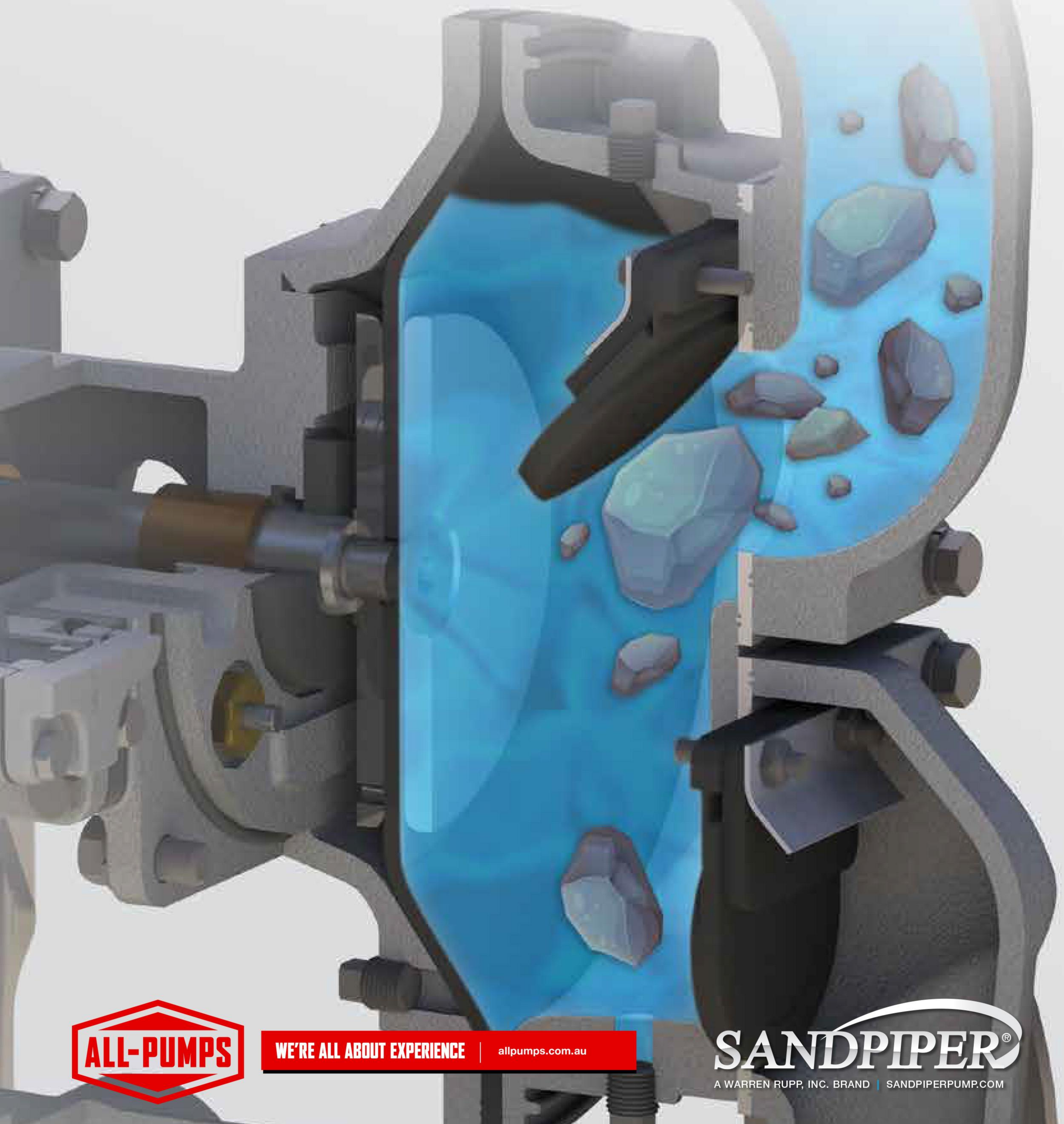


# HEAVY DUTY FLAP VALVE PUMPS

For Fluids Containing up to Line Size Solids



OUR SIGNATURE  
ENSURES YOUR SUCCESS

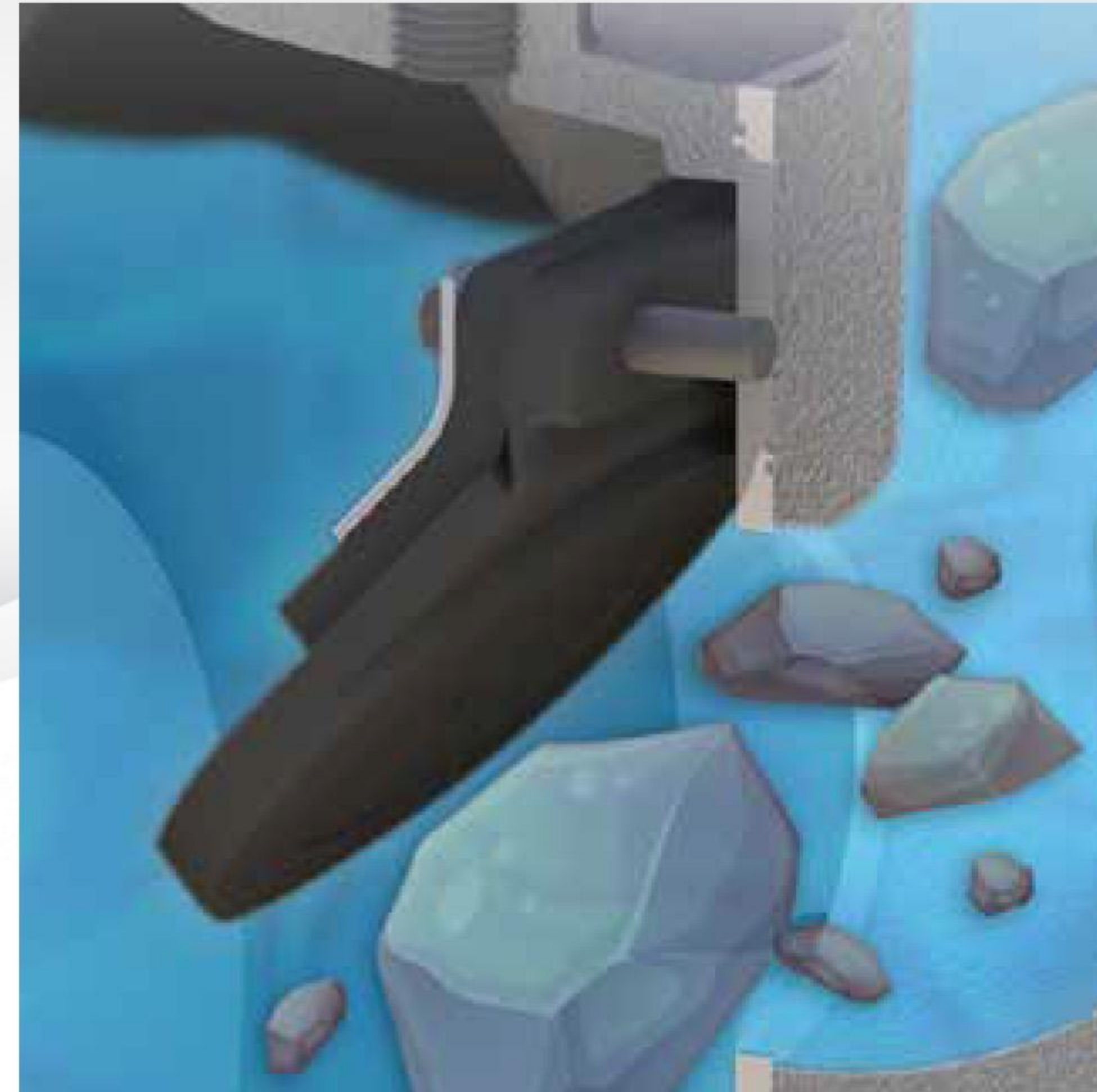


WE'RE ALL ABOUT EXPERIENCE | [allpumps.com.au](http://allpumps.com.au)

**SANDPIPER**<sup>®</sup>  
A WARREN RUPP, INC. BRAND | [SANDPIPERPUMP.COM](http://SANDPIPERPUMP.COM)

# KEY ADVANTAGES OF SANDPIPER HEAVY DUTY FLAP VALVE PUMPS

AN IDEAL SOLUTION FOR ABRASIVE SLURRIES, SUSPENDED, NON-SUSPENDED & LINE SIZE SOLIDS REQUIREMENTS



## LINE SIZE SOLIDS FLAP VALVE VS. BALL VALVE PUMPS

### Flap Check Valve Pumps

Have a large flow area to allow up to line size solids to pass directly through the pump. Additionally, the bottom discharge design helps prevent these solids from settling in the unit.

