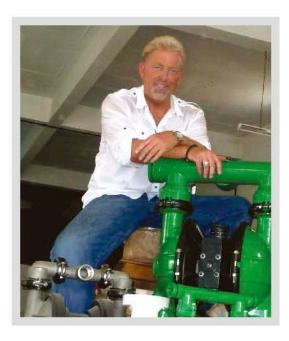




### "DUBAI, MUMBAI AND SHANGHAI...OR GOODBYE"

Wall Street Journal Sept. 2007



As the center of global economic gravity shifts from the Atlantic to the Pacific, JDA Global LLC is proud to announce its cutting-edge Strategic Alliance and Joint Venture with an established air diaphragm pump manufacturer on the Indian sub-continent.

TABLA, the new brand spawned by this comprehensive partnership, is led by a U.S. executive management team with over 100 years of air-operated double diaphragm pump (AODDP) experience, based in California.

The collective teams are rapidly expanding the existing facility, adding new machinery and implementing stringent quality control standards. Our low cost, high quality products will handle the toughest fluid transfer applications, while team JDA Global conveys a "Joy To Do Business With" attitude.

JDA Global's other outpost in Asia, NOMAD After-Market Pumps and Parts, will support TABLA from its base in Shanghai, China. Our "commercial bridge" from Mumbai to Shanghai will soon be joined by a sales and technical office in the Gulf States as we go forward with the introductions of new products for worldwide consumption.

We look forward to supporting your fluid handling needs.



JOHN DAM

John D. Allen, CEO: JDA Global LLC



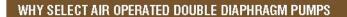


TABLA pumps are self-priming, can handle viscous and abrasive products and can run dry without damage. TABLA pumps do not employ costly motors, variable speed drives, by-pass plumbing or mechanical seals.

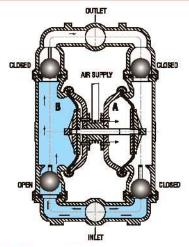
Please see the matrix below for a comparison of the TABLA air operated Diaphragm pumps versus Rotary and Centrifugal pumps:

	SOLIDS SHEAR PASSAGE SENSITIVITY		ABRASIVES Handling	SOLVENT HANDLING	DRY Priming	VISCOUS FLUIDS HANDLING	MAINTANANCE COSTS ****	
TABLA Diaphragm Pumps	***	** **** ***		****	****	***		
Vane Pumps	*	*	*	****	***	**	**	
Internal Gear Pumps	*	*	***	***	**	****		
External Gear Pumps	*	*	*	***	**	***		
Labe Pumps	***	**	***	**	**	***		
Centrifugal Pumps	*	*	***	***	**	*	***	
Progressive Cavity Pumps	*	**	****	***	****	***		
Piston/Plunger Pumps	**	*	***	**	****	****		

\*\*\* - Excellent, \*\*\* - Good, \*\* - Average, \* - Poor

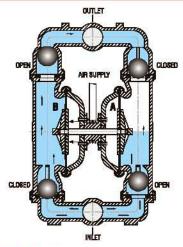
- 1. No electrical motor non sparking.
- 2. No mechanical seals or gland packing.
- 3. The pumps can run dry indefinitely without damage.
- 4. Safe for use in hazardous/explosive environments.
- 5. Variable flow simply regulate the inlet air supply to adjust the pump flow from zero to max.
- 6. If discharge is clogged/closed pump stops immediately; no power consumed, no wear. How starts automatically by opening discharge
- 7. Self-priming from a dry start up to 6 meters without a foot valve.
- 8. Pressure up to 100 PSI (7 bar).
- 9. Operates submerged or with flooded suction.
- No close fitting, sliding or rotating parts so can handle a wide range of fluids with high solid content.
- 11. Gentle non-shearing action.
- Quick assembly and disassembly with split clamp bands.
- 13. Pumps are light weight and portable.

### **HOW THE PUMP WORKS**



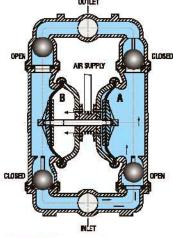
### FIGURE 1 (LEFT STROKE)

The air valve directs pressurized air to the back side of diaphragm A. The compressed air is applied directly to the liquid column separated by elastomeric diaphragms. The diaphragm acts as a separation membrane between the compressed air and liquid, balancing the load and removing mechanical stress from the diaphragm. The compressed air moves the diaphragm away from the center block of the pump. The opposite diaphragm is pulled in by the shaft connected to the pressurized diaphragm. Diaphragm B is on its suction stroke; air behind the diaphragm has been forced out to the atmosphere through the exhaust port of the pump. The movement of diaphragm B toward the center block of the pump creates a vacuum within chamber B. Atmospheric pressure forces fluid into the inlet manifold forcing the inlet valve ball off its seat. Liquid is free to move past the inlet valve ball and fill the liquid chamber (see shaded area).



