



AMCAL
INDUSTRIAL PUMP SOLUTIONS

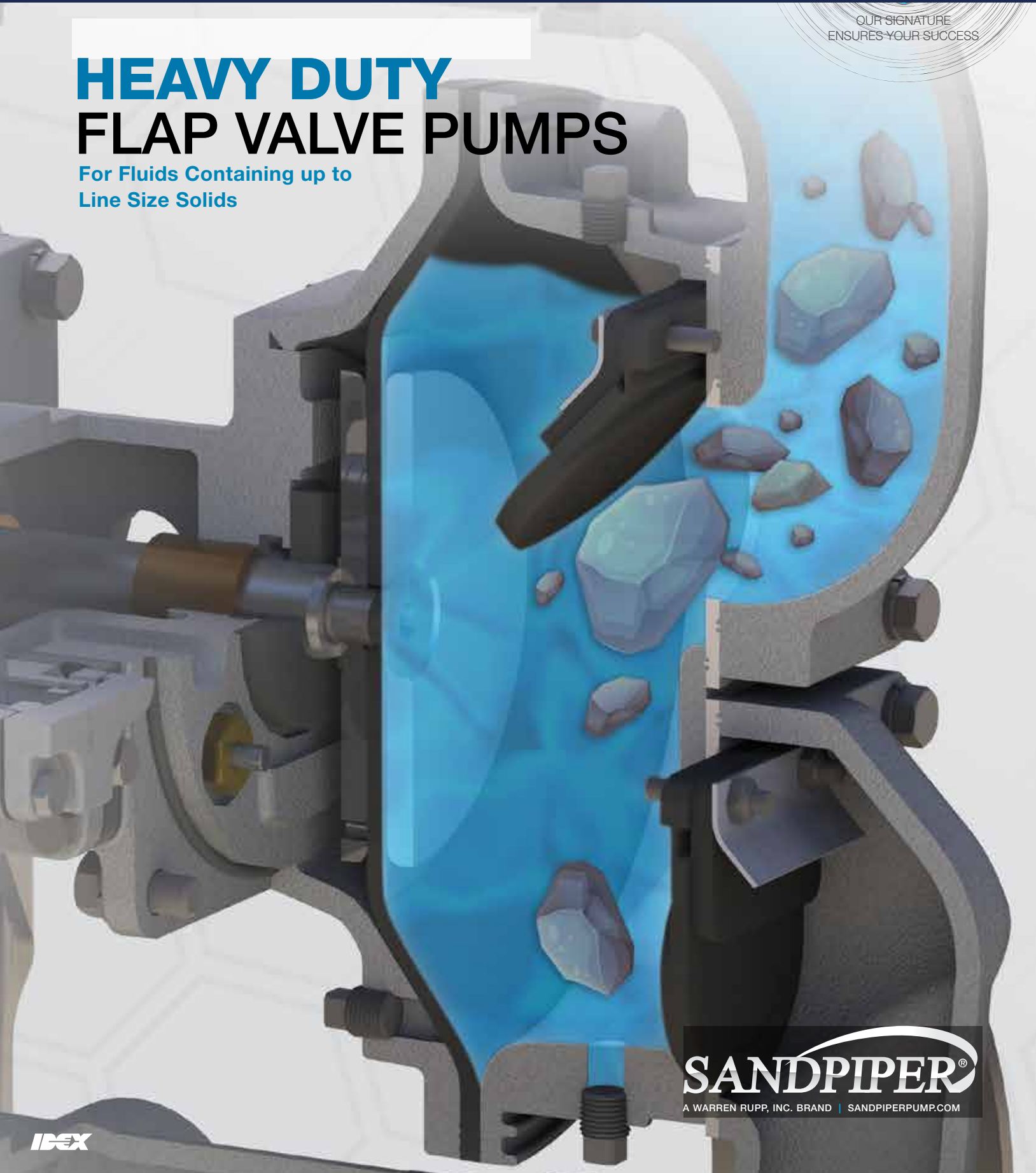
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OUR SIGNATURE
ENSURES YOUR SUCCESS

HEAVY DUTY FLAP VALVE PUMPS

For Fluids Containing up to
Line Size Solids



SANDPIPER®
A WARREN RUPP, INC. BRAND | SANDPIPERPUMP.COM

IBEX

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 20 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.

