

DATA SHEET

Specifications & Performance

Certified Quality



Quality System
ISO 9001 Certified



Environmental Management System
ISO 14001 Certified



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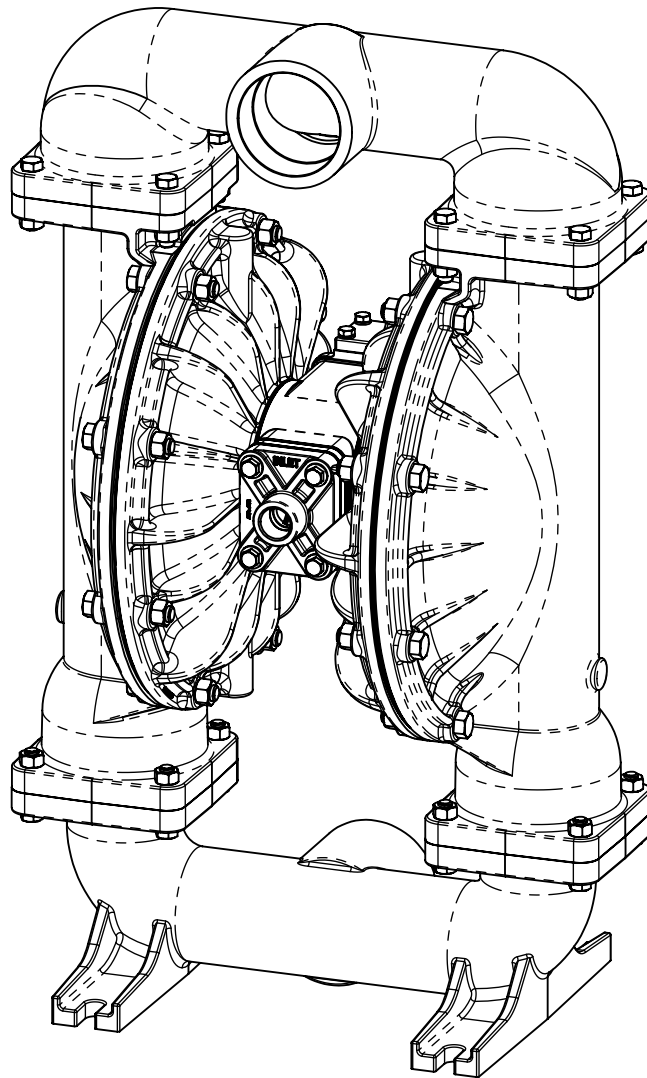


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Model S30

Metallic

Design Level 1

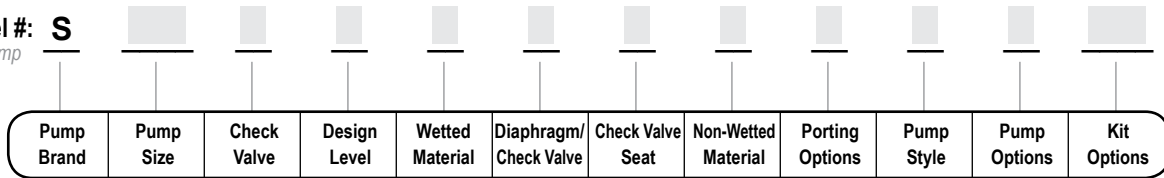


SANDPIPER[®]
A WARREN RUPP, INC. BRAND
SANDPIPERPUMP.COM

Explanation of Pump Nomenclature

Your Model #: **S**

(fill in from pump nameplate)



Model #: **S XX X X X X X X X X X X XX**

Pump Brand
S SANDPIPER®

Pump Size
30 3"

Check Valve Type
B Ball

Design Level
1 Design Level

Wetted Material
A Aluminum
I Cast Iron
S Stainless Steel
H Alloy C
X Unpainted Aluminum

Diaphragm/Check Valve Materials
1 Santoprene/Santoprene
2 PTFE-Santoprene/PTFE
B Nitrile/Nitrile
C FKM/PTFE
E EPDM/EPDM
I EPDM/Santoprene
G PTFE-Neoprene/PTFE
M Santoprene/PTFE
N Neoprene/Neoprene

Check Valve Seat
A Aluminum
B Nitrile
C Carbon Steel
E EPDM
N Neoprene
S Stainless Steel
T PTFE
V FKM
W UHMW Polyethylene