### FIGURE 2 (MID STROKE)

When the pressurized diaphragm, diaphragm A, reaches the limit of its discharge stroke, the air valve redirects pressurized air to the back side of diaphragm B. The pressurized air forces diaphragm B away from the center block while pulling diaphragm A to the center block Diaphragm B is now on its discharge stroke. Diaphragm B forces the inlet valve ball onto its seat due to the hydraulic forces developed in the liquid chamber and manifold of the pump. These same hydraulic forces lift the discharge valve ball off its seat, while the opposite discharge valve ball is forced onto its seat, forcing fluid to flow through the pump discharge. The movement of diaphragm A toward the center block of the pump creates a vacuum within liquid chamber A. Atmospheric pressure forces fluid into the inlet manifold of the pump. The inlet valve ball is forced off its seat allowing the fluid being pumped to fill the liquid chamber.



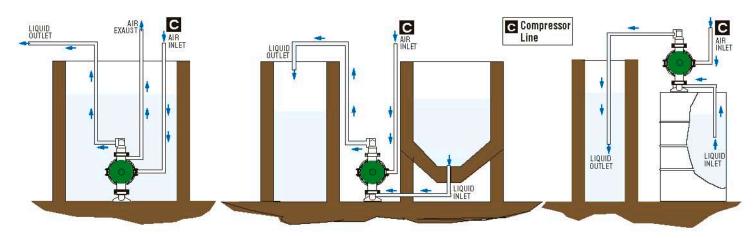
### FIGURE 3 (RIGHT STROKE)

At completion of the stroke, the air valve again redirects air to the back side of diaphragm A, which starts diaphragm B on its exhaust stroke. As the pump reaches its original starting point, each diaphragm has gone through one exhaust and one discharge stroke. This constitutes one complete pumping cycle. The pump may take several cycles to completely prime depending on the conditions of the application.

The TABLA diaphragm pump is an air-operated, positive displacement, self-priming pump. These drawings show the flow pattern through the pump upon its initial stroke.

It is assumed the pump has no fluid in it prior to its initial stroke.

### **INSTALLATION VERSATILITY**



### SUBMERGED

TABLA Pumps are totally submersible. It is important that the air exhaust be ported above the level of the fluid, and that the MOC also be compatible.

### **POSITIVE SUCTION**

Pump can draw from the bottom of the vessel. Preferred installation for viscous fluids.

### SELF PRIMING / DRUM TRANSFER

The suction capabilities of each pump may vary due to system design, product being pumped, and pump materials of construction.

### PRODUCT DIFFERENTIATORS: FEATURES VS. COMPETITION



### DURA-VALVE™

NON-STALLING ADS: SPOOL VALVE DESIGN FOR LOW VISCOSITY APPS SUCH AS CHEMICALS, WASTE WATER, ETC.

### LEGACY-VALVE™

TRADITIONAL ADS: VERTICAL PISTON DESIGN, PLASTIC AIR VALVE BODY WITH RESET BUTTON FOR HIGH VISCOSITY APPS SUCH AS GLUES, FILTER PRESS, ETC.

### CHEMICAL RESISTANT POWDER-COATING



### COATED CLAMP BANDS/CENTER SECTIONS AS STANDARD B.O.M.



### RUBBER MOUNTING PADS AS STANDARD B.O.M.



### STATE-OF-THE-ART PLASTIC AIR CHAMBERS

FIRE RESISTANT AND ANTI-STATIC



### INSTA-PAK ™

ANTI-MIGRATION PACKING METHOD



### **WORLD CLASS TEFLON DIAPHRAGMS**

CONCENTRIC RING DESIGN

Solvents

Acids

Caustics

High Viscosity

Low Viscosity

### **INDUSTRIES SERVED**



### **AUTOMOTIVE INDUSTRY**

Grinding emulsion, oil, coolant, hydraulic fluid, sulfuric, automotive primer, soluble oil, varnish disposal, varnish additives, degreasing baths, cutting oil, water and glycol mixture, paint



