

## FLAP VALVE MP10M DESIGN LEVEL 3

### Air-Powered Double-Diaphragm Pump

ENGINEERING, PERFORMANCE  
& CONSTRUCTION DATA



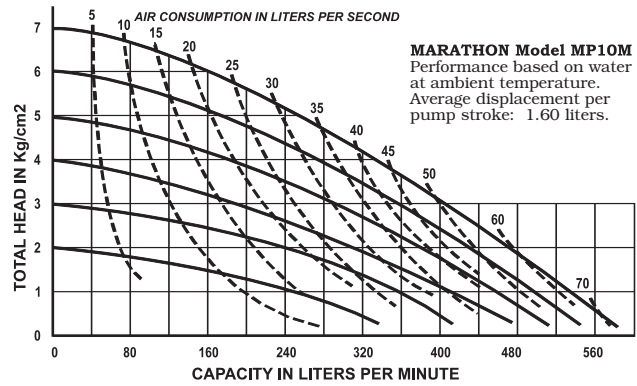
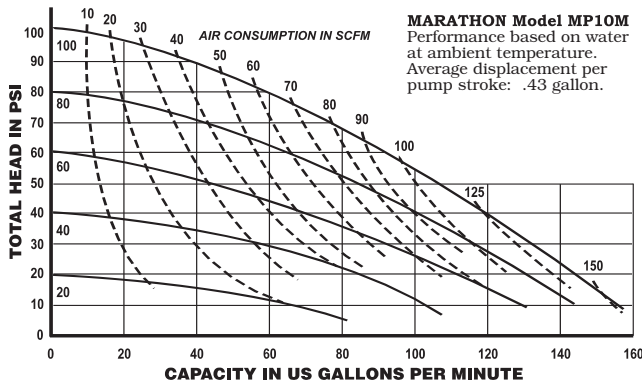
II 2GD b T5



<b>INTAKE/DISCHARGE PIPE SIZE</b> 2" (50mm) NPT (internal threads)	<b>CAPACITY</b> 0 to 140 gallons per minute (0 to 530 liters per minute)	<b>AIR VALVE</b> No-lube, no-stall design.	<b>SOLIDS-HANDLING</b> Up to 2"	<b>AVERAGE DISPLACEMENT PER PUMP STROKE</b> .43 gallons (1.60 liters)	<b>HEADS UP TO</b> 125 psi or 289 ft. of water (8.8Kg/cm <sup>2</sup> or 88 meters)
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### PERFORMANCE CURVES

(MARATHON pumps are designed to be powered **only** by compressed air)  
Performance base on water at ambient temperature.



Model MP10M	Type Code Breakdown (See Material Listing)										Shipping Weight (lbs.)
	Type Code	Valve Material	Diaphragm Material	Wetted End Material	Option Block	-	Air End Material	Design Level	Porting	Option Block	
BBI0-A3A0	B	B	I	0	-	A	3	A	0	133	
BBA0-A3A0	B	B	A	0	-	A	3	A	0	86	
HHA0-A3A0	H	H	A	0	-	A	3	A	0	86	
HHI0-A3A0	H	H	I	0	-	A	3	A	0	133	
HHS0-A3A0	H	H	S	0	-	A	3	A	0	133	
NNA0-A3A0	N	N	A	0	-	A	3	A	0	86	
NNI0-A3A0	N	N	I	0	-	A	3	A	0	133	
VVI0-A3A0	V	V	I	0	-	A	3	A	0	133	
VVS0-A3A0	V	V	S	0	-	A	3	A	0	133	
NNS0-A3A0	N	N	S	0	-	A	3	A	0	133	
EEA0-A3A0	E	E	A	0	-	A	3	A	0	86	
EEI0-A3A0	E	E	I	0	-	A	3	A	0	133	
EES0-A3A0	E	E	I	0	-	A	3	A	0	133	
SSS0-I3A0	S	S	S	0	-	I	3	A	0	168	
SSA0-A3A0	S	S	A	0	-	A	3	A	0	86	