Non-Wetted Material Options
A Painted Aluminum
I Cast Iron
J Painted Aluminum w/PTFE Coated Hardware
S Stainless Steel with Stainless Steel Hardware
Y Painted Aluminum with Stainless Steel Hardware
Z Cast Iron with Stainless Steel Hardware

Porting Options
A 150# Raised Face 3" ANSI Flange (Integral Manifold)
D 80 DIN Flange (Integral Manifold)
N NPT Threads
B BSP (Tapered) Threads

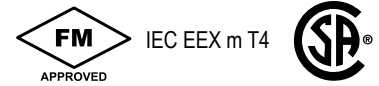
Pump Style
S Standard

Pump Options
0 None
6 Metal Muffler

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

Kit Options (continued)
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 ATEX Compliant Coil
A2. Solenoid Kit with 24 VDC ATEX Compliant Coil
A3. Solenoid Kit with 110/120 VAC 50/60 Hz ATEX Compliant Coil
A4. Solenoid Kit with 220/240 VAC 50/60 Hz ATEX Compliant Coil



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.

Your Serial #: (fill in from pump nameplate) _____

ATEX Detail

	ATEX Detail	Wetted Material Options	Non-Wetted Material Options	Pump Options	Kit Options
	II 1G c T5 II 1D c T100°C I M1 c I M2 c	H, I, S	I, S, Z	6	00
	II 2G c T5 II 2D c T100°C	A, H, I, S, X	A, I, S, Y, Z	6	00
	II 2G Ex ia c IIC T5 II 2D Ex c iaD 20 IP67 T100°C	A, H, I, S, X	A, I, S, Y, Z	6	P1
	II 2G EEx m c II T5 II 2D c IP65 T100°C	A, H, I, S, X	A, I, S, Y, Z	6	A1, A2, A3, A4

Performance

S30 METALLIC

SUCTION/DISCHARGE PORT SIZE

- 3" NPT or 3" BSP Tapered
- 3" ANSI Flange or 3" DIN Flange

CAPACITY

- 0 to 235 gallons per minute (0 to 889 liters per minute)

AIR DISTRIBUTION VALVE

- No-lube, no-stall design

SOLIDS-HANDLING

- Up to .38 in. (9.65mm)

HEADS UP TO

- 125 psi or 289 ft. of water (8.6 Kg/cm² or 86 meters)

DISPLACEMENT/STROKE

- .94 Gallon / 3.56 liter

MAXIMUM OPERATING PRESSURE

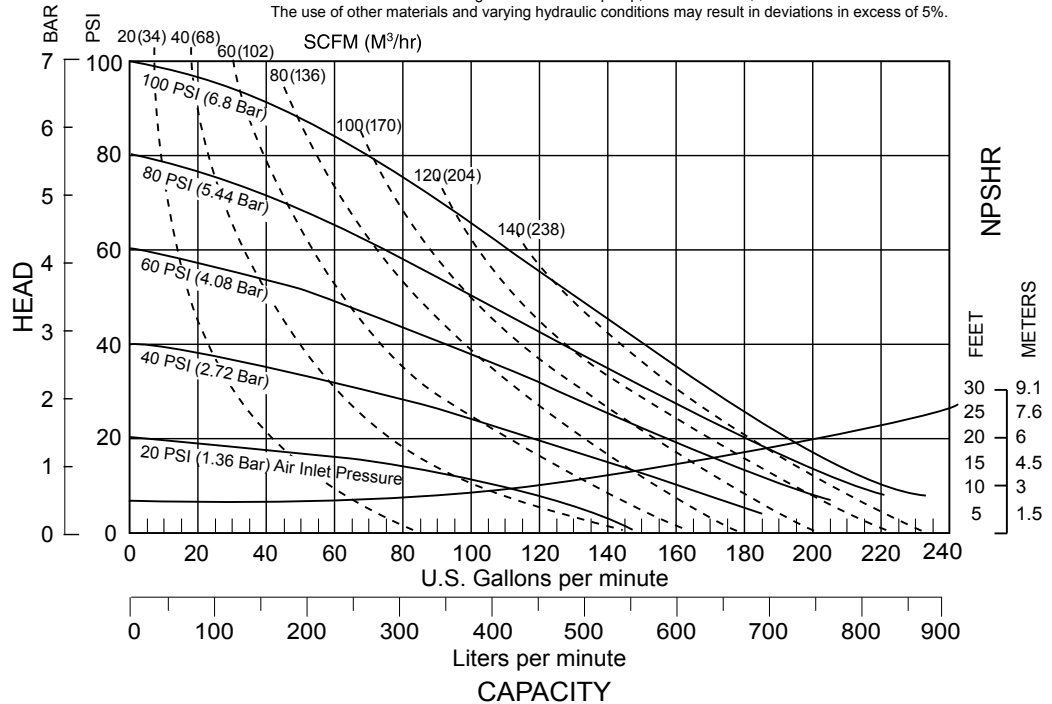
- 125 psi (8.6 bar)