### AVIATION

Aircraft fueling and drainage, satellite refueling, solid rocket propellant, missile silos



### **CERAMICS**

Slip, glaze, enamel slip, effluent, clay, clay slurry, lime slurry, kaolin slurry



### **CHEMICAL INDUSTRY**

Acids, alkalies, solvents, suspensions, dispersions, magnesium hydroxide, varnishes, sump water, resins, latex, adhesives, effluent sludge, stabilizers, filter press, electrolytes



### CONSTRUCTION INDUSTRY

Sump & pit drainage, cement slurry, ceramic tile adhesive, rock slurry, ceiling coating paints, texture spray



### COSMETICS

Lotions, creams, shampoos, emulsions, hand creams, surfactants, hair permanents, soaps



### **ELECTRONICS INDUSTRY**

Solvents, electroplating baths, ultrapure liquids, carrier fluids for ultrasonic washing, sulfuric, nitric and acid wastes, etching acids, MEK, acetone, polishing compounds



### **FOOD & BEVERAGE**

Brine, chocolate, vinegar, molasses, dog food, vegetable oil, soy bean oil, honey, cat food, HCL, Yeast, diatomaceous earth slurry, hot pulp, liquid hops, sugar syrup, concentrates, gas-liquid mixtures, wine, fruit pulp, fruit juice, corn syrup



### **FURNITURE INDUSTRY**

Adhesives, varnishes, dispersions, solvents, stains, Elmer's Glue, white good glue, solvents, glue (5-6000 cps) epoxy, starch adhesives, spray packages



### MINING

Sump gallery drainage, water drainage, coal sludge and rock slurry, cement slurry, grounting mortar, oil transfer, explosive slurry, adhesive, lube oil, foaming



### **MUNICIPALITIES**

Tank and sump drainage, sewer cleaning, chemicals, contaminated surface water, emergency pumping, spill clean-up, waste oil, oil/water separators







### **PAINTS & COATINGS**

Resins, solvents, acrylic, wood preservative stain, concrete paints, varnishes, titanium dioxide slurry, primers, stains, dispersions, varnish cleaning baths, alkalyd resin



### PHARMACEUTICAL INDUSTRY

Vegetables extracts, tablet pastes, ointments, alcohols, filtering aids, ultra filtration, blood plasma, waste solvents, sump waste



### **PLATING**

Anodic sludge, electroplating baths, varnishes, enamels, solvents, cleaning baths, filtering



### PULP/PAPER/PACKAGING

Latex, adhesives, paints, resins, printing inks, dispersions, TiO2 slurry, Kaolin clay, hydrogen peroxide



### REFINERIES

Tank roof drainage, oil sludge, tank cleaning, tank moat drainage, portable pumping



### **ROAD TANKER TRUCKS**

Loading and draining of tank by pump on vehicle, tank vehicle washing facilities, acid spraying, foaming



### SHIPBUILDING

Tank and bilge drainage, ship cleaning, stripping, oil skimming, seawater



### SMELTERS, FOUNDRIES & DYE CASTING

Metal slurry, hydroxide and carbide slurry, dust scrubbing slurry, back wash for flushing of cores, mold release



