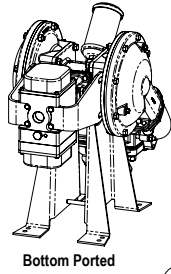


WARREN RUPP®

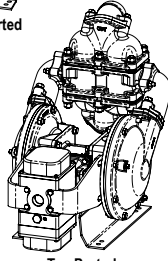
Quality System
ISO9001 Certified

Environmental
Management System
ISO14001 Certified

IDEX
FLUID & METERING



Bottom Ported



Top Ported

CE

Ex II 2GD T4

Ex d ib IIB T4 Gb
Ex tb IIIC 135°C Db IP66
-20°C to +40°C
Sira 10ATEX1151X
IECEX SIR 10.0110X

SA 2350863
c US

Class I Div 1 - Groups C,D T4
Class II Div 1 - Groups F,G
Class I Zone 1, Ex d ib IIB T4
Class I Zone 1, AEx d ib IIB T4
Enclosure Type 4X
12 Volt (2 - 8) mA

SANDPIPER®

A WARREN RUPP PUMP BRAND

RHDB2

**Hazardous Duty
Heavy Duty Ball Valve
AirVantage
Design Level 1**

**Air-Operated
Double Diaphragm Pump**

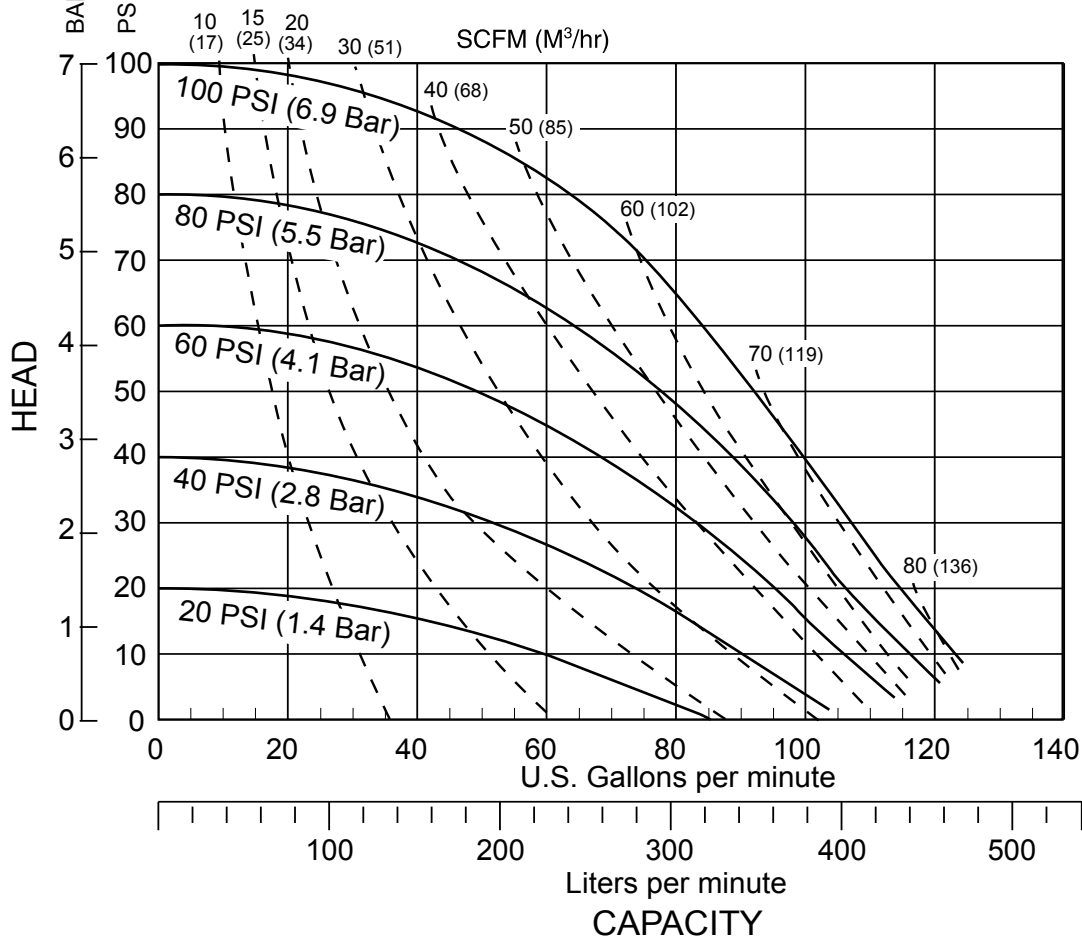
ENGINEERING, PERFORMANCE
& CONSTRUCTION DATA

US Patent # 6,241,487
US Patent # 7,521,921 Pending

INTAKE/DISCHARGE PIPE SIZE	CAPACITY	AIR VALVE	SOLIDS-HANDLING	HEADS UP TO	DISPLACEMENT/STROKE
2" (50mm) NPT (F)	0 to 130 gallons per minute (0 to 492 liters per minute)	No-lube, no-stall design	Up to 3/8 in. (9mm)	125 psi or 289 ft. of water (125 psi or 8.6 bar inlet) (8.6 bar or 88 meters)	.47 Gallon / 1.77 liter

Model RHDB2 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.

