

Quality System  
ISO9001 Certified

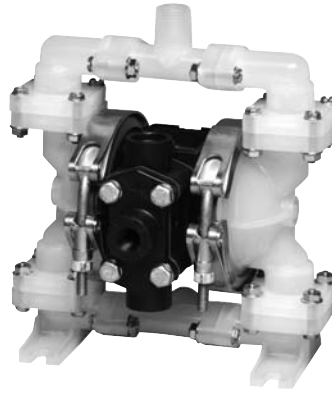
Environmental  
Management System  
ISO14001 Certified



**Ex** II 2GD T5



U.S. Patent #  
5,996,627 and  
6,241,487



**Model PB<sup>1/4</sup>-A  
Type 3  
Air-Operated  
Double Diaphragm Pump**

Engineering, Performance  
& Construction Data

<b>INTAKE/DISCHARGE PIPE SIZE</b> 1/4" (6mm) NPT (internal) 1/2" (13mm) NPT (external)	<b>CAPACITY</b> 0 to 4 gallons per minute (0 to 15 liters per minute)	<b>AIR VALVE</b> No-tube, no-stall design	<b>SOLIDS-HANDLING</b> Up to 1/2" (1mm)	<b>HEADS UP TO</b> 100 psi or 231 ft. of water (7 bar or 70 meters)	<b>DISPLACEMENT/STROKE</b> .01 US Gallons / .04 liters
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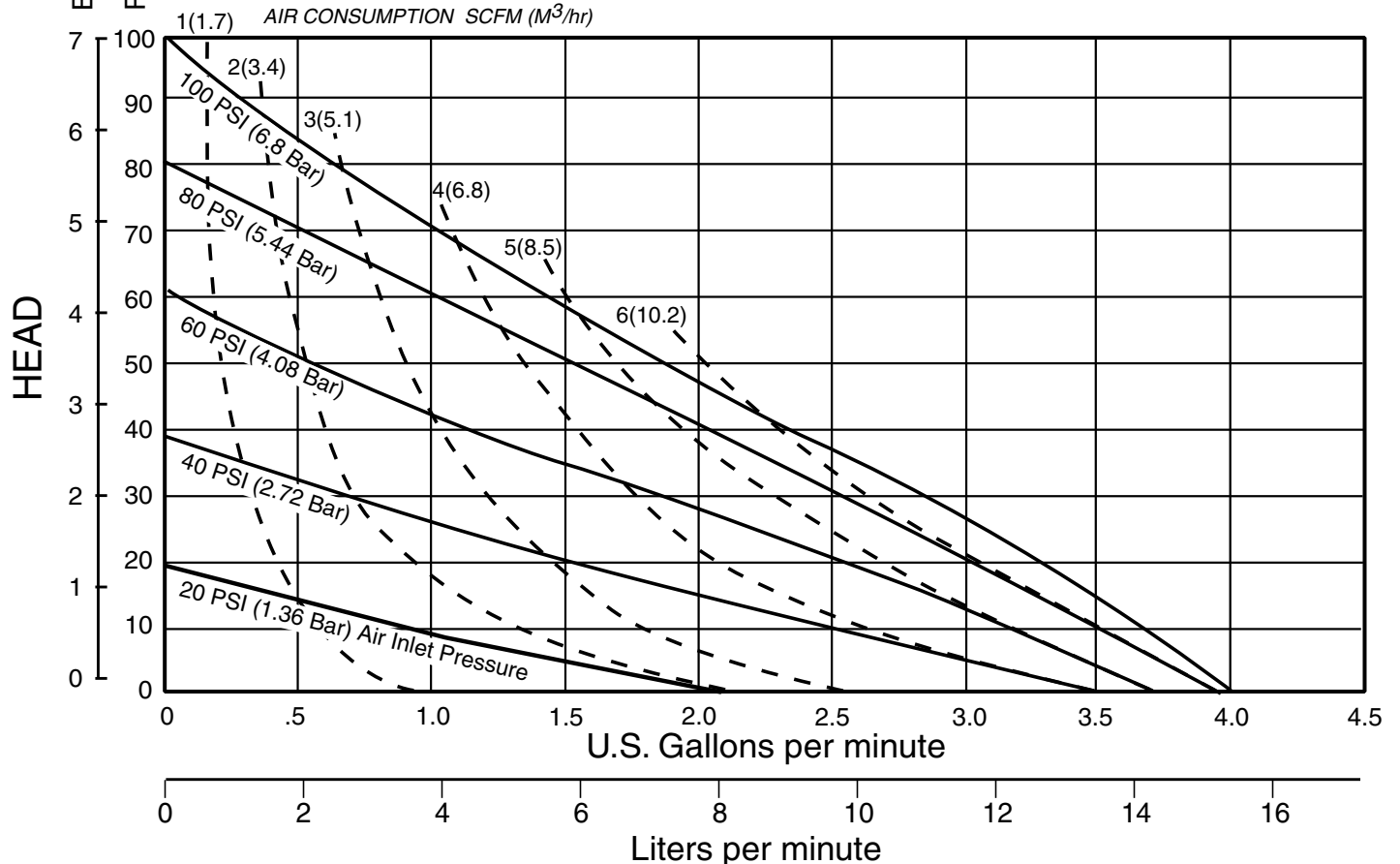
**CAUTION! Operating temperature limitations are as follows:**