### **TEXTILE & CARPET**

Dyeing chemical, scotch guard, starch and sizing, resins, dyes, latex



### WATER AND SEWAGE TREATMENT

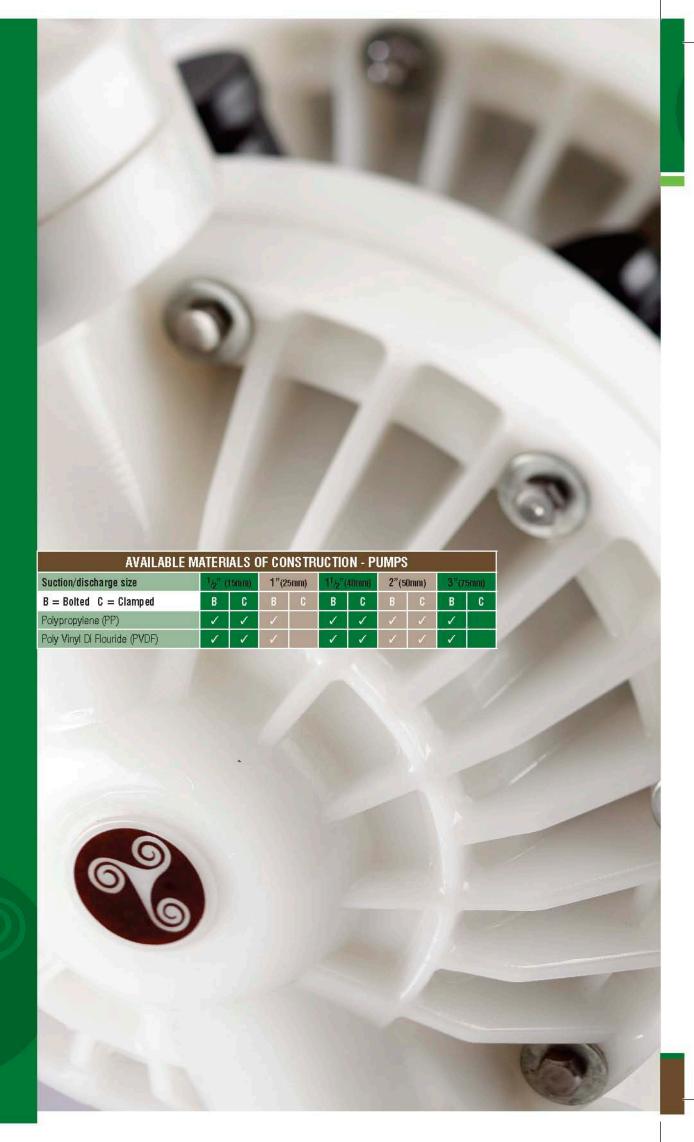
Milk of lime, thin slurry, effluents, chemicals, charging of filter presses, polymer, waste water



### UTILITY

Contaminated liquids, charging of scrubbers, milk of lime, transformer oil, resins

# Polypropylene / PVDF



### SPECIFICATIONS AND PERFORMANCE 1/2" (15mm) PP / PVDF



11

Max Flow Rate: 37Lpm (10gpm)

Port Size: Inlet: 12.70mm (1/2")

Discharge: 12.70mm ( $^{1}I_{2}$ ") Air Inlet: 6.35mm ( $^{1}I_{4}$ ") Air Exhaust: 12.70mm ( $^{1}I_{2}$ ")

Suction Lift: Dry: 1.45m (4.75')

Wet: 2.83m (9.28')
Teflon: Dry: 0.50m (1.64')

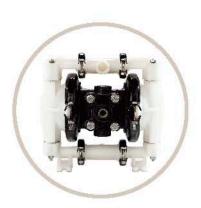
**Wet**: 0.50m (1.64')

Max Particle Size (Dia): 2mm (0.078")

All models available in NPT and BSP threads for liquid and air side connections



D/L 15 PP Bolted



### D/L 15 PP Clamped

CLAMPED model available for specific applications

D= Dura-valve™ L= Legacy-valve™

### ALSO AVAILABLE IN PVDF

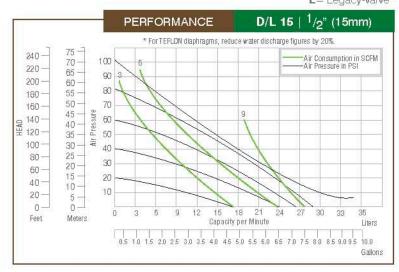






D/L 15 PVDF Clamped

CLAMPED model available for specific applications



### SPECIFICATIONS AND PERFORMANCE 1" (25mm) PP / PVDF

12

Max Flow Rate: 135Lpm (34gpm)
Port Size: Inlet: 25.40mm (1")

Discharge: 25.40mm (1") Air Inlet: 9.53mm (%")

**Air Exhaust**: 12.70mm (1/2")

Suction Lift: Dry: 3.05m (10')

Wet: 4.89m (16')
Teflon: Dry: 2.14m (7')

Wet: 3.98m (13')

Max Particle Size (Dia): 3.17mm (0.125")

All models available in NPT and BSP threads for liquid and air side connections

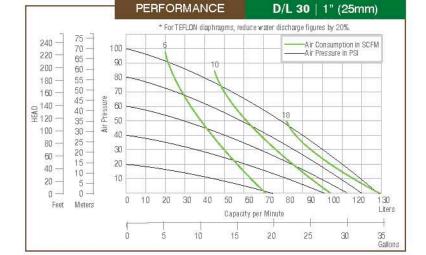


D/L 30 PP Bolted

D= Dura-valve™ L= Legacy-valve™

### ALSO AVAILABLE IN PVDF





### SPECIFICATIONS AND PERFORMANCE

1<sup>1</sup>/<sub>2</sub>" (40mm) PP / PVDF



13

Max Flow Rate: 270Lpm (72gpm)

