

Bottom Discharge

Top Discharge

SandPIPER®

FLAP-VALVE

SA1-A Type 4

SA25-A Type 4

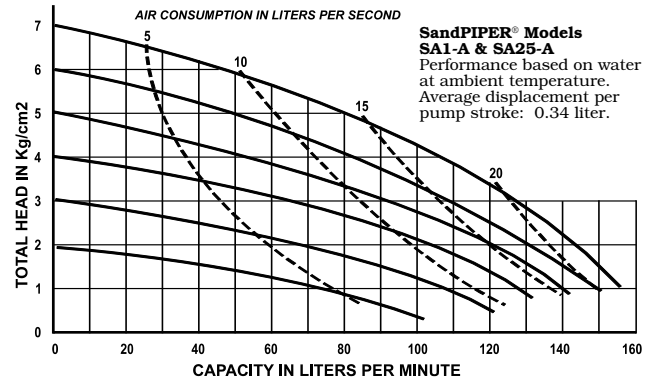
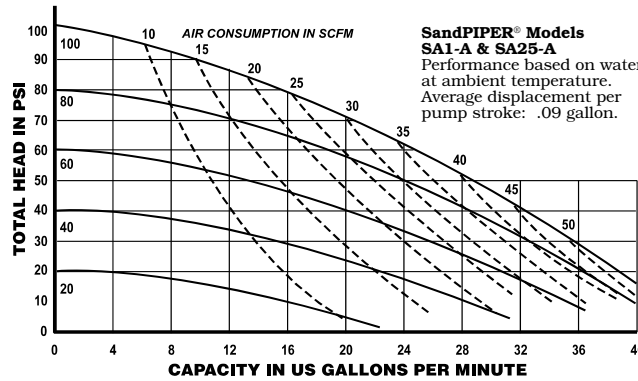
Air-Powered Double-Diaphragm Pump

ENGINEERING, PERFORMANCE
& CONSTRUCTION DATA

INTAKE/DISCHARGE PIPE SIZE	CAPACITY	AIR VALVE	SOLIDS-HANDLING	HEADS UP TO
SA1-A: 1" (25mm) NPT(F) SA25-A: 1" (25mm) BSP(F)	0 to 42 gallons per minute (0 to 159 liters per minute)	No lube, no-stall design.	Up to nearly 1" (25mm)	125 psi or 289 ft. of water (8.8 Kg/cm ² or 88 meters)

PERFORMANCE CURVES

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



MATERIALS OF CONSTRUCTION

Type	Manifold Porting			Manifold	Outer Chamber	Inner Chamber	Outer Diaphragm Plate	Inner Diaphragm Plate	Intermediate Housing	Diaphragm Rod	Valve Seat	Hard-ware	Diaphragm	Flap Valve Material	Seat/Manifold Gasket	Air Valve	Air Valve Cap	Shipping Wt. (lbs)
	Top	Side	Bottom															
DB-4-A			X	356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	B	B	B	PP	AL380DC	31
DI-4-A			X	356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	I	I	I	PP	AL380DC	31
DN-4-A			X	356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	N	N	N	PP	AL380DC	31
DV-4-A			X	356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	V	V	V	PP	AL380DC	31
TB-4-A	X			356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	B	B	B	PP	AL380DC	31
TI-4-A	X			356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	I	I	I	PP	AL380DC	31
TN-4-A	X			356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	N	N	N	PP	AL380DC	31
TV-4-A	X			356-T6AL	AL380DC	AL380DC	PS	PS	AL380DC	416SS	WR-S	PS	V	V	V	PP	AL380DC	31
DB-4-SS			X	WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	B	B	B	PP	AL380DC	48
DI-4-SS			X	WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	I	I	I	PP	AL380DC	48
DN-4-SS			X	WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	N	N	N	PP	AL380DC	48
DV-4-SS			X	WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	V	V	V	PP	AL380DC	48
TB-4-SS	X			WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	B	B	B	PP	AL380DC	48
TI-4-SS	X			WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	I	I	I	PP	AL380DC	48
TN-4-SS	X			WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	N	N	N	PP	AL380DC	48
TV-4-SS	X			WR-S	WR-S	AL380DC	WR-S	PS	AL380DC	416SS	WR-S	PS*	V	V	V	PP	AL380DC	48
DB-4-SI			X	WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	B	B	B	PP	PP	63
DI-4-SI			X	WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	I	I	I	PP	PP	63
DN-4-SI			X	WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	N	N	N	PP	PP	63
DV-4-SI			X	WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	V	V	V	PP	PP	63
TB-4-SI	X			WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	B	B	B	PP	PP	63
TI-4-SI	X			WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	I	I	I	PP	PP	63
TN-4-SI	X			WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	N	N	N	PP	PP	63
TV-4-SI	X			WR-S	WR-S	CI	WR-S	PS	CI	416SS	WR-S	PS*	V	V	V	PP	PP	63

Note: For dual-ported unit, add "E" to pump type prefix. (For example: EDB-4-A).

