel
Shafts	Hardened 1141 Carbon Steel	Hardened 1141 Carbon Steel
	316 Stainless Steel	316 Stainless Steel
Gear case	Gray Iron	Gray Iron

\*BRONZE IN MODEL 330







## M SERIES

**Tuthill's M Series magnetic coupled pumps feature a robust design to better withstand the unexpected.**

Process upsets and cold starts can result in decoupling and permanent magnet damage that results in costly repairs and unplanned downtime. Using generously sized high temperature magnets can often prevent this situation. That is what Tuthill delivers in the M series magnetically coupled sealless process pumps. With more robust components and superior engineering, these pumps are much less likely to decouple in upset, cold or high viscosity situations. Even in the event of decoupling or run dry, our high temperature magnets are more likely to survive than standard low temperature magnets found in other pumps. Invest in a better pump to avoid those costly magnetic drive pump repairs.

<b>FLOW CAPACITIES</b>	.5 to 80 GPM (.11 to 18.2 m <sup>3</sup> /hr)
<b>PRESSURE</b>	Up to 500 psi (see model chart)
<b>VISCOSITY</b>	up to 75,000 ssu (16,500 centistokes)
<b>TEMPERATURE</b>	300°F (149°C) standard construction 500 °F (260°C) high temperature construction

PUMP SIZE	MAX GPM	MAX M <sup>3</sup> /HR	MAX PSI	CONSTRUCTION	MOUNTING	PORT SIZE	PORTS	MAGNET STRENGTH FT-LBS
ML01	1.8	0.4	500	Iron	Close-coupled	.5" NPT	Opposite	8.5
ML11	3.2	0.7	500	Iron	Close-coupled	.5" NPT	Opposite	8.5
ML21	6.2	1.4	500	Iron	Close-coupled	1" NPT	Opposite	8.5
MC21	9	2.0	100	Iron	Close-coupled	1" NPT	Top	18
MC31	18	4.1	100	Iron	Close-coupled	1.25" NPT	Top	18
MC41	36	8.2	100	Iron	Close-coupled	1.5" NPT	Top	18
MC51	62	14.1	100	Iron	Close-coupled	1.5" NPT	Top	90
MC61	84	19.1	100	Iron	Close-coupled	2" NPT	Top	90
MG0151	15	3.4	200	Iron	Base mounted	1.5" NPT/BSP	Opposite	18
MG0301	30	6.8	200	Iron	Base mounted	1.5" NPT/BSP	Opposite	18
MG0801	80	18.2	200	Iron	Base mounted	2" 125# ANSI/ISO	Opposite	90
MG0155	12	2.7	150	Stainless	Base mounted	1.5" NPT/BSP	Opposite	18
MG0305	22	5.0	150	Stainless	Base mounted	1.5" NPT/BSP	Opposite	18
MG0805	56	12.7	150	Stainless	Base mounted	2" 150# ANSI/ISO	Opposite	90

### Drive Arrangements

Direct Drive Speeds Available to 1750 RPM Compact close-coupled arrangement for ML and MC models Gear reduced arrangements available for the MG models.

### Materials of Construction

- Cast Iron or Stainless Steel Wetted Parts (See model chart)
- Stainless Steel Inner Magnet Assembly and Containment Shell
- Samarium Cobalt High Temperature Rare Earth Magnets Carbon Bushings
- PTFE Encapsulated Viton O-Rings

### Sealless Construction

No mechanical seals or shaft packing to maintain.



### Applications

Difficult to seal liquids such as:

- Isocyanate, Styrene
- Sodium Hydroxide

Hazardous liquids such as:

- Nitrocellulose

Liquids carrying toxic vapours, solvents, etc. Suitable for working environments where no leakage can be tolerated.



### Features

- Generously Sized Magnetic Couplings (Helps Avoid Upset Condition Decoupling)
- High Temperature Rare Earth Magnets Supplied As Standard (Better Withstands Temperature Spikes Seen in Upset Conditions)
- Patented Magnet Area Cooling Path for Effective Heat Dissipation
- Thrust Control for Maximum Life and Reliability
- Skid Rings to Prevent Containment Shell Damage

### Options

Relief Valves, High Temperature Pump Construction to 500 °F (260°C), Optional O-Ring Materials



## PROCESS PUMP



## 3600 Series Heavy Duty Pumps

**General Purpose Pumps for Mixing, Blending, Recirculating, Fixed and Mobile Transfer**

**Up to 468 GPM • Up to 125 PSI**

These pumps operate smoothly and with equal efficiency in either direction of rotation. They effectively handle heavy, viscous materials such as asphalt, molasses, roofing compounds, and printing inks, as well as fuel oils, gasolines, and similar thin liquids.

Pumps can be supplied in several materials of construction, with or without built-in relief valves. Pumps can be assembled either hi-drive or low-drive, and are available with conventional packed box or lapped-face mechanical shaft seal. They can be direct driven or driven through a built-in gear reduction with a wide range of ratios. These pumps operate equally well regardless of the mounting configuration or the direction of rotation.



## Features

**Quiet-Running Helical Gears**

- Heat treated cast-iron pumping gears are accurately machined for quiet, efficient operation and long life.
- The pumping gears are keyed to their shafts with a sliding fit and are easily replaced.
- Accurate machining ensures proper meshing, and reduces friction and vibration.

**Long-Lasting Bearing Surfaces**

- Bearings are special wear-resistant, high-lead bronze. Iron and carbon bearings are available.
- Four heavy duty sleeve bearings give positive support to pumping gears and ensure long, efficient service.
- Bearing grooves allow circulation of the liquid being pumped for lubrication & control of bearing temperature.
- Outboard drive shaft bearing supports external radial loads and absorbs thrust loads.

**Precision-Ground Shafts**

- The steel shafts are induction hardened in the bearing and sealing areas and are precision ground to exacting standards for maximum life.
- Hardened stainless steel shafts available.

**Rugged Housing**

- Standard castings are cast iron.
- Precise manufacturing tolerances provide minimum clearances for maximum pumping efficiency.
- Large, hardened steel dowel pins ensure positive alignment between the faceplate/casing and backplate.

**DID YOU KNOW?**

That All Pumps can couple these pumps to almost any motor or engine type?

To find out more call 1300 255 786



## Performance - 3600 Series

MODEL	THEORETICAL CAPACITY	MAXIMUM SPEED	MAXIMUM FLOW AT MAXIMUM SPEED (0 DISCHARGE PRESSURE)	MAXIMUM PRESSURE	PORT CONNECTION
3611/3711	416.4 CC/REV	750 RPM	18.6 M <sup>3</sup> /HR	8.6 Bar	2" BSP
4611/4711	416.4 CC/REV	750 RPM	18.6 M <sup>3</sup> /HR	8.6 Bar	2" BSP
3617/3717	643.5 CC/REV	750 RPM	28.8 M <sup>3</sup> /HR	8.6 Bar	2" BSP
4617/4717	643.5 CC/REV	750 RPM	28.8 M <sup>3</sup> /HR	8.6 Bar	3" BSP
3622/3722	832.8 CC/REV	750 RPM	37.2 M <sup>3</sup> /HR	8.6 Bar	3" BSP
4622/4722	832.8 CC/REV	600 RPM	37.2 M <sup>3</sup> /HR	8.6 Bar	4" BSP
3632/3732	1211.33 CC/REV	900 RPM	65.4 M <sup>3</sup> /HR	8.6 Bar	3" BSP
3635/3735	1324.89 CC/REV	600 RPM	50.4 M <sup>3</sup> /HR	8.6 Bar	3" BSP
3643/3743	1627.73 CC/REV	900 RPM	87.9 M <sup>3</sup> /HR	8.6 Bar	3" BSP
3648/3748	1817.0 CC/REV	900 RPM	106.2 M <sup>3</sup> /HR	8.6 Bar	4" BSP
3658/3758	2195.53 CC/REV	600 RPM	82.9 M <sup>3</sup> /HR	8.6 Bar	4" BSP
4658/4758	2195.53 CC/REV	600 RPM	82.9 M <sup>3</sup> /HR	8.6 Bar	4" BSP

## Materials of Construction

	STANDARD	OPTION
Housing	Cast Iron	
Shafts	Steel	Stainless Steel
Gears	Hardened Iron	Stainless Steel
Bearings	Bronze	Carbon Iron Glass/PTFE
Packing	Graphite Filament	Teflon
Mechanical Seal	Carbon/Stainless (Nitrile Elastomers)	Viton Elastomers Teflon Elastomers

N.B.: Not all combinations are available on all pump models.

## Model Number Designation

EXAMPLE:	3	6	17	HBFRV	8851
	PORT ORIENTATION	SHAFT SEALING	FLOWRATE IN US GALLONS/100 REVOLUTIONS	PUMP HEAD ARRANGEMENT	SPECIALTY CODE
	3 – 3600 Series with right angle ports	6 – Packing	11 = 0.416 L/Rev (0.11 gpr)	H – Pump without outboard bearing	8851 – BSP(F) Connections
		7 – Mechanical Sea	17 = 0.644 L/Rev (0.17 gpr)	HB – Pump with outboard bearing	
			22 = 0.833 L/Rev (0.22 gpr)	F – Pump with flanged connections (bolt on threaded flange)	
			32 = 1.211 L/Rev (0.32 gpr)	RV – Pump with integral pressure relief valve	
			35 = 1.32 L/Rev (0.35 gpr)		
			43 = 1.63 L/Rev (0.43 gpr)		
			48 = 1.82 L/Rev (0.48 gpr)		
			58 = 2.20 L/Rev (0.58 gpr)		





## 3600 HEAVY DUTY SERIES



### Key Components



#### BEARINGS

Four heavy duty sleeve bearings give positive support to pumping gears and ensure long, efficient service. A special wear-resistant, high-lead bronze bearing is standard on 3600 Series Pumps. For thin non-abrasive liquids we offer optional carbon bearings, as well as iron bearings for abrasive liquids. The bearings are grooved to allow circulation of the liquid being pumped for lubrication & control of bearing temperature.



#### GEARS

The helical pumping gears are machined from heat treated cast iron because of its excellent wear resistance.

For chemical pumping applications, the standard gears can be replaced with stainless steel or bronze. An optional Delrin® idler gear can be used for quieter operation when running thin liquids.



#### SHAFTS

Standard steel shafts are induction hardened in the bearing and sealing areas, and are precision ground to exacting standards for maximum life. Hardened stainless steel shafts are also available upon request.



#### HOUSING

Our rugged cast-iron housings are manufactured to precise tolerances, providing minimum clearances for maximum pumping efficiency. Large, hardened steel dowel pins ensure positive alignment between the faceplate, case, and backplate.



#### GASKETS

3600 Series Pumps come standard with fibre gaskets that are used up to 212°F/100°C. For higher temperature applications (up to 450°F/232°C) we offer other optional gasket materials.

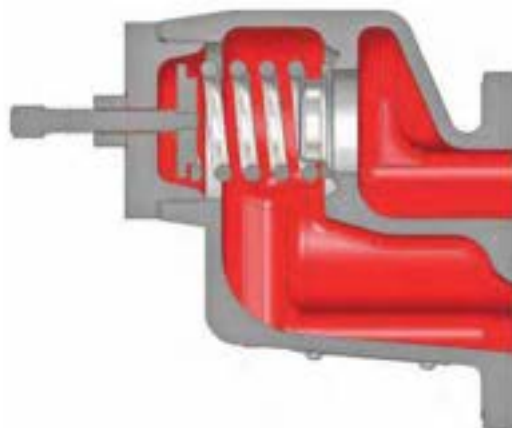


## Relief Valves & Jacketing

### RELIEF VALVE

In the event of overpressure situations, our adjustable relief valve protects personnel and equipment by returning liquids to the suction side of the pump. Various spring sizes can be specified to handle a wide range of operating conditions.

Roper Pump's inverted poppet relief valve is designed without close fitting guides that can clog and cause excessive pressures when the valve does not open freely. The valve will provide protection in only one direction of rotation. However it can be positioned easily to either side of the pump to accommodate flow direction.



### BI-DIRECTIONAL RELIEF VALVE\*

Roper Pump's integral bi-directional pressure relief valve offers reliable protection of your personnel and equipment, regardless of which direction you are pumping. You can reverse flow without disabling pressure relief operability, or compromising operator safety. Based on our rugged and time proven standard relief valves, this offers you a lighter weight, lower cost alternative compared to externally plumbed systems.

\*Available on 11, 17 and 22 sizes



### JACKETING\*\*

Whether the fluid to be pumped must be heated, cooled, or maintained at a specific temperature, a jacketed Roper pump will handle difficult-to-pump materials such as Bunker C, molasses, asphalt mixes, refined sugars, creosote, printing ink, and other viscous fluids which require temperature control for satisfactory handling.

Roper Pump jacketed pumps provide efficient heat transfer to the packing, seal relief valve, bearing areas, and endplates of the pump. The jackets are suitable for use with steam, hot or cold water, heat transfer oil, etc., as heating or cooling mediums.

Jacketing is available on the faceplate only, backplate only, or on both.

\*\*Jacketing is not available on 32, 43 and 48 sizes

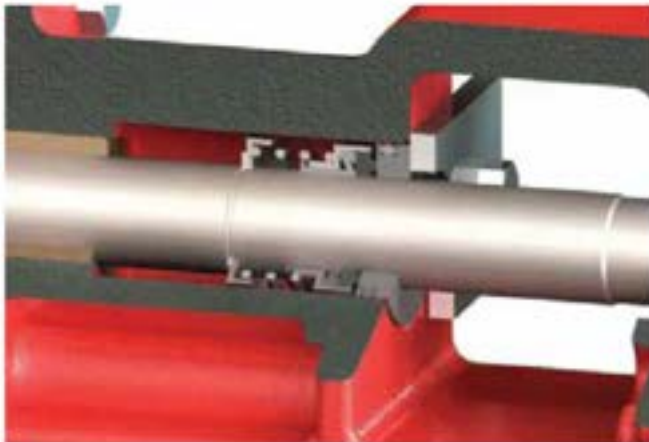




## Pump Seals

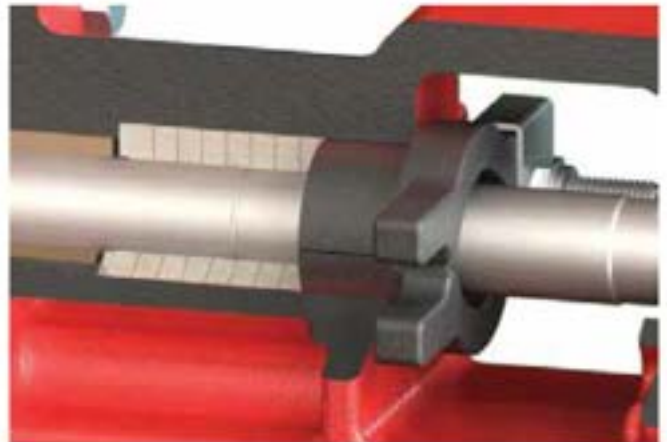
### MECHANICAL SEAL

Mechanical seals are for those applications where product leakage is unacceptable. Under proper conditions the mechanical seal has a longer service life than the packed box and does not require adjustment. The standard mechanical seal is an elastomeric bellows type seal. A PTFE wedge seal is also available.



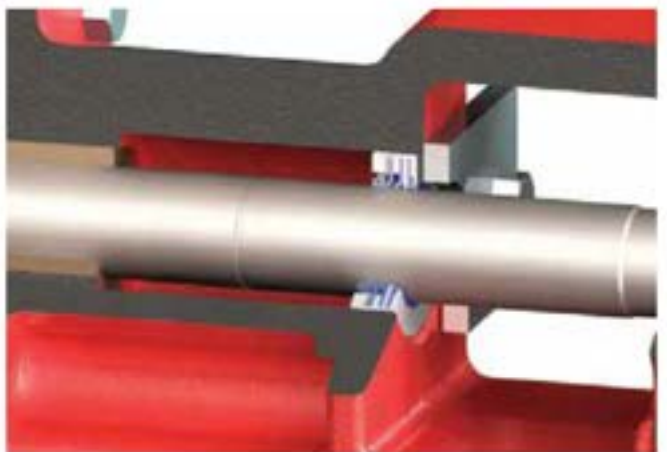
### PACKED BOX

Our standard packing is suited for general purpose applications, and is easily replaced with split ring packing. For optimum performance, the gland should be adjusted to allow slight. Standard packing is graphite, with several optional packing materials available for applications involving high temperatures or mildly corrosive liquids, or those requiring compatibility with food products.



### TRIPLE LIP SEAL

Offering the same high degree of sealing reliability as a mechanical seal, triple lip seals are better suited for viscous products that tend to set up while the pump is idle, such as resins, glues and paints. The lips create an effective barrier to product leakage, and will move freely upon resumption of pumping a thickening substance. In cases where extreme circumstances can cause catastrophic failure of mechanical seals, the resilient nature of the triple lip seal makes it relatively immune to sudden failure.

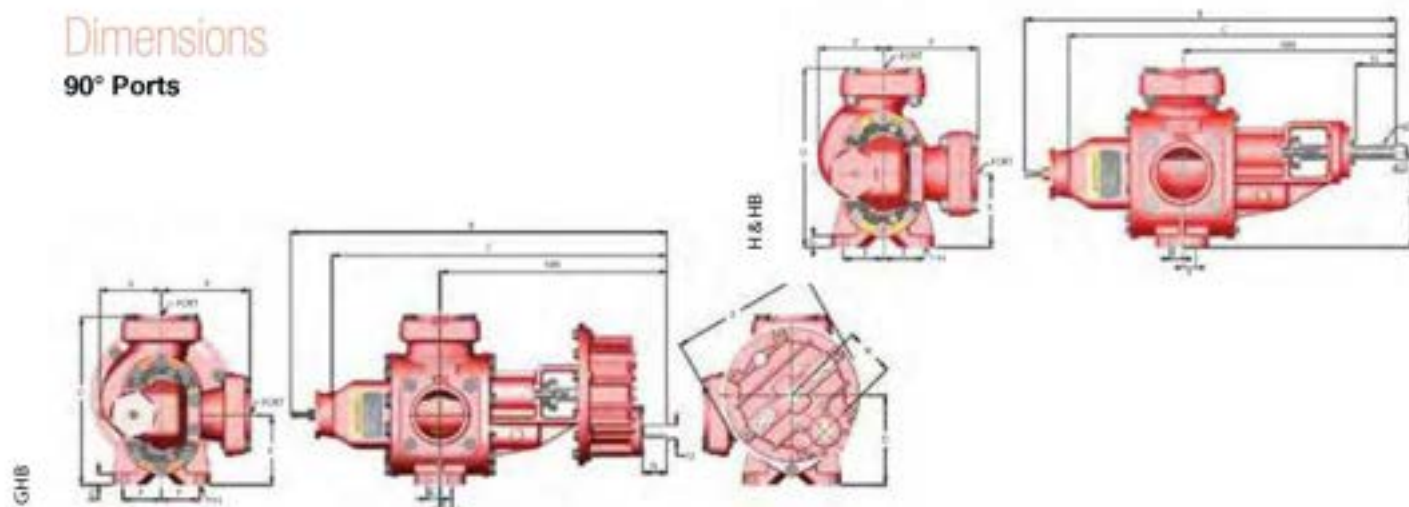


## Dimensions - 3600 Series

IN (MM)	3600 SERIES	C	D NDR	E	F	G	H MAX HEIGHT	K	N	NM	O	P	PI	U	V	W	X	KEY	PORTS
NO OUTBOARD BEARING	H & HRV (SPEC G) HF&HFRV (SPECG)	15.97 [405]	6.44 [163]	0.88 [22]	2.75 [69]	0.75 [19]	0.56 [14]	5 [127]	2.58 [65]	10.34 [262]	10.75 [273]	3.62 [91]	19.57 [497]	1.06 [26.9]	4 [101]	N/A	N/A	25 SQ. x 1.50	2 NPT TAPPED
	H & HRV (SPEC G) HF&HFRV (SPECG)	16.72 [424]									11.54 [290]	4.3 [109]	20.33 [516]						3 NPT FLANGE
	H & HRV (SPEC G) HF&HFRV (SPECG)	18.59 [472]									11.54 [290]	4.3 [109]	22.19 [563]						3 NPT FLANGE
	H&HRV	19.53 [496]									15.63 [397]	6.88 [175]	23.04 [585]						3 NPT TAPPED
	HF & HFRV	22.51 [571]									16.66 [423]	7.91 [200]	26.02 [660]						4 NPT FLANGE
NO OUTBOARD BEARING	HB & HBRV HBF & HBRV	19.32 [490]	6.44 [163]	0.88 [22]	2.75 [69]	0.75 [19]	0.56 [14]	5 [127]	3.45 [87]	13.69 [347]	10.75 [273]	3.62 [91]	22.92 [582]	1 [25.4]	4 [101]	N/A	N/A	25 SQ. x 1.50	2 NPT TAPPED
	HB & HBRV HBF & HBRV	20.07 [509]									11.54 [290]	4.3 [109]	23.67 [600]						2 NPT FLANGE
	HB & HBRV HBF & HBRV	21.57 [547]									11.54 [290]	4.3 [109]	25.17 [639]						3 NPT FLANGE
	HB & HBRV HBF & HBRV	23.69 [601]									15.63 [397]	6.88 [174]	27.2 [690]						3 NPT TAPPED
	HB & HBRV HBF & HBRV	26.53 [673]									16.66 [423]	7.91 [200]	30.04 [763]						4 NPT FLANGE
NO OUTBOARD BEARING	GHB & GBRV GHF & GBRV	20.47 [519]	6.44 [163]	0.88 [22]	2.75 [69]	0.75 [19]	0.56 [14]	5 [127]	1.74 [44]	14.83 [376]	10.75 [273]	3.62 [91]	24.07 [611]	1 [25.4]	4 [101]	3.523 [89]	10.24 [260]	25 SQ. x 1.50	2 NPT TAPPED
	GHB & GBRV GHF & GBRV	21.97 [558]									11.54 [290]	4.3 [109]	25.57 [649]						2 NPT FLANGE
	GHB & GBRV GHF & GBRV	23.47 [596]									11.54 [290]	4.3 [109]	27.07 [687]						3 NPT FLANGE
	GHB & GBRV GHF & GBRV	25.88 [657]									15.63 [397]	6.88 [174]	29.39 [746]						3 NPT TAPPED
	GHB & GBRV GHF & GBRV	28.72 [729]									16.66 [423]	7.91 [200]	32.23 [818]						4 NPT FLANGE

## Dimensions

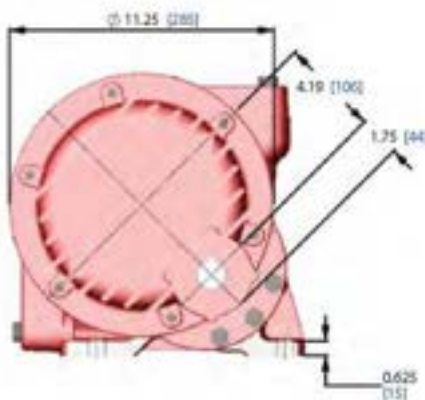
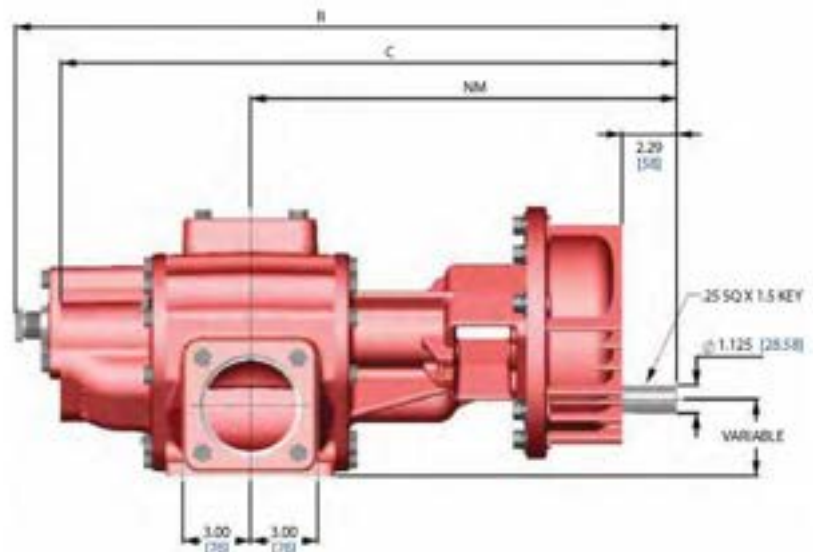
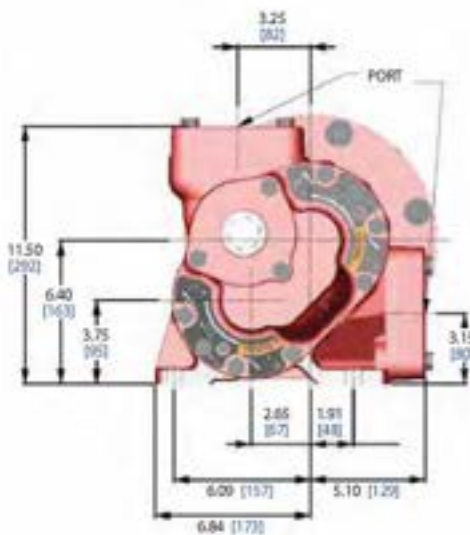
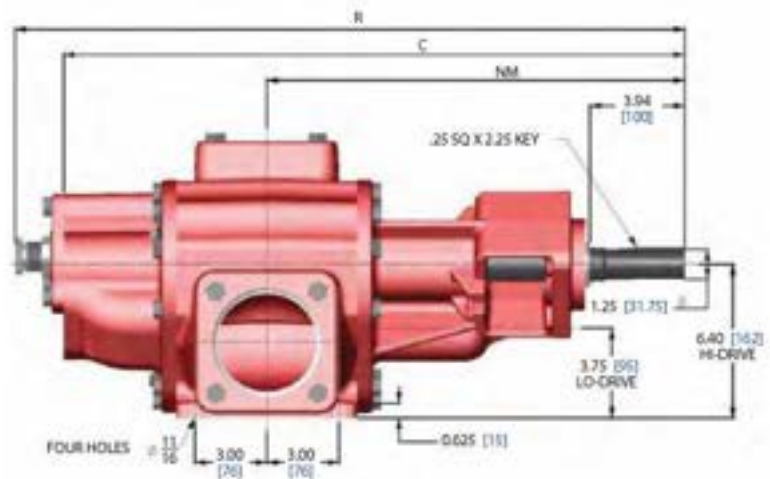
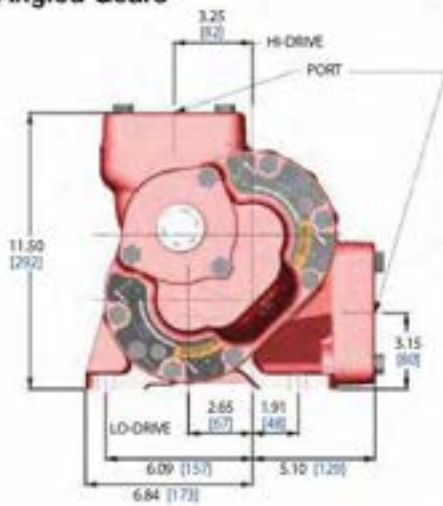
## 90° Ports





## Dimensions

### Angled Gears



IN [MM]	3000 SERIES	C	NM	R	PORTS
NO OUTBOARD BEARING	32	20.48 [520]	12.25 [311]	21.40 [544]	3 NPT FLANGE
	43	22.10 [561]	13.07 [332]	23.02 [585]	3 NPT FLANGE
	48	23.19 [589]	13.66 [347]	24.21 [615]	4 NPT FLANGE
NO OUTBOARD BEARING	32	23.67 [601]	15.44 [392]	24.58 [624]	3 NPT FLANGE
	43	25.32 [643]	16.29 [414]	26.24 [666]	3 NPT FLANGE
	48	27.02 [686]	17.38 [441]	27.93 [709]	4 NPT FLANGE
NO OUTBOARD BEARING	32	25.82 [656]	17.59 [447]	26.74 [679]	3 NPT FLANGE
	43	27.43 [697]	18.40 [467]	28.35 [720]	3 NPT FLANGE
	48	28.63 [727]	19.00 [482]	29.55 [751]	4 NPT FLANGE



## Features

- Designed to operate at standard motor speeds
- Bi-directional rotation

### Quiet-Running Helical Gears

Accurate machining ensures:

- Proper meshing
- Reduced friction and vibration
- Quiet, efficient operation
- Long life

## A Series General Purpose Pumps

**General Purpose Pumps for Pressure Lubrication, Hydraulic Service, Fuel Supply and General Transfer**  
**Up to 59 GPM • Up to 300 PSI**

Roper A Series pumps are adaptable to a wide range of applications pumping clean fluids, such as pressure lubrication, hydraulic service, fuel supply or general liquid transfer.

These pumps are designed to operate at standard motor speeds, with provisions for flange or foot mounting. The internal bearings are lubricated by the fluid being pumped. With only two moving parts, the pumps run quietly.

They are manufactured and assembled with close tolerances, and regularly tested to ensure dependable performance. Factory assembled for clockwise rotation (facing the pump drive shaft end), most may be reassembled for operation with equal efficiency in a counter-clockwise rotation.

### Long-Lasting Bearing Surfaces

- Bearings are special wear-resistant, high-lead bronze. (Iron and carbon bearings are available.)
- Four heavy duty sleeve bearings give positive support to pumping gears and ensure long, efficient service.

### Precise, Rugged, Maintenance-Friendly Design

- All castings are cast iron.
- Precise manufacturing tolerances provide minimum clearances for maximum pumping efficiency.
- Large, hardened steel dowel pins ensure positive alignment between the faceplate, case, and backplate.

## Model Number Designation

2	AM	21
GENERAL ARRANGEMENT	SEALING ARRANGEMENT	FLOWRATE IN US GALLONS/100 REVOLUTIONS
1 = Foot Mount	AL – Lip Seal	005 = 0.002 L/Rev
17 = Flange Mount	AM – Mechanical Seal	01 = 0.004 L/Rev
25 = Base Mount	AP – Packed Box	02 = 0.008 L/Rev
33 = Close Coupled		03 = 0.011 L/Rev
2 = Foot Mount with Relief Valve		06 = 0.023 L/Rev
18 = Flange Mount with Relief Valve		08 = 0.034 L/Rev
26 = Base Mount with Relief Valve		12 = 0.049 L/Rev
34 = Close Coupled with Relief Valve		16 = 0.064 L/Rev
		21 = 0.083 L/Rev
		27 = 0.102 L/Rev
		32 = 0.125 L/Rev
		40 = 0.159 L/Rev

### DID YOU KNOW?

That All Pumps can couple these pumps to almost any motor or engine type?

To find out more call  
 1300 255 788













## OBERDORFER

### General Description

Pump housings and gears are made of top quality bronze, shafts are 303 stainless steel. Bearings are designed of high performance carbon-graphite material selected for wear resistance and long service life.

Gear pumps are positive displacement pumps. Each shaft revolution displaces a definite amount of liquid relatively unaffected by the back pressure in the discharge line. Shaft speed and flow are directly proportional.

Recommended pressure limits are 7 bar for water and non-lubricants, 10 bar for oil and other lubricants. The maximum shaft speed is 1750 RPM.

### Drive Arrangement

Close coupled pumps are mounted directly to the electric motor by means of suitable adapter casting. The pump drive shaft is connected to the motor shaft by a flexible coupling.

Depending on pump size and power requirements, IEC motor frame sizes from 71 to 112m are used as outlined.

### Shaft Seals

Close coupled gear pumps are available with lip seals of mechanical seals in buna or viton.

### Liquids and Temperature

These pumps are suitable for all liquids that are compatible with bronze. Most common liquids are water, oil, and mild chemicals in the pH range of 4 to 11. Viscous liquids require reduced shaft speeds of 960 RPM or lower. (Consult factory.)

Liquids containing solids, abrasives, powders, or paint pigments are definitely not recommended for gear pumps. If abrasives are unavoidable, use a very low shaft speed.

The recommended liquid temperature range is from 0°-60°C for best pump life. If more extreme temperature conditions exist, factory should be consulted. Freezing of water-filled pumps can cause damage and must be avoided. Oils at low temperatures are very viscous requiring low speed and extra power

### Warranty

Oberdorfer gear pumps are covered by a limited warranty against defective workmanship and materials for a period of one year from the date of purchase. For the purpose of warranty claim, the pump must be returned prepaid to the factory for a warranty inspection with prior notification and approval of such return.

Short service life of a pump caused by pumping of abrasive materials or pump damage caused by aggressive chemicals, misaligned motor shafts, excessive pressure, or other installation-related problems does not constitute a warranty claim.

### Suction Lift

As a general rule, the suction lift should be kept at an absolute minimum by placing the pump as close to the liquid source as possible. A gear pump in new condition can lift 20 feet of water in the suction line. A foot valve (preferably with built-in strainer) is recommended at the beginning of the suction line. For a first startup, the pump should be primed to avoid dry running. Minimum size of the suction pipe is the size of the pump inlet port. For longer suction lines (over 3 feet) or for viscous liquids, the pipe should be at least one size or two sizes larger than the pump inlet port. If the discharge line contains any throttling devices such as a shut-off valve, a spray nozzle or other restrictive device, it is necessary to have a relief valve in the system, which returns the liquid to the suction side or to the tank. The relief valve is also available as part of the pump itself (R-model pumps). However, built-in relief valves are only good for intermittent service. If used continuously, the pump will overheat. A built-in relief valve is strictly a safety device against overpressure. It will not work successfully as a pressure or flow control device. For this purpose a separate relief valve in the pressure line must be used. Unless otherwise specified, the pump motor unit is supplied by the factory for shaft rotation counterclockwise from shaft end. Reversing motor will reverse "in and "out" ports and also requires changing relief valve location. The relief valve is always on the inlet side of this pump series. The factory pressure setting is 50 PSIG. To increase pressure, turn the relief valve adjusting screw in a clockwise direction.

### Relief Valve (R-Model Pumps)

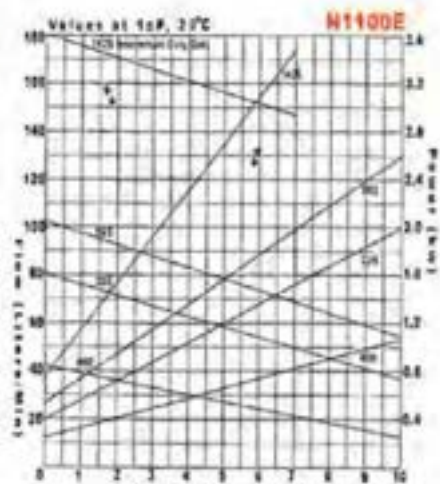
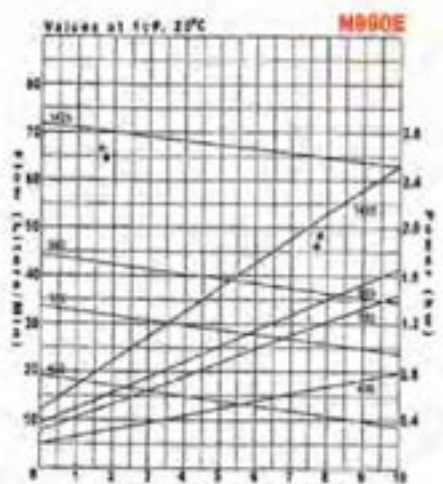
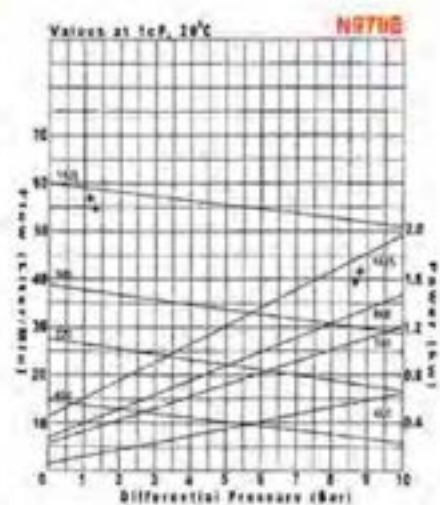
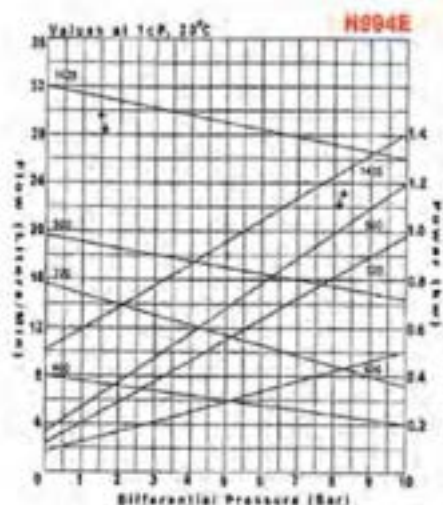
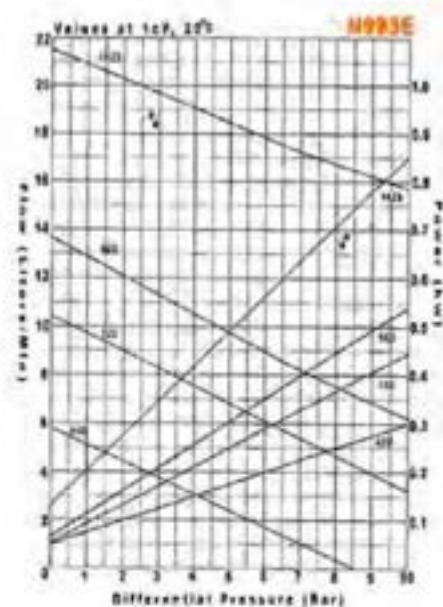
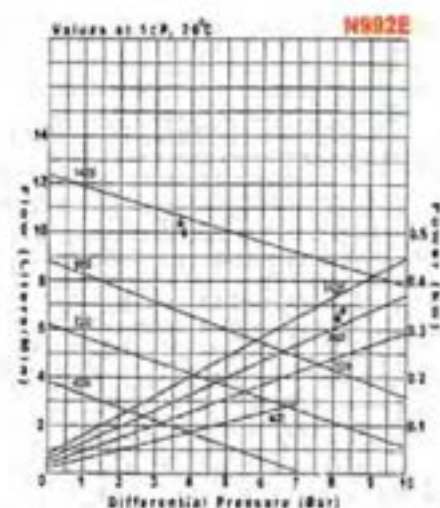
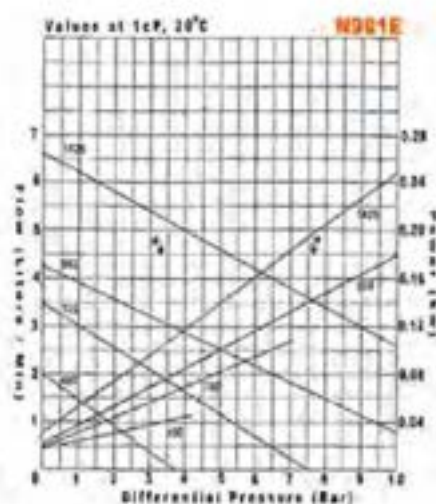
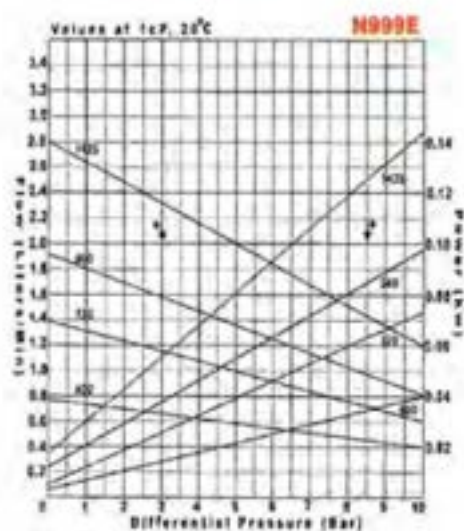
If the discharge line contains any throttling devices such as a shut-off valve, a spray nozzle or other restrictive device, it's necessary to have a relief valve in the system which returns the liquid to the suction side or to the tank. The relief valve is also available as part of the pump itself (R-model pumps.) However, built-in relief valves are only good for intermittent services. If used continuously, pump will overheat. A built-in relief valve is strictly a safety device against overpressure. It will not work successfully as a pressure or flow control device. For this purpose a separate relief valve in the pressure line must be used.

### Pump Maintenance and Repair

Oberdorfer gear pumps are essentially maintenance-free. If the pump is to be shut down for an extended period of time, it should be flushed thoroughly and filled with lubricating oil. As a general rule, it is seldom economical to repair a worn out gear pump. However, if the gear chamber inside the pump body is still in good condition, the replacement of all interior parts by use of a repair kit may restore up to 80% of the original pump performance.



## Performance


**MOTORS**

PUMP SERIES	IEC MOTOR FRAME*	KIT PART NO.	KIT CODE
N999E	71	11332	F
N991E			
N992E			
N993E			
N994E	71	11380	G
N970E	80	11386	T
N990E	90S/90L	11875	U
	100L/112M	11876	V
N1100E	90S/90L	12032	-----
	100L/112M	12003	-----

\*TO IEC 72 STANDARD B3/B14 (RIGID BASE AND "C" FACE)

**OBERDORFER**

## Features

### BI-DIRECTIONAL OPERATION

- For applications requiring reversing flow

### BODY/COVER STATIC O-RINGS

- Teflon® encapsulating silicone for sealing with a memory

### COMBINED BEARING & WEARPLATE

- Full size bearings match the gear diameter and eliminate the need for separate wear plates
- Gear trimming for desired flow rates
- Made of carbon-graphite, Teflon® or Rulon®

### SEAL HOUSINGS

- Ported for flush, drain, barrier fluid and lantern packing lubrication
- Access to seals without removal of cover

### HELICAL GEARS

- Noise reduction up to 10 db

### UPPER DRIVE STANDARD

- Lends itself to in-line pump seal maintenance without leakage of trapped chemicals
- Easily converted to a lower drive configuration

### OPTIONAL BEARING FLUSH PORTS

- To extend bearing life when pumping non-lubricating fluids or fluids with a small degree of fine solids

### INTERFACING TO WORLD STANDARDS

- NPT & BSPT porting
- Metric pump hardware
- Close-coupled adapters for NEMA and IEC standard motor frame sizes

### DYNAMIC SEAL OPTIONS INCLUDE

- Single or double mechanical wedge & bellows styles
- Standard compression packing
- Lantern Ring compression packing
- Lip seals

### EXTENDED LIFE

- Gear & bearing combinations of metallic and non-metallic wear surfaces
- Slotted bearings to lubricate shaft and gear surfaces
- Hydraulic porting to balance axial thrust and reduce wear

### METALLIC & NON-METALLIC

- Wide range of capabilities
- Effective weight and cost selection





## Construction

### BODY

Ryton®, Polyphenylene Sulfide PPS, an engineered, reinforced plastic, offering a wide range of chemical compatibility, physical stability, and high temperature resistance (to 200° F). Type 316, An all purpose austenitic stainless, excellent corrosion resistance; premium choice of all 300 series alloys. Alloy C, Most used of exotic high/nickel alloys. Superior corrosion resistance for severe alkaline and acidic pumping applications.



### GEARS

Precision machined metallic gears of 316SS, W88 stainless, and Alloy C. Also available in glass reinforced Teflon®, Ryton® and carbon reinforced PEEK.



### SHAFTS

Shafts are 316 stainless steel or Alloy C.



### SEALS

Single and/or double mechanical seals are offered in elastomer bellows and Teflon® wedge designs. Bellows design available with Viton® or EPDM formed elastomer shaft seal. Wedge designs available with Teflon® wedge shaft seal and perfluoroelastomer stationary seat o-rings. Packing materials: Teflon®, Grafoil® and Teflon®/Graphite.



### BEARINGS

Full gear diameter carbon sleeve bearings for maximum chemical resistance and high load capacity. Teflon® or Rulon® plastic bearings available for product purity.

### BODY/COVER O-RINGS

Teflon® encapsulating, silicone o-rings provide elastic memory to assure an effective long lasting seal. Avoiding the re-torquing required of pumps using pure TFE.

CLOSE COUPLED MAG DRIVE PUMPS	
BODY	Stainless Steel, Ryton and Alloy C constructions
GEARS	Ryton®, Peek, 316 SS, W88, Alloy C and Teflon®
SHAFTS	316 SS or Alloy C
BEARINGS	Carbon, Teflon® and Rulon®

- Neodymium or Samarium cobalt magnets
- Close Coupled Adapters for NEMA and IEC standard motor frame sizes
- 316 Stainless Steel, Ryton and Alloy C containment cans
- 1/2 to 30 GPM


**OBERDORFER**

## Numbering System

SEAL-LESS MAG-DRIVE			SEALED		Flow Rate Code	Max Flow (0 psi) GPM @ 1725 RPM	
Code	Metal	RYTON®	Code	RYTON®			
RM1	X		R1		02	0.5	
	X					03	1.5
	X					04	2
	X					06	3
SM2		X	S2	X	03	1.5	
		X		X		04	2
		X		X		06	2.8
	X	X		X		07	4
	X	X		X		10	5.6
SM4	X	X	S4	X	14	8	
	X	X		X		17	10
SM9	X		S9	X	17	10	
	X			X		23	15
	X			X		30	20
	X			X		35	23
	X			X		46	30

### Housing and Shaft Material

Code	Housing Material	Shaft Material
1	316 Stainless Steel	316 Stainless Steel
3	Alloy C	Alloy C
6	RYTON®	316 Stainless Steel
9	RYTON®	Alloy C

### Bearing Material

Code	Material
C	Carbon Graphite
P	TEFLON®
J	Rulon®

### Gear Material Combination

Code	Drive	Idle
1	RYTON®	RYTON®
2	316 SS	PEEK®
3	PEEK®	PEEK®
4	Alloy C	Alloy C
5	Alloy C	TEFLON®
6	W88	W88
7	TEFLON®	TEFLON®
8	W88	TEFLON®
9	Alloy C	PEEK®
A	Alloy C	RYTON®
B	316 SS	RYTON®
C	W88	RYTON®
E	316 SS	316 SS
F	316 SS	TEFLON®

### Shaft Seal

Code	Style			Materials			
				Rotary Head		Stationary Head	
Design	Seals	Case	Face	Elastomer	Face	O-Ring	
B	Belows	Single	316	Carbon	VITON®	Ceramic	VITON®
J	Belows	Single	316	Silicon Carbide	EPDM	Silicon Carbide	EPDM
H	Belows	Double	316	Carbon	VITON®	Ceramic	VITON®
Z	Belows	Single	316	Silicon Carbide	VITON®	Silicon Carbide	VITON®
A	Wedge	Single	316	Carbon	TEFLON®	Ceramic	KALREZ®
C	Wedge	Single	316	Carbon	TEFLON®	Silicon Carbide	KALREZ®
D	Wedge	Single	Alloy C	Carbon	TEFLON®	Ceramic	KALREZ®
F	Wedge	Single	Alloy C	Carbon	TEFLON®	Silicon Carbide	KALREZ®
V	Wedge	Single	Alloy C	Silicon Carbide	TEFLON®	Silicon Carbide	KALREZ®
G	Wedge	Double	316	Carbon	TEFLON®	Silicon Carbide	KALREZ®
L	Two Lip Seals		304	VITON® backed by TEFLON®			
N	Packing			TEFLON® with Graphite			
P	Packing			GRAFOIL®			
Q	Packing			TEFLON®			
R	Packing with Lantern Ring			TEFLON® with Graphite			
S	Packing with Lantern Ring			GRAFOIL®			
T	Packing with Lantern Ring			TEFLON®			
M	MAG-COUPLED			Neodymium Iron			
W	MAG-COUPLED			Samarium Cobalt			

### Additional Options

Code	Option
C1 through C7	Factory Installed Close Coupled Adapter
T1 through T5	Non-Metallic Gear - Temperature Trim
H	Tandem - High Flow
D	Tandem - Duplex
B	Bearing Flush Ports
E	RSPT Threads
L	Lower Shaft Drive
XX	Specials - Consult Factory
M1-M7	Factory Installed Close Coupled Adapter - Mag-Coupled
R	Ryton Containment Can



**KGC SERIES**

**DID YOU KNOW?**

That All Pumps can couple these pumps to almost any motor or engine type?

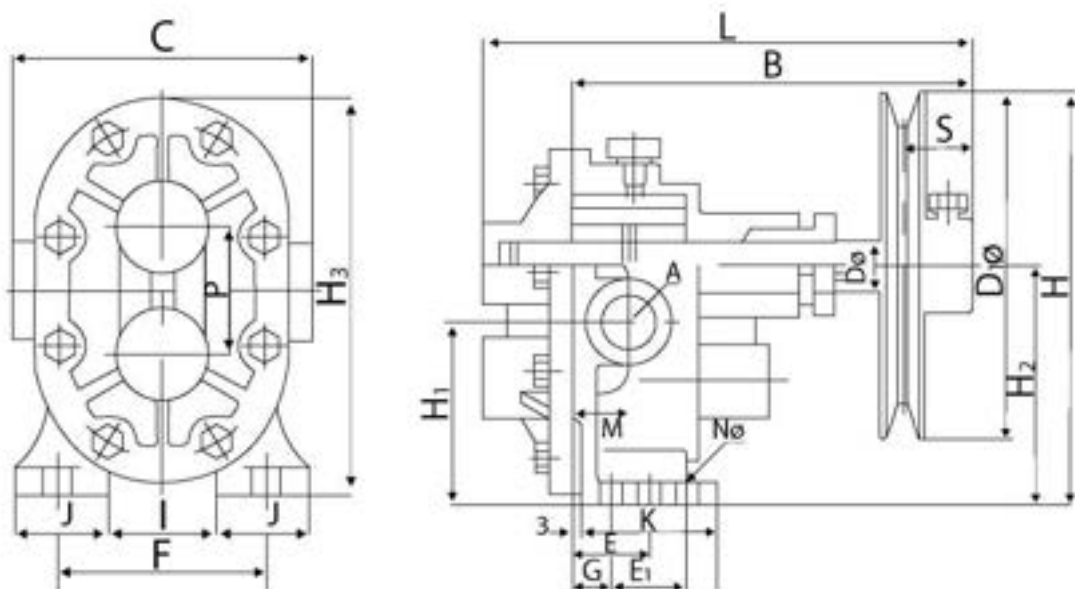
To find out more call 1300 255 788

## Specifications (based on water)

MODEL	GEAR MATERIAL	CONNECTION DIAMETER	DELIVERY VOLUME			DELIVERY PRESSURE	POWER	WEIGHT
			200RPM	400RPM	600RPM			
GC-13	Cast Iron	13mm (1/2")	10 L/min	21 L/min	32 L/min	3 Bar	200W	5kg
GC-20	Cast Iron	20mm (1")	18 L/min	37 L/min	56 L/min		400W	6kg
GC-25	Cast Iron	25mm (1")	27 L/min	55 L/min	83 L/min		750W	10kg

## Dimensions (in millimeters)

MODEL	A	L	B	C	D	D <sub>1</sub>	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	F	J	I	K	E	G	E <sub>1</sub>	N	M	P	S	PULLY
GC-13	P5 <sup>1/2</sup>	181	148	100	18	127	151	67	88	130	70	32	36	51	33	-	-	9	21	41	25	A1
GC-20	P5 <sup>1/4</sup>	201	165	130	20	152	179	78	103	153	97	36	58	60	-	23	28	9	25	50	25	A1
GC-25	P5 1	247	204	142	22	203	230	91	129	191	114	38	65	75	-	30	34	10	33	63	24	A1





## Features

- Rugged and robust construction
- Wide range of applications
- Temperatures up to 150°C

## Construction

- CASING: Cast Iron
- GEARS: Cast Iron
- SHAFT: Mild Steel
- BEARINGS: Cast Iron
- PACKING: Graphite Impregnated

## Specifications (based on water)

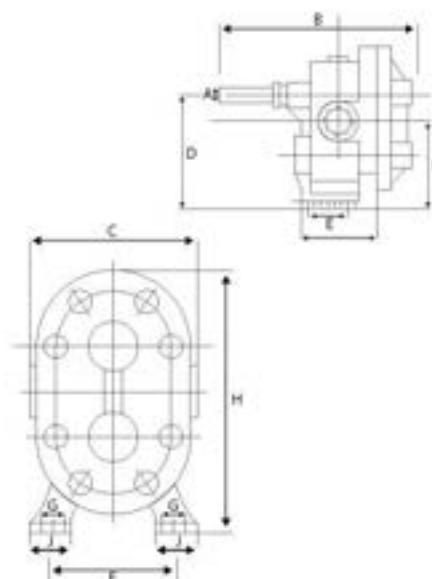
MODEL	KGC - 13	KGC - 20	KGC - 25	KGC - 35	KGC - 50	KGC - 80
Port Diameter	13	20	25	35	50	80
R.P.M	400	400	400	400	400	400
Flow Rate (L/Min)	21	37	55	121	242	455
Pressure (kpa)	300	300	300	300	300	300
Power (kW)	0.25	0.37	0.75	1.5	3	5.5
Weight (kg)	4	6	11	35	45	82

## Applications

- Tallow
- Transformer oil
- Heating oil
- Printers ink
- Paint
- Bitumen emulsion
- Molasses
- Jelly products
- Fertiliser
- Diesel
- Kerosene
- Lubricating liquids

## Dimensions (in millimeters)

	KGC - 13	KGC - 20	KGC - 25	KGC - 35	KGC - 50	KGC - 80
A	18	20	22	20	24	28
B	181	201	247	277	304	401
C	100	110	134	160	210	465
D	87	103	125	164	233	308
E	-	28	33	70	75	90
F	72	94	113	142	168	208
G	2-ø10	4-ø10	4-ø10	4-ø12	4-ø18	4-ø18
H	130	153	187	231	332	439
I	66	78	93	121	168.5	217
J	29	37	41	42	45	45
K	47	57	72	124	130	142





# LOBE PUMPS



PAGE  
442

**NETZSCH**

PAGE  
454



## JABSCO 2400 SERIES

### 24 Series Hygienic Positive Displacement Pump

The 24 Series range of positive displacement rotary lobe pumps is a proven design spanning over 20 years. With thousands of pumps in use around the world users agree that it is one of the best designed hygienic pumps on the market today. The 316 Stainless Steel 24 Series pump range incorporates improved technology in hygienic pump design and manufacturing techniques, yet utilises the traditional tri-lobe rotor concept which is so well accepted by the world's leading suppliers of Food, Personal Care and Chemical products.



### Design and features

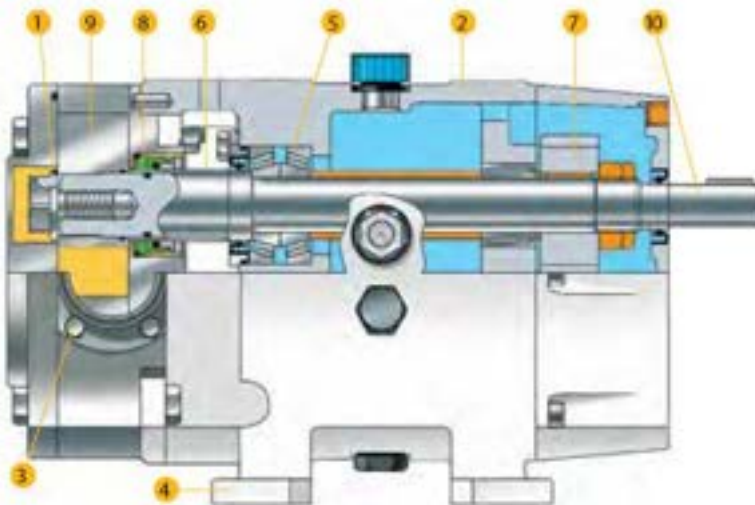
- **Adaptability** - This is the key design concept. The pump utilises 'bolt on' features which allow quick and easy interchange of parts to enable exact specification of the pump to suit any application.....from stock!
- **Rugged Design** - The bearing frame design utilises large shaft diameters mounted in high specification taper roller bearings, fitted into rigid pillars which form an integral part of the high grade alloy housing. These ensure maximum shaft stiffness in order to avoid premature pump failure due to overpressure or other abuse.
- **Low Maintenance** - The shaft, bearing and gear assemblies are fully immersed in an oil bath to give maximum life even at extremes of operating conditions. The timing gears are easily accessible at the rear of the pump in the unlikely event that re-timing should become necessary. Rotors are all fully interchangeable avoiding the need to re-time which is a problem associated with so many other rotary lobe and circumferential piston pumps.
- **Improved Hygienic Technology** - Fully swept pump chamber together with sealed rotor spline, accessible seals, and approved sealing components ensure that the pump meets the stringent requirements of major international customers.

### Options

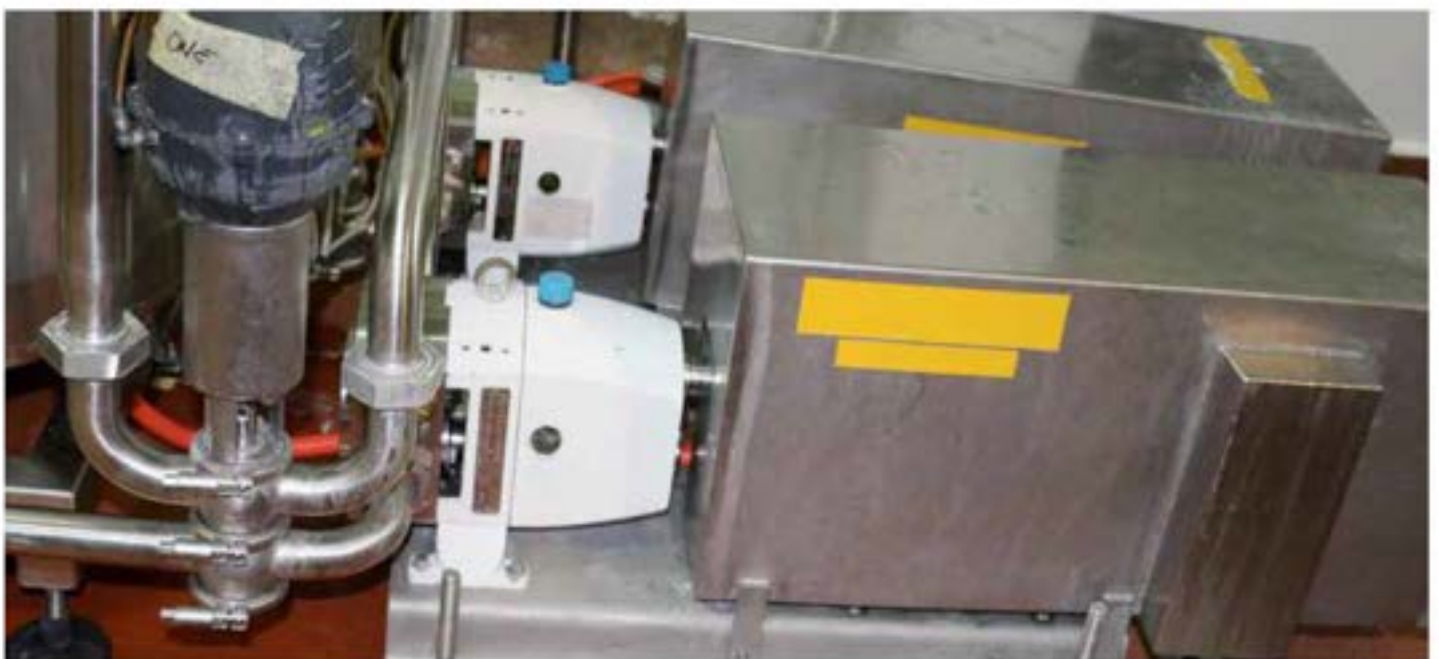
- **Seals** - Single mechanical seals are of hygienic design. Materials include carbon, stainless steel, tungsten carbide and silicon carbide.
- **Low pressure flushed seals** utilise the same single mechanical seal with an additional housing. A low pressure flush liquid washes away crystallising products or liquids which 'skin over'.
- **Double mechanical seals** utilise all the components from single seals for hazardous, toxic, highly abrasive or sterile products.
- **Gland packing** - a cost effective general purpose seal for non-hazardous liquids. Used on either a stainless steel or hard chrome plated anti-wear sleeve.
- **O-Ring seals** - another low cost seal option used primarily for self lubricating products such as dairy products.
- **Certification** - 3A Variants with Nitrile or EPDM elastomers and port options - Tri-clamp, IDF, 3A, DIN11851.
- **Rotors** - Tri-lobe rotors in stainless steel handle 90% of all applications. The traditional rotor shape gives an excellent combination of efficiency, solids handling, low and high viscous product capability. Bi-lobe rotor in stainless steel for exceptional handling of delicate, soft solids such as fruit pieces and vegetables. Rubber covered tri-lobe rotor to cope with small hard solids such as small bone fragments or ice crystals.
- **Connections** - All US and European standards including DIN, SMS, RJT, IDF, Tri-Clamp & BSP. Most pumps available with 2 different sizes, all fully interchangeable.
- **Elastomers** - Nitrile, Viton, EPDM, PTFE or Kalrez product contact joints are available.
- **Other options** - Pump head temperature control jackets. Integral pressure relief valve. Enlarged suction ports for highly viscous product.