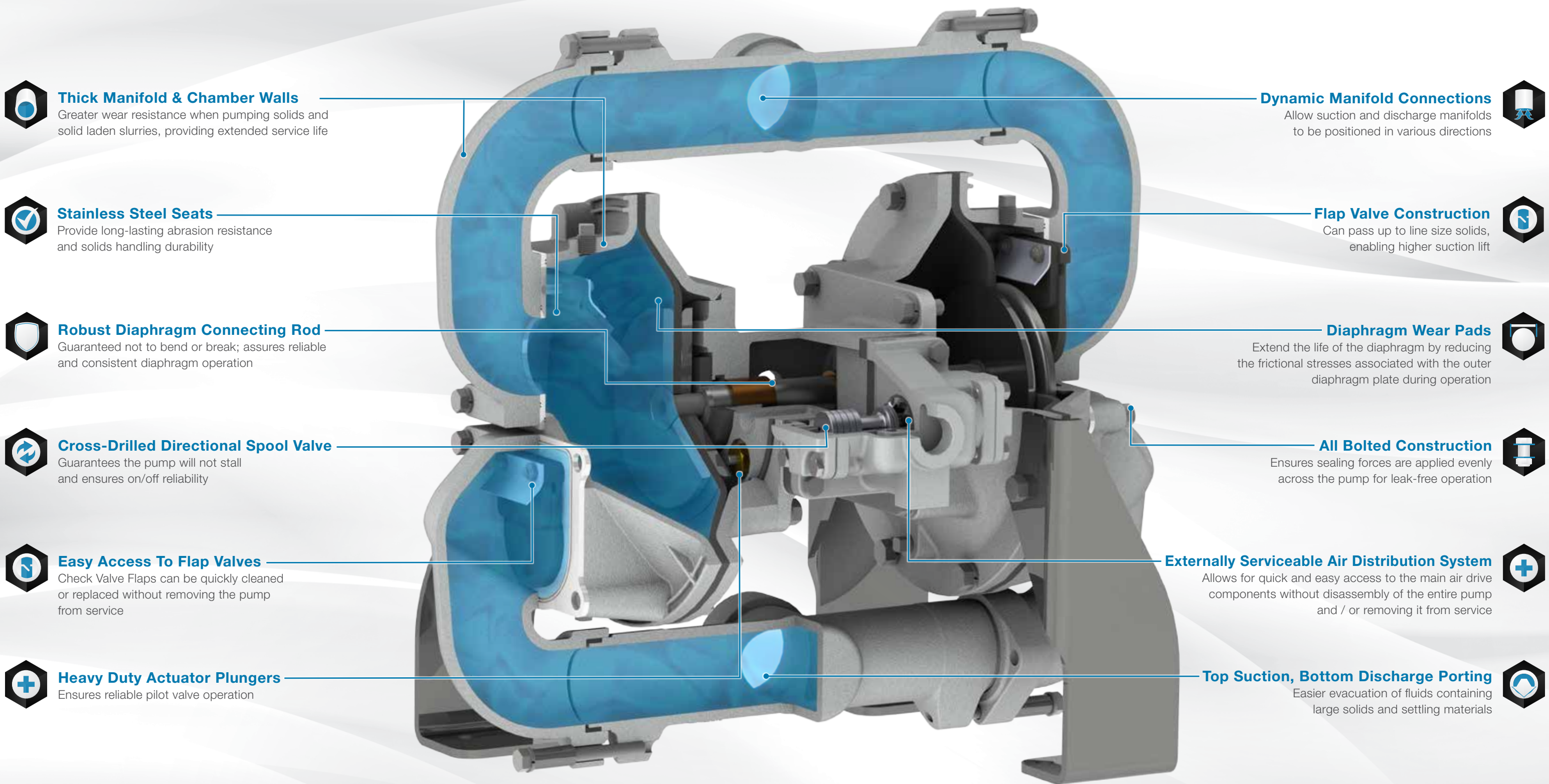
Remove Clean-Out Cap

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



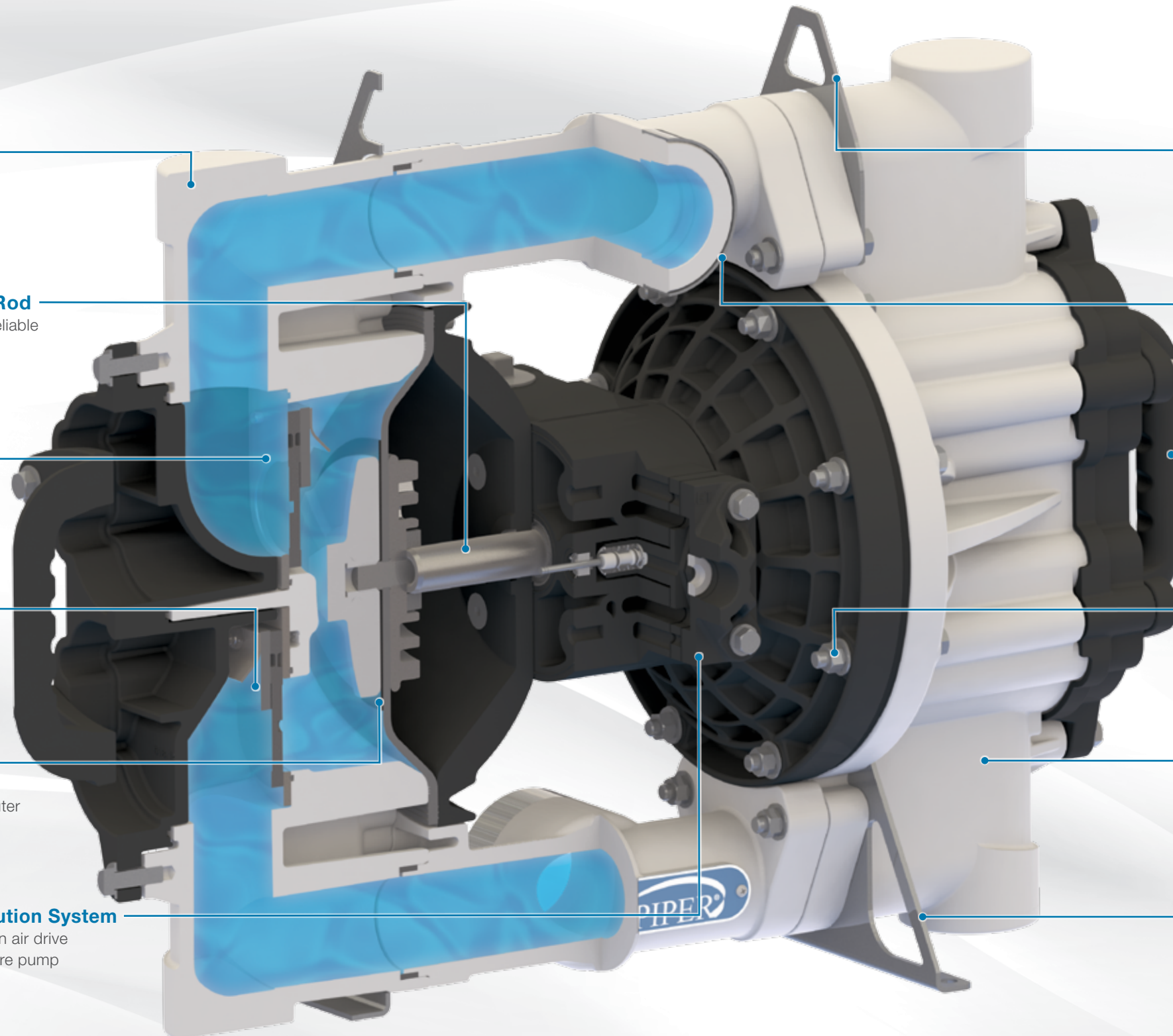
Diaphragm Wear Pads

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

METALLIC

SIZES 1 - 4" (25.4 - 101.6mm)	MAX FLOW 70 - 310 GPM (265 - 1173 LPM)
SOLIDS HANDLING 1 - 3" (25.4 - 75mm)	DISPLACEMENT 0.10 - 1.6 gallon (0.37 - 6.06 liter)