Port Size: Inlet: 38.10mm (11/2")

**Discharge:** 38.10mm ( $11/_2$ ") **Air Inlet:** 9.64mm ( $3/_8$ ") **Air Exhaust:** 12.70mm ( $1/_2$ ")

Suction Lift: Dry: 4.57m (15')

Wet: 7.62m (25')

Teflon: Dry: 3.05m (10')

Wet: 6.09m (20')

Max Particle Size (Dia): 4.76mm (0.188")

All models available in NPT and BSP threads for liquid and air side connections



D/L 40 PP Bolted



### D/L 40 PP Clamped

CLAMPED model available for specific applications

D= Dura-valve™ L= Legacy-valve™

### ALSO AVAILABLE IN PVDF

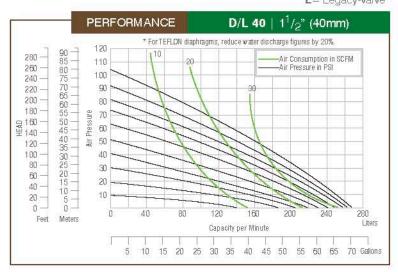


D/L 40 PVDF Bolted



D/L 40 PVDF Clamped

CLAMPED model available for specific applications



Max Flow Rate: 586Lpm (155gpm)
Port Size: Inlet: 50.80mm (2")

Discharge: 50.80mm (2") Air Inlet: 12.70mm ( $\eta_2$ ") Air Exhaust: 19.05mm ( $\eta_4$ ")

Suction Lift: Dry: 4.57m (15')

Wet: 7.62m (25')

Teflon: Dry: 3.05m (10')

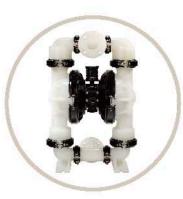
Wet: 6.09m (20')

Max Particle Size (Dia): 6.35mm (0.250")

All models available in NPT and BSP threads for liquid and air side connections



D/L 50 PP Bolted

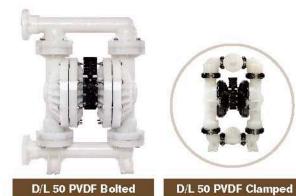


D/L 50 PP Clamped

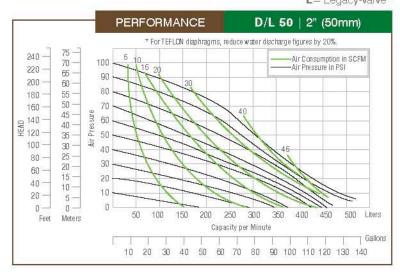
CLAMPED model available for specific applications

**D**= Dura-valve™ **L**= Legacy-valve™

### ALSO AVAILABLE IN PVDF



CLAMPED model available for specific applications



### SPECIFICATIONS AND PERFORMANCE 3" (80mm) PP / PVDF



15

Max Flow Rate: 900Lpm (238gpm) Port Size: Inlet: 76.20mm (3")

> Discharge: 76.20mm (3") Air Inlet: 12.70mm ( $\frac{1}{2}$ ") Air Exhaust: 19.05mm ( $\frac{3}{4}$ ")

Suction Lift: Dry: 6.09m (20')

Wet: 7.62m (25')

Teflon: Dry: 3.05m (10')

Wet: 6.09m (20')

Max Particle Size (Dia): 19.10mm (0.750")

All models available in NPT and BSP threads for liquid and air side connections



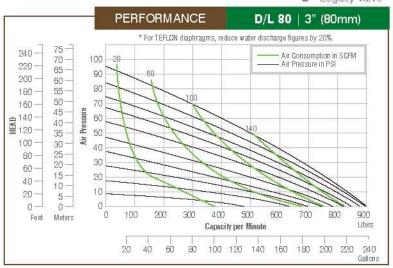
D/L 80 PP Bolted

D= Dura-valve™ L= Legacy-valve™

### ALSO AVAILABLE IN PVDF



D/L 80 PVDF Bolted



## Stainless Steel 316

AVAILABLI	E MATERI	IALS C	F CO	NSTR	UCTIO	IN - PI	UMPS		_	
Suction/discharge size	1 <sub>12</sub> " (15mm)		1"(25mm)		1 <sup>1</sup> /2"(40mm)		2"(50mm)		3"(75mm)	
B = Bolted C = Clamped	В	C	В	C	В	C	В	C	В	C
Stainless Steel 316	1		1		1		1		1	

Please consult us for your requirements for Alloy C, Alloy 20 etc.



