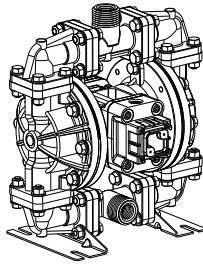


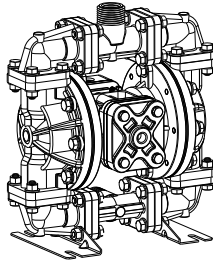
**WARREN
RUPP®**

Quality System
ISO9001 Certified

Environmental
Management System
ISO14001 Certified



Air Exhaust Side View



Air Inlet Side View

SANDPIPER®

A WARREN RUPP PUMP BRAND

**S05 Non-Metallic
Design Level 2
Ball Valve**

**Air-Operated
Double Diaphragm Pump**

ENGINEERING, PERFORMANCE
& CONSTRUCTION DATA



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

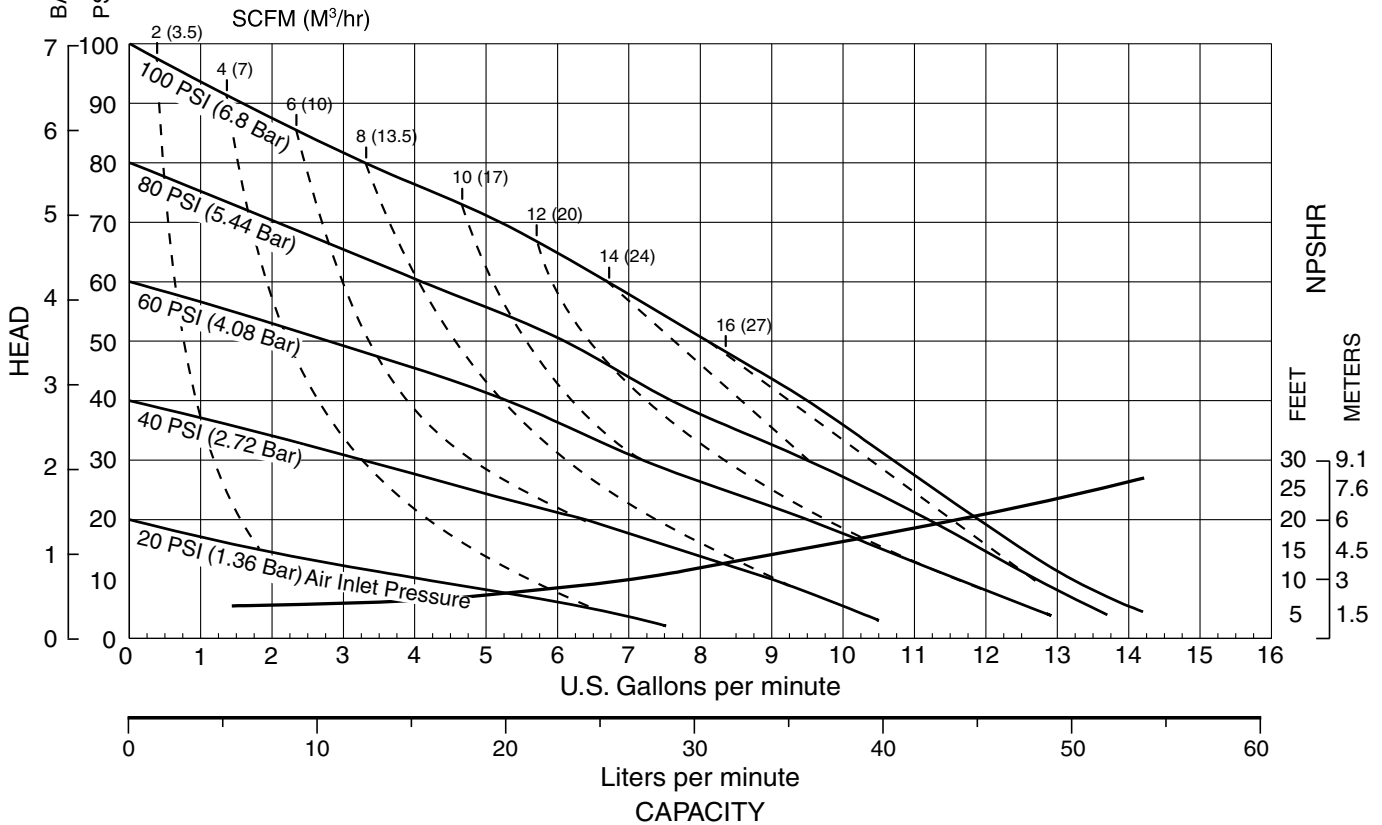


See page 2
for ATEX ratings.

