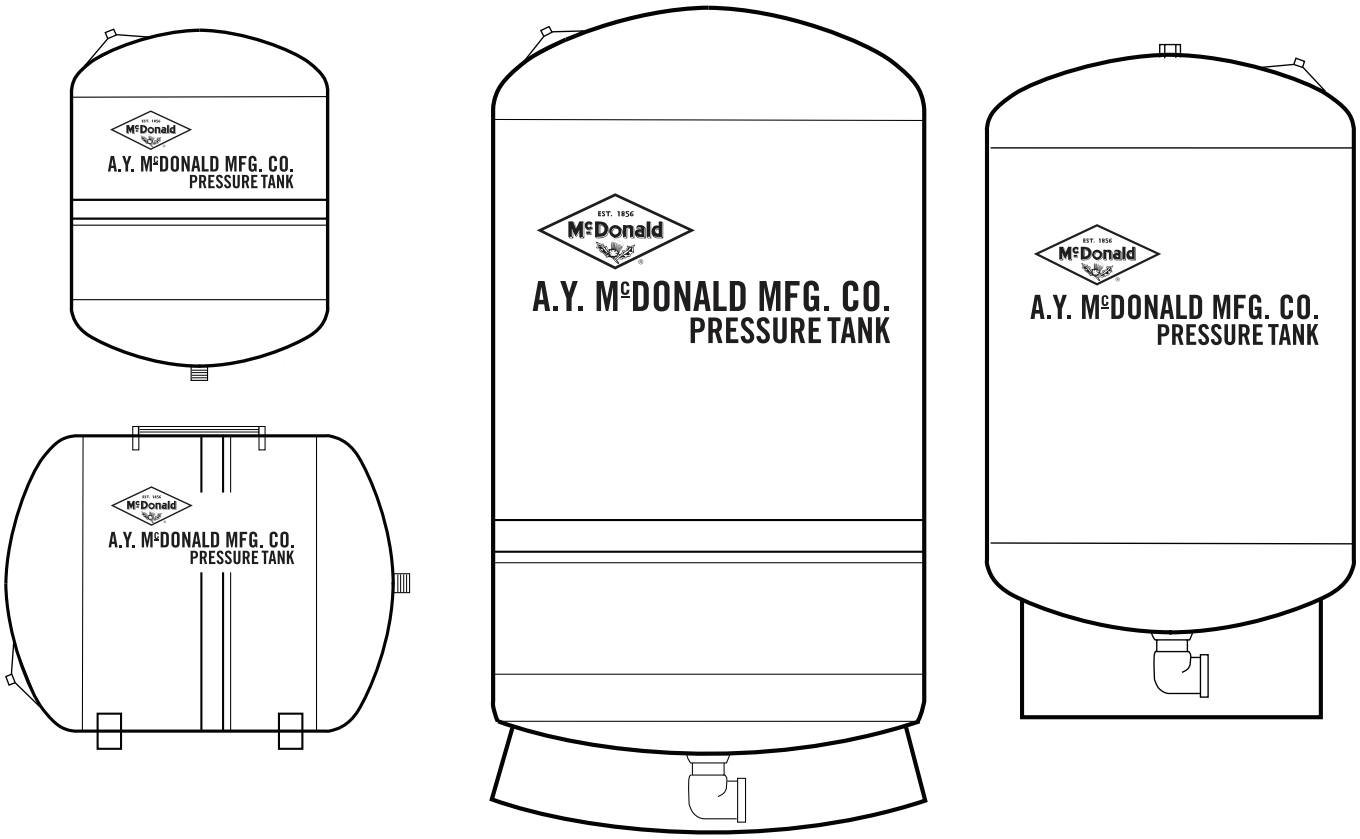
BAKER®
WATER SYSTEMS DIVISION

EST. 1856 McDonald PUMPS

Tanks

Installation and Operating Instructions



WARNING: It is unlawful in **CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014)** to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380. ⚠ **WARNING:** This product can expose you to chemicals including lead, which is known to the State of **CALIFORNIA** to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.

