

**WARREN  
RUPP®**

Quality System  
ISO9001 Certified

Environmental  
Management System  
ISO14001 Certified

**IDEX**  
FLUID & METERING



U.S. Patent #5,851,109; 5,996,627;  
400,210; 6,241,487  
Other U.S. Patents Applied for

**SANDPIPER®**  
A WARREN RUPP PUMP BRAND

# S10 Non-Metallic Design Level 1 Ball Valve

**Air-Operated  
Double Diaphragm Pump**

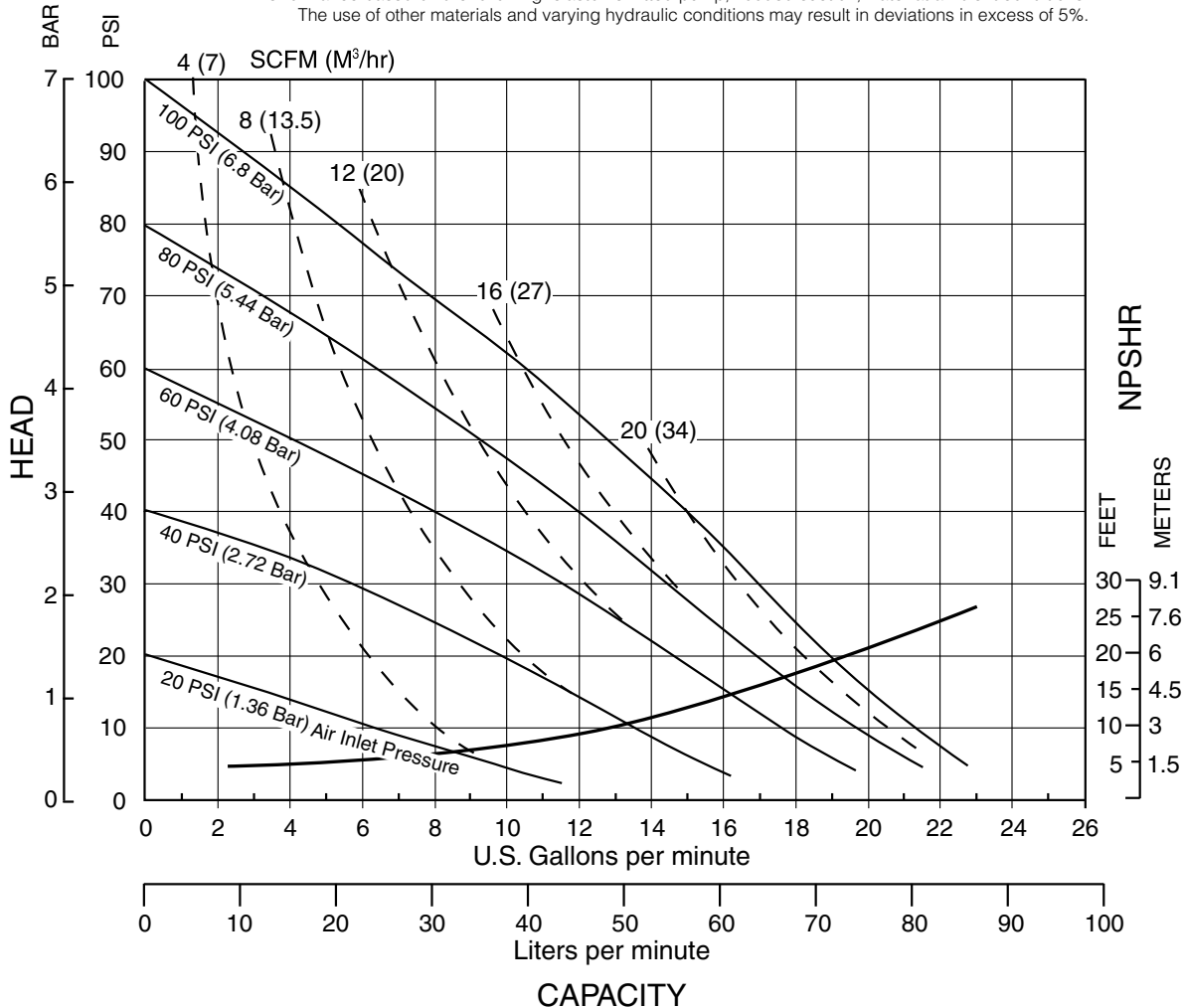
ENGINEERING, PERFORMANCE  
& CONSTRUCTION DATA



