

**WARREN RUPP®**

Quality System  
ISO9001 Certified

Environmental  
Management System  
ISO14001 Certified

**IMEX**  
IMEX CORPORATION



II 2GD bT5



**SANDPIPER®**

A WARREN RUPP PUMP BRAND

**Containment Duty  
ST1-A Type 4  
ST25-A Type 4**

**Air-Powered  
Double-Diaphragm  
Pump**

ENGINEERING, PERFORMANCE  
& CONSTRUCTION DATA

INTAKE/DISCHARGE PIPE SIZE	CAPACITY	AIR VALVE	SOLIDS-HANDLING	HEADS UP TO
ST1-A: 1" (25mm) NPT(F) ST25-A: 1" (25mm) BSP(F)	0 to 42 gallons per minute (0 to 159 liters per minute)	No-lube, no-stall design.	Occasional solids only, to nearly 1/4" (6.3 mm)	125 psi or 289 ft. of water (8.8 Kg/cm <sup>2</sup> or 88 meters)

**SANDPIPER® Containment Duty Pumps: Sealless Safety**

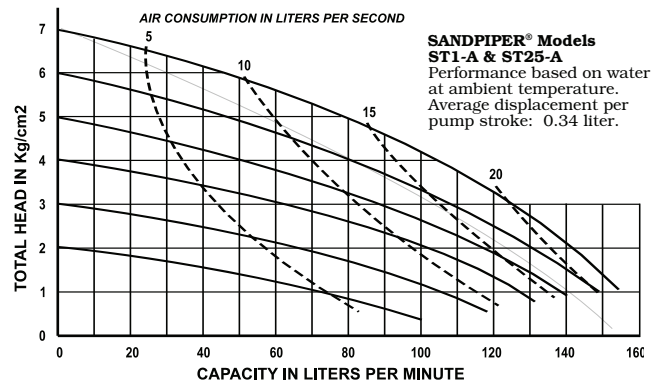
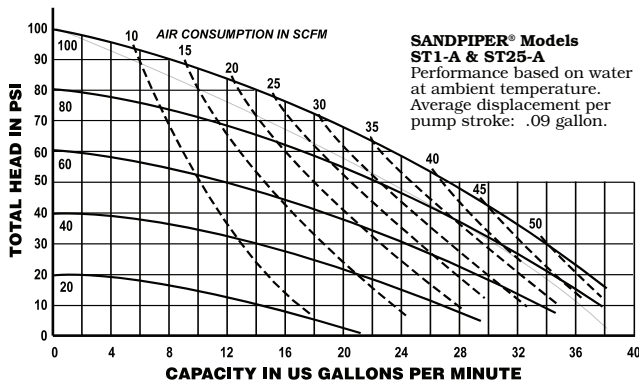
This pump is part of the Containment Duty Pumps. It is specially fitted with PTFE diaphragms as well as elastomeric or elastomeric/PTFE driver diaphragms. The liquid-filled spill chambers provide an additional chemically-resistant barrier, should a pumping diaphragm fail. The Spill Containment design gives the pump user advanced warning of diaphragm failure, before pumpage can damage the air valve or be released into the work environment. Three optional leak detectors available for this model:

- Mechanical VIP Leak Detector 031-026-000
- Electronic Leak Detector (115V) 032-043-000
- Electronic Leak Detector (220V) 032-043-000

The Containment Duty pumps offer many different levels of materials and spill monitoring devices designed to fit a variety of applications and budgets.

**PERFORMANCE CURVES**

(SANDPIPER® pumps are designed to be powered only by compressed air)  
Temperature Limit: 212°F - 100°C MAXIMUM



**MATERIALS OF CONSTRUCTION**

Type 4	Manifold Porting	Side	Manifold	Outer Chamber	Driver Chamber	Inner Chamber	Outer Diaphragm Plate	Inner Diaphragm Plate	Intermediate Housing	Diaphragm Rod	Valve Seat	Hard-ware	Diaphragm	Ball Valve Material	Seat/Manifold Gasket	Air Valve	Cap	Shipping Wt. (lbs)
DNG-4-A	X	AL356T6	AL356T6	AL356T6	AL380DC	316SS	PS	AL380DC	416SS	316SS	304SS	T/N	T	T	PP	AL380DC	46	
DVG-4-A	X	AL356T6	AL356T6	AL356T6	AL380DC	316SS	PS	AL380DC	416SS	316SS	304SS	T/V	T	T	PP	AL380DC	46	
DGNG-4-A	X	AL356T6	AL356T6	AL356T6	AL380DC	316SS	PS	AL380DC	416SS	316SS	304SS	T/T/N	T	T	PP	AL380DC	46	
DNG-4-SS	X	WR-S	WR-S	AL356T6	AL380DC	316SS	PS	AL380DC	416SS	316SS	304SS	T/N	T	T	PP	AL380DC	67	
DVG-4-SS	X	WR-S	WR-S	AL356T6	AL380DC	316SS	PS	AL380DC	416SS	316SS	304SS	T/V	T	T	PP	AL380DC	67	
DGNG-4-SS	X	WR-S	WR-S	AL356T6	AL380DC	316SS	PS	AL380DC	416SS	316SS	304SS	T/T/N	T	T	PP	AL380DC	67	

