

## Pre-pressurized Well System Tanks



### FEATURES AND BENEFITS

- Positive lock internal clench ring prevents slipping. Diaphragm draws down in concave manner, eliminating "wrinkle pattern" which can become brittle and crack.
- Threaded top nut for easy pump stand installation.
- True air flow design reduces condensation.
- Patented controlled action diaphragm is FDA approved butyl rubber construction - not plastic.
- Paint cap on elbow eliminates connection problems. 5 year limited warranty.
- Adjustable air charge.
- Airtight welds.
- Two part urethane finish over epoxy primer for durability and luster.
- Will not waterlog.
- Diffuser directs water flow up and out while locking lower diaphragm in place.

**Q.** How is it possible for the pre-charged tanks to hold the same amount of water as conventional tanks even though they are smaller?

**A.** Tanks are sized based on the amount of water provided before the water pressure drops enough to turn on the pump. Galvanized tanks are very inefficient and leave most of their stored water in the tank when the pump turns on. Pre-charged tanks are very efficient and will provide you with more water between pump cycles.

**Q.** Do I need to change my plumbing to replace my galvanized tank with a pre-charged tank?

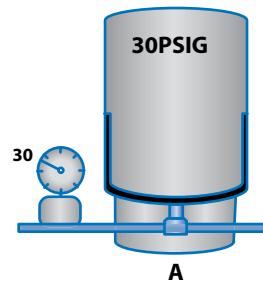
**A.** Some adjustments will be necessary. A complete set of instructions are included with each pre-charged tank that will help you with the installation.

**Q.** How do I know what size to buy?

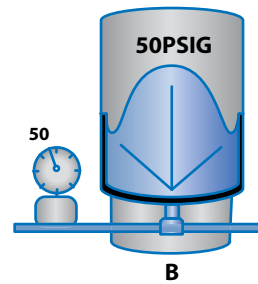
**A.** If you already have a pre-charged tank simply buy one of the same physical size. If you have a conventional tank use the chart below.

CAPACITY	42 GALLONS	82 GALLONS	120 GALLONS	220 GALLONS
Galvanized Tank Measure	20" x 34" 16" x 51"	20" x 63"	24" x 65"	30" x 78"
Diaphragm Equivalent Model	15-3/8" x 21-1/4"	20" x 38-5/8"	23-3/8" x 38-5/8"	23-3/8" x 59"

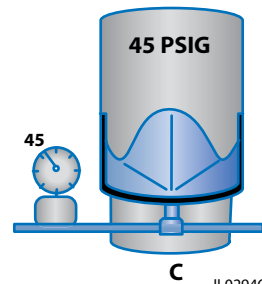
## HOW THE STAR AIR-E-TAINER<sup>®</sup> WORKS



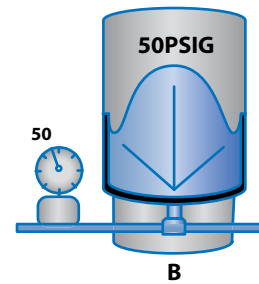
**A.** Tank is pre-pressurized with air at the factory.



**B.** When pump starts, water enters the reservoir. At 50 psig, system is filled. Pump shuts off.



**C.** When water is demanded, pressure in the air chamber forces water into the system. Pump turns on.



**D.** When pressure in tank drops to pressure switch cut-in point (30 psig) pump refills the tank as in illustration B.

## STAR DIAPHRAGM AIR-E-TAINER<sup>®</sup> SIZING GUIDE

Make sure you have a tank size suited to your present plumbing system.

You may need to switch to a higher or lower capacity model to match the system.

To select the proper size tank, count the number of fixtures in your home (sinks, showers, bathtubs,

toilets, dishwashers, faucets, washing machines, outside faucets, etc.)

The proper tank volume is three (3) times the number of fixtures.