### Ball Check Valve Pumps

Have much less flow area for solids to pass through. Large solids get stuck in the suction manifold and small solids can settle in the outer chamber, affecting pump performance.

## SUPERIOR SUCTION LIFT FLAP VALVE VS. BALL VALVE PUMPS

### Suction Lift Advantage

SANDPIPER's Flap Valve design provides for superior suction lift capabilities up to 24 feet in water. Diaphragm placement and flap valve seating combine to create a unit capable of suction lifts 15% greater than Ball Valve pumps.

These capabilities are from a dry prime, making the SANDPIPER Flap Valve Pump an excellent solution, in situations where limited choices are available for pump priming.

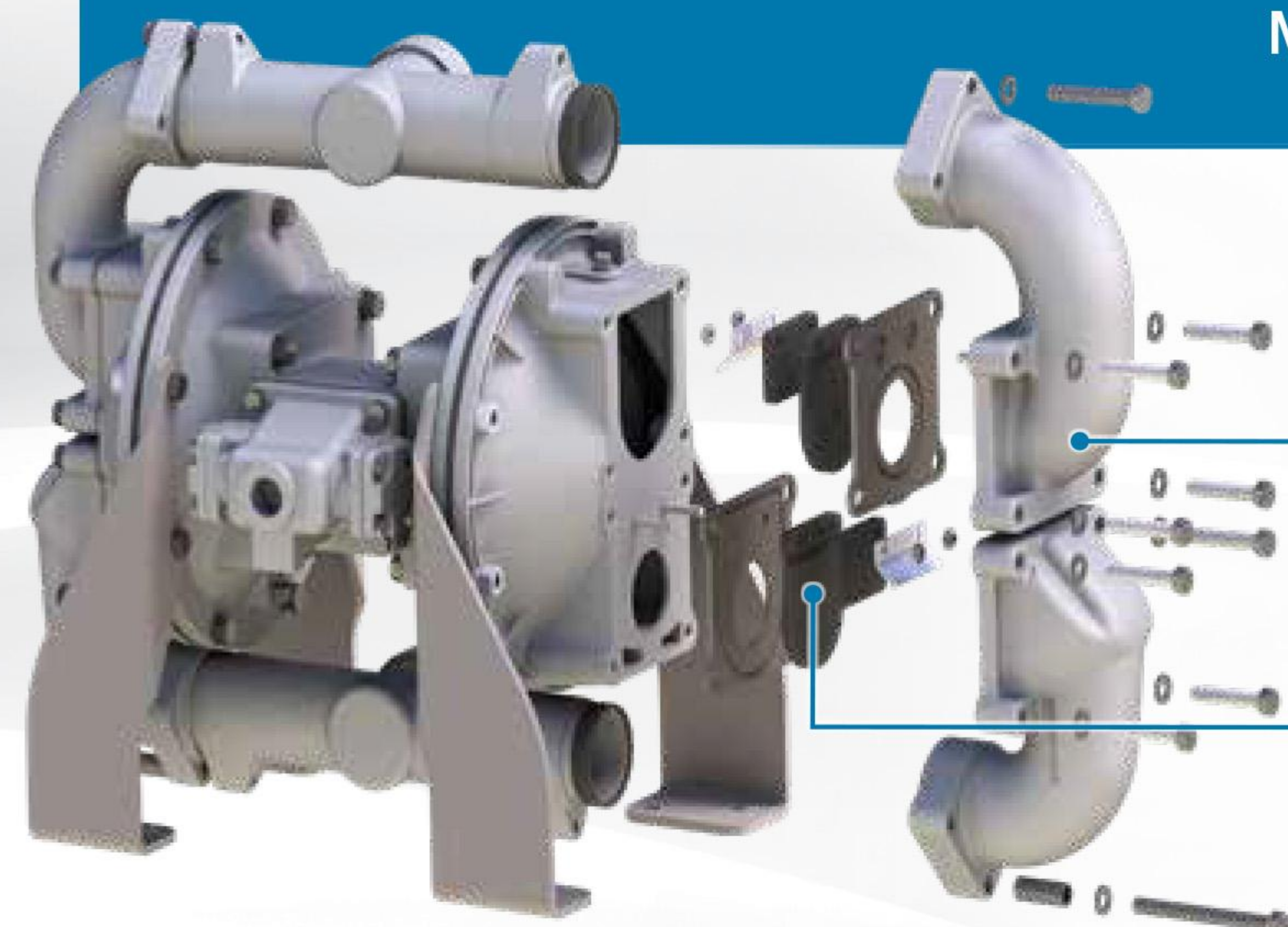


UP TO  
**24 FT. (7.3M)**  
SUCTION  
FLAP VALVE PUMPS



UP TO  
**24 FT. (6.1M)**  
SUCTION  
BALL VALVE PUMPS

## EASE OF MAINTENANCE METALLIC PUMPS



### Quick Access to Serviceable Components

To help increase productivity and reduce downtime.

