

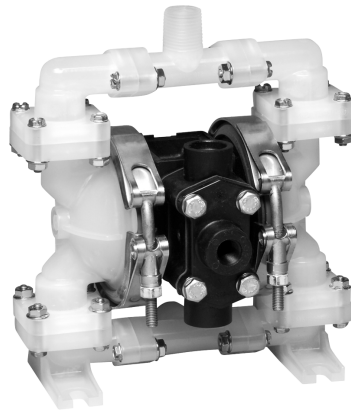
WARREN RUPP®

Quality System
ISO9001 Certified

Environmental
Management System
ISO14001 Certified

IDEX
IDEX CORPORATION

Ex II 2GD bT5* **CE**



SANDPIPER®
A WARREN RUPP PUMP BRAND

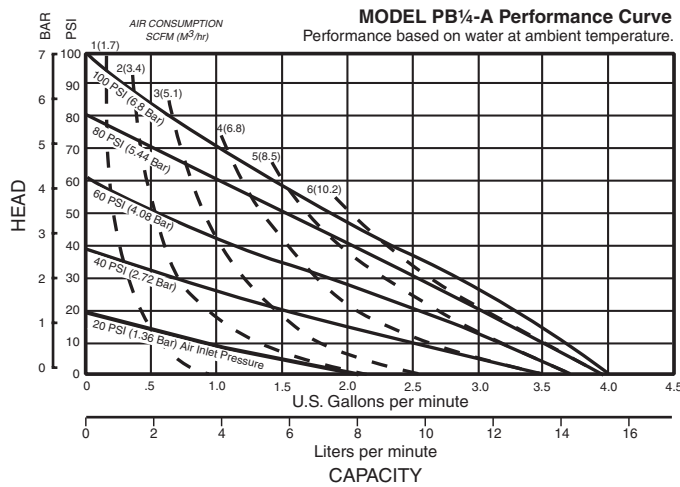
Standard Duty Ball Valve

PB^{1/4}-A Type 3

**Air-Powered
Double-Diaphragm
Plastic Pump**

ENGINEERING, PERFORMANCE
& CONSTRUCTION DATA

INTAKE/DISCHARGE SIZE 1/4" (6mm) NPT (Internal) 1/2" (13mm) NPT (External)	ADJUSTABLE FLOW 0 to 4 gallons per minute (0 to 15 liters per minute)	AIR VALVE No-lube, no-stall design.	SOLIDS HANDLING Up to 1/32" (1 mm)	MAXIMUM SUCTION LIFT Dry 5.83 ft. (1.78m.) Wet 25.5 ft. (7.77m.)	MAXIMUM VISCOSITY 10,000 SSU 2200 CPS	HEADS UP TO 100 psi or 230 ft. of water (7 Kg/cm ² or 70 meters)
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MATERIALS OF CONSTRUCTION

PB ^{1/4} -A	Manifold	Outer Chamber	Outer Diaphragm Plate	Inner Diaphragm Plate	Intermediate Housing	Diaphragm Rod	Hardware	Valve Seat	Diaphragm	Ball Valve Material	Air Valve	Cap	Options	Shipping Weight (lbs)
TS-3-PP	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	PP*	PP*	-	4
TU-3-PP	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	T	PP*	PP*	-	4
TT-3-PP	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	T	T	PP*	PP*	-	4
TS-3-K	K	K	K	2011-AL	PP*	416SS	301/302SS	K	S	S	PP*	PP*	-	5
TU-3-K	K	K	K	2011-AL	PP*	416SS	301/302SS	K	S	T	PP*	PP*	-	5
TT-3-K	K	K	K	2011-AL	PP*	416SS	301/302SS	K	T	T	PP*	PP*	-	5
TS-3-CA	CA	CA	CA	2011-AL	CA*	416SS	301/302SS	AC	S	S	CA*	CA*	-	4
TU-3-CA	CA	CA	CA	2011-AL	CA*	416SS	301/302SS	AC	S	T	CA*	CA*	-	4
TT-3-CA	CA	CA	CA	2011-AL	CA*	416SS	301/302SS	AC	T	T	CA*	CA*	-	4
TS-3-PP-E0	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	0	4
TS-3-PP-E1	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	1	4
TS-3-PP-E2	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	2	4
TS-3-PP-E3	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	3	4
TS-3-PP-E4	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	4	4
TS-3-PP-E5	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	5	4
TS-3-PP-E6	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	6	4
TS-3-PP-E7	PP	PP	PP	2011-AL	PP	416SS	301/302SS	PP	S	S	E	PP*	7	4

Horizontal suction and vertical discharge are standard. All combinations of suction and discharge are available

Meanings of Abbreviations:

AC = Acetal
AL = Aluminum
CA = Conductive Acetal**
K = PVDF
PP = Polypropylene
SS = Stainless Steel
T = Virgin PTFE
S = Santoprene®
E = Electric Solenoid Shifted