	24 SERIES									
Pump Model	S1	A1	A2	B1	B2	C1	C2	D1	D2	E2
Port Size (mm)	25	25 or 38	25 or 38	38 or 50	38 or 50	50 or 76	50 or 76	76 or 100	76 or 100	152
Displacement (100 revs) (litre)	3.6	10.4	18.6	24.5	37.7	62.3	93.6	122	161	350
Max Flow (per min) (litre)	36	100	177	237	362	448	655	793	1000	2100
Max Pressure (Bar)	7	15	10	15	10	14	10	12	9	12
Max Speed (RPM)	1000	960	960	960	960	720	700	650	620	600
Size LxBxH (mm)	261x146x106	335x204x188	355x204x188	408x226x227	428x236x227	538x288x319	564x296x319	623x322x355	647x346x355	770x425x438
Bareshaft weight (kg)	10	14	18	29	33	70	75	112	119	300
Temperature (°C)	-30 to +150					-40 to +200				
Viscosity (cP)	1 to 1 million									


**CONSTRUCTION DETAILS**

- 1 Sealed rotor splines ensure improved cleanability.
- 2 Rugged, high grade alloy bearing frame for low weight and high strength.
- 3 Detachable ports for maximum flexibility in connection type and size.
- 4 Removable feet allow quick change for pump mounting in the ideal orientation.
- 5 High specification tapered roller bearings give over one million hours life on a typical duty.
- 6 Shaft sleeves under seals ensure minimised maintenance costs.
- 7 Precision cut helical timing gears for reduced noise and ease of maintenance.
- 8 Wide variety of interchangeable seal types to suit many applications.
- 9 Fully interchangeable rotor options can be fitted without the need of re-timing thus reducing downtime.
- 10 Heavy duty shafts for high pressure capability and minimum deflection.



**JABSCO** 2400 SERIES

## Nomenclature

PRODUCT NAME	SIZE	ROTOR WIDTH	PORTS	SEALS	ROTOR TYPE	END COVER	ELASTOMERS	MISCELLANEOUS									
Standard Size Ports	24	A 0	Short	00	Tri-clamp	1	Packed Gland-Hard Sleeve	1	Hi-efficiency	0	Plain	0	Nitrile Trim	-	Horizontal Ports/ Bottom Shaft	B	
Enlarged Ports	26	B 1	Medium	50	BSP	2	Single TC/TC	2	Standard	1	Relief Valve	1	EPDM Trim	E	Electropolish	Y	
		C 2			IDF	3	Single C/SS	3	High Pressure	9	Jacket (End cover)	4	PTFE Trim	P	To 0.5 micron polish & Electropolish (20 micinch)	Z	
		D 3			RJT	4	Flushed C/SS	5	Jacket (Pump head)	8	Viton Trim	V	Certification	&			
		E 4			3A	5	Single O-ring	6	Relief Valve (1) & Jacket (8)	9			Hopper Inlet	H			
		S 9			DIN 11851	6	Flushed TC/TC	7									
					SMS	7	Single C/SS-Pinned	8									
					NPT	9	Flushed C/SS-Pinned	9									

PRODUCT NAME	BASE MODEL NUMBER
S2	24950
A1	24000, 26000
A2	24050, 26050
B1	24100, 26100
B2	24150, 26150
C1	24200, 26200
C2	24250, 26200
D1	24300, 26300
D2	24350
E2	24450

MODEL NUMBER	PORT SIZE	PORT TYPE	SEAL TYPE	ROTOR TYPE	END COVER	ELASTOMERS	MISCELLANEOUS
24050-4890E	25mm	RJT	Single C/SS Pinned	High Pressure	Plain	EPDM	N/A
26300-1709VB	100mm	Tri-Clamp	Flushed TC/TC	High Efficiency	End cover with Relief Valve and Jacket	Viton	Horizontal ports/ Bottom shaft

**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

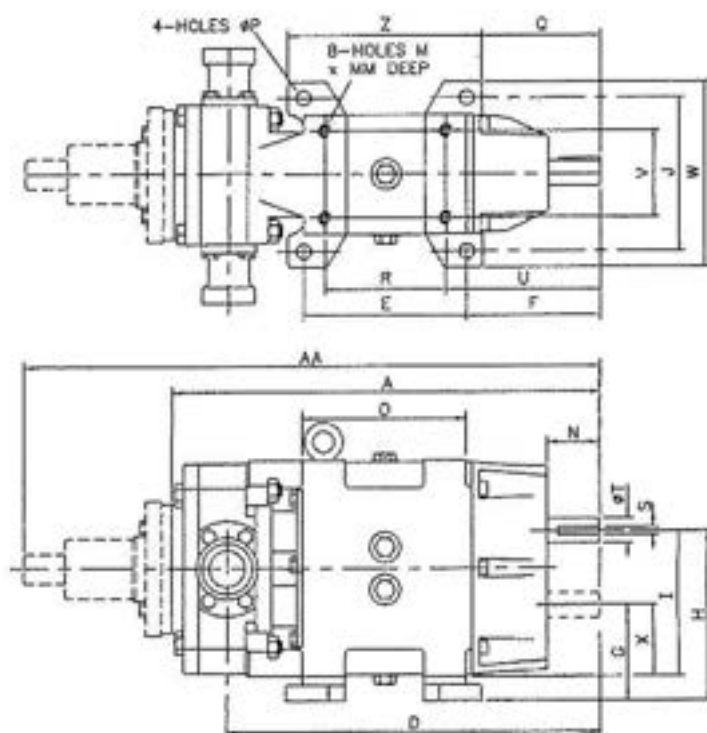
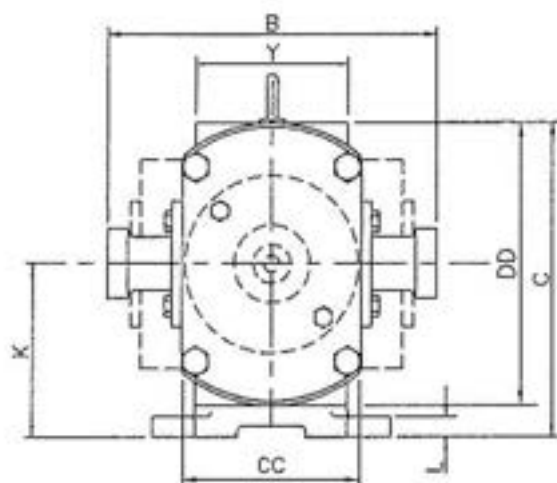


The Jabsco Lobe pumps can be installed to the PTO of tanker truck hydraulic systems for use on milk tankers.



## Dimensions

Bare Pump Dimensions in Millimetres



PUMP	A	AA	B	C	CC	D	DD	E	F	G	H	I	J	K	L
S1	261	N/A	146	106	90	217	—	90	74	36	70	—	98	53	18
A1	335	455	204	188	110	298	167	135	105	77	132	111	120	105	15
A2	355	475	204	188	110	310	167	135	105	88	132	111	120	105	15
B1	408	550	226	227	132	359	204	155	128	90	160	137	145	125	15
B2	428	570	236	227	132	372	204	155	128	90	160	137	145	125	15
C1	538	739	288	318	184	472	280	195	181	131	225	187	200	178	24
C2	564	765	296	318	184	486	280	195	181	131	225	187	200	178	24
D1	623	866	322	355	210	539	320	220	201	140	250	215	230	195	24
D2	647	890	346	355	210	551	320	220	201	140	250	215	230	195	24
E2	770	N/A	425	438	250	672	400	276	239	166	310	272	280	238	38

The dimensions shown here are for guidance purposes only, refer to JabSCO for certified drawings.

PUMP	M	MM	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
S1	Ø7	18	30	110	8	64	90	4	12	44	98	110	—	110	110
A1	M10	19	40	135	11	90	105	6	19	120	70	144	56	92	165
A2	M10	19	40	135	11	90	105	6	19	120	70	144	56	92	165
B1	M12	23	50	155	14	113	115	8	24	148	82	175	67	112	185
B2	M12	23	50	155	14	113	115	8	24	148	82	175	67	112	185
C1	M12	23	82	195	18	161	145	12	42	206	110	240	93	150	235
C2	M12	23	82	195	18	161	145	12	42	206	110	240	93	150	235
D1	M12	25	82	220	18	178	170	14	48	226	140	270	105	180	266
D2	M12	25	82	220	18	178	170	14	48	226	140	270	105	180	266
E2	M20	25	86	276	22	209	206	16	55	275	180	320	128	220	336

**JABSCO** HYLINE SERIES

## Hy-Line Super Hygienic Positive Displacement Pump

Jabsco's latest rotary positive displacement pump incorporates the very latest in hygienic design concepts in order to fulfil the ever increasing customer demands for improved cleanability, hygiene and sterilisability. This 316 Stainless Steel design uses a bi-wing rotor, which encompasses the very best features of tri-lobe rotor pumps and circumferential piston pumps. The pump is built upon Jabsco's 40 year experience of producing and supplying their Flexible Impeller and 24 Series rotary lobe pumps to the world's most demanding markets

### Design and features

- **Most Stringent Hygienic Standards** - Flush rotor fixing screws are sealed to prevent product ingress. Contoured rotor case internals for full drainability during SIP and shaft seals set up front where the pumping action is! Fully conforming to 3A 02-10 Hygienic Standards and utilising materials which meet FDA requirements. Versions are available that have been tested and approved to the EHEDG (European Hygienic Equipment Design Group), CIP and SIP protocols and USDA, 3A certification.
- **Low Maintenance Costs** - Front loaded single shaft seals are fully accessible from the front of the pump without disturbing the process pipework. Simple bearing assemblies easily pre-set using automotive technology. Bi-wing rotors require no timing adjustments. Even the pump casing is removable, a feature not normally associated with other bi-wing rotor pumps.
- **High Volumetric Efficiency** - The bi-wing rotors incorporate the low viscosity efficiency associated with circumferential piston pumps with the viscous product handling capability of tri-, quad- and bi-lobe rotor pumps..... at an affordable price!
- **Rugged Design** - Hy-Line design utilises extremely large shaft diameters mounted in high specification taper roller bearings, fitted into an extremely rigid central pillar made from a high grade alloy. This is all enclosed in an oil filled housing made from the same alloy. These, together with wide tipped rotor wings, which adds another dimension to security, avoid premature pump failure due to overpressure or other abuse.



### Options

- **Seals** - Front loaded single mechanical face type seals of hygienic design. Materials include carbon, stainless steel and silicon carbide. Low pressure flushed seals utilise the same single mechanical seal with an additional housing. A low pressure flush liquid washes away crystallising products or liquids which 'skin over'. Double mechanical seals utilising all the components from single seals. Used for hazardous, toxic, highly abrasive or sterile products. Front loaded single O-Ring seals - a low cost seal option used primarily for self lubricating products and products which contain little or no abrasives. Front loaded double O-Ring seals - suitable for pressurised grease or flushing with a suitable liquid to enable low cost sealing of high sugar confectionery and bakery products. Multiple PTFE lip seal - complete with controlled release food grade grease injection system, the ideal sealing system for chocolate and other products sensitive to water flush.
- **Certification** - 3.1B Material Certification package. 3A Variants with Nitrile or EPDM elastomers and port options - Tri-clamp, IDF, 3A, DIN11851
- **Connections** - All US and European standards including DIN, SMS, RJT, IDF, Tri-Clamp & BSP. Most pumps available with 2 different sizes, all fully interchangeable. (Not on 3 & 7 size)
- **Elastomers** - Nitrile, Viton, EPDM and PTFE product contact joints available in compounds conforming to 3A Sanitary Standard 18-03 and FDA title 21 section 177.2600.
- **Other options** - Pump Head temperature control jackets. Integral pressure relief valve. Enlarged suction port for viscous products. All stainless steel bearing pedestal and cover. Low carbon 316L pump head. Tanker pump version for direct hydraulic drive.

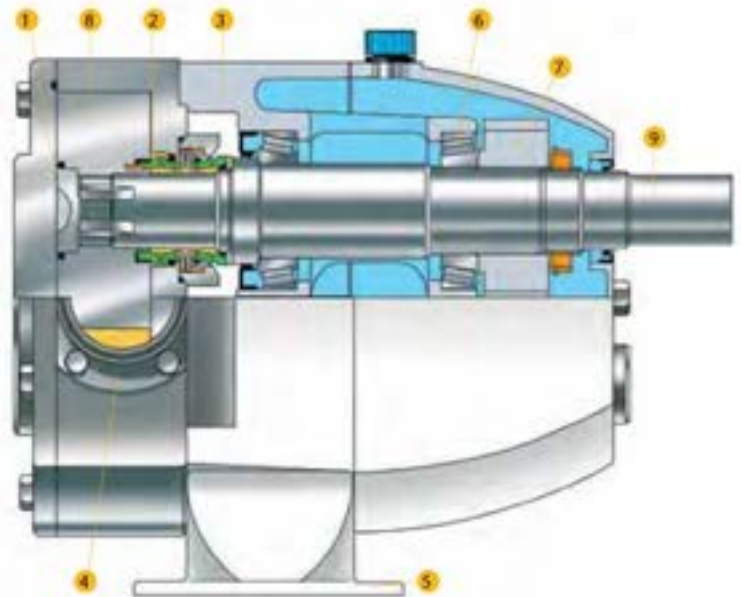


# HYLINE SERIES

	HY-LINE										
Pump Model	LH32	LH34	LH42	LH44	LH52	LH54	LH62	LH64	LH72	LH74	LH76
Port Size (mm)	19 or 25	25 or 38	25 or 38	38 or 50	38 or 50	50 or 76	63 or 76	76 or 100	76 or 100	100 or 152	127 or 152
Displacement (100 revs) (litre)	3.5	7	12.3	20.4	26.5	45.5	64	95	123	205	301.5
Max Flow (per min) (litre)	52	105	123	204	265	455	461	684	836	1230	1809
Max Pressure (Bar)	15	8	15	8	15	8	15	8	15	8	5
Max Speed (RPM)	1500	1500	1000	1000	1000	1000	720	720	680	600	600
Size LxBxH (mm)	213x190x166	229x190x166	276x223x196	290x223x196	386x249x208	414x259x213	460x270x311	464x300x311	486x380x363	526x386x363	573x412x363
Bare shaft weight (kg)	8	10	18	20	32	35	61	65	125	145	165
Temperature (°C)	-30 to 140										
Viscosity (cP)	1 to 1 million										

### CONSTRUCTION DETAILS

- 1 Flush fitting, sealed rotor retaining screws avoid build up of stagnant product as no end cover recesses are required and no product can get into the rotor drive.
- 2 Front mounted shaft seals for easy replacement and full accessibility of CIP liquids.
- 3 Rugged, high grade alloy bearing pedestal and housing for low weight and high strength, completely encased in epoxy coating.
- 4 Detachable ports for maximum flexibility in connection type and size. (Not on 3 & 7 size).
- 5 Removable feet allow quick change for pump mounting in the ideal orientation. (Not on 3 & 7 size).
- 6 High specification taper roller bearings give over one million hours life on a typical duty.
- 7 Precision cut spur gears for high load capability and ease of maintenance.
- 8 Fully interchangeable bi-wing rotors can be fitted without the need to re-time thus reducing downtime and allows pump to cope with a higher level of abuse.
- 9 Heavy duty shafts for high pressure capability.



**HYLINE SERIES**

## Nomenclature

L	H	4	4	0	-	1	9	8	0	E	Y								
PRODUCT NAME	SIZE	ROTOR WIDTH		PORT SIZE		PORTS	SEALS	ROTOR	END COVER	ELASTOMERS	MISCELLANEOUS								
Hy-Line	LH	4	4	Short	2	Standard	0	No ports	0	Double, SiC/SiC, C/SiC	1	Hi Efficiency	8	Plain	0	Nitrile trim	-	Horizontal ports/Bottom Shaft	B
		5	5	Medium	4	(H) in (L) out	F	Tri-clamp	1	Single SiC/SiC	2	High Press	9	Relief Valve	1	EPDM trim	E	316L Pump-head* (see note below)	L
	6	6			(H) in (H) out	G	BSP	2	Single C/SiC	3			Jacket (endcover)	4	PTFE trim	P	Stainless steel bearing & gear housing	S	
					Hopper in	H	IDF	3	Double, C/SiC, C/SiC	4			Jacket (pumphead)	8	Viton Trim	V	Vertical ports	U	
					Enlarged	L	RJT	4	Flushed C/SiC	5			Relief Valve (1) - Jacket(8)	9			Electropolish	Y	
					Reduced	R	3A	5	Single O-Ring	6							To 0.5 Micron polish & Electropolish	Z	
						DIN 11851	6	Flushed SiC/SiC	7							Certification	&		
						SMS	7	Single C/SS	8										
						NPT	8	Flushed C/SS	9										
							9	Double O-Ring	D										
								Multiple PTFE Lip Seal	M										

MODEL NUMBER	PORT SIZE	PORT TYPE	SEAL TYPE	ROTOR TYPE	END COVER	ELASTOMERS	MISCELLANEOUS
LH32L-4890E	25mm	RJT	Single C/SS	High Pressure	Plain	EPDM	N/A
LH440-1491VY	38mm	Tri-Clamp	Flushed C/SS	High Pressure	Relief Valve	Viton	Electro-polish
LH62R-2789EB	50mm	BSP	Flushed SiC/SiC	Hi Efficiency	Relief Valve & Jacket	EPDM	Horizontal Ports & Bottom Shaft

**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

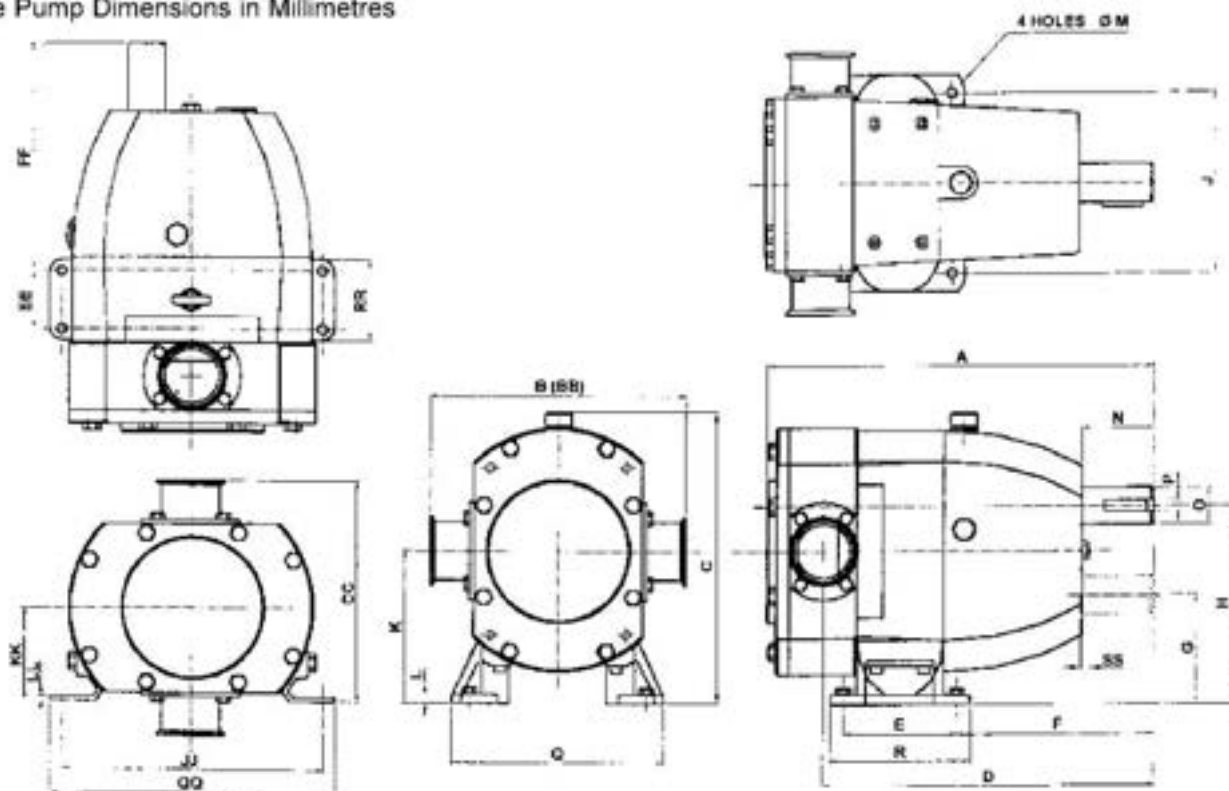
Call 1300 225 786 to discuss your requirements.





## Dimensions

## Bare Pump Dimensions in Millimetres



PUMP	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
42	274	223	196	231	72	142	67	132	150	99	6	9	40	24	8	180	92
44	290	223	196	241	72	142	67	132	150	99	6	9	40	24	8	180	92
52	368	249	244	319	84	209	80	160	180	120	6	9	83	38	10	214	104
54	396	259	244	338	84	209	80	160	180	120	6	9	83	38	10	214	104
62	435	288	311	372	122	225	125	225	200	175	10	11	83	42	12	240	157
64	464	302	311	381	122	225	125	225	200	175	10	11	83	42	12	240	157

The dimensions shown here are for guidance purposes only, refer to JabSCO for certified drawings.

PUMP	BB	CC	EE	FF	JJ	KK	LL	QQ	RR	SS	WEIGHT (KG)						
42	223	182	32	162	200	71	5	216	49	4.0							18
44	223	182	32	162	200	71	5	216	49	4.0							20
52	249	208	42	230	228	83	5	249	62	5.5							32
54	259	213	42	230	228	83	5	249	62	5.5							35
62	296	249	65	252	294	105	5	322	90	5.5							61
64	302	256	65	252	294	105	5	322	90	5.5							65

Note: Dimensions (B = Standard port size) & (BB = Enlarged port sizes)

**JABSCO** ULTIMA SERIES

## Ultima/55 SERIES Ultra Hygienic Positive Displacement Pump

The ultimate hygienic rotary positive displacement pump designed without compromise to fulfil even the most critical customer demands in cleanability, sterilisation and bacterial tightness. This 316L Stainless Steel design uses bi-wing or 5-lobe rotor designs specifically utilised to achieve the very lowest shear rate and product degradation characteristics. The Ultima pump is an extension of Jabsco's world renowned 55 series pump which was the first pump of its kind and a virtual industry standard in the Bio-pharm arena.



### Design and features

- **Ultimate Hygienic Standards** - Tested and approved to the EHEDG (European Hygienic Equipment Design Group), CIP, SIP and Bacterial Tightness protocols. Full conformance to 3A Sanitary Standards 18-03 and 02-10 and utilising materials which meet the requirements of the FDA title 21, section 177.1550.
- **Cleaner by Design** - External rotor retention together with gasket type joints in place of O-rings reduce the number of potential product entrapment areas. In addition to this, the shaft seals are pulled forward fully in the product zone, all of which adds up to the ultimate in cleanability.....every time!
- **Low Product Shearing** - The bi-wing and 5 lobe rotor designs ensure high volumetric efficiency on low viscosity products resulting in low shear rates and low product damage.
- **Rugged Design** - This pump design utilises extremely large shaft diameters mounted in high specification taper roller bearings. These give maximum shaft stiffness to ensure no galling thus maintaining the pump's CIP and SIP capabilities.

### Options

- **Seals** - Front loaded single mechanical face type seals of hygienic design. Materials include carbon and silicon carbide. Low pressure flushed seals utilise the same single mechanical seal with an additional housing. A low pressure flush liquid washes away crystallising products or liquids which 'skin over'. Double mechanical seals utilising all the components from single seals. Used for hazardous, toxic, highly abrasive or sterile products.
- **Certification** - 3.1B Material Certification package. 3A Variants with Nitrile or EPDM elastomers and port options - Tri-clamp, IDF, 3A, DIN11851
- **Connections** - US and European standards including Tri-Clamp. All pumps available with 2 different sizes.
- **Elastomers** - USP Class VI, EPDM, Viton and PTFE product contact joints all in compounds conforming to the FDA CFR title 21 section 177.1550.
- **Other options** - Aseptic barrier end cover joints to maintain sterility of product during long cycle times. Electropolish or high polish internal surfaces to 0.5µm Ra (20 micro-inc Ra) for minimised cell damage and maximised cleanability.

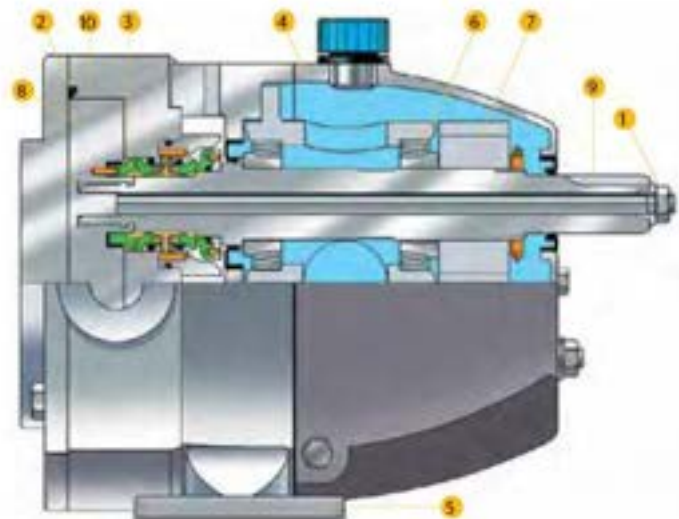


## Technical Information

	55 SERIES			ULTIMA					
Pump Model	55210	55320	55420	LU42	LU44	LU52	LU54	LU62	LU64
Port Size (mm)	12.5	19	25	25 or 38	38 or 50	38 or 50	50 or 76	63 or 76	6 or 100
Displacement (100 revs) (litre)	1	2.9	6.7	12.3	20.4	26.5	45.5	64	95
Max Flow (per min) (litre)	16	44	67	123	204	254	437	461	684
Max Pressure (bar)	14	20	20	15	8	15	8	15	8
Max Speed (RPM)	1500	1500	1000	1000	1000	1000	1000	720	720
Size LxBxH (mm)	91x114x135	264x145x168	302x168x191	285x223x182	301x223x182	286x249x208	414x259x213	463x328x249	492x328x254
Bare shaft weight (kg)	8	19	26	23	25	38	41	70	75
Temperature (°C)	-30 to 140								
Viscosity (cP)	1 to 1 million								

## CONSTRUCTION DETAILS

- 1 External rotor retainers prevent build up of stagnant product, by removing the need for end cover recesses and O-ring crevices entirely.
- 2 Gasket type joints eliminate the uncertainty of O-rings in terms of cleanability.
- 3 Front mounted shaft seals allow for easy replacement and full accessibility of CIP liquids.
- 4 Rugged, stainless steel bearing pedestal and housing allow for maximum hygiene (epoxy coated cast iron with stainless steel option on 55 series).
- 5 Removable feet allow quick change for pump mounting in the ideal orientation.
- 6 High specification taper roller bearings give over one million hours life on a typical duty.
- 7 Precision cut gears yield high load capability and ease of maintenance or replacement.
- 8 Fully interchangeable bi-wing rotors can be fitted without the need to re-time thus reducing downtime and allows pump to cope with a higher level of abuse and larger solids.
- 9 Heavy duty shafts for maximum rigidity and minimum galling due to low deflections.
- 10 Low carbon 316L pump head with welded ports for reduced carbide precipitation, increased corrosion resistance and minimal carbon 'pull-out'.



**ULTIMA SERIES**

## Nomenclature

L	U	5	2	0	-	1	3	9	0	B	V	Z	&							
PRODUCT NAME	SIZE	ROTOR WIDTH		PORT SIZE		PORTS	SEALS	ROTOR	END COVER	ELASTOMERS		MISCELLANEOUS								
Ultima	LU	4	4	Short	2	Standard	0	Tri-clamp	0	Double, SiC/SiC, C/SiC	1	Hi Efficiency	8	Plain	0	EPDM trim	E	Horizontal ports/Bottom Shaft	B	
		5	5	Medium	4	Enlarged	L			Single SiC/SiC	2	High Press	9	Jacket (endcover)	4	PTFE trim	P	Horizontal ports/Top Shaft	H	
		6	6			Reduced	R			Single C/SiC	3			Barrier	5	Viton Trim	V	Electropolish	Y	
										Double, C/SiC, C/SiC	4			Barrier (5) & Jacket (4)	7			To 0.5 Micron polish & Electro-polish	Z	
										Flushed C/SiC	5			Jacket (pumphead)	8			Certification	&	
										Flushed SiC/SiC	7									

MODEL NUMBER	PORT SIZE	PORT TYPE	SEAL TYPE	ROTOR TYPE	END COVER	ELASTOMERS	MISCELLANEOUS
LU42L-4790P	25mm	RJT	Single C/SS	High Pressure	Plain	EPDM	N/A
LU440-1491VZA	38mm	Tri-Clamp	Flushed C/SS	High Pressure	Relief Valve	Viton	Electro-polish
LU62R-2789EB	50mm	BSP	Flushed SiC/SiC	Hi Efficiency	Relief Valve & Jacket	EPDM	Horizontal Ports & Bottom Shaft


**DID YOU KNOW?**

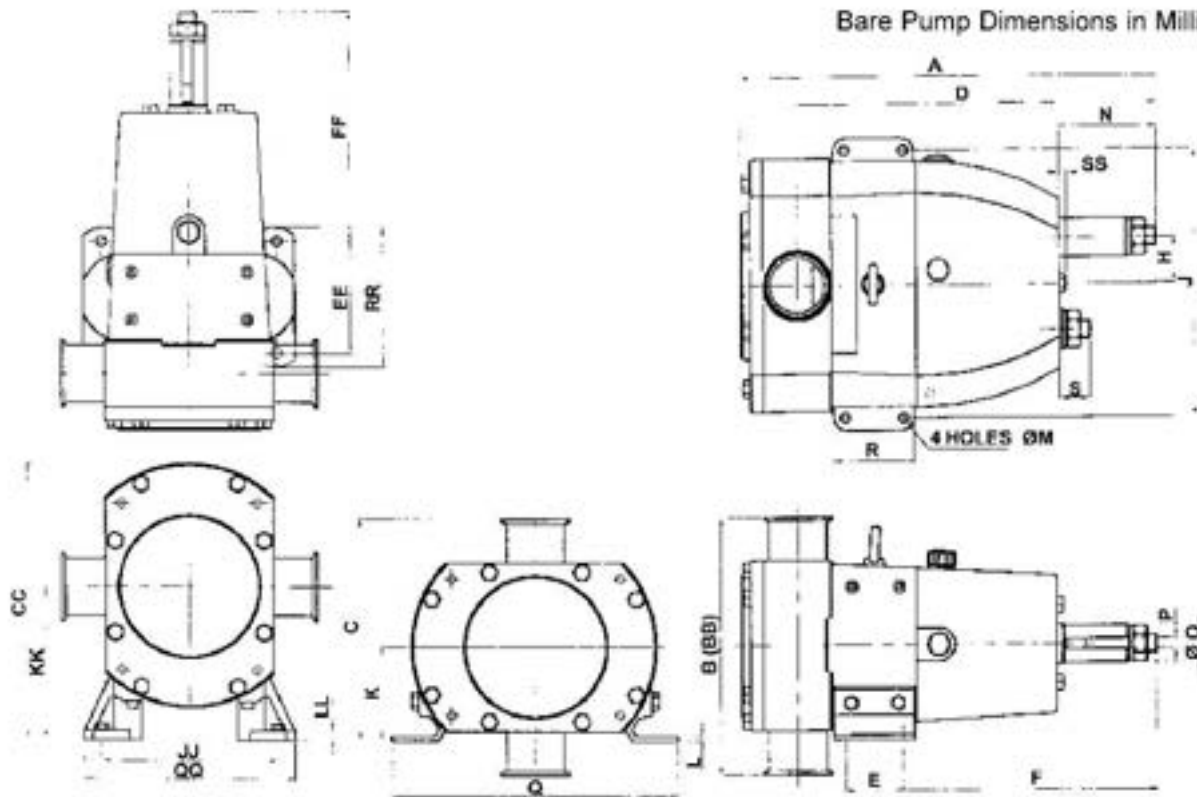
Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.





## Dimensions



## ULTIMA SERIES

PUMP	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R
42	285	223	182	242	32	173	71	32.5	200	71	5	9	51	24	8	216	49
44	301	223	182	252	32	173	71	32.5	200	71	5	9	51	24	8	216	49
52	386	249	208	337	42	247	83	40	228	83	5	9	100	38	10	249	62
54	414	259	213	356	42	247	83	40	228	83	5	9	100	38	10	249	62
62	463	328	249	400	65	282	105	50	294	105	5	11	107	42	12	322	90
64	492	328	253	408	65	282	105	50	294	105	5	11	107	42	12	322	90

The dimensions shown here are for guidance purposes only, refer to Jabsco for certified drawings.

PUMP	S	BB	CC	EE	FF	JJ	KK	LL	OO	RR	SS	WEIGHT (KG)					
42	13	TBA	196	72	153	150	99	7	182	102	4.0						23
44	13	TBA	196	72	153	150	99	7	182	102	4.0						25
52	27	TBA	244	84	226	180	120	6	214	104	5.5						38
54	27	TBA	244	84	226	180	120	6	214	104	5.5						41
62	24	TBA	311	122	254	200	175	6	240	157	5.5						70
64	24	TBA	311	122	254	200	175	6	240	157	5.5						75

Note: Dimensions (B = Standard port size & Tri-Clamp enlarged port size) & (BB = Other enlarged port sizes)

## NETZSCH TORNADO ROTARY LOBE PUMPS



For more than a decade we have been supplying the classic design NETZSCH TORNADO® T1 rotary lobe pumps.

Their extensive use in applications in the Environmental and Energy, Chemical, Pulp and Paper and Oil and Gas sectors for flow rates up to 1000m<sup>3</sup>/h demonstrate their high performance. Pump size and specification are precisely tailored to suit the characteristics of the pumped media and the operating requirements. Three series with 12 models available provide for flow rates up to 1,000m<sup>3</sup>/hr at discharge pressures up to 6 bar for both intermittent and continuous operation. For higher discharge pressures customised solutions are available.

### Benefits

- GSS1 technology for long term reliability
- Maintenance without the need to disconnect the inlet and outlet pipework
- Easy and quick access to the lobes and shaft seals
- Tolerance of running dry
- Short delivery times – all manufacturing 'in-house', large stock of components





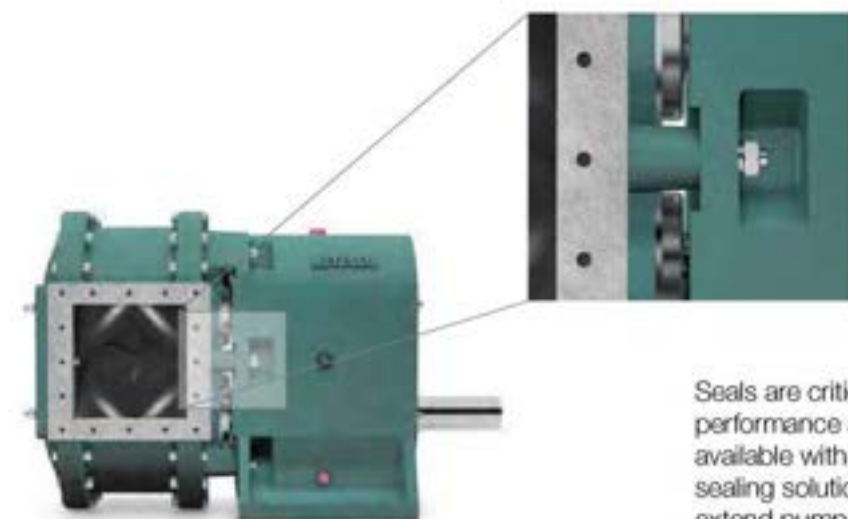
# TORNADO ROTARY LOBE PUMPS **NETZSCH**

NETZSCH GSS technology  
(GSS = Gearbox Security System) –  
Long-term reliability

The classic TORNADO® T1 rotary lobe pump is of optimal design for each application based on the knowledge and experience gained by Netzsch over many decades of development, design, manufacture and supply of positive displacement pumps into all industries. This experience has founded the development of the NETZSCH GSS technology (Gearbox Security System), which significantly extends operational reliability by physically separating the pump chamber and gearbox.

## Benefits

- Extended operational reliability
- No ingress of the pumped media into the pump gearbox in the event of a product leaking
- No ingress of pump gearbox oil into the pump chamber
- Easy access to the shaft seal flushing connections



Seals are critical to satisfactory pump performance and the TORNADO® T1 is available with a range of highly engineered sealing solutions designed and selected to extend pump operating life.



Classic single acting seal



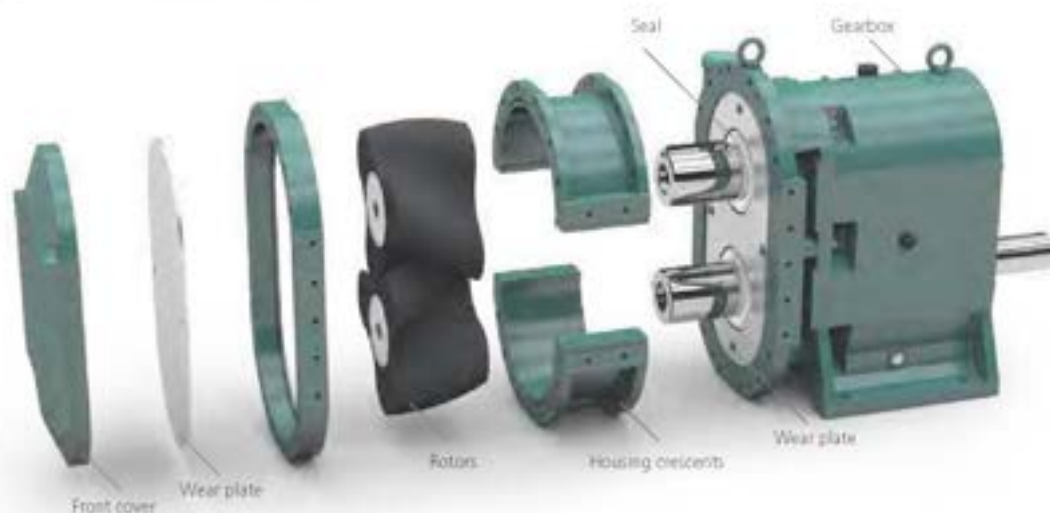
Single for buffer or quench for industrial applications



Special seal for demanding applications

# NETZSCH TORNADO ROTARY LOBE PUMPS

The design of the classic TORNADO® T1



### Front Cover

Rotors, cover seal and product seals can be accessed for inspection, service or replacement by simply removing the front cover. Disassembly of the inlet and outlet pipework and pump housing is not necessary.

### Wear Plates

Abrasion and chemically resistant, replaceable wear plates are fitted both sides of the rotors.

### Rotors

Straight sided or helical rotors are selected to suit individual application requirements. Rotors are available as bi-lobe, tri-lobe or four-lobe and wide a range of materials are available.

### Housing Crescents

Modular construction allows for the crescents to be simply replaced should wear occur. Pump life time can be further extended with the option of replaceable crescent liners.

### Product Seals

Wide range of product seals and materials are available, which are selected to suit individual application requirements. Seal arrangements include easy access connections for seal quench or flush.

### Pump Gear Box

The patented gear box design includes NETZSCH GSS-Technology separating the pump head from the gear box which eliminates cross contamination between the pump media and gear box lubricant.

Pump inlet and outlet adaptors for connection to installation pipework are available in various designs.



Straight adaptor



S-shaped adaptor



Elbow (90° upwards) adaptor

### Connection options

Adaptors designed to suit specific installations available on request



# TORNADO ROTARY LOBE PUMPS **NETZSCH**

The rotors – low-pulsation, smooth pumping of all media

## Rotors in different geometries and materials



2-lobe straight



3-lobe helical

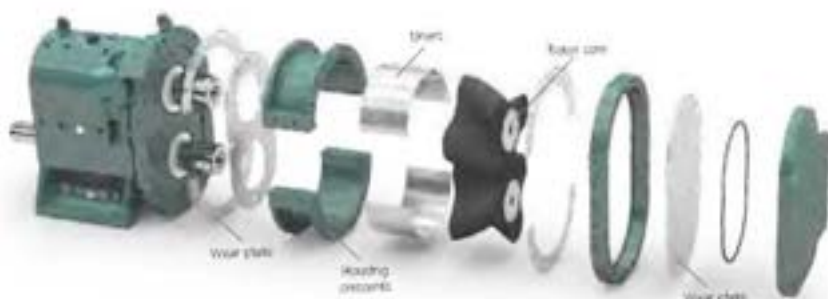


4-lobe helical

The rotor geometry and material are selected for the characteristics of the pumped media. Geometries are available for products which are viscous, abrasive or contain solids. Materials tailored to the media characteristics increase the durability of the rotors and extend service life.

## Range of pump head wetted materials broadens application coverage

For handling chemically corrosive or otherwise aggressive media the TORNADO® T1 pump housing, wear plates, liners and rotor cores are available in suitably resistant materials.



Pulsation free pumping

## NETZSCH TORNADO®

self-priming, valveless, positive displacement pumps can be optimally customised to meet specific process and application requirements.

They can be used for almost any media on intermittent, continuous or dosing applications.

TORNADO® advantages are small space requirements due to their compact design, high performance and maximised operational reliability, and the physical separation between the pump head and bearing housing. TORNADO® pumps are particularly service and maintenance friendly; all parts that come into contact with the media are directly accessible without dismantling the pipework or disconnecting the drive.

## Functioning principle

The TORNADO® rotary lobe pump is a positive displacement pump. The pumping action is generated by the contrarotation of two rotors within the pump chamber which are synchronised externally. The media enters the pump chamber through the inlet port and is carried around the chamber by the rotors to the outlet port where it is discharged.



# NETZSCH TORNADO ROTARY LOBE PUMPS

## Technical Information

SERIES	MODEL	DISPLACEMENT L/REV	DIFFERENTIAL PRESSURE BAR	SPEED REV/MIN	WEIGHT KG	OIL CAPACITY L
MB	MB-1	0.32	6	800	80	0.61
MB	MB-2	0.46	6	800	90	0.61
XB	XB-1	1.27	6	550	132	0.75
XB	XB-2	1.90	6	550	140	0.75
XB	XB-3	2.53	5	550	148	0.75
XB	XB-4	3.80	4	550	165	0.75
XLB	XLB-1	3.56	6	500	280	2.0
XLB	XLB-2	5.03	5	500	310	2.0
XLB	XLB-3	7.12	4	500	348	2.0
XLB	XLB-4	10.06	4	500	380	2.0
XLB	XLB-6/2	20.12	4	500	500	2.0
XLB	XLB-8/2	30.18	3	500	660	2.0

XLB-X/2 denotes design incorporates sealed (non wetted) outrigger bearing weight excludes adaptors, includes gearbox oil

# NETZSCH

### TORNADO® Performance Chart

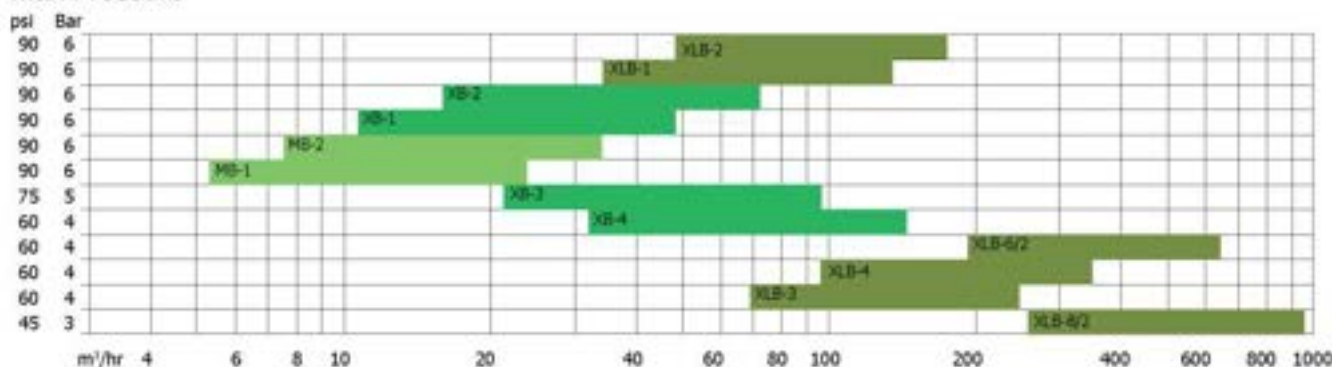
#### Flow Rate and Pressure

Typical operating range  
For applications beyond range consult factory  
Lowest flow rates relate to priming - 1.5m water

Model	Displacement (l/rev)	Pressure (bar)
MB-1	0.32	6
MB-2	0.46	6
XB-1	1.27	6
XB-2	1.90	6
XB-3	2.53	5
XB-4	3.80	4
XLB-1	3.56	6
XLB-2	5.03	5
XLB-3	7.12	4
XLB-4	10.06	4
XLB-6/2	20.12	4
XLB-8/2	30.18	3



### Max Pressure

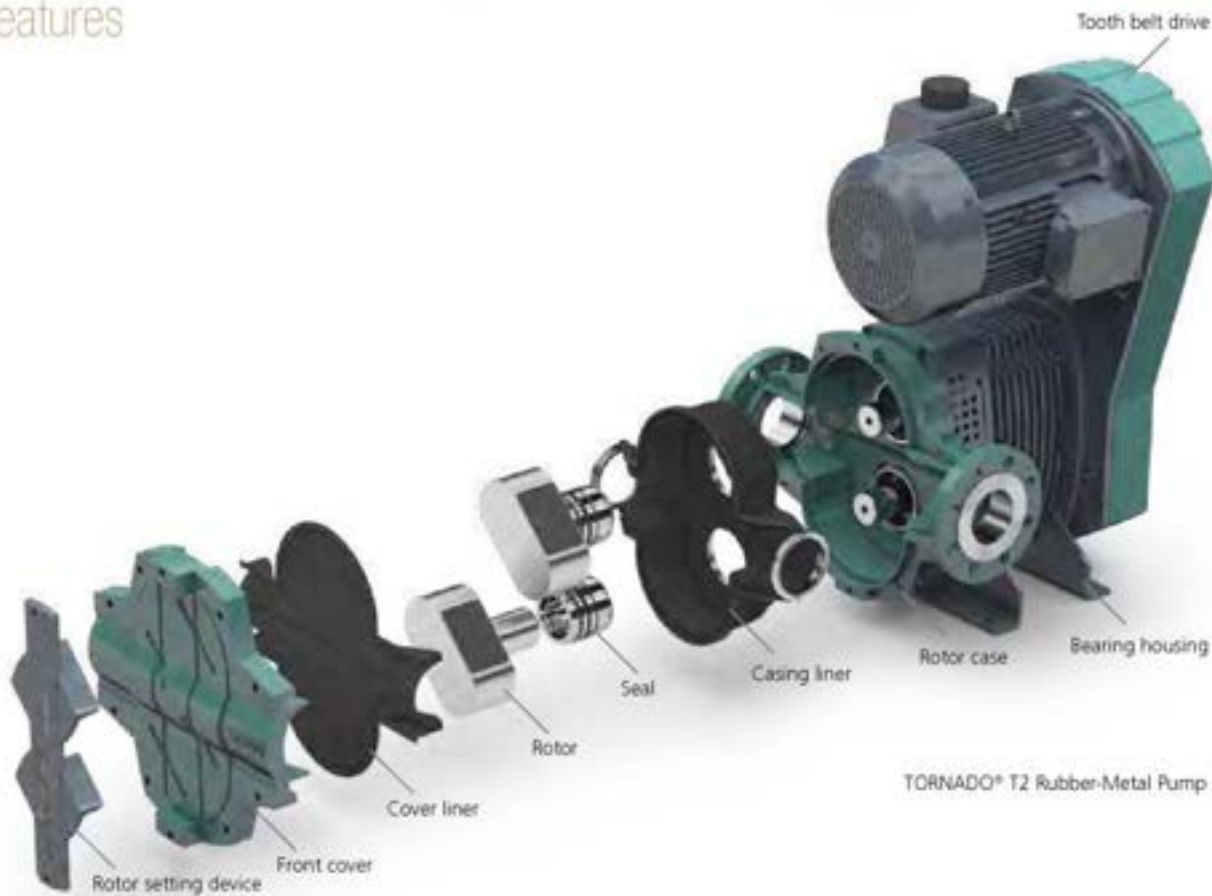


SERIES	MODEL	INLET/OUTLET CONNECTIONS			ADAPTOR NOMINAL DIA
		H (MM)	W (MM)	EQUIVALENT DIA (MM)	
MB	MB-1	102	50	81	DN 65
MB	MB-2	102	70	95	DN 80
XB	XB-1	136	70	110	DN 100
XB	XB-2	136	105	135	DN 125
XB	XB-3	136	140	155	DN 125
XB	XB-4	136	210	191	DN 150
XLB	XLB-1	186	92	148	DN 125
XLB	XLB-2	186	130	175	DN 150
XLB	XLB-3	186	184	209	DN 150
XLB	XLB-4	186	260	248	DN 200
XLB	XLB-6/2	186	520	351	DN 250
XLB	XLB-8/2	186	780	430	DN 250



# TORNADO ROTARY LOBE PUMPS **NETZSCH**

## Features



TORNADO® T2 Rubber-Metal Pump

## Stability

### The best maintenance is no maintenance

Plastic deformation and heat generation is reduced by maintaining a uniform elastomeric wall thickness within the pump chamber. Material sections, bearing selection and seal positioning combine to minimise the adverse effects on dimensional changes to pump head geometry due to temperature changes.

The design and geometry of the rotors ensures a high level of durability. With the rotor fixing and drive outside of the pump chamber the rotors can have a completely flat continuous front and back face with no dead areas which eliminates the possibility of fibrous material becoming trapped and compacted. The mechanical seal design and seal face position eliminates dead areas and allows constant circulation of the media around the

faces which ensures that the risk of media entrapment and compaction is minimised.

The TORNADO® T2 all metal pumps can be manufactured from metals offering higher levels of cleanliness, corrosion or abrasion resistance and can therefore be applied to applications demanding the characteristics of these materials, especially in the low sanitary hygienic or chemical market sectors.

## Cost-effectiveness

### The first Rotary Lobe Pump with an elastomer liner reduces life cycle costs (LCC)

For the first time in a rotary lobe pump an elastomer liner is used for all media wetted surfaces of the pump chamber, which is both easy to replace in the event of servicing and significantly less expensive than replacing wear plates and housing parts.

By the correct and most appropriate choice of mating materials and the optimum sizing of the pump head interface geometry, especially with the rubber-metal pump, friction resulting in heat can be minimised. This results in both an energy saving and a longer life for consumable spare parts.

## NETZSCH TORNADO INFORMATION

### Functioning principle

The drive motor transmits power via a double-sided tooth belt which both drives and synchronises the pump shafts. If required, the drive can be used in conjunction with a frequency converter to achieve a specific flowrate or range of flowrates.

### Stability

#### A new application of tried and tested drive technology

An accident causing a complete write-off is inconceivable with this pump. We have replaced the timing gears which have to operate in a managed, maintained environment, with a robust and durable synchronising tooth belt drive. This gives smoothness of operation, load dampening, reduced energy loss and eliminates the need for oil. No more oil filling, draining, changing, leakages, spillage or disposal reduces down time and increases operation time and provides a cleaner, safer working environment.



Single tooth belt drive

The simple design of the timing tooth belt drive system reduces down-time for service; the result is that the pump is back on stream in less time, and with less components the pump is less prone to problems.

### Environmental awareness

#### TORNADO® T2 – the environment friendly pump

By incorporating a tooth belt drive the pump does not use any oil. There is no chance of any environmental pollution due to spillage or leakage. Our customers benefit from low noise levels and reduced heat in the working area around the pump which corresponds with less energy loss.

### Versatile combination – flexible installation – consistent pumping capacity



Both single and double tooth belt drive arrangements are available providing a wide range of speed reduction ratios.



If required a shaft extension for direct in line coupling to electric motor or diesel engine drive is available.



Power take off (PTO) shaft extension for drive from truck or tractor; twin shaft extensions available where reversible operation is required.



## TORNADO INFORMATION **NETZSCH**

### From GSS<sup>1</sup> to BSS<sup>2</sup>

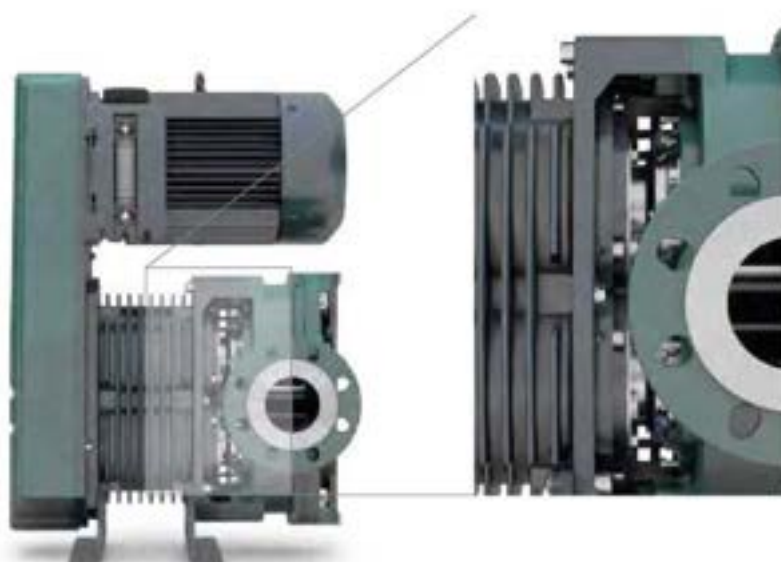
- No ingress of the media into the bearing housing in the event of seal failure
- Easy access to seal buffer/quench and barrier/flush connections
- Visual indicator of seal performance

1 GSS = Gearbox Security System

2 BSS = Bearing Security System

#### Drive options

A range of drive options are available to suit specific application and process requirements.



Design and position of mechanical seal: cartridge unit integral with rotor



- Uninterrupted and direct flow of media to and around seal faces
- Self draining, no dead areas, no wear of shafts the seal is mounted on an integrated rotor sleeve
- Easy assembly and disassembly

### Mechanical seal selection for TORNADO<sup>®</sup> T2

A pump is only as reliable as its seals. Therefore a range of seals and seal materials are available for the new TORNADO<sup>®</sup> T2. All seals are of a cartridge design and fit into a common housing allowing for seal upgrades without modification. The seals are positioned with the seal faces directly in the flowpath through the pump chamber.

**Mechanical seal typically used for agricultural and environmental applications**



Single

**Mechanical seal typically used for industrial and general process applications**



Single



Single for buffer or quench



Double for barrier or flush

# NETZSCH TORNADO INFORMATION



Feed pump for substrate in a biogas plant. Flowrate up to 40 m<sup>3</sup>/h at pressures up to 2 bar.



The TORNADO® T1 in use in a paper mill. Kaolin tankers are unloaded at 75 m<sup>3</sup>/h against a pressure of up to 4 bar.



Used in a wastewater treatment plant, the TORNADO® T2 pumps sludge with 2% solid content at a capacity up to 18 m<sup>3</sup>/h against a pressure up to 2 bar.

### Broad application spectrum

TORNADO® rotary lobe pumps can be used for media that has the following characteristics:

- Abrasive, corrosive and fibrous
- Containing solids (max. particle size up to 70 mm)
- Low to high viscosity
- Shear sensitive
- Non-lubricating and lubricating

### Wide capacity and pressure range

- Flowrates up to 1,000 m<sup>3</sup>/h
- Pressures up to 10 bar

Design versions: The TORNADO® modular system, the optimum solution for every application requirement

TORNADO® pumps are able to transfer media containing solids and fibrous matter. Waste water and sludge can be moved quickly and efficiently whenever and wherever required. Whatever the process the TORNADO® range of

sizes, specifications and materials allows a customised solution for all applications. TORNADO® pumps can be mounted on baseplates, trolleys or with a range of drives available include electric motors, diesel engines and hydraulic motors.





## TORNADO INFORMATION **NETZSCH**

Accessories to increase the operational safety of both pump and plant and to prevent downtimes

### Dry running protector

The dry running protection units (STP2A, STP2D) for use with the Tornado rotary lobe pumps operate by monitoring the temperature between rotor and rotor case during normal operation. Should the operating temperature rise over a predetermined set point due to an increase in friction caused by dry running the unit will shut down the pump, thus preventing any damage to the rotor case liner and rotor. The unit controller can be set for two different switch temperatures. For example the first set temperature could be used for the normally pumped media and the second for a different media temperature, for instance for a cleaning fluid process.

### Frequency converter

For varying speed and flowrates a frequency converter is available

### Over pressure protection

Bypass line with relief valve for over pressure protection

### Quench pot for single mechanical seals

A quench pot is necessary when the shaft seals need to be operated with a quench, but it is not required that the seal is continuously flushed. The provision of a quench pot would be recommended to prevent dry running of the seals or crystallisation of the pumped media.

### Pressurised flush for double mechanical seals

A double mechanical seal must be used in conjunction with a system providing a pressurised flush or thermo-siphon system. The pressurised flush is required to lubricate the seals, cool the seals and seal area and flush contaminants from the seal chamber. The flush liquid should be compatible with the pumped media, lubricating and have a high specific heat capacity.

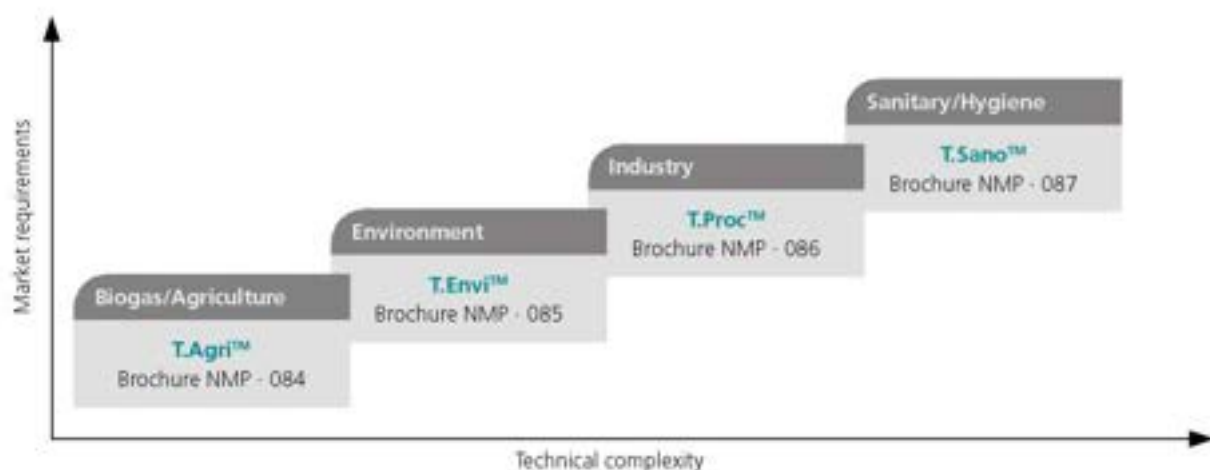
The pressure of the flush should be 2bar above the pressure acting on the inboard seal from the pump chamber and flow rate of the flush must also be controlled.



# NETZSCH TORNADO INFORMATION

Our product philosophy – your benefit: the best pump for your application

The TORNADO® rotary lobe pump is available in four series with each series offering features and specifications meeting specific market needs.