SHIPPING WEIGHT

- Aluminum 116 lbs. (53kg)
- Cast Iron 215 lbs. (98kg)
- Stainless Steel 194 lbs. (87kg)

MODEL S30 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%.



Materials

Material Profile:	Operating Temperatures:	
	Max.	Min.
CAUTION! Operating temperature limitations are as follows:		
Conductive Acetal: Tough, impact resistant, ductile. Good abrasion resistance and low friction surface. Generally inert, with good chemical resistance except for strong acids and oxidizing agents.	190°F 88°C	-20°F -29°C
EPDM: Shows very good water and chemical resistance. Has poor resistance to oils and solvents, but is fair in ketones and alcohols.	280°F 138°C	-40°F -40°C
FKM: (Fluorocarbon) 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(21°C)) will attack FKM.	350°F 177°C	-40°F -40°C
Hytrel®: Good on acids, bases, amines and glycols at room temperatures only.	220°F 104°C	-20°F -29°C
Neoprene: All purpose. Resistance to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters and nitro hydrocarbons and chlorinated aromatic hydrocarbons.	200°F 93°C	-10°F -23°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 hydrocarbons.	190°F 88°C	-10°F -23°C
Nylon: 6/6 High strength and toughness over a wide temperature range. Moderate to good resistance to fuels, oils and chemicals.	180°F 82°C	32°F 0°C

Polypropylene: A thermoplastic polymer. Moderate tensile and flex strength. Resists strong acids and alkali. Attacked by chlorine, fuming nitric acid and other strong oxidizing agents.	180°F 82°C	32°F 0°C
PVDF: (Polyvinylidene Fluoride) A durable fluoroplastic with excellent chemical resistance. Excellent for UV applications. High tensile strength and impact resistance.	250°F 121°C	0°F -18°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
UHMW PE: A thermoplastic that is highly resistant to a broad range of chemicals. Exhibits outstanding abrasion and impact resistance, along with environmental stress-cracking resistance.	180°F 82°C	-35°F -37°C
Urethane: Shows good resistance to abrasives. Has poor resistance to most solvents and oils.	150°F 66°C	32°F 0°C
Virgin PTFE: (PFA/TFE) 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.	220°F 104°C	-35°F -37°C

Maximum and Minimum Temperatures are the limits for which these materials can be operated. Temperatures coupled with pressure affect the longevity of diaphragm pump components. Maximum life should not be expected at the extreme limits of the temperature ranges.

Metals:

Alloy C: Equal to ASTM494 CW-12M-1 specification for nickel and nickel alloy.

Stainless Steel: Equal to or exceeding ASTM specification A743 CF-8M for corrosion resistant iron chromium, iron chromium nickel and nickel based alloy castings for general applications. Commonly referred to as 316 Stainless Steel in the pump industry.

For specific applications, always consult the Chemical Resistance Chart.

Ambient temperature range: -20°C to +40°C

Process temperature range: -20°C to +80°C for models rated as category 1 equipment