Warren Rupp, Inc. • A Unit of IDEX Corporation • 800 N. Main Street • Mansfield, OH 44901 USA

Tel: 419-524-8388 • Fax: 419-522-7867 • www.warrenrupp.com

Explanation of Pump Nomenclature: RHDB2 Hazardous Duty

Materials of Construction

Top Porting	Bottom Porting	Manifold	Outer Chamber	Inner Chamber	Outer Diaphragm Plate	Inner Diaphragm Plate	Intermediate Housing	Diaphragm Rod	Valve Seat	Hardware	Diaphragm	Ball Valve Material	Manifold Seat Gasket	Manifold Sealing Rings	Shipping Wt. (lbs.) Top P	Shipping Wt. (lbs.) Bottom P	AirVantage Options
TB-3-A	DB-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	B	B	CB	B	105	112	Y
TC-3-A	DC-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	V	T	CT	V	105	112	Y
TI-3-A	DI-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	I	I	CT	I	105	112	Y
TN-3-A	DN-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	N	N	CN	N	105	112	Y
TGI-3-A	DGI-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	I/T	T	CT	V	105	112	Y
TGN-3-A	DGN-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	N/T	T	CT	V	105	112	Y
TGR-3-A	DGR-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	H/T	T	CT	V	105	112	Y
TS-3-A	DS-3-A	AL	AL	AL	CI	PS	AL	SS	SS	PS	S	S	CT	I	105	112	Y
TB-3-I	DB-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	B	B	CB	B	151	161	Y
TC-3-I	DC-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	V	T	CT	V	151	161	Y
TI-3-I	DI-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	I	I	CT	I	151	161	Y
TN-3-I	DN-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	N	N	CN	N	151	161	Y
TGI-3-I	DGI-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	I/T	T	CT	V	151	161	Y
TGN-3-I	DGN-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	N/T	T	CT	V	151	161	Y
TGR-3-I	DGR-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	H/T	T	CT	V	151	161	Y
TS-3-I	DS-3-I	CI	CI	AL	CI	PS	AL	SS	SS	PS	S	S	CT	I	151	161	Y
TB-3-S	DB-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	B	B	CB	B	166	173	Y
TC-3-S	DC-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	V	T	CT	V	166	173	Y
TI-3-S	DI-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	I	I	CT	I	166	173	Y
TN-3-S	DN-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	N	N	CN	N	166	173	Y
TGI-3-S	DGI-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	N/T	T	CT	V	166	173	Y
TGN-3-S	DGN-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	H/T	T	CT	V	166	173	Y
TGR-3-S	DGR-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	H/T	T	CT	V	166	173	Y
TS-3-S	DS-3-S	‡SS	‡SS	AL	SS	PS	AL	SS	SS	PS	S	S	CT	I	166	173	Y

Meanings of Abbreviations:

A = Compressed Fibre
 AL = Aluminum
 B = Nitrile
 CB = Conductive Nitrile
 CI = Cast Iron

CN= Conductive Neoprene
 CT= Conductive PTFE
 DC= Die Cast
 H/T= Hytrel® Backup/PTFE Overlay

I = EPDM
 I/T = EPDM Backup/PTFE Overlay
 N = Neoprene
 N/T = Neoprene Backup/
 PTFE Overlay
 PS = Plated Steel

S = Santoprene®
 SS = Stainless Steel
 T = PTFE
 V = FKM

X = AirVantage
 ATEX Certified
 Y = US Hazardous Duty

‡ **CF-8M Stainless Steel** equal to or exceeding ASTM specification A743 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.