# TORNADO INFORMATION **NETZSCH**

## Hydraulic Coverage

RANGE	MODEL	FLOWRATE AT NOMINAL SPEED RANGE (THEORETICAL)		SPEED (NOMINAL) RECOMMENDED RANGE RPM	DISCHARGE PRESSURE (MAX) CONTINUOUS/ INTERMITTENT		FLANGE CONNECTIONS	
		APPROX GPM	APPROX M <sup>3</sup> /H		PSI	BAR	IN	MM
T2	08/45	35 to 172	8 to 39	100 to 500	120/150	8/10	3	80
T2	06/70	53 to 255	12 to 58	100 to 500	90/120	6/8	4	100
T2	08/100	70 to 361	16 to 82	100 to 500	120/15	8/10	5	125
T2	06/140	106 to 524	24 to 119	100 to 500	90/120	6/8	5	125



# NETZSCH TORNADO INFORMATION

## TORNADO<sup>®</sup> T2

MODELS 08/45, 06/70, 08/100 & 06/140

### T.Agri, T.Envir and T.Proc

- Elastomer/metal pump head
- Elastomer vs. metal throughout the pump cycle
- Replaceable liners
- DIN/ANSI integral flanged connections
- Front loading seals mounted directly in flow path
- Type A single and single quench
- Flowrates 35 to 525 gpm/8 to 119m<sup>3</sup>/hr
- Pressures to 145psi/10bar
- Temperature up to 212°F/100°C

### T.Proc and T.Sano

- Metal pump head
- DIN/ANSI integral flanged connections
- Front loading seals mounted directly in flowpath
- Type I single, single quench and double flush
- Flowrates 35 to 525 gpm/8 to 119m<sup>3</sup>/hr
- Pressures to 145psi/10bar
- Temperature up to 212°F/100°C
- CIP able for visual cleanliness





# PERISALTIC HOSE PUMPS

**ABAQUE**

PAGE  
468





## ABAQUE

A peristaltic hose pump is a type of sealless positive displacement pump that has rollers or shoes that squeeze a tube or hose as they rotate. The squeezing action moves the liquid along the tube and creates the pumping action.

Peristaltic hose pumps are used in many applications such as mining, wineries, ceramics, mineral processing, chemical and water treatment plants. Peristaltic hose pumps are excellent for pumping slurries and abrasive or solid laden liquids.

Peristaltic hose pumps are one of the few types of pumps in which the fluid being transported does not come into direct contact with any parts of the pumping mechanism. Peristaltic hose pumps also require very low NPSH so they are great for suction lift or restricted suction applications.

### Pump With Confidence

The terms vacuum or suction are commonly used to indicate a pressure below normal atmospheric pressure (14.7 psia). Vacuum is often expressed as the difference in measured system pressure and atmospheric pressure.

### Durable

Ductile iron and steel construction allow higher discharge pressures to 217.5 psi (15 bar). Its solid construction and advanced design also reduce maintenance and repairs.

### Principle of Operation

Pumping action is achieved by compression of a circular loop of elastomeric hose with two diametrically opposed rotating shoes. This rotational motion forces the fluid in the hose to move ahead of each shoe. When each shoe reaches the end of the loop, the reinforced tube immediately returns to its original shape, thereby ensuring suction and priming. The pump housing is partially filled with lubricant, aiding smooth running of the shoes on the hose. The inside of the hose and hose inserts are the only pieces of equipment in contact with pumped fluids, allowing aggressive and contaminated fluids to be pumped.



### Reliable

The Blackmer Abaque Series pump is self-priming to 29.5 ft (9 metres) manometric lift. This pump is able to run dry continuously without detrimental effects. The pump is capable of running in forward or reverse.

### Seal Free

Seal free design eliminates leaks and contamination. Fluids are contained within the hose. The hose is the primary maintenance component.

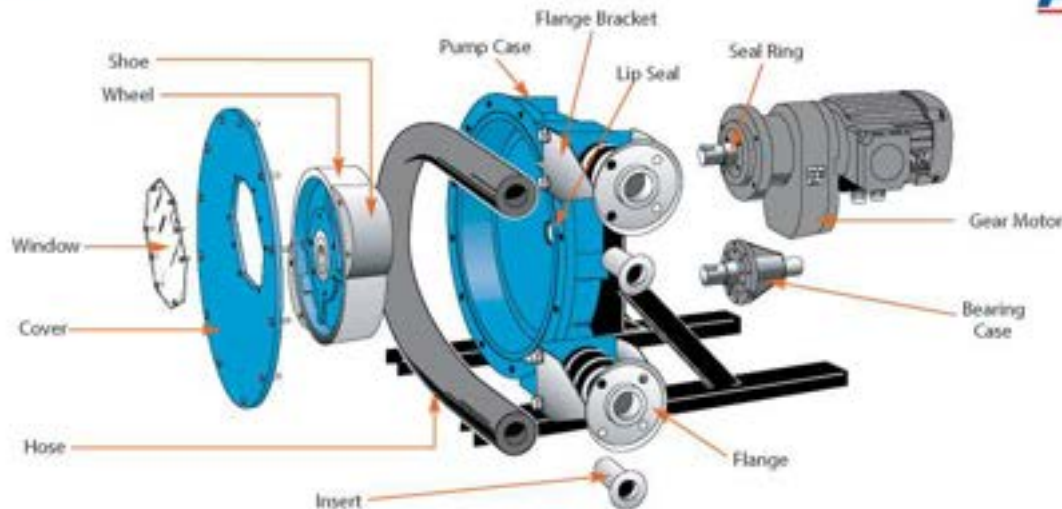


### Applications

- Chemical process industry
- Food industry
- Industrial and municipal water treatment
- Paints and coatings
- Filter press equipment
- Ceramics
- Mining






**BLACKMER ABAQUE SERIES PUMP CONSTRUCTION**

Pump Case	Ductile iron
Wheel	Ductile iron
Shoes	Aluminium or cast iron
Cover	Steel and Polycarbonate
Flange and brackets	Stainless steel - ANSI or DIN
Hoses	Natural rubber, Buna (NBR) or EPDM
Hoses inserts	Stainless steel (std.), PPH or PVDF

## Hoses

The following hoses are available for use in the Abaque Series pump:

- Natural rubber: Highly resilient with excellent abrasion resistance and strength. Generally resistant to diluted acids and alcohols.
- Buna (NBR): Highly wear resistant to oily products.
- EPDM: High chemical resistance, especially with concentrated acids, alcohols and ketones.
- Hypalon

## Options

The Abaque Series pump is available in 10 different sizes, ranging from flow rates of .07 to 290 gpm (15 to 66,000 litres/h). Choose close-coupled or bareshaft models.

Also available:

- Leak detector
- Vacuum assist
- Non-metallic inserts (PPH, PVDF)



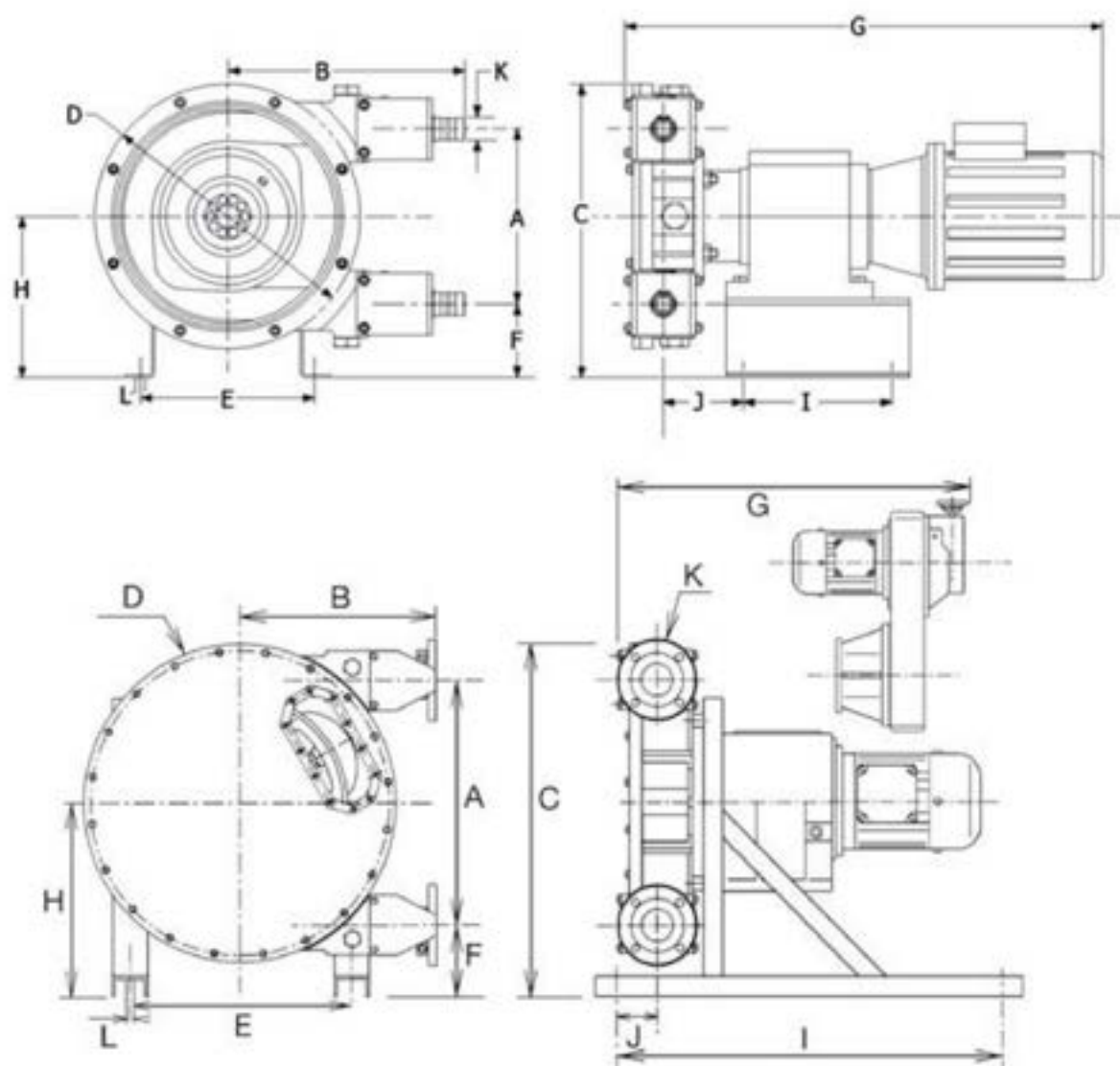
Close-Coupled A40



Long-Coupled AS125

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A10	0.10 (0.44)	0.13 (57)	12000	(0.63")	10mm	Barbed Hose
A15	0.58 (2.55)	0.75 (3.30)	25000	(0.78")	20mm	Barbed Hose
A20	0.58 (2.55)	0.75 (3.30)	25000	(0.98")	25mm	Barbed Hose
A25	1.66 (7.31)	2.66 (11.71)	20000	(1")	DN25	Flanged
A32	4.65 (20.47)	7.23 (31.83)	25000	(1-1/4")	DN32	Flanged
A40	4.65 (20.47)	7.23 (31.83)	25000	(1-1/2")	DN40	Flanged
AX40	6.40 (28.18)	9.60 (42.47)	20000	(1-1/2")	DN40	Flanged
A50	12.10 (53.27)	18.20 (80.13)	40000	(2")	DN50	Flanged
A65	12.10 (53.27)	18.20 (80.13)	40000	(2-1/2")	DN65	Flanged
AX65	12.10 (53.27)	18.20 (80.13)	40000	(2-1/2")	DN65	Flanged
AX80	21 (93)	37 (164)	49000	(3")	DN80	Flanged
A80	26 (114)	39 (171)	28200	(3")	DN80	Flanged
A100	36 (158)	54 (237)	31200	(4")	DN100	Flanged
A125	44 (193.72)	77 (339.01)	34500	(5")	DN125	Flanged

## Dimensions



PUMP	A	B	C	D	E	F <sup>1</sup>	G <sup>1</sup>	H <sup>1</sup>	I	J <sup>1</sup>	K <sup>2</sup>	L	M	N	WEIGHT <sup>3</sup> (kg)
A10	115	196	272	190	190	120	605	177	170	80	16	9	147	105	15
A15	192	259	325	290	190	81	650	177	170	84	25	9	181.5	165	25
A20	192	259	325	290	190	81	650	177	170	84	25	9	181.5	165	25
A25	262	309.5	415	380	220	94	835	225	570	96	25	15	205.5	195	56
A32	330	381	524	476	315	121	1,020	286	660	129	40	15	272.5	256	102
A40	330	381	524	476	315	121	1,020	286	660	129	40	15	272.5	256	102
AX40	430	415.5	616	582	340	110	865	325	950	90	40	15	254.5	280	130
A50	554	455	802	720	509	165	1,060	442	950	155	65	19	317	397	244
A65	554	455	802	720	509	165	1,060	442	950	155	65	19	317	397	244
AX65	554	455	802	720	509	165	1,060	442	950	155	65	19	317	397	244
AX80	746	582	1,004	946	580	158	1,250	531	1,100	120	80	19	400	481	457
A80	876	730.5	1,255	1,110	690	262	1,435	700	1,300	205.5	80	28	451	640	790
A100	1,040	817	1,505	1,370	820	300	1,500	820	1,900	295	100	28	572	760	963
AS125	1,280	960	1,685	1,570	1,000	260	NA <sup>4</sup>	900	1,750	318	125	28	675	830	1,481



OPERATING LIMITS		
Maximum Temperature		80°C (176°F) absolute maximum. Temperature of pumped fluid is limited by hose liner material. NR Natural Rubber 70°C (158°F) NBR Nitrile Buna Rubber 70°C (158°F) EPDM Ethyl Propylene Rubber 80°C (176°F) Rpm (thus flow) is limited by temperature above 40°C (104°F). Please consult performance curves for specific rpm limitations.
Minimum Temperature		-20°C (-4°F) Please consult IOM manual.
Maximum Viscosity		1,800 to 35,000 cP depending on pump size, rpm, and presence or not of vacuum assist. Please consult performance curves for specific effects.
Maximum Working Pressure	Sizes 10 and 20	8 bar (116 psi)
	Sizes 25 to 125	15 bar (217.5 psi) with proper shimming. Please consult IOM manual.
Maximum Self-priming Lift		9 metres (29.5 ft) manometric lift. Actual lift is dependent on system installation, pumped fluid, and temperature.

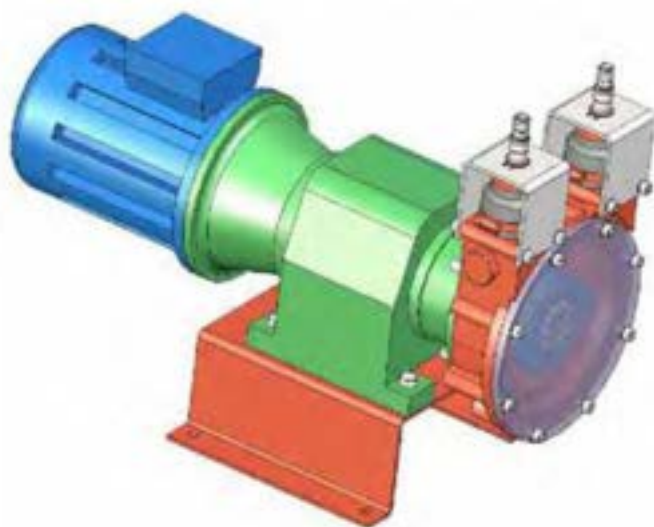
NOTE: Materials, pipe connections, and operating limits for type A (close coupled) and type AS (long coupled w/ bearing box) are the same unless noted otherwise.

PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
Pump Body (#1)	Ductile Iron (GJS 400.18)	
Cover (#2) (Size 10 and 20)	Polycarbonate	
Cover (#2) (Size 25)	Steel (24.1) w/ Polycarbonate window	
Cover (#2) (Size 40 to 125)	Steel (S235JRG2) w/ Polycarb window	
Wheel (#3) (All except 25)	Ductile Iron (GJS 400.18)	
Wheel (#3) (25)	Ductile Iron (GJS 400.18+D41)	
Shoe (#5) (Size 25 to 80)	Aluminium Alloy	Cast Iron (GJL 250)2
Shoe (#5) (Size 100 and 125)	Cast Iron (GJL 250)	
Boot (#6)	EPDM	
Insert (#12)	316L Stainless Steel	PPH, PVDF
Lubricant (#14)	Glycerin Compound	
Hose (#16)	Natural Rubber (NR) hose with Polyamide reinforcement and NR liner.	Hose liner options: Buna (NBR), EPDM
Flange Bracket (#18)	304 Stainless Steel	
Hub (#19/20)	Cast Iron	
Frame (#21) (A10 and A20 only)	304 Stainless Steel	
Frame (#21) (AS10, AS20 and all others)	Steel (S235JRG2)	
Flange (#47)	304 Stainless Steel	
Screws, Nuts, Washers	304 Stainless Steel	
O-rings and Lip Seals	FKM (Fluorocarbon)	
<b>Bearing Housing for "AS" Type Pumps</b>		
Bearings	Steel	
Housing (#101)	Cast Iron (GJL 250)	
Shaft (#102)	Steel (42CrMo4)	
Lubricant	Grease	
Paint	Blue RAL 5010 50-70µm	

1 May affect lead time. Please consult factory.

2 Please consult factory for availability and lead time of optional iron shoes for any given model size.

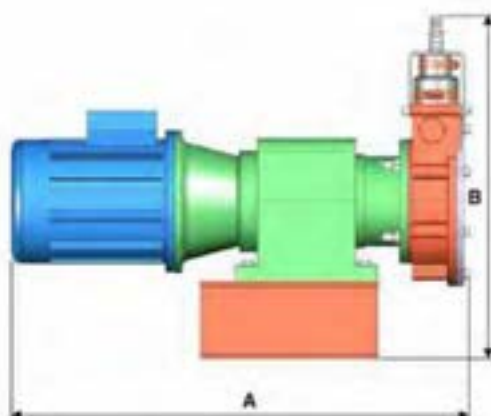
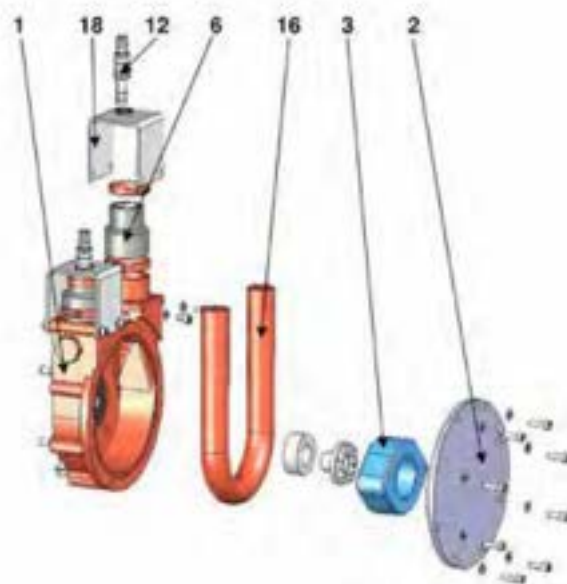
# ABAQUE A10



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	135 (0.46) (1)	
Ports	Nipples	

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	12000 (55500)	
Maximum differential pressure bar (psi)	8 (116)	
Maximum speed rpm	90 (1)	
Maximum solid particle size mm (in)	1.5 (0.06)	
Maximum soft particle size mm (in)	2.5 (0.10)	

PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Polycarbonate	
3	Wheel	Ductile Iron	
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
	Bolts, screws, washers	316L stainless steel	



	DIMENSIONS MM (IN.)
A	645 (25.4)
B	385 (15.16)
C	115 (4.53)
D	225 (8.86)

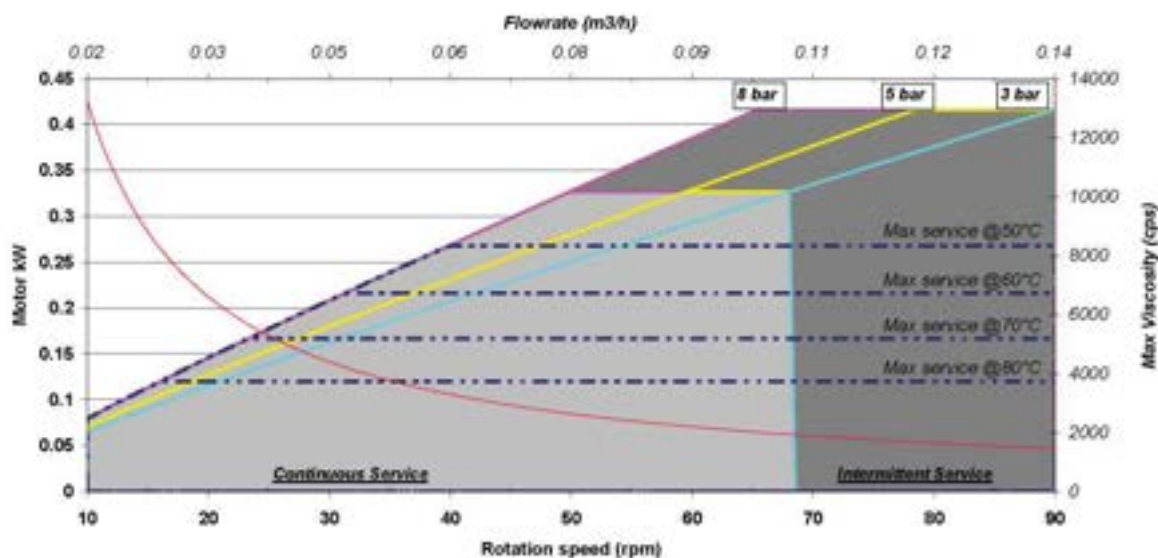


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A10	0.10 (0.44)	0.13 (57)	12000	(0.63")	10mm	Barbed Hose

FLOW RATES		10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	70 RPM	80 RPM	90 RPM	MAXIMUM DISCHARGE PRESSURE
A10	m <sup>3</sup> /hr GPH	0.015 0.07	0.030 0.13	0.045 0.20	0.060 0.26	0.075 0.33	0.090 0.40	0.105 0.46	0.120 0.53	0.135 0.59	116 PSI 8.0 Bar

## Performance Curve



### Instructions for use of this curve:

1. Determine if viscosity exceeds 1800 Cps.
2. If yes, move left until the red viscosity line is intersected.
3. Move down to read the maximum possible rpm for the fluid's viscosity.
4. Determine the maximum pressure for your application.
5. Move vertically from selected rpm to the pressure line greater than the required pressure.
6. Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

### Examples:

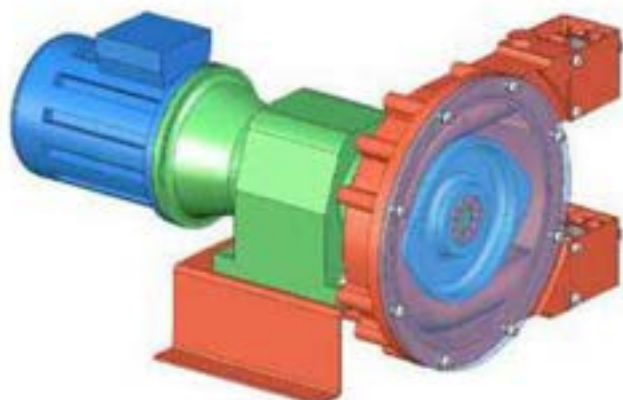
Max continuous rpm at 8 bar is 50 rpm  
 Max continuous rpm at 5 bar is 58 rpm  
 Max continuous rpm at 60° C & 5 bar is 37 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

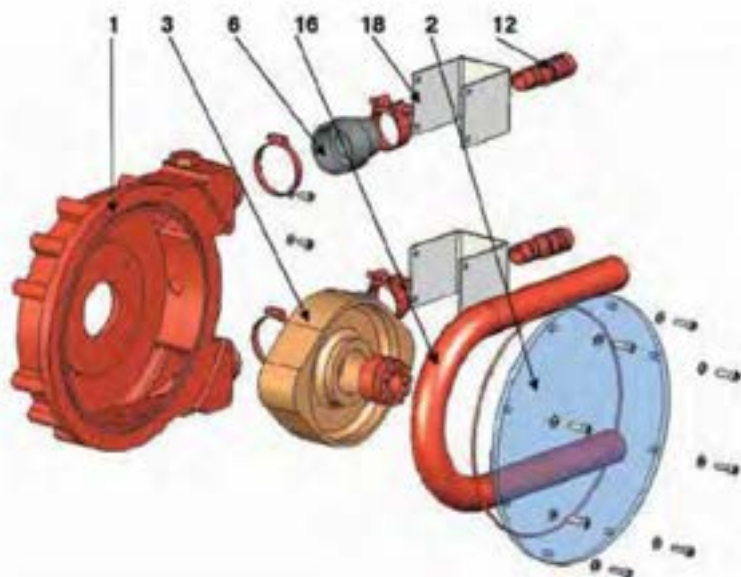
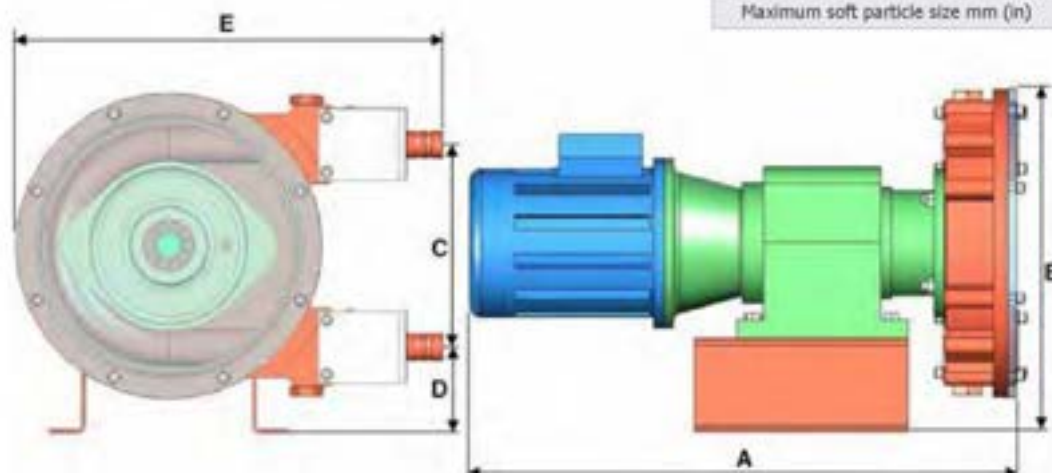


# ABAQUE A15



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	750 (3.3) (1)	
Ports	Nipples	

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	25000 (116000)	
Maximum differential pressure bar (psi)	8 (116)	
Maximum speed rpm	90 (1)	
Maximum solid particle size mm (in)	3 (0.12)	
Maximum soft particle size mm (in)	5 (0.20)	



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Polycarbonate	
3	Wheel	Ductile Iron	
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
	Bolts, screws, washers	316L stainless steel	

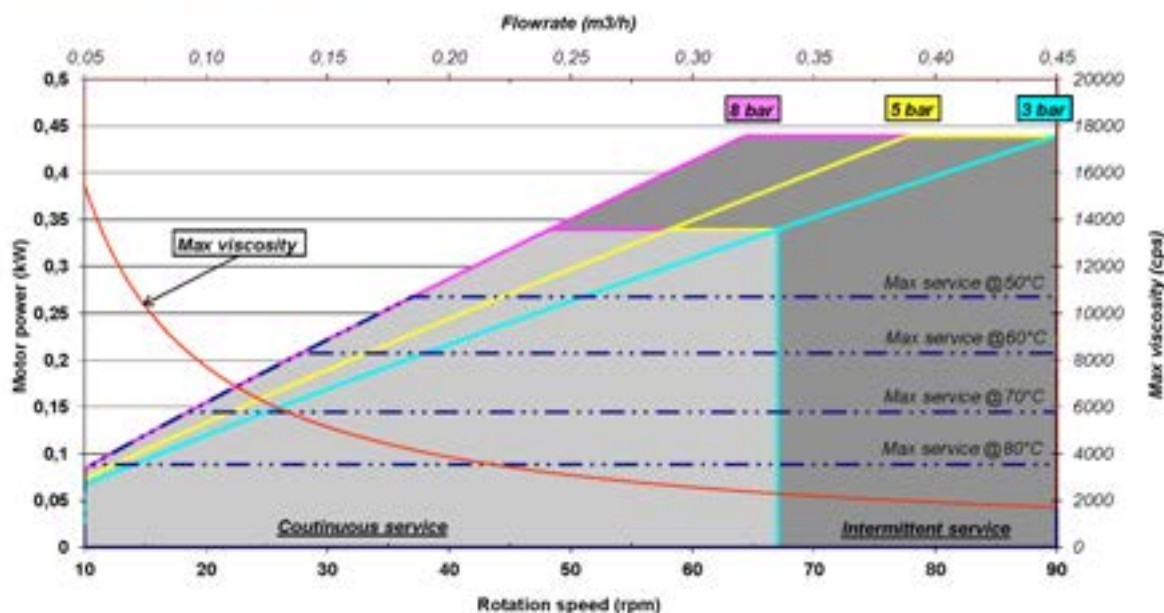


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A15	0.58 (2.55)	0.75 (3.30)	25000	(0.98")	25mm	Barbed Hose

FLOW RATES		10	20	30	40	50	60	70	80	90	MAXIMUM DISCHARGE PRESSURE
		RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	
A15	m <sup>3</sup> /hr	0.050	0.100	0.150	0.200	0.250	0.300	0.350	0.400	0.450	116 PSI 8.0 Bar
	GPM	0.22	0.44	0.66	0.88	1.10	1.32	1.54	1.76	1.98	

## Performance Curve



### Instructions for use of this curve:

1. Determine if viscosity exceeds 2800 Cps.
2. If yes, move left until the red viscosity line is intersected.
3. Move down to read the maximum possible rpm for the fluid's viscosity.
4. Determine the maximum pressure for your application.
5. Move vertically from selected rpm to the pressure line greater than the required pressure.
6. Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

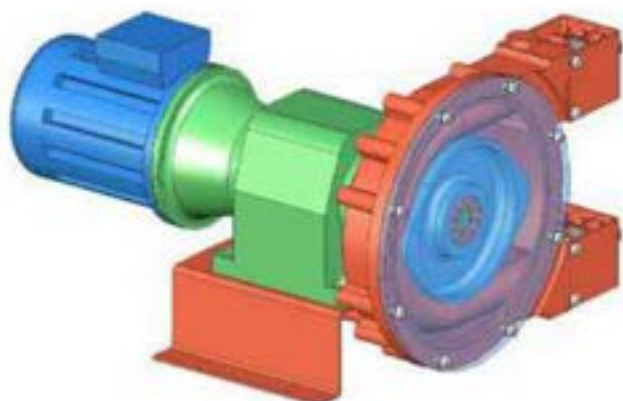
### Examples:

Max continuous rpm at 8 bar is 48 rpm  
 Max continuous rpm at 5 bar is 58 rpm  
 Max continuous rpm at 60° C & 5 bar is 36 rpm

\* Standard maximum product temperature is 40° F

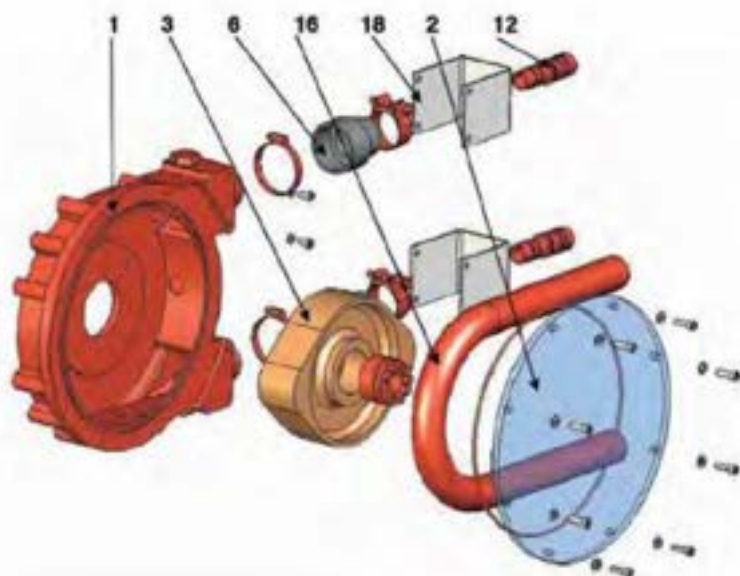
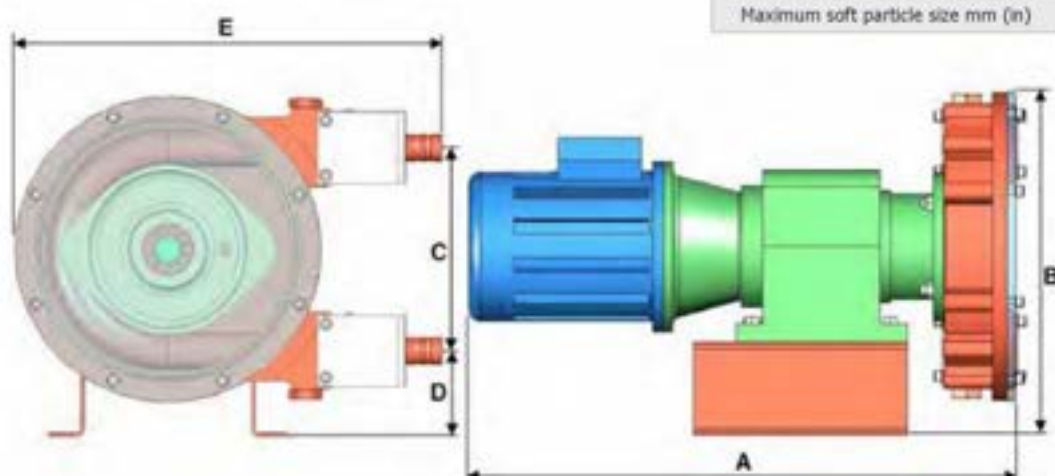
\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

# ABAQUE A20



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	750 (3.3) (1)	
Ports	Nipples	

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	25000 (116000)	
Maximum differential pressure bar (psi)	8 (116)	
Maximum speed rpm	90 (1)	
Maximum solid particle size mm (in)	3 (0.12)	
Maximum soft particle size mm (in)	5 (0.20)	



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Polycarbonate	
3	Wheel	Ductile Iron	
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
	Bolts, screws, washers	316L stainless steel	

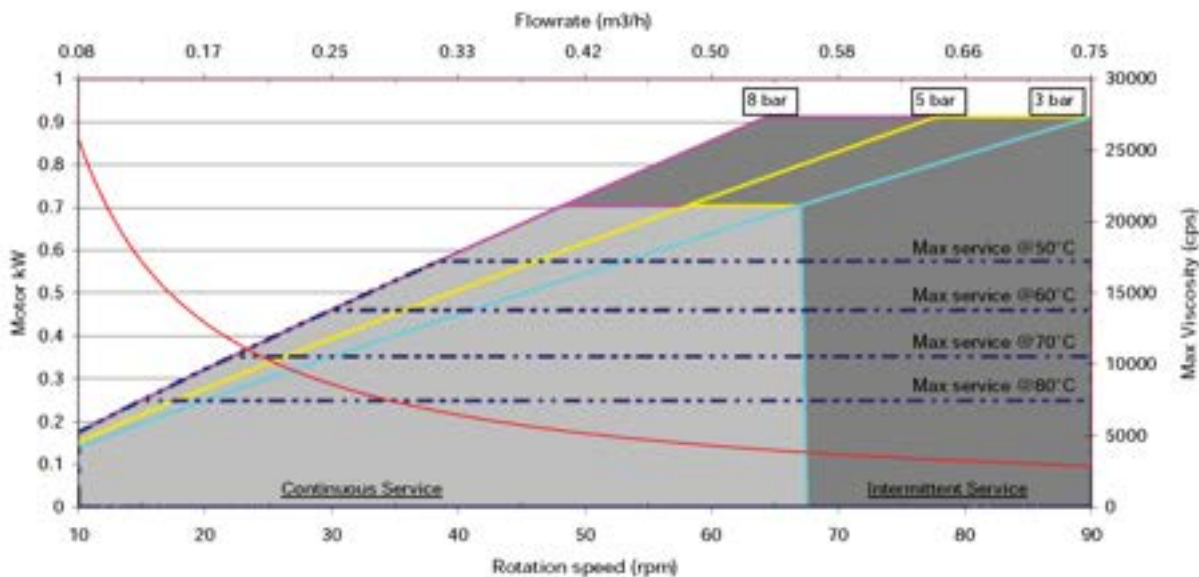


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A20	0.58 (2.55)	0.75 (3.30)	25000	(0.98")	25mm	Barbed Hose

FLOW RATES		10	20	30	40	50	60	70	80	90	MAXIMUM DISCHARGE PRESSURE
		RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	
A20	m <sup>3</sup> /hr	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	116 PSI 8.0 Bar
	GPM	0.37	0.73	1.10	1.47	1.83	2.20	2.57	2.93	3.30	

## Performance Curve



### Instructions for use of this curve:

1. Determine if viscosity exceeds 2800 Cps.
2. If yes, move left until the red viscosity line is intersected.
3. Move down to read the maximum possible rpm for the fluid's viscosity.
4. Determine the maximum pressure for your application.
5. Move vertically from selected rpm to the pressure line greater than the required pressure.
6. Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

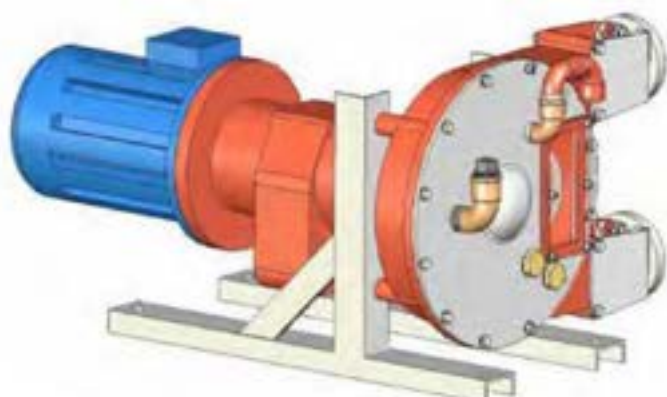
### Examples:

- Max continuous rpm at 8 bar is 48 rpm
- Max continuous rpm at 5 bar is 58 rpm
- Max continuous rpm at 60° C & 5 bar is 36 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

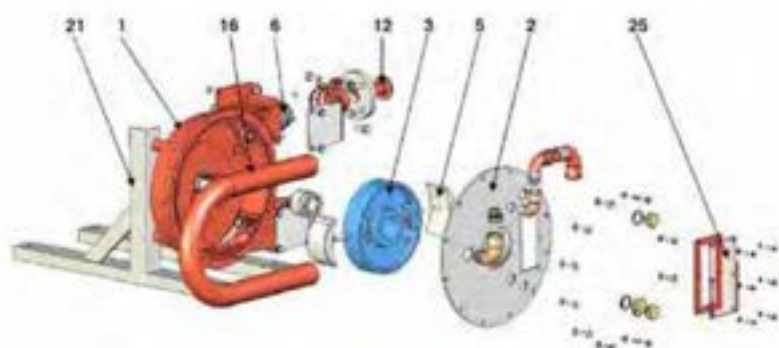
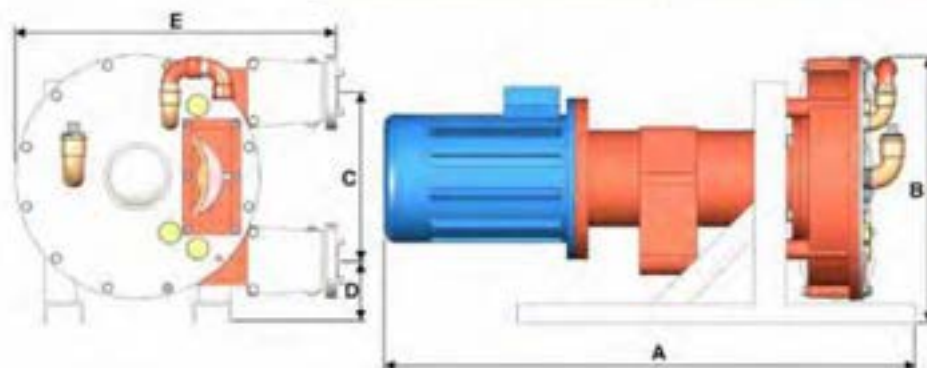
# ABAQUE A25



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	2600 (11.44) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	23000 (107000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	160 (1)	
Maximum solid particle size mm (in)	3.5 (0.14)	
Maximum soft particle size mm (in)	6 (0.24)	

DIMENSIONS MM (IN.)	
A	815 (32.09)
B	415 (16.34)
C	262 (10.32)
D	94 (3.7)
E	501 (19.72)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

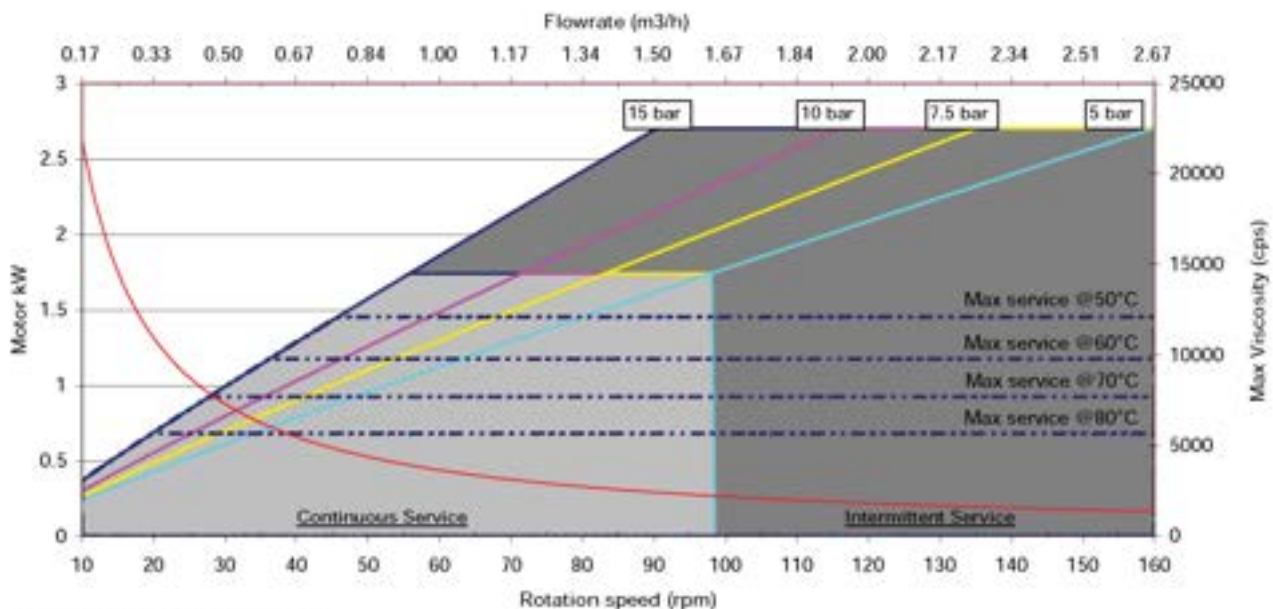


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A25	1.66 (7.31)	2.66 (11.71)	20000	(1")	DN25	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	70 RPM	80 RPM	90 RPM	100 RPM	110 RPM	120 RPM	130 RPM	140 RPM	MAXIMUM DISCHARGE PRESSURE
A25	0.17 0.73	0.33 1.47	0.50 2.20	0.67 2.93	0.83 3.67	1.00 4.40	1.17 5.13	1.33 5.87	1.50 6.60	1.67 7.33	1.83 8.07	2.00 8.80	2.17 9.53	2.33 10.27	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

1. Determine if viscosity exceeds 1400 Cps.
2. If yes, move left until the red viscosity line is intersected.
3. Move down to read the maximum possible rpm for the fluid's viscosity.
4. Determine the maximum pressure for your application.
5. Move vertically from selected rpm to the pressure line greater than the required pressure.
6. Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

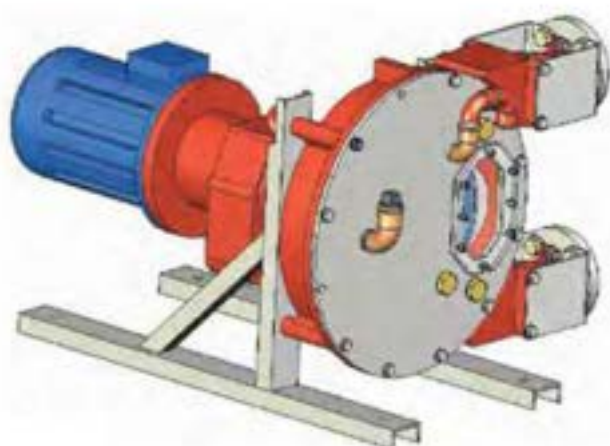
### Examples:

Max continuous rpm at 15 bar is 57 rpm  
 Max continuous rpm at 7.5 bar is 83 rpm  
 Max continuous rpm at 60° C & 10 bar is 46 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

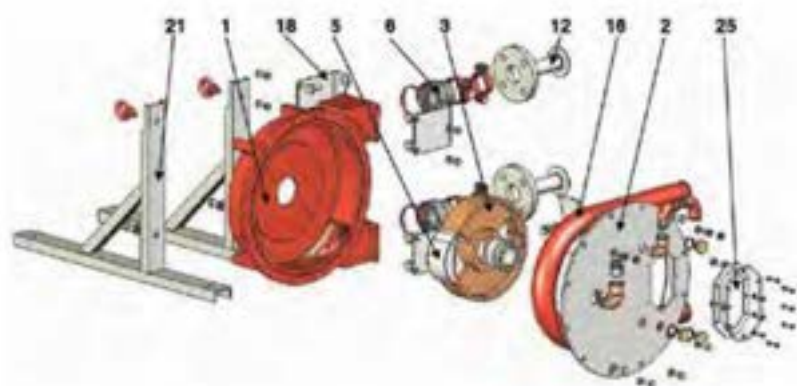
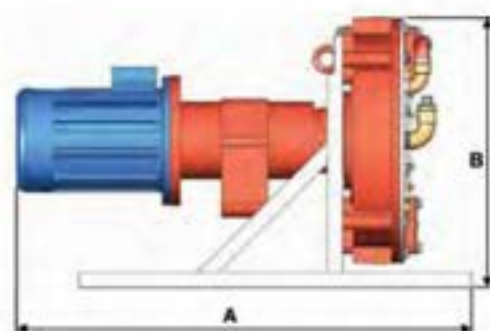
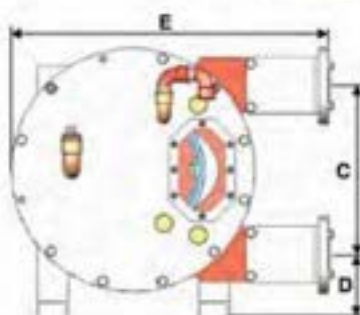
# ABAQUE A32



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	2600 (11.44) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	23000 (107000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	160 (1)	
Maximum solid particle size mm (in)	3.5 (0.14)	
Maximum soft particle size mm (in)	6 (0.24)	

	DIMENSIONS MM (IN.)
A	819 (32.25)
B	524 (20.63)
C	330 (12.99)
D	121 (4.76)
E	621 (24.45)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

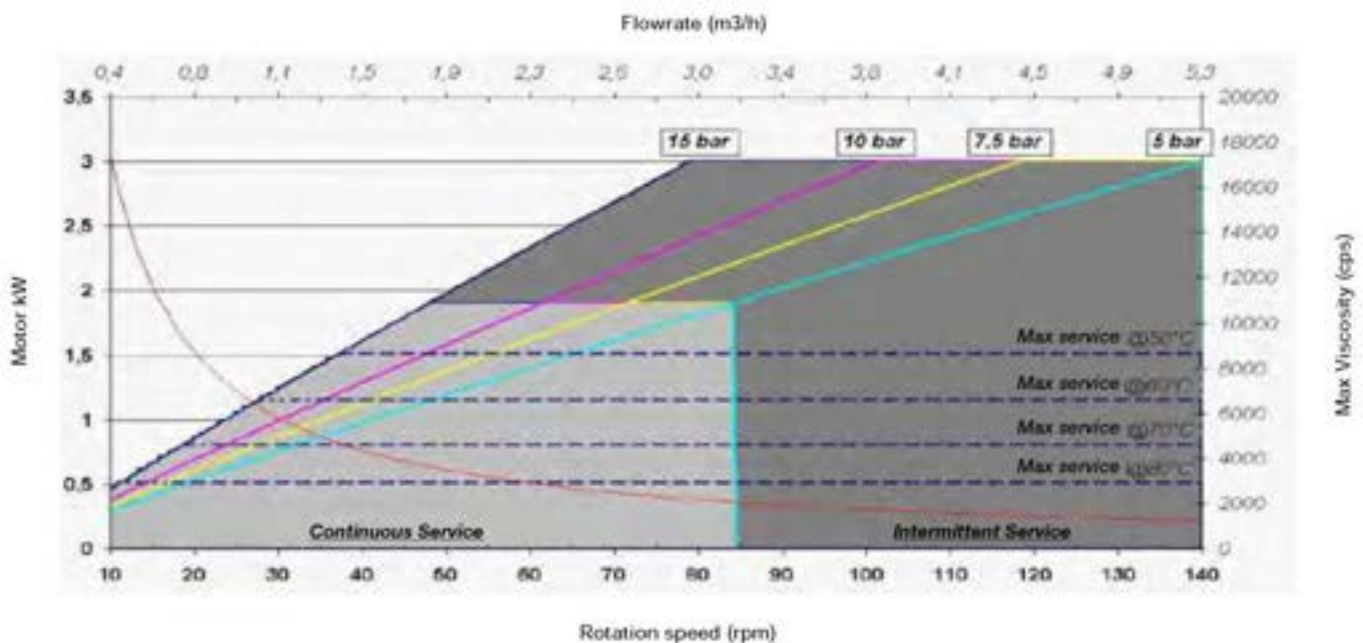


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A32	4.65 (20.47)	7.23 (31.83)	25000	(1-1/2")	DN40	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	70 RPM	80 RPM	90 RPM	100 RPM	110 RPM	120 RPM	130 RPM	140 RPM	MAXIMUM DISCHARGE PRESSURE
A32	0.38 1.65	0.75 3.30	1.13 4.95	1.50 6.60	1.88 8.25	2.25 9.90	2.63 11.6	3.00 13.2	3.38 14.9	3.75 16.5	4.13 18.2	4.50 19.8	4.88 21.5	5.25 23.1	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

1. Determine if viscosity exceeds 2000 Cps.
2. If yes, move left until the red viscosity line is intersected.
3. Move down to read the maximum possible rpm for the fluid's viscosity.
4. Determine the maximum pressure for your application.
5. Move vertically from selected rpm to the pressure line greater than the required pressure.
6. Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

### Examples:

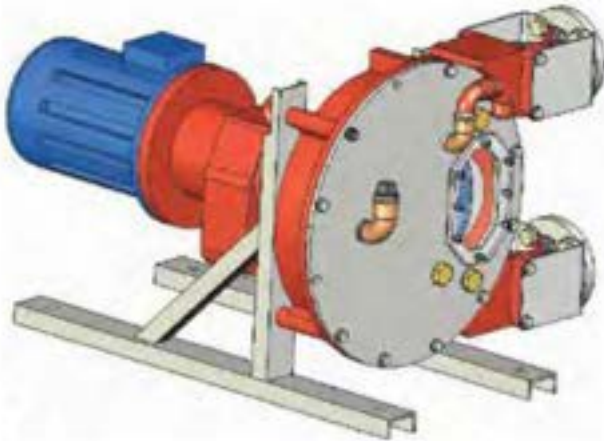
- Max continuous rpm at 15 bar is 48 rpm
- Max continuous rpm at 7.5 bar is 72 rpm
- Max continuous rpm at 60° C & 10 bar is 37 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop



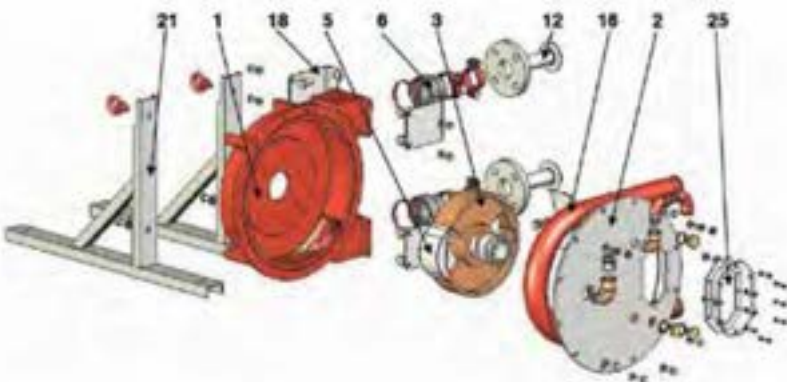
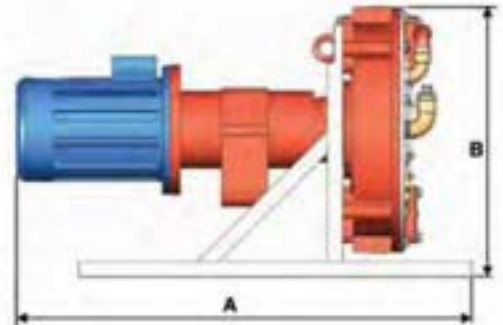
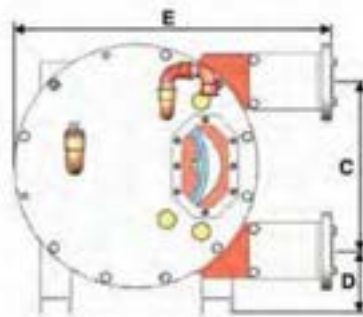
# ABAQUE A40



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	2600 (11.44) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	23000 (107000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	160 (1)	
Maximum solid particle size mm (in)	3.5 (0.14)	
Maximum soft particle size mm (in)	6 (0.24)	

	DIMENSIONS MM (IN.)
A	819 (32.25)
B	524 (20.63)
C	330 (12.99)
D	121 (4.76)
E	621 (24.45)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

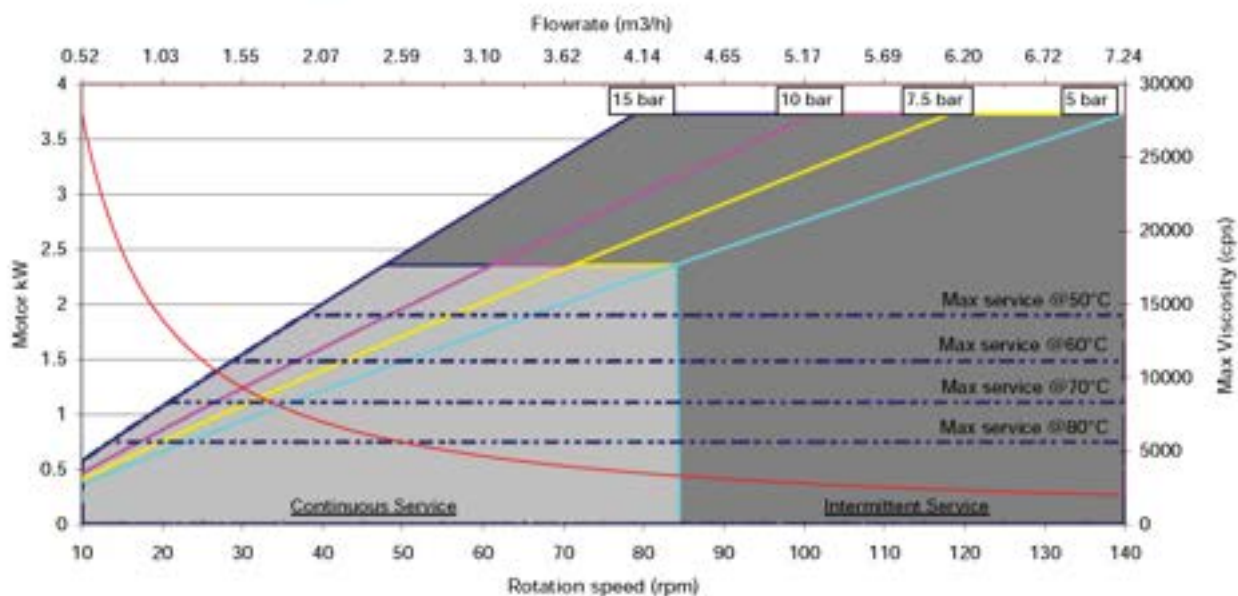


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A40	4.65 (20.47)	7.23 (31.83)	25000	(1-1/2")	DN40	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	70 RPM	80 RPM	90 RPM	100 RPM	110 RPM	120 RPM	130 RPM	140 RPM	MAXIMUM DISCHARGE PRESSURE
A40	0.52 2.3	1.03 4.5	1.55 6.8	2.07 9.1	2.59 11.4	3.10 13.6	3.62 15.9	4.13 18.2	4.65 20.5	5.17 22.7	5.68 25.0	6.20 27.3	6.72 29.6	7.23 31.8	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

1. Determine if viscosity exceeds 2000 Cps.
2. If yes, move left until the red viscosity line is intersected.
3. Move down to read the maximum possible rpm for the fluid's viscosity.
4. Determine the maximum pressure for your application.
5. Move vertically from selected rpm to the pressure line greater than the required pressure.
6. Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

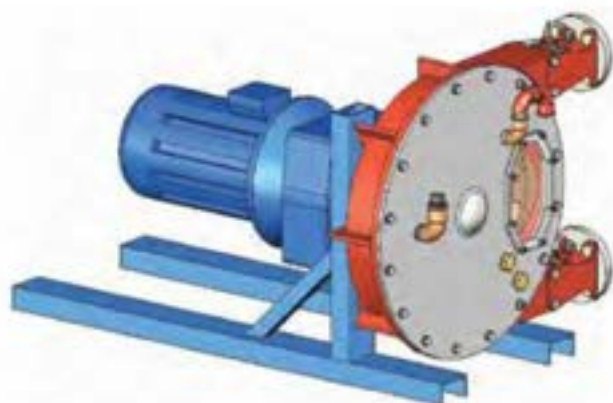
### Examples:

- Max continuous rpm at 15 bar is 48 rpm
- Max continuous rpm at 7.5 bar is 72 rpm
- Max continuous rpm at 60° C & 10 bar is 37 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

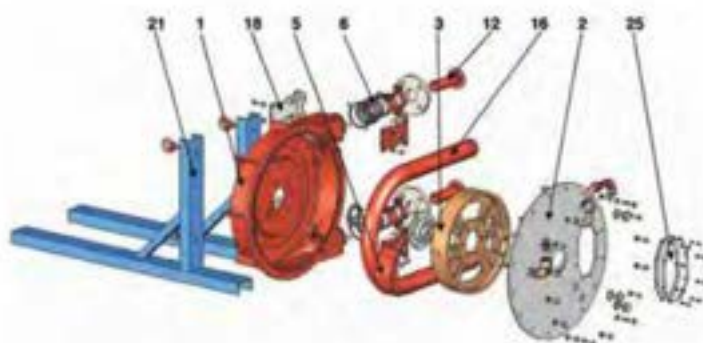
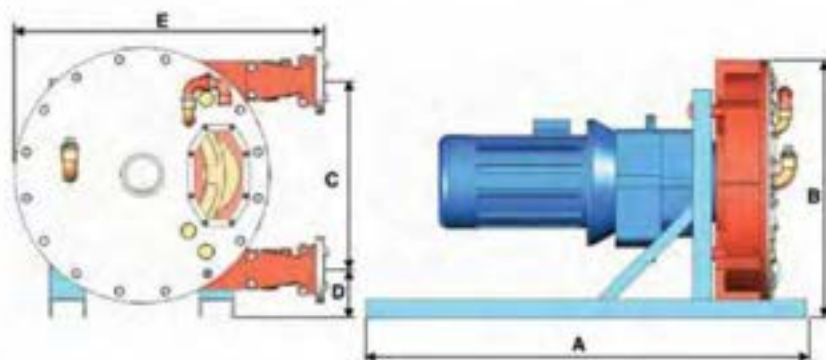
# ABAQUE AX40



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	2600 (11.44) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	23000 (107000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	160 (1)	
Maximum solid particle size mm (in)	3.5 (0.14)	
Maximum soft particle size mm (in)	6 (0.24)	

	DIMENSIONS MM (IN.)
A	1050 (42.34)
B	616 (24.25)
C	430 (16.93)
D	110 (4.33)
E	707 (27.83)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