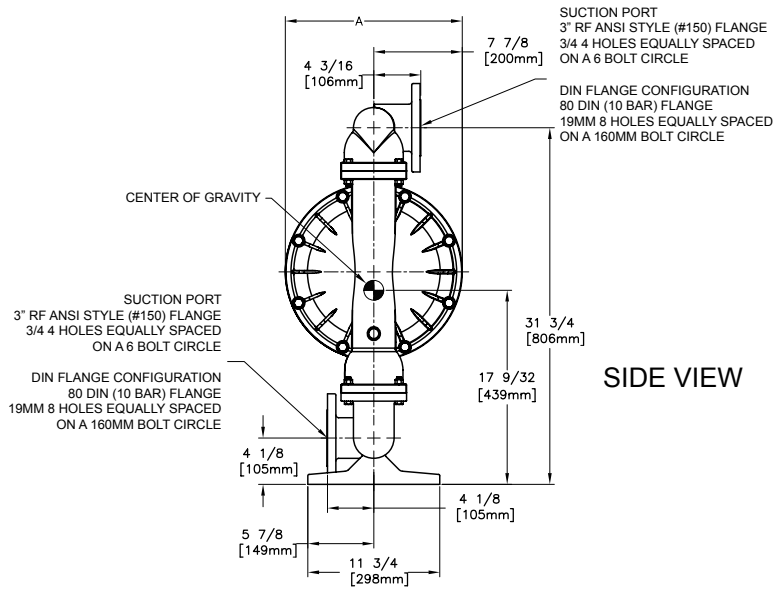
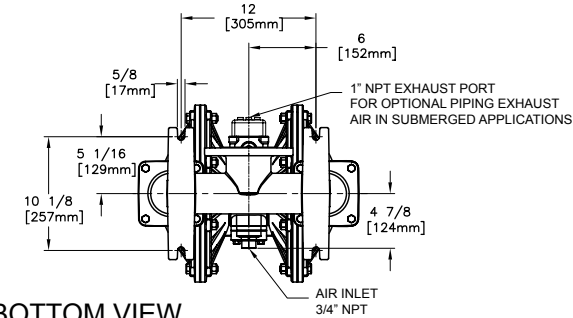
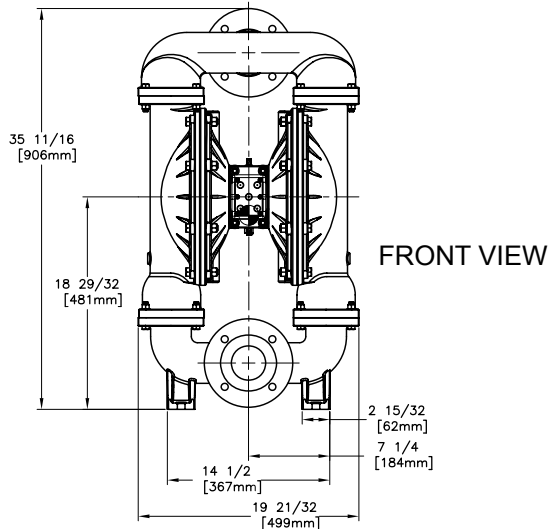
-20°C to +100°C for models rated as category 2 equipment

In addition, the ambient temperature range and the process temperature range do not exceed the operating temperature range of the applied non-metallic parts as listed in the manuals of the pumps.