NON-METALLIC

SIZES 2" (50mm)	MAX FLOW 150 GPM (568 LPM)
SOLIDS HANDLING 1.8" (46mm)	DISPLACEMENT 0.50 gallon (1.9 liter)

3-4"
75-102mm
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)
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OPTIONS				
Porting	Wet End	Elastomers		Air End
3" ANSI Flange	Aluminum	Nitrile (Buna)	EPDM	Aluminum
4" ANSI Flange		Neoprene	Urethane	
		Santoprene®		



1"
25mm
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)
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OPTIONS				
Porting	Wet End	Elastomers		Air End
1" NPT / BSP Threaded	Aluminum	Nitrile (Buna)	Fluorocarbon (FKM)	Aluminum
	Cast Iron	Neoprene	EPDM	Cast Iron
	Stainless Steel	Hytrel®	Urethane	
		Santoprene®		

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

3-4"
75-102mm
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)
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OPTIONS				
Porting	Wet End	Elastomers		Air End
3" ANSI Flange	Cast Iron	Nitrile (Buna)	EPDM	Cast Iron
4" ANSI Flange		Neoprene	Urethane	
		Santoprene®		



2"
50mm
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)
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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®	Urethane	
		Santoprene®		

2"
50mm
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)
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OPTIONS				
Porting	Wet End	Elastomers		Air End
2" NPT / BSP Threaded	Polypropylene Stainless Steel (Seats only)	Nitrile (Buna)	Fluorocarbon (FKM)	Polypropylene
2" ANSI / DIN Combination Flange		Neoprene	EPDM	
		Hytrel®	Urethane	
		Santoprene®		

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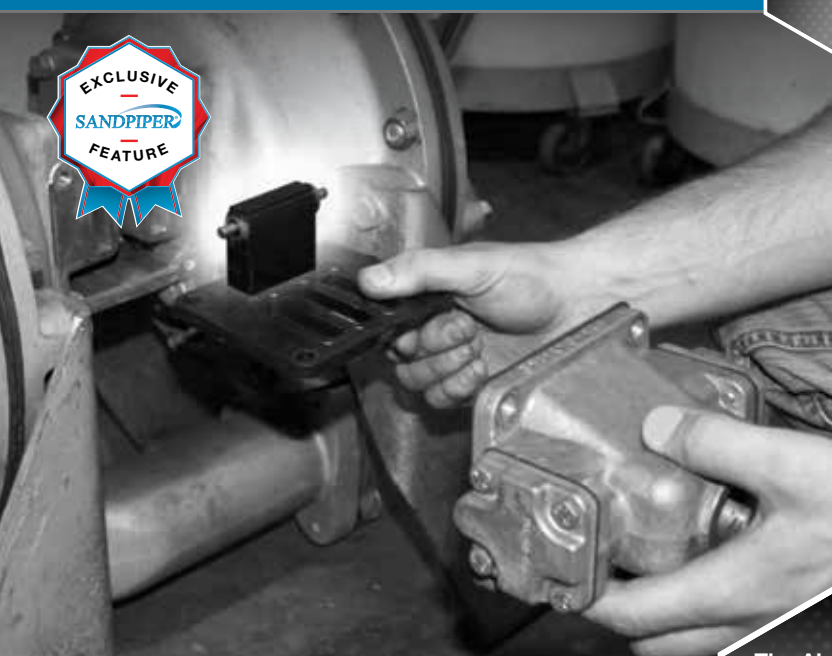
SANDPIPER'S EXTERNALLY SERVICEABLE AIR DISTRIBUTION SYSTEM (ESADS+PLUS)

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

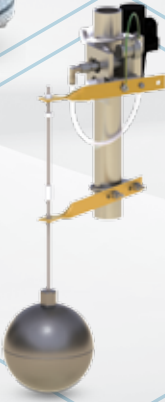
- Provide virtually surge-free flow
- Steady pressure
- Less vibration and noise
- Automatically self-charging and self-venting
- Protect other system components
- Long-life balanced diaphragm