Kit available to convert to top porting

**Meanings of Abbreviations:**

AL = Aluminum  
DC = Die Cast  
PS = Plated Steel  
SS = Stainless Steel

PP = Polypropylene, Glass Filled  
WR-S = Warren Rupp Alloy Type 316SS  
304SS = 304 Stainless Steel except  
Manifold Bolts which are PS

T = PTFE  
T/N = PTFE Diaphragm/Neoprene Driver  
T/V = PTFE Diaphragm/Viton Driver  
T/T/N = PTFE Pumping Diaphragm/PTFE over Neoprene Driver

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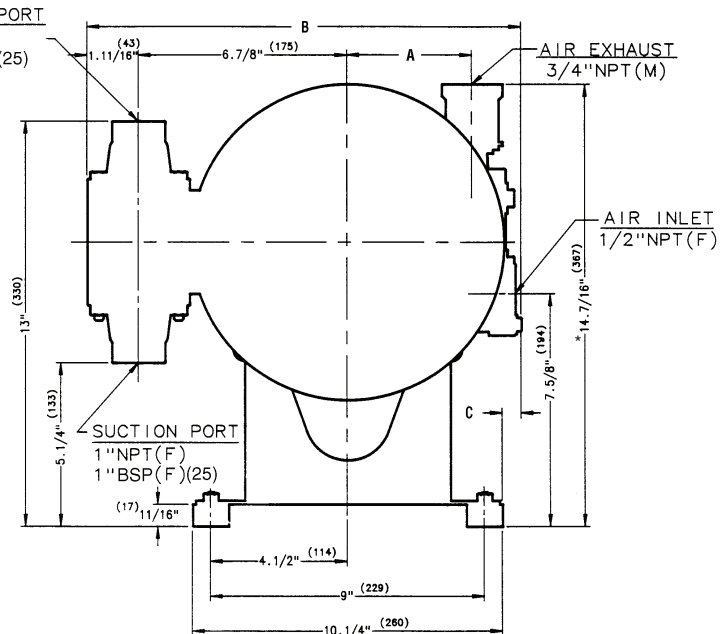
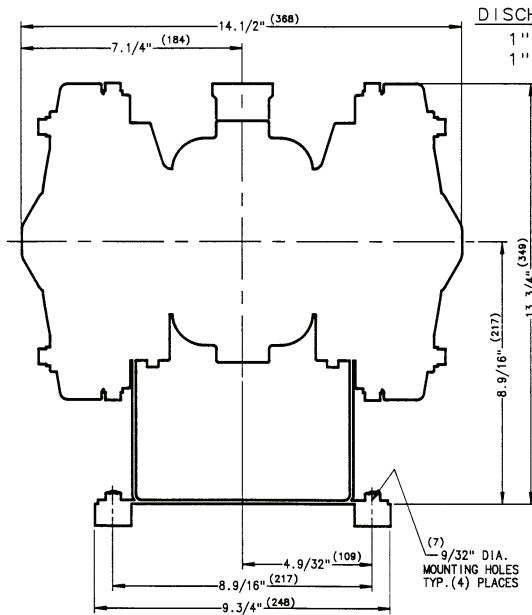
# ST1-A & ST25-A CONTAINMENT DUTY



MATERIALS	Operating Temperatures		
	Maximum*	Minimum*	Optimum**
<b>NEOPRENE</b> 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
<b>PTFE</b> 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
<b>VITON®</b> 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 Viton .	212°F+ 100°C+	+35°F 0°C	75°F to 212°F 24°C to 100°C
<b>WR-S</b> Warren Rupp Alloy Type 316 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 "Chemical Resistance Chart" Technical Bulletin.		*Definite reduction in service life. **Minimal reduction in service life at ends of range.	

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

Dimension	A	B	C
Standard Pump	4.3/32" (104)	14.9/32" (363)	5/8" (16)
Pulse Output Kit	4.17/32" (115)	14.23/32" (374)	1.1/16" (27)



Dimensional outlines available showing optional top and bottom porting.

Note: Unit furnished with sub-base plate. For stationary bolt-down use, sub-base plate can be removed.

**Model ST1-A features NPT threaded connections.**  
**Model ST25-A features British Standard Pipe (BSP) threaded connections.**

\* 16 7/16 With Metal Muffler

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