800-356-5130 | bws@baker-mfg.com | bakerwatersystems.com
800-292-2737 | sales@aymcdonald.com | aymcdonald.com

DANGER

EXPLOSION HAZARD. WHEN THE PRESSURE TANK HAS BEEN IN SERVICE AND A CHANGE TO A HIGHER PRE-CHARGE PRESSURE IS NECESSARY DUE TO A REQUIRED CHANGE IN THE PRESSURE SWITCH SETTING, FAILURE TO FOLLOW INSTRUCTIONS BELOW CAN CAUSE A RUPTURE OR EXPLOSION, POSSIBLY CAUSING SERIOUS OR FATAL PERSONAL INJURY, AND/OR PROPERTY DAMAGE.

DANGER

1. DO NOT ADJUST OR ADD PRESSURE IF THERE HAS BEEN A LOSS OF AIR.
2. Do NOT ADJUST THE PRE-CHARGE PRESSURE IF THERE IS VISIBLE EXTERIOR CORROSION.
3. DO NOT ADJUST THE PRE-CHARGE PRESSURE IF THERE HAS BEEN A REDUCTION OF THE PUMP CYCLE TIME OR THE PRE-CHARGE PRESSURE COMPARED TO ITS INITIAL SETTING. THIS IS BECAUSE THE REDUCTION IN PUMP CYCLE TIME CAN RESULT FROM LOSS OF TANK AIR PRESSURE WHICH IN TURN CAN MEAN THERE MAY BE INTERNAL CORROSION AND ANY RE-PRESSURIZATION OR ADDITIONAL PRESSURE COULD RESULT IN RUPTURE OR EXPLOSION.

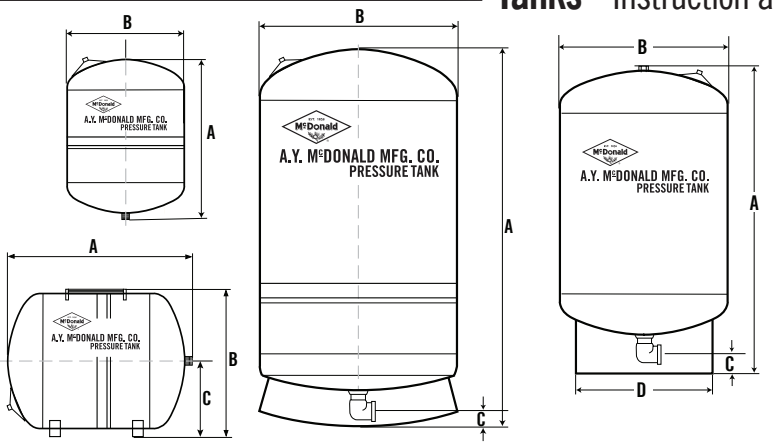
EXPLOSION HAZARD

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN CAUSE A RUPTURE OR EXPLOSION POSSIBLY CAUSING SERIOUS OR FATAL INJURY, FLOODING, AND/OR PROPERTY DAMAGE.

Tank Specifications

Tank - Cold Rolled Carbon Steel
Finish - Triple Layer Electrostatic Paint
Water Chamber - 100% butyl rubber, lined with polypropylene
Connection - 304 Stainless-steel
Air Valve - Brass cap with o-ring seal

Maximum working temperature - At label
Maximum working temperature - At label
Tank Pre-charge - At Label
Maximum Pre-charge - 80 PSI / 5.5 bar