#### Removable Elbows

By removing the bolts that secure the elbows, it allows access to clear simple clogs without disassembling the entire pump.

#### Flap Check Valves

With the elbows removed, the flap valves can be inspected and / or replaced as needed.

## EASE OF MAINTENANCE NON-METALLIC PUMPS

### Quick Access to Serviceable Components

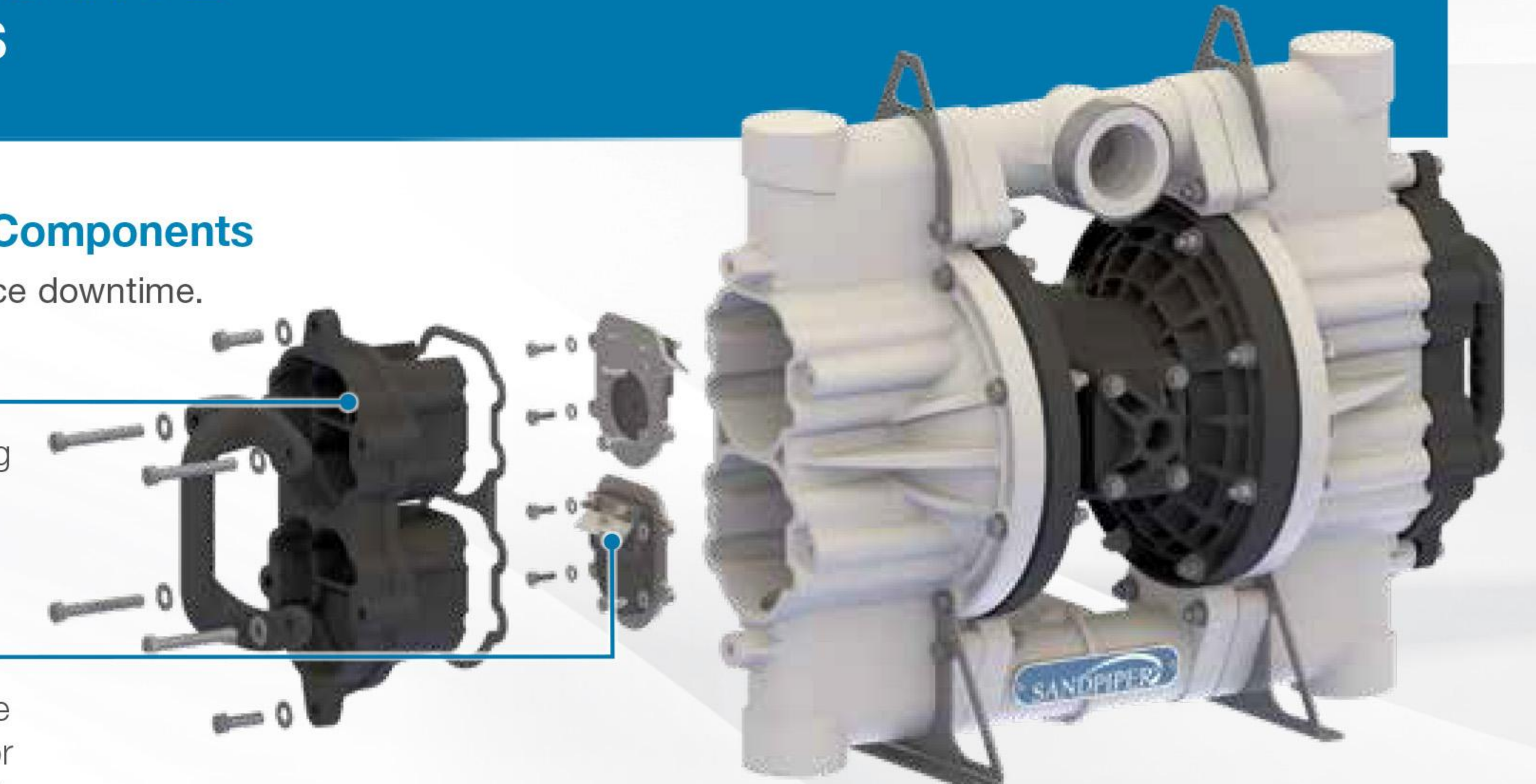
To help increase productivity and reduce downtime.

#### Remove Clean-Out Cap

By simply removing six bolts securing the clean-out cap in place, it allows access to clear simple clogs without disassembling the entire pump.

#### Flap Check Valves

With the clean-out cap removed, the flap valves can be inspected and / or replaced as needed. Four bolts hold the modular flap valves in place for quick maintenance and repair.