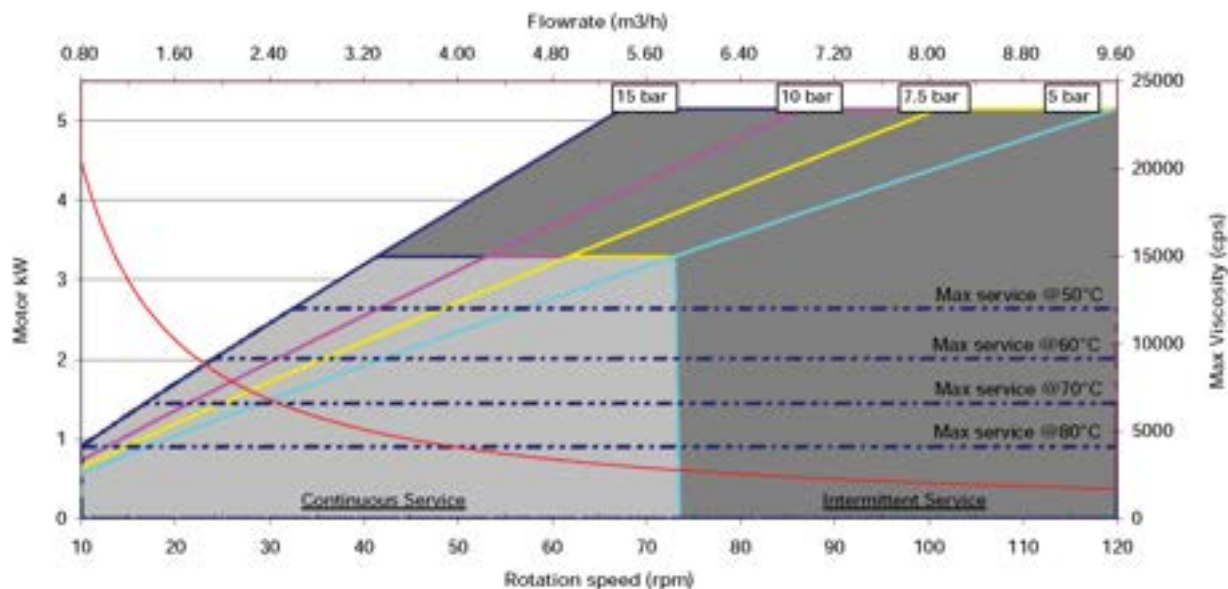


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
AX40	6.40 (28.18)	9.60 (42.47)	20000	(1-1/2")	DN40	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	70 RPM	80 RPM	90 RPM	100 RPM	110 RPM	120 RPM	MAXIMUM DISCHARGE PRESSURE
AX40	0.8 3.5	1.6 7.0	2.4 10.6	3.2 14.1	4.0 17.6	4.8 21.1	5.6 24.6	6.4 28.2	7.2 31.7	8.0 35.2	8.8 38.7	9.6 42.2	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

- Determine if viscosity exceeds 1700 Cps.
- If yes, move left until the red viscosity line is intersected.
- Move down to read the maximum possible rpm for the fluid's viscosity.
- Determine the maximum pressure for your application.
- Move vertically from selected rpm to the pressure line greater than the required pressure.
- Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

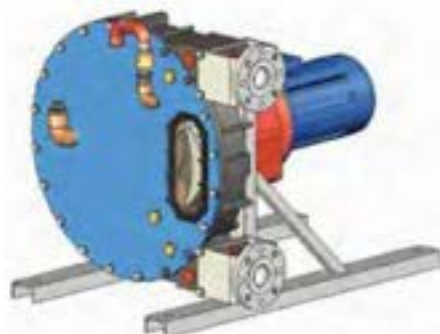
### Examples:

- Max continuous rpm at 15 bar is 42 rpm
- Max continuous rpm at 7.5 bar is 62 rpm
- Max continuous rpm at 60° C & 10 bar is 31 rpm

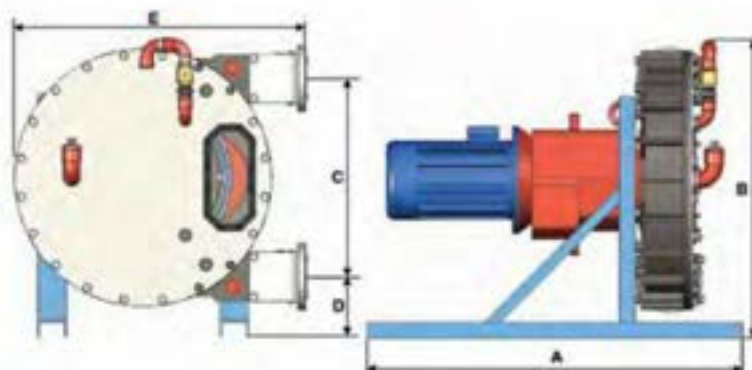
\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

# ABAQUE A50

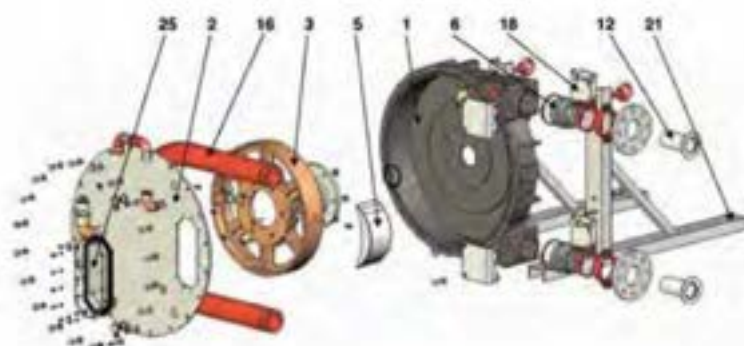


	DIMENSIONS MM (IN.)
A	1050 (41.34)
B	832 (32.76)
C	554 (21.81)
D	165 (6.50)
E	815 (32.09)



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	2600 (11.44) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	40000 (185000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	90 (1)	
Maximum solid particle size mm (in)	9 (0.35)	
Maximum soft particle size mm (in)	16 (0.63)	



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

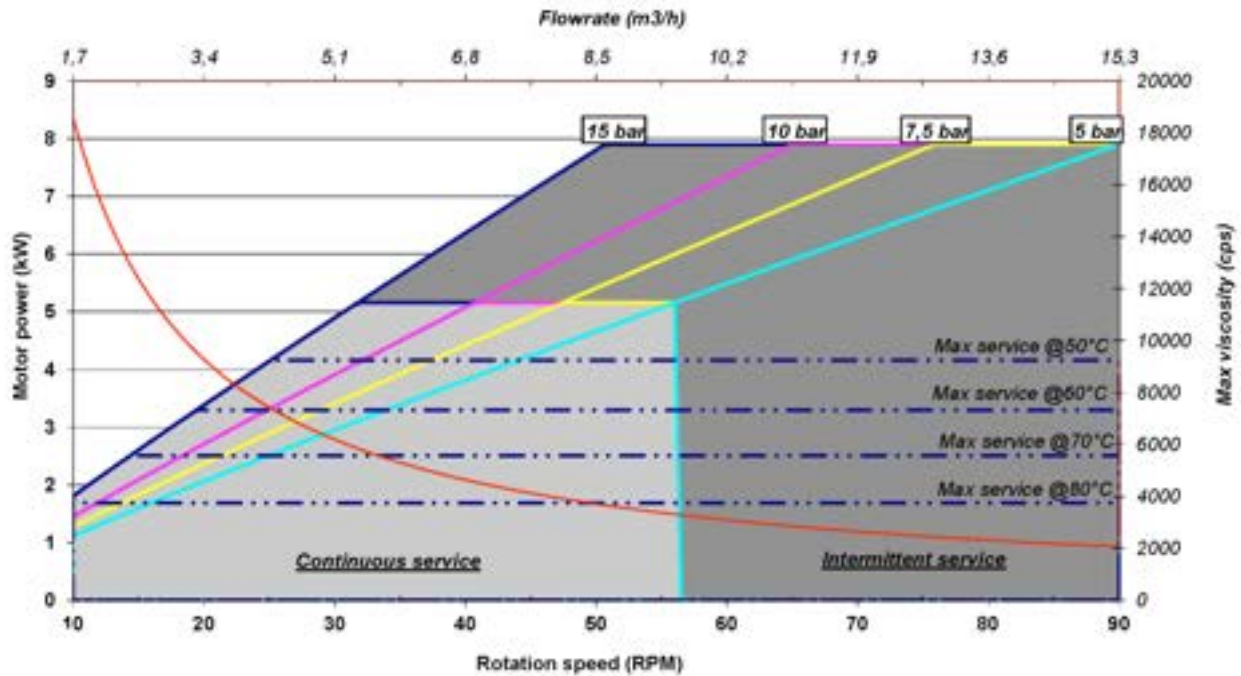


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A50	12.10 (53.27)	18.20 (80.13)	40000	(2-1/2")	DN65	Flanged

FLOW RATES		10	20	30	40	50	60	70	80	90	MAXIMUM DISCHARGE PRESSURE
		RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	
A50	m <sup>3</sup> /hr	1.7	3.4	5.1	6.8	8.5	10.2	11.9	13.6	15.3	217 PSI 15.0 Bar
	GPM	7.5	15.0	22.4	29.9	37.4	44.9	52.4	59.8	67.3	

## Performance Curve



### Instructions for use of this curve:

- Determine if viscosity exceeds 3400 Cps w/o vacuum assist; 4500 Cps w/vacuum assist (requires additional equipment).
- If yes, move left until the red viscosity line is intersected.
- Move down to read the maximum possible rpm for the fluid's viscosity.
- Determine the maximum pressure for your application.
- Move vertically from selected rpm to the pressure line greater than the required pressure.
- Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

### Examples:

Max continuous rpm at 15 bar is 32 rpm  
 Max continuous rpm at 7.5 bar is 48 rpm  
 Max continuous rpm at 60° C & 10 bar is 26 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

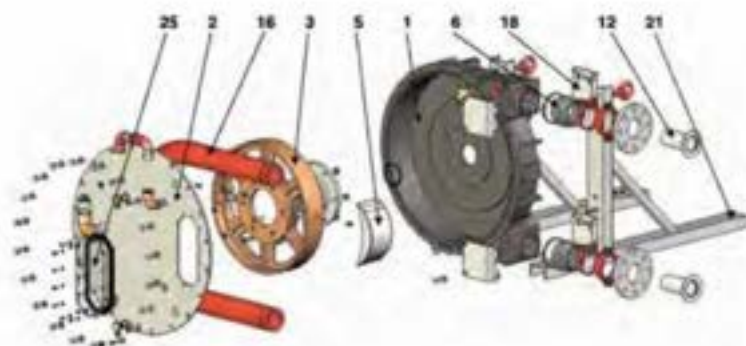
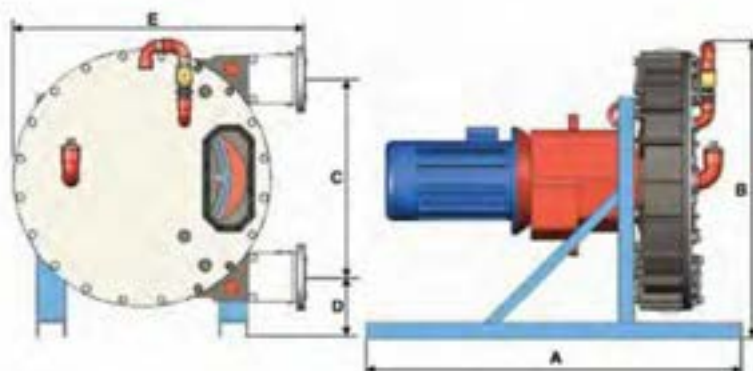
# ABAQUE A65



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	2600 (11.44) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	40000 (185000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	90 (1)	
Maximum solid particle size mm (in)	9 (0.35)	
Maximum soft particle size mm (in)	16 (0.63)	

DIMENSIONS MM (IN.)	
A	1050 (41.34)
B	832 (32.76)
C	554 (21.81)
D	165 (6.50)
E	815 (32.09)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

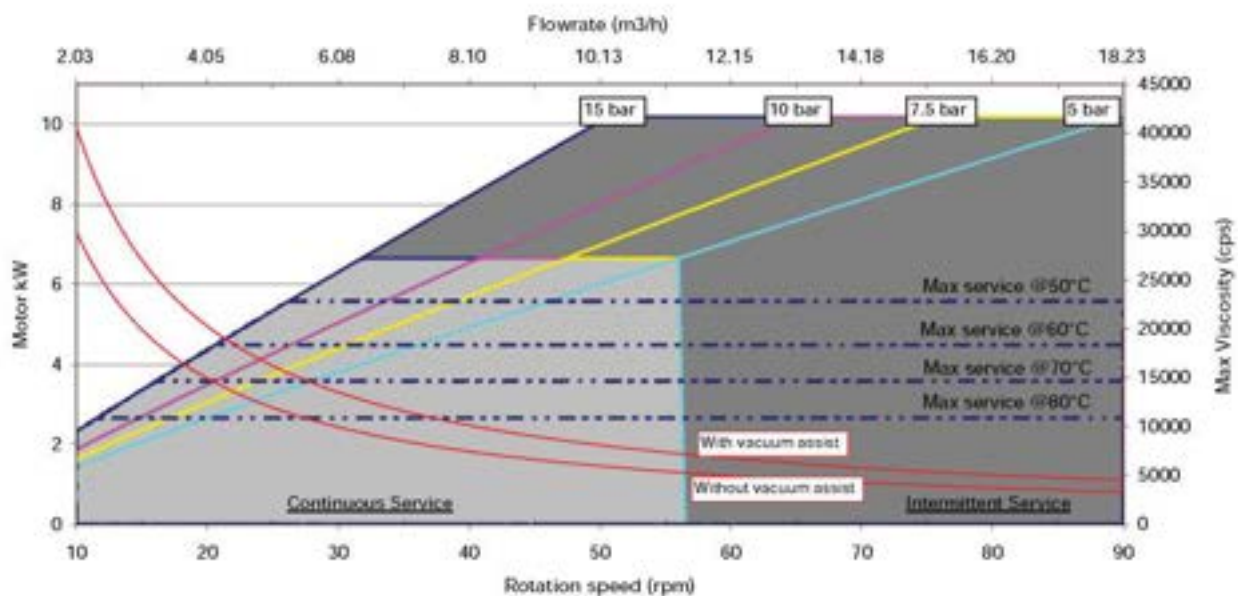


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A65	12.10 (53.27)	18.20 (80.13)	40000	(2-1/2")	DN65	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	70 RPM	80 RPM	90 RPM	MAXIMUM DISCHARGE PRESSURE	
A65	m <sup>3</sup> /hr GPH	2.03 8.9	4.05 17.8	6.08 26.7	8.10 35.6	10.13 44.6	12.15 53.5	14.18 62.4	16.20 71.3	18.23 80.2	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

- Determine if viscosity exceeds 3400 Cps w/o vacuum assist; 4500 Cps w/vacuum assist (requires additional equipment).
- If yes, move left until the red viscosity line is intersected.
- Move down to read the maximum possible rpm for the fluid's viscosity.
- Determine the maximum pressure for your application.
- Move vertically from selected rpm to the pressure line greater than the required pressure.
- Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

### Examples:

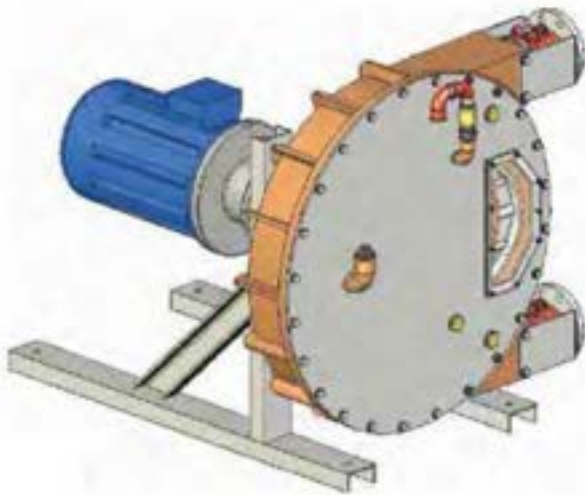
Max continuous rpm at 15 bar is 32 rpm  
 Max continuous rpm at 7.5 bar is 48 rpm  
 Max continuous rpm at 60° C & 10 bar is 26 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop



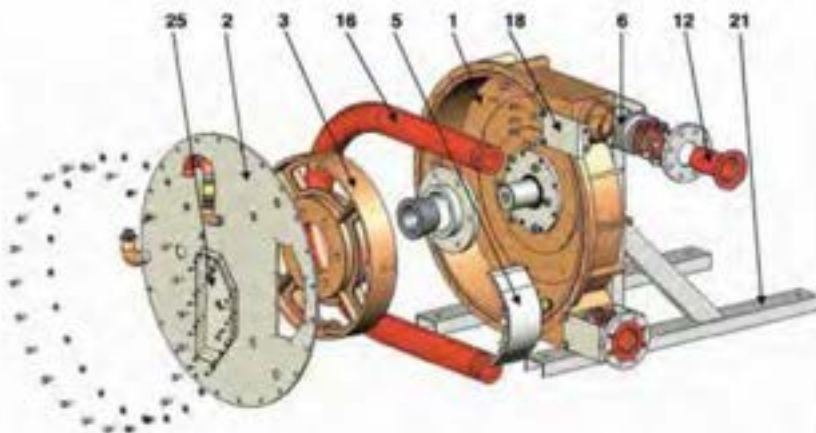
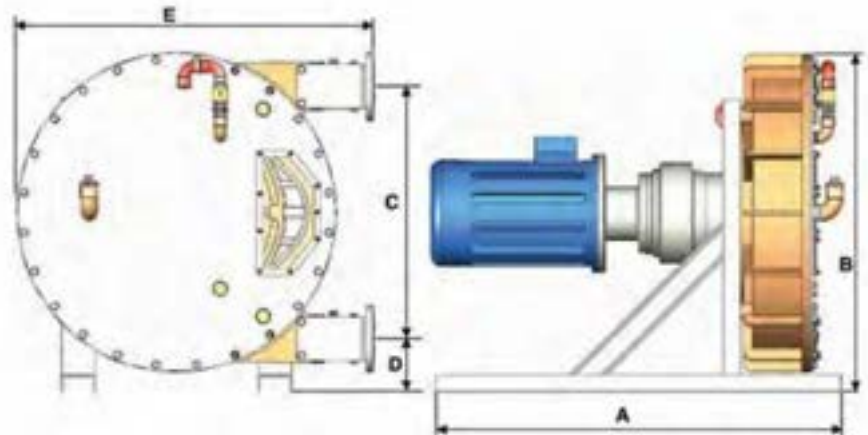
# ABAQUE AX65



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	37300 (164) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	55000 (255000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	70 (1)	
Maximum solid particle size mm (in)	12 (0.47)	
Maximum soft particle size mm (in)	20 (0.79)	

	DIMENSIONS MM (IN.)
A	1200 (47.25)
B	1004 (39.53)
C	746 (29.37)
D	158 (6.22)
E	1057 (41.62)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	
6	Boot	EPDM	
10	Cover seal	FKM	
25	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

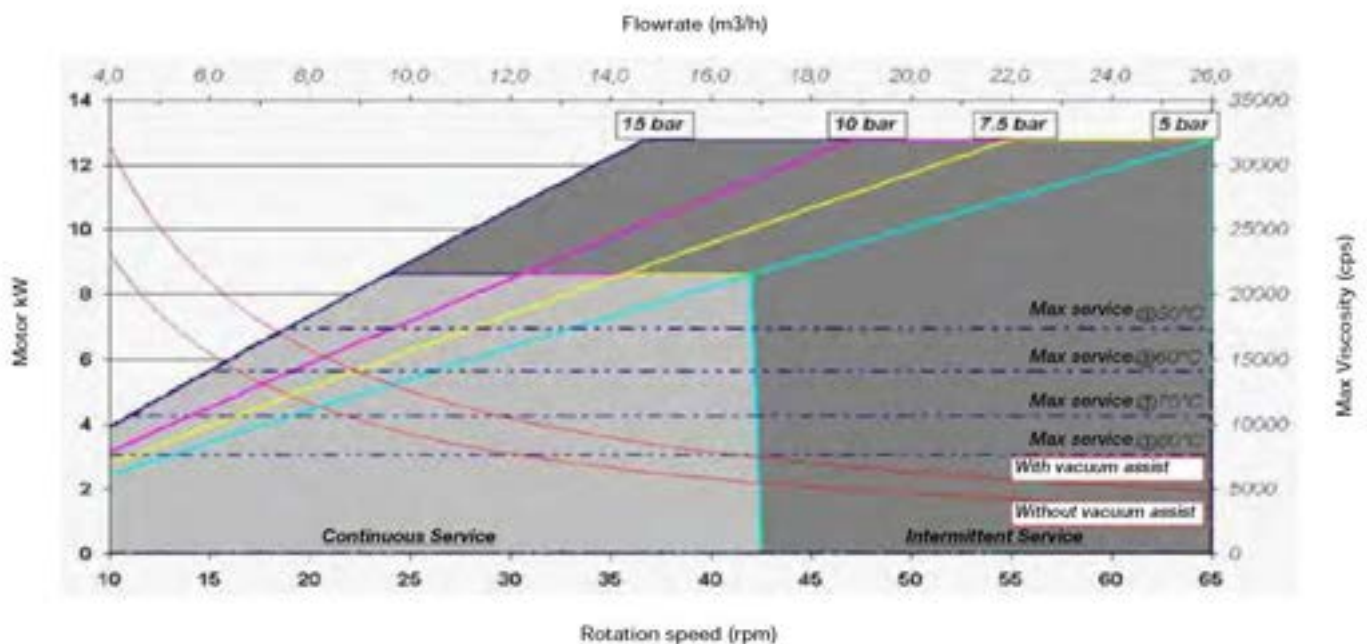


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
AX65	26 (114)	39 (171)	28200	(3")	DN80	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	MAXIMUM DISCHARGE PRESSURE
AX65	m <sup>3</sup> /hr GPM	4.0 17.6	8.0 35.2	12.0 52.8	16.0 70.4	20.0 88.0	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

1. Determine if viscosity exceeds 1400 Cps.
2. If yes, move left until the red viscosity line is intersected.
3. Move down to read the maximum possible rpm for the fluid's viscosity.
4. Determine the maximum pressure for your application.
5. Move vertically from selected rpm to the pressure line greater than the required pressure.
6. Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

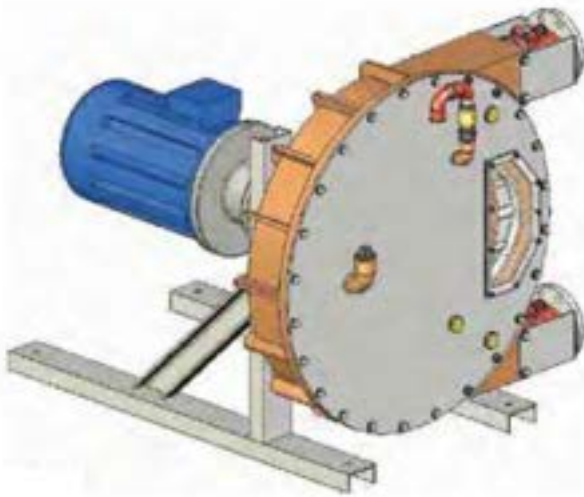
### Examples:

- Max continuous rpm at 15 bar is 57 rpm
- Max continuous rpm at 7.5 bar is 83 rpm
- Max continuous rpm at 60° C & 10 bar is 46 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

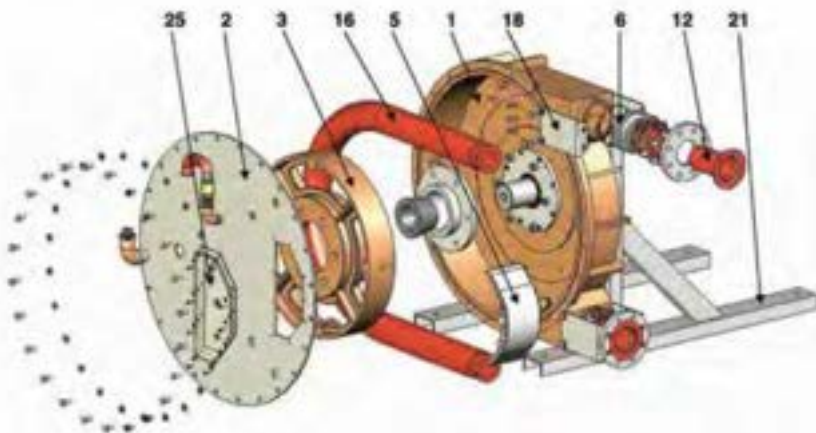
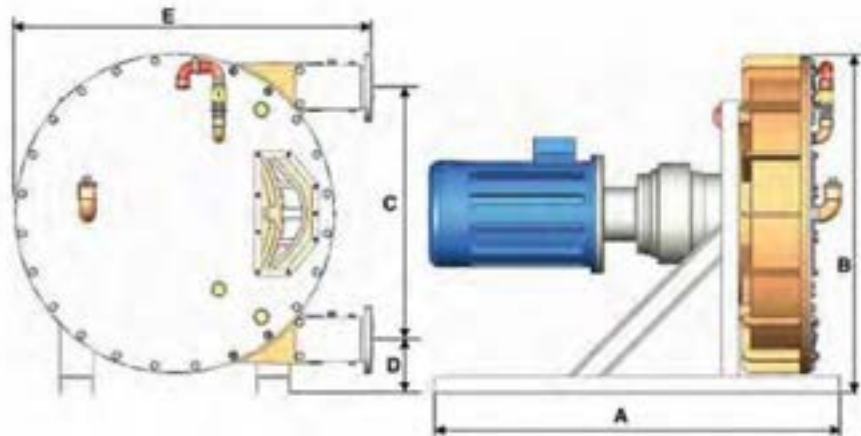
**ABAQUE AX80**



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	37300 (164) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	55000 (255000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	70 (1)	
Maximum solid particle size mm (in)	12 (0.47)	
Maximum soft particle size mm (in)	20 (0.79)	

	DIMENSIONS MM (IN.)
A	1200 (47.25)
B	1004 (39.53)
C	746 (29.37)
D	158 (6.22)
E	1057 (41.62)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

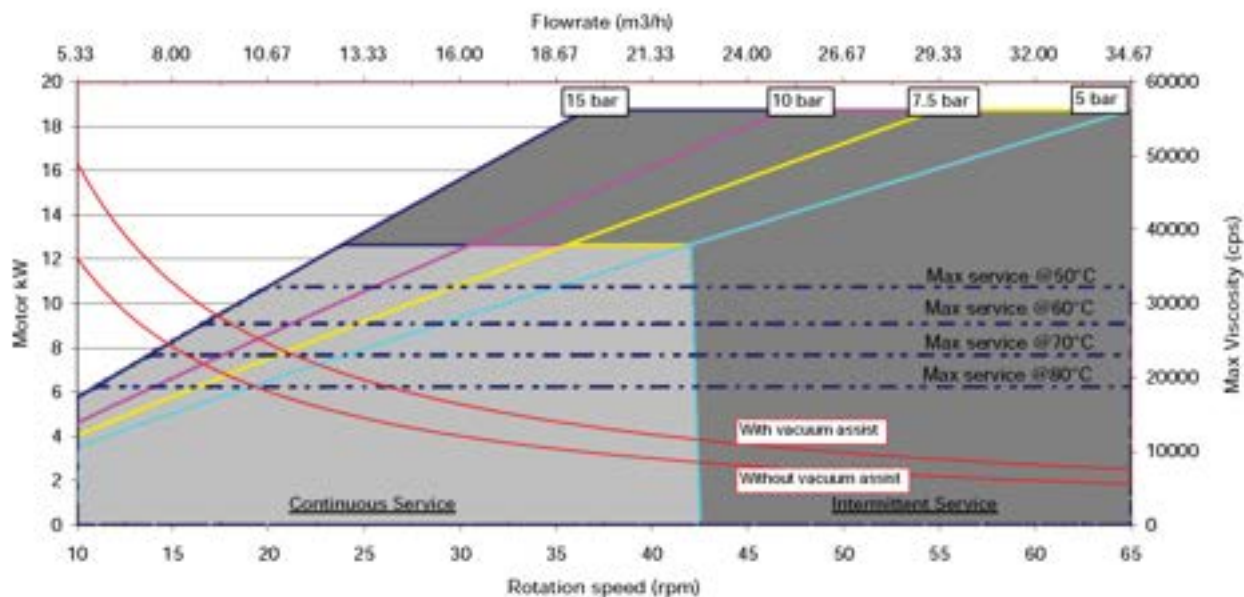


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
AX80	26 (114)	39 (171)	28200	(3")	DN80	Flanged

FLOW RATES		10	20	30	40	50	60	MAXIMUM DISCHARGE PRESSURE
		RPM	RPM	RPM	RPM	RPM	RPM	
AX80	m <sup>3</sup> /hr GPM	6.5 29	13.0 57	19.5 86	26.0 114	32.5 143	39.0 172	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

- Determine if viscosity exceeds 5500 Cps w/o vacuum assist; 7500 Cps w/vacuum assist (requires additional equipment).
- If yes, move left until the red viscosity line is intersected.
- Move down to read the maximum possible rpm for the fluid's viscosity.
- Determine the maximum pressure for your application.
- Move vertically from selected rpm to the pressure line greater than the required pressure.
- Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

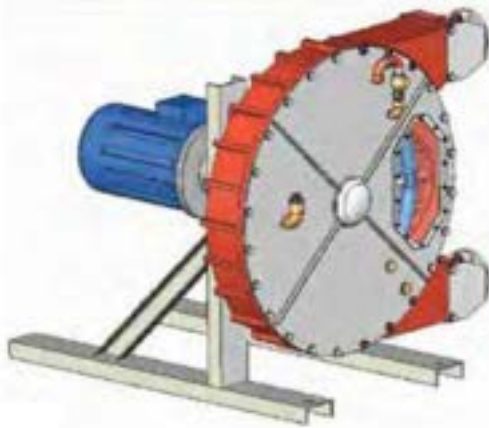
### Examples:

Max continuous rpm at 15 bar is 24 rpm  
 Max continuous rpm at 7.5 bar is 36 rpm  
 Max continuous rpm at 60° C & 10 bar is 21 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

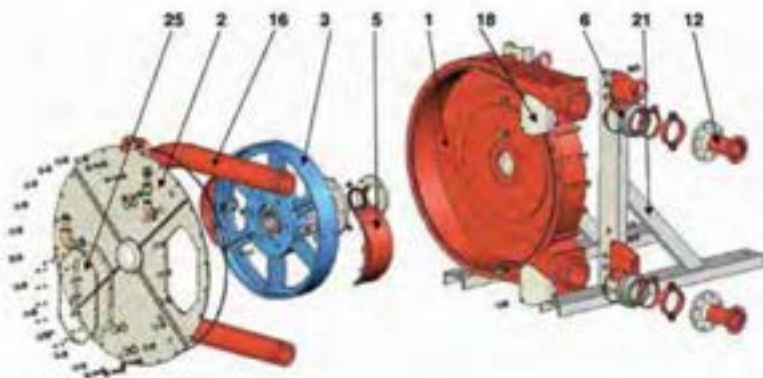
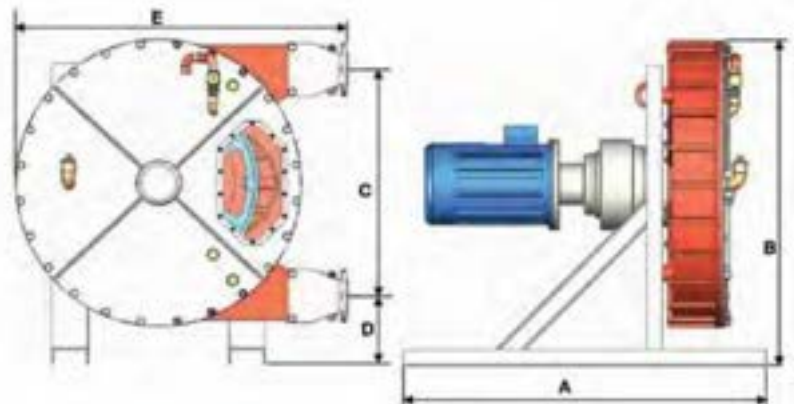
# ABAQUE A80



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	39000(171.7) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	27000 (125500)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	60 (1)	
Maximum solid particle size mm (in)	12 (0.47)	
Maximum soft particle size mm (in)	20 (0.79)	

DIMENSIONS MM (IN.)	
A	1400 (55.12)
B	1255 (49.41)
C	876 (34.49)
D	262 (10.32)
E	1288 (50.71)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

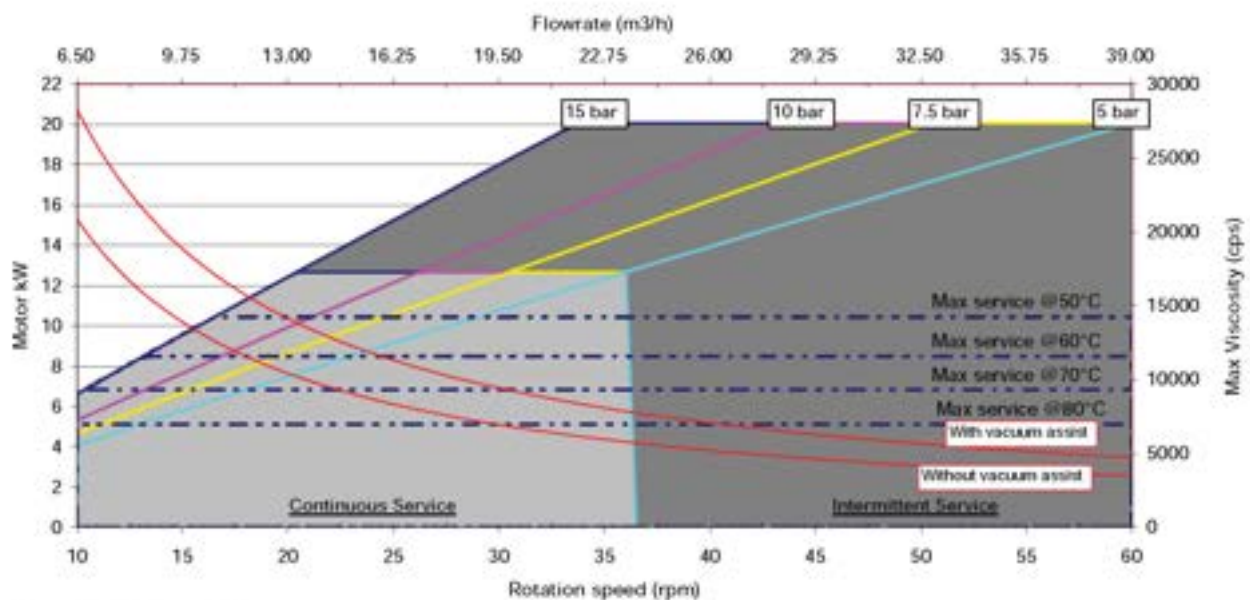


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A80	21 (93)	37 (164)	49000	(3")	DN80	Flanged

FLOW RATES		10 RPM	20 RPM	30 RPM	40 RPM	50 RPM	60 RPM	MAXIMUM DISCHARGE PRESSURE
A80	m <sup>3</sup> /hr GPM	5 23.5	10.7 46.9	16.0 70.4	21.3 93.8	26.7 117.3	32.0 140.7	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

- Determine if viscosity exceeds 3500 Cps w/o vacuum assist; 4700 Cps w/vacuum assist (requires additional equipment).
- If yes, move left until the red viscosity line is intersected.
- Move down to read the maximum possible rpm for the fluid's viscosity.
- Determine the maximum pressure for your application.
- Move vertically from selected rpm to the pressure line greater than the required pressure.
- Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

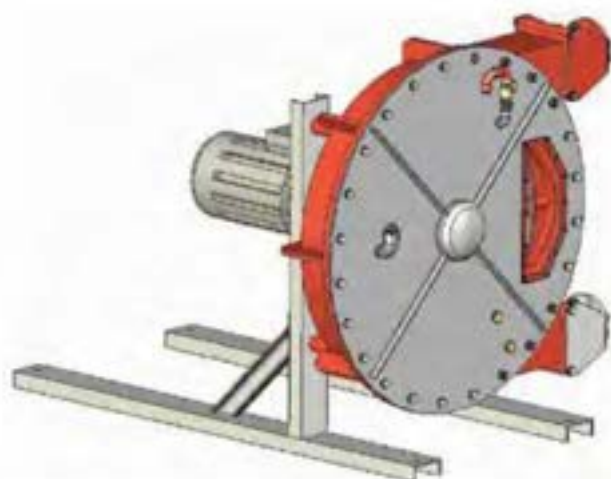
### Examples:

Max continuous rpm at 15 bar is 21 rpm  
 Max continuous rpm at 7.5 bar is 31 rpm  
 Max continuous rpm at 60° C & 10 bar is 17 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

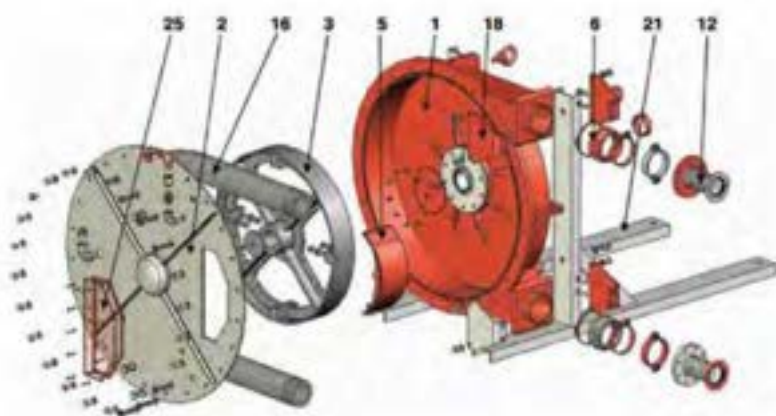
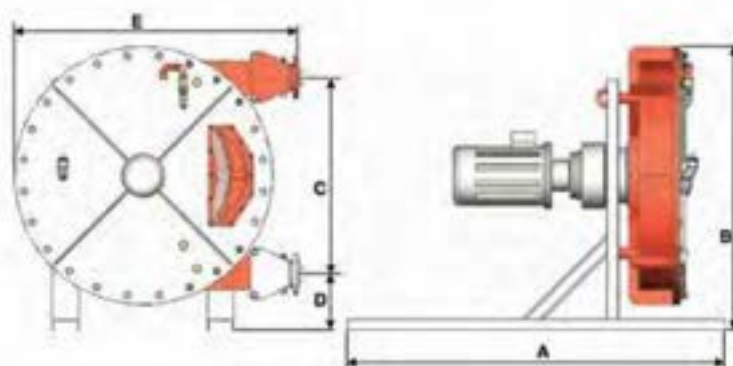
# ABAQUE A100



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	54000 (237) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	60000 (278000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	50 (1)	
Maximum solid particle size mm (in)	15 (0.59)	
Maximum soft particle size mm (in)	25 (0.98)	

	DIMENSIONS MM (IN.)
A	1200 (47.25)
B	1004 (39.53)
C	746 (29.37)
D	158 (6.22)
E	1057 (41.62)



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

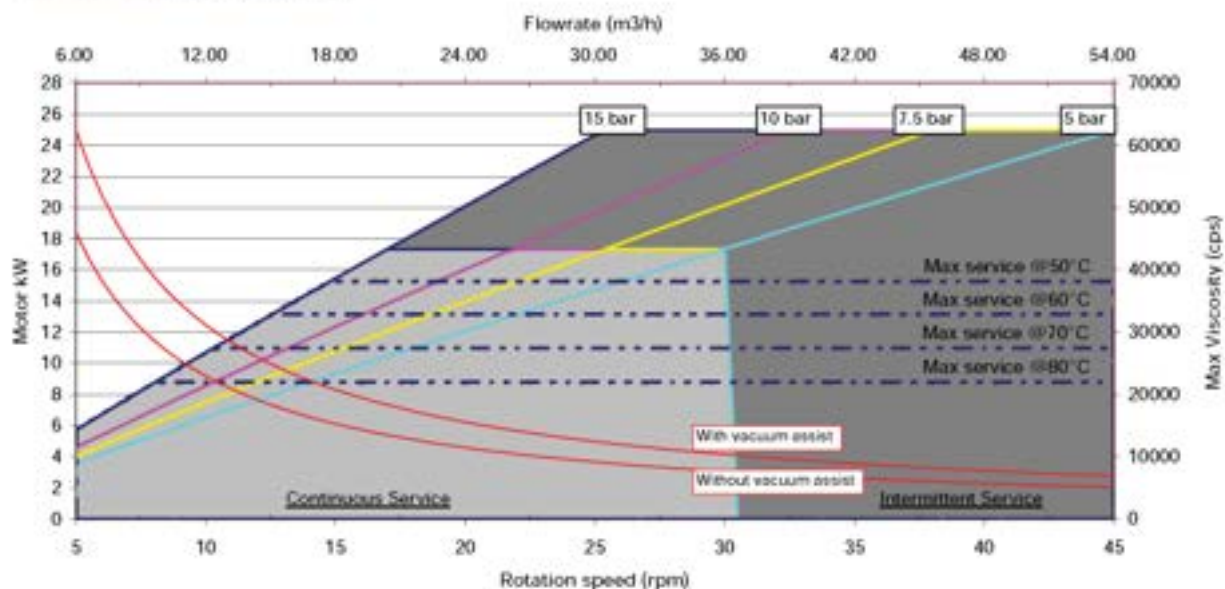


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A100	36 (158)	54 (237)	31200	(4")	DN100	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	40 RPM	MAXIMUM DISCHARGE PRESSURE
A100	12 53	24 106	36 158	48 211	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

- Determine if viscosity exceeds 5100 Cps w/o vacuum assist; 6900 Cps w/vacuum assist (requires additional equipment).
- If yes, move left until the red viscosity line is intersected.
- Move down to read the maximum possible rpm for the fluid's viscosity.
- Determine the maximum pressure for your application.
- Move vertically from selected rpm to the pressure line greater than the required pressure.
- Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

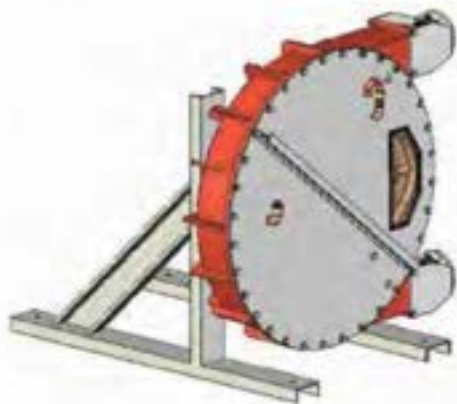
### Examples:

Max continuous rpm at 15 bar is 17 rpm  
 Max continuous rpm at 7.5 bar is 25 rpm  
 Max continuous rpm at 60° C & 10 bar is 16 rpm

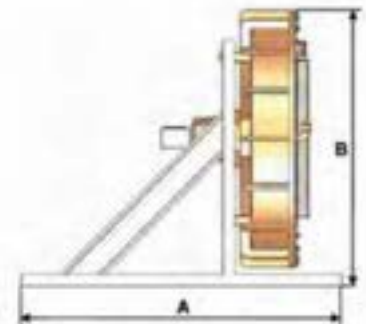
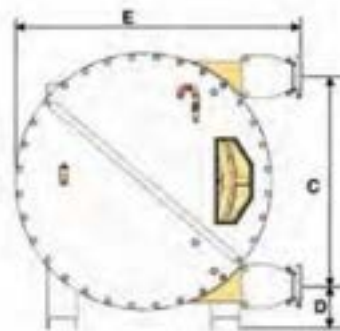
\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

# ABAQUE A125

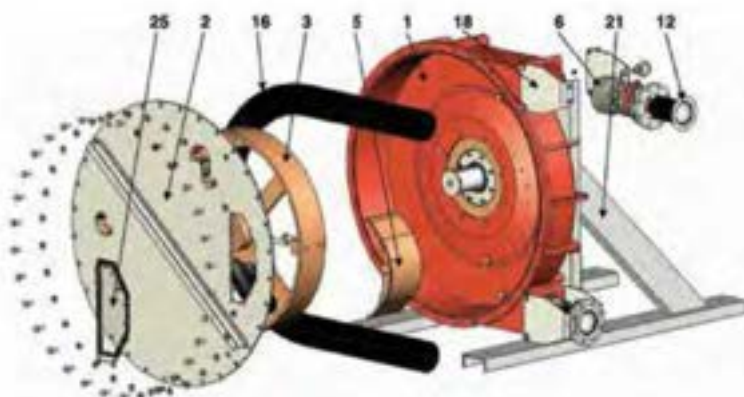


DIMENSIONS MM (IN.)	
A	1950 (76.77)
B	1775 (69.88)
C	1280 (50.39)
D	260 (10.24)
E	1745 (68.70)



CHARACTERISTICS	STANDARD	AVAILABLE OPTIONS
Technology	Peristaltic	
Maximum Flow rate at 1 cSt L/h (GPM)	54000 (237) (1)	
Ports	ISO PN16 flanges	ISO PN20 / ANSI150 flanges

OPERATING LIMITS	STANDARD	AVAILABLE OPTIONS
Minimum temperature °C (°F)	0 (32)	
Maximum temperature °C (°F)	70 (158)	80 (176) with EPDM hose
Maximum viscosity cSt (SSU)	60000 (278000)	
Maximum differential pressure bar (psi)	15 (217)	
Maximum speed rpm	50 (1)	
Maximum solid particle size mm (in)	15 (0.59)	
Maximum soft particle size mm (in)	25 (0.98)	



PART NO.	PART NAME	STANDARD MATERIALS	AVAILABLE OPTIONS
1	Casing	Ductile Iron	
2	Cover	Carbon Steel	
3	Wheel	Ductile Iron	
5	Shoe	Aluminium	Cast Iron
6	Boot	EPDM	
10	Cover seal	FKM	
26	Lip seal	FKM	
12	Insert	316L Stainless steel	PPH, PVDF
16	Hose	NR	NBR, EPDM
18	Bracket	316L stainless steel	
21	Frame	Carbon Steel	
	Bolts, screws, washers	316L stainless steel	
25	Window	Polycarbonate	

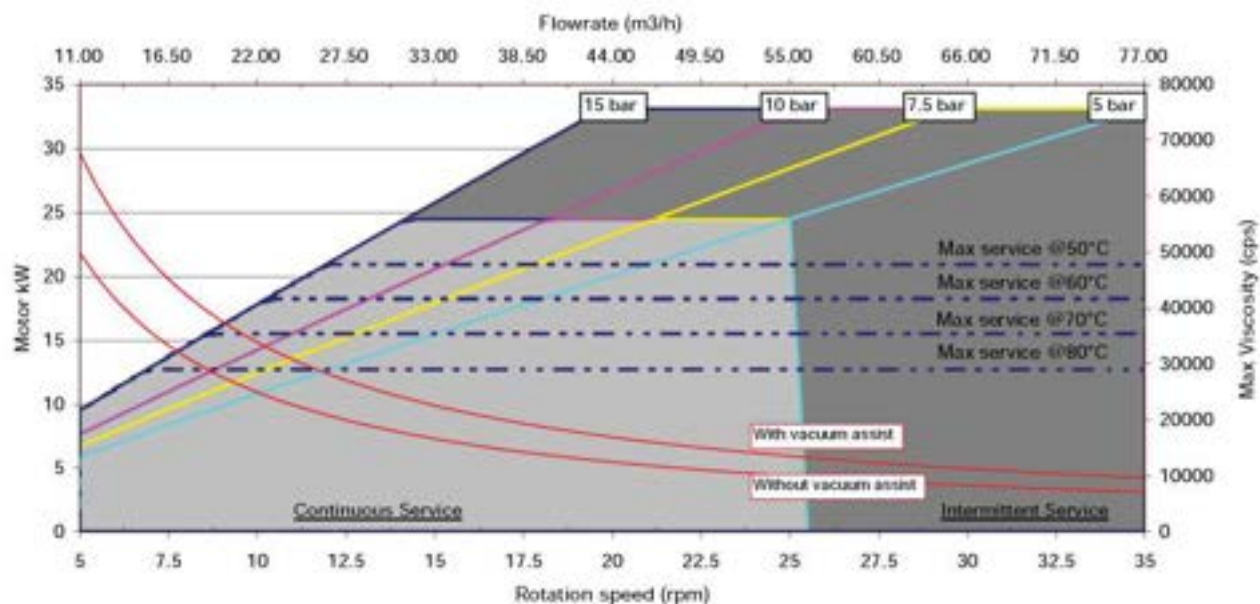


## Technical data

MODEL	MAX FLOW RATE (CONTINUOUS DUTY)	MAX FLOW RATE (INTERMITTENT DUTY)	MAX VISCOSITY AT 10 RPM	CONNECTION SIZE		CONNECTION TYPE
				ANSI & BARBED	DIN/IS PN16	
A125	44 (193.72)	77 (339.01)	34500	5"	DN125	Flanged

FLOW RATES	10 RPM	20 RPM	30 RPM	MAXIMUM DISCHARGE PRESSURE
AS125	22 97	44 194	66 290	217 PSI 15.0 Bar

## Performance Curve



### Instructions for use of this curve:

- Determine if viscosity exceeds 7100 Cps w/o vacuum assist; 9600 Cps w/vacuum assist (requires additional equipment).
- If yes, move left until the red viscosity line is intersected.
- Move down to read the maximum possible rpm for the fluid's viscosity.
- Determine the maximum pressure for your application.
- Move vertically from selected rpm to the pressure line greater than the required pressure.
- Move left to determine the required KW for the application.

### Temperature Notes:

For temperatures above 40° C, select appropriate temp line, move left to appropriate pressure line. Move straight down. This is the max. rpm for continuous duty at this temperature.

### Examples:

- Max continuous rpm at 15 bar is 14 rpm
- Max continuous rpm at 7.5 bar is 21 rpm
- Max continuous rpm at 60° C & 10 bar is 13 rpm

\* Standard maximum product temperature is 40° F

\* Intermittent service is 2 hour max. of continuous duty followed by a minimum of 1 hour stop

# ABAQUE

## Hoses

Abaque hoses have reinforcement layers to minimise hose deformation and maximise the life of the hose.

1st Choice (if possible) : NR

- More Economic
- More Resistant

2nd Choice (if possible): EPDM

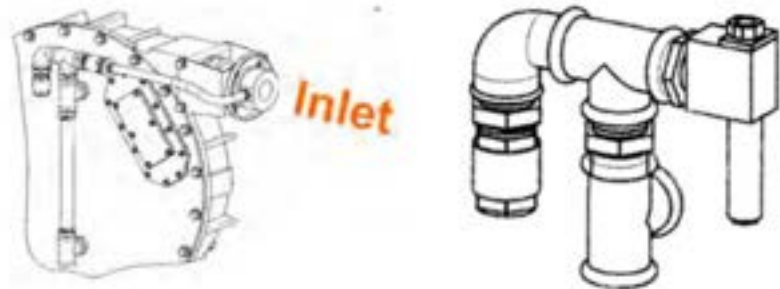
3rd Choice: NBR



## Vacuum Kit

Air Suction Flange Kit Fitted on the Inlet of the Pump

- Casing Depressurisation Equals Inlet Pressure
- Air is Mixed with Fluid
- Not to be Used if Rotation in Both Directions, or if Inlet is in Charge

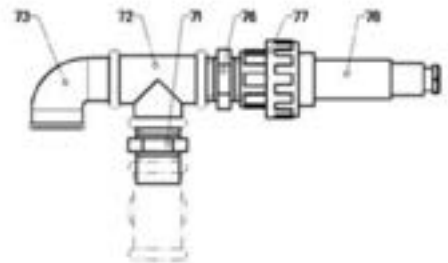


Air Ejector Kit for Pump Turning in Both Directions

- Venturi Ejector
- Up to 90 % Vacuum
- 5 to 6 bars Air Pressure
- 67 NI/mn (4 Nm3/h) Air Consumption

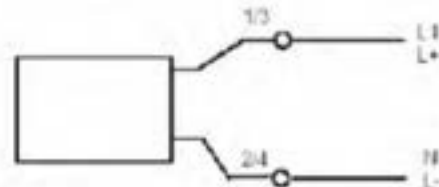
## Leak detector

To avoid spillage of product after a hose failure a Leak Detector can be installed on to the pump. The hose failure is detected by a capacitive proximity sensor mounted on the level pipe of the pump. The capacitive proximity sensor detects both metallic and non-metallic materials.



TECHNICAL CHARACTERISTICS	
Supply Voltage	20 to 250 V AC/DC
Hold Output current	350 Ma AC
	100 Ma DC
Call Output Current	250mA
Consumption at 24 V	<10mA
Switching Frequency	25Hz AC / 40 Hz DC
Ambient utilisation temp	-25°C to +80°C
	(-13°F to +176°F)
Protection	IP 65

The connection is made by terminal up to 2.5 mm<sup>2</sup>



Two different functioning modes are possible

- Normally open contact:

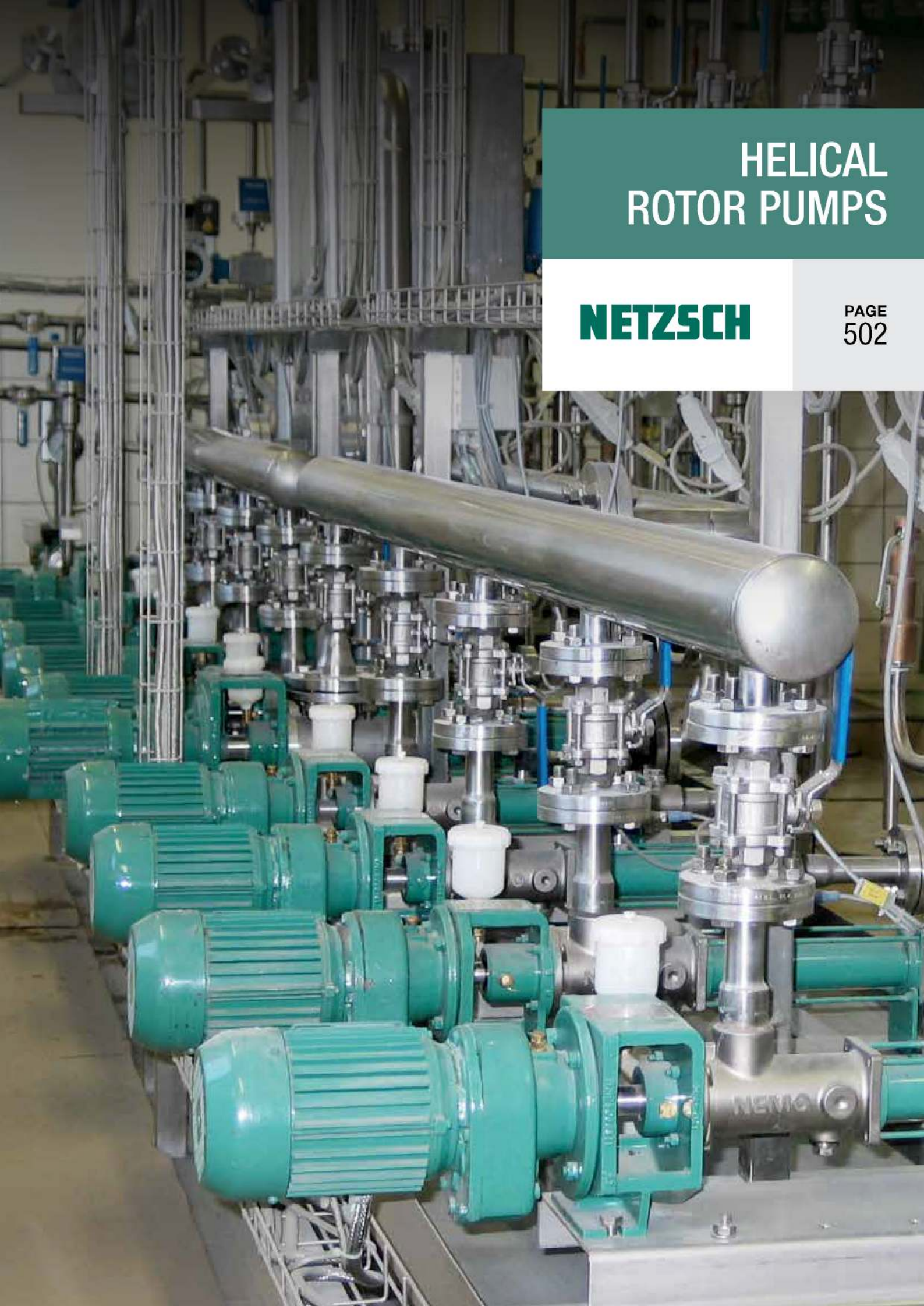
- Normally closed contact:



# HELICAL ROTOR PUMPS

**NETZSCH**

PAGE  
502





## NETZSCH

Helical Rotor Pumps are a type of rotary positive displacement pump that has a single threaded helically shaped rotor turning inside of a double-threaded helically shaped rubber stator. This produces a progressing cavity that moves the liquid through the pump and creates the pumping action.

Helical Rotor Pumps are used extensively in sewerage and water treatment plants to pump polymer, sludge and chemicals. They are also used in all types of industrial applications for pumping a wide variety of thin and thick liquids, including corrosive liquids and liquids containing solids. As Progressive cavity pumps can handle difficult, thick, solid laden liquids they can often be used in applications where no other pump would perform.

### Universal Installation

NEMO® progressive cavity pumps are utilised in various industries to convey many types of fluids in a continuous, low pulsating manner, while maintaining an accurate flow.

### Wide Range of Applications

The pumps are specifically designed for products with the following characteristics:

- High solids content (maximum particle size up to 6"/150 mm) and free of solids
- Low to high viscosity (1 mPas - 3 million mPas)
- Thixotropic and dilatant
- Shear-sensitive
- Abrasive
- Lubricating and non-lubricating
- Aggressive (pH 0 - 14)
- Adhesive
- Toxic

### Large Range of Capacities and Pressures

- Capacities from a few millilitres up to 500 m<sup>3</sup>/h (2200 gpm)
- Number of stages ranging from 1 up to 8 for pressures from 6 (90 psi) up to 48 bar (680 psi) as standard, up to 240 bar (3,400 psi) as high pressure

### Various Conveying Elements

Four different rotor/stator geometries are available allowing optimisation of the pump characteristics for specific applications.

### Extensive Range of Materials of Construction

Wetted parts are available in numerous materials. Standard housings are made of cast iron and stainless steel. Parts are available in mild steel, stainless steel and tool steel. Other materials are available upon request. Elastomers like highly abrasion resistant natural rubber, oil, acid and alkali-proof elastomers, Atlas and Viton are available. When elastomers cannot be used due to high temperatures or compatibility reasons, NETZSCH offers a variety of solid materials.

### A Wide Variety of Shaft Sealing Options

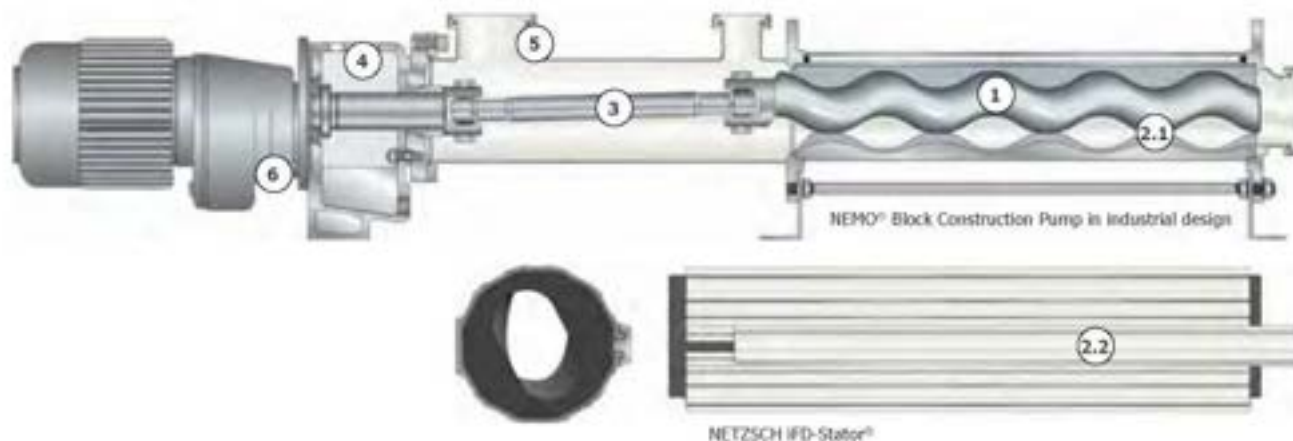
Shaft seals range from single-acting mechanical seals, with and without quench, to double-acting mechanical seals in back-to-back or tandem arrangement as well as cartridge seals as per customer specification. For certain applications there are gland packings, lip seals and specially designed seals. In the case of toxic fluids we offer a pump with a magnetic coupling which is 100 % leakproof.