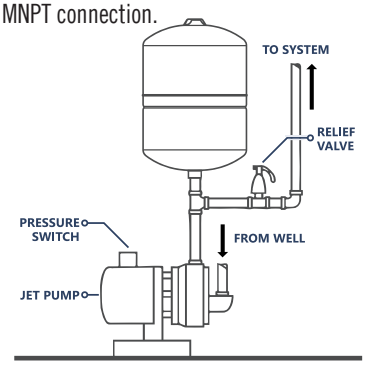


Tank Chart

PART NUMBER	DESCRIPTION	GALLONS	A (INCHES)	B (INCHES)	C (INCHES)	D	OUTLET SIZE	WEIGHT (LBS)
	INLINE							
6127-387	16001-V3M DIAPHRAGM TANK 0.8 GAL 3/4 MNPT	0.8	8.7”	5.5”			3/4" MNPT	2.6
6127-388	16002-V3M DIAPHRAGM TANK 2 GAL 3/4 MNPT	2.1	12”	8”			3/4" MNPT	5.1
6127-389	16005-V3M DIAPHRAGM TANK 5 GAL 3/4 MNPT	4.8	14.3”	11”			3/4" MNPT	8.2
6127-390	16006-V3M DIAPHRAGM TANK 6 GAL 3/4 MNPT	6.3	16.3”	11.6”			3/4" MNPT	8.2
	HORIZONTAL							
6127-391	16006PH4M DIAPHRAGM TANK 6 GAL 1 MNPT	5.3	14.3”	11”	5.5”		1" MNPT	9.7
6127-392	16010PH4M DIAPHRAGM TANK 10 GAL 1 MNPT	10.0	22.2”	11.4”	5.8”		1" MNPT	16.4
6127-393	16016PH4M DIAPHRAGM TANK 16 GAL 1 MNPT	15.9	21.1”	15.3”	7.5”		1" MNPT	24.5
6127-394	16021PH4M DIAPHRAGM TANK 21 GAL 1 MNPT	21.1	28.1”	15.3”	7.5”		1" MNPT	32.5
6127-395	16026PH4M DIAPHRAGM TANK 26 GAL 1 MNPT	26.4	28”	16.9”	8.9”		1" MNPT	33.1
	VERTICAL							
6127-396	16016PV4F DIAPHRAGM TANK 16 GAL 1 FNPT	15.9	23.4”	15.3”	1.1”	14	1" FNPT 90° ELBOW	24.3
6127-397	16021PV4F DIAPHRAGM TANK 21 GAL 1 FNPT	21.1	30.3”	15.3”	1.1”	14	1" FNPT 90° ELBOW	32.2
6127-398	16026PV4F DIAPHRAGM TANK 26 GAL 1 FNPT	26.4	30.1”	16.9”	1.1”	14	1" FNPT 90° ELBOW	33.5
6127-399	16032PV4F DIAPHRAGM TANK 32 GAL 1 FNPT	31.7	45.2”	15.3”	1.1”	14	1" FNPT 90° ELBOW	50.1
6127-400	16034PV5F DIAPHRAGM TANK 34 GAL 1 1/4 FNPT	34.3	30.9”	21.7”	1.7”	40	1 1/4" FNPT 90° ELBOW	54.1
6127-401	16042PV5F DIAPHRAGM TANK 42 GAL 1 1/4 FNPT	42.3	36.7”	21.7”	1.7”	40	1 1/4" FNPT 90° ELBOW	61.3
6127-402	16053PV5F DIAPHRAGM TANK 53 GAL 1 1/4 FNPT	52.8	42”	21.7”	1.7”	40	1 1/4" FNPT 90° ELBOW	68.6
6127-403	16062PV5F DIAPHRAGM TANK 62 GAL 1 1/4 FNPT	62.1	47.1”	21.7”	1.7”	40	1 1/4" FNPT 90° ELBOW	83.2
6127-404	16081PV5F DIAPHRAGM TANK 81 GAL 1 1/4 FNPT	80.6	57”	21.7”	1.7”	40	1 1/4" FNPT 90° ELBOW	103.9
6127-405	16086MV5F DIAPHRAGM TANK 86 GAL 1 1/4 FNPT	85.9	45.5”	25.6”	1.7”		1 1/4" FNPT 90° ELBOW	106.9
6127-406	16119MV5F DIAPHRAGM TANK 119 GAL 1 1/4 FNPT	118.9	55.5”	25.6”	1.7”		1 1/4" FNPT 90° ELBOW	135.6
	HYDRONIC EXPANSION							
6127-407	16002-V2MH HYDRONIC TANK 2 GAL 1/2 MNPT	2.1	11.9”	8.1”			1/2" MNPT	5
6127-408	16005-V2MH HYDRONIC TANK 5 GAL 1/2 MNPT	4.8	14.2”	11.1”			1/2" MNPT	8.2
	THERMAL EXPANSION							
6127-413	16002-V3MT HYDRONIC TANK 2 GAL 3/4 MNPT	2.1	12”	8.1”			3/4" MNPT	5.1
6127-414	16005-V3MT HYDRONIC TANK 5 GAL 3/4 MNPT	4.8	14.3”	11.1”			3/4" MNPT	8.4

