

**WARREN
RUPP®**

Quality System
ISO9001 Certified

Environmental
Management System
ISO14001 Certified

IDEX
IDEX CORPORATION

U.S. Patent #5,996,627 & 6,241,487
Other U.S. Patents Applied for



MARATHON II®

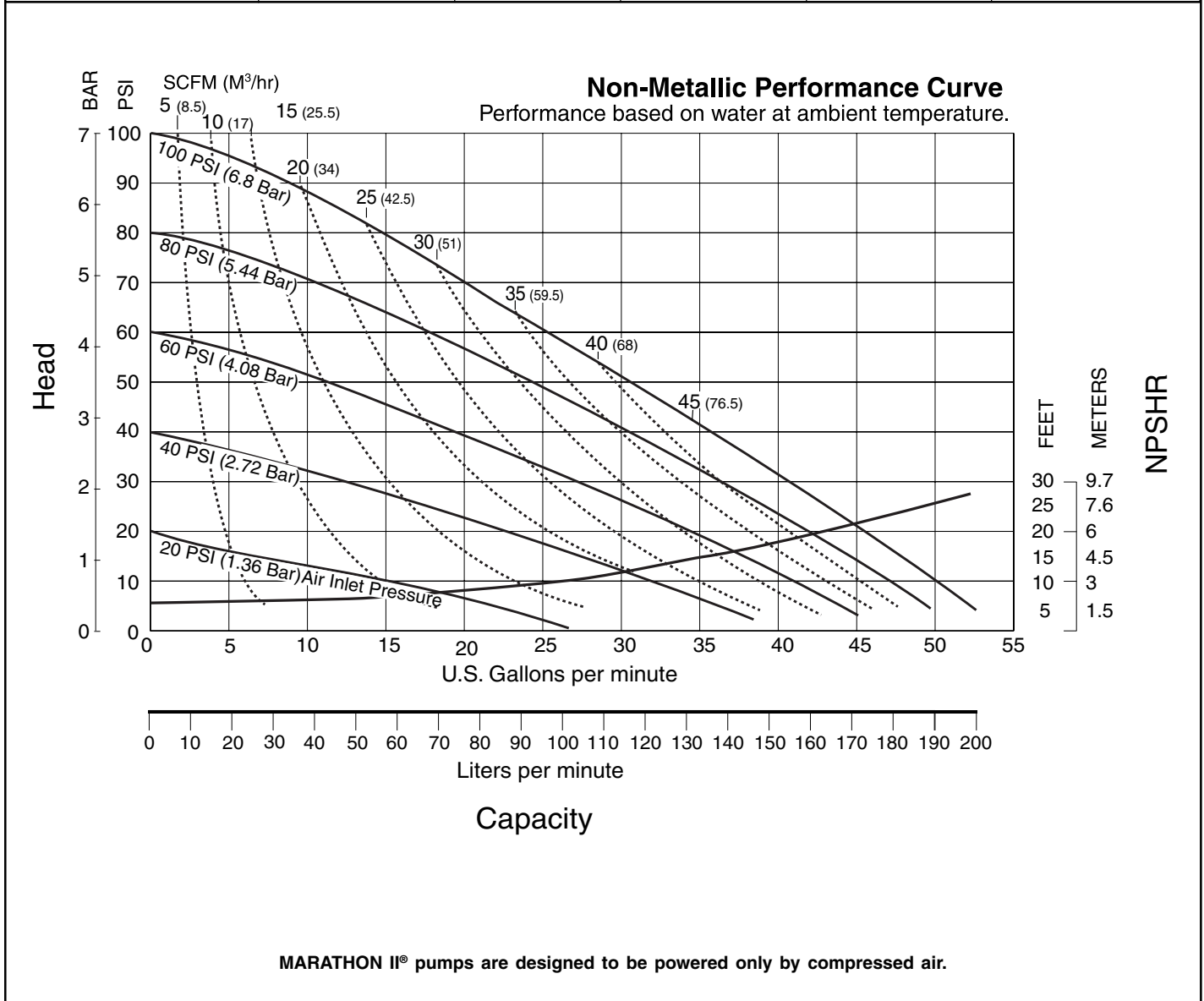
MIF Non-Metallic Design Level 3 Ball Valve