Dimensional Drawings

S30 Metallic, Flanged Ports

Dimensional Tolerance: ±1/8" Dimensional Tolerance: ± 3mm



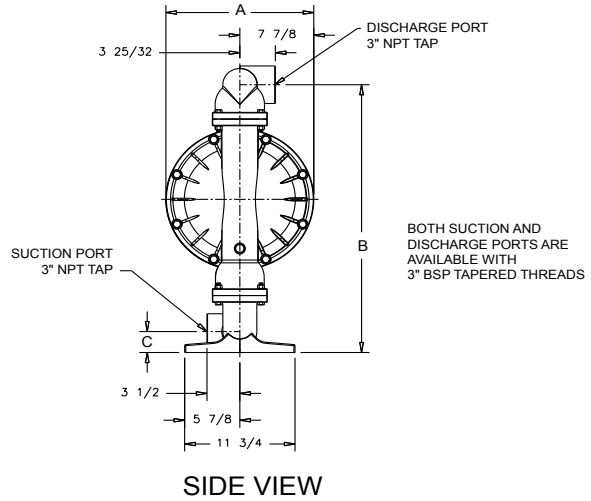
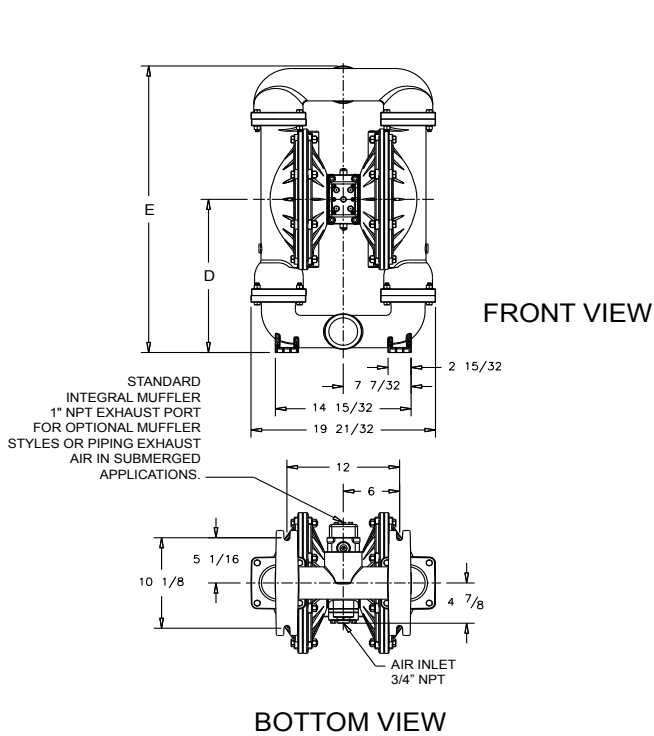
DIMENSION	A
STANDARD PUMP	15 3/4 / (400MM)
PULSE OUTPUT	16 1/32 / (407MM)
METAL MUFFLER	16 3/4 / (429MM)
MESH MUFFLER	17 3/16 / (441MM)
SOUND DAMPENING MUFFLER	17 3/16 / (441MM)

PUMP WEIGHT: 273 lbs

Dimensional Drawings

S30 Metallic, Threaded Ports

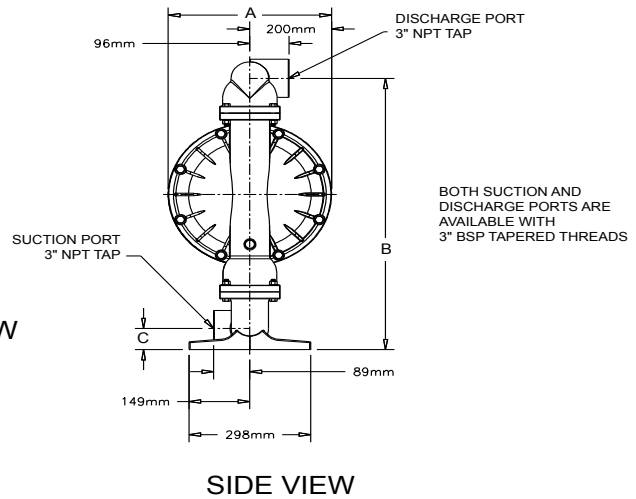
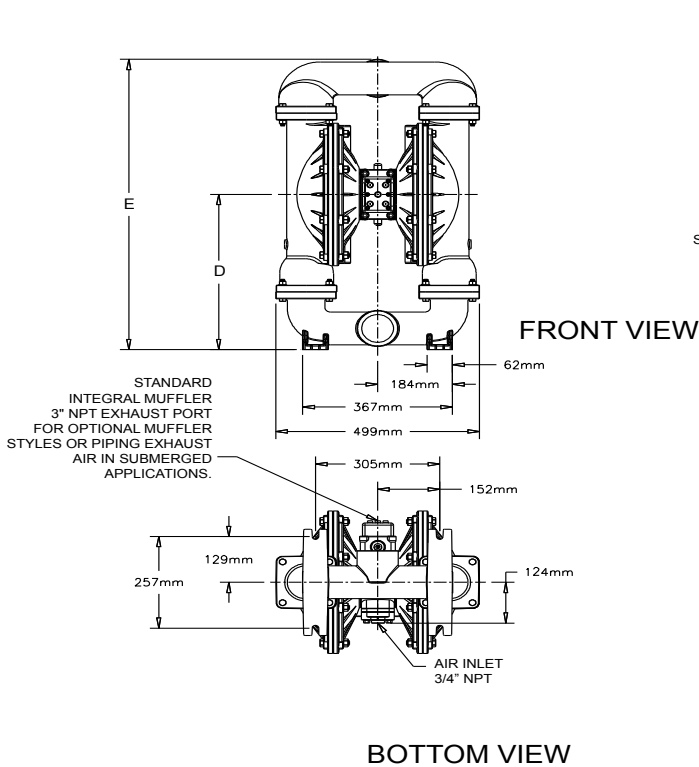
Dimensions in Inches. Dimensional Tolerance: ±1/8"



