# HEAVY DUTY FLAP VALVE PUMPS For Fluids Containing up to Line Size Solids

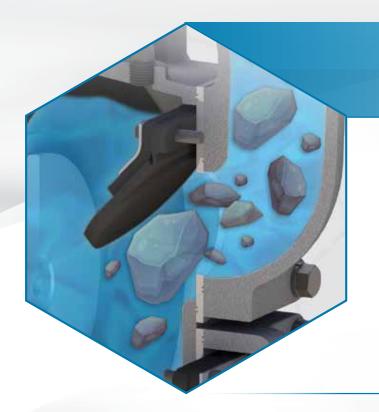


OUR SIGNATURE ENSURES YOUR SUCCESS



# 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.

#### 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

#### **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.



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

UP TO 20 FT. (6.1M) SUCTION BALL VALVE PUMPS



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# 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 nsures 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



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# 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





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



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

PERFORMANCE & SPECIFICATIONS

1 - 4" (25.4 - 101.6mm) 70	0 - 260 GPM (265 - 984 LPM)			,	200 0.1 (1,1	73 LPM) 125 ps
	ISPLACEMENT	80/5.5 60/4.1	3" 4"	OPTIONS		
1 - 3" (25.4 - 75mm) 0.	10 - 1.5 gallon (0.37 - 5.7 liter)	<b>1</b> <sup>1</sup> <sup>1</sup>		Porting	Wet End	Elas
SIZES N	IAX FLOW	1901.4		3" ANSI Flange 4" ANSI Flange	Aluminum	Nitrile (Buna) Neoprene
	50 GPM (568 LPM)			4 ANOT lange		Santoprene®
	50 gallon (1.9 liter)		120/454 160/606 200/757 240/908 CAPACITY (GPM/LPM)			Gantoprene

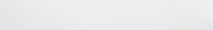
Elastomers

Fluorocarbon (FKM)

EPDM

Urethane

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



OPTIONS

Porting 1" NPT / BSP Threaded

Up to 2" (50 mm)



# 2" HDF2 Metallic



SOLIDS HANDLING	MAX FLOW	

Wet End

Aluminum

Cast Iron

Stainless Steel

MAX PRESSURE 140 GPM (786 LPM) 125 psi (8.6 bar)

Nitrile (Buna)

Neoprene

Hytrel®

Santoprene®

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

DISPLACEMENT 0.50 gallon (1.9 liter)

**Ex C E** 

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

SOLIDS HANDLING Up to 3" (75 mm)	MAX FLOV 260 GPM (1,	-	MAX P 125 psi	
OPTIONS				
Porting	Wet End		Elasto	omer
3" ANSI Flange	Aluminum	Nitrile (E	Buna)	
4" ANSI Flange		Neopr	rene	
		Santopi	rene®	



2" <sup>50mm</sup>



3" ANSI Flange 4" ANSI Flange	Cast Iron	Nitrile (Buna) Neoprene	
		Santoprene®	



HD20F Non-Metallic

SOLIDS HANDLING MAX FLOW Up to 1.8" (46mm)

MAX PRESSURE 150 GPM (568 LPM) 100 psi (7.0 bar)

OPTIONS			
Porting	Wet End	Elast	omer
2" NPT / BSP Threaded 2" ANSI / DIN Combination Flange	Polypropylene Stainless Steel (Seats only)	Nitrile (Buna) Neoprene Hytrel® Santoprene®	Fluc

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## **Ex C E**





**Ex CE** 

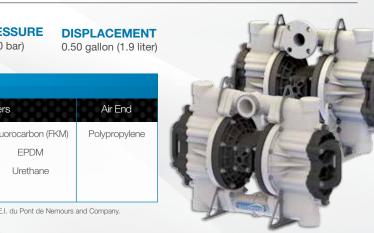






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CE

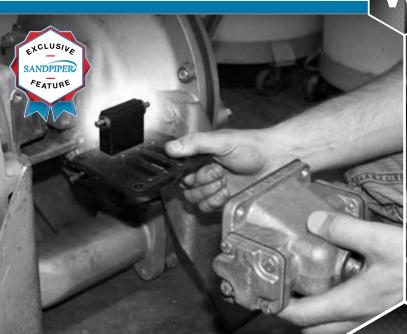


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# SANDPIPER'S EXTERNALLY SERVICEABLE AIR DISTRIBUTION SYSTEM (ESADS+PLUS)

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**



5 MINUTES FOR MAINTENANCE / CLEANING

Accomplished in minutes without

removing pump from service

by removing only 4 bolts

Saves you money by minimizing downtime

**COMPETITORS** 



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



# 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

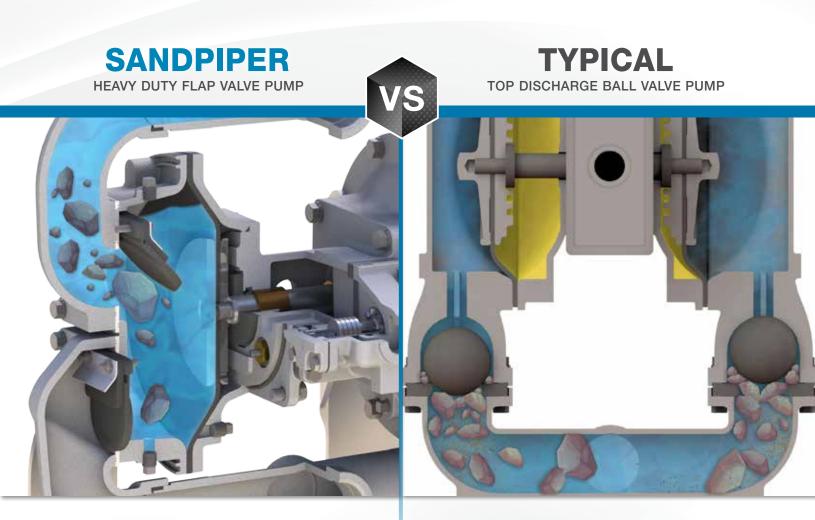
#### LIQUID LEVEL CONTROL

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



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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.

Contact Your Local Distributor to Place Your Order:



Warren Rupp, Inc. | A Unit of IDEX Corporation 800 North Main Street, Mansfield, OH 44902 USA Phone: 419.524.8388 | Fax: 419.522.7867 SANDPIPERPUMP.COM