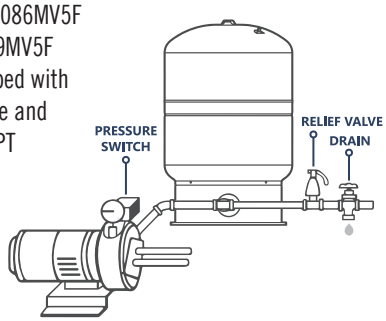
In-Line Models

In-Line models 16001-V3M, 16002-V3M, 16005-V3M are installed directly in the main water supply with a 3/4” MNPT connection. Hydronic models 16002-V2MH and 16005-V2MH have a 1/2” MNPT connection.



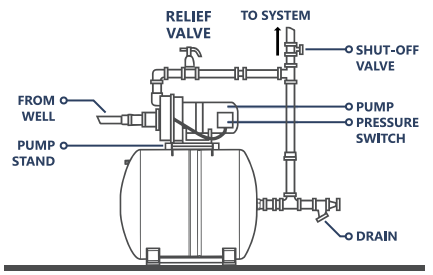
Vertical Models

Vertical Models 16016PV4F, 16021PV4F, 16026PV4F, 16032PV4F are equipped with nylon base and 1” FNPT 90-degree elbow. Models 16034PV5F, 16042PV5F, 16053PV5F, 16062PV5F, 16081PV5F are equipped with nylon base and 1 1/4” FNPT 90-degree elbow. Models 16086MV5F and 16119MV5F are equipped with metal base and 1 1/4” FNPT 90-degree elbow.



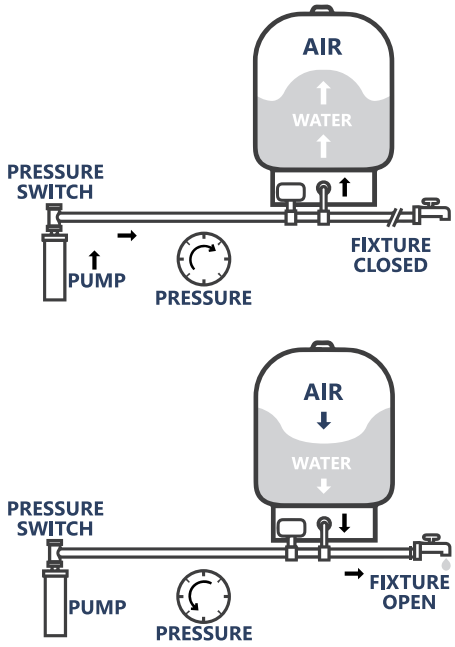
Horizontal Models

Horizontal Models 16006PH4M, 16010PH4M, 16016PH4M, 16021PH4M, 16026PH4M are equipped with nylon base and 1” MNPT connection.



How Does a Pressure Tank Work?

The A.Y. McDonald Pressure Tank is engineered to optimize the performance of your system by increasing its draw-down thus saving your pump from excessive starts and stops. A Pressure Tank protects and extends the life of your pump.



LOCATION

Proper Pressure Tank Location

The Pressure Tank should be installed as close as possible to the pressure switch. This will reduce the adverse effects of added friction loss and pressure switch bouncing, and the difference in elevation between Pressure Tank and switch.

ADJUSTING

Adjusting Pre-charge Air Pressure. Prior to Installation

Step 1. Remove protective air valve cap

Step 2. Check pre-charge pressure which should be + or - 10% of the factory setting

Step 3. Release or add air as necessary to make the pre-charge pressure 2 psi below the pressure switch pump cut-in setting. (Example, if you have an 32 gallon tank with a pre-charge of 30 psi, and you have a pressure switch setting of 30/50 psi, adjust pre-charge of your 32 gallon from 30 psi to 28 psi.)

Step 4. Replace protective air valve cap.

System Connection

1. Locate the Pressure Tank in the final desired location.
2. Level as necessary.
3. To eliminate friction loss, do not reduce the pipe size from the pump to the Pressure Tank.

SAFETY

The Pumping Piping System and Pressure Tank require safety inspection every 6 months by a licensed professional.