

**WARREN
RUPP®**

Quality System
ISO9001 Certified

Environmental
Management System
ISO14001 Certified

IDEX
IDEX CORPORATION



SandPIPER®

FLAP VALVE

SA3-M Type 2

SA4-M Type 2

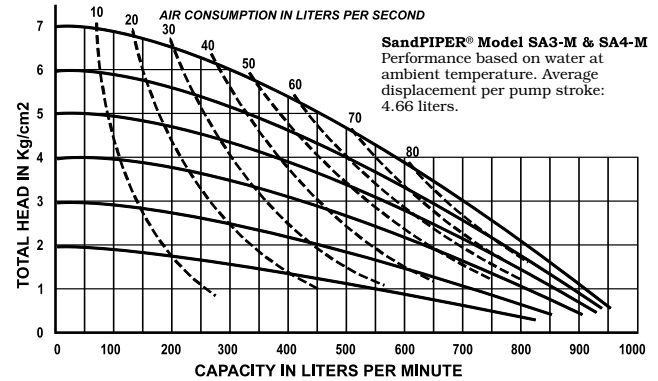
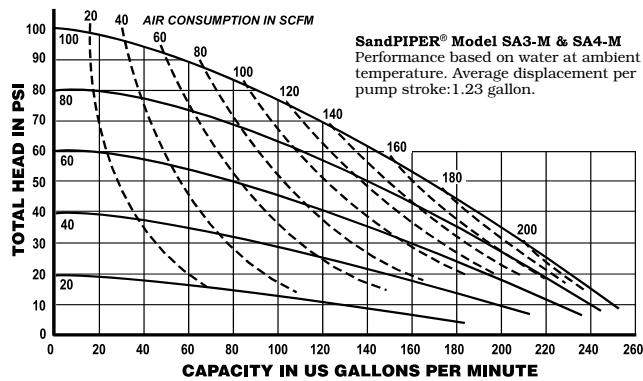
Air-Powered Double-Diaphragm Pump

ENGINEERING, PERFORMANCE
& CONSTRUCTION DATA

INTAKE/DISCHARGE PIPE SIZE	CAPACITY	AIR VALVE	SOLIDS-HANDLING	HEADS UP TO
SA3-M: 3" 125# ASA bolt on flange SA4-M: 4" 125# ASA bolt on flange	0 to 260 gallons per minute (0 to 988 liters per minute)	No-lube, no-stall design.	Up to nearly 3" (75mm)	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

SA3-M Type 2	Manifold Porting Bottom	Manifold Elbow	Outer Chamber	Inner Chamber	Outer Diaphragm Plate	Inner Diaphragm Plate	Intermediate Housing	Diaphragm Rod	Valve Seat	Hardware	Diaphragm	Flap Valve Material	Seat Gasket	Manifold Gasket Sealing Rings	Shipping Wt. (lbs)
DA-2-II	X	CI	CI	DI	CI	PS	CI	416SS	CI	PS	N	U	A	B	363
DN-2-II	X	CI	CI	DI	CI	PS	CI	416SS	CI	PS	N	N	A	B	363
DB-2-II	X	CI	CI	DI	CI	PS	CI	416SS	CI	PS	B	B	A	B	363
DK-2-II	X	CI	CI	DI	CI	PS	CI	416SS	CI	PS	N	H	A	B	363
SA4-M Type 2															
DN-2-II	X	CI	CI	DI	CI	PS	CI	416SS	CI	PS	N	N	A	B	390
DB-2-II	X	CI	CI	DI	CI	PS	CI	416SS	CI	PS	B	B	A	B	390
DA-2-II	X	CI	CI	DI	CI	PS	CI	416SS	CI	PS	N	U	A	B	390

Meanings of Abbreviations:

A = Compressed Fibre
B = Buna-N
CI = Cast Iron

DI = Ductile Iron
H = Hytrel®

N = Neoprene
PS = Plated Steel

SS = Stainless Steel
U = Ruppilon®

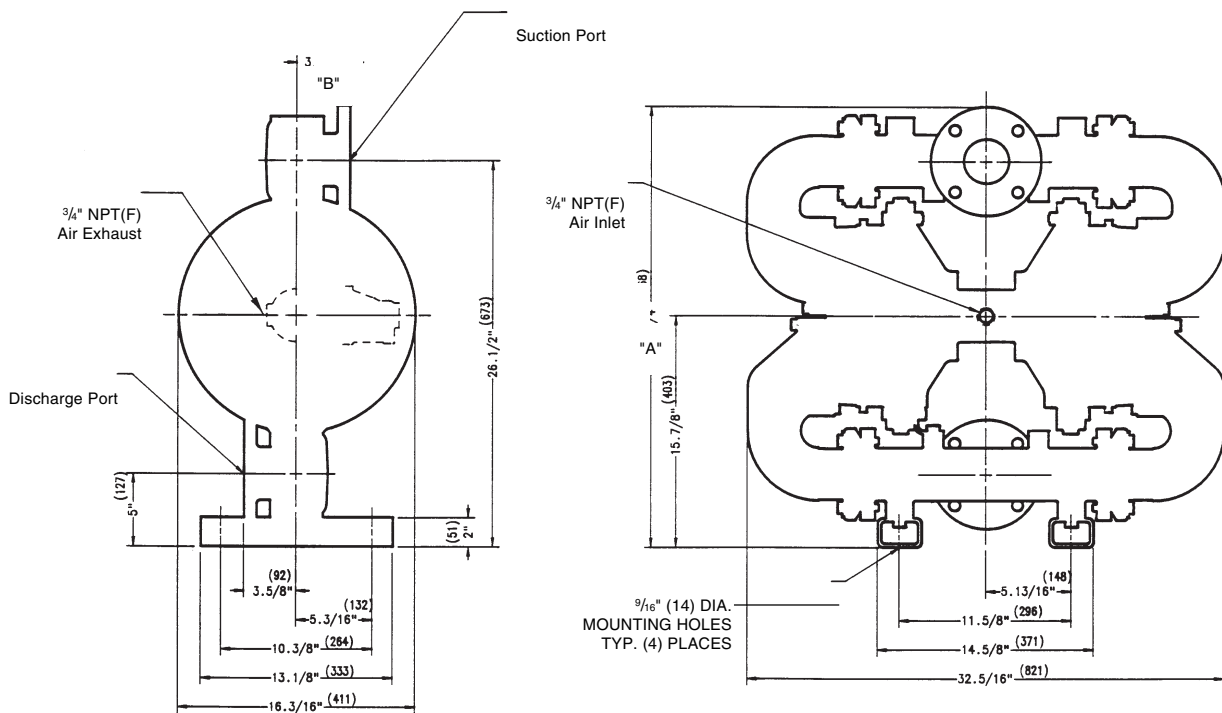
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SA3-M & SA4-M FLAP VALVE



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
HYTREL® Good on acids, bases, amines and glycols at room temperature only.	190°F 88°C	-10°F -23°C	50°F to 140°F 10° to 60°C
RUPPLON® (Urethane) Shows good resistance to abrasives. Has poor resistance to most solvents and oils.	150°F 88°C	+32° F 0C	50°F to 110°F 10° to 43°C
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



	SA3-M	SA4-M
Suction & Discharge Ports	3" Std. 125# flange. Four (4) 3/4" dia. thru holes equally spaced on a 6" diameter bolt circle	4" Std. 125# adaptor flange. Eight (8) 5/8"-11 unc tapped holes equally spaced on a 7 1/2" diameter bolt circle
Dimension "A"	30 1/4" (768)	31" (787)
Dimension "B"	3 3/8" (92)	6 5/8" (168)

SA3-M: 3" FLANGED SUCTION & DISCHARGE PORTS • 3/4" NPT(F) AIR INLET • 3/4" NPT(F) AIR EXHAUST PORT
SA4-M: 4" FLANGED SUCTION & DISCHARGE PORTS • 3/4" NPT(F) AIR INLET • 3/4" NPT(F) AIR EXHAUST PORT