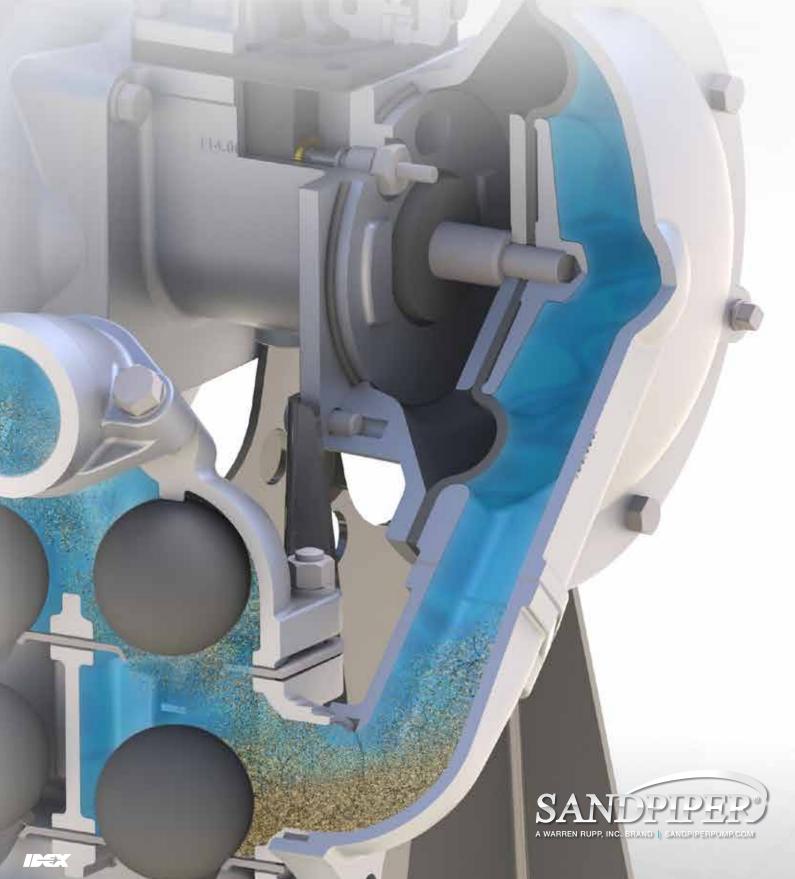
# **HEAVY DUTY**BALL VALVE PUMPS



For Fluids Containing Settling, Suspended & Floating Solids



## KEY ADVANTAGES OF SANDPIPER HEAVY DUTY BALL VALVE PUMPS

THE SOLUTION FOR FLUIDS CONTAINING SETTLING, SUSPENDED & FLOATING SOLIDS



## MULTIPLE PORTING POSITIONS A SANDPIPER EXCLUSIVE

#### **Top, Down, & Side Porting Positions**

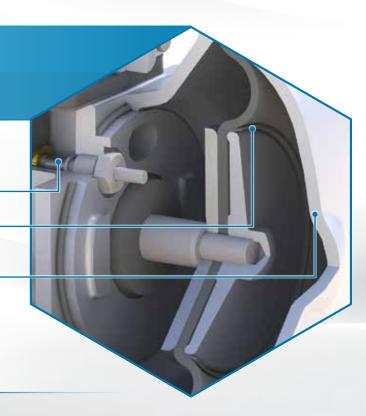
Optimized performance depending on the pumped fluid or installation requirements.

- Top Ported: For fluids containing floating solids, suspended solids, or entrained gases. The discharge port is positioned above the center of the pump for easier evacuation and less build-up of solid material or gases.
- Down Ported: For fluids containing settling solids. The discharge port is positioned below the center of the pump so solids settle in the elbow and are discharged. This helps reduce wear on the diaphragms and associated components.
- **Side Ported:** For use in confined spaces. The ports are positioned with the center of the pump, allowing for installation in smaller, confined spaces.

## HEAVY DUTY WEAR PARTS A SANDPIPER EXCLUSIVE

### SANDPIPER Heavy Duty Ball Valve Pump Features

- Heavy duty plunger bushings and actuator pins are designed to withstand severe applications
- Diaphragm wear pads are installed between the diaphragm and outer diaphragm plate, providing a secondary wear surface which extends the life of the diaphragm
- Thicker, more robust wetted castings provide extended wear resistance
- Heavy duty weighted check valve balls are 30-60% heavier than solid rubber check balls, allowing for more consistent chamber filling





## SANDPIPER'S EXTERNALLY SERVICEABLE AIR DISTRIBUTION SYSTEM (ESADS+PLUS) QUICK & EASY ACCESS TO MAXIMIZE UPTIME

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

#### **SANDPIPER**



5 MINUTES - MAINTENANCE / CLEANING
Accomplished in minutes without removing pump

**(** 

Saves you money by minimizing downtime

from service by removing only 4 bolts

Competitor pumps require disassembly and re-assembly of many parts, requiring additional knowledge and time; leading to increased downtime and cost.