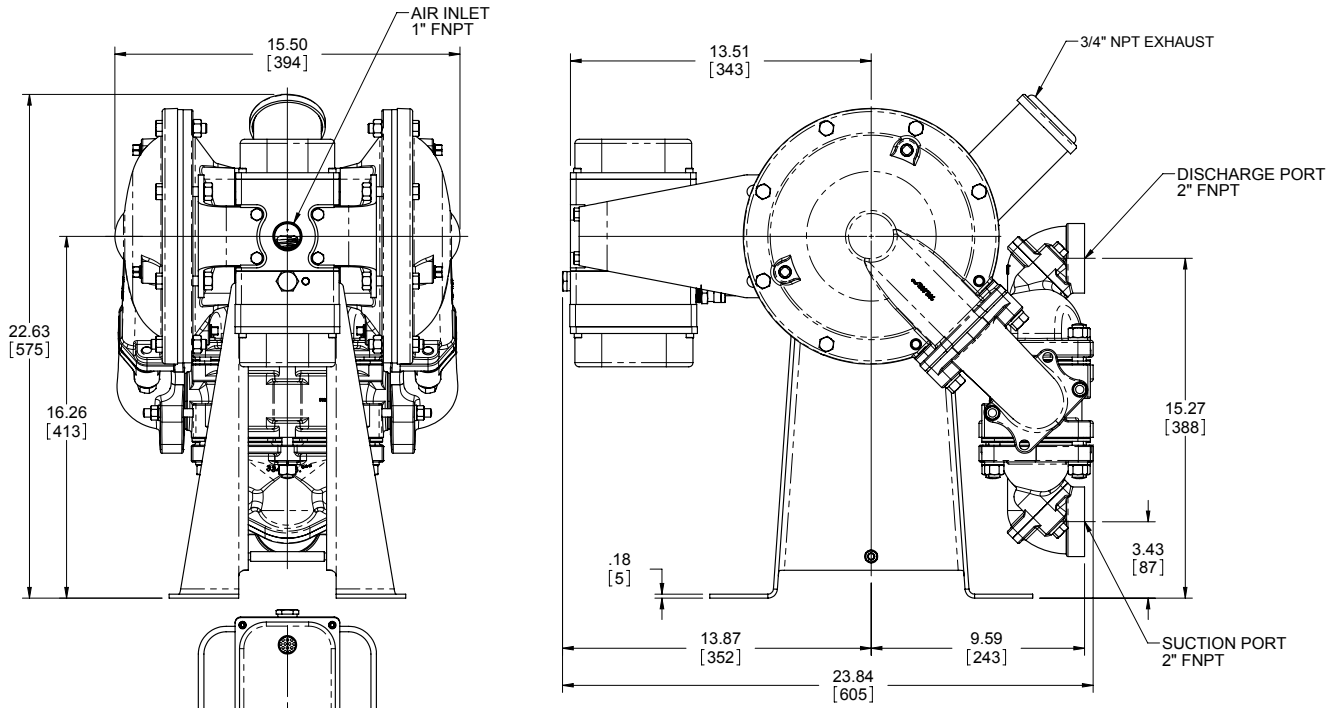
CAUTION! Operating temperature limitations are as follows:

Materials	Operating Temperatures		
	Maximum*	Minimum*	Optimum**
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	50°F to 140°F 10°C to 60°C
EPDM Shows very good water and chemical resistance. Has poor resistance to oil and solvents, but is fair in ketones and alcohols.	212°F 100°C	-10°F -23°C	50°F to 212°F 10°C to 100°C
NEOPRENE All purpose. Resistant to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters, nitro hydrocarbons and chlorinated aromatic hydrocarbons.	170°F 77°C	-35°F -37°C	50°F to 130°F 10°C to 54°C
HYTREL® Good on acids, bases, amines and glycols at room temperature.	190°F 88°C	-10°F -23°C	50°F to 140°F 10°C to 60°C
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.	212°F 100°C	-35°F -37°C	50°F to 212°F 10°C to 100°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) will attack FKM.	212°F 100°C	32°F 0°C	75°F to 212°F 24°C to 100°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	50° to 212°F 10°C to 100°C
STAINLESS STEEL CF-8M equal to or exceeding ASTM specification A743 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.			
ALLOY C CW-12MW equal to or exceeding ASTM A494 specification for nickel and nickel alloy castings.			
For specific applications, always consult "Chemical Resistance Chart" Technical Bulletin		* Definite reduction in service life. ** Minimal reduction in service life at ends of range.	

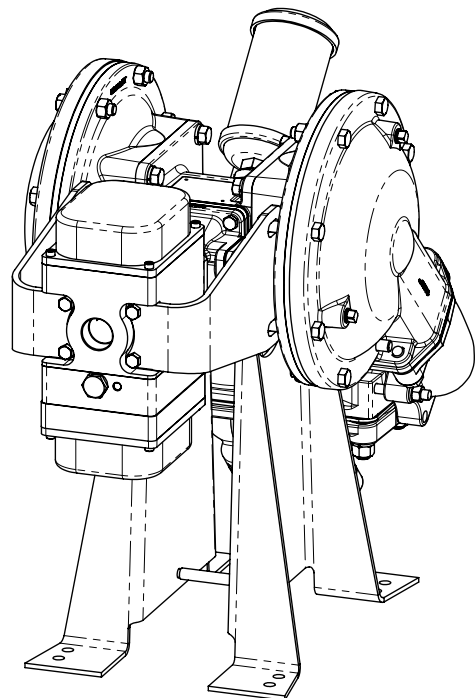
Santoprene is a registered tradename of Exxon Mobil Corp.
 Hytrel is a registered tradename of E.I. du Pont.