Meanings of Abbreviations:

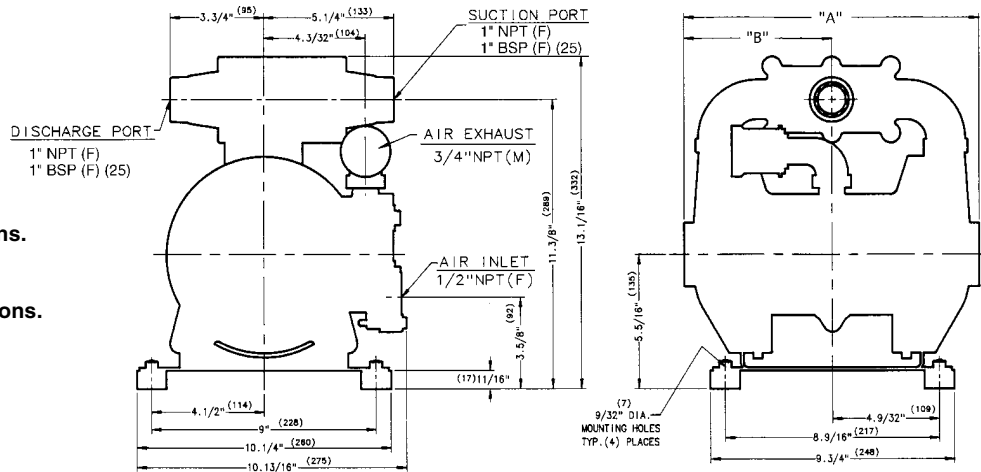
AL = Aluminum
B = Buna-N
CI = Cast Iron
DC = Die Cast
I = EPDM
N = Neoprene
PP = Polypropylene
PS = Plated Steel
PS* = Plated Steel, except wetted area which is 316SS
SS = Stainless Steel

T = PTFE
V = Viton®
WR-S = Warren Rupp Alloy Type 316SS

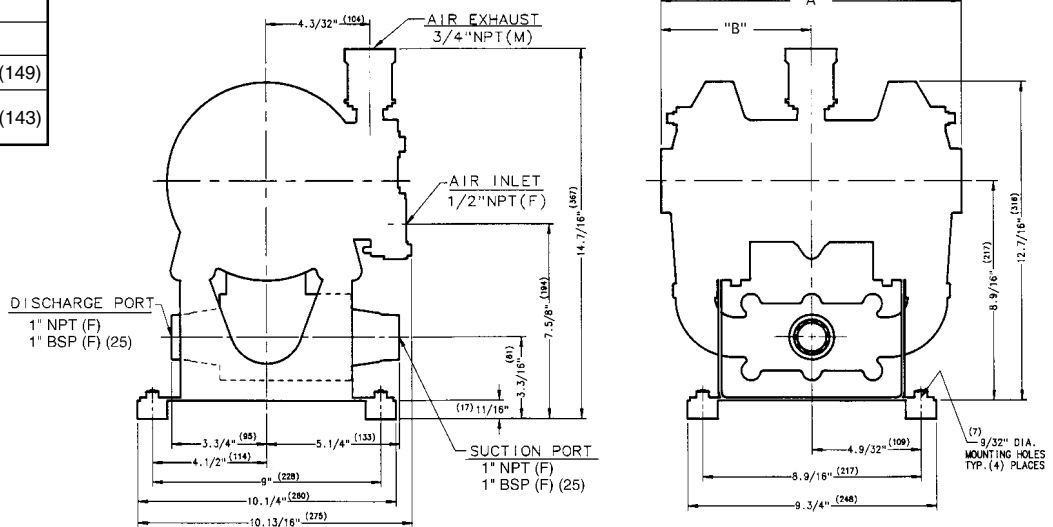
SA1-A & SA25-A FLAP-VALVE SandPIPER®

MATERIALS	Operating Temperatures		
	Maximum*	Minimum*	Optimum**
BUNA-N 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
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
VITON® 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+	+32°F 0°C	75°F to 212°F 24°C to 100°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
WR-S 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 The Warren Rupp Chemical Resistance Chart.		*Definite reduction in service life. **Minimal reduction in service life at ends of range.	

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



PUMP TYPES	DIMENSION	
	A	B
XX-XX-A	11 3/4" (298)	5 7/8" (149)
XX-XX-SS XX-XX-SI	11 1/4" (286)	5 5/8" (143)



Note:
Unit furnished with sub-base plate and rubber feet as standard. For stationary bolt down use, rubber feet can be removed.

SA1-A: 1" NPT(F) SUCTION AND DISCHARGE • 1/2" NPT (F) AIR INLET PORT • 3/4" NPT (F) AIR EXHAUST PORT (NOT SHOWN)
SA25-A: 1" BSP(F) SUCTION AND DISCHARGE • 1/2" NPT (F) AIR INLET PORT • 3/4" NPT (F) AIR EXHAUST PORT (NOT SHOWN)