Materials	Maximum*	Operating Temperatures Minimum*	Optimum**
Santoprene® Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C	50° to 212°F 10° to 100°C
Virgin PTFE 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° to 212°F 10° to 100°C
PVDF	250°F 121°C	0°F -18°C	
Polypropylene	180°F 82°C	32°F 0°C	
Conductive Acetal	190°F 88°C	-20°F -29°C	

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**MODEL PB<sup>1/4</sup>-A 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

PB¼-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-PPE0	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E0	4
TS-3-PPE1	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E1	4
TS-3-PPE2	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E2	4
TS-3-PPE3	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E3	4
TS-3-PPE4	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E4	4
TS-3-PPE5	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E5	4
TS-3-PPE6	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E6	4
TS-3-PPE7	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E7	4
TS-3-PPE8	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E8	4
TS-3-PPE9	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	E	PP*	E9	4
TS-3-PPP0	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	PP	PP*	P0	4
TS-3-PPP2	PP	PP	PP	2011-AL	PP*	416SS	301/302SS	PP	S	S	PP	PP*	P2	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 = PTFE  
 S = Santoprene

**Kit Options**  
 00.= None  
 P0.= 10-30VDC Pulse Output Kit  
 P2.= 110/120 or 220/240VAC Pulse Output Kit  
 E0.= Solenoid Kit w/24VDC Coil  
 E1.= Solenoid Kit w/24VDC Explosion-Proof Coil  
 E2.= Solenoid Kit w/24VAC/12VDC Coil  
 E3.= Solenoid Kit w/12VDC Coil Explosion-Proof