# FEATURES & BENEFITS - METALLIC



## Thick Manifold & Chamber Walls

Greater wear resistance when pumping solids and solid laden slurries, providing extended service life



## Stainless Steel Seats

Provide long-lasting abrasion resistance and solids handling durability



## Robust Diaphragm Connecting Rod

Guaranteed not to bend or break; assures reliable and consistent diaphragm operation



## Cross-Drilled Directional Spool Valve

Guarantees the pump will not stall and ensures on/off reliability



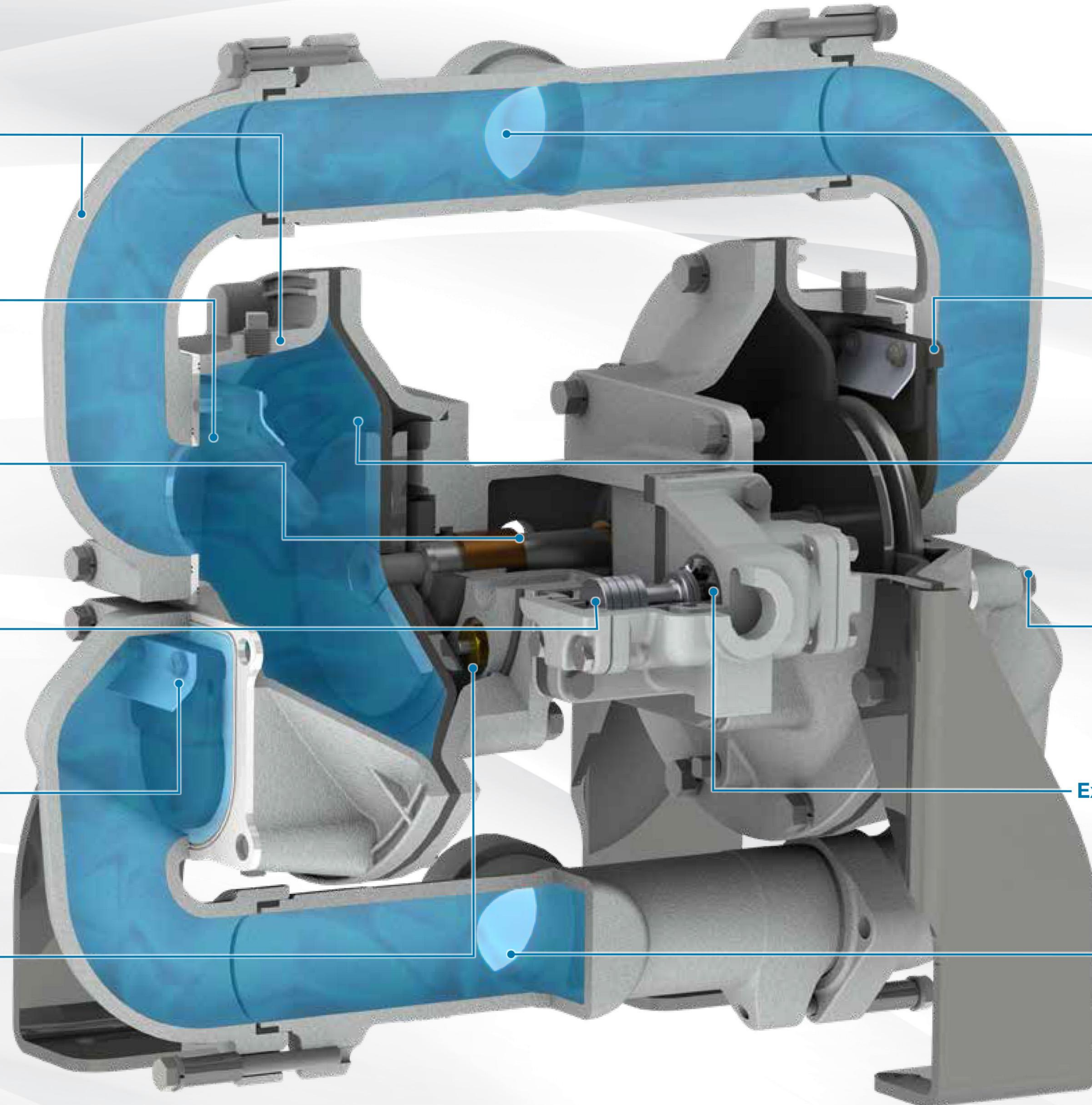
## Easy Access To Flap Valves

Check Valve Flaps can be quickly cleaned or replaced without removing the pump from service



## Heavy Duty Actuator Plungers

Ensures reliable pilot valve operation



## Dynamic Manifold Connections

Allow suction and discharge manifolds to be positioned in various directions



## Flap Valve Construction

Can pass up to line size solids, enabling higher suction lift



## Diaphragm Wear Pads

Extend the life of the diaphragm by reducing the frictional stresses associated with the outer diaphragm plate during operation



## All Bolted Construction

Ensures sealing forces are applied evenly across the pump for leak-free operation



## Externally Serviceable Air Distribution System

Allows for quick and easy access to the main air drive components without disassembly of the entire pump and / or removing it from service



## Top Suction, Bottom Discharge Porting

Easier evacuation of fluids containing large solids and settling materials



# FEATURES & BENEFITS - NON-METALLIC



## Lightweight & Durable

The non-metallic, lightweight design makes it easily portable at 53 lbs (24 kg)



## Robust Diaphragm Connecting Rod

Guaranteed not to bend or break; assures reliable and consistent diaphragm operation



## Stainless Steel Seats

Provide long-lasting abrasion resistance and solid handling durability



## Easy Access To Flap Valves

Check Valve Flaps can be quickly cleaned or replaced without removing the pump from service