See examples below:

NUMBER OF FIXTURES	TANK VOLUME	AIR-E-TAINER TANK
5	14	132661 or larger
6-8	20	132662 or larger
9-11	36	132663 or larger
12-15	52	133517 or larger
16-21	65	136875 or larger
22-30	86	135460 or larger
31 plus	119.5	136876 or larger

If you have a heat pump, hot tub, sprinkler system or irrigation system, choose a tank one model larger.

## AIR-E-TAINER<sup>®</sup> PRE-PRESSURIZED WELL SYSTEM DRAWDOWN CHARTS

PART NO.	TANK TYPE	TOTAL TANK VOL. GAL.	DRAWDOWN - GALLONS BY PSI SETTINGS***			APPROX. SIZE IN. DIA X HT	SHIP WT LBS	NPT SIZE	FACTORY PRE-CHARGE PSIG	MAX WORKING PRESSURE (PSI)	MAX WORKING TEMP	UPC #
			20/40	30/50	40/60							
131009	In Line	2	0.7	0.6		8-1/4 x 10-1/5	5	3/4" M	28	100	140	054757002213
132477	In Line	4.6	1.6	1.4		11 x 14-3/4	9	3/4" M	28	100	140	054757001865
132661	Vertical	14	5.2	4.3	3.7	15-3/8 x 24-3/4	25.5	1" F	38	100	200	054757001889
136878A	Horizontal	14	5.2	4.3	3.8	15.3 x 16.7	28	1" M	28	100	140	054757002374
132662	Vertical	20	7.4	6.2	5.4	15-3/8 x 32-1/4	30	1" F	38	100	200	054757001056
132663	Vertical	36	13.3	11.1	9.7	20 x 38-5/8	45	1" F	38	100	200	054757001896
133517	Vertical	52	19.2	16.1	14	23-3/8 x 38-5/8	77	1-1/4" F	38	100	200	054757012427
136875	Vertical	65	23.9	20	17.5	23-3/8 x 46-3/5	87	1-1/4" F	38	100	200	054757018436
135460	Vertical	86	31.8	26.7	23.2	23-3/8 x 59	105	1-1/4" F	38	100	200	054757015770
136876	Vertical	119.5	44	37	32	26 x 61-1/4	165	1-1/4" F	38	100	200	054757018443

\*Compact In-Line Tank.

\*\*Horizontal Tank with Mounting Bracket.

\*\*\*In keeping with current industry standards, drawdown factors are based on Boyle's law. Actual drawdowns will vary depending upon system variables, including the accuracy and operation of the pressure switch and gauge and operating temperature of the system.

**Caution:** install a pressure relief valve on any installation where the pump pressure can exceed the tank's maximum working pressure.

NOTE: Pre-charged tanks cannot ship via air freight.

## GALVANIZED TANK DRAWDOWN CHARTS

ORDER NO.	TOTAL TANK VOLUME GALLONS	DRAWDOWN GALLONS			APPROX. SIZE INCHES	APPROX. SHIP WT. LBS	TAPPING SIZE - INCHES			UPC #
		20/40	30/50	40/60			A	C	D	
124831	42S	6.5	4.2	3.0	20 x 34	71	1-1/4"	1-1/4"	1-1/4"	054757001629
125211	42T	6.5	4.2	3.0	16 x 51	71	1-1/4"	1-1/4"	1-1/4"	054757001650
124832	82	12.7	8.3	5.8	20 x 63	114	1-1/4"	1-1/4"	1-1/4"	054757001636
124833	120	18.6	12.1	8.5	24 x 65	154	1-1/4"	1-1/2"	1-1/2"	054757001643
124834	220	34.1	22.2	15.6	30 x 78	303	1-1/4"	2"	2"	054757007089
124835	315	48.8	31.8	22.4	36 x 80	416	1-1/4"	2"	2"	054757007096

Non-stock items - consult factory for delivery schedule.

75 PSI maximum working pressure. 150 PSI test pressure.

**CAUTION:** Install a pressure relief valve on any installation where the pump pressure can exceed the tank maximum working pressure.