### Additional Features

- High suction capability up to 9 mwc (30 ftwc)
- Reversible direction of rotation and thus flow
- Installation in any position
- Smooth and quiet operation
- Temperatures of -20 up to +200 °C (-5 up to +570 °F)







### 1 Rotor

In wear and corrosion resistant design, including the wear-free ceramic rotor, NEMO CERATEC®.

### 2.1 Stator with Conventional Technology

Vulcanised into a tube, with integrated seals on both ends in a variety of NEMOLAST® elastomers, plastics or metals. Stator inlet with chamber to facilitate the entry of the fluid into the conveying chamber.

### 2.2 Stator with iFD Technology

The stator consists of a disposable elastomer part and an aluminium outer sleeve in which the NEMOLAST® elastomer is housed. The advantages of this new technology are the reduced starting torque, the higher degree of efficiency, longer lifetime, simple and quick change as well as the easy disposal.

### 3 Drive Chain

Plug in shaft with coupling rod and two universal joints for power transmission from the drive to the rotor.

### 4 Shaft Seal

Standard design with single-acting, wear resistant, bidirectional mechanical seal; on request different types of single/double-acting mechanical seals by various manufacturers, cartridge and other special seals as well as gland packing. For toxic fluids, magnetic, leakage-free couplings are available.

### 5 Suction Pressure housing

Designed to optimise through flow with flanges or threads according to DIN and other international standards. Materials in cast iron, chromium nickel molybdenum steel, rubber-coated or Halar® cast iron as well as special materials according to specifications.

### 6 Block Construction Design

A drive flanged directly to the housing reduces length, weight and gives a constant shaft height, independent of construction and size of the drive. It is both maintenance and service-friendly as well as economical.

## DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.



# NETZSCH

## Modular Design

NEMO® Pumps belong to the group of rotary positive displacement pumps. The conveying elements consist of the rotor which rotates within the fixed stator. As all four pump geometries have the same outer dimensions, we have a modular design where - apart from rotor and stator - all other components are identical. When a change in flow rate or pressure is required, installed NEMO® Pumps can be adapted to the new operating conditions by simply changing rotor and stator.

## S/L-Geometry

The single helical screw/rotor has a circular cross section, an extremely long pitch and large thread depth which oscillates when the rotor is turned within the fixed stator. The cross section of the stator is the same profile as that of the rotor, however, the stator is a 180° internal twin start thread. As a result of the 1/2 ratio lobe geometry cavities are formed between the rotor and stator when the two are put together. By the turning movement of the rotor the progressing cavities between rotor and stator transport the fluid in a smooth and continuous manner from the suction to the discharge side of the stator. The flow rate is determined by the pitch of the rotor/ stator, diameter and eccentricity as well as the speed of the pump. The pressure capability depends on the number of stages and the differential pressure per stage up to 6bar (85psi). The 2-stage NEMO® Pump in S-geometry can reach a differential pressure up to 12bar (170psi) with a flow rate of 100%. A single-stage NEMO® Pump in L-geometry, has the same outer dimensions as the 2-stage pump in S-geometry, the same diameter and eccentricity but a pitch double that of the S-geometry rotor/stator. Therefore, the pump produces a flow rate of 200 % when compared to the S-geometry at a differential pressure of up to 6 bar (85 psi).

## D/P-Geometry

The twin start helical rotor has an elliptical cross section, a long pitch and large thread depth. It rotates within a circular eccentric motion within the fixed stator, the form of which is the same geometry as the rotor, however, the stator is a triple start internal thread with 120° interval starts. As a result of the 2/3 ratio lobe geometry cavities are formed between the rotor and stator when the two are put together. By the turning movement of the rotor, the progressing cavities between rotor and stator transport the fluid in a smooth and continuous manner from the suction to the discharge side of the stator. The flow rate is determined by the pitch of rotor/- stator, elliptic diameter and eccentricity as well as the speed of the pump. The pressure capability depends on the number of stages with the differential pressure being up to 6bar (85psi) per stage. In D/P- geometry the cavities are approximately 75% of the size of the S/L- geometry however they open twice per revolution compared to once per revolution in 1/2 stage geometries. Therefore D/P-geometry rotors/stators have a 50% increase in the flow per revolution compared to S/L-geometry. The 2-stage NEMO® Pump in D-geometry can reach differential pressures of up to 12bar (170 psi) at a flow rate of 150% over that of the S-geometry. A single-stage NEMO® Pump in P-geometry, has the same outer dimensions as the 2-stage pump in D-geometry, the same ellipse and eccentricity but a pitch double that of the D-geometry rotor/ stator. Therefore the pump produces a flow rate of 300% over that of the S-geometry at a differential pressure of up to 6bar (85psi).



### S-Geometry

- Very smooth conveyance
- Compact dimensions despite high number of stages
- Large cross sections of rotor inlet
- Low flow velocity/NPSH
- Conveyance of compacted products possible
- Conveyance of large solid particles



- 1/2 lobe
- Double stage
- Flow rate: 100 %
- Differential pressure: 12 bar (170 psi)

### L-Geometry

- Greater volumetric efficiency/long service life due to long seal lines between rotor and stator
- Compact dimensions together with high flow rates



- 1/2 lobe
- Single stage
- Flow rate: 200 %
- Differential pressure: 6 bar (85 psi)

### D-Geometry

- Extremely compact dimensions despite high pressures and flow rates capabilities
- Almost pulsation free conveyance
- High dosing accuracy



- 2/3 lobe
- Double stage
- Flow rate: 150 %
- Differential pressure: 12 bar (170 psi)

### P-Geometry

- Compact dimensions in conjunction with very high flow rates
- Almost pulsation free conveyance
- High dosing accuracy
- Good volumetric efficiency/long service life due to long seal line between rotor and stator



- 2/3 lobe
- Single stage
- Flow rate: 300 %
- Differential pressure: 6 bar (85 psi)

## NETZSCH

### Performance

Capacities up to 85m<sup>3</sup>/h (360gpm)  
Pressures up to 6bar (85psi)

### Description

Compact design with flanged robust IEC parallel shaft gear unit. The patented and integrated NEMOLAST® reversible stator and the simple design guarantee a long service life and low life cycle cost. Increased application possibilities with the use of P or L geometries.

### Range of Applications

Industrial applications in environmental industries for low to highly viscous fluids with or without solids.

### Performance

Capacities up to 400m<sup>3</sup>/h (1,800 gpm) Pressures up to 24bar (340psi)

### Description

Compact design with flanged drive; low investment and operating and maintenance costs. Four rotor/stator geometries for optimised performance.

### Range of Applications

Industrial applications in environmental, food, oil and chemical industries for low and highly viscous fluids with or without solids.

### Performance

Capacities up to 500m<sup>3</sup>/h (2,200gpm) Pressures up to 48 bar (680 psi) as standard, up to 240 bar (3,400 psi) as high pressure

### Description

Design with bearing housing and drive shaft allows for universal use of all types of drives. Four rotor/stator geometries for optimised performance.

### Range of Applications

Industrial applications in environmental, food, oil and chemical industries for low and highly viscous fluids with or without solids.

### Performance

Capacities from 0.1 up to 1000 l/h (0.025 up to 260 gph) Pressures up to 15bar (212psi)

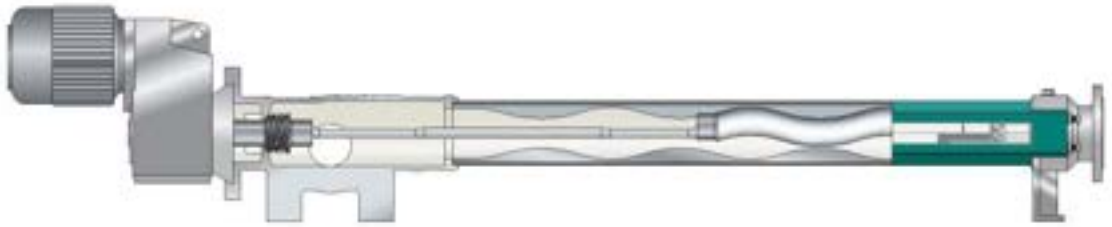
### Description

High dosing accuracy (deviation < 1 %). Compact design with directly flanged drive.

### Range of Applications

Industrial applications in environmental and chemical industries for conveying and dosing of fluids of low or medium viscosity with or without solids.




**NEMO® M.Champ®**

In block construction design with maintenance free flexible rod and integrated reserve stator


**NEMO® BY**

In block construction design


**NEMO® SY**

In block construction design


**NEMO® C.PRO®**

In block construction design

## NETZSCH

### Performance

Capacities up to 200m<sup>3</sup>/h (880gpm)  
Pressures up to 12 bar (170 psi)

### Description

Industrial applications in environmental, food and chemical industries for highly viscous and non free-flowing fluids with or without solids.

### Range of Applications

Housing with removable rectangular/ square hopper and coupling rod with feeding screw with or without force feed chamber for easier entry of the fluid into the rotor and stator.

### Performance

Capacities up to 200 m<sup>3</sup>/h (880 gpm) Pressures up to 48 bar (680 psi) NEMO® BF / SF with aBP-Module™ available from size NM045 up to NM090

### Description

Industrial applications in environmental and chemical industries for highly viscous, compact and crumbly media that do not have a tendency to bridge. For media which tend to build bridges the pump is available with aBP-Module™.

### Range of Applications

Housing with removable, enlarged rectangular hopper and tapered force feed chamber as well as coupling rod with patented, positioned feeding screw for optimal transfer of the medium to the rotor and stator.

### Performance

Capacities up to 200m<sup>3</sup>/h (880gpm) Pressures up to 48bar (680psi) NEMO® BP / SP available from size NM090

### Description

Industrial applications in environmental and chemical industries for compact and crumbly media that may have a tendency to bridge.

### Range of Applications

Housing with integrated bridge breaker, mixing additions, enlarged rectangular hopper and tapered force feed chamber as well as coupling rod with patented, positioned feeding screw for optimal transfer of the medium to the rotor and stator.

### Performance

Capacities up to 70m<sup>3</sup>/h (308gpm) Pressures up to 48bar (680psi)

### Description

Industrial applications in the biogas technology in environmental industries for highly viscous and non free-flowing fluids with or without solids.

### Range of Applications

Housing with large, rectangular/ square hopper and tapered force feed chamber, as well as coupling rod with patented, positioned feeding screw for optimal transfer of the medium to the rotor and stator. The ideally placed flushing stud at the hopper housing sees to the best possible blending of the substrates.



**NEMO® BO / BS**

In block construction design  
with directly flanged drive

or as

**NEMO® SO / SS**

With bearing housing and  
drive shaft


**NEMO® BF optional with  
aBP-Module™**

In block construction design  
with directly flanged drive

or as

**NEMO® SF optional with  
aBP-Module™**

With bearing housing and  
drive shaft

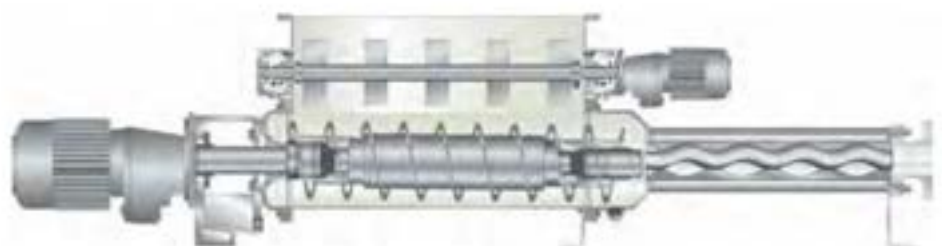

**NEMO® BP**

In block construction design  
with directly flanged drive

or as

**NEMO® SP**

With bearing housing and  
drive shaft

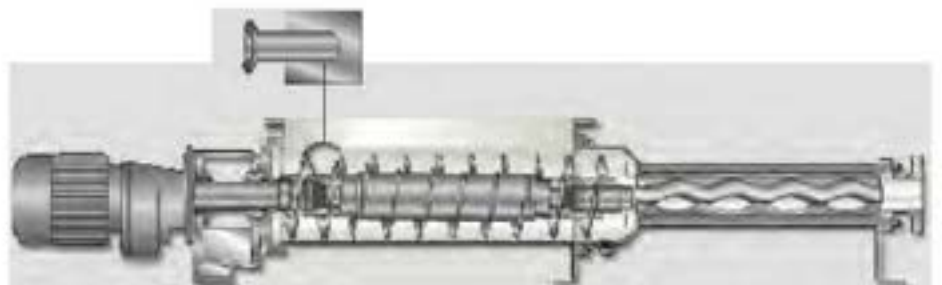

**NEMO® B.Max™**

In block construction design  
with directly flanged drive

or as

**NEMO® B.Max™**

With bearing housing and  
drive shaft



# NETZSCH

## General

NEMO® semi-submersible pumps are used for emptying barrels, containers, tanks, clarifiers, pits, etc. They are also used where space is limited and when cavitation may be a danger or where low NPSH is available. Furthermore the pumps are suitable for emptying barrels containing materials harmful to water and the environment where emptying through a connection at the bottom of the barrel is not permitted.

## Performance

Capacities up to 140m<sup>3</sup>/h (620gpm) Pressures up to 24bar (340psi). Depending on the application a number of designs/immersion variations are available. The immersion depth is adjusted as required by the application.

## Description

Compact design with directly flanged drive. Four rotor/stator geometries for optimal performance. Immersion depth up to 10 m. The length of the immersed tube can be modified by using an extended pump housing or an additional suction pipe or a combination of both.

### NEMO® Immersible Pump BT with Suspension Bracket

This pump is used for emptying open barrels and containers. It is equipped with a suspension bow for crane suspension. Immersion depth up to 3 m.

#### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

### NEMO® Immersible Pump BT with integral Mounting Plate and Discharge Connection

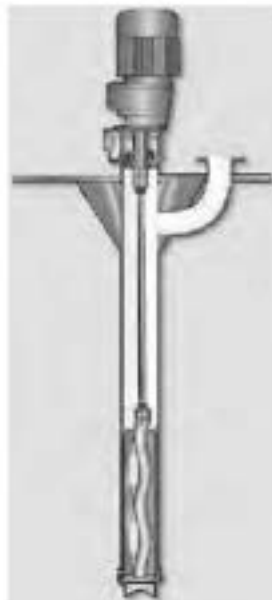
This pump is used in closed pits, tanks and containers where there is the possibility to vertically flange mount the pump to the tank lid. Depending on pump size, speed and immersion depth up to 10m, an additional support guide is available to secure the pump to the bottom or to the wall near the bottom. Removal of the pump from a full tank is possible because the guide units are self-centering and secure the pump suction without fixings. The product is either piped to the outside vertically through the lid via a 90° elbow or horizontally through the tank wall. This minimises the dead space in the pump housing thus reducing the overall height of the pump above the tank lid. This version is normally used where there is only limited space available.



**NEMO® Immersible Pump BT**  
With suspension bracket



**NEMO® Immersible Pump BT**  
With integral mounting plate and discharge connection above the mounting plate



**NEMO® Immersible Pump BT**  
With integral mounting plate and discharge connection below the mounting plate



## General

NETZSCH offers the complete eccentric screw pump program for up and downstream production complete with the necessary equipment such as pump, drive head and motor, control cabinets, rods and other accessories. The range of pumps includes downhole pumps, submersible downhole pumps, transfer pumps, multi-phase pumps and injection pumps. These pump systems are used for a continuous, pressure stable, non-emulsifying, almost pulsation-free conveyance of waste water and crude oil.

## Wide Scope of Applications

The pumps are mainly used for fluids with the following properties:

- High solid content (up to 30 % sand) and also free of solids
- Low to high viscosities
- Abrasive
- High content of gas
- High content of water
- High fluid and environmental temperature

## Injection Pumps

NETZSCH high-pressure pumps are rated for pressures up to 240bar (3,400 psi) for universal applications. They are also suitable for water re-injection. The system is insensitive to high solid content in the fluid and has a low energy consumption due to its high efficiency.

## Large Range of Capacities and Pressures

- Capacities from a few bpd up to 75,500 bpd
- Pressures up to 200 bar (2,830 psi)

## Upstream Submersible Downhole Pumps

Above all, this system is suitable for deep installation including doglegged and horizontal bore holes. A remarkable feature of this conveying system is that no rods are required and, thus, wear on the tubing is dramatically reduced.

## Large Range of Capacities and Pressures

- Capacities from 6 bpd up to 2,200 bpd
- Pressures up to 240 bar (3,400 psi)
- Installation depth up to 2,200 m (7,700 ft)

## Downstream Transfer Pumps and Multi Phase Pumps

NETZSCH Transfer and Multi-Phase Pumps have proved to have a long service life even in the case of fluids with high solids and gas contents. Consequently, operational and maintenance costs are low as well as is the initial investment cost.



**NETZSCH Water re-injection pump**



**NETZSCH Transfer and Multi-phase pump**



**NETZSCH Down-hole-pump**

# NETZSCH

## General

The correct joint design in a NEMO® Pump has a decisive influence on the operational reliability and life cycle cost. The optimal joint for the respective pump series is selected depending upon application, operational conditions as well as the flow rates.

## B Universal Pin Joint

The NEMO® universal pin joint is the standard joint for NEMO® industrial pumps because of its simple design and outstanding reliability. To achieve a long service life, the joint is oil filled and sealed by the NEMO® SM® seal. The joint can also be used without seal in case of extremely high temperatures and products where elastomers are not suitable. The joint consists of a minimum number of parts that enables simple dismantling for maintenance.

### B Universal Pin Joint

With SM® Seal

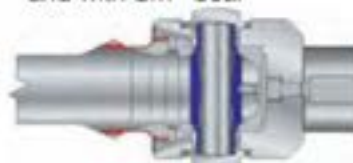


## V Pin Joint

The operational characteristics of the NEMO® V pin joint are similar to those of the B pin joint. For longer service life in difficult applications they are strengthened by hardened bushings fitted into boreholes in the coupling rod and the rotor/drive shaft head. The V pin joints with hardened bushes are easy to remove for maintenance purposes. Standard on the 125 pump size.

### V Pin Joint

With hardened bushings and with SM® Seal



## H Hygienic Pin Joint

The open, patented pin joint was designed specifically for use in hygienic pumps. It is crevice and dead space free, polished and, therefore, easy to clean. The joint is made in accordance with US 3-A Sanitary Standards.

### H Hygienic Pin Joint

Patented





## F NEMO® Flextec Flexible Rod

The flexible rod is wear-and maintenance free because there are no components moving against each other as in other joint types. Neither lubrication nor seals are required. Therefore, the flexible rod is suitable for high pressures and temperatures. The flexible rod is also free from crevices and dead spaces which allows it to be used for pumping highly sensitive products in aseptic conditions. It is designed in accordance with the US 3-A Sanitary Standards.

**F NEMO® Flextec Flexible Rod**



## K Joint

The patented K joint was designed for extremely arduous industrial applications involving constant pump running, frequent stop/starts or shock loads. It is kinematically designed so that the torque and axial loads are borne by separate elements within the joint. The joint is oil filled and hermetically sealed by two seals which are resistant (compatible) against the lubricant and the pumped product. Filling the space between the two seals with oil allows the use of the joints at pressures up to 12bar (170 psi).

**K Joint**

Patented



## Z Double Seal Pivot Joint

For the largest flows and pressures possible with NEMO® pumps where the torques and axial loads are at their highest (in bearing housing size NM 125SY and above) the pumps are fitted as standard with a cartridge type precision pivot joint. The joint is oil filled, hermetically sealed by two seals which are resistant (compatible) against the lubricant and the pumped product. It is suitable for continuous operation.

**Z Joint**

Patented



# NETZSCH

## General

NEMO® barrel emptying pumps draw themselves towards the bottom of the barrel and empty barrels and containers in chemical, pharmaceutical and food industries with the absolute minimum of product wastage. The heart of the barrel emptying system is a NEMO® progressing cavity pump. When the NEMO® pump is started a vacuum is created below the follower plate, which at the same time creates a light pressure on the media to guarantee a consistent suction into the pump.

## Wide Range of Applications

NEMO® barrel emptying pumps are predominantly used for media with the following properties:

- Low to very high viscosity
- Dilatant, thixotropic or having a viscous structure
- Highly filled products
- Shear- and pressure-sensitive
- Highly abrasive
- Lubricative and non lubricative
- Adhesive and gel like
- Heated and unheated

## Large Range of Capacities

- Capacities from approximately 2 l/h to 4.8 m³/h

## Barrel Sizes

- Barrels between 1 l to 200 l as standard
- Special barrels up to 1000 l

## Advantages

- Nearly shear free conveyance and dosing of highly viscous, abrasive and filled products
- Continuous or intermittent discharge
- Complete discharge, residues < 1 - 2 %
- No pressure or flow hiatus
- Smooth dosing with hardly any pulsation
- Low pressure on the follower plate in the barrel
- Discharge of conical barrels
- Low pressure conditions in the system
- Continuously adjustable discharge capacity through the speed of the drive
- Dosing directly from the barrel

## Construction of a NEMO® Barrel Emptying Unit BET 200

- |                              |                             |
|------------------------------|-----------------------------|
| <b>1 Pneumatic cylinders</b> | <b>6 Rotor / Stator</b>     |
| <b>2 Adapter for pump</b>    | <b>7 Pneumatic control</b>  |
| <b>3 Follower plate</b>      | <b>8 Electrical control</b> |
| <b>4 Frame</b>               |                             |
| <b>5 NEMO® Pump</b>          |                             |





## Universal Use

The NETZSCH M-Ovas® is particularly useful in all industries, where particles in the medium endanger process reliability. All solids in the medium are reliably macerated to prevent pipework and downstream equipment from blocking.

## Wide Range of Applications

The NETZSCH M-Ovas® is particularly suitable for the use in the following industries:

- Sewage and waste water treatment
- Biogas plants
- Abattoirs
- Organic biological waste recycling plants
- Rendering plants
- Paper and Pulp production
- Agriculture
- Sugar factories
- Leather production
- Spas and health resorts

## High Delivery Capacities

- Flow capacities up to 300 m<sup>3</sup>/h of waste water and sludge with up to 7 % dry solids content
- Two sizes of model available depending on the flow rate

## Advantages

- Compact design for high flow rates
- Easy and fast disassembly of cutting plate and blade units
- Low energy demand at high flow rates
- Integrated stone trap with separate clean-out and drain ports
- Easy access allows simple disposal of the sediment
- Self-adjusting blades reduce maintenance and ensure optimal cutting performance
- Sealing by means of a mechanical seal with oil quench

### 1 Housing

A hydrodynamic design with integrated stone trap for solids, with a clean-out port. The sediment can easily be removed by opening the cover plate. The housing is galvanised to ensure corrosion resistance. Available in stainless steel (optional).

### 2 Housing Cover

Cutting unit integrated into housing cover. A gas strut is fitted to the cover to assist opening. This allows for easy cleaning of solids in the stone trap.

### 3 Cutting unit

Cutting plate of wear resistant, hardened steel. Optimum cutting performance through a cutting unit with self-adjusting blade mechanism. Blades made from wear resistant hardened steel. The flywheel effect of the cutter head reduces the installed power. Easy exchange of cutting plate and cutting blades without the necessity to disassemble the pipe-work.

### 4 Shaft Seal

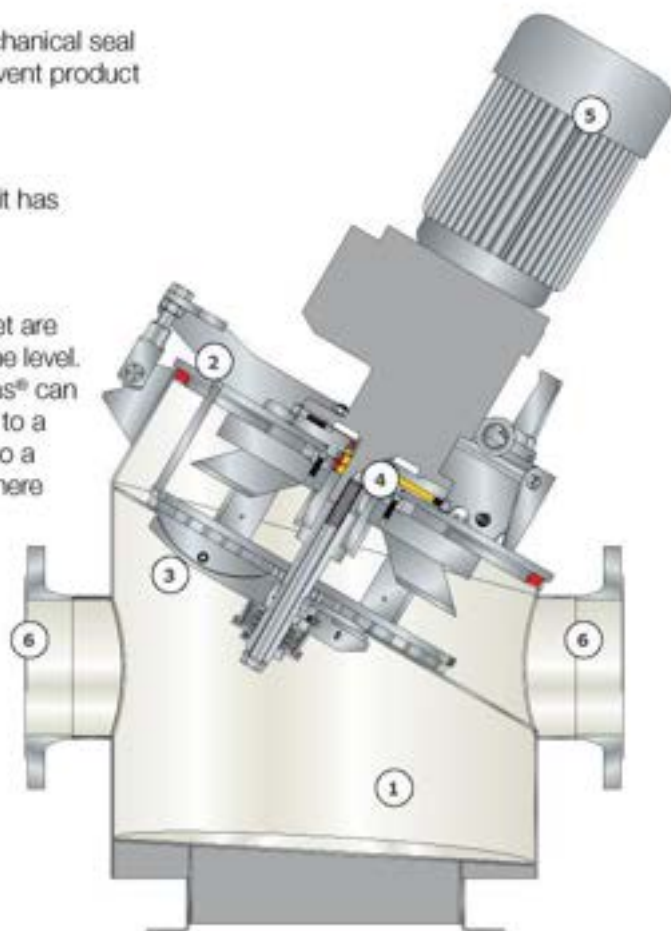
Hard metal faced mechanical seal with oil quench to prevent product leakage.

### 5 Drive

The standard drive unit has reinforced bearings.

### 6 In-line Version

Product inlet and outlet are positioned on the same level. The NETZSCH M-Ovas® can be directly connected to a horizontal pipeline or to a NEMO® Pump inlet where flange is set at 90°.



# NETZSCH

## Universal Use

NETZSCH macerating systems are designed for the most arduous of industrial applications to prevent pipe blockage and damage to downstream equipment by reliably reducing the size of solid matter in pumped media.

For applications with particularly chunky and sturdy solids in the waste water flow the NETZSCH Taskmaster® is needed.

## Wide Range of Applications

The NETZSCH Taskmaster® is particularly suitable for use in the following industries:

- Waste water treatment
- Agriculture
- Slaughterhouses and recycling plants
- Canning/tinning factories
- Industrial kitchens
- Sugar factories

## High Delivery Capacities

Capacities from 1 m<sup>3</sup>/h to 270 m<sup>3</sup>/h with a solids content rate of up to 10 %.

## Advantages

- Optimised cost performance ratio
- Low running costs through highest efficiency
- Cartridge design cutter assemblies allow simple and quick maintenance providing high operational safety.
- Through the different, very low number of revolutions of the shafts the NETZSCH twin shaft macerator offers the option of self cleaning.
- The robust design of the NETZSCH Taskmaster® ensures a high performance coupled with trouble free operation.
- Whether aluminium tins, ladies sanitary products, glass, golf balls, wood, plastic, bones, sugar beet or rags need to be reduced we offer the technology to meet your requirements.

### 1 Housing

A robust hydrodynamic inline housing which can be directly connected into a pipeline. Also available as channel unit.

### 2 Cutting unit

High quality blades made of special steel reliably macerate the solids in the medium. The cartridge units comprise of six cutters and six spacing rings. To reach the required particle size, a selection of different blades is available.

### 3 Shaft Seal

The shaft is sealed with a cartridge type mechanical seal.

### 4 Bearing

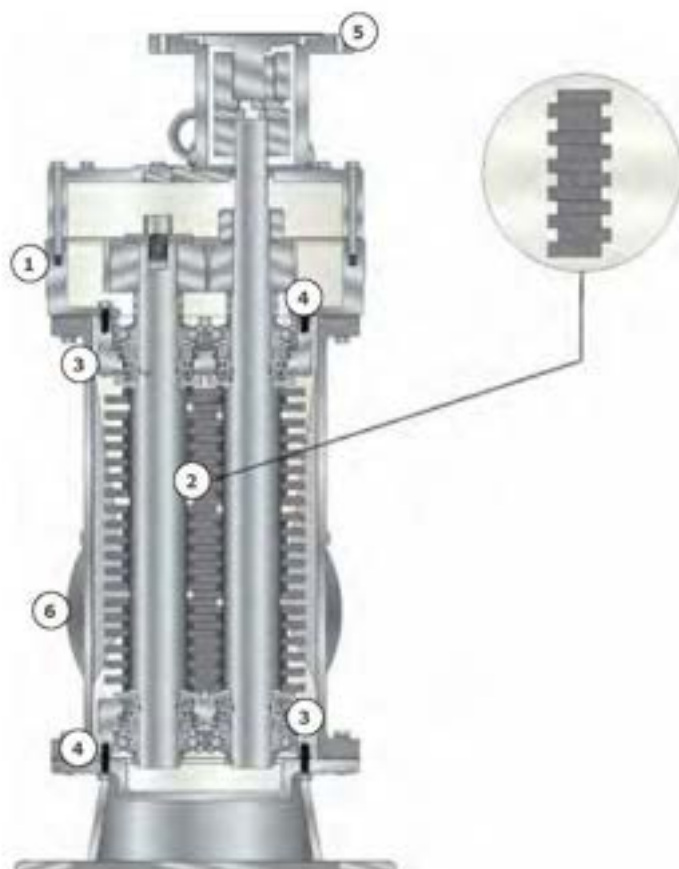
Robust bearings on both ends of the shafts ensure smooth running and prevent the shafts from spreading when especially hard solids are encountered.

### 5 Lantern

Via an elastic coupling with flange every IEC motor or drive can be accommodated.

### 6 In-line Version

Product inlet and outlet are positioned on the same level. The NETZSCH twin shaft macerator can be directly connected into a horizontal pipeline or to a pump inlet of a NEMO® pump or a NETZSCH TORNADO® industrial rotary lobe pump, where flange is set at 90°.





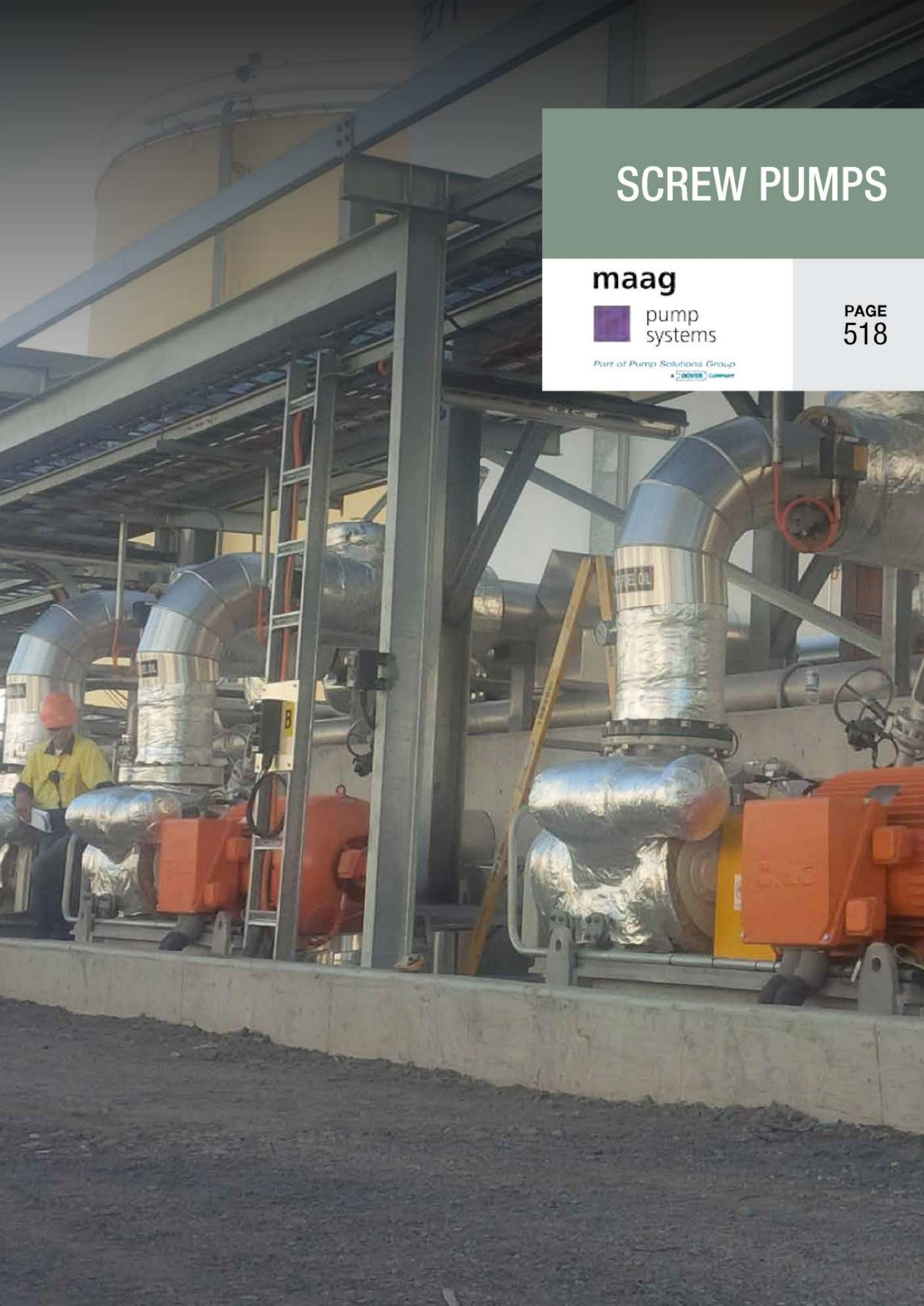
# SCREW PUMPS

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PAGE  
518



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S Series Screw Pumps excel in challenging applications. S Series pumps and systems are reliable, durable and capable of overcoming your most difficult transfer needs daily, and long into the future. Engineered with the pump user in mind, our pumps are ideally suited for applications requiring a pump that can move thin fluids, as well as transfer very demanding viscous liquids. S Series pumps are ideally suited for high-pressure oil transfer, but also offer many configurations for non-lubricating, LPG, sulfur and solid-laden applications. Increase the efficiency and profitability of your company today... with S Series pumps.



### Best suited for...

- |                     |             |                     |                     |
|---------------------|-------------|---------------------|---------------------|
| • Chemicals         | • Acids     | • Lube oil          | • Terminals         |
| • Caustics          | • Polymers  | • Kerosene          | • Shipping          |
| • Adhesives         | • Crude oil | • Oil fields        | • Bilge and ballast |
| • Food and beverage | • Asphalt   | • Residuals         | • Fire-suppression  |
| • Soap              | • Diesel    | • Bulk transfer     |                     |
| • Petrochemicals    | • Seawater  | • Loading/unloading |                     |

### Features & Benefits:

- |  |   |
|--|---|
| • Vertical and mobile configurations                 | • Self-developed filters and frequency converters |
| • Solid-handling options                             | • Specialty lines:                                |
| • Non-lubricant fluid options                        | - Liquid sulfur pumps                             |
| • Capacities to 2,500 m <sup>3</sup> /h (11,023 gpm) | - Multi-phase pumps                               |
| • Discharge pressures to 100 bar (1,450 psi)         | - Granulators                                     |
| • Various connection types: GB/DIN/ANSI              | - Filters   |
| • Temperatures to 450°C (842°F)                      |   |





## Markets Served

### PROCESS

Maag's attention to detail, quality assurance procedures, and expertise in the chemical process market, ensures your success. Our application experts can assist in your toughest applications to ensure maximum efficiency and Mean Time Between Repair (MTBR).

Typical Applications Handled:

- Chemical
- Adhesives
- Food and beverage
- Petrochemicals
- Polymers

### TRANSPORT

Whether it's tankers, railcars, or terminals, Maag's solutions offer top-notch reliability in the transport industry. Keep your products moving with one of our application engineer's today.

Typical Applications Handled:

- Bulk transfer
- Loading / unloading
- Terminals
- Shipping

### ENERGY

Maag's knowledge and proven success in the power generation, oil & gas industries have instilled confidence in users worldwide. Consult our experts at Maag today, to ensure your success in the energy market.

Typical Applications Handled:

- Crude oil
- Asphalt
- Kerosene
- Oil field
- Residuals
- Electric generation

### MARINE

Maag is here with proven success, to support the marine and shipbuilding industries. With a wide range of compatibility, the safe, swift and reliable transfer of marine fluids is a core function of Maag pumps.

Typical Applications Handled:

- Shipbuilding
- Diesel
- Lube oil



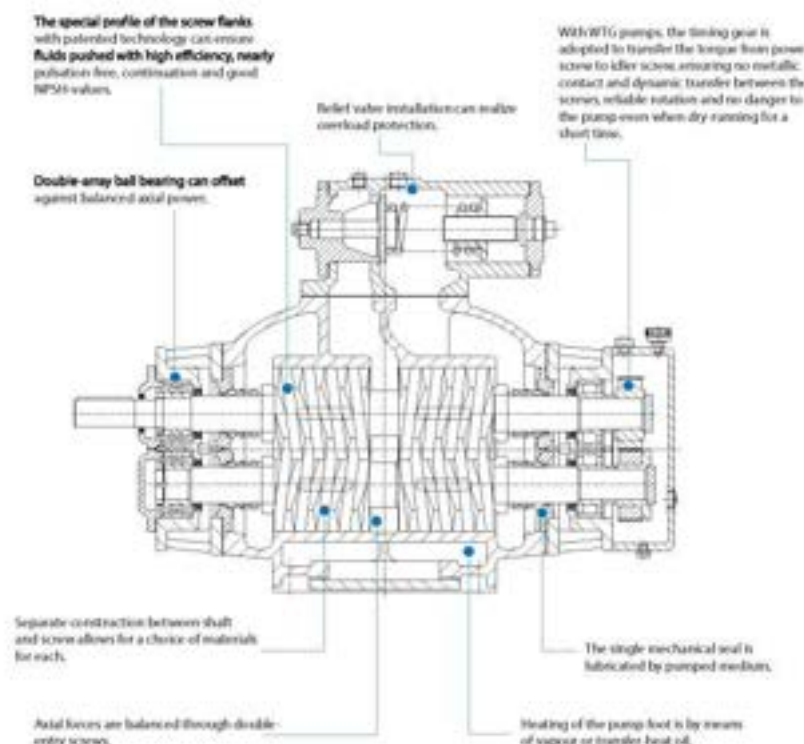
**maag**

 pump  
systems

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## Principle of Operation:

Maag Twin Screw Pumps are rotary, positive displacement pumps capable of handling various clean liquids that contain no solids. The pump is composed of two sets of opposed screws. During pump operation, the screws on the two shafts are engaged and form a sealed cavity with the surrounding pump casing. The pumped liquid is shifted axially as the screw shafts turn and steadily and constantly convey the liquid to the centre of the pump where the discharge port is located. Since hydraulic forces on two screws are opposite and equal, the hydraulic axial stress on shafts is automatically balanced.



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.



S Series offers a vast array of pumps with features and options to meet your most critical transfer needs. Additionally, S Series offers specialty pumps, granulators and filters.

TWIN SCREW PUMPS	CAPACITY		DIFF. PRESSURE		VISCOSITY	MAX. TEMPERATURE	
SERIES	M <sup>3</sup> /H	GPM	BAR	PSI	MM <sup>2</sup> /S (CST)	°C	°F
2HM/2VM	2-2,500	10-11,000	up to 4.0	up to 360	0.5-200,000	120	248
2HR/2VR	2-2,500	10-11,000	up to 40.0	up to 600	0.5-200,000	350	662
2HE/2VE	2-2,500	10-11,000	up to 25.0	up to 360	20-3,000	100	212
2HH	10-1,000	50-4,500	up to 60.0	up to 900	1-10,000	120	248
2HC	35-750	150-3,300	up to 16.0	up to 230	1-10,000	120	248
2H	1-40	5-180	up to 16.0	up to 230	1-100,000	100	212

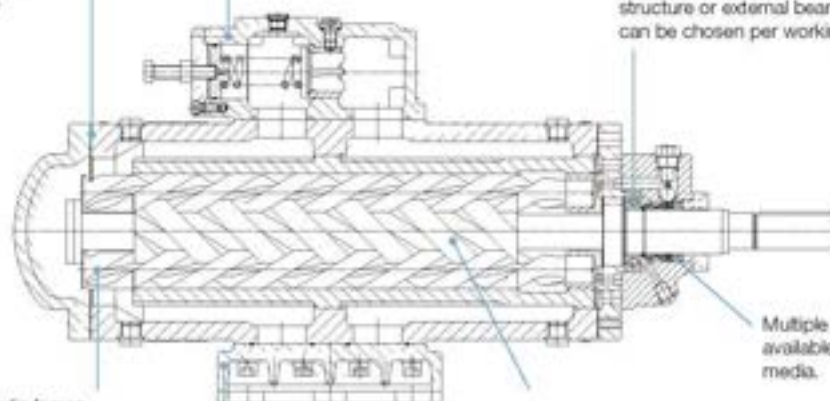
MULTI-PHASE PUMPS	CAPACITY		DIFF. PRESSURE		MAX. TEMPERATURE		GVF
SERIES	M <sup>3</sup> /H	GPM	BAR	PSI	°C	°F	%
2MPS...B	30-1,500	130-6,500	up to 30.0	up to 430	120	248	up to 80%
2MPS...H	30-1,000	130-4,333	up to 36.0	up to 520	120	248	up to 97%
2MP	30-800	130-3,500	up to 60.0	up to 870	120	248	up to 97%



Uniquely constructed pressure relief valve on the pump body. In instances where the discharge pressure is higher than the working pressure, part of the media may flow back to the inlet of the pump for overload protection. Meanwhile, the pump can be started at full pressure, thereby reducing the startup torque.

Jacketed pump body is available for various temperature and media needs.

The axial force of the drive is equalized by the balance piston; minimal residue axial force is placed on the rollers (secondary shafts) allowing for a maximized shaft life. Internal bearing structure or external bearing structure can be chosen per working conditions.



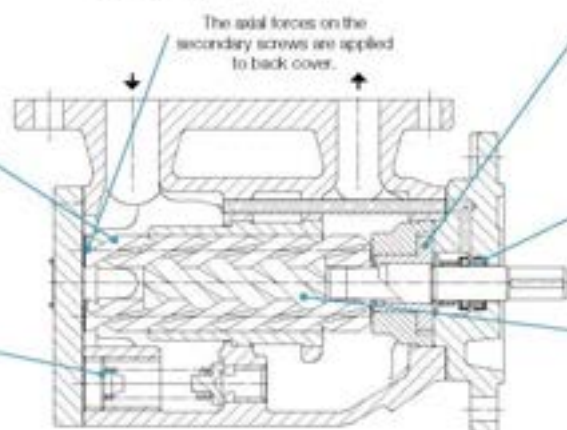
Multiple shaft seals are available for different media.

Secondary screws are driven by hydraulic forces. Torque from the friction of the media is transferred and applied on the surface of secondary screws; therefore, no wearing occurs on the surface. The axial forces on the secondary screws are balanced by the low-tension from the balance sleeves.

Multiple installation modes are available, including horizontal, flanged, vertical, submerged, hang-up, etc.

A constant sealed chamber is formed between the teeth of the drive and secondary screws to move the liquid to the discharge port with consistent speed. Therefore, there is no pulsation during transportation and no propulsion since the sealed chamber remains volumetrically constant.

Secondary screws are driven by hydraulic forces. Torque from the friction of the media is transferred and applied on the surface of secondary screws; therefore, no wearing occurs on the surface.



The balancing piston balances the axial force on the surface of the drive screw.

The sealing chamber contains mechanical seals. The sealing chamber is connected to suction chamber via reflux hole; therefore, the mechanical seal is not affected by the discharge pressure.

A constant sealed chamber is formed between the teeth of the drive and secondary screws to move the liquid to the discharge port with consistent speed. Therefore, there is no pulsation during transportation and no propulsion since the sealed chamber remains volumetrically constant.

The internal pressure valve for over-load protection ensures system safety.



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## Principle of Operation:

The S Series Triple-Screw Pump manufactured by MAAG is a type of positive displacement rotary pump for handling clear, lubricating liquid without solid content. The internal structure of the Triple-Screw Pump includes a male drive spindle, two female secondary spindles and the case that holds the three screws. The sealed chamber moving at a uniform speed is formed between the case and the three rotating screws along the axial direction. During the male drive screw rotation, liquid moves in the sealed chamber along the axial direction continuously and smoothly from suction to discharge.



## Model Selection

### A. User-Provided Parameters

- Working temperature of the media, T
- Viscosity at working temperature,  $\nu$
- Suction pressure (or vacuum), P1
- Discharge pressure, P2
- Working flow, Q
- Installation mode
- Any other supporting requirements

N (KW)	$N \leq 5$	$5 < N \leq 10$	$10 < N \leq 50$	$N > 50$
K	1.25	1.2	1.15	1.1

TRIPLE SCREW PUMPS	CAPACITY		DIFF. PRESSURE		VISCOSITY	MAX. TEMP	
	L/MIN	GPM	BAR	PSI		°C	°F
3N	10-5,300	2.6-1,400	up to 40	up to 580	3-5,000	280	536
3M	10-2,200	2.6-581	up to 100	up to 1450	3-5,000	280	536
3PF	2-130	0.5-34	up to 40	up to 580	3-750	150	302

### B. Notes for Model Selection

- Select proper structure based on the features of the media being pumped.
- Select proper speed based on the viscosity of the media. If media viscosity is  $> 760 \text{ mm}^2/\text{s}$ , please contact company for assistance.
- Select the model based on the flow and pressure from the S Series Triple-Screw Pump performance data sheet.
- Check and identify the NPSHr value from the cavitation redundancy sheet based on the pump specification, speed and viscosity. It should be ensured that the  $\text{NPSHr} < \text{NPSHa}$  (cavitation redundancy of the inlet piping). Otherwise, a pump with one size larger or lower speed should be selected.
- After selecting the pump specification, identify the shaft power (N-m) from the performance chart. When selecting mating motors,  $\text{N-m} \geq K \times N$ .
- Please refer to the table below for the value of K.



## Nomenclature

<b>3X</b>	<b>H</b>	<b>210</b>	<b>R</b>	<b>46</b>	<b>E</b>	<b>6.7</b>	<b>Y</b>	<b>-W23</b>
SERIES CODE	INSTALLATION CODE	SIZE CODE	THREAD ORIENTATION OF THE DRIVE SPINDLE	HELIX ANGLE OF THE DRIVE SPINDLE	STRUCTURAL FEATURE	SEAL TYPE	PUMP CASING HEATING TYPE	MATERIALS CODE

## Performance Data

SERIES	KEY FEATURES	FLOW RATE		MAX. DISCHARGE PRESSURE		VISCOSITY (MM <sup>2</sup> /S)	MAX. TEMPERATURE	
		L/MIN	GPM	BAR	PSIG		°C	°F
3M	High pressure, single suction, axial hydraulic balance	10 – 2,200	2.6 – 581	100	1450	3-5,000	≤ 280	536
3N	Low pressure, single suction, axial hydraulic balance	10 – 5,300	2.6 – 1,400	40	580	3-5,000	≤ 280	536

## Installation Mode

INSTALLATION MODE	H	F	S	G	E
DESCRIPTION	FOOT INSTALLATION	FLANGE INSTALLATION	VERTICAL INSTALLATION	HORIZONTAL U INSTALLATION	BARREL-TYPE PUMP UNIT
Illustration					

## Specification and Helix Angle


The pump specification code is determined based on a pump running at 1,450 r/min, with helix angle of 46 degrees. There are 14 specification codes for 3N pumps in total.

SPECIFICATION CODE	40	80	120	210	280	440	660	940	1300	1700	220	2900	3600	5300
Helix Angle (degrees)	38	36	42	40	43	40	40	42	38	42	42	40	46	46
	46	42	46	46	46	46	44	46	42	46	46	46		
	54	46	54	54	54	52	46	50	46					
		54				54	51	54	54					

Maag reserves the right to change the data in the table without prior notice.

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## Drive Screw Orientation

View from the drive end: R stands for clockwise; L stands for counter clockwise.

### Structural Feature

	STRUCTURE	APPLICATIONS
U	Internal bearing, multiple seal types	Media with good lubricity, working temperature below 150°C (302°F)
K	External bearing, packing seal	Media with poor lubricity, high viscosity, working temperature below ≤280°C (536°F)
E	External bearing, mechanical seal, with greasing port on bearing	Media with poor lubricity, working temperature 80-150°C (176 - 302°F)
D	External bearing, mechanical seal, without greasing port on bearing	Media with poor lubricity, working temperature below 80 °C (176°F)

### Pump Body Heating Type

CODE	STRUCTURE
[blank]	Standard pump body for handling lubricating liquid with good fluidity
Y	Welded pump casing with heating jacket, using steam or other hot fluid as heating media
4	Electrical heating

### Seal Type

CODE	DESCRIPTION	APPLICATION
2	Packing seal	U and K structures
3	Double oil seal	U structure
4	Triple oil seal	U structure
6.7	Mechanical seal	E, D and U structure
12.1	Mechanical seal	U, D and E structure

### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

## Materials

	CODE	CASING			LINER		
		GB	DIN	ANSI	GB	DIN	ANSI
3M	W3	QT400-18	GGG-40	60-40-18 F32800	ZL109	-	A03360/A03361
	W12	20G	HI	1018	ZL109	-	A03360/A03361
	W13	20G	HI	1018	ZQSn5-5-5	G-CUSN5ZNPB 2.1096.01	C83600
	W23	QT400-18	GGG-40	60-40-18 F32800	ZQSn5-5-5	G-CUSN5ZNPB 2.1096.01	C83600
3N	W1	HT250	GG 25	Class 358	QT450-10	GGG-45	65-45-12
	W2	HT250	GG 25	Class 358	ZL109	-	A03360/A03361
	W3	QT400-18	GGG-40	60-40-18 F32800	ZL109	-	A03360/A03361
	W5	QT400-18	GGG-40	60-40-18 F32800	QT450-10	GGG-45	65-45-12
	W21	HT250	GG 25	Class 358	ZQSn5-5-5	G-CUSN5ZNPB 2.1096.01	C83600
	W23	QT400-18	GGG-40	60-40-18 F32800	ZQSn5-5-5	G-CUSN5ZNPB 2.1096.01	C83600
	W23	QT400-18	GGG-40	60-40-18 F32800	ZQSn5-5-5	G-CUSN5ZNPB 2.1096.01	C83600



## Nomenclature

3PF	20	R	38	G	10	F	-W2
SERIES CODE	SIZE CODE	THREAD ORIENTATION OF THE DRIVE SPINDLE	HELIX ANGLE OF THE DRIVE SPINDLE	CODE FOR BEARINGS	SEAL TYPE	WITH FILTER	MATERIAL CODE
	The theoretical flow rate at 1450 rpm with rising angle of 46 degree	R = right-hand L = left-hand		G = sliding bearing U = antifriction bearing			

	CODE	CASING			LINER		
		GB	DIN	ANSI	GB	DIN	ANSI
3PF	W1	HT250	GG 25	Class 35B	QT450-10	GGG-45 0.7045	65-45-12
	W2	HT250	GG 25	Class 35B	ZL109	-	A03360/A03361
	W3	QT400-18	GGG-40	60-40-18 F32800	ZL109	-	A03360/A03361
	W5	QT400-18	GGG-40	60-40-18 F32800	QT450-10	GGG-45 0.7045	65-45-12
	W21	HT250	GG 25	Class 35B	ZQ5n5-5-5	G-CuSn5ZnPb 2.1096.01	C83600
	W23	QT400-18	GGG-40	60-40-18 F32800	ZQ5n5-5-5	G-CuSn5ZnPb 2.1096.01	C83600



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## Applications

- Transportation and boost pump in fuel system, fuel pump for fuel furnace
- Transportation and dispensing pump in oil delivery system
- Lubricating oil pump in industrial applications
- Hydraulic pump in hydraulic transmitting system



## Features and Benefits

- Low pressure fluctuation, stable flow
- Strong self-priming capability, reverse rotation, high efficiency
- Low noise and vibration
- Compact construction and size for ease of install and maintenance

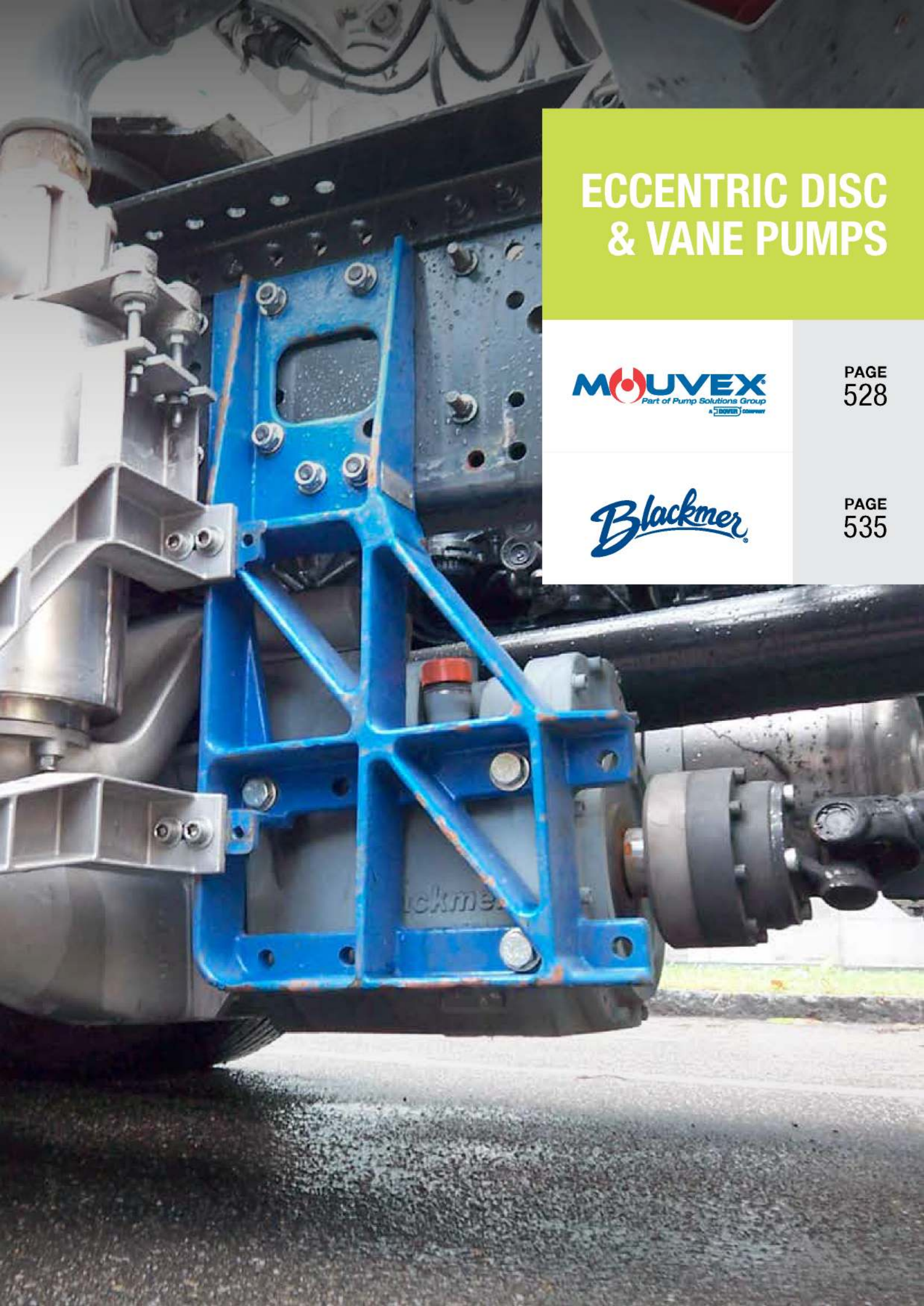
## Technical Data

- Pump casing: Cast iron/ductile iron/cast steel/cast stainless steel
- Shaft: Alloy steel/ stainless steel
- Screws: Ductile iron/alloy steel/stainless steel
- Casings constructions to select:
  - Top inlet
  - Top outlet

## Certifications & Associations

**CCS ISO 9001:2008**





# ECCENTRIC DISC & VANE PUMPS



PAGE  
528



PAGE  
535



## MOVEX OVERVIEW

### How It Works

Eccentric movement technology is at the core of Movex. Movex founder Andre Petit identified the challenges that gear and lobe pump users were facing in optimizing their process and invented the eccentric disc pump as a result. Mr. Petit specifically placed a disk inside the pump cylinder so the eccentric disk would be more user-friendly.

This disc is driven by an eccentric bearing that is installed on the pump shaft, thus creating four distinct pumping chambers that increase and decrease in volume as the disc is rotated by the eccentric bearing. The four chambers produce both suction and discharge pressures as the chambers move in pairs that are 180 degrees apart. This ensures that the fluid passes through the pump at a constant and regular flow rate.

### Mouvex Principle

Eccentric disc pumps consist of a cylinder and pumping element mounted on an eccentric shaft. As the eccentric shaft is rotated, the pumping element forms chambers within the cylinder, which increase in size at the intake port, drawing fluid into the pumping chamber. The fluid is transported to the discharge port where the pumping chamber size is decreased. This action squeezes the fluid out into the discharge piping.

### Mouvex Technology

Eccentric disc pumps consist of a cylinder and pumping element mounted on an eccentric shaft. As the eccentric shaft is rotated, the pumping element forms chambers within the cylinder, which increase in size at the intake port, drawing fluid into the pumping chamber. The fluid is transported to the discharge port where the pumping chamber size is decreased. This action squeezes the fluid out into the discharge piping.

#### Filling Internal Chamber



#### Emptying Internal Chamber





## Markets Served

### PROCESS

Chemical companies around the world rely on Mouvex for their fluid transfer needs. Mouvex transfers raw products from storage containers to loading of product onto transport vehicles.

#### Typical Applications Handled:

- Acids
- Carbon Dioxide
- Solvents
- Soap & Detergents
- Paper - Glue
- Paints, Inks & Coatings
- Isocyanate - Polyols
- Polyurethane

### TRANSPORT

Mouvex Pumps and compressors move raw product from rail and transport vehicles to bulk storage tanks and facilities.

#### Typical Applications Handled:

- Oils
- Fuels
- Chemicals
- Liquid Foods
- Bio-lube
- Asphalt
- Liquid Waste
- Liquid Fertilizers
- Dry Bulk

### MILITARY & MARINE

Mouvex is proud to support the military with our leading-edge pumps and compressors.

#### Typical Applications Handled:

- Fuel Oil
- Gasoline
- Kerosene
- Lube Oil

### ENERGY

Mouvex pumps are widely used to load, transfer and unload petroleum.

#### Typical Applications Handled:

- Fuel Oil
- Gasoline
- Diesel
- Biofuels
- Feedstock
- Methanol
- Ethanol
- Oil & Gas
- Processing

### HYGIENIC

Mouvex is a leader in the food, beverage and pharmaceutical industries with its innovative Eccentric Disc Pumps that improve productivity and efficiency.

#### Typical Applications Handled:

- Dairy
- Beverages
- Confectionery
- Sauces & Dressings
- Animal Food
- Cosmetics
- Pharmaceutical




**MICRO C SERIES**

## Micro C Series

The Micro C Series Seal-less Eccentric Disc Pumps are designed for continuous transfer and low-flow metering. They deliver consistent performance and are minimally affected by fluctuations in pressure and viscosity.

### Applications

- Dairy
- Sauces & Dressings
- Beverages, Wines and Beers
- Cereals
- Cakes and baked goods
- Confectionery
- Cosmetics
- Pharmaceutical
- Animal food & pet food
- Laboratory
- Chemical
- Biofuel
- Paints & Coating
- Paper

### Technical Data:

- Body, bellows and cylinder: 316 stainless steel
- Disc: CY5SnBiM (anti-galling alloy)
- Max. temperature: 100°C (212°F)

### Certifications & Associations:



Micro C Series: C325 Eccentric Disc Pump



### Features and Benefits:

- Seal less design eliminates leakage
- Drainability
- Eliminates maintenance
- Small footprint
- Self-priming with strong suction lift
- Low shear
- More efficient
- Ability to run dry
- Saves costs
- Ability to clear pipes
- Maintains consistent performance over time
- Easy integration

### Performance Data:

- Max. speed: 1,000 rpm
- Max. output: 800 L/hr (3.5 gpm)
- Max. pressure: 15 bar (217 psi)



## Product Recovery

Mouvex® has several pump models that includes product-recovery capability in food and beverage, pharmaceutical, and cosmetic/personal-care product manufacturing:

## Seal-less Design

Designed without mechanical seals, packing, or magnetic drive, Mouvex Eccentric Disc pumps feature a unique seal-less design with superior volumetric performance, resulting in high efficiency level over the time and optimized productivity gain and energy savings.

The Mouvex principle pumps also provide very high suction and discharge pressure that allow the capability to self-prime and fully strip lines, maximizing product recovery.