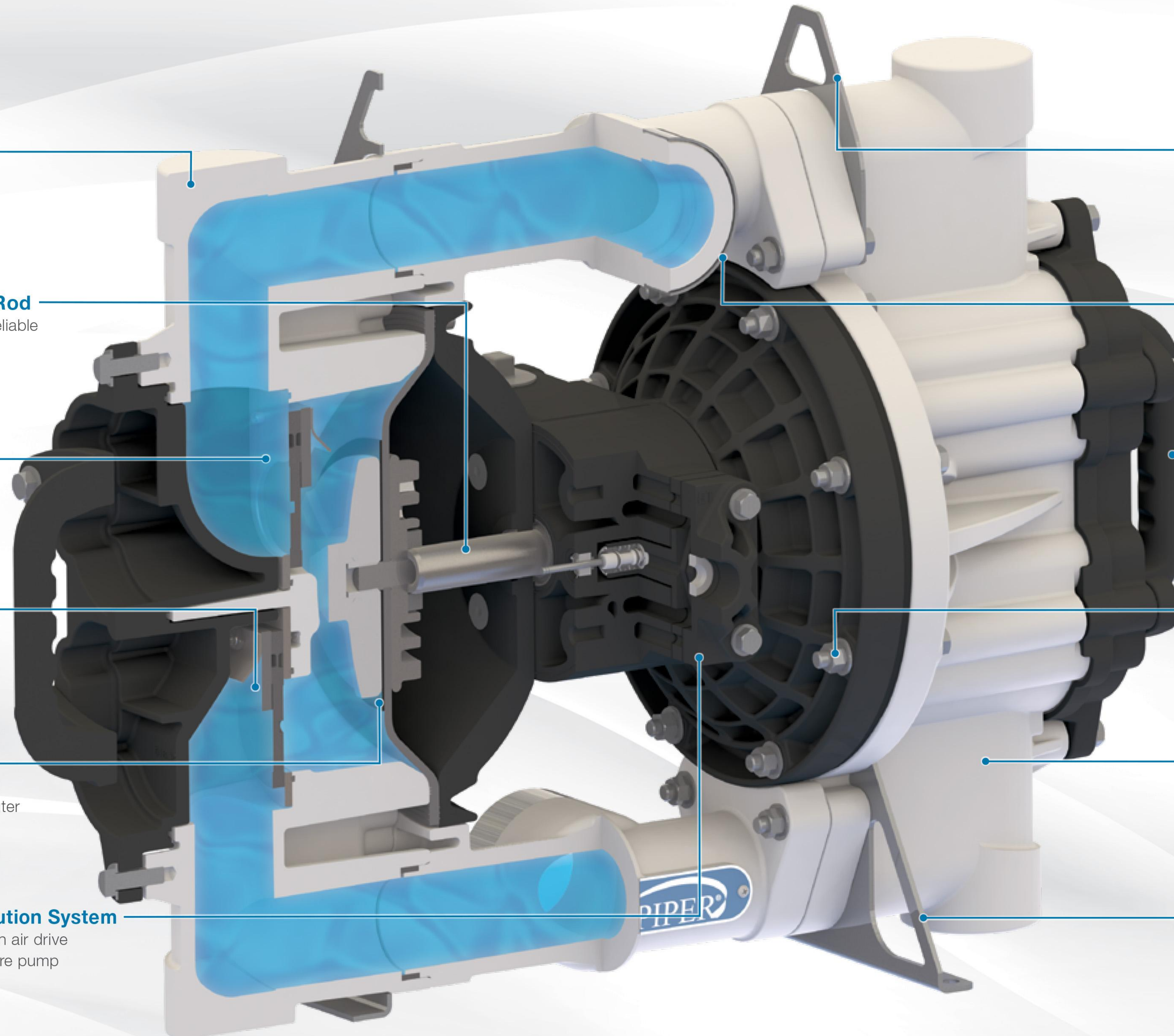
## Diaphragm Wear Pads

Extend the life of the diaphragm by reducing the frictional stresses associated with the outer diaphragm plate during operation



## Externally Serviceable Air Distribution System

Allows for quick and easy access to the main air drive components without disassembly of the entire pump and / or removing it from service



## Stainless Steel Hanging Brackets

Stainless steel hanging points located on the manifold allow for multiple mounting options



## Dynamic Manifold Connections

Allow suction and discharge manifolds to be positioned in various directions



## Ergonomic Handle

Lifting handles come standard, allowing for easy pump transport; handles can be rotated 90 degrees for proper ergonomics, depending on desired use



## All Bolted Construction

Ensures sealing forces are applied evenly across the pump for leak-free operation



## Versatile Design

This pump will function in most positions, including uneven surfaces



## Purpose Built Base

The threaded port version features stainless steel mounting feet and the flanged port version features Polypropylene mounting feet



# HEAVY DUTY FLAP VALVE PUMPS - METALLIC & NON-METALLIC

PERFORMANCE & SPECIFICATIONS

What is

**EVOLUTION**



OPTIMIZED PERFORMANCE |

Optimized performance without sacrificing proven reliability. These pumps have undergone an engineering EVOLUTION, leveraging trusted and proven product designs to improve their performance by application of advanced engineering methods.

SPECIFICATIONS	
<b>METALLIC SIZES</b> 1 - 4" (25.4 - 101.6mm)	<b>MAX FLOW</b> 70 - 310 GPM (265 - 1173 LPM)
<b>SOLIDS HANDLING</b> 1 - 3" (25.4 - 75mm)	<b>DISPLACEMENT</b> 0.10 - 1.6 gallon (0.37 - 6.06 liter)
<b>NON-METALLIC SIZES</b> 2" (50mm)	<b>MAX FLOW</b> 150 GPM (568 LPM)
<b>SOLIDS HANDLING</b> 1.8" (46mm)	<b>DISPLACEMENT</b> 0.50 gallon (1.9 liter)

## 3-4" HDF3-A / 4-A Metallic



**SOLIDS HANDLING** Up to 3" (75 mm)    **MAX FLOW** 310 GPM (1,173 LPM)    **MAX PRESSURE** 125 psi (8.6 bar)    **DISPLACEMENT** 1.6 gallon (6.06 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
3" ANSI Flange	Aluminum	Nitrile (Buna)	EPDM	Aluminum
4" ANSI Flange		Neoprene Santoprene®		



**EVOLUTION**

## 1" HDF1 Metallic



**SOLIDS HANDLING** Up to 1" (25.4 mm)    **MAX FLOW** 70 GPM (265 LPM)    **MAX PRESSURE** 125 psi (8.6 bar)    **DISPLACEMENT** 0.10 gallon (.37 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
1" NPT / BSP Threaded	Aluminum	Nitrile (Buna)	Fluorocarbon (FKM)	Aluminum
	Stainless Steel	Neoprene	EPDM	Cast Iron
		Hytrel® Santoprene®	Urethane	