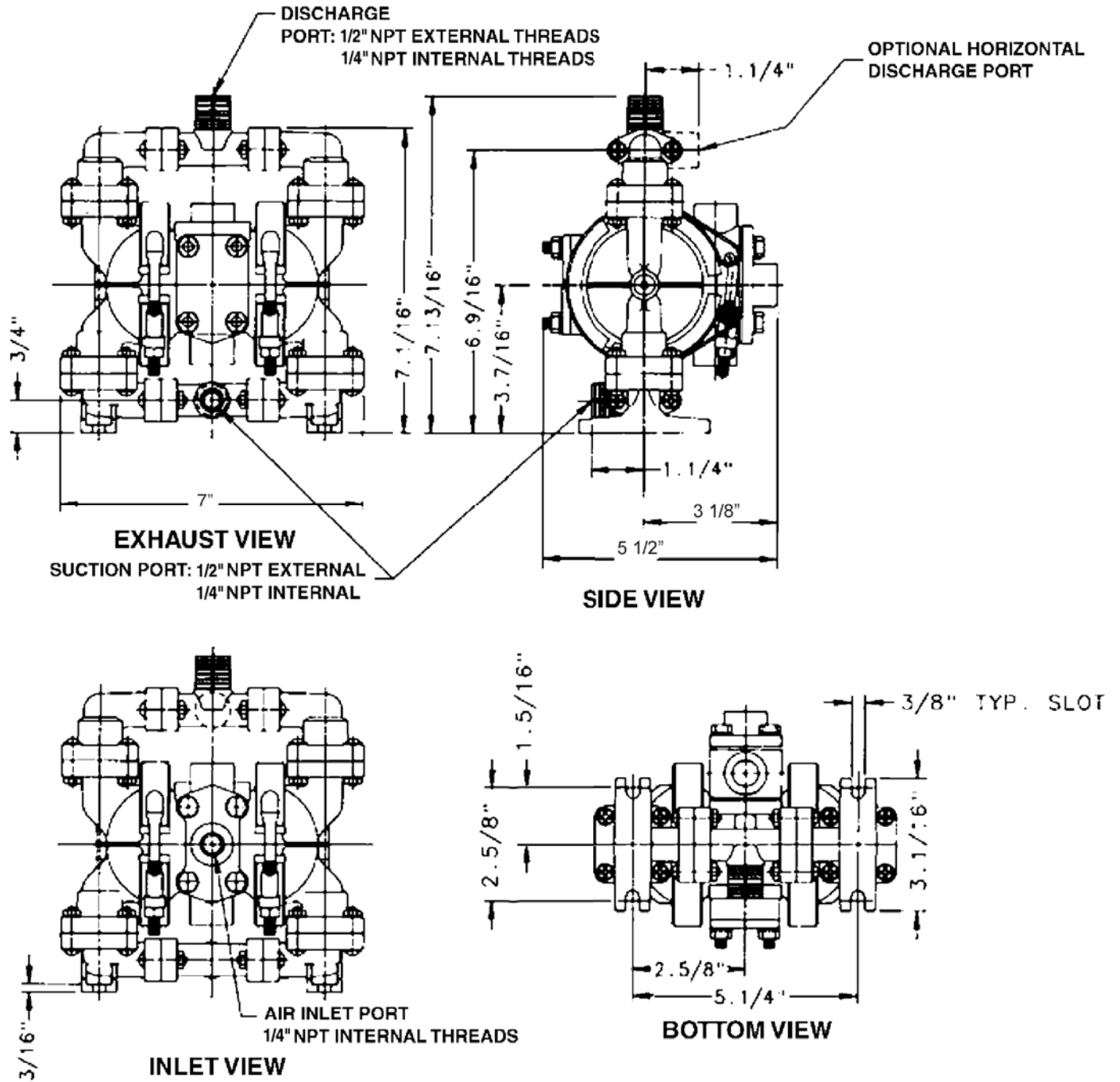
E4.= Solenoid Kit w/110VAC Coil  
 E5.= Solenoid Kit w/110VAC Explosion-Proof Coil  
 E6.= Solenoid Kit w/220VAC Coil  
 E7.= Solenoid Kit w/220VAC Explosion-Proof Coil  
 E8.= Solenoid Kit with 110VAC, 50 Hz Explosion-Proof Coil  
 E9.= Solenoid Kit with 230VAC, 50 Hz Explosion-Proof Coil  
 SP.= Stroke Indicator Pins

  ATEX Compliant ONLY with no options.