<b>Wetted &amp; Air End Materials</b> A = Aluminum I = Cast Iron S = 316 Stainless Steel	<b>Diaphragm/Valve Materials</b> B = Buna-N® E = EPDM H = Hytre® N = Neoprene S = Santoprene® V = Viton®	<b>Porting</b> A = 2" (50mm) NPT(internal thread) Suction & Discharge  <b>Option Block</b> 0 = Standard Unit
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# MP10M FLAP VALVE

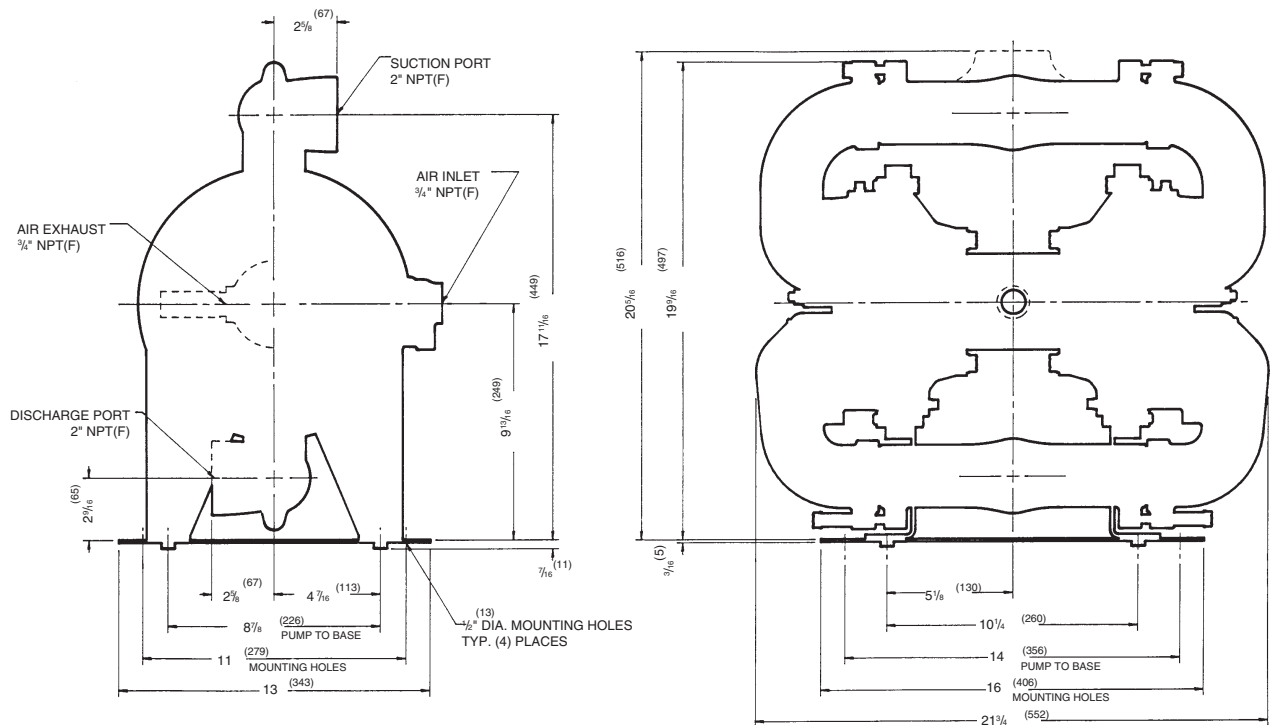
## DIAPHRAGM & CHECK VALVE CHARACTERISTICS

Material	Operating Temperatures		
	Maximum*	Minimum*	Optimum**
<b>BUNA-N®</b> 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
<b>EPDM</b> 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
<b>HYTREL®</b> Good on acids, bases, amines and glycols at room temperature only.	190°F 88°C	-10°F -23°C	50°F to 130°F 10°C to 60°C
<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>SANTOPRENE®</b> Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.	212°F+ 100°C+	-10°F -23°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+	+32°F 0°C	75°F to 212°F 24°C to 100°C

For specific applications, always consult the "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



**2" NPT(F) SUCTION AND DISCHARGE • 3/4" NPT(F) AIR INLET PORT • 3/4" NPT(F) AIR EXHAUST PORT (NOT SHOWN)**