LIQUID LEVEL CONTROL

AUTOMATIC, FLOAT ACTUATED UNIT OPENS & CLOSSES 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



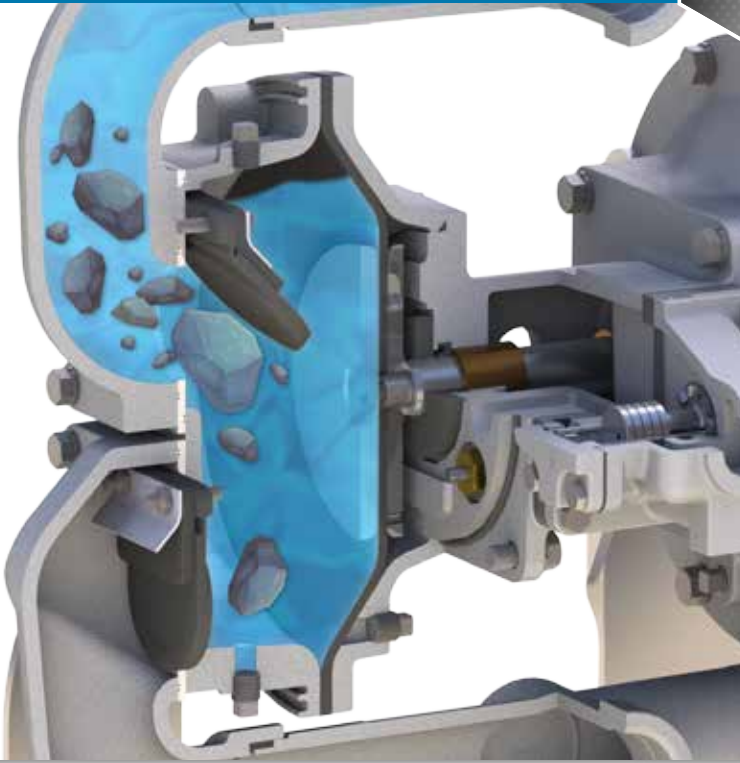
SANDPIPER

HEAVY DUTY FLAP VALVE PUMP

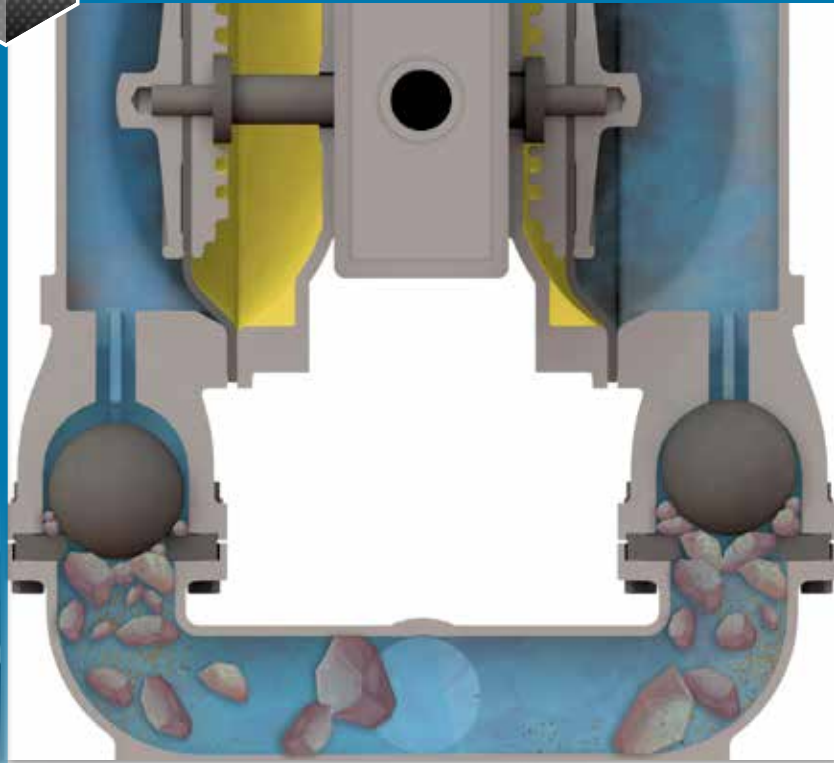
VS

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.

SANDPIPER®

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