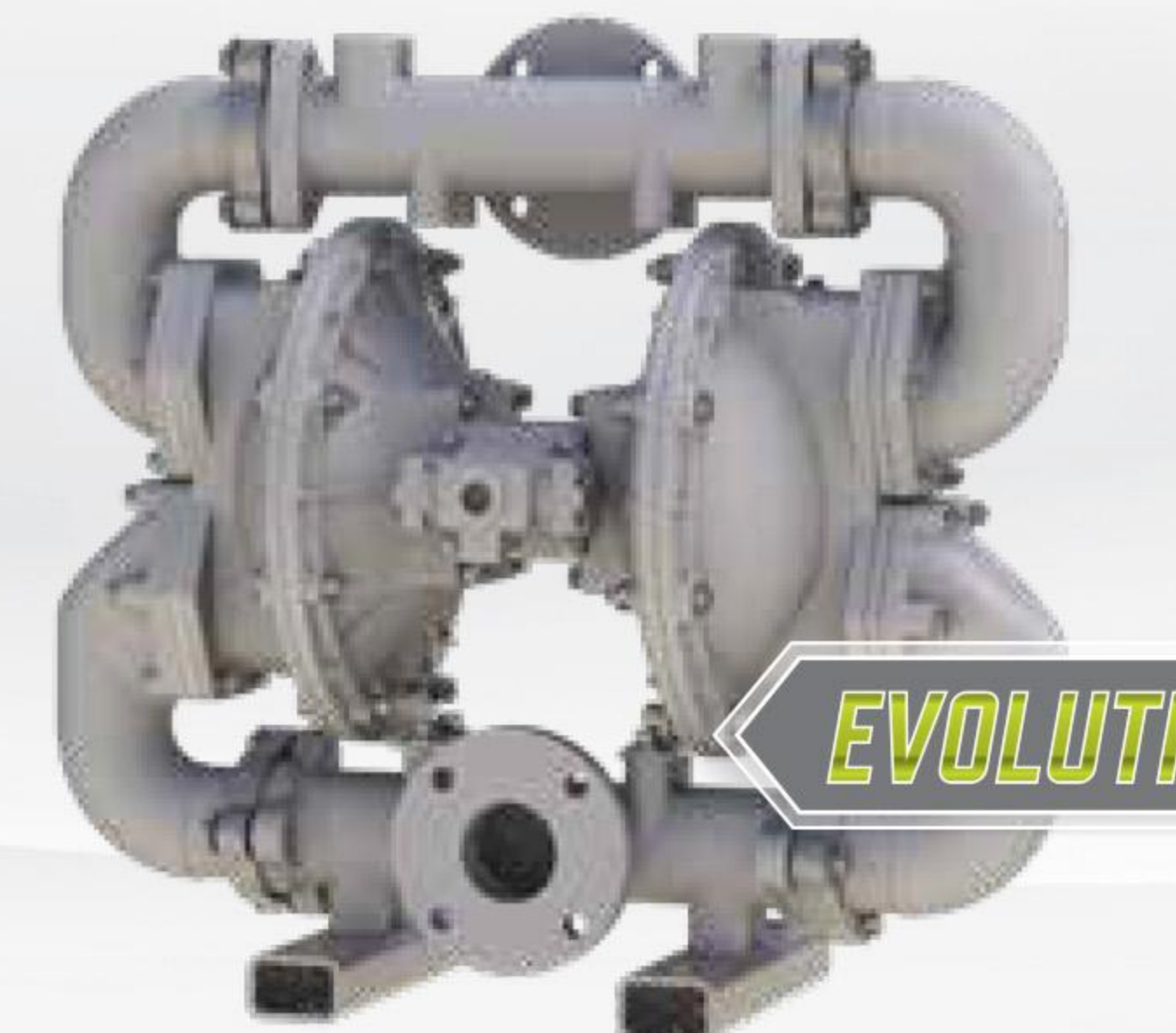
Santoprene® is a registered trademark of Exxon Mobil Corp. Hytrel® is a registered trademark of E.I. du Pont de Nemours and Company.

## 3-4" HDF3-M / 4-M Metallic



**SOLIDS HANDLING** Up to 3" (75 mm)    **MAX FLOW** 303 GPM (1,147 LPM)    **MAX PRESSURE** 125 psi (8.6 bar)    **DISPLACEMENT** 1.15 gallon (4.35 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
3" ANSI Flange	Cast Iron	Nitrile (Buna)	EPDM	Cast Iron
4" ANSI Flange		Neoprene Santoprene®		



**EVOLUTION**

## 2" HDF2 Metallic



**SOLIDS HANDLING** Up to 2" (50 mm)    **MAX FLOW** 208 GPM (787 LPM)    **MAX PRESSURE** 125 psi (8.6 bar)    **DISPLACEMENT** 0.47 gallon (1.8 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
2" NPT / BSP Threaded	Aluminum	Nitrile (Buna)	Fluorocarbon (FKM)	Aluminum
	Cast Iron	Neoprene	EPDM	Cast Iron
	Stainless Steel	Hytrel® Santoprene®	Urethane	

## 2" HD20F Non-Metallic



**SOLIDS HANDLING** Up to 1.8" (46mm)    **MAX FLOW** 150 GPM (568 LPM)    **MAX PRESSURE** 100 psi (7.0 bar)    **DISPLACEMENT** 0.50 gallon (1.9 liter)

OPTIONS				
Porting	Wet End	Elastomers		Air End
2" NPT / BSP Threaded	Polypropylene	Nitrile (Buna)	Fluorocarbon (FKM)	Polypropylene
2" ANSI / DIN Combination Flange	Stainless Steel (Seats only)	Neoprene	EPDM	
		Hytrel®	Urethane	
		Santoprene®		