#### **COMPETITORS**



55+ MINUTES 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



## FEATURES & BENEFITS

**EXCLUSIVE TO SANDPIPER HEAVY DUTY BALL VALVE PUMPS** 



**Top Porting Position** 



#### **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



#### **Cross-Drilled Directional Spool Valve**

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



#### All Bolted Construction -

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



#### **Heavy Duty Actuator Plungers**

Ensure reliable pilot valve operation



#### **Robust Diaphragm Connecting Rod**

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



#### **Diaphragm Wear Pads**

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



#### Weighted Elastomeric Check Balls

For reliable pump performance with viscous fluids



#### Large Flow Area

Reduces fluid velocity through pump, which often lessens wear



#### Thick Manifold & Chamber Walls

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



**Down Porting Position** 



Side Porting Position
Only available in certain models

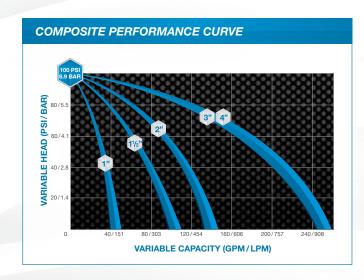




#### **HEAVY DUTY BALL VALVE PUMPS**

PERFORMANCE & SPECIFICATIONS

#### **SPECIFICATIONS SIZES FLOW** 42 - 260 GPM 1 - 4" 25 - 102 mm 159 - 984 LPM **SOLIDS HANDLING DISPLACEMENT** .25 - .875" .09 - 1.8 gallon 6.3 - 22.2 mm .34 - 6.8 liter



	PUMP CHARA	Metallic	
	Water		<b>/</b>
	Suspended Solids		<b>/</b>
	Non-Suspended Solids		<b>✓</b>
stics	Line Size Solids		Use Flap Value Pump
Fluid Characteristics	Sludge / Slurry		
Char	High Viscosity	/ (Flowable Fluids)	<b>/</b>
Fluid	Erosion / Abrasive Fluids	High	<b>/</b>
×		Moderate	<b>/</b>
×		Low	<b>✓</b>
	Co	rrosion	<b>✓</b>
88	Per	manent	<b>✓</b>
88	Po	ortable	<b>✓</b>
ation	Containme	ent / Prevention	!
Installation	Flood	ed Suction	<b>/</b>
	Suc	ction Lift	/
	Sub	omerged	1
īţ	Intermitten	t / On-Demand	1
₫	Cor	ntinuous	1

✓= Best ✓= Suited ✓= Limitations Λ = Use listed pump

For more detailed Performance and Specification information, please visit **SANDPIPERPUMP.COM** 



#### SB1 / SB25 Metallic - Porting: Top, Side, Down





SOLI	DS HA	NDLING
Up to	.25" (6.	3 mm)

**MAX FLOW** 42 GPM (159 LPM)

MAX PRESSURE 125 psi (8.6 bar)

DISPLACEMENT .09 gallon (.34 liter)

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

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



#### 1½ HDB1½ / HDB40 Metallic - Porting: Top, Side, Down



SOLIDS HANDLING MAX FLOW Up to .25" (6.3 mm)

105 GPM (397 LPM)

125 psi (8.6 bar)

MAX PRESSURE DISPLACEMENT

.37 gallon (1.4 liter)







#### HDB2 Metallic - Porting: Top, Down



SOLIDS HANDLING MAX FLOW Up to .375" (9 mm)

135 GPM (511 LPM)

MAX PRESSURE 125 psi (8.6 bar)

**DISPLACEMENT** 

.43 gallon (1.63 liter)

OPTIONS					
Porting	Wet End Elastomers		Air End		
2" NPT	Aluminum	Nitrile (Buna)	Fluorocarbon (FKM)	Aluminum	
	Stainless Steel	Neoprene	Hytrel <sup>®</sup>	Cast Iron	
	Cast Iron	Santoprene®	EPDM		
	Alloy C	PTFE			



Side porting not available for this model



#### HDB3 / HDB4 Metallic - Porting: Top, Down



SOLIDS HANDLING MAX FLOW Up to .875" (22.2 mm)

260 GPM (984 LPM)

125 psi (8.6 bar)

MAX PRESSURE DISPLACEMENT 1.8 gallon (6.8 liter)

	- 1 J
End	3.0
st Iron	
	-

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

Side porting not available for this model







## SANDPIPER'S EXCLUSIVE DOWN PORTED ADVANTAGE

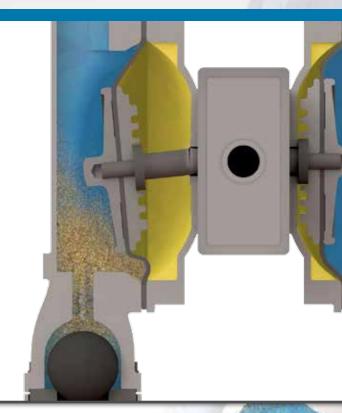
#### **SANDPIPER**

**HEAVY DUTY BALL VALVE PUMP** 

#### **TYPICAL**

TOP DISCHARGE BALL VALVE PUMP





## What happens when solids settle in the pump?

- Nothing impedes the operation of the pump
- As solids settle, they collect in the elbow instead of the diaphragm chamber and are discharged; this limits wear on the diaphragm and associated components

## What happens when solids settle in the pump?

- X Bent, broken diaphragm plates
- X Non-uniform diaphragm wear
- ✗ Bent, broken diaphragm connecting rods
- Restriction on the suction side of the pump

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