## C Series and SLS Series:

- Feature a unique seal-less design with double stainless steel bellows to ensure long life and product safety
- For higher capacity applications
- Efficient and modular design for process applications
- Your solution for air and shear sensitive products and requiring a high sanitary standard

## Advantages:

- Eccentric Disc design allows for consistent flow and improved energy savings
- Extremely gentle, pulse-free flow to protect shear-sensitive products
- Reduced maintenance with no mechanical seals or timing gears
- Easy to install

## Features and Benefits:

- Seal-less design eliminates leakage
- Ability to strip and drain transfer piping/tubing
- Line-stripping capabilities
- Self-priming with strong suction
- Shear-sensitive handling
- Consistent flow rate independent of pressure
- Low linear speed
- Precise dosing
- Accurate volume metering with high turn down
- Dry-run capable
- Maintains performance over time
- Effective with both high and low-viscosity fluids
- Full drainability
- Clean-In-Place (CIP)/Sanitize-In-Place (SIP)
- Easy integration



C Series Eccentric Disc Pump



SLS Series: 1/2/3  
Eccentric Disc Pump

SLS Series: 4/8  
Eccentric Disc Pump



MODEL	SIZE	MAXIMUM SPEED*	MAXIMUM FLOW RATE*	MAXIMUM PRESSURE	MAXIMUM TEMPERATURE	MATERIALS OF CONSTRUCTION
C Series	C12i	500 rpm	12 m <sup>3</sup> /hr (52 gpm)	9 bar (130 psi)	121°C (250°F)	Bellows: 316Ti Stainless Steel Disc: CYS5nBIM (anti-galling alloy) Cylinder: 316L Stainless Steel Body Casing: 316L Stainless Steel
	C18i	500 rpm	18 m <sup>3</sup> /hr (79 gpm)	6 bar (86 psi)		
	C24i	450 rpm	24 m <sup>3</sup> /hr (105 gpm)	9 bar (130 psi)		
	C36i	450 rpm	36 m <sup>3</sup> /hr (158 gpm)	6 bar (87 psi)		
SLS Series	SLS 1	1000 rpm	1 m <sup>3</sup> /hr (4.4 gpm)	16 bar (232 psi)	121°C (250°F)	Bellows: 316Ti Stainless Steel Disc: CYS5nBIM (anti-galling alloy) Cylinder: 316L Stainless Steel Body Casing: 316L Stainless Steel
	SLS 2	1000 rpm	2 m <sup>3</sup> /hr (8.8 gpm)	10 bar (145 psi)		
	SLS 3	1000 rpm	3 m <sup>3</sup> /hr (13.2 gpm)	6 bar (87 psi)		
	SLS 4	750 rpm	4 m <sup>3</sup> /hr (17.6 gpm)	10 bar (145 psi)		
	SLS 8	750 rpm	8 m <sup>3</sup> /hr (35.2 gpm)	6 bar (87 psi)		
S Series	S2	900rpm	1,500 L/hr (6.6 gpm)	6 bar (87 psi)	80°C (176°F) SIP 120°C (20 minutes)	Bellows: FKM Disc: CYS5nBIM (anti-galling alloy) Cylinder: 316L Stainless Steel Body Casing: 316L Stainless Steel
	S4	750 rpm	4,000 L/hr (17.6 gpm)	6 bar (87 psi)		
	S6	500 rpm	12,000 L/hr (52 gpm)	6 bar (87 psi)		
SLC Series	SLC1	1000 rpm	1 m <sup>3</sup> /hr (4.4 gpm)	16 bar (232 psi)	80°C (176°F) SIP 120°C (20 minutes)	Bellows: FKM Disc: CYS5nBIM (anti-galling alloy) Cylinder: 316L Stainless Steel Body Casing: 316L Stainless Steel
	SLC2	1000 rpm	2 m <sup>3</sup> /hr (8.8 gpm)	10 bar (145 psi)		
	SLC3	1000 rpm	3 m <sup>3</sup> /hr (13.2 gpm)	6 bar (87 psi)		
	SLC4	750 rpm	4 m <sup>3</sup> /hr (17.6 gpm)	10 bar (145 psi)		
	SLC8	750 rpm	8 m <sup>3</sup> /hr (35.2 gpm)	6 bar (87 psi)		

\* Actual maximum speed and flow for application dependent on proper application sizing.

Fittings: SMS, DIN 11851, DIN 11864 BF-A Aseptik fl, Tri-Clamp ® Equivalent available.

## S Series:

- Features a unique seal-less design with FKM bellow
- Simplest positive displacement pump to clean out of place in the industry, including sanitary applications requiring quick and easy dismantling (Up to 12 m<sup>3</sup>/hr/52 gpm)

## SLC Series:

- Features a unique seal-less design with FKM bellow
- Simplest positive displacement pump to clean out of place in the industry, including sanitary applications requiring quick and easy dismantling (Up to 12 m<sup>3</sup>/hr/52 gpm)

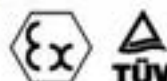


SLC Series: 4/8  
Eccentric Disc Pump



(\* In Process)

S Series: S6  
Eccentric Disc Pump





## A Series

The A Series Eccentric Disc Pumps have been designed to easily adapt to liquids that are viscous, non-lubricating, volatile or delicate. A Series pumps can meet these challenges through their eccentric disc design, which results in exceptional self-priming and pipe-clearing capabilities, even when running dry.



A Series: A31  
Eccentric Disc Pump

## Applications

- |                  |                    |
|------------------|--------------------|
| • Detergents     | • Paint            |
| • Tallow         | • Fuel             |
| • Glues          | • Molasses         |
| • Asphalt        | • Heavy fuel oil   |
| • Inks           | • Oils             |
| • Emulsions      | • Fatty substances |
| • Thermal fluids | • Solvents         |

## Features and Benefits:

- Highly efficient
- Exceptional self-priming capabilities
- Maintain initial performance levels over time
- No adjustments required
- Constant output flows independent of delivery pressure
- Excellent efficiency
- Durable
- Maintains constant output
- Transfers viscous, non-lubricating, volatile or delicate fluids
- Smooth transfer
- Maintains initial performance

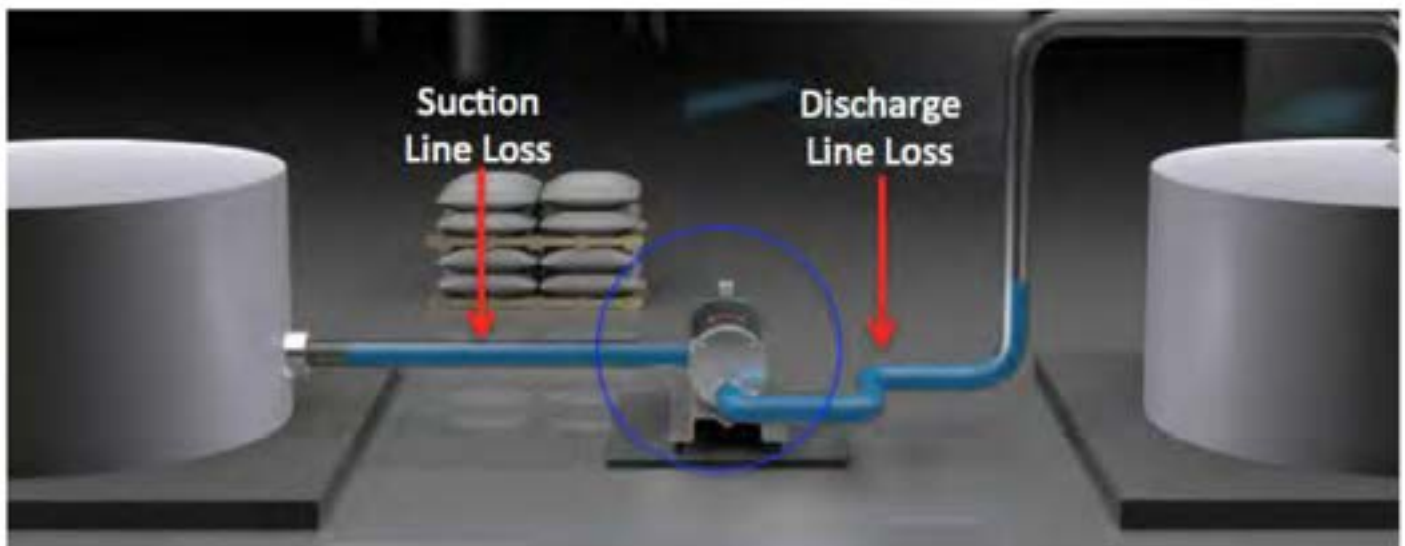
## Technical Data:

- Ductile iron construction
- Optional jacketed head available
- Capable of operating in either direction of rotation

## Performance Data:

- Max. flow rate: 50 m<sup>3</sup>/hr (220 gpm)
- Max. suction lift: 8 m (26 ft)
- Max. differential pressure: 10 bar (145 psig)
- Max. temperature: 80°C (176°F)

## Certifications & Associations:




**CC20 TANK TRUCK SERIES**

## CC20 Tank Truck Series

The CC20 Metering Pump is an ideal solution for filling and emptying road tankers, due to its vehicle-mounted design. This multi-purpose application also enables it to be used as a stationary unit.

### Applications

- Waste oil
- Resins
- Fuels
- Soda
- Solvents
- Petrol
- Silicates
- Crude oil
- Syrup
- Emulsions
- Paraffin
- Lubricants
- Inks
- Adhesives

### Features and Benefits:

- Total draining of hoses
- Simple installation
- Compact
- Reduced weight
- Excellent self-priming capacity
- Constant and smooth delivery

### Technical Data:

- Cast iron, aluminium, steel and bronze construction
- Special "solvents" construction
- Safety bypass integrated

### Performance Data:

- Max. flow rate: 30 m<sup>3</sup>/hr (132 gpm)
- Max. viscosity: 750 cSt
- Max. rotation speed: 750 rpm

### Certifications & Associations:



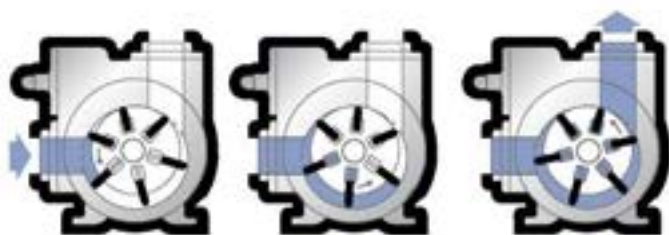
CC20 Series  
Eccentric Disc Pump





## Vane Technology: How It Works

Sliding vane pumps have a number of vanes that are free to slide into or out of slots in the pump rotor. When the pump driver turns the rotor, centrifugal force, rods, and/or pressurized fluid causes the vanes to move outward in their slots and bear against the inner bore of the pump casing forming pumping chambers. As the rotor revolves, fluid flows into the area between the vanes (pumping chambers) when they pass the suction port.



This fluid is transported around the pump casing until the discharge port is reached. At this point the fluid is squeezed out into the discharge piping. Each revolution of a sliding vane pump displaces a constant volume of fluid. Variance in pressure has minimal effect. Energy-wasting turbulence and slippage are minimized and high volumetric efficiency is maintained.

## Key Design Benefits

Sliding vane pumps are designed with unique "self-adjusting" vanes that allow them to maintain near original volumetric performance during the life of the pump — meaning these pumps are not subject to efficiency-robbing slip that occurs from wear in gear and lobe pumps. In addition, vane pumps are designed around the bearings and seals, so they offer longer life and greater product loss prevention than other technologies.

**SLIDING VANES:** Nonmetallic composite vanes that automatically adjust clearances to allow the pump to sustain consistent volumetric performance while also offering exceptional suction and dry priming capabilities.

**CAVITATION/NOISE SUPPRESSION LINER:** This unique feature, patented by Blackmer, a global leader in vane pump technology, minimizes the effects of cavitation on the pump and piping system while at the same time reducing noise levels up to 15 dbA.

In recent years, advances in traditional vane technology have resulted in even greater performance capabilities, longer service life and a wider range of process applications.







## INDUSTRIAL & PROCESS

### Industrial & Process Sliding Vane Pumps

Many of the chemicals used in industrial process applications are difficult to handle, often toxic or corrosive in nature, difficult to seal and expensive to purchase. Blackmer's sliding vane pumps are available in compatible materials with shaft sealing and seal-less options that make them the products of choice for many process applications.

#### Applications

- Acids
- General chemicals
- CO<sub>2</sub>
- Paints, inks and coatings
- Solvents
- Refrigerants
- Soaps and detergents
- Diesel Exhaust Fluid (DEF)

#### Features and Benefits:

- Designed for specific process and transfer applications
- Highly efficient sliding vane technology
- Self-adjusting vanes sustain performance
- Self-priming, line stripping and dry-run capabilities
- Ideal for thin or non-lubricating, viscous, abrasive and shear-sensitive fluids
- Seal-less and mechanically sealed designs available
- Reduced energy consumption
- Reduced costs
- Sustained performance
- Consistent flow
- Handles thin or non-lubricating, viscous, abrasive and shear-sensitive fluids
- High volumetric efficiency

#### Technical Data:

- Cast iron, ductile iron and stainless steel models available
- Sizes: 19mm (3/4 in.) to 254mm (10 in.)
- Max. working pressures: 17.2 bar (250 psi)
- Max. temperatures: 266° C (500° F)
- Viscosities to >21,000 cSt (100,000 SSU)
- Motor speed and gear reducer drives

#### Performance Data:

- Max. flow: 8,404 L/min (2,220 gpm)
- Max. differential pressure: 13.8 bar (200 psi)

#### Certifications & Associations:



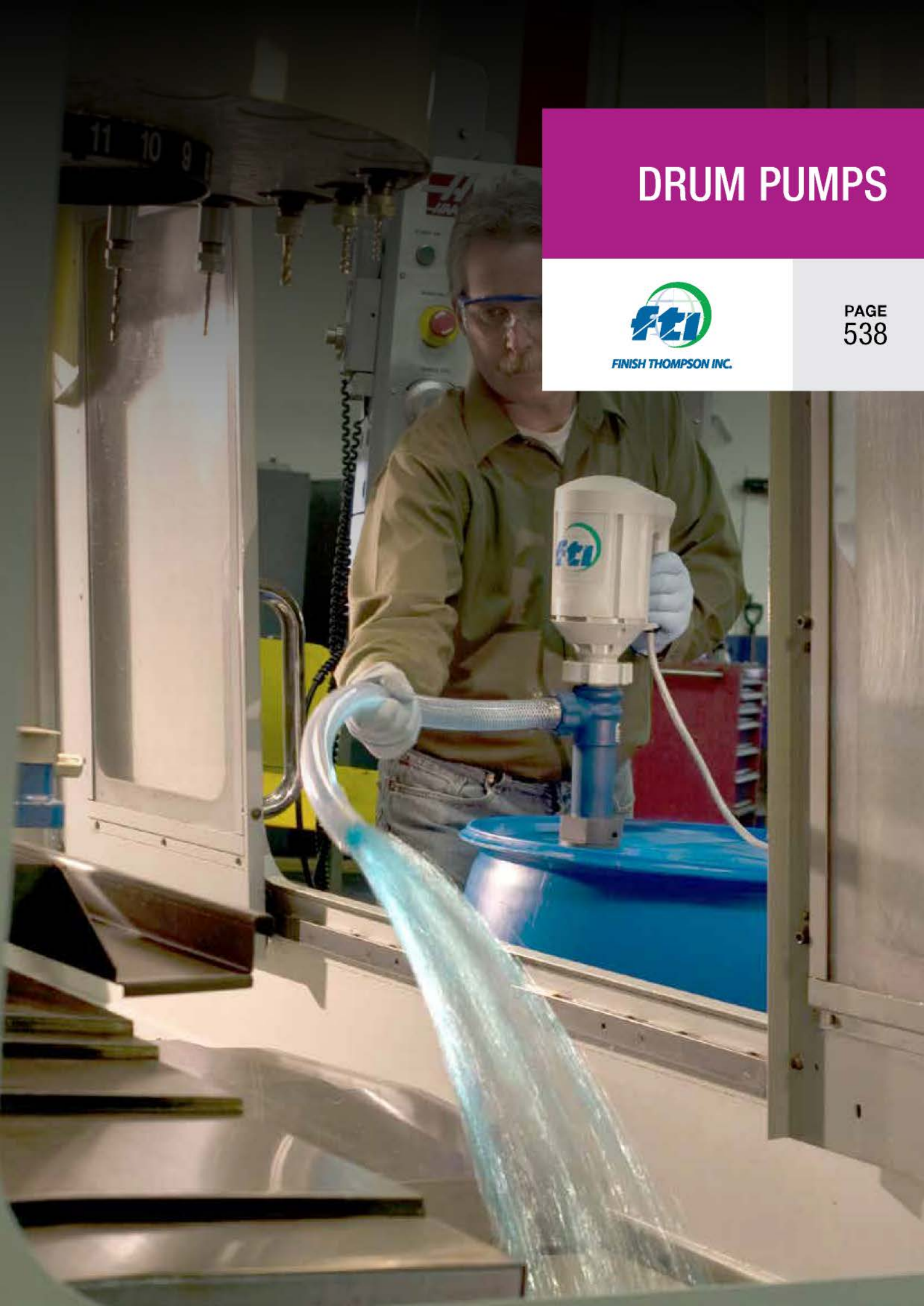


# DRUM PUMPS



FINISH THOMPSON INC.

PAGE  
538





## Finish Thompson Drum Pumps

Drum pumps are used to pump liquid out of drums, totes and IBC's. Drum pumps normally consist of an air or electric motor and a long, thin pump tube which can be inserted into a 2" drum opening.

Drum pumps can be used for pumping a wide variety of thin and thick liquids including acids, chemicals, polymers, oils, and food manufacturing ingredients. Safe, easy, portable and practical way to transfer a wide variety of liquids that are stored in a drum, tote or IBC. Drum pumps are normally supplied as centrifugal pumps, however positive displacement pumps are available for pumping thicker liquids. Stainless Steel pumps are also available for food applications.



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.





# PF SERIES<sup>1</sup> PUMP TUBES



## Sealless, High Performance

Unique double suction impeller provides high flow and high head. Handles acids, caustics, chemicals and flammables<sup>1</sup>.

## Applications

Acids, bases, solvents<sup>1</sup>, water treatment chemicals, cleaners, plating solutions, kidney dialysis solutions, sanitary, diesel exhaust fluid (DEF)/AdBlue.

## Construction Specifications

PUMP SERIES	CONSTRUCTION MATERIALS		TUBE DIA. IN (CM)	MAX. TEMP.*	
	OUTER TUBE	INTERNALS		°F	°C
PFM	Polypro	316 SS, Polypro, FKM, PVDF	2 (5.1)	160	71
PPF	Polypro	Alloy 625, Polypro, FKM, PVDF		120	49
PFV*	PVDF	Alloy 625, FKM, PVDF		220	105
PPS	316SS	316SS, FKM, ETFE			

\*PFV-72 = 115°F (46°C)



Tube lengths  
27" (69cm), 40" (102cm), 48" (122cm),  
60" (152cm), 72" (183cm)

## Performance Data

PUMP SERIES	HOSE SIZE	MAXIMUM FLOW**		MAXIMUM HEAD**		MAX SPECIFIC GRAVITY	MAX VISCOSITY CP	
		ELECTRIC GPM (IPM)	AIR GPM (IPM)	ELECTRIC FT (M)	AIR FT (M)		ELECTRIC	AIR
PPF, PFM PFV, PFS	1"	40 (151)	22 (83)	80 (24)	38 (11.6)	1.8	2,000	330

### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

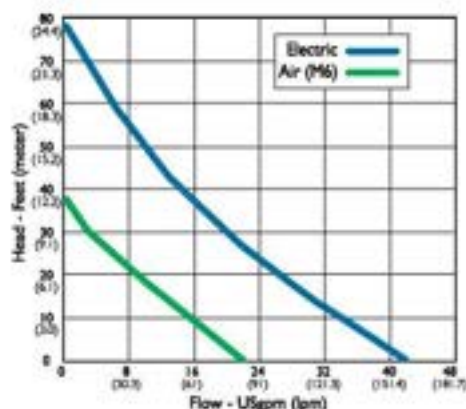
## Viscosity Data

VISCOSITY (CP)	100	250	500	1,000	2,000
Max Flow gpm (lpm)	24 (91)	16 (61)	11 (42)	7 (26)	4 (15)
Max Head feet (meter)	52 (16)	51 (16)	48 (15)	45 (14)	28 (9)

Note: 100-500 cP results using M3/M5V motor;  
500-2,000 cP results using M58/M59P motor

## Motor Model

PUMP	USES MODEL
PF	M3V, M5V, M5V-US
	M3T, M5T
	M3X, M5X, M10X
	M58P, M59P
	M6, M6X



<sup>1</sup>Pat. US D658, 2745; Pat. ZL 201130042124.3; OHIM Pat. 001839002-0003

\*When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.

\*\*All testing performed with water at 68°F (20°C). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.



## EF SERIES<sup>1</sup> PUMPTUBES

### Sealless, Best Value

This pump provides an economical choice for light duty transfer. Ideal replacement for hand pumps.

### Applications

Light acids and bases, solvents<sup>1</sup>, plating solutions, sodium hypochlorite, cleaners, coolants, diesel exhaust fluid (DEF)/AdBlue.

### Construction Specifications

PUMP SERIES	CONSTRUCTION MATERIALS		TUBE DIA. IN (CM)	MAX. TEMP.*	
	OUTER TUBE	INTERNALS		°F	°C
EFP	Polypro	316SS, FKM, PTFE, PP	1-1/4 (3.2)	150	66
EPV	Pure PP/PVDF	Alloy 625, FKM, PTFE, ETFE, PP	1-5/16 (3.3)	160	71
EFS	316SS	316SS, FKM, PTFE, ETFE	1-1/4 (3.2)	212	100



Tube Lengths  
16" (41cm), 27" (69cm), 40" (102cm),  
48" (122cm), 54" (137cm)

### Performance Data

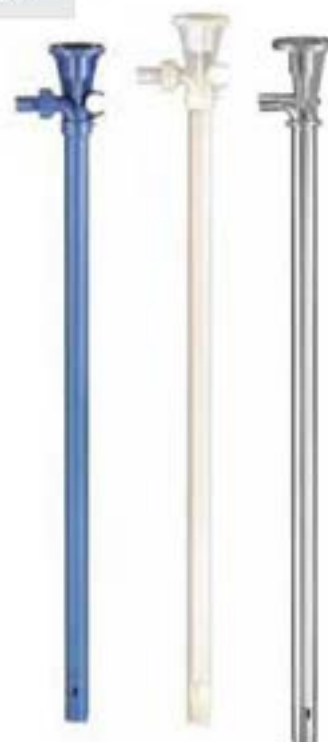
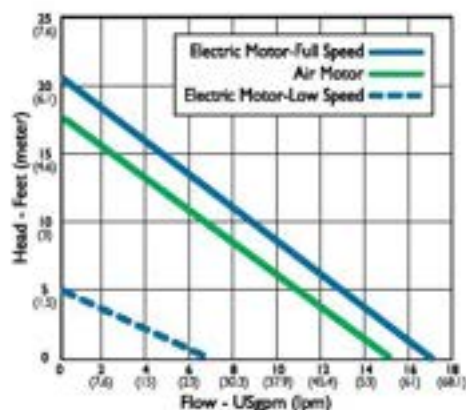
PUMP SERIES	HOSE SIZE	MAXIMUM FLOW**		MAXIMUM HEAD**		MAX SPECIFIC GRAVITY	MAX VISCOSITY CP	
		ELECTRIC GPM (IPM)	AIR GPM (IPM)	ELECTRIC FT (M)	AIR FT (M)		ELECTRIC	AIR
EFP, EPV, EFS	3/4"	17 (64.4)	15 (56.8)	20 (6.1)	17 (5.2)	1.2	300	300

### Viscosity Data

VISCOSITY (CP)	100	200	300
Max Flow gpm (lpm)	7 (26)	5 (19)	4 (14)
Max Head feet (meter)	16 (5)	16 (5)	16 (5)

### Motor Model

PUMP	USES MODEL
EFP, EPV, EFS	S1, S2, S3, S4



<sup>1</sup>Pat. US D658, 2745; Pat. ZL 201130042124.3; CHSH Pat. 001839002-0003

<sup>2</sup>When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.

\*\*All testing performed with water at 68°F (20°C). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.



## TT SERIES PUMPTUBES


**Sealed, Medium Viscosity/Flow**

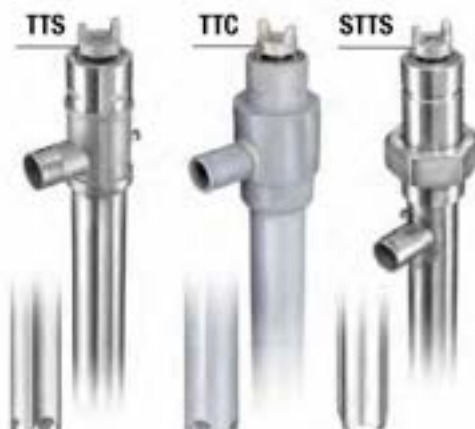
Sealed pump with PTFE screw-type lifting compressors. Ideal for liquids containing small particulate or solvents. Model STTS is sanitary construction.

## Applications

Inks, paints, solvents<sup>1</sup>, sodium hypochlorite, food products.

## Construction Specifications

PUMP SERIES	CONSTRUCTION MATERIALS		TUBE DIA. IN (CM)	MAX. TEMP.*	
	OUTER TUBE	INTERNALS		°F	°C
TTS	316SS	316SS, PTFE	1-1/2 (3.8)	150	66
TTC	CPVC	Alloy 625, PTFE	1-5/8 (4.1)		
STTS	316SS	316SS, PTFE	1-1/2 (3.8)		



Tube Lengths  
TTC, TTS - 27" (69cm), 40" (102cm), 48" (122cm)  
STTS - 40" (102cm)

## Performance Data

PUMP SERIES	HOSE SIZE	MAXIMUM FLOW**		MAXIMUM HEAD**		MAX SPECIFIC GRAVITY	MAX VISCOSITY CP	
		ELECTRIC GPM (lpm)	AIR GPM (lpm)	ELECTRIC FT (M)	AIR FT (M)		ELECTRIC	AIR
TTS, TTC, STTS	1"	10 (38)	16 (61)	10 (3)	30 (9)	1.8	500	2,000

### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

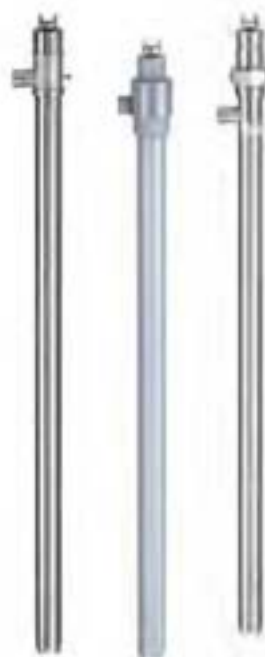
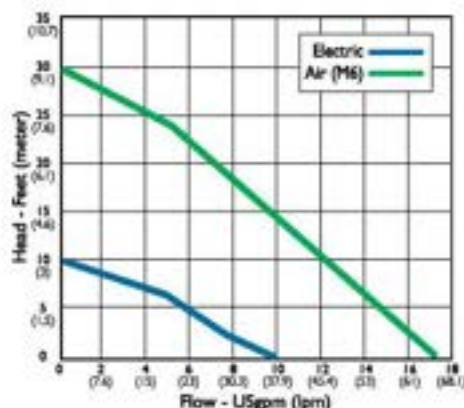
## Viscosity Data

VISCOSITY (CP)	100	250	500	1,000	2,000
Max Flow gpm (lpm)	7 (26)	6 (23)	3 (11)	4 (15)	3 (11)
Max Head feet (meter)	25 (8)	35 (11)	48 (15)	60 (18)	28 (9)

Note: 100-500 cP results using M7T/M8T motor;  
500-2,000 cP results using M6X motor

## Motor Model

PUMP	USES MODEL
TTS TTC	M7T, M8T
STTS	M7X
	M6, M6X



<sup>1</sup>When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.  
\*All testing performed with water at 68°F (20°C). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.



## BT/HVDP PUMPTUBES

### High Viscosity/High Head

**BT Series** - High viscosity sealed design with PTFE screw-type lifting compressors for liquids up to 15,000 cP  
**HVDP Series** - Progressive cavity, positive displacement, mechanically sealed pump for high viscosity liquids up to 20,000 cP (HR model) or 100,000 cP (LR model)

### Applications

Oils, resins, solvents<sup>†</sup>, waxes, adhesives, gear lube, glycerin, silicone, lotions, polymers, honey, juice concentrate, hair and bath gel, corn syrup, etc.



Tube Lengths  
 BTS: 40" (102cm)  
 HVDP: 27" (69cm), 40" (102cm), 48" (122cm)

### Construction Specifications

PUMP SERIES	CONSTRUCTION MATERIALS		TUBE DIA. IN (CM)	MAX. TEMP.*	
	OUTER TUBE	INTERNALS		°F	°C
BTS	316SS	PTFE, 316SS	2 (5.1)	200	93
HVDP	316SS	316SS, Buna N, FKM, PTFE	2 (5.1)	180	82

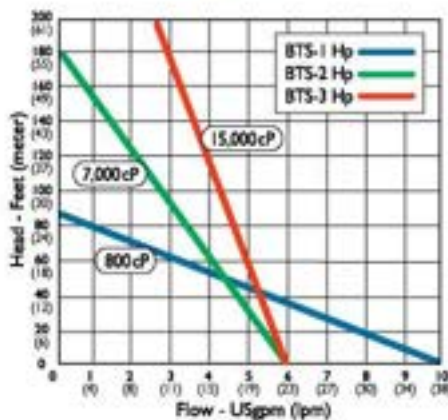
### Motor Model

PUMP	USES MODEL
BTS	M15, M16, M17, M18, M19, M20
HVDP-HR	M58H, M59H
HVDP-LR	M60, M61, M62, M63, M64, M65, M66

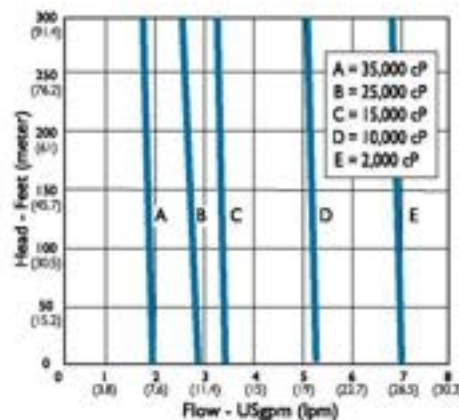
### Performance Data

PUMP SERIES	HOSE SIZE	MAXIMUM FLOW**		MAXIMUM HEAD**		MAX SPECIFIC GRAVITY	MAX VISCOSITY CP	
		ELECTRIC GPM (IPM)	AIR GPM (IPM)	ELECTRIC FT (M)	AIR FT (M)		ELECTRIC	AIR
BTS	1-1/2"	10 (38)	10 (38)	200 (61)	200 (61)	1.8	15,000	15,000
HVDP-HR	1-1/2", 2"	9 (32)	9 (32)	300 (91)	300 (91)	1.8	20,000	20,000
HVDP-LR	1-1/2", 2"	7 (27)	7 (27)	300 (91)	300 (91)	1.8	100,000	100,000

### BTS Flow Data



### HVDP Flow Data



\*When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.  
 \*\*Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.



## ELECTRIC DRUM PUMP MOTORS



## ODP (Open Drip Proof), Splashproof, IP24 Motors

MODEL	DESCRIPTION	TYPE	CERTIFICATION	ELECTRICAL REQUIREMENTS	POWER		RPM	MAX. VISCOSITY CP	PUMP SERIES
					HP	W			
M3V	Quick connects to pump without tools. Downdraft cooling system and double wall housing. Continuous duty. A 12 ft. (3.5 m) cord with plug and integral circuit breaker are provided.	Universal - Variable speed for precise fluid control	CSA	115VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
M5V			CE	230VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
M5V-US*			CE	230VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
M3V-UK			CE	115VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
S1	Ergonomic, lightweight design with downdraft cooling. Continuous duty. A 12 ft. (3.5 m) cord with plug and circuit breaker with manual reset are provided.	Universal - Two speed double insulated	CSA	115VAC/60 Hz	1/3	250	8,000/14,000	300	EF
S2			CE	230VAC/50-60 Hz	1/3	250	8,000/14,000	300	EF
S3			CE	115VAC/50-60 Hz	1/3	250	8,000/14,000	300	EF

## TEFC (Totally Enclosed Fan Cooled), IP54 Motors

MODEL	DESCRIPTION	TYPE	CERTIFICATION	ELECTRICAL REQUIREMENTS	POWER		RPM	MAX. VISCOSITY CP	PUMP SERIES
					HP	W			
M3T	Molded plastic housing features integral handle. Continuous duty. A 12 ft. (3.5 m) cord with plug and circuit breaker with manual reset are provided.	Universal - Single Speed	CSA	115VAC/50-60 Hz	4/5	640	10,000	500	PF
M5T			CE	230VAC/50-60 Hz	4/5	640	10,000	500	PF
M7T		Induction	CSA	115VAC/50-60 Hz	2/3	500	2,850/3,450	500	TT
M8T			CE	230VAC/50-60 Hz	2/3	500	2,850/3,450	500	TT
M15	Continuous duty. A 12 ft. (3.5 m) cord is provided.	Induction	**	230/460V/60 Hz	1	746	3,450	800	BT
M16				230/460V/60 Hz	2	1,492	1,725	7,000	BT
M17				230/460V/60 Hz	3	2,238	1,725	15,000	BT
M58H	Molded plastic housing features integral handle. Continuous duty. A 12 ft. (3.5 m) cord with plug and circuit breaker with manual reset is provided.	Universal - Variable speed for precise fluid control	CE	115VAC/50-60 Hz	1 1/3	1,000	10,000	20,000	HVDP
M59H				230VAC/50-60 Hz	1 1/3	1,000	10,000	20,000	HVDP
M59HCE				230VAC/50-60 Hz	1 1/3	1,000	10,000	20,000	HVDP
M58P				115VAC/50-60 Hz	1 1/3	1,000	5,000-10,000	2,000	PF
M59P				230VAC/50-60 Hz	1 1/3	1,000	5,000-10,000	2,000	PF
M59PCE				230VAC/50-60 Hz	1 1/3	1,000	5,000-10,000	2,000	PF

\* Suitable for 230V, 60 Hz. Includes a NEMA 6-15 plug.

\*\*Carries independent testing laboratory approval.

Note: Maximum viscosity can vary by pump series.

## EXPLOSION PROOF AND AIR MOTORS



## Explosion Proof Motors

MODEL	DESCRIPTION	TYPE	CERTIFI- CATION	ELECTRICAL REQUIREMENTS	POWER		RPM	MAX. VISCOSITY CP	PUMP SERIES
					HP	W			
M3X	Explosion proof design suitable for use in hazardous areas and ideal for applications with flammable liquids. The TEFC housing protects the motor internals from dust, corrosive vapors and water splashes. A12ft (3.5m) cord and internal circuit breaker are provided. Continuous duty rated.	TEFC, explosion proof	CSA	115VAC/50-60 Hz	3/10	230	5,000	10	PF
M5X*			CE	230VAC/50-60 Hz	3/10	230	5,000	10	PF
M7X			CSA	115VAC/50-60 Hz	2/3	500	2,850-3,450	400	TT
M10X			CE/ATEX Ex II 2G Ex IIAT4	230VAC/50-60 Hz	4/5	640	10,000	500	PF

## Air Motors \*\*

MODEL	DESCRIPTION	TYPE	CERTIFI- CATION	AIR REQUIREMENTS	POWER		RPM	MAX. VISCOSITY CP	PUMP SERIES
					HP	W			
M6/M6A	Lightweight, easy to handle yet powerful. Operates from customer-supplied compressed air source. Variable speed via supplied control valve. Motors are provided with muffler and control valve.	Air	CE/ ATEX Ex II 5GDc +1CTa+40C†	80-100 psi @15-32 cfm	1/2	370	300-9,000	1,500†	PF,TT
M6X/M6XA					3/4	560	300-6,000	2,000†	PF,TT
M18			CE	100 psi @ 40-70 cfm	1	746	300-3,000	800	BT
M19				100 psi @ 80-120 cfm	2	1,492	300-3,000	7,000	BT
M20				100 psi @ 120-170 cfm	3	2,238	300-2,500	15,000	BT
M65			CE	100 psi @ 25 cfm	3/4	560	300-3,000	15,000	HVDP
M66				100 psi @ 70 cfm	1-1/2	1,000	300-3,000	100,000	HVDP
S4			CE	40 psi @ 27 cfm	1/2	370	300-11,000	300	EF

Note: Maximum viscosity can vary by pump series.

\* Motor suitable for hazardous areas that do not require independent certification.

\*\* An air motor is a non-electrical device which means the possibility of explosion from igniting flammables or combustibles is reduced. Air motor performance will depend upon user's compressor and system setup.

† M6A/M6XA motor models only are ATEX certified. M6/M6X models are CE certified. † Maximum viscosity for PF Series is 330 cP.



## Flow Meters

- Dispense precise amount of fluids from containers.
- Handles chemicals and corrosive liquids.
- Large LCD display in GPM or LPM, 20 cP maximum +/-1% accuracy and repeatability.
- All models are factory calibrated.
- Some models may be field calibrated.
- Batch control versions available.
- Corrosion resistant polypropylene or PVDF.
- Engineered connections for fast assembly to PFM, PFP and PFV drum pumps.



## Air Hose

15 feet (4.6m) air hose assembly sold separately.



## Discharge Tubing

Flexible tubing connects to the pump discharge. Available in PVC, reinforced PVC and special EPDM for Diesel Exhaust Fluid applications.



## Nozzles

Nozzles provide a convenient way to control liquid flow. Available in polypropylene, aluminium and stainless steel.





FINISH THOMPSON INC.

## ACCESSORIES

## Drum Adapters

Secures the pump tube in the barrel's bung opening. Fits standard 2" IPS bung opening. Available in polypropylene, galvanised or stainless steel.



## Filter/ Lubricator Assembly

Conditions compressed air by removing free moisture and solids. Also lubricates the air for longer air motor life.



## Strainers

Strainers attach to pump tubes preventing foreign objects from entering the pump.



## Static Protection Kit

Increases safety when transferring flammable or combustible liquids. Kit includes cross-linked polyethylene grounded hose, ground wire and clamps.



## Wall Mount Bracket

Allows pump to be stored in an upright position.

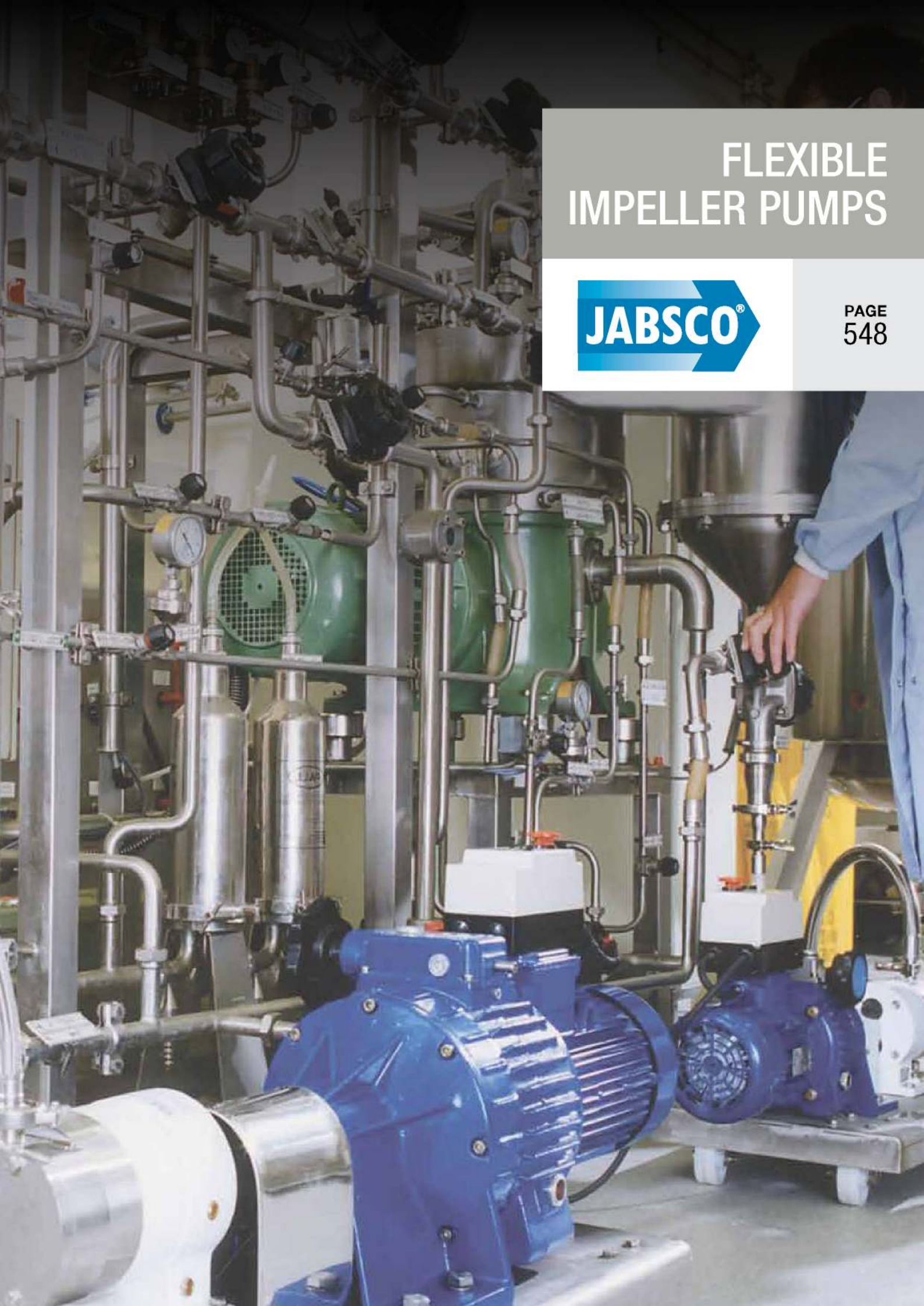




# FLEXIBLE IMPELLER PUMPS

**JABSCO®**

PAGE  
548







Flexible impeller pumps are a type of rotary positive displacement pump that has a rotating rubber impeller with vanes that bend and then straighten as the impeller rotates to conform to the internal cam in the pump casing.

### Typical Applications:

Water, seawater and other thin to medium viscosity liquids. Flexible impeller pumps are ideally suited for use in food applications such as milk or chocolate transfer applications.

### Features & Benefits:

- Economical option to move liquids containing some solids
- Smooth gentle, low shear pumping action
- Self-priming quickly from a dry or wet start



#### (1) Inlet

On start-up, air in the inlet pipe is displaced and liquid is drawn into pump.

#### (2) Displacement

The liquid is then carried through to be discharged at a steady flow rate.

#### (3) Discharge

This action combines gentle pumping with true dry priming capability.

### Flexible Impeller Hygienic Positive Displacement Pump

Jabsco Hygienic Flexible Impeller Pumps handle low and high-viscosity liquids, gels and pastes and can pass suspended soft and hard solids with minimal damage. The output flow is smooth, steady and totally pulsation-free and their gentle pumping action will not break down shear-sensitive or fragile liquids. Designed to be cleaned in place or easily strip-cleaned, Jabsco flexible impeller pumps frequently offer a more suitable and cost-effective alternative to many other pump types.



### Options

#### Pedestal Pumps

- Foot-mounted to couple to gearbox or belt-drive
- Hygienic rubber impeller
- Long-life mechanical shaft seal
- All 316 grade Stainless Steel parts with high surface finish
- Used in Food, Dairy, Beverage, Healthcare & Cosmetics sectors



#### Motor Mount Pumps

- Used in Food, Dairy, Beverage, Healthcare & Cosmetics sectors
- Close-coupled to motor (unibloc); compact and economical
- Suitable for mounting onto standard IEC or NEMA motors
- Hygienic rubber impeller
- Long-life mechanical shaft seal
- All 316 grade Stainless Steel parts with high surface finish



#### Milk Tanker Pumps

- Specialised pumps for Milk Tanker loading at dairy farms
- Bulkhead mounted for hydraulic drive
- Quick-release end-cover for winter drain-down and inspection
- By-pass option for effective CIP without the need to run the pump
- Hygienic rubber impeller





FLEXIBLE IMPELLER											
Pump Model (US)	282x0 (30550)		283x0 (30560)		284x0 (30570)		285x0 (30580)		286x0 (N/A)		
Size	40		80		200		370		500		
Mounting	Pedestal	Head Kit	Pedestal	Head Kit	Pedestal	Head Kit	Pedestal	Head Kit	Pedestal	Head Kit	
Port Size (mm)	25	25	25	25	38	38	50	50	63	63	
Max Flow (per min)* (l/min)	58	58	128	128	225	225	365	365	500	500	
Max Pressure* (Bar)	3	3	4.5	4.5	4.5	4.5	3	3	4	4	
Max Speed (RPM)	2500	2500	2500	2500	1800	1800	1500	1500	1500	1500	
Size LxBxH (mm)	169x115x147	115x115x115	214x130x160	136x130x130	260x162x180	167x162x162	335x189x218	193x189x186	475x192x224	230x192.5x192	
Bareshaft weight (kg)	2.9	2.5	4.4	3.5	9.1	6.6	14.7	10	22	15	
Temperature <sup>NEOPRENE</sup> °C (°F)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	
Temperature <sup>EPDM</sup> °C (°F)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	
Viscosity (cP)	1 to 50,000										

\* Data Dependent on duty

## Design Features

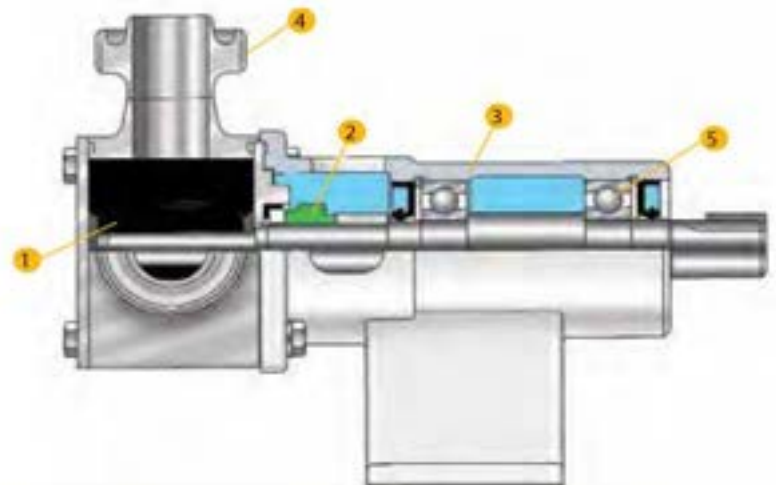
- Dry self priming
- All 316 Stainless Steel parts with high surface finish
- Hygienic rubber impeller leaves no taste or odour
- Elastomers Certified to US 3A Standard 18-03
- Pump certified to US 3A Standard 02-10
- Long-life mechanical shaft seal
- Easy strip-to-clean
- USDA Approved
- Variety of port and impeller material options
- Chemical-resistant 316 Stainless Steel parts
- Rugged heavy-duty construction
- Replaceable wearplates
- Passes even hard metal particles without stalling
- Long-life mechanical shaft seal
- Variety of shaft seal options
- 3A Variants - Must be specified with HYG Neoprene or EPDM.
- Port Options - Tri-Clamp, IDF, 3A, DIN 11851

## Construction Details

- 1 Food grade rubber impeller available in Neoprene, EPDM and Nitrile options which fully conform to today's stringent hygienic standards.
- 2 Wide variety of long-life interchangeable seal types to suit many applications makes service & maintenance easy.
- 3 Choice of head kit or pedestal bearing housing satisfies the individual's requirement for unitisation. On larger models, bulkhead mounted pumps are available if the option of fitting to hydraulic drive is required.
- 4 Range of port options for maximum flexibility.
- 5 Long life, high specification bearings give over 1 million hours life on a typical duty.

## Flexible Impeller Compounds

- 1 NEOPRENE is the standard impeller material used in most flexible impeller pumps. It offers a wide range of chemical resistant properties. Temperature range: 45°F (7.2°C) to 180°F (82.2°C).
- 2 NITRILE impellers offer compatibility with oil products. It handles a wide range of oils, oil and water emulsions, diesel fuel, lower fraction hydrocarbons, kerosene, lubricating and machine cutting oil. Lower temperatures affect priming ability and performance characteristics. Generally, nitrile performance is 10% below that of neoprene. Temperature range: 50°F (10°C) to 180°F (82.2°C).
- 3 VITON impellers are recommended when pumping hydrocarbons, solvents and severely corrosive chemicals. Viton is not recommended for low temperature or high pressure applications. Temperature range: 60°F (15.6°C) to 180°F (82.2°C).
- 4 SANITARY NEOPRENE impellers are used in hygienic flexible impeller pumps for applications pumping food, beverage and pharmaceutical products. Temperature range: 45°F (7.2°C) to 165°F (73.9°C).
- 5 NATURAL RUBBER impellers are used in cold water applications. Temperature range: 22°F (-5.6°C) to 120°F (48.9°C).
- 6 SANITARY EPDM impellers are used for elevated temperature hygienic applications to 185°F (85°C). EPDM is compatible with some ketone solvents. Temperature range: 60°F (15.6°C) to 185°F (85°C).



**JABSCO** 282 SERIES

## Features

- Self primes from dry up to 16.4 ft (5.0 m)
- Flows up to 52.8 GPM (200 LPM)
- Pressure up to 58 psi (4.0 bar)
- Handles soft solids - Max. 0.63" (16mm) diameter
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Handles viscosities up to 50,000 centiPoise
- Minimal shear to thixotropic fluids
- Fits IEC standard motor B3/B14, frame 90 (model 28420)
- Easy to service and maintain



### DID YOU KNOW?

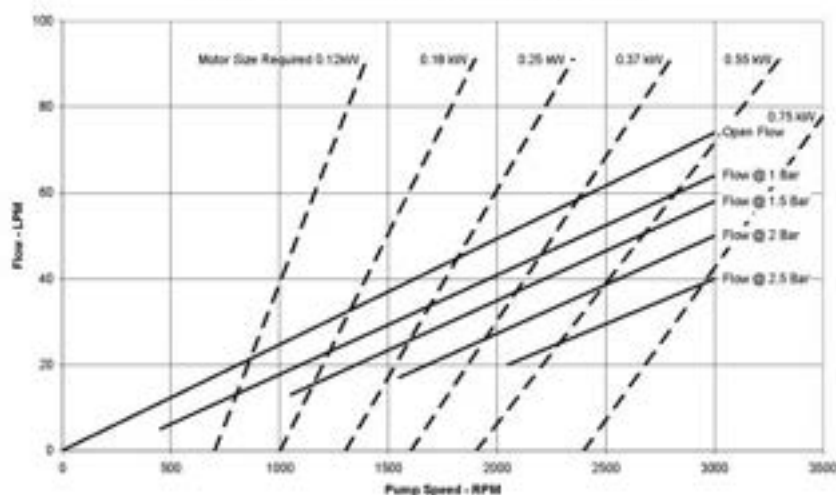
Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

## SPECIFICATIONS

Seal	Carbon / Ceramic mechanical face seal Tungsten Carbide / Ceramic hard faced seal Flushed options for crystallising fluids
Seal Elastometer	Food grade Nitrile
Pump Head	Stainless steel 316, machined interior and electropolished exterior finish
End Cover	Stainless Steel 316 grade
Shaft	Stainless Steel 316 grade
Shaft	Stainless steel 316 grade (Model 28400)
Bearings	- Greased ball bearings (Model 28400) - Uses motor bearings (Model 28420)
Bearing Housing	Epoxy coated cast iron (Model 28400)
Motor Adaptor	Epoxy coated cast iron (Model 28420)
Ports	- 1 1/2" (38.1 mm) Tri-Clamp - 1 1/2" (38mm) IDF/ISS - 1 1/2" (38.1 mm) RJT to BS1864 - 1 1/2" (38.1 mm) 3A Bevel Seat - 1.57 in (40mm) DIN 11851 - 1 1/2" 38mm SMS 1145
Weight	- 9.1kg(Model 28400) - 6.6kg(Model 28420)
Pressure Options	Standard - Max 36.3 psi (2.5 bar) High - Max 58 psi (4.0 bar)
Impeller Elastometer option	3A Neoprene E.P.D.M.

28200 Series Performance Curve - Standard Pressure 040 PG Neoprene Impeller  
Viscosity 1-500 Cp - Starting Torques Fwd 2.1 Nm / Rev 5.9 Nm



## Models

MODEL NUMBER	IMPELLER	PORT TYPE	SEAL
28200-1102	EPDM	1" (25.4 mm) Tri-Clamp	
28200-1905	3A Food Grade Neoprene	1" (25.4 mm) Tri-Clamp	Carbon/ Ceramic mechanical flushed
28200-3125	3A Food Grade Neoprene - High Pressure	25mm IDF/ISS	
28200-4102	EPDM	1" RJT to BS1864	
28200-5105	3A Food Grade Neoprene	1" 3A Bevel Seat	
28200-6105	3A Food Grade Neoprene	25mm DIN 11851	
28200-7105	3A Food Grade Neoprene	25mm SMS 1145	



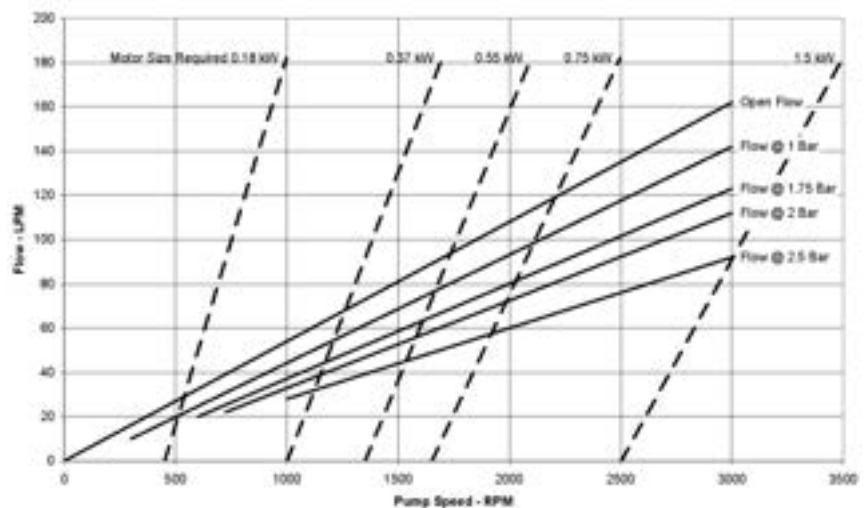
## Features

- Self primes from dry up to 16.4 ft (5.0 m)
- Flows up to 52.8 GPM (200 LPM)
- Pressure up to 58 psi (4.0 bar)
- Handles soft solids - Max. 0.63" (16mm) diameter
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Handles viscosities up to 50,000 centiPoise
- Minimal shear to thixotropic fluids
- Fits IEC standard motor B3/B14, frame 90 (model 28420)
- Easy to service and maintain



SPECIFICATIONS	
Seal	Carbon / Ceramic mechanical face seal Tungsten Carbide / Ceramic hard faced seal Flushed options for crystallising fluids
Seal Elastometer	Food grade Nitrile
Pump Head	Stainless steel 316, machined interior and electropolished exterior finish
End Cover	Stainless Steel 316 grade
Shaft	Stainless Steel 316 grade
Shaft	Stainless steel 316 grade (Model 28400)
Bearings	- Greased ball bearings (Model 28400) - Uses motor bearings (Model 28420)
Bearing Housing	Epoxy coated cast iron (Model 28400)
Motor Adaptor	Epoxy coated cast iron (Model 28420)
Ports	- 1 1/2" (38.1 mm) Tri-Clamp - 1 1/2" (38mm) IDF/ISS - 1 1/2" (38.1 mm) RJT to BS1864 - 1 1/2" (38.1 mm) 3A Bevel Seat - 1.57 in (40mm) DIN 11851 - 1 1/2" 38mm SMS 1145
Weight	- 9.1kg(Model 28400) - 6.6kg(Model 28420)
Pressure Options	Standard - Max 36.3 psi (2.5 bar) High - Max 58 psi (4.0 bar)
Impeller Elastometer option	3A Neoprene E.P.D.M.

28300 Series Performance Curve - Standard Pressure 080 FG Neoprene Impeller  
Viscosity 1-500 Cp - Starting Torques Fwd 8.5 Nm / Rev 15.2 Nm



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...  
Call 1300 225 786 to discuss your requirements.

## Models

MODEL NUMBER	IMPELLER	PORT TYPE	SEAL
28300-1105	3A Food Grade Neoprene	1" Tri-Clamp	
28300-3126	Nitrile - High Pressure	25mm IDF/ISS	
28300-4102	EPDM	1" RJT to BS1864	
28300-4126	Nitrile - High Pressure	1" RJT to BS1864	
28300-4225	3A Food Grade Neoprene - High Pressure	1" RJT to BS1864	Tungsten Carbide/Ceramic hard faced mechanical
28300-6702	EPDM	25mm DIN 11851	Carbon/Ceramic mechanical flushed
28300-7105	3A Food Grade Neoprene	25mm SMS 1145	

**284 SERIES**

## Features

- Self primes from dry up to 16.4 ft (5.0 m)
- Flows up to 52.8 GPM (200 LPM)
- Pressure up to 58 psi (4.0 bar)
- Handles soft solids - Max. 0.63" (16mm) diameter
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Handles viscosities up to 50,000 centiPoise
- Minimal shear to thixotropic fluids
- Fits IEC standard motor B3/B14, frame 90 (model 28420)
- Easy to service and maintain



### DID YOU KNOW?

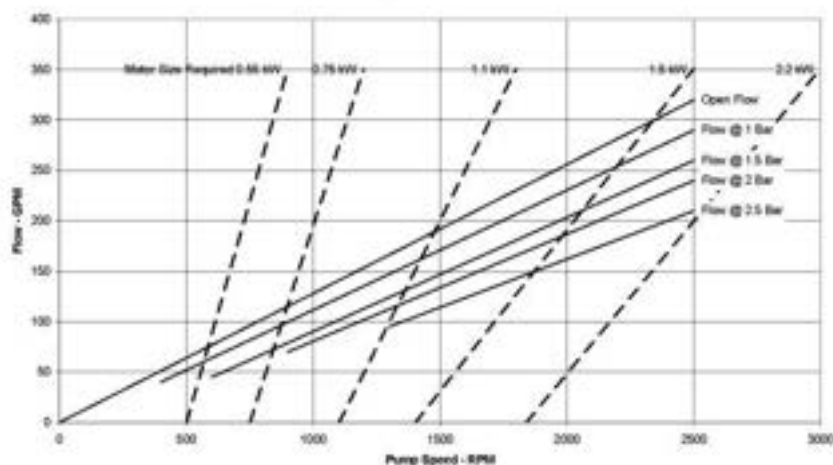
Not every size of this pump is shown in the catalogue...

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## SPECIFICATIONS

Seal	Carbon / Ceramic mechanical face seal Tungsten Carbide / Ceramic hard faced seal Flushed options for crystallising fluids	
Seal Elastomer	Food grade Nitrile	
Pump Head	Stainless steel 316, machined interior and electropolished exterior finish	
End Cover	Stainless steel 316 grade	
Shaft	Stainless steel 316 grade (Model 28400)	
Shaft	Stainless steel 316 grade shaft extension (Model 28420)	
Bearings	Greased ball bearings (Model 28400)	
Bearings	Uses motor bearings (Model 28420)	
Bearing Housing	Epoxy coated cast iron (Model 28400)	
Motor Adaptor	Epoxy coated cast iron (Model 28420)	
Ports	- 1 1/2" (38.1 mm) Tri-Clamp	- 1 1/2" (38.1 mm) 3A Bevel Seat
	- 1 1/2" (38mm) IDF/ISS	- 1.57 in (40mm) DIN 11851
	- 1 1/2" (38.1 mm) RJT to BS1864	- 1 1/2" 38mm SMS 1145
Weight	- 9.1kg(Model 28400)	
	- 6.6kg(Model 28420)	
Pressure Options	Standard - Max 36.3 psi (2.5 bar) High - Max 58 psi (4.0 bar)	
Impeller Elastomer Option	3A Neoprene E.P.D.M.	