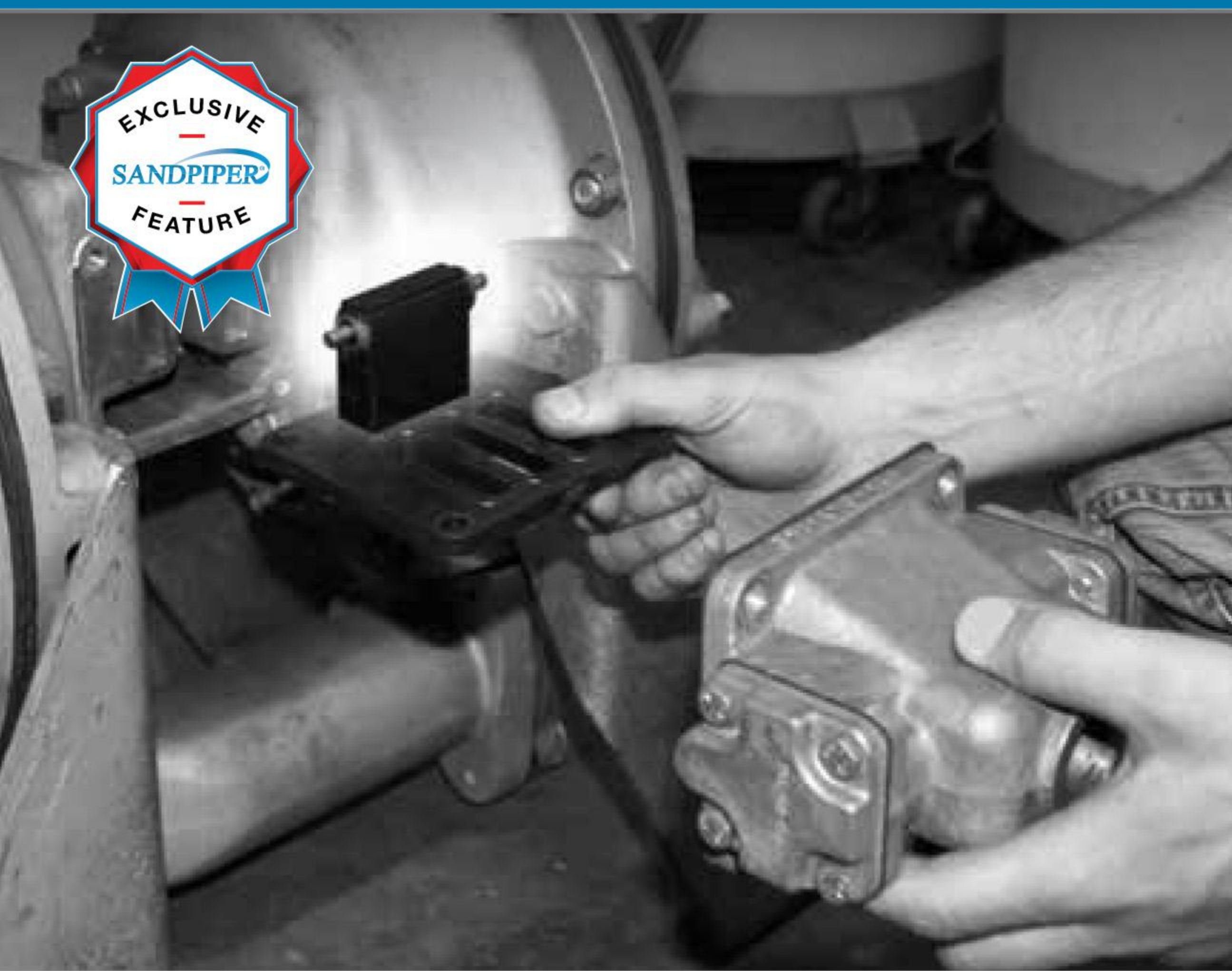
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# SANDPIPER'S EXTERNALLY SERVICEABLE AIR DISTRIBUTION SYSTEM (ESADS+PLUS)

SANDPIPER's Externally Serviceable Air Distribution System (ESADS) allows for quick and easy access to the pilot and spool valves without removing the pump from service, maximizing up time!

## SANDPIPER VS COMPETITORS



**The Air Motor's Pilot Valve is the Most Often Serviced Part on an AODD Pump**



**5 MINUTES FOR MAINTENANCE / CLEANING**

Accomplished in minutes without removing pump from service by removing only 4 bolts



Saves you money by minimizing downtime



**55 MINUTES OR LONGER FOR MAINTENANCE / CLEANING**

The air valve components can only be accessed by removing the pump from service and taking it entirely apart



Costs you money due to extended downtime

## PARTS & ACCESSORIES

EVERYTHING YOU NEED TO COMPLETE YOUR PUMP SYSTEM

### SANDPIPER GENUINE PARTS SERVICE KITS

WET END KITS / AIR END KITS

SANDPIPER is pleased to offer you the trusted Genuine Parts you need, sold in convenient kits or individual parts. Whatever you need to make pump repairs, we have you covered.

#### Wet End Kits

- Diaphragms
- Flaps
- Seats

#### Air End Kits

- Gaskets
- O-Rings
- Seals
- Retaining Rings
- Air Valve Sleeve and Spool
- Pilot Valve Assembly
- Lubricant



### AIR FILTER / REGULATORS

RELIABLE FILTER / REGULATORS SPECIFICALLY DEVELOPED FOR AODD PUMPS

- Adjust and lock to deliver constant air pressure
- Polyurethane bowl offers improved chemical resistance
- Include a durable liquid filled pressure gauge to dampen the effects of pulsation and vibration
- Integral mounting slots eliminate the need for mounting brackets
- Automatic drain removes condensate

### TRANQUILIZERS®

PULSATION DAMPENERS / SURGE SUPPRESSORS

- Provide virtually surge-free flow
- Steady pressure
- Less vibration and noise
- Automatically self-charging and self-venting
- Protect other system components
- Long-life balanced diaphragm

### LIQUID LEVEL CONTROL

AUTOMATIC, FLOAT ACTUATED UNIT OPENS & CLOSES AIR SUPPLY TO YOUR AODD PUMP

- Pneumatic operation requires no electricity
- Adjustable operating range from a few inches to 9 feet (2.7 meters)
- Simple design is easy to install and operate, with few moving parts
- Reversible operation capable



