

# PROMAX® PLUS

## PROMAX® PLUS DIAPHRAGM PUMP TANKS

- 125 PSI Working Pressure
- 304 Stainless Steel Connection
- Larger tank sizes in the 36, 52, 65 and 86 gallon models, provide more drawdown and improves pump performance.
- Butyl Rubber Parabolic Diaphragm - Prevents rubbing on tank wall or rolling over on itself.
- Direct connect diaphragm seal prevents any leakage between water and air chambers.
- Exclusive no-weld **Rust-Guard** base design assures proper paint coverage in the base area.
- Ultra-UV exterior powder finish offers the ultimate protection against the elements.
- 5-year warranty



DESIGNED • ENGINEERED  
& ASSEMBLED IN THE  
**USA**

**ACSmith**  
Water Systems

# PROMAX® PLUS

## DIAPHRAGM PUMP TANKS

Pre-pressurized • Lightweight drawn-steel construction • Steel base • 125 psi maximum working pressure

### FEATURES AND BENEFITS

#### Air Charge Valve

- Metal air valve with "O" ring cap seal for added protection
- Projection Welded

#### Powder Coated Exterior

- Provides positive protection against corrosion
- An attractive addition to any home
- High UV resistance
- Certified to ASTM Automotive Salt Test Standards

#### Butyl Rubber Parabolic Diaphragm

- Strong and flexible with smooth operation for long life
- Eliminates rubbing the tank wall or rolling over on itself

#### Double Draw Uniweld Design

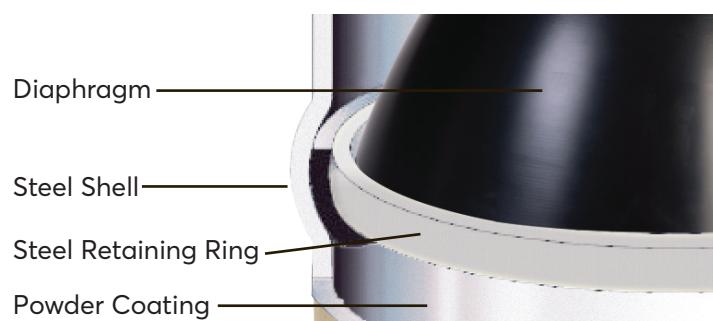
- Allows two piece construction

#### Interior Powder Coating

- Powder coating permanently bonded to the shell
- Proven protection against internal corrosion
- Eliminates clinch rings and plastic liners

#### Exclusive No-Weld Rust-Guard® Steel Base

- Eliminates weld in the base area
- Reduces corrosion in the base or lower tank



#### Universal Pump Mounting Bracket

Standard on horizontal models.  
Optional on other models



Certified to  
NSF/ANSI/CAN 61-G

#### Positive Diaphragm Seal

Seals diaphragm directly to shell, ensuring permanent separation of water and air. No liners needed.

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### SIZING

The charts below allow you to easily select the right ProMax® PLUS PMXP Series tank for standard-size pumps between 2-1/2 and 30 gallons in capacity and for 20-40 psi, 30-50 psi and 40-60 psi pressure ranges. Minimum run times shown (from start-up) are 1 minute,

1-1/2 minutes and 2 minutes. For example, for a system that delivers 10 GPM at 30-50 psi, with a minimum run time of 1 minute, Chart 1 indicates that the proper tank is the PMXP-36S.