**Air-Powered
Double-Diaphragm Pump**

ENGINEERING, PERFORMANCE
& CONSTRUCTION DATA



INTAKE/DISCHARGE PIPE SIZE	CAPACITY	AIR VALVE	SOLIDS-HANDLING	HEADS UP TO	DISPLACEMENT/STROKE
1" ANSI Flange or PN10 25mm DIN Flange	0 to 45 gallons per minute (0 to 170 liters per minute)	No-lube, no-stall design	Up to .25 in. (6mm)	100 psi or 231 ft. of water (7 bar or 70 meters)	.17 Gallon / .64 liter



Explanation of Pump Nomenclature

M1F Non-Metallic · Design Level 3· Ball Valve

MODEL	Pump Brand	Pump Size	Check Valve Type	Design Level	Wetted Material	Diaphragm/Check Valve Materials	Check Valve Seat	Non-Wetted Material Options	Porting Options	Pump Style	Pump Options	Shipping Kit Options	Weight lbs. (kg)
M1FB3P1PPUS000.	M	1F	B	3	P	1	P	P	U	S	0	00.	42 (19)
M1FB3P2PPUS000.	M	1F	B	3	P	2	P	P	U	S	0	00.	42 (19)
M1FB3K1KPUS000.	M	1F	B	3	K	1	K	P	U	S	0	00.	54 (24)
M1FB3K2KPUS000.	M	1F	B	3	K	2	K	P	U	S	0	00.	54 (24)
M1FB3P3PPUV000.	M	1F	B	3	P	3	P	P	U	V	0	00.	48 (22)
M1FB3K3KPUV000.	M	1F	B	3	K	3	K	P	U	V	0	00.	64 (29)
M1FB3P4PPUV000.	M	1F	B	3	P	4	P	P	U	V	0	00.	48 (22)
M1FB3K4KPUV000.	M	1F	B	3	K	4	K	P	U	V	0	00.	64 (29)

Pump Brand
M= MARATHON II®

Pump Size
1F= 1" Full Flow

Check Valve Type
B= Ball

Design Level
3= Design Level 3

Wetted Material
K= PVDF
P= Polypropylene

Diaphragm Check Valve Materials
1= Santoprene/Santoprene
2= PTFE Santoprene Backup/PTFE
3= PTFE Pumping, PTFE Santoprene Backup Driver/PTFE
4= Santoprene Pumping/Santoprene

Check Valve Seat
K= PVDF
P= Polypropylene

Non-Wetted Material Options
P= Polypropylene
X= Unpainted Aluminum
1= 40% Glass Filled Polypropylene with PTFE hardware

Porting Options
U= Universal (Fits ANSI and DIN)
7= Dual Porting (ANSI)
8= Top Dual Porting (ANSI)
9= Bottom Dual Porting (ANSI)

Pump Style
D= RuppGUARD™ with Electronic Leak Detection (110V)
E= RuppGUARD™ with Electronic Leak Detection (220V)
M= RuppGUARD™ with Mechanical Leak Detection
S= Standard
V= RuppGUARD™ with Visual Leak Detection

Pump Options
0= None
1= Sound Dampening Muffler
2= Mesh Muffler
3= High temperature Air Valve w/Encapsulated Muffler
4= High temperature Air Valve w/Sound Dampening Muffler
5= High temperature Air Valve w/Mesh Muffler

Kit Options
00.= None
P0.= 0-30VDC Pulse Output Kit
P1.= Intrinsically-Safe 10-30VDC Pulse Output Kit
P2.= 110/120 or 220/240VAC Pulse Output Kit
P3.= Intrinsically-Safe 110/120VAC Pulse Output Kit
P4.= Intrinsically-Safe 220/240VAC Pulse Output Kit
E0.= Solenoid Kit with 24VDC Coil
E1.= Solenoid Kit with 24VDC Explosion-Proof Coil
E2.= Solenoid Kit with 24VAC/12VDC Coil
E3.= Solenoid Kit with 24VAC/12VDC Explosion-Proof Coil
E4.= Solenoid Kit with 110VAC Coil
E5.= Solenoid Kit with 110VAC Explosion-Proof Coil
E6.= Solenoid Kit with 220VAC Coil
E7.= Solenoid Kit with 220VAC Explosion-Proof Coil
SP.= Stroke Indicator Pins