DIMENSION	A	B	C	D	E
Integral Muffler	15 3/4				
Pulse Output Kit	15 3/4				
Aluminum	29 31/32	2 11/32	17 9/64	32 1/16	
Stainless Steel		30 3/16	2 9/16	17 23/64	32 9/32
Mesh Muffler	17 3/16				
Sound Dampening Muffler	17 3/16				
Metal Muffler	16 3/4				

S30 Metallic, Threaded Ports

Dimensions in Millimeters. Dimensional Tolerance: ±3mm



DIMENSION	A	B	C	D	E
Integral Muffler	400				
Pulse Output Kit	400				
Aluminum		761	60	435	815
Stainless Steel		767	66	441	821
Mesh Muffler	437				
Sound Dampening Muffler	437				
Metal Muffler	425				

5 - YEAR Limited Product Warranty

Warren Rupp, Inc. ("Warren Rupp") warrants to the original end-use purchaser that no product sold by Warren Rupp that bears a Warren Rupp brand shall fail under normal use and service due to a defect in material or workmanship within five years from the date of shipment from Warren Rupp's factory. Warren Rupp brands include Warren Rupp®, SANDPIPER®, MARATHON®, PortaPump®, SludgeMaster™ and Tranquilizer®.

~ See sandpiperpump.com/content/warranty-certifications for complete warranty, including terms and conditions, limitations and exclusions. ~

**WARREN
RUPP, INC.**

Declaration of Conformity

Manufacturer: Warren Rupp, Inc., 800 N. Main Street
Mansfield, Ohio, 44902 USA

Certifies that Air-Operated Double Diaphragm Pump Series: HDB, HDF, M Non-Metallic, S Non-Metallic, M Metallic, S Metallic, T Series, G Series, U Series, EH and SH High Pressure, RS Series, W Series, SMA and SPA Submersibles, and Tranquilizer® Surge Suppressors comply with the European Community Directive 2006/42/EC on Machinery, according to Annex VIII. This product has used Harmonized Standard EN809:1998+A1:2009, Pumps and Pump Units for Liquids - Common Safety Requirements, to verify conformance.

David Roseberry
Signature of authorized person

David Roseberry
Printed name of authorized person

Revision Level: F

October 20, 2005
Date of issue

Engineering Manager
Title

August 23, 2012
Date of revision

IBEX

CE

WARREN RUPP, INC.

EC / EU Declaration of Conformity

The objective of the declaration described is in conformity with the relevant Union harmonisation legislation: Directive 94/9/EC (until April 19, 2016) and Directive 2014/34/EU (from April 20, 2016).

Manufacturer:

Warren Rupp, Inc.
A Unit of IDEX Corporation
800 North Main Street
P.O. Box 1568
Mansfield, OH 44902 USA

Applicable Standard:

EN13463-1: 2001
EN13463-5: 2003
EN60079-25: 2004

Harmonised Standard:

EN13463-1: 2009
EN13463-5: 2011
EN60079-25:2010

The harmonised standards have been compared to the applicable standards used for certification purposes and no changes in the state of the art technical knowledge apply to the listed equipment.

AODD Pumps and Surge Suppressors

Technical File No.: 203104000-1410/MER

AODD (Air-Operated Double Diaphragm) Pumps

EC Type Examination Certificate No. Pumps: KEMA 09ATEX0071 X

DEKRA Certification B.V. (0344)
Meander 1051
6825 MJ Arnhem
The Netherlands

Hazardous Locations Applied:

I M1 c	II 1 G c T5
II 2 G Ex ia c IIC T5	II 1 D c T100°C
II 2 D Ex c iaD 20 IP67 T100°C	II 2 G c T5
II 2 G Eex m c II T5	II 2 D c T100°C
II 2 D c IP65 T100°C	

SANDPIPER®
A WARREN RUPP, INC. BRAND

Tranquilizer®

DATE/APPROVAL/TITLE:
18 March 2016

David Roseberry
David Roseberry, Director of Engineering

IDEX