**CHART 1 – PMXP SERIES FREE-STANDING TANK SELECTION CHART**

PUMP GPM	SYSTEM PRESSURE RANGES (PSI)								
	20-40			30-50			40-60		
	MINIMUM RUN TIMES (MINUTES)								
	1	1.5	2	1	1.5	2	1	1.5	2
2.5	PMX-14	PMX-14	PMX-14	PMX-14	PMX-14	PMXP-20	PMX-14	PMXP-20	PMXP-20
5	PMX-14	PMXP-20	PMXP-36S	PMXP-20	PMXP-36S	PMXP-36S	PMXP-20	PMXP-36S	PMXP-52
7	PMXP-20	PMXP-36S	PMXP-52	PMXP-36S	PMXP-36S	PMXP-52	PMXP-36S	PMXP-52	PMXP-86*
10	PMXP-36S	PMXP-52	PMXP-86*	PMXP-36S	PMXP-52	PMXP-86*	PMXP-52	PMXP-86*	PMXP-86*
12	PMXP-36S	PMXP-52	PMXP-65	PMXP-52	PMXP-65	PMXP-86*	PMXP-52	PMXP-65	PMXP-119
15	PMXP-52	PMXP-65	PMXP-86*	PMXP-52	PMXP-65	PMXP-119	PMXP-65	PMXP-65	PMXP-119
20	PMXP-65	PMXP-86*	PMXP-119	PMXP-65	PMXP-119	(2)PMXP-86*	PMXP-86*	PMXP-119	(2)PMXP-86*
25	PMXP-86*	PMXP-119	(2)PMXP-86*	PMXP-86*	(2)PMXP-86*	(2)PMXP-86*	PMXP-119	(2)PMXP-86*	(2)PMXP-119
30	PMXP-86*	(2)PMXP-86*	(2)PMXP-86*	PMXP-119	(2)PMXP-86*	(2)PMXP-119	PMXP-119	(2)PMXP-119	(2)PMXP-119

\*Also available in PMXP-86S (low profile).

**CHART 2 – DRAWDOWN VOLUME MULTIPLIER (APPROXIMATE)**

PUMP SHUTOFF PRESSURE (PSI)	PUMP START-UP PRESSURE (PSI)							
	10	20	30	40	50	60	70	80
20	.26							
30	.41	.22						
40		.37	.18					
50		.46	.31	.15				
60			.40	.27	.13			
70			.47	.35	.24	.12		
80				.42	.32	.21	.11	
90				.48	.38	.29	.19	.10
100					.44	.35	.26	.17

If proper tank selection cannot be made using Chart 1, follow this procedure. First, find the "drawdown multiplier" by matching the pump start-up and shut-off pressures on Chart 2. For example, the multiplier for a 30-50 psi pressure range is .31. Next, insert the pump GPM capacity and desired minimum run time into this formula:

$$\frac{\text{Pump GPM} \times \text{Min. Run Time}}{\text{Multiplier}} = \text{Minimum Tank Volume Required}$$

To assume dependable drawdown volumes, and in keeping with present industry practice, drawdowns are based on Boyle's Law.

**CHART 3 – DRAWDOWN IN GALLONS**

MODEL NUMBER	VOLUME (GALS)	20-40	30-50	40-60
PMXP-20	20.0	7.4	6.2	5.4
PMXP-32	32.0	11.5	9.6	8.4
PMXP-36S	36.0	13.3	11.2	9.7
PMXP-52	52.0	19.2	16.1	14.0
PMXP-65	65.0	24.0	20.0	17.5
PMXP-86	86.0	31.8	26.7	23.2
PMXP-86S	86.0	30.9	25.9	22.5
PMXP-119	119.5	44.2	37.0	32.3

For example, using a 10 GPM pump, a one minute minimum run time, and a 30-50 psi pressure range, the formula is as follows:

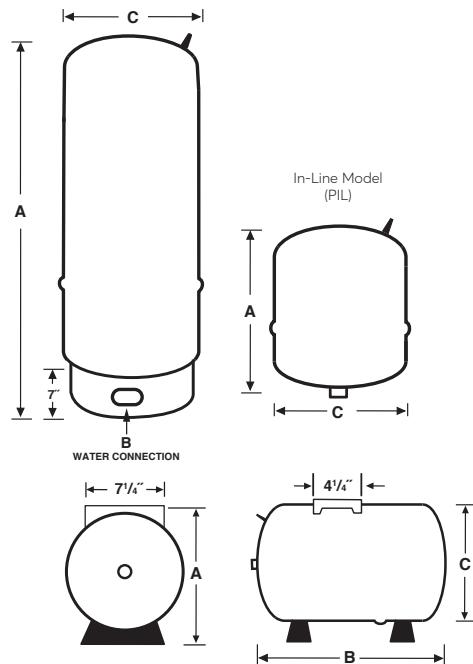
$$\frac{10 \times 1}{.31} = 32.26 \quad \text{Minimum Tank Volume}$$