 **CAUTION! Operating temperature limitations are as follows:**

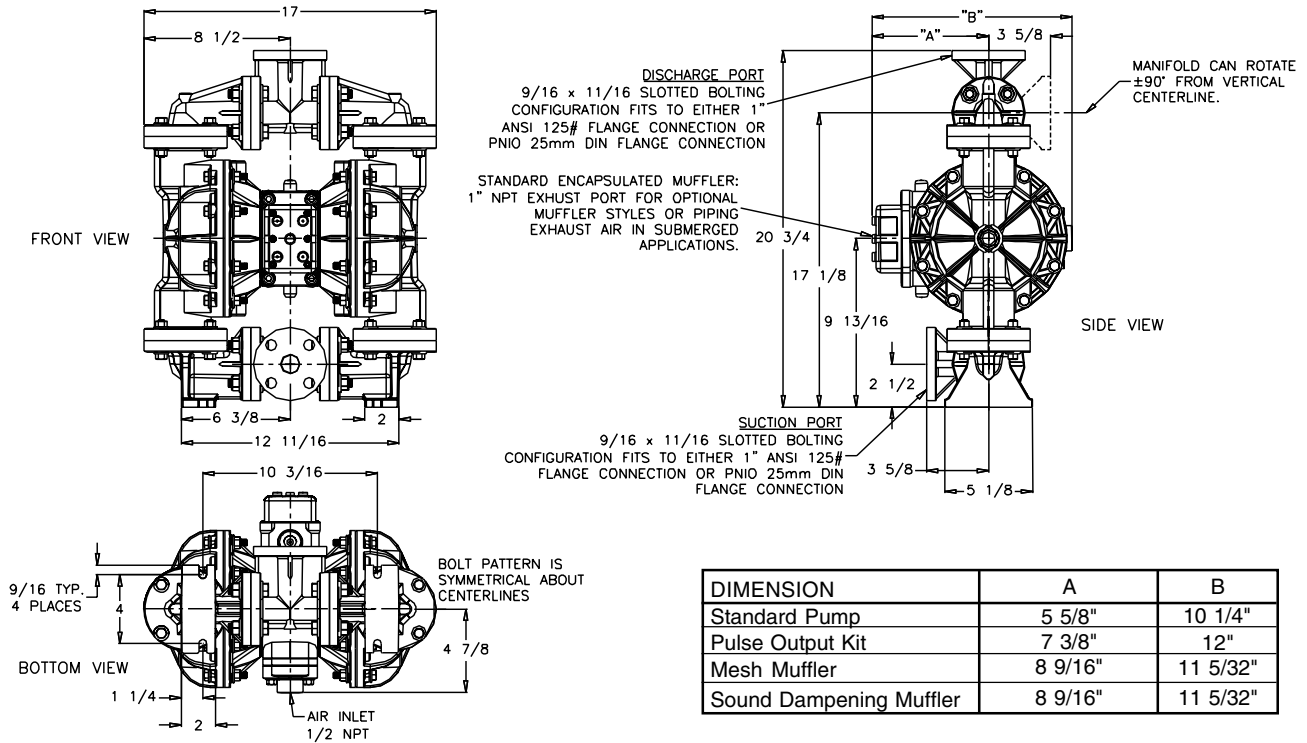
Materials	Operating Temperatures		
	Maximum*	Minimum*	Optimum**
Virgin PTFE Chemically inert, virtually impervious. Very few chemicals are known to react chemically with PTFE: molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen 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
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°F to 212°F 10°C to 100°C
PVDF	200°F -93°C	-10°F -13°C	
Polypropylene	150°F 65°C	-40°F 5°C	

For specific applications, always consult "Chemical Resistance Chart" Technical Bulletin