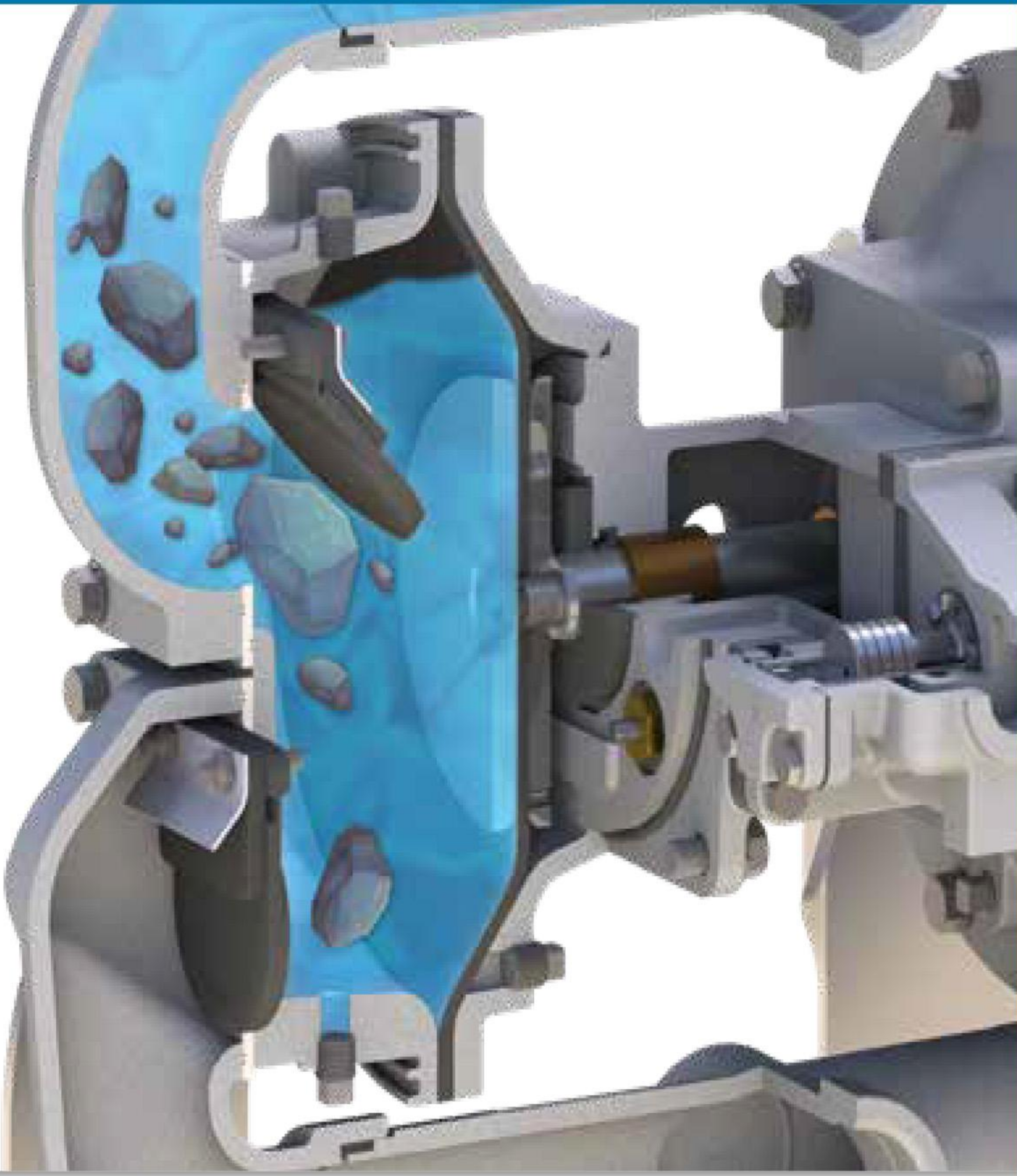
# SANDPIPER

HEAVY DUTY FLAP VALVE PUMP

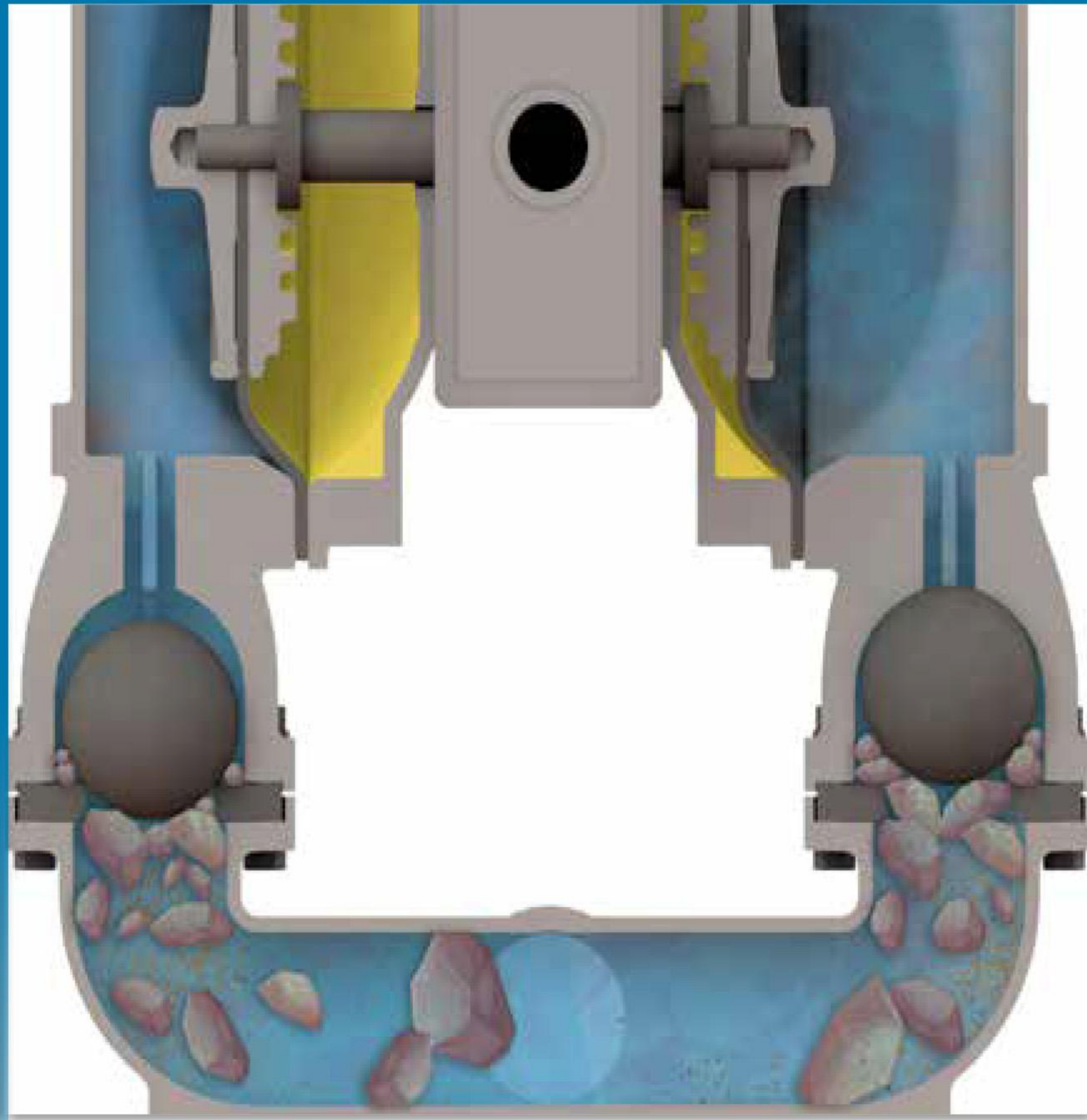
# VS

# TYPICAL

TOP DISCHARGE BALL VALVE PUMP



**Large Solids Easily Pass Through  
The Pump**



**Large Solids Cannot Pass Through  
The Pump Affecting Operation**



## OUR SIGNATURE ENSURES YOUR SUCCESS

SANDPIPER Signature Series AODD pumps are engineered to deliver industry leading durability and performance, even for your most severe applications and environments.



**WE'RE ALL ABOUT EXPERIENCE**

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