28400 Series Performance Curve - Standard Pressure 200 PG Neoprene Impeller  
Viscosity 1-500 Cp - Starting Torques Fed 17.6 Nm / Rev 58.2 Nm



## Models

MODEL NUMBER	IMPELLER	PORT TYPE	SEAL
28400-1715	3A Food Grade Neoprene	1 1/2" Tri-Clamp	Carbon/Ceramic mechanical flushed
28400-3125	3A Food Grade Neoprene - High Pressure	38mm IDF/ISS	
28400-4125	3A Food Grade Neoprene - High Pressure	1 1/2" RJT to BS1864	
28400-6125	3A Food Grade Neoprene - High Pressure	40mm DIN 11851	
28400-6915	3A Food Grade Neoprene	40mm DIN 11851	Tungsten Carbide/Ceramic hard faced mechanical flushed
28400-7125	3A Food Grade Neoprene - High Pressure	38mm SMS 1145	
28400-7725	3A Food Grade Neoprene - High Pressure	38mm SMS 1145	Carbon/Ceramic mechanical flushed



## Features

- Self primes from dry up to 4.5 metres
- Flows up to 365 liters per minute
- Pressure up to 43.5 psi (3.0 bar)
- Handles soft solids - Max. 0.71" (18mm) dia
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Handles viscosities up to 50,000 centiPoise
- Minimal shear to thixotropic fluids
- Fits IEC standard motor B3/B14, frame 80 (model 28520)
- Easy to service and maintain



### DID YOU KNOW?

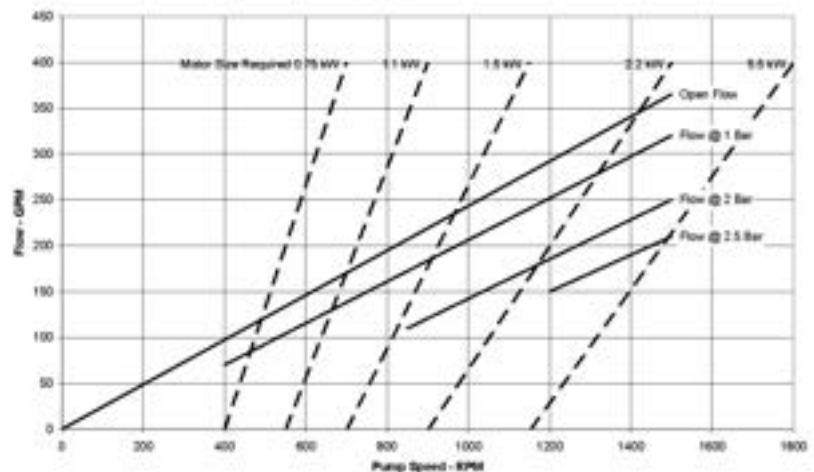
Not every size of this pump is shown in the catalogue...

Call 1300 225 788 to discuss your requirements.

### SPECIFICATIONS

Seal	Carbon / Ceramic mechanical face seal Tungsten Carbide / Ceramic hard faced seal Flushed options for crystallising fluids
Seal Elastometer	Food grade Nitrile
Pump Head	Stainless steel 316, machined interior and electropolished exterior finish
End Cover	Stainless Steel 316 grade
Shaft	Stainless steel 316 grade (Model 28500)
Shaft	Stainless steel 316 grade shaft extension (Model 28520)
Bearings	- Greased ball bearings (Model 28500) - Uses motor bearings (Model 28520)
Bearing Housing	Epoxy coated cast iron (Model 28500)
Motor Adaptor	Epoxy coated cast iron (Model 28520)
Ports	- 2" (50.8 mm) Tri-Clamp      - 2" (50.8 mm) 3A Bevel Seat - 2" (51 mm) IDF/ISS        - 1.97 in (50 mm) D0N 11851 - 2" (50.8 mm) RJT to BS1864      - 2" 51 mm SMS 1145
Weight	- 14.7kg (Model 28500) - 10.0 kg (Model 28520)
Pressure Options	- Standard: Max 36.3 psi (2.5 bar) - High: Max 43.5 psi (3.0 bar)
Impeller Elastometer option	3A Neoprene E.P.D.M.

28500 Series Performance Curve - Standard Pressure 370 FG Neoprene Impeller  
Viscosity 1-500 Cp - Starting Torques Fwd 33.2 Nm / Rev 58.7 Nm



## Models

MODEL NUMBER	IMPELLER	PORT TYPE	SEAL
28500-3125	3A Food Grade Neoprene - High Pressure	51mm IDF/ISS	
28500-4112	EPDM	2" RJT to BS1864	
28500-4215	3A Food Grade Neoprene	2" RJT to BS1864	Tungsten Carbide/Ceramic hard faced mechanical
28500-4715	3A Food Grade Neoprene	2" RJT to BS1864	Carbon/Ceramic mechanical flushed
28500-5115	3A Food Grade Neoprene	2" 3A Bevel Seat	
28500-6725	3A Food Grade Neoprene - High Pressure	50mm D0N 11851	Carbon/Ceramic mechanical
28500-7202	EPDM	51mm SMS 1145	Tungsten Carbide/Ceramic hard faced mechanical


**286 SERIES**

## Features

- Self primes from dry up to 16.4 ft (5.0 m)
- Flows up to 137.4 GPM (520 LPM)
- Pressure up to 58 psi (4.0 bar)
- Handles soft solids - Max. 0.71" (18mm) diameter
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Handles viscosities up to 50,000 centiPoise
- Minimal shear to thixotropic fluids
- Fits IEC standard motor B3/B14, frame 90 (model 28420)
- Easy to service and maintain



### DID YOU KNOW?

Not every size of this pump is shown in the catalogue...

Call 1300 225 788 to discuss your requirements.

## SPECIFICATIONS

Seal	Carbon / Ceramic mechanical face seal Tungsten Carbide / Ceramic hard faced seal Flushed options for crystallising fluids
Seal Elastometer	Food grade Nitrile
Pump Head	Stainless steel 316, machined interior and electropolished exterior finish
End Cover	Stainless Steel 316 grade
Shaft	Stainless steel 316 grade (Model 28600)
Shaft	Stainless steel 316 grade shaft extension (Model 28620)
Bearings	- Greased ball bearings (Model 28600) - Uses motor bearings (Model 28620)
Bearing Housing	Epoxy coated cast iron (Model 28600)
Motor Adaptor	Epoxy coated cast iron (Model 28620)
Ports	- 2 1/2" (63.5 mm) Tri-Clamp - 2 1/2" (63.5mm) IDF/ISS - 2 1/2" (63.5mm) RJT to BS1864 - 2 1/2" (63.5mm) 3A Bevel Seat - 2.6 in (65mm) DIN 11851 - 2 1/2" 63.5mm SMS 1145
Weight	- 48.5 lb (22.0kg) - 15.0kg (Model 28620)
Pressure Options	- Standard: Max 29 psi (2.0 bar) - High: (72.1) Max 5.0 bar
Impeller Elastometer option	3A Neoprene

## Models

MODEL NUMBER	IMPELLER	PORT TYPE	SEAL
28600-1105	3A Food Grade Neoprene	2 1/2" Tri-Clamp	
28600-1925	3A Food Grade Neoprene - High Pressure	2 1/2" Tri-Clamp	Tungsten Carbide/Ceramic hard faced mechanical flushed
28600-3105	3A Food Grade Neoprene	63.5mm IDF/ISS	
28600-4125	3A Food Grade Neoprene - High Pressure	2 1/2" RJT to BS1864	
28600-5125	3A Food Grade Neoprene - High Pressure	2 1/2" 3A Bevel Seat	
28600-6125	3A Food Grade Neoprene - High Pressure	65mm DIN 11851	
28600-6225	3A Food Grade Neoprene - High Pressure	65mm DIN 11851	Tungsten Carbide/Ceramic hard faced mechanical
28600-6725	3A Food Grade Neoprene - High Pressure	65mm DIN 11851	Carbon/Ceramic mechanical flushed



## MILK TANKER SERIES

## Features

- Flow rate: Nominal 128 GPM (484 LPM) at 1450 rpm
- Self-priming from dry up to 2.4 m (7.8ft)
- Pressure up to 36.3 psi (2.5 bar)
- Handles soft solids - Max. 0.71" (18mm) diameter
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Minimal shear to thixotropic fluids
- Easy to service and maintain

SPECIFICATIONS	
Body	316 Stainless steel
Bearing Housing	316 Stainless steel
Impeller	3A Food Grade Neoprene
Seal	Carbon/Ceramic mechanical
Seal Elastomer	Food grade Nitrile
Bearings	Twin single row, ball type
Shaft	316 Stainless steel
Ports	- 2 1/2" (63.5 mm) Tri-Clamp      - 2 1/2" (63.5 mm) 3A Bevel Seat - 2 1/2" (63.5 mm) IDF/ISS      - 2.6 in (65mm) DIN 11851 - 2 1/2" (63.5 mm) RJT to BS1864      - 2 1/2" (63.5 mm) SMS 1145
Weight	23 kg



## Features

- Flow rate: Nominal 185 GPM (700 LPM) at 1750 rpm
- Self-priming from dry up to 2.4m (7.8ft)
- Pressure up to 21.7 psi (1.5 bar)
- Handles soft solids - Max. 0.71" (18mm) diameter
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Minimal shear to thixotropic fluids
- Easy to service and maintain

SPECIFICATIONS	
Body	316 Stainless steel
Bearing Housing	316 Stainless steel
Impeller	3A Food Grade Neoprene
Seal	Carbon/Ceramic mechanical
Seal Elastomer	Food grade Nitrile
Bearings	Twin single row, ball/roller type
Shaft	316 Stainless steel
Port Type	- 2 1/2" (63.5 mm) Tri-Clamp      - 2 1/2" (63.5 mm) 3A Bevel Seat - 2 1/2" (63.5 mm) IDF/ISS      - 2.6 in (65mm) DIN 11851 - 2 1/2" (63.5 mm) RJT to BS1864      - 2 1/2" (63.5 mm) SMS 1145
Weight	24 kg



## Features

- Flow rate: Up to 90 GPM (397 LPM)
- Self-priming from dry up to 2.4 m (7.8 ft)
- Pressure up to 21.7 psi (1.5 bar)
- Handles soft solids - Max. 0.71" (18mm) diameter
- Certified to US 3A Standard 02-10
- Clean-In-Place (CIP) or easy strip clean
- Minimal shear to thixotropic fluids
- Easy to service and maintain

SPECIFICATIONS	
Body	316 Stainless steel
Bearing Housing	316 Stainless steel
Impeller	3A Food Grade Neoprene
Seal	Carbon/Ceramic mechanical
Seal Elastomer	Food grade Nitrile
Bearings	Twin single row, ball type
Shaft	316 Stainless steel
Port Type	2" (50.8 mm) ACME Threads or 2" (50.8 mm) Tri-Clamp
Weight	15.4 kg




**MILK TANKER SERIES**

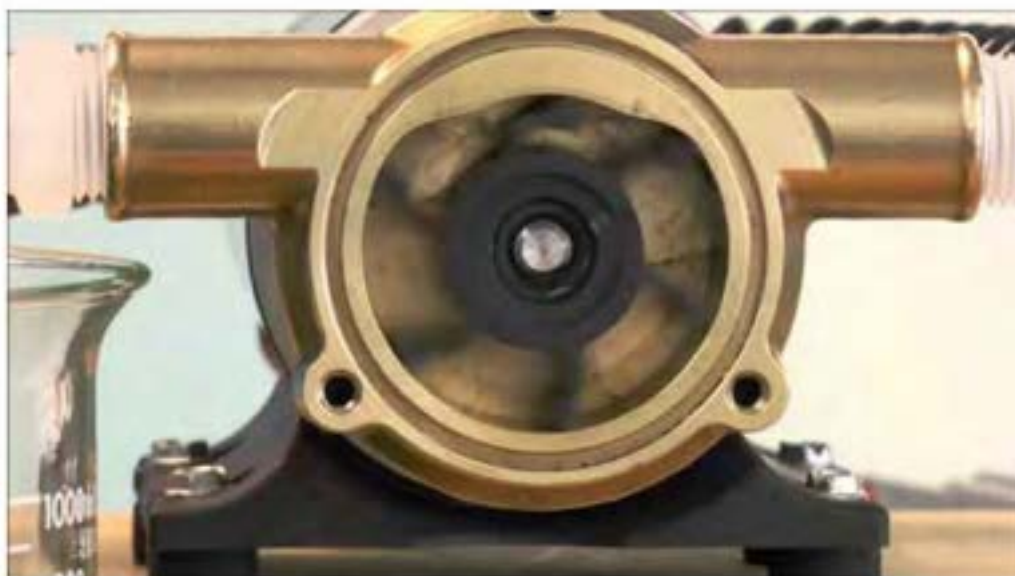
## Models

MODEL NUMBER	IMPELLER	PORT TYPE
22060-5205	3A Food Grade Neoprene	2 1/2" (63.5 mm) 3A Bevel Seat
23930-1115	Bulkhead/Milk Tanker Pump	2 1/2" Tri-Clamp
23930-3115	Bulkhead/Milk Tanker Pump	63.5mm IDF/ISS
23930-4115	Bulkhead/Milk Tanker Pump	2 1/2" RJT to B51864
23930-5115	Bulkhead/Milk Tanker Pump	2 1/2" 3A Bevel Seat
23930-6115	Bulkhead/Milk Tanker Pump	65mm D0N 11851
23930-7115	Bulkhead/Milk Tanker Pump	63.5mm SMS 1145
15170-0005	3A Food Grade Neoprene	2" (50.8mm) ACME Threads
15170-0015	3A Food Grade Neoprene	2" (50.8m) Tri-Clamp


**DID YOU KNOW?**

Not every size of this pump is shown in the catalogue...

Call 1300 225 786 to discuss your requirements.

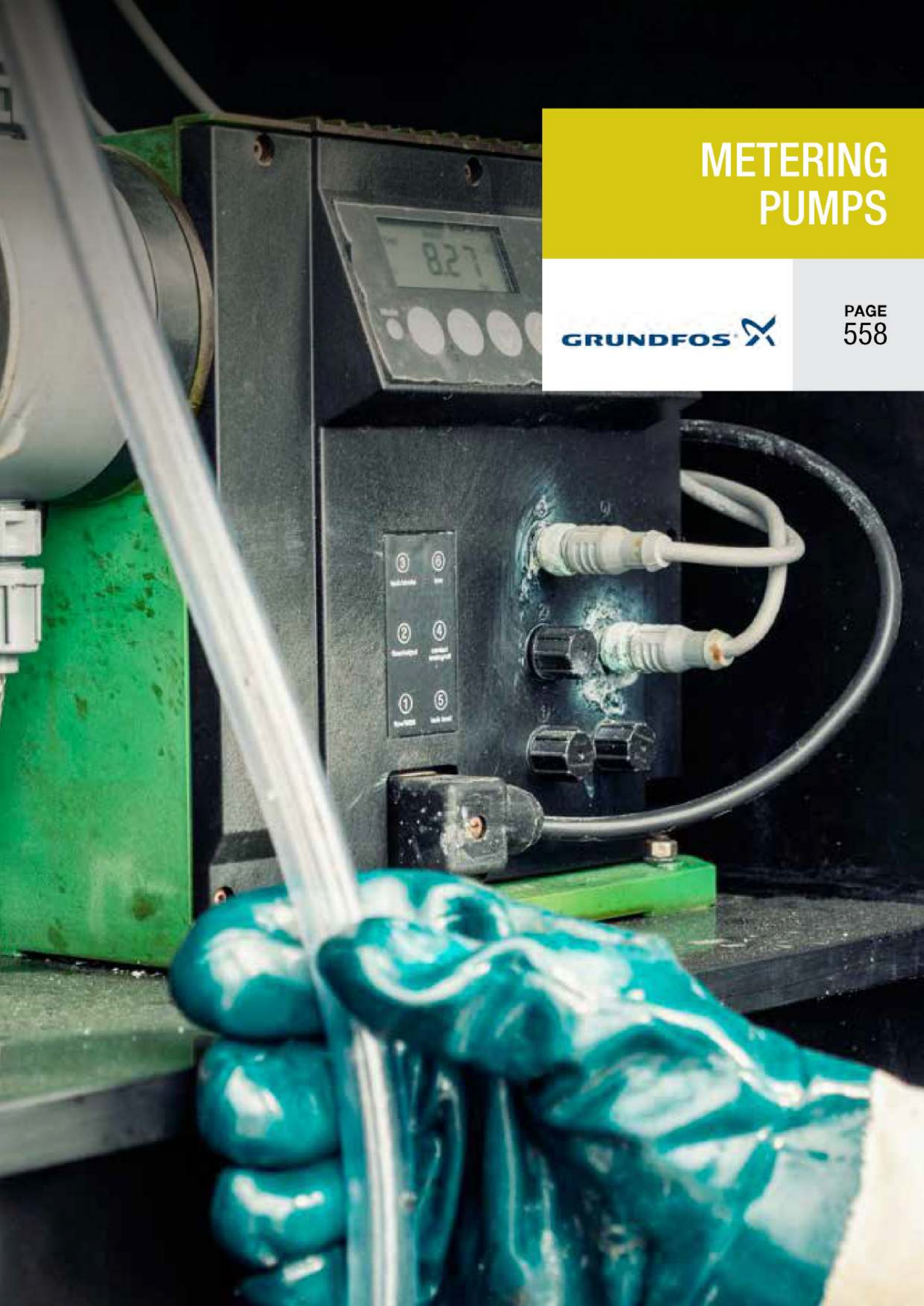




# METERING PUMPS



PAGE  
558





**GRUNDFOS**  **DD SERIES DOSING PUMPS**

Digital dosing pumps from 0.0025 to 30 l/h



### Digital Dosing

The SMART Digital generation DDA, DDC and DDE with powerful variable-speed stepper motor brings state-of-the-art technology to perfection. Combined expert knowledge and the new patented solutions set future standards. Traditional technologies such as stroke length/stroke frequency adjustment with synchronous motor or solenoid drive become a thing of the past.

### Unique flexibility with only a few variants

The included click-stop mounting plate makes the new pump more flexible. Three different positions are possible without using any additional accessories. Service and pump exchange can now be done easily and fast by just clicking the pump in and out of the mounting plate. The control cube on the DDA and DDC pump can be easily turned into three different positions.

A turn-down ratio of up to 1:3000, a wide supply voltage range (100-240 V, 50/60 Hz), combined connection sets and other features reduce the models and variants to a minimum.

### Precise and easy setting

The operator can easily install the pump and set it to discharge exactly the quantity of dosing liquid required for the application. In the display, the setting of the pump is read out directly, the flow is shown in ml/h, l/h, or gph.

The click wheel and the graphical LC display with plain-text menu in more than 25 languages make commissioning and operation intuitive. As the LCD is backlit in different colours, the pump status can be seen from a distance.

Thanks to a variety of operation modes, signal inputs and outputs, the pump can easily be integrated into every process.

### Advanced process reliability

An intelligent drive and microprocessor control ensure that dosing is performed precisely and with low pulsation, even if the pump is dosing high-viscosity or degassing liquids. Malfunctions are detected quickly by the maintenance-free FlowControl system and then displayed in the alarm menu. The AutoFlowAdapt function automatically adjusts the pump according to the process conditions, e.g. varying backpressure. The integrated flow measurement makes additional monitoring and control equipment redundant.

### Designed to save costs

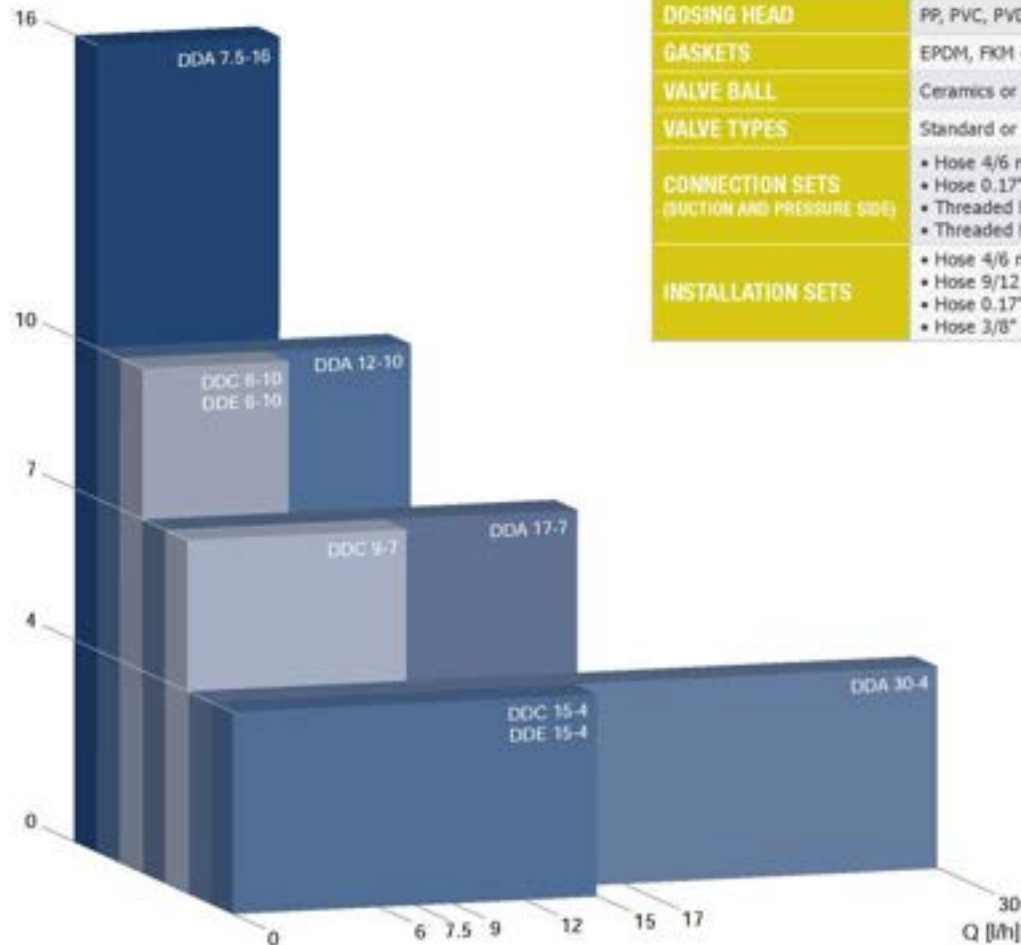
In general, the investment for a dosing pump installation is low compared to its life cycle costs, including the cost of the chemicals. The following features make the SMART Digital DDA, DDC and DDE pumps contribute to low life cycle costs:

- No underdosing or overdosing due to high dosing accuracy and FlowControl
- Longer maintenance intervals thanks to the universal chemical resistance of the full-PTFE diaphragm
- Reduced energy consumption thanks to state-of-the-art drive technology.



# DD SERIES DOSING PUMPS

## Performance range



## Variants

<b>DOSING HEAD</b>	PP, PVC, PVDF or stainless steel 1.4401
<b>GASKETS</b>	EPDM, FKM or PTFE
<b>VALVE BALL</b>	Ceramics or stainless steel 1.4401
<b>VALVE TYPES</b>	Standard or spring-loaded
<b>CONNECTION SETS (SUCTION AND PRESSURE SIDE)</b>	<ul style="list-style-type: none"> <li>Hose 4/6 mm, 6/9 mm, 6/12 mm, 9/12 mm</li> <li>Hose 0.17" x 1/4"; 1/4" x 3/8"; 3/8" x 1/2"</li> <li>Threaded Rp 1/4"</li> <li>Threaded NPT 1/4"</li> </ul>
<b>INSTALLATION SETS</b>	<ul style="list-style-type: none"> <li>Hose 4/6 mm (up to 7.5 l/h, 13 bar)</li> <li>Hose 9/12 mm (up to 60 l/h, 9 bar)</li> <li>Hose 0.17" x 1/4" (up to 7.5 l/h, 13 bar)</li> <li>Hose 3/8" x 1/2" (up to 60 l/h, 10 bar)</li> </ul>

## Technical data

PUMP TYPE	DDA			X		X		
	FCM	FC	AR	AR	A	PR	P	X
<b>Operation modes</b>								
Manual speed control	•	•	•	•	•	•	•	•
Pulse control in ml/pulse	•	•	•	•	•			
Pulse control (1:n)						•	•	
Analog control 0/4-20 mA	•	•	•	•				
Batch control (pulse-based)	•	•	•					
Dosing timer cycle	•	•	•					
Dosing timer week	•	•	•					
Fieldbus control	•	•	•					
<b>Functions</b>								
Auto deaeration also during pump standby	•	•	•					
FlowControl system with selective fault diagnosis	•	•						
Pressure monitoring (min / max)	•	•						
Flow measurement	•							
AutoFlowAdapt	•							
SlowMode (anti-cavitation)	•	•	•	•	•			
Output relay (2 relays)	•	•	•	•		•		

## Digital Dosing™ up to 150 l/h



By popular demand, we have applied innovative technology to expand the Digital Dosing™ pump range, allowing it to handle liquids in much larger quantities. With just two models the new DME range can cover the range from 75 ml/h to 150 l/h. Perfect for large water and wastewater treatment plants, textile industries, pulp and paper industries, and many other demanding applications, the new, large DME pumps bring the benefits of Digital Dosing™ to a new circle of users worldwide.

### Familiar Digital Dosing™ benefits

The 60 – 150 l/h pump range has all the benefits of the highly acclaimed smaller Digital Dosing™ range, making exact dosing easier than ever.

### Easy-to-use digital user interface

The simple display allows everyone to be their own dosing specialist. With just a few buttons, you can navigate the straightforward menus to use the impressive range of standard control features – including pulse, analog, timer, batch, and anti-cavitation control – as well as simple calibration and much more.

### Turndown ratio 1:800

With a turndown ratio ten times better than that of traditional equipment, the large Digital Dosing™ pumps give you greater flexibility and accuracy than ever. Only two pump sizes cover the range from 75 ml/h – 150 l/h.

### Full stroke length at all times

Grundfos Aldos is the only pump manufacturer to use a full stroke length every time. The strokes are carefully timed, ensuring even concentration in the system and optimal priming throughout the entire operating range.

### Brushless DC motor ensures full control

The ingenious design of the large Digital Dosing™ pumps eliminates the need for a servo motor/frequency converter and ensures smooth and gentle dosing.

### Anti-cavitation

Turndown of the suction stroke to 75%, 50% or 25% of the maximum speed ensuring optimal priming and displacement of even the most difficult liquids.

### Fieldbus communication available

Available with Profibus interface to supply performance data and status information for quality control, preventative maintenance and future reference.

### Overload protection

Built-in overload protection monitors pump counter pressure and protects against exceptionally high pressure loads.

### Switch-mode power supply

The switch-mode power supply ensures that the Digital Dosing™ pumps can be used worldwide within the 100–240VAC – 50/60Hz range.

### Several material variants

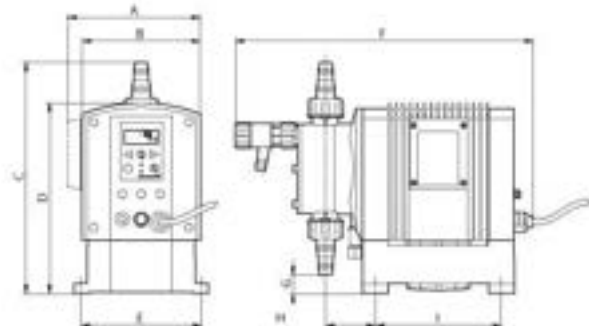
The DME pump heads are available in stainless steel, PVDF, and environmentally friendly, cost-efficient polypropylene.



# DME SERIES DOSING PUMPS

## Dimensions (mm)

	DME 60-10	DME 150-4
A	198	198
B	176	176
C	331	345
D	284	284
E	180	180
F	444	444
G	41	28
H	74	74
I	187	187

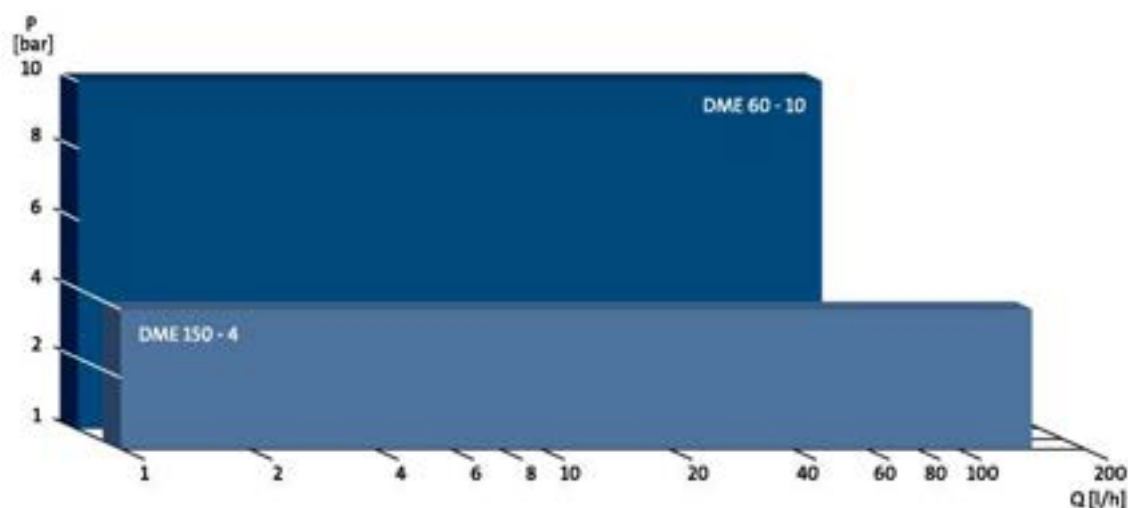


## Product range and performance data

PUMP TYPE	DME 60-10	DME 150-4
Max. capacity at max. pressure [l/h]	60	150
Min. capacity [l/h]	0.075	0.188
Max. pressure [bar]	10	4
Setting range	1:800	
Stroke frequency [min <sup>-1</sup> ]	160	
Power supply [V], [Hz]	1×100-240V, 50-60 Hz	
Accuracy [%]	±1% repeatability	
Pumphead material	PP, PVDF, stainless steel	
Suction lift [m]	4	
Viscosity* [mPa]	3000 at 50% capacity	

\*Spring loaded valves

## Performance range



**GRUNDFOS**  **DME SERIES DOSING PUMPS**

## Digital Dosing™ up to 940 l/h



By popular demand, we have applied innovative technology to expand the Digital Dosing™ pump range, allowing it to handle liquids in much larger quantities. With just two models the new DME range can cover the range from 0.47 l/h to 940 l/h. Perfect for large water and wastewater treatment plants, textile industries, pulp and paper industries, and many other demanding applications, the new, large DME pumps bring the benefits of Digital Dosing™ to a new circle of users worldwide.

### Familiar Digital Dosing™ benefits

The DME375 – DME940 l/h pump range has all the benefits of the highly acclaimed smaller Digital Dosing™ range, making exact dosing easier than ever.

### Easy-to-use digital user interface

The simple display allows everyone to be their own dosing specialist. With just a few buttons, you can navigate the straightforward menus to use the impressive range of standard control features – including pulse, analog, timer, batch, and anti-cavitation control – as well as simple calibration and much more.

### Turndown ratio 1:800

With a turndown ratio ten times better than that of traditional equipment, the large Digital Dosing™ pumps give you greater flexibility and accuracy than ever. Only two pump sizes cover the range from 0.47 l/h - 940 l/h.

### Full stroke length at all times

Grundfos Aldos is the only pump manufacturer to use a full stroke length every time. The strokes are carefully timed, ensuring even concentration in the system and optimal priming throughout the entire operating range.

### Brushless DC motor ensures full control

The ingenious design of the large Digital Dosing™ pumps eliminates the need for a servo motor/frequency converter and ensures smooth and gentle dosing.

### Anti-cavitation

Turndown of the suction stroke to 75%, 50% or 25% of the maximum speed ensuring optimal priming and displacement of even the most difficult liquids.

### Fieldbus communication available

Available with Profibus interface to supply performance data and status information for quality control, preventative maintenance and future reference.

### Overload protection

Built-in overload protection monitors pump counter pressure and protects against exceptionally high pressure loads.

### Switch-mode power supply

The switch-mode power supply ensures that Digital Dosing™ pumps can be used worldwide within the 100–240VAC – 50/60Hz range.

### Several material variants

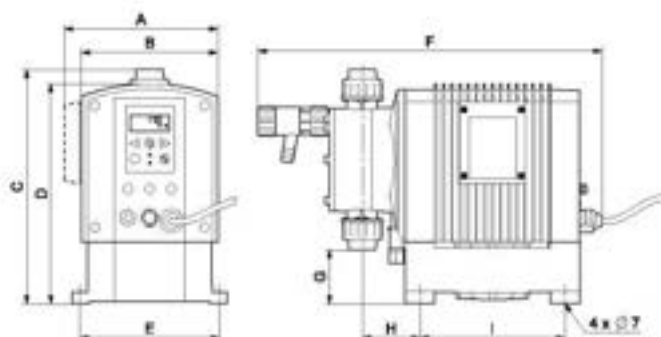
The DME pump heads are available in stainless steel, PVDF, and environmentally friendly, cost-efficient polypropylene.



# DME SERIES DOSING PUMPS

## Dimensions (mm)

	DME 375-10	DME 940-4
A	238	238
B	218	218
C	471	496
D	364	364
E	230	230
F	543	543
G	31	6
H	95	95
I	246	246

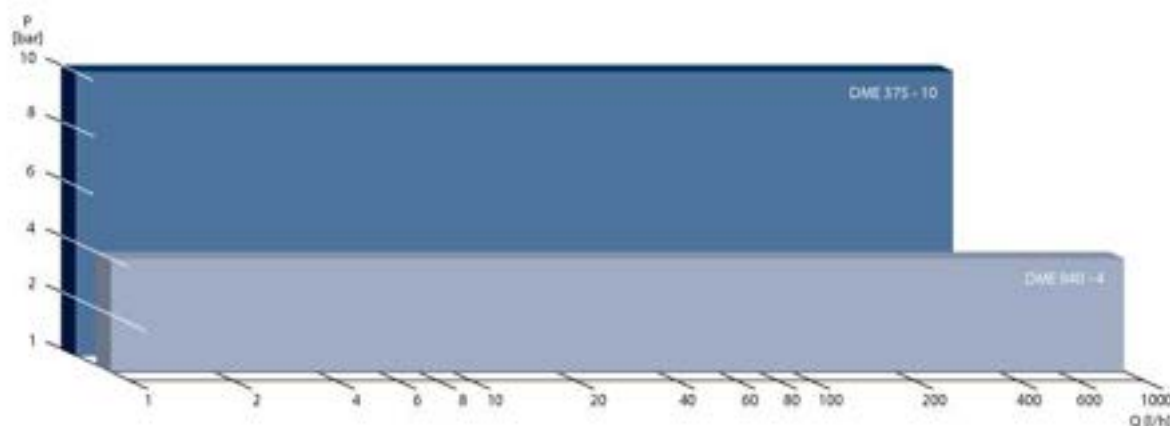


## Product range and performance data

PUMP TYPE	DME 375-10	DME 940-4
Max. capacity at max. pressure [l/h]	376	940
Min. capacity [l/h]	0.47	1.18
Max. pressure [bar]	10	4
Setting range	1:800	
Stroke frequency [min <sup>-1</sup> ]	160	
Power supply [V], [Hz]	1×100-240V, 50-60 Hz	
Accuracy [%]	±1% repeatability	
Pumphead material	PP, PVDF, stainless steel	
Suction lift [m]	4	
Viscosity* [mPa]	3000 at 50% capacity	

\*Spring-loaded valves

## Performance range



## Compact Dosing Stations

### Storage and Dosing of Liquid Chemicals

Grundfos are manufacturers of the most advanced chemical dosing pumps in the world. Combined with a perfectly matched pump accessories range they can be used to create dosing systems. DSB dosing stations are the simplest and most compact complete systems. Designed to draw chemical direct from small drums or an on-board storage tank, the system covers all components from chemical drum to the injection valve. Everything laid out in the most convenient and efficient manner ready for operation.



## Components and Features

- Chemical resistant tanks made of UV stabilised polyethylene. In sizes 40, 60 and 100 litres, with embossed litre scale and PE screw on lid.
- PE containment bund (L515 x W550 x H840mm)
- Flexible foot valve with or without 2-level float switch for process protection.
- Chemical pumps from our Smart Digital DDA range.
- Injection valve ½" BSPP & 6m of 6/9 PE tubing rated to 12 bar.
- PVDF fixed pressure loading valve.
- Signal input control and output alarm cables. DSB dosing stations are semi assembled. Foot valve fitted to tank and pump mount plate bolted to tank or bund. Basic connection of the pump, tubing connections and signal cables are required.



## Applications

- Water treatment chemical disinfection
- pH correction
- Biocides, anti-scalants and corrosion inhibitors
- Coagulants for waste water.
- CIP disinfection.





## Standard Variants



100L



60L



40L



Chemical Drum

## Type Key

### EXAMPLE

DSB		1		60		B1		1		L02		P2		02	
TYPE RANGE		STYLE		TANK		BUND		MATERIAL		SUCTION		PRESSURE *		SIGNAL CABLES	
DSB	1	SuR 1 pump	X	No tank	X	No bund	1	PVC/PE/T	L00	Flexi foot valve no level switch	P1	MPV	01	1 x Input	
			40	40L	B1	Econ bund (DSB)	2	PVDF/T	L02	Flexi foot valve 2-level switch	P01	1 x PV (only PVDF/T)	02	1 x Input & Output	
			60	60L							P2	1 x PLV, 1 x PRV	03	1 x Input & Output Tank & Analogue Out	
			100	100L											

\* Pressure accessories include injection valve and film tubing

## Dosing Station DSU

### Storage and Dosing of Liquid Chemicals



Grundfos has a renowned reputation for designing and manufacturing high quality dosing pumps and accessories, and the Dosing Station DSU is no exception. Made from high quality materials, this compact, traditional style dosing station is capable of storing and dosing a wide range of liquid chemicals. The bunded station features low pump mounting and can be calibrated online for added convenience.

### Product Overview

- Pallet base LDPE containment bund with sump and drain valve
- Translucent LLDPE tanks available in 200 & 500 L
- Chemical pumps from our Smart Digital DDA/DDI range up to 60 L/hr
- Calibration column for on-line calibration
- Suction manifold in rigid grey uPVC pipe fitting
- In-line suction strainer
- Isolation ball valves for duty/standby selection
- Pressure loading & relief valves
- Signal cables & junction box
- Chemical level float switch
- Manual to automated control modes
- Injection valve and 10 m of hose

### Applications

- Water treatment chemical disinfection
- Biocides, anti-scalants and corrosion inhibitors
- Coagulants for waste water
- CIP Disinfection
- pH Correction



### Features

#### Complete package

- Supplied with complete set of accessories

#### Easy installation

- The compact, preassembled and tested design means minimised installation— just plug & play

#### Versatile

- Configurable setup and flexible systems to fit many different applications
- The calibration column allows for easy online calibration
- A wide range of chemical compatibility due to high quality materials
- Flow rates of 2.5 mL/h up to 60 L/h available in the Smart Digital DDA/DDI pump range

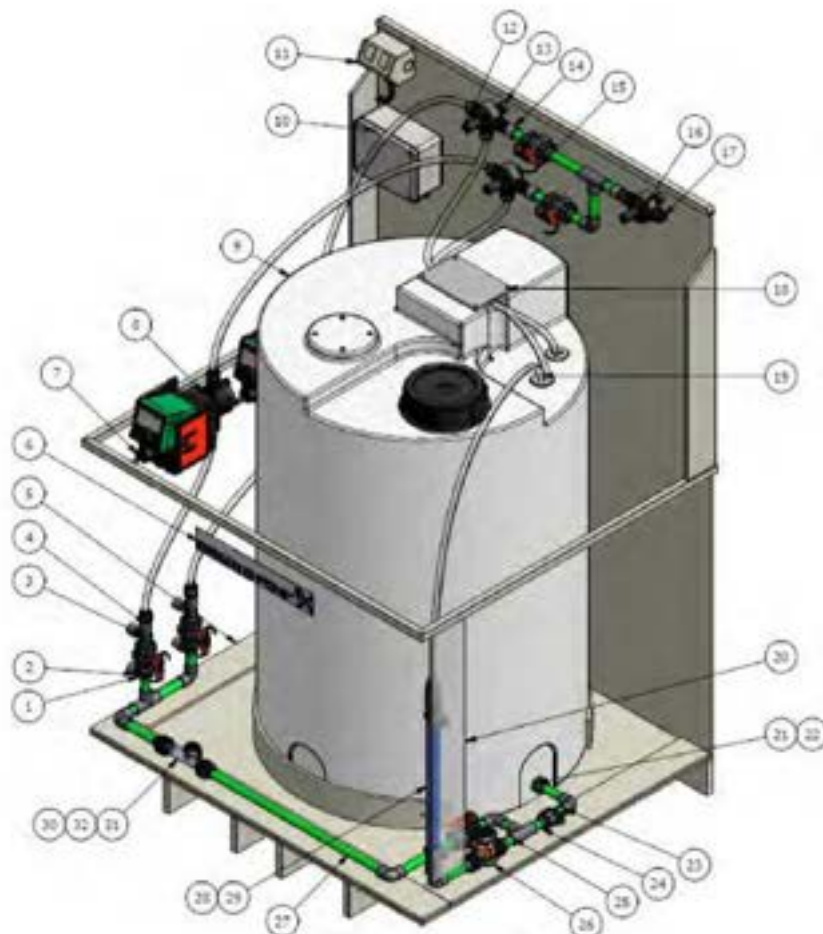
#### Certified

- Meets Australian standards



## Parts list and as-built drawing

ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	97629270	Clip Pipe 1/2" GoemA
2	4	N/A	Spacer 25 mm x 25 mm UPVC
3	2	95712554	Socket 1/2" SWJ PVC-U
4	3	95710053	Connector DN8 Male Th x 1/2" SWJ Spg UPVC
5	1	98721652	Bund Suit 500L Tank (10 mm HDPE) Black
6	1	91341368	Grundfos Logo - 600 Long
7	4	97629446	Spacer 25 mm x 6 mm UPVC
8	2	97722862	DDA 7.5-16 FCM-PV/T/C-F-31U2U2IG pump
9	1	98149266	Tank, 500 L, PE-transp./black
10	1	98726294	Junction Box - 2 Pump 20 Terminals IP65
11	1	97629794	GPO x 2 Weather Protected IP53
12	2	95730759	PRV-G5/B-10 PVC/T U2
13	8	97648635	Spacer 25 mm x 10 mm UPVC
14	3	95710924	Connector DN8 Cap x 1/2" SWJ Socket UPVC
15	5	97629003	Valve Ball 546 1/2" SWJ PVC-U Viton
16	1	95730743	PLV-G5/B-3 PVC/T U2
17	4	97691903	Kit, connector PVC-U2, metric tubing comb.
18	2.97 m <sup>2</sup>	97632928	Hose Guide Plate - 6 mm PVC Sheet
19	2	98070967	FV-2L-G5/B PE/T/C U2
20	1	98429221	500 L Cal Cyl Mount - 3 mm PVC Sheet (830 x 110)



## Dosing Standard Skids

### Dosing of Liquid Chemicals



The Grundfos Dosing Standard Skid design is based on years of research into the needs of the water treatment industry. Utilising design data from dosing projects completed over the last five years, the features of the DSS range exceed customer requirements. Grundfos have a complete range of pre-engineered, standard dosing design packages including 3D mechanical and electrical General Arrangements, Bill of Materials and P&ID's, with supporting technical documentation. Each design has its own product code and description ensuring a simple selection process.

DSS incorporates premium componentry at a cost effective price. They maximise the value offered by our industry leading pump technology, which eliminates the requirement for many external accessories and additional instrumentation. They offer large savings on design costs associated with custom built packages.

Grundfos in-house production starts as soon as the order is accepted and stock alignment prevents procurement delays or dependency on external suppliers, ensuring a high quality, reliable and individually tested chemical dosing system in an industry leading timeframe.

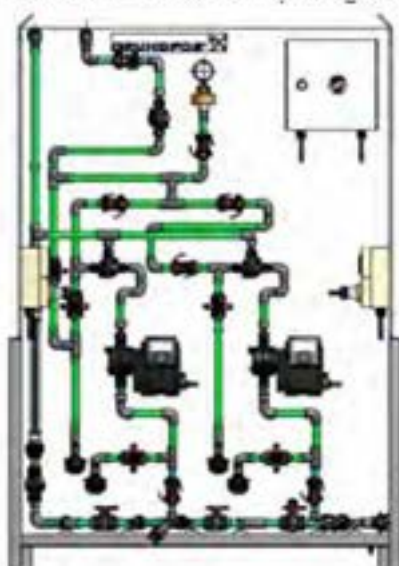
## Systems, Components & Features

- 160+ standard design models
- Standard Design Layout used throughout: Easy for operators to learn
- Chemical Diaphragm pumps from our Smart Digital and DME Dosing range
- Free standing bare 316SS or powder coated frame with PVC backing board in either an open chair design or fully enclosed cabinet with clear lift in doors
- Calibration cylinder: To test pump settings
- Pressure relief valve on each pump: protects the system from high pressure failure
- PVDF fixed pressure loading valve: Ensures accuracy of the dose rate and prevents chemical siphoning through system
- Manifoldd pump selection: uPVC pipe fittings and isolation valves
- Dual suction strainers: Protect the pumps from foreign particulate matter
- Pressure gauge with chemical barrier block
- 4-20mA Flow Output, Signal input control and output alarm cables connected to a termination panel and Emergency Latch Stop

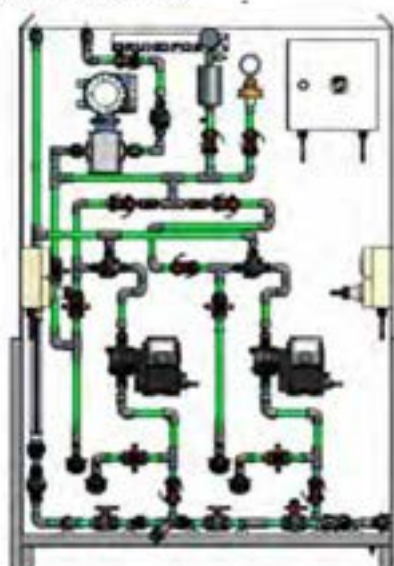


## Standard Variants

Modular options are included in the DSS pricing structure for increased flexibility



Standard Model

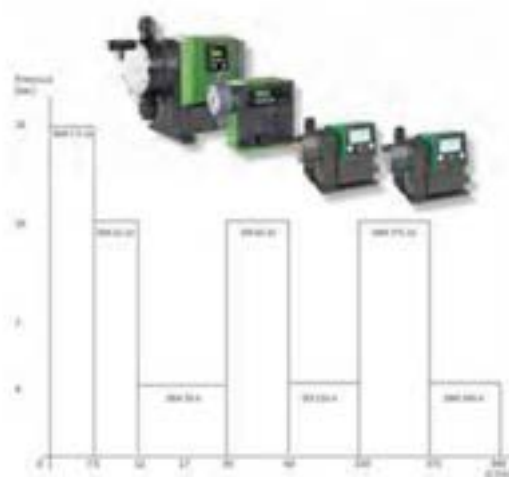


Model with Optional Extras: Flowmeter, Pulsation Dampener, Check Valves & Dilution Line

## Selection Criteria

Select one value from each of the following:

1. Number of pumps per skid – 1, 2 or 3
2. Pump size (Max. L/h) – DDA7.5, DDA12, DDA30, DDI60, DDI150, DME375 or DME940
3. Frame Style – chair or cabinet
4. Chemical group – See table below



GROUP	CHEMICALS	FRAME MATERIAL	SEAL MATERIAL	ISOLATING VALVE TYPE
1	Sodium Hypo, Acids to 96%	PC	Viton	Ball
2	Ammonia, Alum, Anti-scalant	SS	EPDM	Ball
3	Caustic, Soda ash, Copper sulphate	SS	EPDM	Diaphragm
4	Cal. hypo, Ferric/ferrous chloride	PC	Viton	Diaphragm

## Poly Dosing Skids

### Dosing of Liquid Polymers



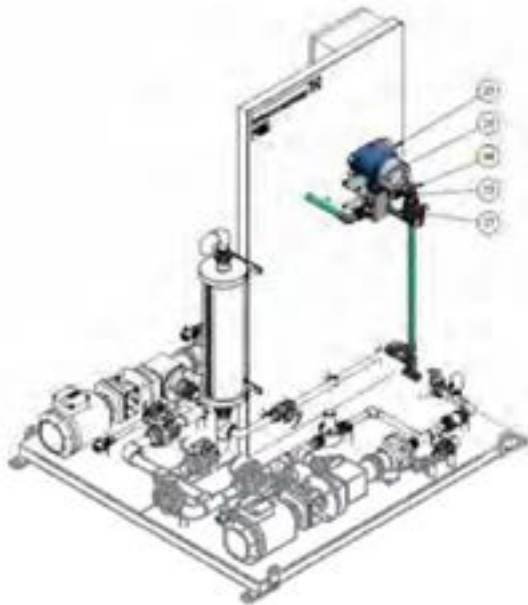
Grundfos Polymer Dosing skids deliver the exact volume of high viscosity polymer into a process water flow. An ergonomic and functional design layout makes operation and servicing simple. Dilution water control with in-line mixer ensures homogenised distribution throughout the process water for maximum efficiency. Grundfos Polymer Dosing skids can be locally controlled from the Polydos HMI touch screen or remotely via the plant PLC. A single multi-core cable connection and PVC union pipe connections make installation simple. The Grundfos Polymer Dosing Skid range is designed to complement Grundfos Polydos Powder and Liquid Polymer Preparation units to create fully integrated systems.

## Components & Features

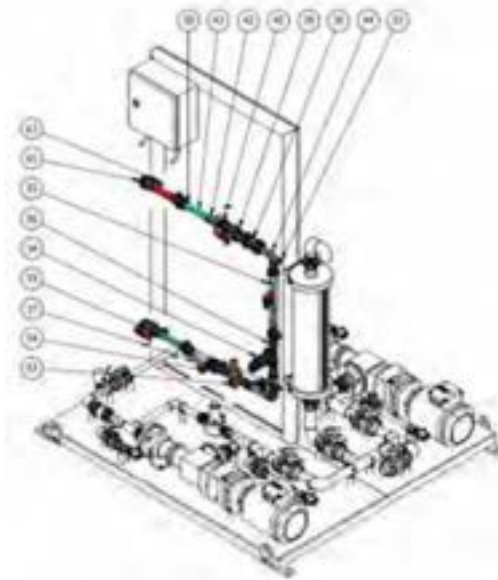
- 14 standard design models including General Arrangements, Bill of Materials and P&ID's.
- Free standing 316 SS frame with PVC backing board includes lifting lugs and anchor plates
- Progressive Cavity Polymer Dosing pumps
- Flow switch: Low flow alarm for pump protection
- Calibration cylinder: To test pump settings
- Pressure relief valve on each pump: protects the system from high pressure failure.
- Flowmeter: To provide 4-20mA Flow Output
- Schedule 80 Pipework and PN16 Valves, SS316 backing flanges throughout;
- SS316 Asset Labels, and pipework signage to AS1345
- Signal input control & output alarm cables connect to the plant PLC or Polydos control panel with VSD.
- Optional: 4:1 Service Water Dilution system; Solenoid valve, isolation valves, Max. Flow switch, rotameter, pressure regulator and gauge, check valve and static mixer



## Standard Variants



Optional Flowmeter



Optional Service Water Dilution

## Nomenclature

**EXAMPLE**

P		2		DS		2000		D1		FM1		MCC	
TYPE RANGE		NUMBER OF PUMPS		CONFIGURATION		DOSE RATE		DILUTION LINES		FLOWMETER		PRESSURE *	
p	Polymer	1	Single Pump	D	Duty	500	Maximum Dose Rate – Aligns to PolyDOS 412-500 or 460-500	X	No Service Water Dilution Line	X	No Flowmeter	MCC	MFV
		2	Double Pump	DS	Duty/Standby	1000	Maximum Dose Rate – Aligns to PolyDOS 412-1000 or 460-1000	1	4:1 Service Water Dilution for P1/D & P2/DS Skids	1	1 x Flowmeter for P1/D & P2/DS Skids	MCCX	Termination Panel/No VSD
		3	Triple Pump	DD	Duty/Duty	2000	Maximum Dose Rate – Aligns to PolyDOS 412-2000 or 460-2000	2	4:1 Service Water Dilution for P2/DD & P3/DDS Skids	2	2 x Flowmeter for P2/DD & P3/DDS Skids		
				DDS	Duty/Duty/Standby	4000	Maximum Dose Rate – Aligns to PolyDOS 412-4000 or 460-4000						

In response to changing market conditions and customer needs, Grundfos has developed an innovative range of Containerised Solutions – both standard and customised turnkey containerised systems. The current product offering includes:

- Chemical Storage & Dosing Container
- Poly Batching & Dosing Container
- Electrochlorination Container
- Chlorine Dioxide Generator Container
- Chlorine Gas Dosing Container
- Pumping System Container

While Grundfos has long been known for their quality pumps, our reputation is growing in the field of plug-and-play, onsite system solutions. We have the expertise and the production facilities to take ownership of the entire project management process; from design and engineering to installation, commissioning and operator training.





## Key Features & Benefits



## Reference Guide

	CHEMICAL STORAGE & DOSING CONTAINER	POLY BATCHING & DOSING CONTAINER	ELECTROCHLORINATION CONTAINER	CHLORINE DIOXIDE GENERATOR CONTAINER	CHLORINE GAS DOSING CONTAINER	PUMPING SYSTEM CONTAINER
BASIC INCLUSIONS	Dosing Standard Skid (DSS)	PolyDos Batching Unit	Selcoperm	Oxiperm generating system (5 to 700 g/h) or ISIA Underwater generating system (1 to 10 kg/h)	Vacuum regulator VGA 111	Hydro MPC
	Bund	Standard Poly Dosing Skid	Brine tank	CRT Pumps	Vacuum changeover U 189-010	
		Control Panel	Product tank	Dosing Standard Skid (DSS)	Dosing regulator with servomotor VGA 113-391(4-20mA)	
			Dosing Standard Skid (DSS)	Bunds	PVC Injector 545	
			Ventilation system		Gas Leak Detector with Sensors DIA-G	
				Emergency Shut off Control System		
OPTIONAL INCLUSIONS	Storage Tank	Air Conditioning	VFI Flow Meter	Air Conditioning	Conex Analyser	Minescope Panel
	Conex Analyser	Grundfos Remote	Conex Analyser	Grundfos Remote Monitoring (GRM)	Room Heater with Thermostat	Accumulator
	Truck Fill Panel	Monitoring (GRM)	Booster pumps		Ejector Booster CR Pumps	VFI Flow Meters
	Control Panel	Vacuum Loader	Air Conditioning		VFI Flow Meter	Air Conditioning
	Air Conditioning		Grundfos Remote Monitoring (GRM)		Air Conditioning	Grundfos Remote Monitoring (GRM)
	Grundfos Remote Monitoring (GRM)				Grundfos Remote Monitoring (GRM)	Chemigation & Fertigation Dosing Systems
TECHNICAL INFORMATION	Dosing Rate: Up to 940 L/h	Preparation Rate: 500, 1,000, 2,000 & 4,000 L/h	Generator Capacity: 125, 250, 500, 1,000 & 2,000 g/h	Dosing Rate: Up to 940 L/h	Dosing Rate: 4,000 g/h	Motor size: 0.37 to 75 kW
	Options: Duty, Duty/Standby or Duty/Duty/Standby	Concentration: 0.01 - 0.5%	Brine Storage: 300, 500 & 1,000 L	Generator Capacity: 5 g/h to 10 kg/h		Flow: 1090 m <sup>3</sup> /h
	Storage: Space for 2,000 L (2 x IBC's)	Dosing Rate: 4,000 L/h	Product Storage: 300, 500, 1,000 & 5,000 L	Concentration: 0.2 mg per ClO <sub>2</sub> /L		Head: 325 m
	Options of Larger storage tanks	Options: Duty, Duty/Standby or Duty/Duty/Standby	Dosing Rate: Up to 940 L/h	Storage: Space for 2,000 L (2 x IBC's)		Liquid temperature: -40 °C to 180 °C
			Chlorine Concentration: 6 to 7 g/L			Operating pressure: 27 bar
					Maximum efficiency: 0.8	
APPLICATIONS	Disinfection	Flocculation	Disinfection	Disinfection	Disinfection	Fluid Transfer
	pH Correction					Pressure Boosting
	Coagulation					Fire Protection



## Product Range Overview



### Chemical Storage & Dosing Container

Container Size: 10 foot & 20 Foot

#### Overview:

A complete chemical storage and dosing system incorporating a full bund and optional thermal protection. The container has space for two Intermediate Bulk Containers (IBC's) providing a storage capacity of 2,000 litres for the relevant chemical. Both IBC's are stored on weigh-scales in a duty/standby configuration for automatic operation. Once the first IBC is empty, the skid suction valve will automatically switch IBC's and raise an alarm at the control system, removing the need for operator intervention.

#### Benefits:

- Reduced requirement for site civil infrastructure: Incorporates full chemical bund and 110% capacity of total storage
- Increased flexibility: Interchangeable between pre-designed Dosing Standard Skid (DSS) range, 0-940 L/hr dosing range with 1 to 3 pump configurations and options of a cabinet enclosure
- Chemical compatibility: A range of material selections available to cater for most common chemicals
- Increased safety: Includes various safety features such as an external local stop, retractable 2 mm PVC chemical resistant splash curtain



### Poly Batching & Dosing Container

Container Size: 20 Foot

#### Overview:

The Poly Batching & Dosing Container is a fully automatic three chambered Polydos preparation system ideal for polyelectrolyte solution preparation with adjustable concentrations from 0.01 to 0.5%. The three chambers of the Polydos polypropylene tank are for preparation, ageing and dosing, with the option of an agitator in the dosing chamber.

#### Benefits:

- Various options available: 1, 2 or 3 Chamber systems
- Touch screen controller: For easy use
- Reduced footprint: Compared to a traditional 2 tank system



### Electrochlorination Container

Container Size: 20 Foot

#### Overview:

The electrochlorination process only requires salt, water and electricity for low-cost generation of disinfectant chemical, sodium hypochlorite (NaClO).

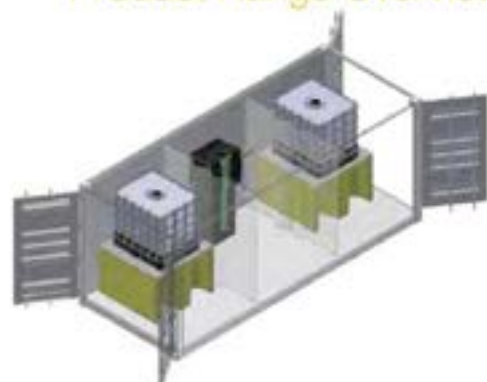
The NaClO solution has a maximum equivalent concentration of 7 g/L. This low concentration ensures a long half-life making it ideal for storage in a product tank as it does not dissociate like commercial solutions.

#### Benefits:

- Reduced transport and storage costs: Ability to generate chlorine on-site according to your requirements
- Low strength hypo solution is stable and non-toxic: Does not dissociate like commercial hypochlorite solutions
- Approved disinfection method: An alternative to chlorine-gas based systems with less safety requirements



## Product Range Overview



### Chlorine Dioxide Generator Container

Container Size: 20 Foot

#### Overview:

Based on patented underwater production technology, the Chlorine Dioxide Generator Container has the ability to generate chlorine dioxide (ClO<sub>2</sub>) using concentrated solutions of sodium chlorite (NaClO<sub>2</sub>) 25 to 31 % and hydrochloric acid (HCl) 31 to 33 %. The ClO<sub>2</sub> solution is produced in a very small reaction chamber, installed in-line and injected directly into the water to treat. This ensures ClO<sub>2</sub> is only present in the treated water to provide high safety and very effective consumption of the chemical precursors. These containers can be customised for any capacity level up to 200 kg ClO<sub>2</sub>/hr.

#### Benefits:

- Effective underwater production technology: Chemical reaction yield of 95 to 98%, requiring less chemicals and generating less by-products
- Reduced footprint: Reaction chamber volume requirement 1/70th of a traditional installation
- Increased safety: Storage tank or safety zone for the generated ClO<sub>2</sub> solution is not required. High concentration ClO<sub>2</sub> is surrounded by water therefore reducing the likelihood that high concentration ClO<sub>2</sub> is released into the atmosphere
- Low consumption of chemicals and power: Only 5.7 kg HCl per 1 kg of generated ClO<sub>2</sub>



### Chlorine Gas Dosing Container

Container Size: 20 Foot

#### Overview:

A complete vacuum controlled chlorine gas (Cl<sub>2</sub>) dosing system with a dosage capacity up to 4 kg/h. Each container guarantees the highest degree of safety as the vacuum regulator is directly connected to the chlorine gas cylinder.

