

PT2000 Series

Diaphragm Pump Tanks

from McDermott Pumps!



- Larger drawdown in key sizes improves pump performance.
- Durable butyl diaphragm for smooth, trouble-free operation.
- Positive diaphragm seal prevents any leakage between water and air chambers.
- Two-layer epoxy coating on water chamber provides maximum protection against corrosion.
 - Metal air valve with “O” ring cap seal for double protection.
 - One-piece airflow base design eliminates condensate build-up.
 - Two-piece construction (up to 86 gallons) reduces welds on tanks.
 - Two-part electrostatic finish offers the ultimate UV protection.
 - Free standing tanks come with epoxy elbows for better corrosion protection.
 - 5-year warranty

Model Number	Volume (Gallons)	“A” Overall Height (Inches)	“C” Diameter (Inches)	Weight (Pounds)
PT2000 Series Free Standing Diaphragm Pump Tanks (DPT)				
DPT-20E	20.0	32-3/4	15-3/8	30
DPT-32E	32.0	45-1/2	15-3/8	40
DPT-36E	36.0	32-5/8	20	45
DPT-52E	52.0	38-5/8	23-3/8	77
DPT-86E	86.0	59	23-3/8	105
DPT-119E	119.5	61-1/4	26	165
PT2000 Series In-Line Diaphragm Pump Tanks (DPT)				
DPT-2	2.0	12-9/16	8-3/8	4.5
DPT-5	4.6	14-11/16	11-3/8	7.5

DPT-20E, DPT-32E, DPT-36E connections are 1” female.
 DPT-52E, DPT-86E, DPT-119E connections are 1-1/4” female.
 DPT-2 & DPT-5 connections are 3/4” male.

NEW!
In-Line
PT2000
Tanks for
Constant
Pressure
Applications!



PT2000 Series Diaphragm Pump Tanks



How to size PT2000 Series pressure tanks.

The charts below allow you to easily select the right **PT2000 Series** DPT tank for standard-size pumps between 5 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 DPT-36E.

Chart 1 – PT2000 Series Free-Standing Tank Selection Chart

Pump GPM	System Pressure Ranges-PSI								
	20-40			30-50			40-60		
	Minimum Run Times (Minutes)								
	1	1-1/2	2	1	1-1/2	2	1	1-1/2	2
5	DPT-20E	DPT-20E	DPT-36E	DPT-20E	DPT-36E	DPT-36E	DPT-20E	DPT-36E	DPT-52E
7	DPT-20E	DPT-36E	DPT-52E	DPT-36E	DPT-36E	DPT-52E	DPT-36E	DPT-52E	DPT-86E
10	DPT-36E	DPT-52E	DPT-86E	DPT-36E	DPT-52E	DPT-86E	DPT-52E	DPT-86E	DPT-86E
12	DPT-36E	DPT-52E	DPT-86E	DPT-52E	DPT-86E	DPT-86E	DPT-52E	DPT-86E	DPT-86E
15	DPT-52E	DPT-86E	DPT-86E	DPT-52E	DPT-86E	DPT-119E	DPT-86E	DPT-86E	DPT-119E
20	DPT-86E	DPT-86E	DPT-119E	DPT-86E	DPT-119E	[2]DPT-86E	DPT-86E	DPT-119E	[2]DPT-86E
25	DPT-86E	DPT-119E	[2]DPT-86E	DPT-86E	[2]DPT-86E	[2]DPT-86E	DPT-86E	[2]DPT-86E	[2]DPT-119E
30	DPT-86E	[2]DPT-86E	[2]DPT-86E	DPT-119E	[2]DPT-86E	[2]DPT-119E	DPT-119E	[2]DPT-119E	[2]DPT-119E

Chart 2 – Drawdown Volume Multiplier (Approximate)

Pump Shut-Off Pressure-PSI	Pump Start-Up Pressure-PSI							
	10	20	30	40	50	60	70	80
20	0.26							
30	0.41	0.22						
40		0.37	0.18					
50		0.46	0.31	0.15				
60			0.40	0.27	0.13			
70			0.47	0.35	0.24	0.12		
80				0.42	0.32	0.21	0.11	
90				0.48	0.38	0.29	0.19	0.10
100					0.44	0.35	0.26	0.17

Pressures above those listed, exceed maximum tank acceptance volumes.

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

Chart 3 – Drawdown in Gallons

Model Number	Volume in Gallons	20-40	30-50	40-60
DPT-20E	20.0	7.4	6.2	5.4
DPT-32E	32.0	11.5	9.6	8.4
DPT-36E	36.0	13.3	11.2	9.7
DPT-52E	52.0	19.2	16.1	14.0
DPT-86E	86.0	31.8	26.7	23.2
DPT-119E	119.5	44.2	37.0	32.3

Boyle’s Law. 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:

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

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 DPT-36E, 36-gallon tank. It provides adequate drawdown at 30-50 PSI.



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