INTAKE/DISCHARGE PIPE SIZE	CAPACITY	AIR VALVE	SOLIDS-HANDLING	HEADS UP TO	DISPLACEMENT/STROKE
½" NPT (internal) or ½" BSP (Tapered) 1" NPT (external) or 1" BSP (Tapered)	0 to 14 gallons per minute (0 to 52 liters per minute)	No-lube, no-stall design	Up to .125 in. (.3mm)	100 psi or 231 ft. of water (7 bar or 70 meters)	.026 Gallon / .098 liter

MODEL S05 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

Model	Pump Brand	Pump Size	Check Valve Type	Design Level	Wetted Material	Diaphragm/Check Valve Materials	Check Valve Seat	Non-Wetted Material Options	Porting Options	Pump Style	Pump Options	Kit Options	Shipping Weight lbs. (kg)
S05B2P1TPNS000.	S	05	B	2	P	1	T	P	N	S	0	00.	16 (8)
S05B2P2TPNS000.	S	05	B	2	P	2	T	P	N	S	0	00.	16 (8)
S05B2PUTPNS000.	S	05	B	2	P	U	T	P	N	S	0	00.	16 (8)
S05B2K1TPNS000.	S	05	B	2	K	1	T	P	N	S	0	00.	18 (9)
S05B2K2TPNS000.	S	05	B	2	K	2	T	P	N	S	0	00.	18 (9)
S05B2KUTPNS000.	S	05	B	2	K	U	T	P	N	S	0	00.	18 (9)
S05B2N1TPNS000.	S	05	B	2	N	1	T	P	N	S	0	00.	16 (8)
S05B2N2TPNS000.	S	05	B	2	N	2	T	P	N	S	0	00.	16 (8)
S05B2NUTPNS000.	S	05	B	2	N	U	T	P	N	S	0	00.	16 (8)

Note: Models listed in the table are for reference only. See nomenclature below for other models.

Pump Brand

S= SANDPIPER®

Pump Size

05=1/2"

Check Valve Type

B= Soild Ball

Design Level

2= Design Level

Wetted Material

K= PVDF

N= Nylon

P= Polypropylene

⚠ C= Conductive Polypropylene

⚠ V= Conductive PVDF

Diaphragm/Check Valve Materials

1= Santoprene/Santoprene

2= Virgin PTFE-Santoprene

Backup/Virgin PTFE

B= Nitrile/Nitrile

U= Polyurethane/Polyurethane

Z= One-Piece Bonded/PTFE

Check Valve Seat

T= Virgin PTFE

Non-Wetted Material Options

P= Polypropylene

1= Polypropylene w/PTFE Coated Hardware

⚠ C= Conductive Polypropylene

Porting Options

N= NPT Threads

B= BSP (Tapered) Threads

1= Dual Porting (NPT)

2= Top Dual Porting (NPT)

3= Bottom Dual Porting (NPT)

4= Dual Porting (BSP Tapered)

5= Top Dual Porting (BSP Tapered)

6= Bottom Dual Porting (BSP Tapered)

Pump Style

S= Standard

Pump Options

⚠ 0= None

1= Sound Dampening Muffler

2= Mesh Muffler

⚠ 6= Metal Muffler

⚠ 7= Metal Muffler with Grounding Cable

Kit Options

⚠ 00.= None

P0.= 10-30VDC Pulse Output Kit

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

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

△ E0.= Solenoid Kit with 24VDC Coil

△ E1.= Solenoid Kit with 24VDC Explosion-Proof Coil

△ E2.= Solenoid Kit with 24VAC/12VDC Coil

△ E3.= Solenoid Kit with 12VDC Explosion-Proof Coil

△ E4.= Solenoid Kit with 110VAC Coil

△ E5.= Solenoid Kit with 110VAC Explosion-Proof Coil

△ E6.= Solenoid Kit with 220VAC Coil

△ E7.= Solenoid Kit with 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

◆ A1.= Solenoid Kit with 12 VDC Explosion-Proof Coil

◆ A2.= Solenoid Kit with 24 VDC Explosion-Proof Coil

◆ A3.= Solenoid Kit with 110/120 VAC 50/60 Hz Explosion-Proof Coil

◆ A4.= Solenoid Kit with 220/240 VAC 50/60 Hz Explosion-Proof Coil

(1)  II 2GD T5




Note: Pumps are only ATEX compliant when ordered with wetted material option C or V, non-wetted material option C, pump option 0, 6 or 7, and kit option 0.