Then, using Chart 3, select the tank that has a minimum volume that meets or exceeds your minimum volume requirement and supplies adequate drawdown at the required pressure range. Minimum drawdown equals Pump GPM X Minimum Run Time. Therefore, in the above example, select the PMXP-36 36-gallon tank. It provides adequate drawdown at 30-50 psi.

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## DIAPHRAGM PUMP TANKS

### VOLUME, DIMENSION AND WEIGHT SPECIFICATIONS



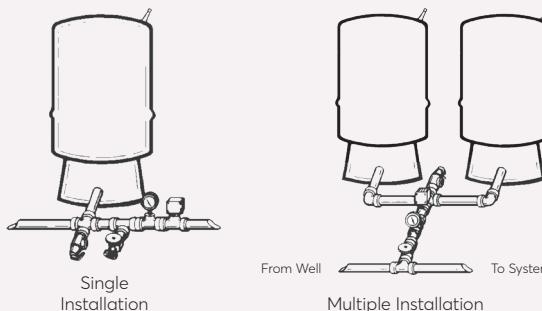
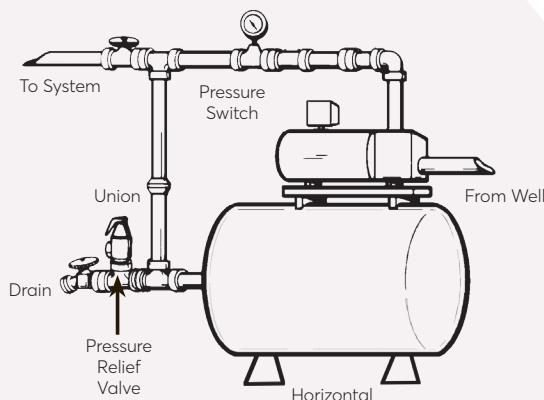
MODEL NUMBER	VOLUME (GALS)	"A" OVER-ALL HEIGHT (INCHES)	"B" CENTER OF WATER INLET TO BOTTOM OF TANK (INCHES)	"C" DIAMETER (INCHES)	WEIGHT (LBS.)
<b>PMXP Series (Free-Standing)</b>					
<b>PMXP-20</b>	20	32 3/4	2 1/4	15 3/8	30
<b>PMXP-32</b>	32	45 1/2	2 1/4	15 3/8	40
<b>PMXP-36S</b>	36	32 5/8	2 1/4	20	45
<b>PMXP-52</b>	52	38 5/8	2 1/4	23 3/8	77
<b>PMXP-65</b>	65	46.6	2 1/4	23 3/8	87
<b>PMXP-86</b>	86	59	2 1/4	23 3/8	105
<b>PMXP-86S</b>	86	46	2 1/4	26	116
<b>PMXP-119</b>	119.5	61 1/4	2 1/4	26	165

PMXP-20, PMXP-32 and PMXP-36S 1" female connection.

PMXP-52, PMXP-65, PMXP-86, PMXP-96, PMXP-119 connection 1-1/4" female connection

#### PMXP FREE-STANDING SERIES

The standard front-entry installation. Gauge, relief valve and pressure switch are installed in front of tank.



#### PMXP FREE-STANDING SERIES WITH PUMP MOUNTED ON TANK\*

The pump can be mounted on the tank using a universal mounting base. The pump can be attached to the top of a horizontal tank. For installation convenience, the horizontal series is available with pump mount and legs.

\*Pump mount bracket available. (Part # 100290594)

A. O. Smith reserves the right to make product changes or improvements at any time without notice.



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