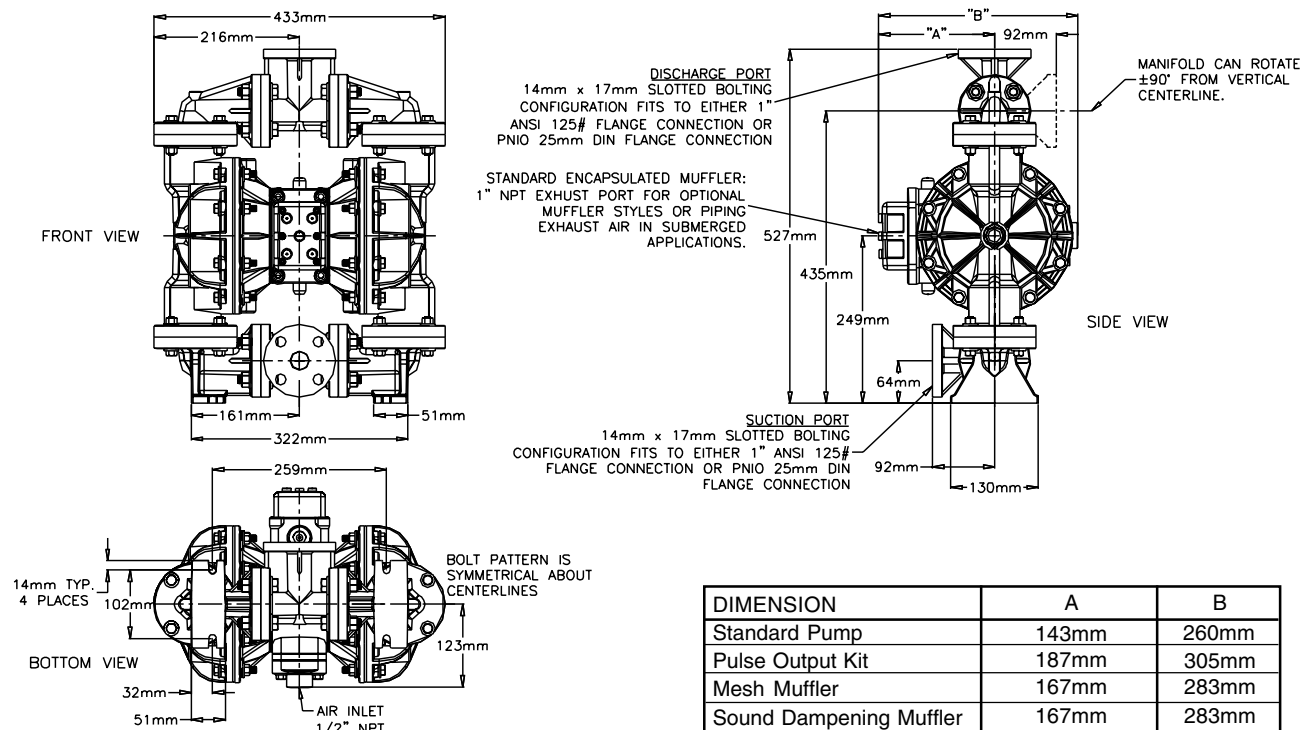
*Definite reduction in service life.
**Minimal reduction in service life at ends of range.

Dimensions: M1F Non-Metallic

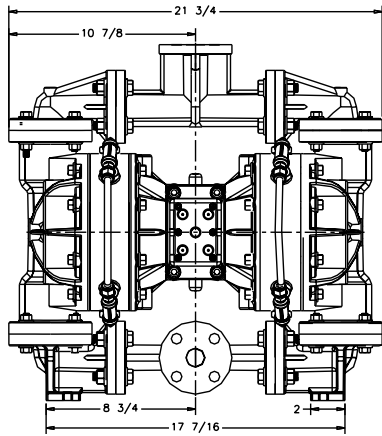
Dimensions in Inches
Dimensional Tolerance: $\pm 1/8"$



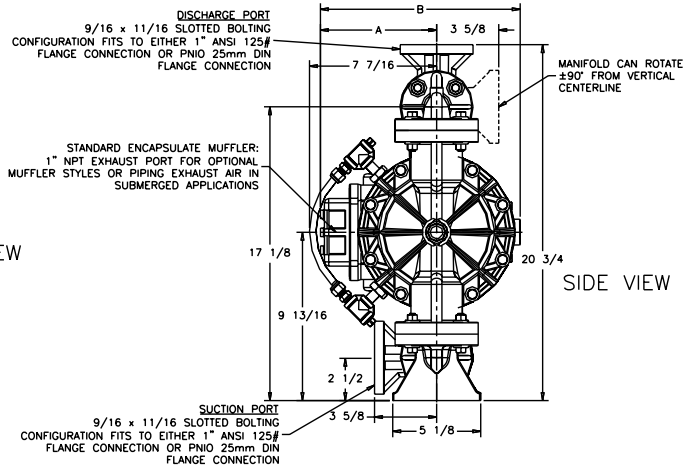
Dimensions in Millimeters
Dimensional Tolerance: $\pm 3\text{mm}$