(3*)  II 2G EEx m c T5
II 2D c IP65 T100°C



Note: Pumps ordered with the options listed in (1) to the left are ATEX compliant when ordered with kit option A1, A2, A3, or A4.

*Refer to the service manual to see special conditions for safe use.

(2)  II 2G Ex ia c IIC T5
II 2D c iaD 20 IP67 T100°C



Note: Pumps ordered with the options listed in (1) above are ATEX compliant when ordered with kit option P1.

(4)  IEC EEx m T4



APPROVED



Note: Pump models equipped with these explosion-proof solenoid kit options E1, E3, E5, E7, E8 or E9, are certified and approved by the above agencies. They are NOT ATEX compliant.



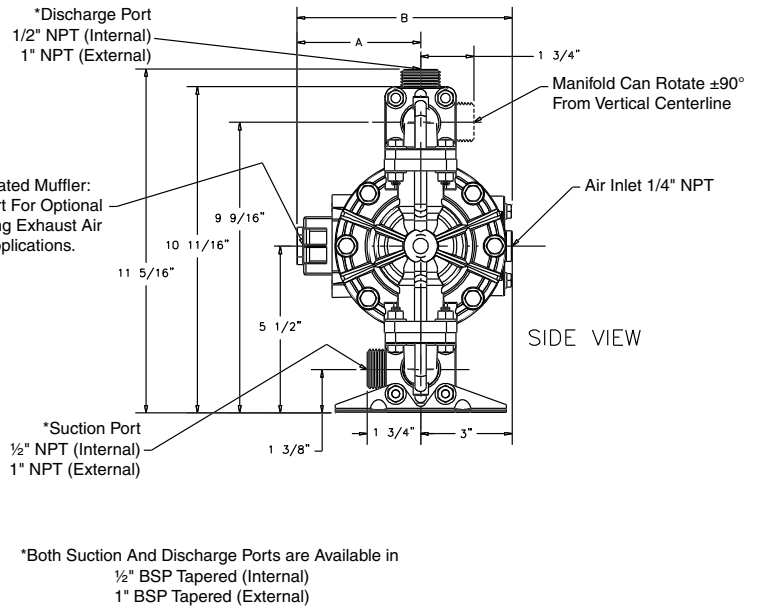
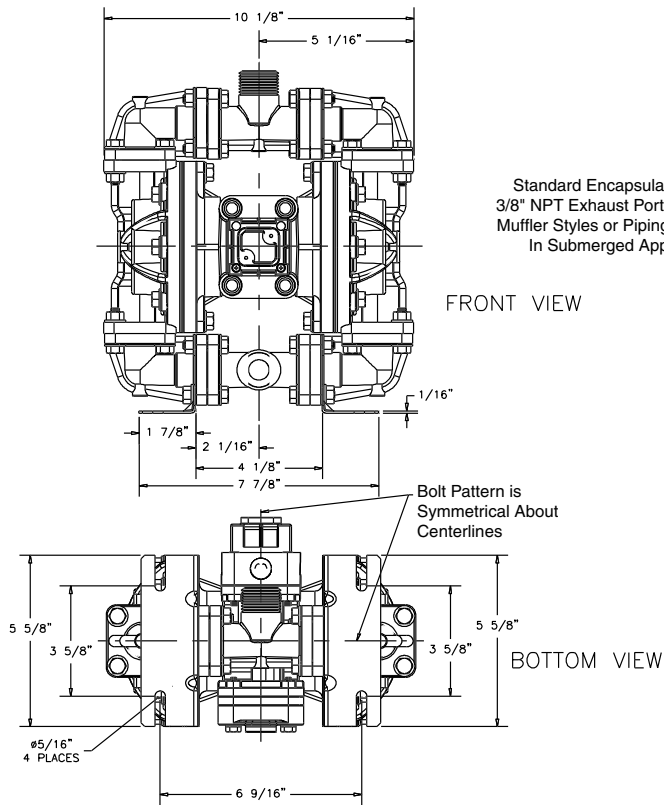
CAUTION! Operating temperature limitations are as follows:

Materials	Operating Temperatures	
	Maximum*	Minimum*
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
Santoprene®: Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	275°F 135°C	-40°F -40°C
PVDF: Generally reserved for applications requiring the highest purity, strength, and resistance to solvents, acids & bases.	250°F 121°C	0°F -18°C
Polypropylene: Generally rugged and usually resistant to many chemicals solvents. Rugged and often stiffer than other plastics, economical.	180°F 82°C	32°F 0°C
Nylon:	180°F 82°C	-35°F 0°C
Nitrile: General purpose, oil-resistant. Shows good solvent, oil, water, and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons, and nitro hydrocarbon.	190°F 88°C	-10°F -23°C

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

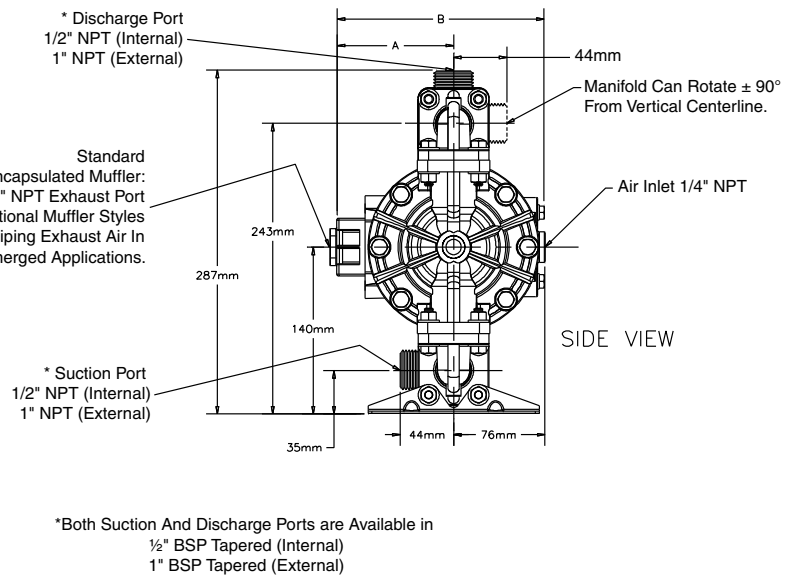
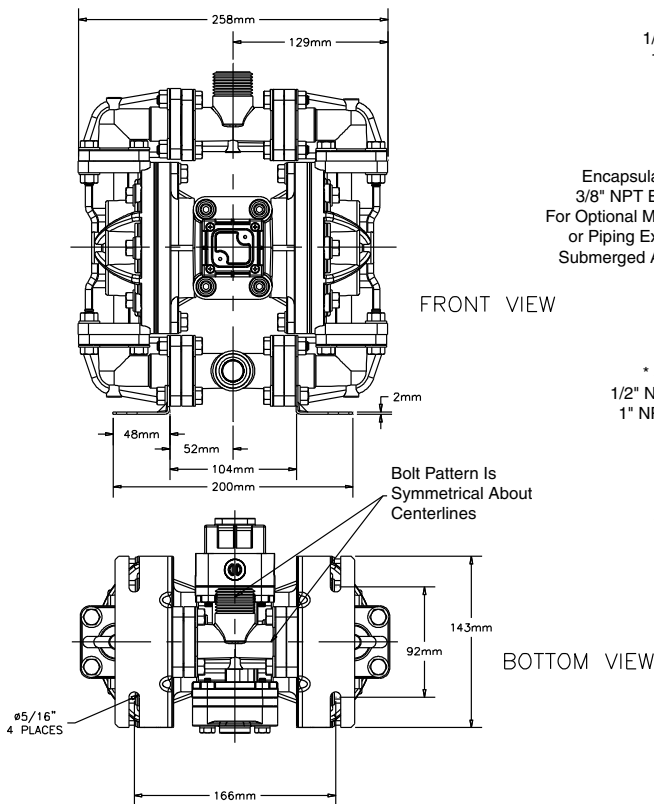
Dimensions: S05 Non-Metallic

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



DIMENSION	A	B
Standard Pump	4 1/16"	7 1/16"
Pulse Output Kit	4 1/16"	7 1/16"
Mesh Muffler	5 3/4"	8 3/4"
Sound Dampening Muffler	5 3/4"	8 3/4"
Metal Muffler	5 1/4"	8 1/4"

Dimensions in Millimeters
Dimensional Tolerance: $\pm 3\text{mm}$



DIMENSION	A	B
Standard Pump	103mm	179mm
Pulse Output Kit	103mm	179mm
Mesh Muffler	146mm	222mm
Sound Dampening Muffler	146mm	222mm
Mesh Muffler	133mm	210mm