OPTIONS

0= Solenoid Kit with 24VDC Coil
1= Solenoid Kit with 24VDC Explosion Proof Coil
2= Solenoid Kit with 24VAC/12VDC Coil
3= Solenoid Kit with 24VAC/12VDC Explosion Proof Coil
4= Solenoid Kit with 110VAC Coil
5= Solenoid Kit with 110VAC Explosion Proof Coil
6= Solenoid Kit with 220VAC Coil
7= Solenoid Kit with 220VAC Explosion Proof Coil

*Designates Glass Filled

**Note: Only conductive acetal equipped pumps with no options are ATEX compliant

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PB^{1/4}-A Ball Valve



MATERIALS	Operating Temperatures		
	Maximum*	Minimum*	Optimum**
CONDUCTIVE ACETAL Ex II 2GD b T5	180°F 82°C	-20°F -28°C	
POLYPROPYLENE	150°F 66°C	40°F 4°C	
PVDF	200°F 93°C	10°F -13°C	
SANTOPRENE® Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	212°F+ 100°C+	-10°F -23°C	Insufficient data available
VIRGIN PTFE Chemically inert, virtually impervious. Very few chemicals are known to chemically react 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.	212°F+ 100°C+	-35°F -37°C	50° F to 212°F 10°C to 100°C

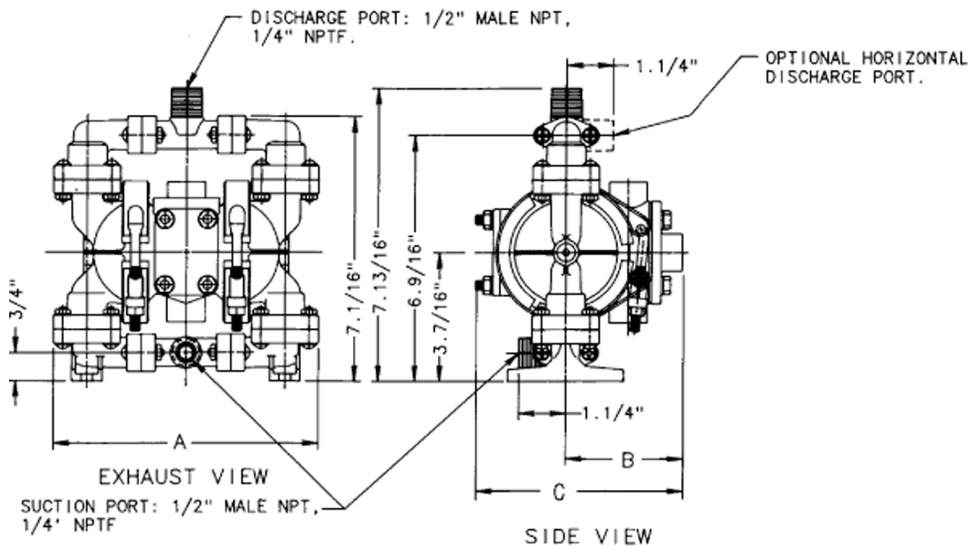
For specific applications, always consult "Chemical Resistance Chart" Technical Bulletin.

*Definite reduction in service life.

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

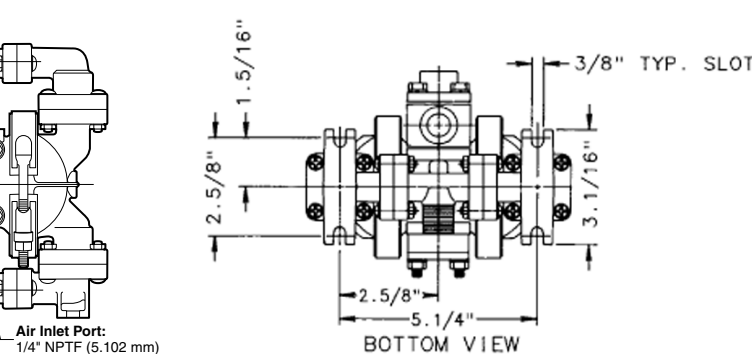
Dimensions are $\pm 1/8"$
Figures in parenthesis = millimeters

Dimension	A	B	C
Standard Pump	7" (178)	3.1/8" (79)	5.1/2" (140)
Pulse Output Kit	9" (229)	3.9/16" (90)	5.15/16" (151)



SERVICE AND ACCESSORY KITS

- 031-107-000 Main Air Valve Body Assembly
- 031-107-503 Main Air Valve Body Assembly (Conductive Acetal only)
- 031-101-000 Pilot Valve Assembly
- 475-145-000 Air Exhaust Conversion Kit
- 475-154-000 Air Exhaust Conversion Kit (Conductive Acetal only)
- 475-149-520 Pail Transfer Kit in PVDF
- 475-149-552 Pail Transfer Kit in Polypropylene
- 476-117-354 Wetted End Kit Santoprene® Diaphragms & Balls
- 476-117-600 Wetted End Kit PTFE Diaphragms & Balls
- 476-117-644 Wetted End Kit Santoprene® Diaphragms & PTFE Balls
- 476-129-000 Air End Kit



1/4" NPT(F) AND 1/2" NPT(M) SUCTION AND DISCHARGE • 1/4" NPT(F) AIR INLET PORT

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Specifications are subject to improvement without notice.

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