If the required dosing rate exceeds 650 g/hr, several cylinders with vacuum regulators can be installed in parallel on the vacuum side to prevent the cylinder from freezing.

#### Benefits:

- Low operation costs: Cl<sub>2</sub> is a low-priced agent and has a long-term depot effect in water making it suitable for large water distribution systems
- Complete package: Stand-alone gas chlorination system and control facility
- Increased safety: Safety features can be added such as gas leak detectors, a pneumatic auto shut off system, an exhaust system with fog scrubbing system sprayer and a safety shower



### Pumping System Container

Container Size: 20 Foot

#### Overview:

A standard container modified to suit a range of Grundfos pumping systems. Each container is fitted with twin fluorescent lights, double general power outlet, vermin proof fixed ventilation louvers and whirly bird. The relevant Grundfos pumping system is anchored to the floor while the control panel is mounted to the wall. The container can also be painted a range of colours to blend into the surrounding landscape.

#### Benefits:

- Complete package: Stand-alone booster pumping and control facility
- Quick and easy installation: Reduces costs and time associated with having to size and build pump sheds in remote sites
- Additional space: Can be designed to provide room for tool storage





# SITE AMENITIES



PAGE  
580



PAGE  
588



PAGE  
610



PAGE  
612



## PRODUCT RANGE

All Pumps manufacture and stock a range of systems to enhance the amenity of all sites. With our extensive and comprehensive product range, coupled with over 40 years experience we can produce an engineered solution to solve the most complex application. All of our systems are produced to meet the rigorous standard of ISO9001 accreditation as well as the relevant Australian standards. These systems include:

### Pressure Boosting Systems



Javelin Pump systems cover a vast range of sizes and solutions from a small domestic mains water pressure booster system to a municipal multiple pump water supply system

### Pump Stations



Kwikflo packaged pump stations are assembled tank sizes ranging from 100L to 100,000L, in a range of materials including polyethylene, fibreglass & concrete we have a "complete packaged pump solution" to meet your site specific specifications. We stock a complete range of submersible pumps including dewatering, cutter, vortex, grinder & high pressure models for pressure sewer applications.

### Fire Booster Pumpset



Fire Booster Pumpsets are available in diesel and electric drive configurations, assembled on a common fabricated base with pipework manifolds, valves, controls and accessories to provide a fully automated system complying with AS2941.

### Cold/Hot Water Circulators



Systems can be designed as a single or multiple pump unit depending on the demand and how critical the application is. Systems can be a fixed speed or variable speed drive & can be controlled by a thermostat or timer controllers and are supplied with suction & discharge isolation and check valves and stainless steel manifolds.



## PRODUCT RANGE

### Grease Arrestors



Our range of pre-treatment devices are designed to remove fats, oils, grease and suspended solids that are generated from the commercial preparation of foods from cafes, restaurants, canteens & hospitals.

### Oil Water Separators



Oily water influent is introduced into an inlet chamber by means of a pump. Heavy solids settle out and 100% oil slugs rise immediately to the surface. The remaining oily water mixture flows through a stack of closely spaced, corrugated polypropylene plates. Both the smaller oil droplets and the fine solids are progressively separated. Downstream a baffle or oil dam prevents the collected oil from entering the outlet weir.

### Underground Storage Systems



The new modular "AquaFlo" storage system has a standard capacity range from 5000 litres up to 30,000 litres (larger on request), they can also be connected in series to give larger storage capacities, the combinations are limitless.

### EDA Treatment Trains



The All Pumps EDA TT is the distinct economic and environmental choice for meeting water treatment discharge standards and compliance requirements. Capital and operating costs are greatly improved in comparison to traditional technologies with distinct process advantages.

## SINGLE VARIABLE SPEED PRESSURE BOOSTER



- ✓ Variable speed single pump system complete with pressure tank
- ✓ Mains isolator
- ✓ Discharge pressure transducer
- ✓ Motor mount Variable Speed Drive
- ✓ Run / fault notification on each pump controller
- ✓ BMS outputs
- ✓ Stainless steel manifolds
- ✓ Isolation & check valve fitted
- ✓ Hot dipped galvanised base plate



**FULL PERFORMANCE SPECS ARE  
AVAILABLE ON OUR WEBSITE  
[WWW.ALLPUMPS.COM.AU](http://WWW.ALLPUMPS.COM.AU)**

\*Other models available

JAVELIN JV1 SINGLE VARIABLE SPEED PRESSURE SYSTEM

STOCK CODE	MODEL	PUMP MODEL	MOTOR SIZE (kW)	VASCO
540015	SVPRSJV1-7/209	JV1-7	0.37	209
540027	SVPRSJV1-11/209	JV1-11	0.55	209
540036	SVPRSJV1-15/209	JV1-15	0.75	209
540048	SVPRSJV1-23/209	JV1-23	1.1	209
540057	SVPRSJV1-30/209	JV1-30	1.5	209
540063	SVPRSJV136/214	JV1-36	2.2	214
540075	SVPRSJV3-5/209	JV3-5	0.37	209
540084	SVPRSJV3-7/209	JV3-7	0.55	209
540096	SVPRSJV3-10/214	JV3-10	0.75	214
540117	SVPRSJV3-15/214	JV3-15	1.1	214
540123	SVPRSJV3-19/209	JV3-19	1.5	209
540138	SVPRSJV3-29/214	JV3-29	2.2	214
540147	SVPRSJV3-36/214	JV3-36	3.0	214
540150	SVPRSJV5-2/209	JV5-2	0.37	209
540156	SVPRSJV5-4/209	JV5-4	0.55	209
540162	SVPRSJV5-5/214	JV5-5	0.75	214
540177	SVPRSJV5-8/214	JV5-8	1.1	214
540186	SVPRSJV5-10/214	JV5-10	1.5	214
540204	SVPRSJV5-16/214	JV5-16	2.2	214
540210	SVPRSJV5-20/214	JV5-20	3.0	214
540222	SVPRSJV5-29/409	JV5-29	4.0	409



# SINGLE VARIABLE SPEED PRESSURE BOOSTER



## Details





## DUAL VARIABLE SPEED PRESSURE BOOSTER



- ✓ Duty Standby/Duty Assist dual variable speed water booster system complete with pressure tank
- ✓ Discharge pressure transducers
- ✓ Individual VSD per pump
- ✓ Individual mains isolator
- ✓ Run / fault notification on each pump controller
- ✓ BMS outputs
- ✓ Stainless steel manifolds
- ✓ Isolation & check valves fitted for each pump
- ✓ Hot dipped galvanised base plate

**AS/NZS  
4020**

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[WWW.ALLPUMPS.COM.AU](http://WWW.ALLPUMPS.COM.AU)**

\*Other models available

JAVELIN JV1 DUAL VARIABLE SPEED PRESSURE SYSTEM

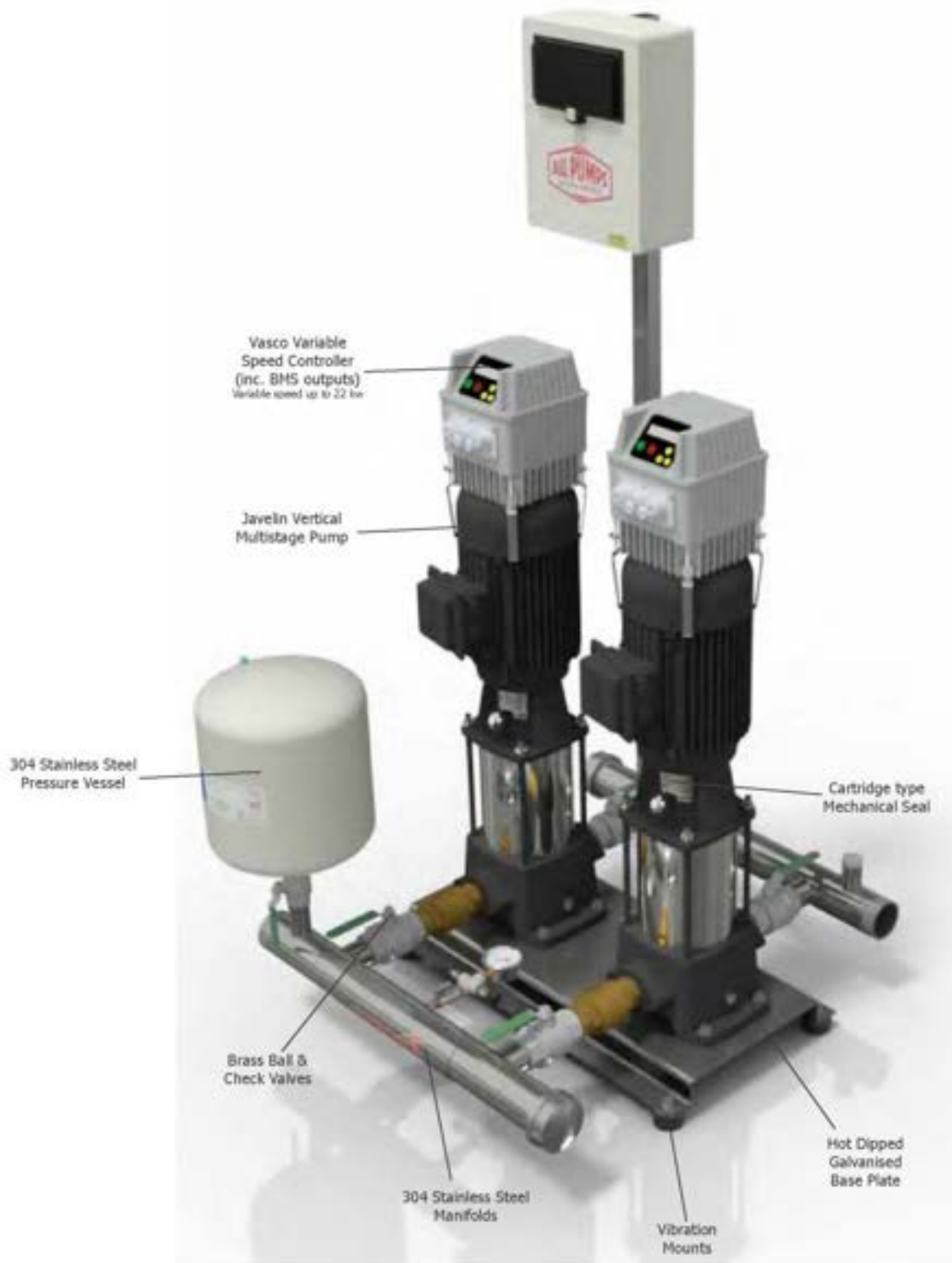
STOCK CODE	MODEL	PUMP MODEL	MOTOR SIZE (kW)	VASCO	VOLTAGE
560015	DVPRSJV1-7/214	JV1-7	0.37	214	240
560027	DVPRSJV1-11/214	JV1-11	0.55	214	240
560036	DVPRSJV1-15/214	JV1-15	0.75	214	240
560048	DVPRSJV1-23/214	JV1-23	1.1	214	240
560057	DVPRSJV1-33/214	JV1-30	1.5	214	240
560063	DVPRSJV1-36/214	JV1-36	2.2	214	240
560075	DVPRSJV3-5/214	JV3-5	0.37	214	240
560081	DVPRSJV3-7/214	JV3-7	0.55	214	240
560090	DVPRSJV3-10/214	JV3-10	0.75	214	240
560102	DVPRSJV3-15/214	JV3-15	1.1	214	240
560108	DVPRSJV3-19/214	JV3-19	1.5	214	240
560123	DVPRSJV3-29/214	JV3-29	2.2	214	240
560132	DVPRSJV3-36/214	JV3-36	3.0	214	240
560135	DVPRSJV5-2/214	JV5-2	0.37	214	240
560141	DVPRSJV5-4/214	JV5-4	0.55	214	240
560144	DVPRSJV5-5/214	JV5-5	0.75	214	240
560153	DVPRSJV5-8/214	JV5-8	1.1	214	240
560159	DVPRSJV5-10/214	JV5-10	1.5	214	240
560177	DVPRSJV5-16/214	JV5-16	2.2	214	240
560183	DVPRSJV5-20/214	JV5-20	3.0	214	240
560195	DVPRSJV5-29/409	JV5-29	4.0	409	415



# SINGLE VARIABLE SPEED PRESSURE BOOSTER



## Details





## TRIPLEX VARIABLE SPEED PRESSURE BOOSTER



- ✓ Duty Standby/Duty Assist, triplex variable speed water booster system complete with pressure tank.
- ✓ Discharge pressure transducers
- ✓ Individual VSD per pump
- ✓ Individual mains isolator
- ✓ Run / fault notification on each pump controller
- ✓ BMS outputs
- ✓ Stainless steel manifolds
- ✓ Isolation & check valves fitted for each pump
- ✓ Hot dipped galvanised base plate

AS/NZS  
4020  
COMPLIANT WATER APPROVAL

FULL PERFORMANCE SPECS ARE  
AVAILABLE ON OUR WEBSITE  
[WWW.ALLPUMPS.COM.AU](http://WWW.ALLPUMPS.COM.AU)

\*Other models available

JAVELIN JV1 TRIPLEX VARIABLE SPEED PRESSURE SYSTEM

STOCK CODE	MODEL	PUMP MODEL	MOTOR SIZE (kW)	STEP TO NEXT SIZE MOTOR	VASCO	VOLTAGE
580015	TVPRSVJ1-7/214	JV1-7	0.37	TRUE	214	240
580027	TVPRSVJ1-11/214	JV1-11	0.55	TRUE	214	240
580036	TVPRSVJ1-15/214	JV1-15	0.75	TRUE	214	240
580048	TVPRSVJ1-23/214	JV1-23	1.1	TRUE	214	240
580057	TVPRSVJ1-30/214	JV1-30	1.5	TRUE	214	240
580063	TVPRSVJ1-36/214	JV1-36	2.2	TRUE	214	240
580075	TVPRSVJ3-5/214	JV3-5	0.37	TRUE	214	240
580081	TVPRSVJ3-7/214	JV3-7	0.55	TRUE	214	240
580090	TVPRSVJ3-10/214	JV3-10	0.75	TRUE	214	240
580102	TVPRSVJ3-15/214	JV3-15	1.1	TRUE	214	240
580108	TVPRSVJ3-19/214	JV3-19	1.5	TRUE	214	240
580123	TVPRSVJ3-29/214	JV3-29	2.2	TRUE	214	240
580132	TVPRSVJ3-36/214	JV3-36	3.0	TRUE	214	240
580135	TVPRSVJ5-2/214	JV5-2	0.37	TRUE	214	240
580141	TVPRSVJ5-4/214	JV5-4	0.55	TRUE	214	240
580144	TVPRSVJ5-5/214	JV5-5	0.75	TRUE	214	240
580153	TVPRSVJ5-8/214	JV5-8	1.1	TRUE	214	240
580159	TVPRSVJ5-10/214	JV5-10	1.5	TRUE	214	240
580177	TVPRSVJ5-16/214	JV5-16	2.2	TRUE	214	240
580183	TVPRSVJ5-20/214	JV5-20	3.0	TRUE	214	240
580195	TVPRSVJ5-29/409	JV5-29	4.0	TRUE	409	415



# TRIPLEX VARIABLE SPEED PRESSURE BOOSTER



## Details



## QUAD VARIABLE SPEED PRESSURE BOOSTER



- ✓ Duty Standby/Duty Assist, quad variable speed water booster system complete with pressure tank.
- ✓ Discharge pressure transducers
- ✓ Individual VSD per pump
- ✓ Individual mains isolator
- ✓ Run / fault notification on each pump controller
- ✓ BMS outputs
- ✓ Stainless steel manifolds
- ✓ Isolation & check valves fitted for each pump
- ✓ Hot dipped galvanised base plate



**FULL PERFORMANCE SPECS ARE  
AVAILABLE ON OUR WEBSITE  
[WWW.ALLPUMPS.COM.AU](http://WWW.ALLPUMPS.COM.AU)**

JAVELIN JV1 QUAD VARIABLE SPEED PRESSURE SYSTEM

STOCK CODE	PART NO. (EX0)	PUMP MODEL	MOTOR SIZE (kW)	VASCO	VOLTAGE
600015	QVPRSJV1-7/214	JV1-7	0.37	214	240
600027	QVPRSJV1-11/214	JV1-11	0.55	214	240
600036	QVPRSJV1-15/214	JV1-15	0.75	214	240
600048	QVPRSJV1-23/214	JV1-23	1.1	214	240
600057	QVPRSJV1-30/214	JV1-30	1.5	214	240
600063	QVPRSJV1-36/214	JV1-36	2.2	214	240
600078	QVPRSJV3-5/214	JV3-5	0.37	214	240
600084	QVPRSJV3-7/214	JV3-7	0.55	214	240
600093	QVPRSJV3-10/214	JV3-10	0.75	214	240
600105	QVPRSJV3-15/214	JV3-15	1.1	214	240
600111	QVPRSJV3-19/214	JV3-19	1.5	214	240
600126	QVPRSJV3-29/214	JV3-29	2.2	214	240
600135	QVPRSJV3-36/214	JV3-36	3.0	214	240
600141	QVPRSJV5-2/214	JV5-2	0.37	214	240
600147	QVPRSJV5-4/214	JV5-4	0.55	214	240
600150	QVPRSJV5-5/214	JV5-5	0.75	214	240
600159	QVPRSJV5-8/214	JV5-8	1.1	214	240
600165	QVPRSJV5-10/214	JV5-10	1.5	214	240
600183	QVPRSJV5-16/214	JV5-16	2.2	214	240
600189	QVPRSJV5-20/214	JV5-20	3.0	214	240
600201	QVPRSJV5-29/409	JV5-29	4.0	409	415
600207	QVPRSJV5-36/414	JV5-36	5.5	414	415



# QUAD VARIABLE SPEED PRESSURE BOOSTER



## Details



**KWIKFLO ENVIRONMENTAL PUMP STATIONS**



SPECIFICATION	
Model No.	KPPS100
Depth	700mm
Outer Dimensions	590mm x 590mm
Inner Diameter	410mm
Nominal Litres	100
Approximate Weight (Excluding pump)	15 kg
Access Cover	450mm x 450mm

CONSTRUCTION	
Polyethylene tank	
Inlet pipe to be installed by plumber	
All in-tank fittings incorporated in the packaged pump stations as follows:	
<ul style="list-style-type: none"> <li>- PVC ball and non-return valves barrel unions</li> <li>- PVC interconnecting pipework</li> </ul>	

LIQUID HANDLED	
Raw sewage	Trade waste
Effluent	Stormwater

PUMP OPTIONS	CONFIGURATION
Single Pump	Freestanding

### KPPS100 Pump Stations

PART NO.	CAPACITY	TYPE	PUMP MODEL	VOLTAGE	CONFIGURATION
742517	100 L	Sewage Cutter	DSK-10A	240	Single/Freestanding
740042	100 L	Vortex	BAV-550	240	Single/Freestanding
740060	100 L	Drainage	SSS037	240	Single/Freestanding

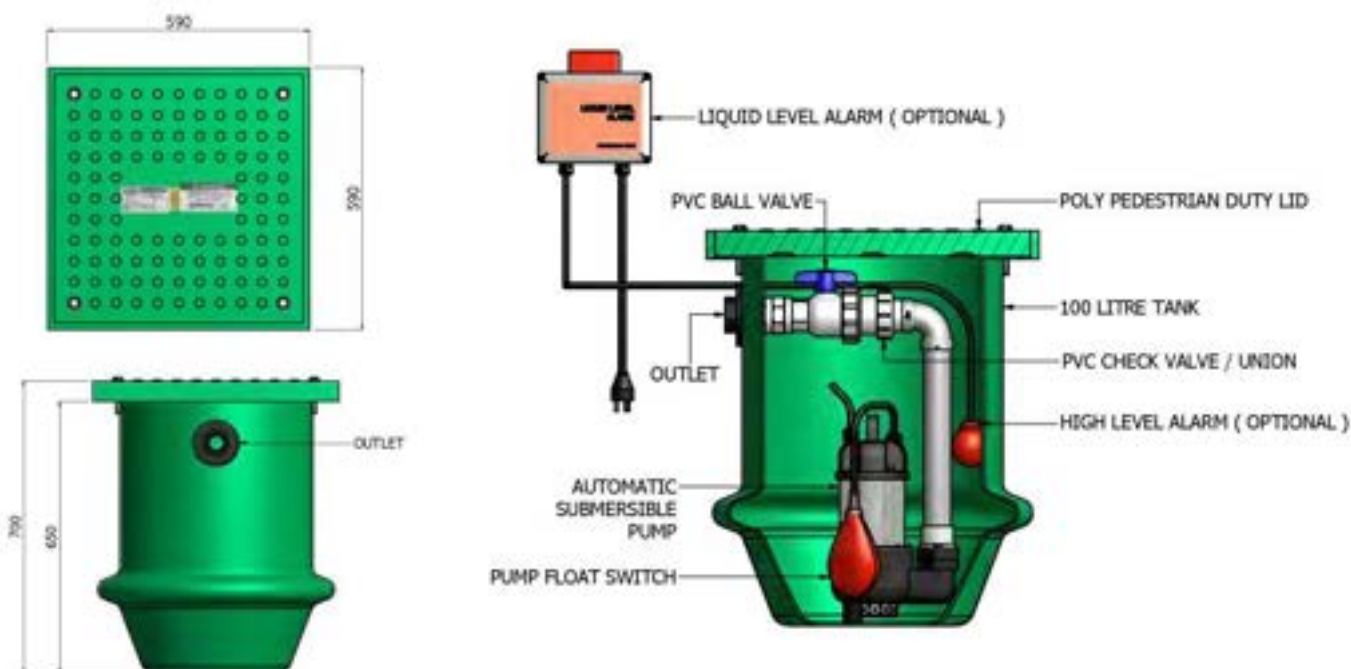
\* Please see submersible pump section for technical specifications

### Control Panel Options

PART NO.	MODEL NO.	DESCRIPTION	TYPE	BMS	VOLTAGE
260070	FPC-12650	Economy high level alarm	ALARM	N	240
260080	FPC-12651	Deluxe high level alarm	ALARM	Y	240

\* Please see pump controller section for more details

### Dimensions





# PUMP STATIONS



### SPECIFICATION

Model No.	KPPS250
Depth	900mm
Outer Diameter	730mm
Inner Diameter	650mm
Nominal Litres	250
Approximate Weight	25kg
Access Cover	600mm x 600mm

### CONSTRUCTION

Polyethylene tank  
 Inlet pipe to be installed by plumber  
 All in-tank fittings incorporated in the packaged pump stations as follows:

- PVC ball and non-return valves barrel unions
- PVC interconnecting pipework

### LIQUID HANDLED

Raw sewage	Trade waste
Effluent	Stormwater

### PUMP OPTIONS

Single Pump

### CONFIGURATION

Freestanding

## KPPS250 Pump Stations

PART NO.	CAPACITY	TYPE	PUMP MODEL	VOLTAGE	CONFIGURATION
740090	250L	Drainage	KS-10A	240	Single/Freestanding
740132	250L	Sewage Cutter	DSK-10A	240	Single/Freestanding
740204	250L	Sewage Grinder	GGP1501A	240	Single/Freestanding
740234	250L	Vortex	50ADV55.75	240	Single/Freestanding
740240	250L	Vortex	BAV-5505A	240	Single/Freestanding

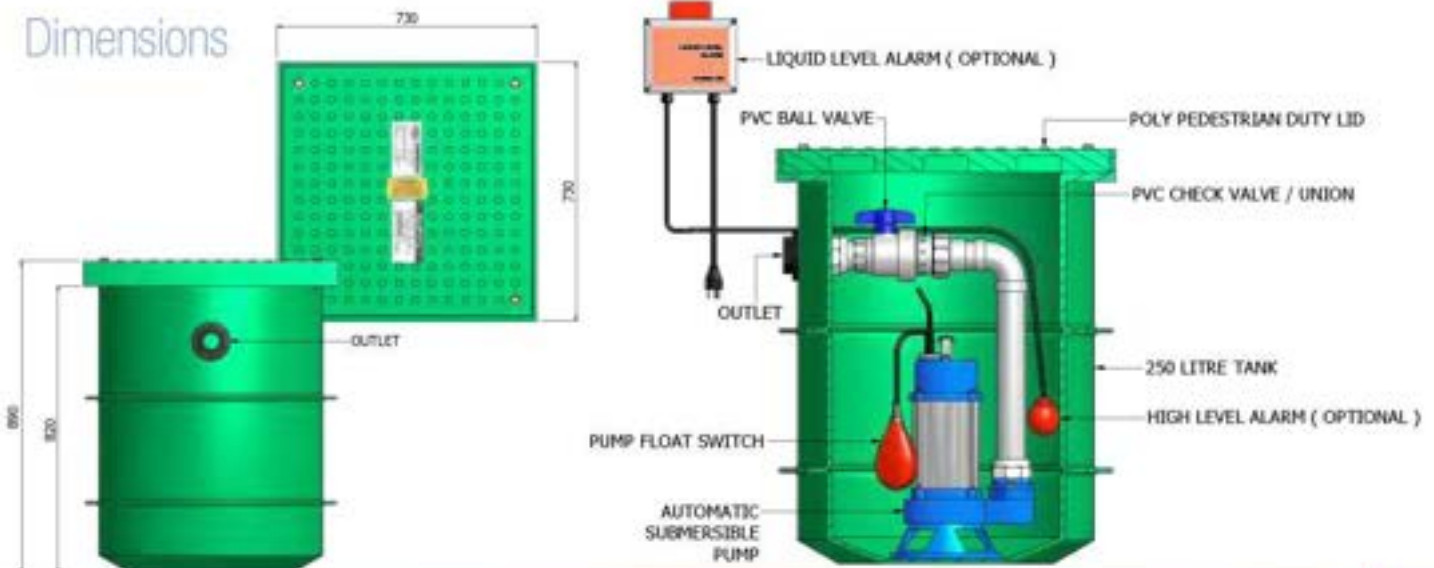
\* Please see submersible pump section for technical specifications

## Control Panel Options

PART NO.	MODEL NO.	DESCRIPTION	VOLTAGE
260510	FPC-15000	Single Economy Panel	240
260550	FPC-15002-A	Single 240 Volt Panel 2.5 - 4 AMPS	240
260570	FPC-15002-B	Single 240 Volt Panel 4 - 6 AMPS	240
260580	FPC-15002-C	Single 240 Volt Panel 7 - 10 AMPS	240
260600	FPC-15002-D	Single 240 Volt Panel 9 - 13 AMPS	240
260610	FPC-15002-E	Single 240 Volt Panel 12 - 18 AMPS	240

\* Please see pump controller section for more details

## Dimensions





## SPECIFICATION

Model No.	KPPS900
Depth	1200mm
Outer Diameter	1120mm
Inner Diameter	1000mm
Nominal Litres	900
Approximate Weight (Excluding Pump/s)	45kg
Access Cover	600mm x 600mm

## CONSTRUCTION

Polyethylene tank

Inlet pipe to be installed by plumber

All in-tank fittings incorporated in the packaged pump stations as follows:

- PVC ball and non-return valves barrel unions
- PVC interconnecting pipework

## LIQUID HANDLED

Raw sewage	Trade waste
Effluent	Stormwater

## PUMP OPTIONS

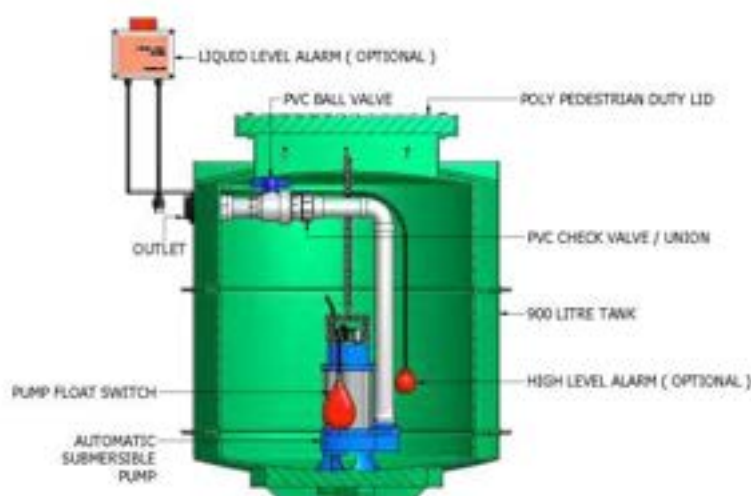
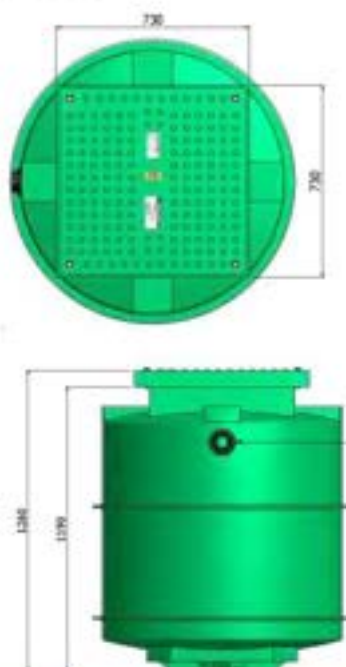
Single  
or Dual

## CONFIGURATION

Freestanding  
or Guide Rail

PART NO.	CAPACITY	TYPE	PUMP MODEL	VOLTAGE	CONFIGURATION
740408	900	DRAINAGE	KS-05A	240	Single/Freestanding
742703	900	DRAINAGE	KS-05	240	Dual/Freestanding
740420	900	DRAINAGE	KS-10	240	Dual/Freestanding
740480	900	SEWAGE CUTTER	DSK-10A	240	Single/Freestanding
740468	900	SEWAGE CUTTER	DSK-10	240	Dual/Freestanding
740546	900	SEWAGE GRINDER	GGP1501A	240	Single/Freestanding
740570	900	SEWAGE GRINDER	GGP1501	240	Dual/Freestanding
740576	900	SEWAGE GRINDER	GGP1503	415	Dual/Freestanding
740612	900	VORTEX	50ADV55.75	240	Dual/Freestanding
740618	900	VORTEX	50ADV55.75A	240	Single/Freestanding

## Dimensions





# PUMP STATIONS



## SPECIFICATION

Model No.	KPPS1200
Depth	1600mm
Outer Diameter	1120mm
Inner Diameter	1000mm
Nominal Litres	1200
Approximate Weight	62kg
Access Cover	600mm x 600mm

## CONSTRUCTION

Polyethylene tank  
 Inlet pipe to be installed by plumber  
 All in-tank fittings incorporated in the packaged pump stations as follows:  
 - PVC ball and non-return valves barrel unions  
 - PVC interconnecting pipework

## LIQUID HANDLED

Raw sewage	Trade waste
Effluent	Stormwater

## PUMP OPTIONS

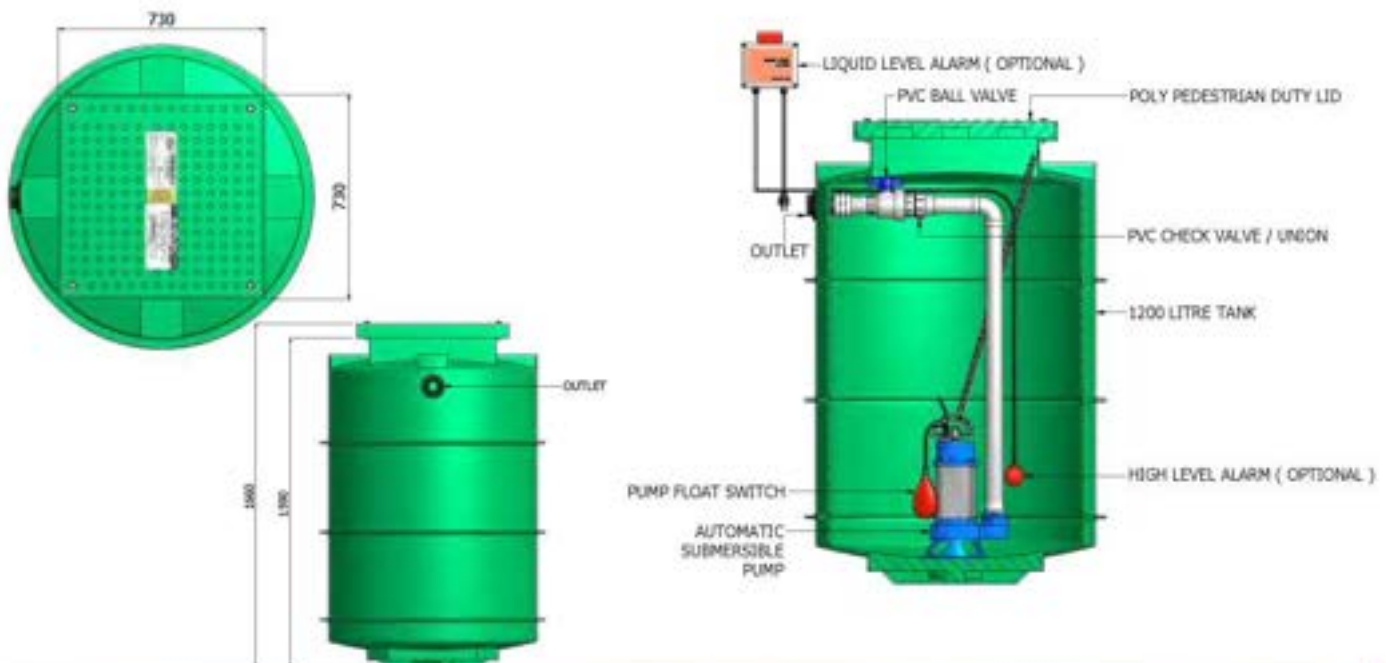
Single or Dual

## CONFIGURATION

Freestanding or Guide Rail

PART NO.	CAPACITY	TYPE	PUMP MODEL	VOLTAGE	CONFIGURATION
740918	1200	DRAINAGE	KS-05A	240	Single/Freestanding
740930	1200	DRAINAGE	KS-05	240	Dual/Freestanding
740990	1200	SEWAGE CUTTER	DSK-10	240	Dual/Freestanding
741020	1200	SEWAGE CUTTER	DSK-10A	240	Single/Freestanding
741104	1200	SEWAGE GRINDER	GGP1501A	240	Single/Freestanding
741140	1200	SEWAGE GRINDER	GGP1501	240	Dual/Freestanding
741158	1200	SEWAGE GRINDER	GGP1503	415	Dual/Freestanding
741182	1200	SEWAGE GRINDER	HGP2021A	240	Single/Freestanding
741188	1200	SEWAGE GRINDER	HGP2021	240	Dual/Freestanding
741206	1200	SEWAGE GRINDER	HGP2043	415	Dual/Freestanding
741152	1200	SEWAGE GRINDER	GGP1501	240	Dual/Guide Rail
741170	1200	SEWAGE GRINDER	GGP1503	415	Dual/Guide Rail

## Dimensions



**KWIKFLO ENVIRONMENTAL PUMP STATIONS**



**SPECIFICATION**

Model No.	KPPS3000
Depth	2125mm
Outer Diameter	1730mm
Inner Diameter	1600mm
Nominal Litres	3000
Approximate Weight (Excluding Pump/s)	165kg
Access Cover	600 x 900mm

**CONSTRUCTION**

Polyethylene tank  
 Inlet pipe to be installed by plumber  
 All in-tank fittings incorporated in the packaged pump stations as follows:  
 - PVC ball and non-return valves barrel unions  
 - PVC interconnecting pipework

**LIQUID HANDLED**

Raw sewage	Trade waste
Effluent	Stormwater

**PUMP OPTIONS**

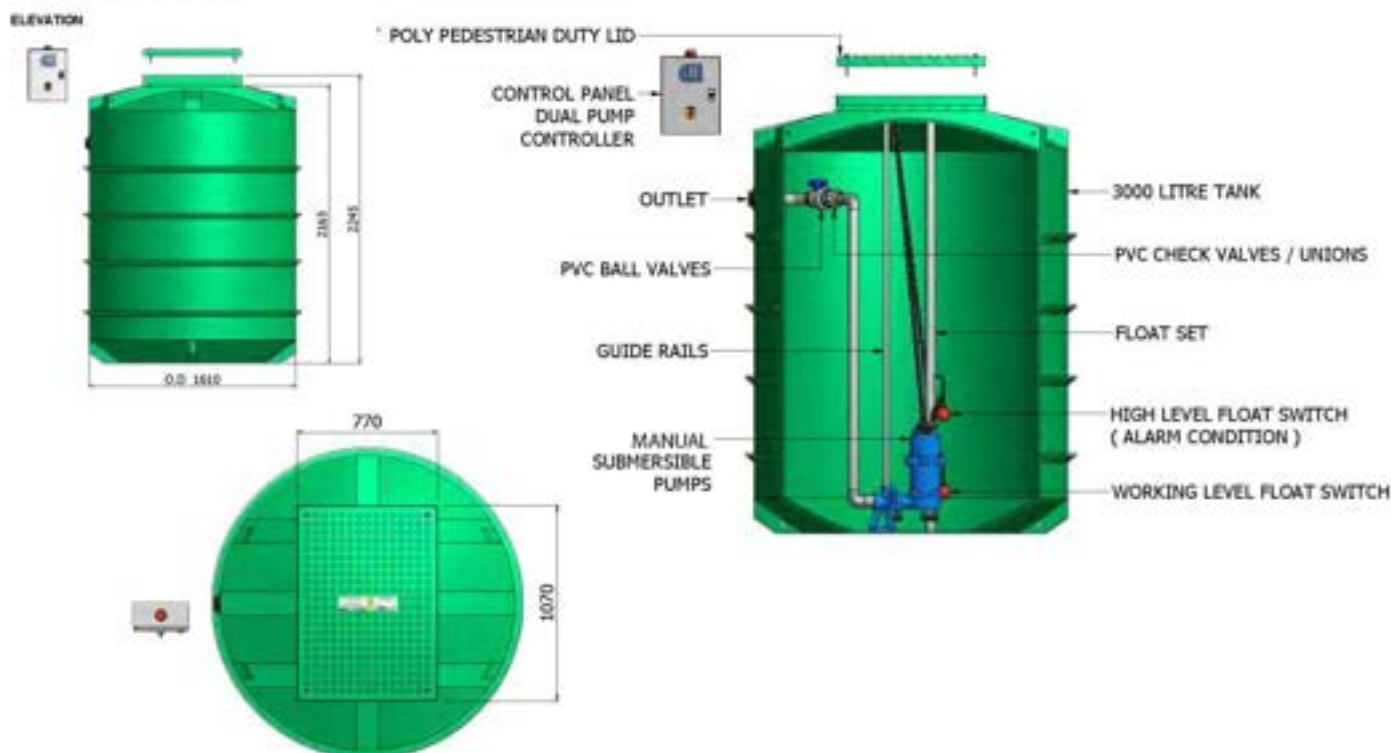
Single, Dual or Triplex

**CONFIGURATION**

Freestanding or Guide Rail

PART NO.	CAPACITY	TYPE	PUMP MODEL	VOLTAGE	CONFIGURATION
741260	3000	DRAINAGE	KS-05A	240	Single/Freestanding
741626	3000	DRAINAGE	KS-05	240	Dual/Freestanding
741692	3000	SEWAGE CUTTER	DSK-10	240	Dual/Freestanding
741704	3000	SEWAGE CUTTER	DSK-10A	240	Single/Freestanding
741878	3000	VORTEX	50ADV55.75A	240	Single/Freestanding
741884	3000	VORTEX	50ADV55.75	240	Dual/Freestanding

**Dimensions**





# PUMP STATIONS



### SPECIFICATION

Model No.	KPP55000
Depth	3300mm
Outer Diameter	1900mm
Inner Diameter	1800mm
Nominal Litres	5000
Approximate Weight	550kg
Access Cover	600 x 900mm

### CONSTRUCTION

Polyethylene tank  
 Inlet pipe to be installed by plumber  
 All in-tank fittings incorporated in the packaged pump stations as follows:

- PVC ball and non-return valves barrel unions
- PVC interconnecting pipework

### LIQUID HANDLED

Raw sewage	Trade waste
Effluent	Stormwater

### PUMP OPTIONS

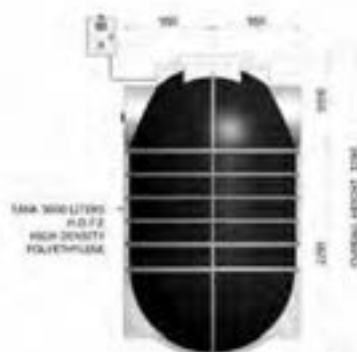
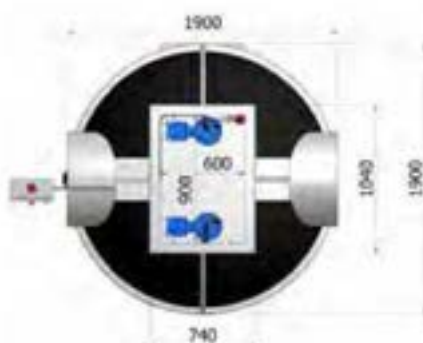
Single, Dual  
or Triplex

### CONFIGURATION

Freestanding or  
Guide Rail

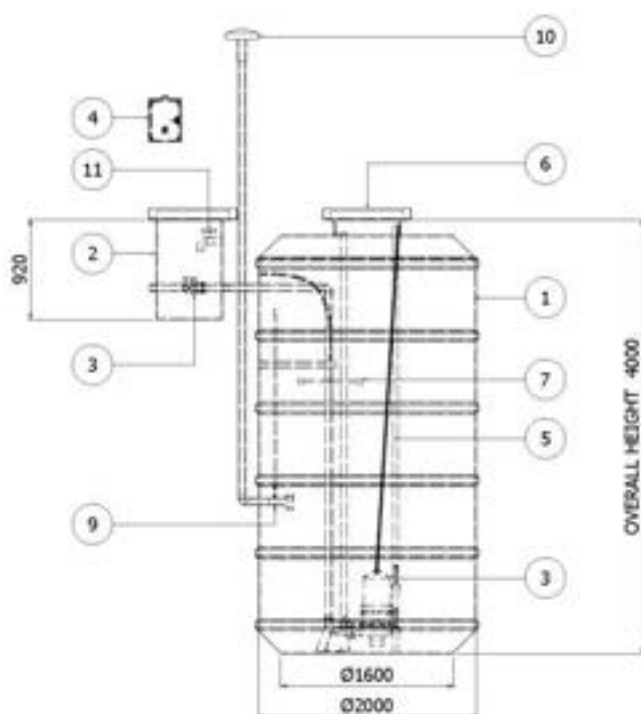
PART NO.	CAPACITY	TYPE	PUMP MODEL	VOLTAGE	CONFIGURATION
742793	5000	SEWAGE GRINDER	GGP1501A	240	single/freestanding
742304	5000	SEWAGE GRINDER	GGP1501	240	dual/freestanding
742292	5000	SEWAGE CUTTER	DSK-10A	240	single/freestanding
742298	5000	SEWAGE CUTTER	DSK-10	240	dual/freestanding
742763	5000	DRAINAGE	KS-05A	240	single/freestanding
742766	5000	DRAINAGE	KS-05	240	dual/freestanding
742814	5000	VORTEX	S0ADV55.75A	240	single/freestanding
742820	5000	VORTEX	S0ADV55.75	240	dual/freestanding

## Dimensions



**KWIKFLO ENVIRONMENTAL** FRP PUMP STATIONS

Vertical pump station with dual guide rail mounted pumps

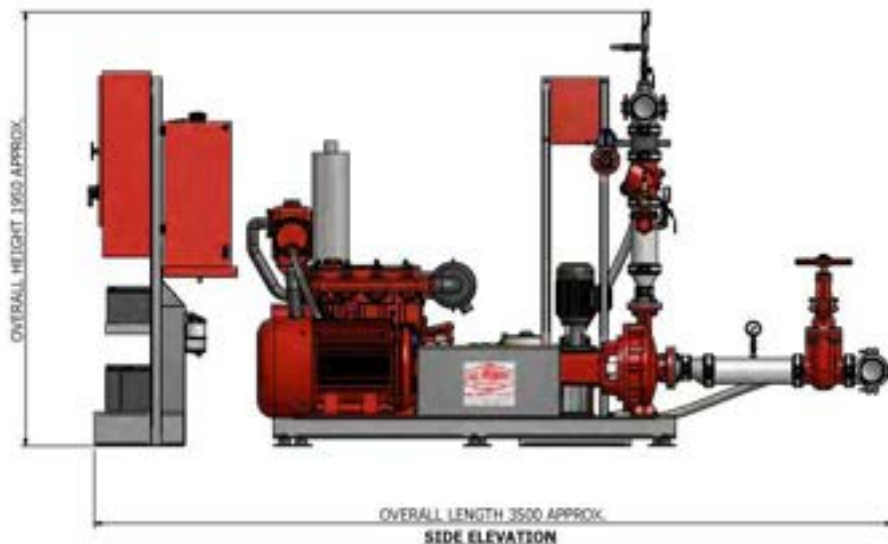


**SPECIFICATION**

1	1 Off - Tank - Fibreglass - 10,000L Working Capacity
2	1 Off - Valve Chamber - Fibreglass
3	2 Off - ABS Piranha Submersible Pumps, Model PIR-S17/2, 1.7 kW, c/w Duckfoot Bend, Slide Rails, Chains, Mounting Hooks & Brackets
4	1 Off - Control panel - Dual pump controller IP55 Rated - Sheetmetal powdercoated
5	1 Off float set - Working level & high level float switches
6	2 Off - Gabc Covers - Class G Valve chamber - 900 x 600 - c/w frame Tank - 900 x 900 - c/w frame
7	1 Off - Auto well washer c/w support arm & flexible piping
8	2 Off - Ø50 Bronze ball swing check valve c/w pvc pipe & fittings
9	1 Off - Ø100 Bronze knife gate valve c/w PVC pipe & fittings
10	1 Off - Ø100 Vent c/w PVC pipe & fittings
11	1 Off Brass tap







All Pumps have developed a range of custom built fire service pumpsets to suit a variety of applications.

Built from high quality, reliable and proven components, these packages greatly simplify the installation of fire protection systems.

#### FEATURES

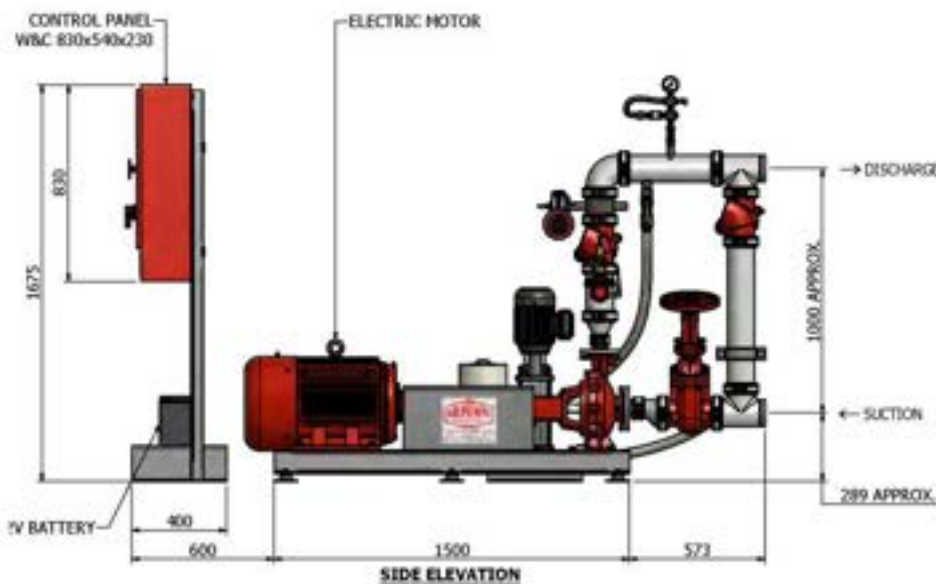
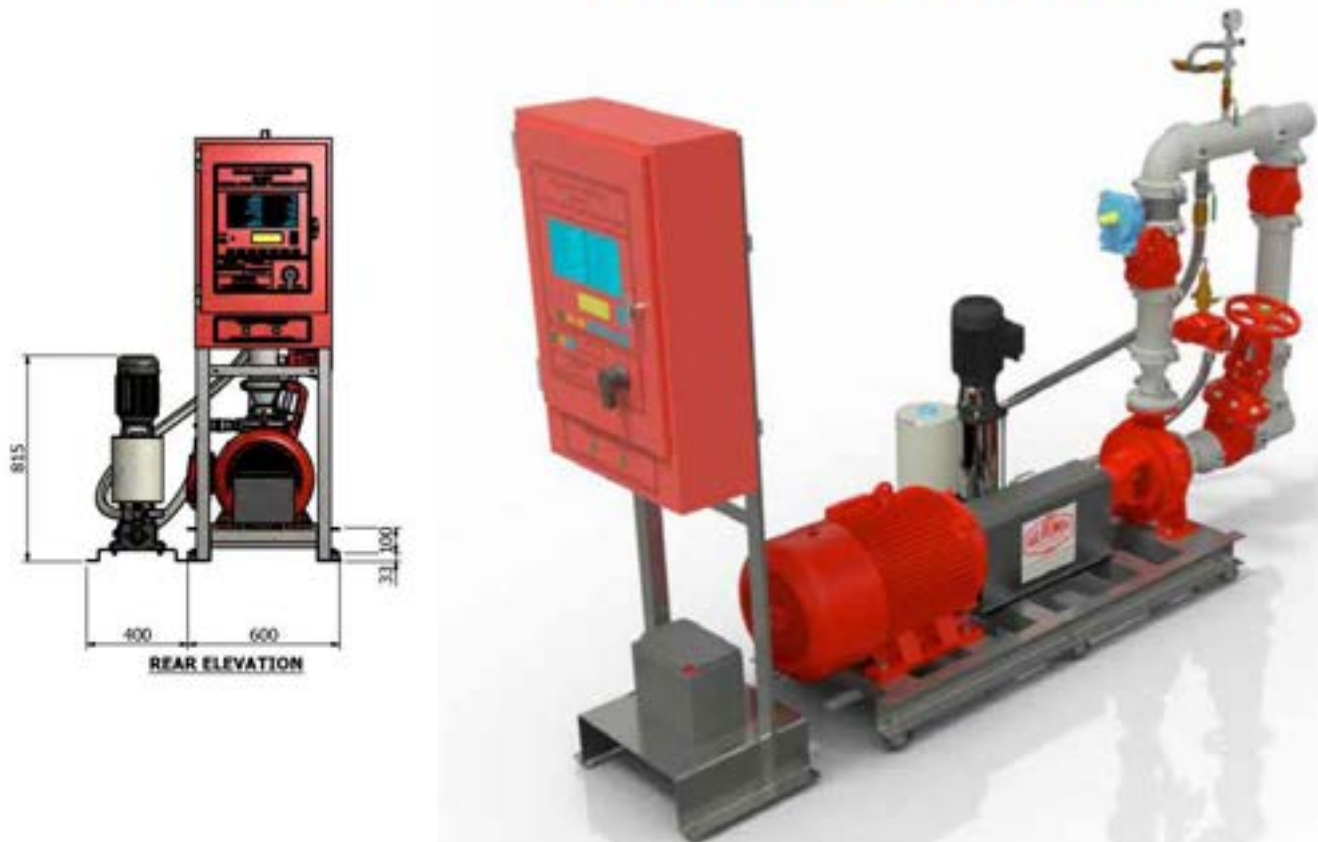
- ✓ Control panel
- ✓ Factory wired and tested prior to dispatch
- ✓ Diesel or electric driven
- ✓ Fully automatic
- ✓ Compact and easy to install
- ✓ Built to AS 2941

#### DIESEL HYDRANT BOOSTER PUMP SET

PART NO.	DUTY	PUMP	ENGINE	PIPEWORK	CONFIGURATION
340000	10L/S @ 60mH	40-26	480	100mm	Bypass with pressure relief valve
340000	10L/S @ 70mH	40-26	480	100mm	Bypass with pressure relief valve
340036	10L/S @ 80mH	50-26	485	100mm	Bypass with pressure relief valve
340036	10L/S @ 90mH	50-26	485	100mm	Bypass with pressure relief valve
340036	20L/S @ 60mH	50-26	485	100mm	Bypass with pressure relief valve
340036	20L/S @ 70mH	50-26	485	100mm	Bypass with pressure relief valve
340120	20L/S @ 80mH	65-26	490	100mm	Bypass with pressure relief valve
340120	20L/S @ 90mH	65-26	490	100mm	Bypass with pressure relief valve



# ELECTRIC FIRE HYDRANT



All Pumps have developed a range of custom built fire service pumpsets to suit a variety of applications.

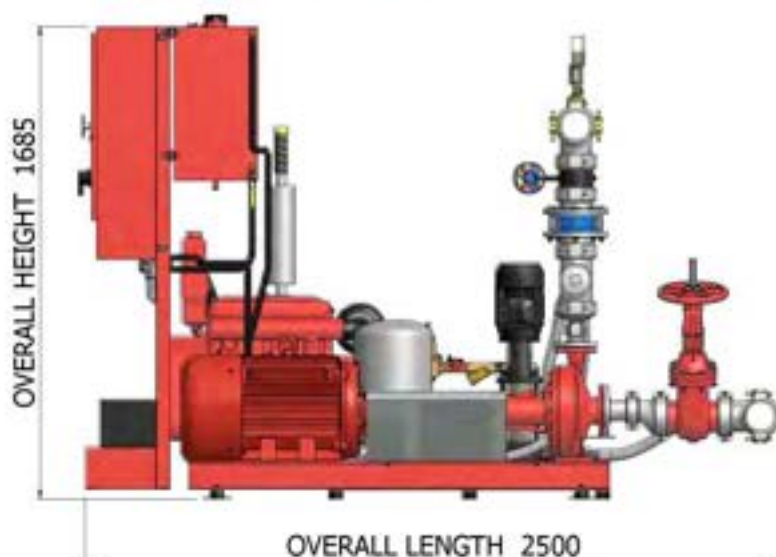
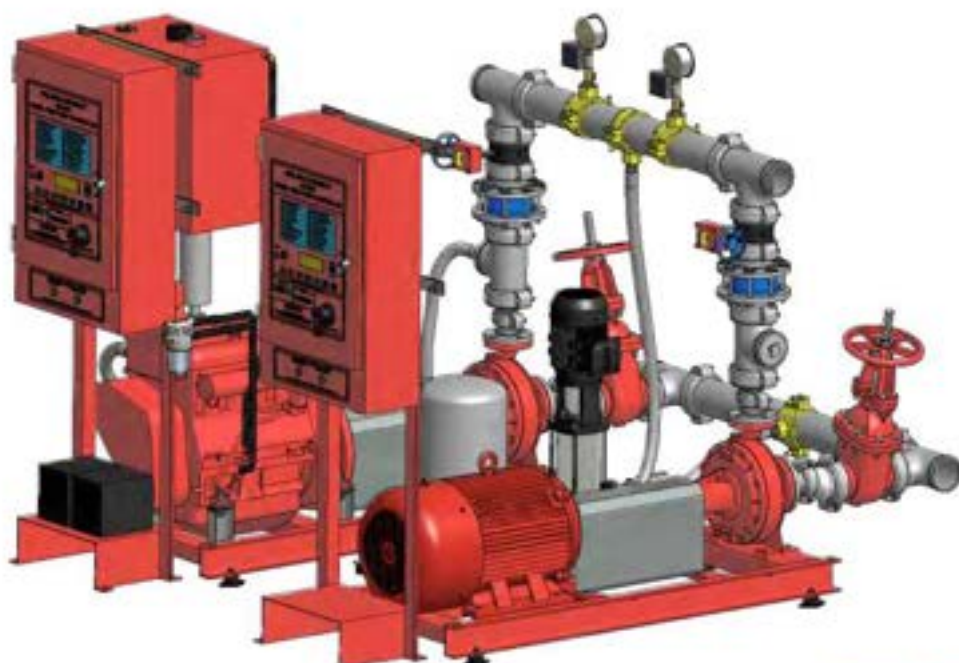
Built from high quality, reliable and proven components, these packages greatly simplify the installation of fire protection systems.

#### FEATURES

- ✓ Control panel
- ✓ Factory wired and tested prior to dispatch
- ✓ Diesel or electric driven
- ✓ Fully automatic
- ✓ Compact and easy to install
- ✓ Built to AS 2941

#### ELECTRIC HYDRANT BOOSTER PUMP SET

PART NO.	DUTY	PUMP	MOTOR	PIPEWORK	CONFIGURATION
340312	10L/S @ 60mH	40-26	22	100mm	Bypass with pressure relief valve
340312	10L/S @ 70mH	40-26	22	100mm	Bypass with pressure relief valve
340312	10L/S @ 80mH	40-26	22	100mm	Bypass with pressure relief valve
340360	10L/S @ 90mH	50-26	30	100mm	Bypass with pressure relief valve
341188	20L/S @ 60mH	50-26	37	100mm	Bypass with pressure relief valve
341188	20L/S @ 70mH	50-26	37	100mm	Bypass with pressure relief valve
340504	20L/S @ 80mH	65-26	55	100mm	Bypass with pressure relief valve
340504	20L/S @ 90mH	65-26	55	100mm	Bypass with pressure relief valve



All Pumps have developed a range of custom built fire service pumpsets to suit a variety of applications.

Built from high quality, reliable and proven components, these packages greatly simplify the installation of fire protection systems.

#### FEATURES

- ✓ Control panel
- ✓ Factory wired and tested prior to dispatch
- ✓ Diesel or electric driven
- ✓ Fully automatic
- ✓ Compact and easy to install
- ✓ Built to AS 2941



# HYDRANT JACKING PUMPS



These units boost water to fire hose reels as and when it is needed. Built to AS 2941 they are supplied as a complete package.

FIRE HOSE REEL PUMP SET						FEATURES
STOCK CODE	DUTY	PUMP	MOTOR	PIPEWORK	CONFIGURATION	
341188	0.25l/s @ 55mH	Q880	0.75	25mm	Hydrant Jacking Pump	<ul style="list-style-type: none"> <li>✓ Specially modified double-acting checkvalve</li> <li>✓ Gate valves and unions on suction and discharge</li> <li>✓ Easy removal of pumps for servicing</li> </ul>
341200	1l/s @ 60mH	MT-46	1.5	32mm	Horizontal Multistage Fire Hose Reel Pump	
341212	2l/s @ 45mH	MT-84	1.5	32mm	Horizontal Multistage Fire Hose Reel Pump	
341224	1.5l/s @ 45mH	JV5-10	1.5	32mm	Vertical Multistage Fire Hose Reel Pump	
341236	2.7l/s @ 45mH	JV10-6	2.2	40mm	Vertical Multistage Fire Hose Reel Pump	

## Vertical Multistage Fire Hose Reel Pump Set



## CIRCULATOR SYSTEM

Circulator pumps, consisting of a control panel and pumps mounted on a vertical steel frame, are designed to circulate water from a storage tank, through a ring-main system and back to the storage tank for re-heating.



### FEATURES

- ✓ Pumps constructed from non corrosive material
- ✓ Single or dual unit
- ✓ 24 hour timer or temperature control

### APPLICATIONS

- ✓ Domestic
- ✓ Laundries
- ✓ Laboratories
- ✓ Hydroponics
- ✓ Large commercial premises
- ✓ High rise buildings

PART NO.	MODEL NO.	DESCRIPTION
400024	HWC205PS	Single hot water circulation pump system. Comprising of a 240 volt pump, single pump controller with valves and fittings all mounted on a galvanised steel wall bracket.
400030	HWC20TPS	20mm dual hot water circulating pump system. Comprising of two (2) 240 volt pumps, alternating pump controller and stainless steel pump manifolds with valves and fittings all mounted on a galvanised steel wall bracket.
400036	HWC25TPS	25mm dual hot water circulating pump system. Comprising of two (2) 240 volt pumps, alternating pump controller and stainless steel pump manifolds with valves and fittings all mounted on a galvanised steel wall bracket.
400048	HWC32TPS	32mm dual hot water circulating pump system. Comprising of two (2) 240 volt pumps, alternating pump controller and stainless steel pump manifolds with valves and fittings all mounted on a galvanised steel wall bracket.
400060	HWCJH1240TPS	Dual hot water circulating pump system, comprising of two Javelin pumps model CH2-40, 240 Volt alternating pump controller and stainless steel pump manifolds with valves and fittings all mounted on a galvanised steel baseplate.

Dual Horizontal Multistage Circulator System

Dual Inline Circulator System  
20mm-32mm