\* Designates Glass Filled

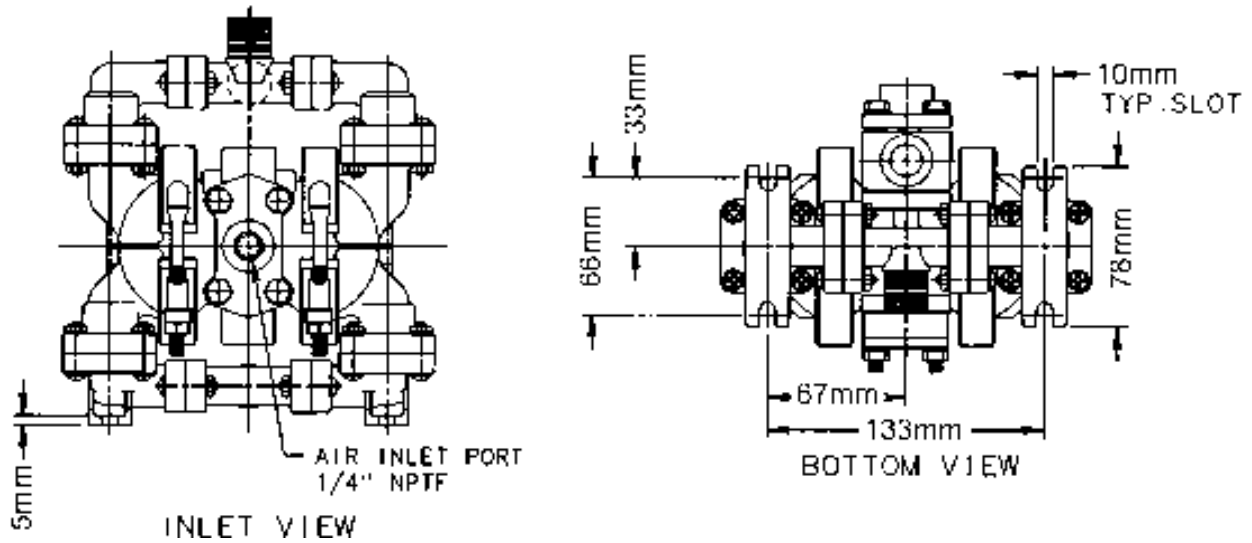
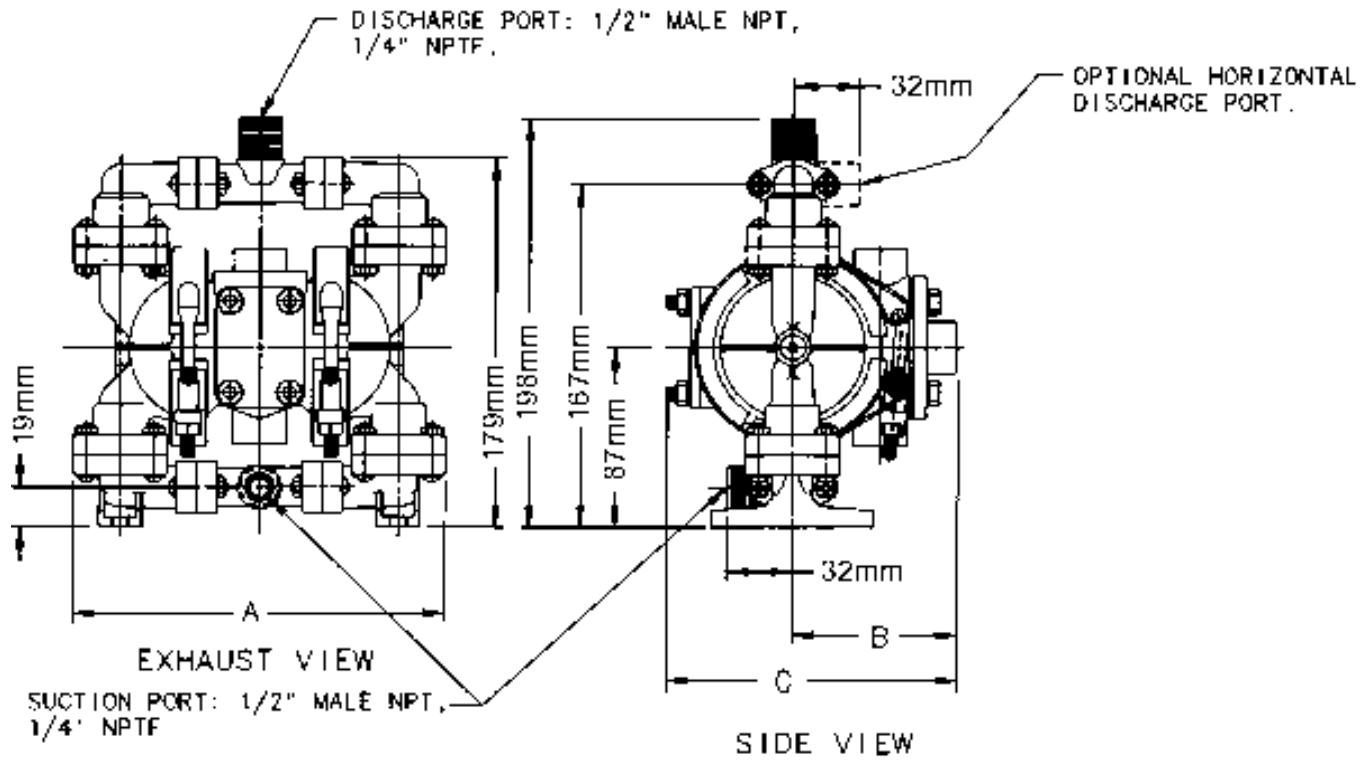
\*\* Note: Only Conductive Acetal equipped pumps with no options are ATEX compliant

# Dimensions: PB<sup>1</sup>/<sub>4</sub>-A Non-Metallic



Dimension	A	B	C
Standard	7"	3 1/8"	5 1/2"
Pulse Output Kit	7"	3 1/8"	5 1/2"

# Metric Dimensions: PB<sup>1</sup>/<sub>4</sub>-A Non-Metallic



Dimension	A	B	C
Standard	178	79	140
Pulse Output Kit	178	79	140