### SPECIFICATIONS AND PERFORMANCE ND PERFORMANCE (6) 1/2" (15mm) SS 316



17

Max Flow Rate: 23Lpm (6gpm)

Port Size: Inlet: 12.70mm (1/2")

**Discharge:** 12.70mm ( $\frac{1}{2}$ ") Air Inlet: 6.35mm (1/4") **Air Exhaust**: 12.70mm (1/2")

Suction Lift: Dry: 1.45m (4.75')

Wet: 2.83m (9.28')

Teflon: Dry: 0.50m (1.64')

Wet: 0.90m (2.95')

Max Particle Size (Dia): 2mm (0.078")

All models available in NPT and BSP threads for liquid and air side connections



D/L 15 SS Bolted

D= Dura-valve™ L= Legacy-valve™



### SPECIFICATIONS AND PERFORMANCE

18

Max Flow Rate: 135Lpm (34gpm)

Port Size: Inlet: 25.40mm (1")

**Discharge**: 25.40mm (1") **Air Inlet**: 9.53mm (3<sub>8</sub>") **Air Exhaust**: 12.70mm (1/2")

Suction Lift: Dry: 3.05m (10')

Wet: 4.89m (16')

**Teflon: Dry:** 2.14m (7')

Wet: 3.98m (13')

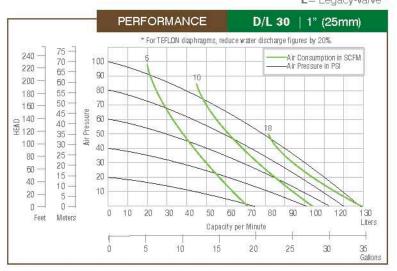
Max Particle Size (Dia): 3.17mm (0.125")

All models available in NPT and BSP threads for liquid and air side connections



D/L 30 SS Bolted

D= Dura-valve™ L= Legacy-valve™



### SPECIFICATIONS AND PERFORMANCE

1½" (40mm) SS316



19

Max Flow Rate: 270Lpm (72gpm)

Port Size: Inlet: 38.10mm (11/2")

Discharge: 38.10mm (1 $\eta_2$ ") Air Inlet: 9.64mm (3 $\eta_8$ ") Air Exhaust: 12.70mm (1 $\eta_2$ ")

Suction Lift: Dry: 4.57m (15')

Wet: 7.62m (25')

Teflon: Dry: 3.05m (10')

Wet: 6.09m (20')

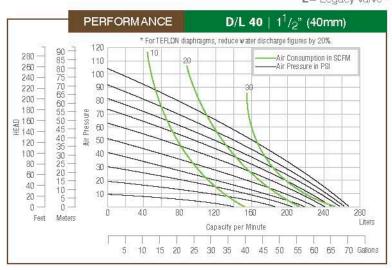
Max Particle Size (Dia): 4.76mm (0.188")

All models available in NPT and BSP threads for liquid and air side connections



D/L 40 SS Bolted





20

Max Flow Rate: 586Lpm (155gpm) Port Size: Inlet: 50.80mm (2")

Discharge: 50.80mm (2") Air Inlet: 12.70mm (1/2")

Air Exhaust: 19.05mm (3/4")

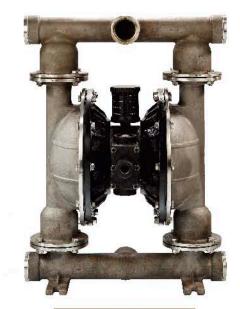
Suction Lift: Dry: 4.57m (15')

Wet: 7.62m (25') Teflon: Dry: 3.05m (10')

Wet: 6.09m (20')

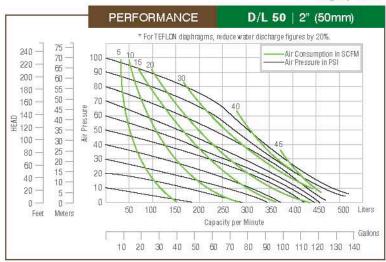
Max Particle Size (Dia): 6.35mm (0.250")

All models available in NPT and BSP threads for liquid and air side connections



D/L 50 SS Bolted

D= Dura-valve™ L= Legacy-valve™



### SPECIFICATIONS AND PERFORMANCE 3" (80mm) SS 316



21

Max Flow Rate: 900Lpm (238gpm) Port Size: Inlet: 76.20mm (3")