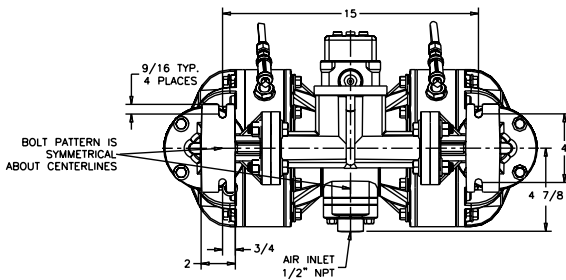
Dimensions: M1F Non-Metallic with RuppGUARD™ Spill Prevention



FRONT VIEW

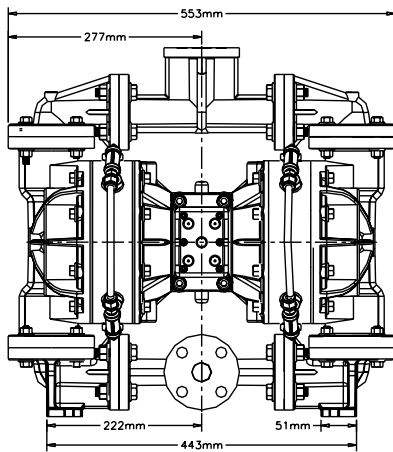


SIDE VIEW

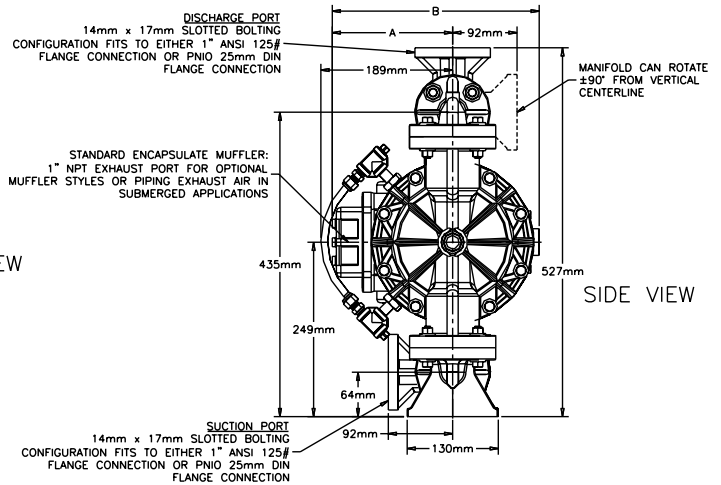


BOTTOM VIEW

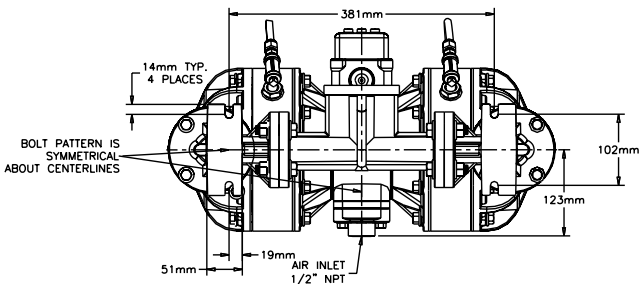
DIMENSION	A	B
Standard	5 5/8"	10 1/4"
Pulse Output Kit	7 3/8"	12"
Mesh Muffler	8 9/16"	11 5/32"
Sound Dampening Muffler	8 9/16"	11 5/32"



FRONT VIEW



SIDE VIEW



BOTTOM VIEW

DIMENSION	A	B
Standard	143mm	260mm
Pulse Output Kit	187mm	305mm
Mesh Muffler	167mm	283mm
Sound Dampening Muffler	167mm	283mm