INTAKE/DISCHARGE PIPE SIZE	CAPACITY	AIR VALVE	SOLIDS-HANDLING	HEADS UP TO	DISPLACEMENT/STROKE
Intake 1" ANSI Flange	Discharge 1" ANSI Flange	No-lube, no-stall design	Up to .15 in. (4mm)	100 psi or 231 ft. of water (7 bar or 70 meters)	.026 Gallon / .098 liter

## MODEL S10 Non-Metallic Performance Curve

Performance based on the following: elastomer fitted pump, flooded suction, water at ambient conditions.  
The use of other materials and varying hydraulic conditions may result in deviations in excess of 5%.



SANDPIPER® pumps are designed to be powered only by compressed air.

# Explanation of Pump Nomenclature

## S10 Non-Metallic · Design Level 1 · Ball Valve

Type	Pump Brand	Pump Size	Check Valve Type	Design Level	Wetted Material	Diaphragm/Check Valve Options	Check Valve Seat	Non-Wetted Material Options	Porting Options	Pump Style	Pump Options	Kit Options	Shipping Weight lbs (kg)
S10B1P1PPAS000.	S	10	B	1	P	1	P	P	A	S	0	00.	19 (9)
S10B1P2PPAS000.	S	10	B	1	P	2	P	P	A	S	0	00.	19 (9)
S10B1K1KPAS000.	S	10	B	1	K	1	K	P	A	S	0	00.	23 (10)
S10B1K2KPAS000.	S	10	B	1	K	2	K	P	A	S	0	00.	23 (10)
S10B1N1NPAS000.	S	10	B	1	N	1	N	P	A	S	0	00.	20 (9)
S10B1N2NPAS000.	S	10	B	1	N	2	N	P	A	S	0	00.	20 (9)

### Pump Brand

S= SandPIPER®

### Pump Size

10= 1"