Discharge: 76.20mm (3") Air Inlet: 12.70mm (1/2")

Air Exhaust: 19.05mm (3/4")

Suction Lift: Dry: 6.09m (20')

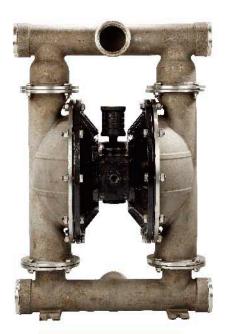
Wet: 7.62m (25')

**Teflon: Dry**: 3.05m (10')

Wet: 6.09m (20')

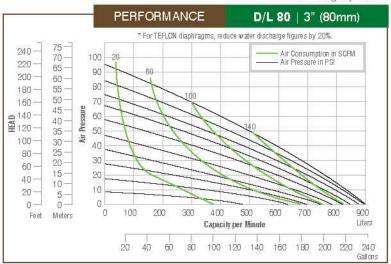
Max Particle Size (Dia): 19.10mm (0.750")

All models available in NPT and BSP threads for liquid and air side connections



D/L 80 SS Bolted

D= Dura-valve™ L= Legacy-valve™



### Aluminium



### 23

### SPECIFICATIONS AND PERFORMANCE 1/2" (15mm) ALUMINIUM



Max Flow Rate: 23Lpm (6gpm)

Port Size: Inlet: 12.70mm (1/2")

Discharge: 12.70mm ( $^{1}I_{2}$ ") Air Inlet: 6.35mm ( $^{1}I_{4}$ ") Air Exhaust: 12.70mm ( $^{1}I_{2}$ ")

Suction Lift: Dry: 1.45m (4.75')

Wet: 2.83m (9.28')

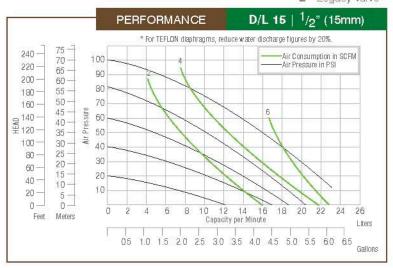
**Teflon: Dry:** 0.50m (1.64') **Wet:** 0.90m (2.95')

Max Particle Size (Dia): 2mm (0.078")



D/L 15 AL Bolted





### SPECIFICATIONS AND PERFORMANCE 1" (25mm) ALUMINIUM

24

Max Flow Rate: 135Lpm (34gpm)
Port Size: Inlet: 25.40mm (1")

Discharge: 25.40mm (1") Air Inlet: 9.53mm (%")

Air Exhaust: 12.70mm (1/2")

Suction Lift: Dry: 3.05m (10')

Wet: 4.89m (16')

**Teflon:** Dry: 2.14m (7') **Wet**: 3.98m (13')

Max Particle Size (Dia): 3.17mm (0.125")

All models available in NPT and BSP threads for liquid and air side connections



D/L 30 AL Bolted

D= Dura-valve™ L= Legacy-valve™



### SPECIFICATIONS AND PERFORMANCE 1½" (40mm) ALUMINIUM



25

Max Flow Rate: 270Lpm (72gpm)

Port Size: Inlet: 38.10mm (11/2")

**Discharge:** 38.10mm ( $11_{2}$ ") **Air Inlet:** 9.64mm ( $3_{8}$ ") **Air Exhaust:** 12.70mm ( $1_{2}$ ")

Suction Lift: Dry: 4.57m (15')

Wet: 7.62m (25')

**Teflon: Dry**: 3.05m (10')

Wet: 6.09m (20')

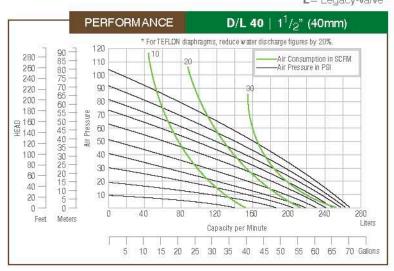
Max Particle Size (Dia): 4.76mm (0.188")

All models available in NPT and BSP threads for liquid and air side connections



D/L 40 AL Clamped

D= Dura-valve™ L= Legacy-valve™



Max Flow Rate: 586Lpm (155gpm)

Port Size: Inlet: 50.80mm (2")

Discharge: 50.80mm (2") Air Inlet: 12.70mm ( $\frac{1}{2}$ ") Air Exhaust: 19.05mm ( $\frac{3}{4}$ ")