Dimensions: RHDB2 Hazardous Duty Bottom Ported

Dimensions are ± 1/8"
 Figures in parenthesis = millimeters

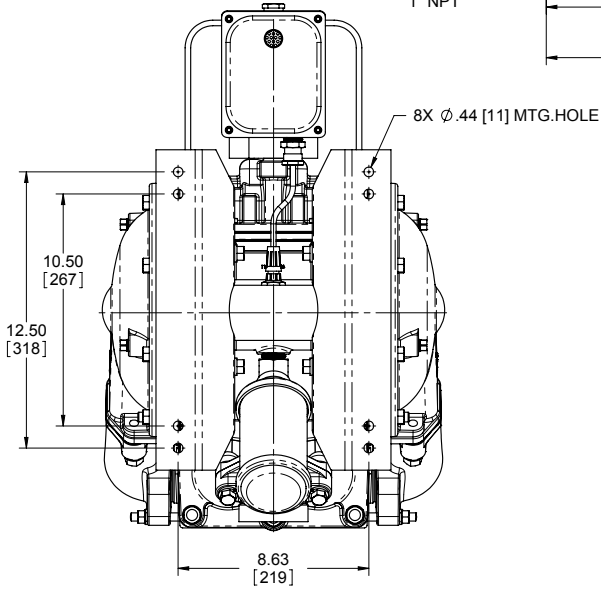
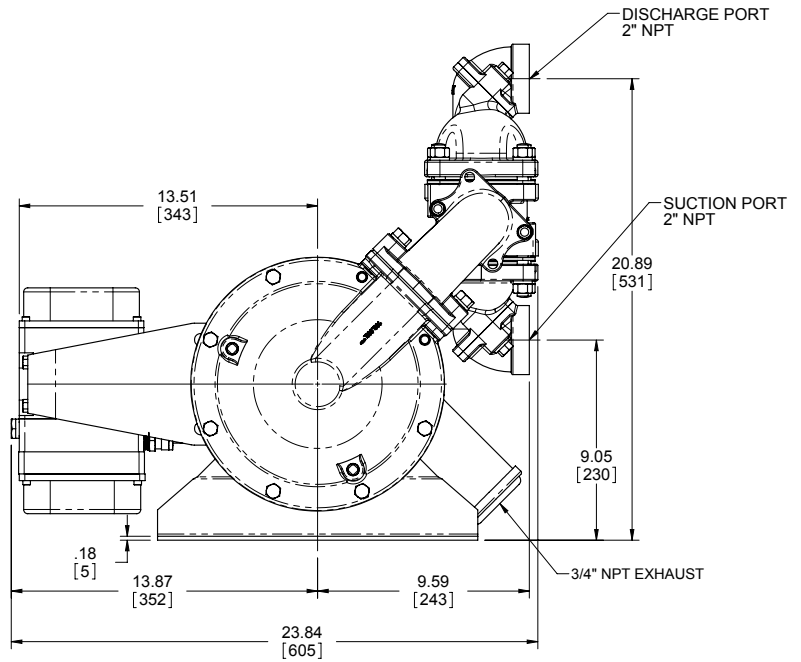
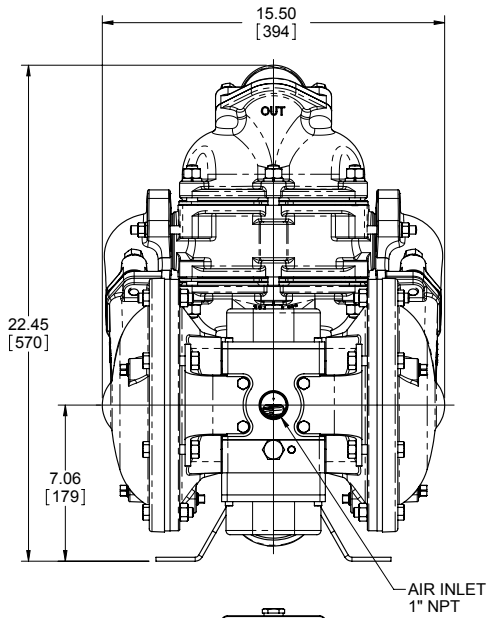


SUCTION AND DISCHARGE PORTS ARE AVAILABLE WITH 2" BSP CONNECTIONS
 SUCTION AND DISCHARGE PORTS CAN BE ROTATED 90° FOR VERTICAL PORTING



Dimensions: RHDB2 Hazardous Duty Top Ported

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



SUCTION AND DISCHARGE PORTS ARE AVAILABLE WITH 2" BSP CONNECTIONS
 SUCTION AND DISCHARGE PORTS CAN BE ROTATED 90° FOR VERTICAL PORTING