### Check Valve Type

B= Ball

### Design Level

1= Design Level 1

### Wetted Material

K= PVDF

N= Nylon

P= Polypropylene

### Diaphragm/Check Valve Materials

1= Santoprene/Santoprene

2= Virgin PTFE-Santoprene Backup/Virgin PTFE

7= Santoprene/Nitrile

8= Virgin PTFE-Santoprene Backup/FKM

Z= One-Piece Bonded/PTFE

### Check Valve Seat

K= PVDF

N= Nylon

P= Polypropylene

### Non-Wetted Material Options

P= Polypropylene

I= Polypropylene with PTFE Hardware

### Porting Options

A= ANSI Flange

### Pump Style

S= Standard

### Pump Options

0= None

1= Sound Dampening Muffler

2= Mesh Muffler

6= Metal Muffler

### Kit Options

00.= None

P0.= 10-30VDC Pulse Output Kit

P1.= Intrinsically-Safe 5-30VDC, 110/120VAC, 220/240VAC Pulse Output Kit

P2.= 110/120 or 220/240VAC Pulse Output Kit

E0.= Solenoid Kit w/24VDC Coil

E1.= Solenoid Kit 24VDC Explosion-Proof Coil

E2.= Solenoid Kit w/24VAC/12VDC Coil

E3.= Solenoid Kit w/12VDC Explosion-Proof Coil

E4.= Solenoid Kit w/110VAC Coil

E5.= Solenoid Kit w/110VAC 60 Hz Explosion-Proof Coil

E6.= Solenoid Kit w/220VAC Coil

E7.= Solenoid Kit w/220VAC 60 Hz Explosion-Proof Coil

E8.= Solenoid Kit w/110VAC 50 Hz Explosion-Proof Coil

E9.= Solenoid Kit w/230VAC 50 Hz Explosion-Proof Coil

SP= Stroke Indicator Pins



**CAUTION! Operating temperature limitations are as follows:**

Materials	Operating Temperatures		
	Maximum*	Minimum*	Optimum**
<b>Santoprene®:</b> Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C	50°F to 212°F 10°C to 100°C
<b>PTFE:</b> Chemically inert, virtually impervious. Very few chemicals are known to react chemically with PTFE: molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures.	220°F 104°C	-35°F -37°C	50°F to 212°F 10°C to 100°C
<b>PVDF:</b>	250°F 121°C	0°F -18°C	
<b>Polypropylene:</b>	180°F 82°C	32°F 0°C	
<b>Polyutethane:</b>	210°F 99°C	-40°F -40°C	-40°F to 210°F -40°C to 99°C
<b>Nylon:</b>	180°F 82°C	32°F 0°C	
<b>FKM (Fluorocarbon):</b> Shows good resistance to a wide range of oils and solvents; especially all aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. Hot water or hot aqueous solutions (over 70°F) will attack FKM.	350°F 177°C	-40°F -40°C	

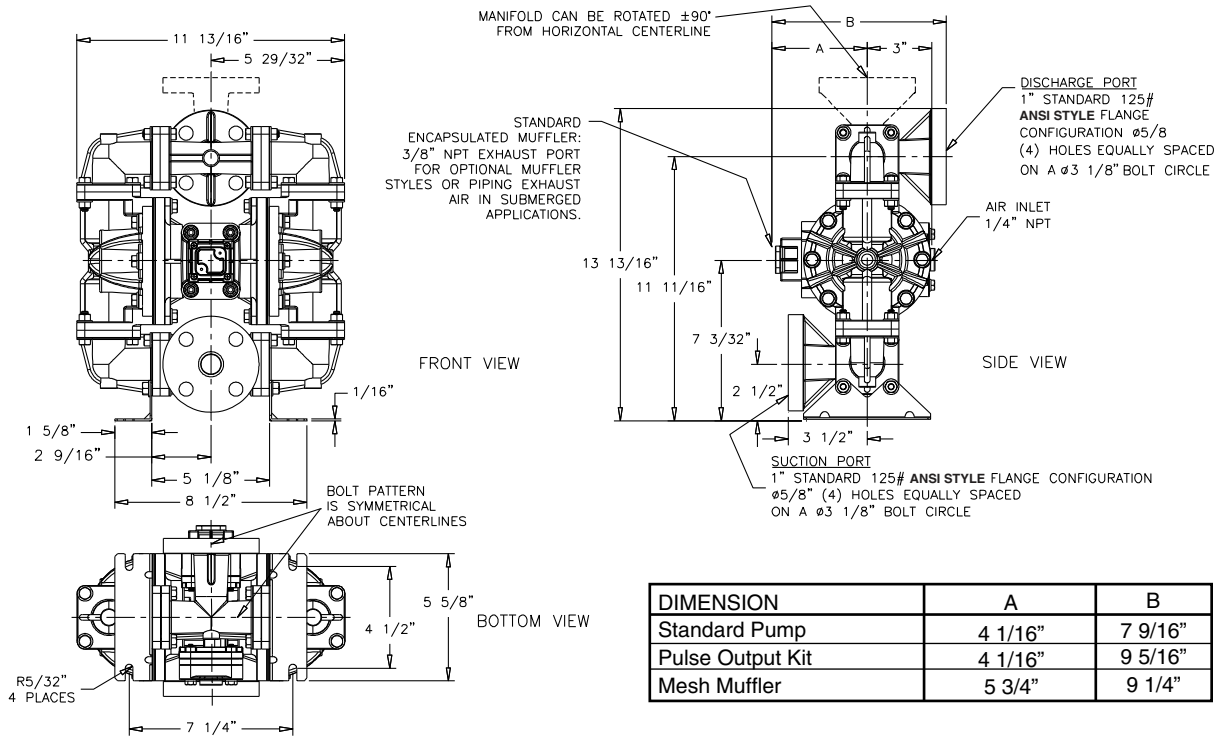
For specific applications, always consult "Chemical Resistance Chart" Technical Bulletin

\*Definite reduction in service life.

\*\*Minimal reduction in service life at ends of range.

# Dimensions: S10 Non-Metallic

Dimensions in Inches  
Dimensional Tolerance:  $\pm 1/8"$



Dimensions in Millimeters  
Dimensional Tolerance:  $\pm 3$ mm