Suction Lift: Dry: 4.57m (15')

Wet: 7.62m (25')

**Teflon:** Dry: 3.05m (10')

Wet: 6.09m (20')

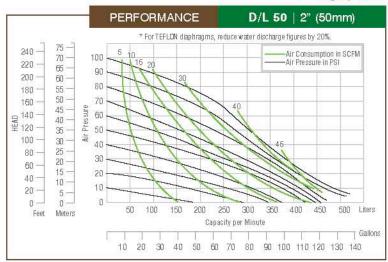
Max Particle Size (Dia): 6.35mm (0.250")

All models available in NPT and BSP threads for liquid and air side connections



D/L 50 AL Clamped

D= Dura-valve™ L= Legacy-valve™



### 27

### SPECIFICATIONS AND PERFORMANCE 3" (80mm) ALUMINIUM



Max Flow Rate: 900Lpm (238gpm)

Port Size: Inlet: 76.20mm (3")

Discharge: 76.20mm (3") Air Inlet: 12.70mm ( $l_2$ ") Air Exhaust: 19.05mm ( $3_4$ ")

Suction Lift: Dry: 6.09m (20')

Wet: 7.62m (25')

**Teflon: Dry**: 3.05m (10')

Wet: 6.09m (20')

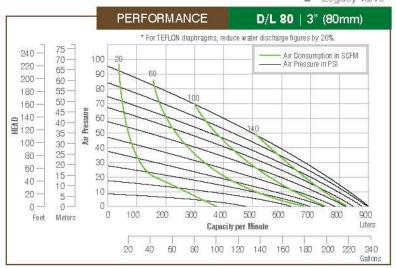
Max Particle Size (Dia): 19.10mm (0.750")

All models available in NPT and BSP threads for liquid and air side connections



D/L 80 AL Clamped





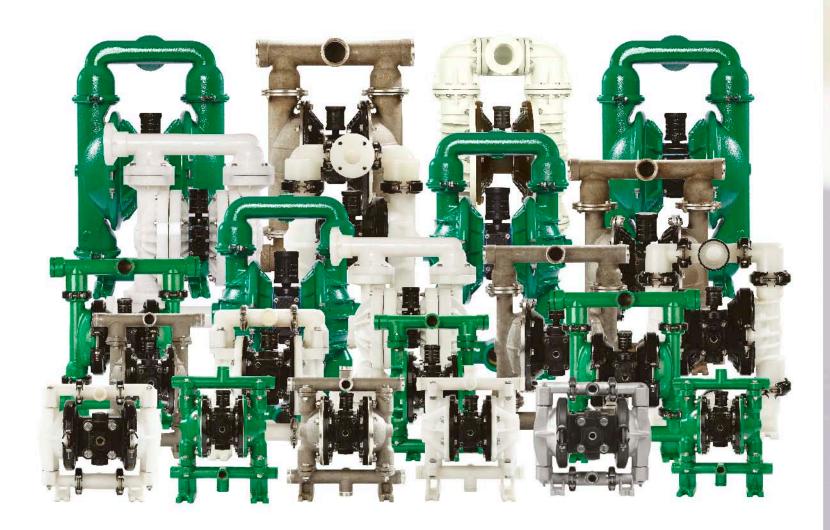


**€** 180 9001 : 2008

ISO 9001 : 2008 ISO 14001 : 2004

### A COMPLETE RANGE OF AIR DIAPHRAGM PUMPS

www.tablapump.com



				AVAILABLE MATERIALS OF CONSTRUCTION - PUMPS										
<sup>1</sup> / <sub>2</sub> " (15mm)		1"(25mm)		1½"(40mm)		2" (50mm)		3"(75mm)						
В	C	В	С	В	C	В	C	В	C					
1	V	<b>V</b>		1	<b>V</b>	✓	1	<b>V</b>						
1	V	1		1	1	€.	1	<b>V</b>						
V		~		1		V			1					
V		~			1		1		1					
		T	B C B (	B C B C	B C B C B  V V V V V V  V V V V	B C B C B C V V V V V V V V V V V V V V	B C B C B C B C V V V V V V V V V V V V	B C B C B C B C C C C C C C C C C C C C	B C B C B C B C B C B C A A A A A A A A					



JDA Global LLC | 1351 Park Avenue, Suite 104, Redlands, CA, USA 92373

www.sixofusdesign.co JDA\_table/12\_sd)