

COMPOSITE PRESSURE TANKS

FIBREWOUND PRESSURE

Built Tough for Quality: Every Pro-Source Composite tank utilizes a durable, FDA-approved air cell which is resistant to chlorine and will not promote taste or odor problems associated with iron bacteria that may be present in the water supply.

Built Tough for Durability: Each tank is wrapped with more than three miles of overlapping, continuous fiberglass strands, sealed with high-grade epoxy resin, then oven-cured. Tough composite construction means longer lasting tanks that will not rust, corrode, dent or scratch.

Built Tough for Easy Installation: Not only is composite construction tougher, it's also more lightweight - as little as half the weight of steel tanks. Installation is faster, easier and can be handled by one person.

APPLICATIONS

Use wherever pressurized tanks are needed in water systems applications.

FEATURES

- ◆ **Durable Composite Construction:** A rugged one-piece molded inner liner of premium high-density polyethylene. Miles of continuous overlapping fiberglass strands, sealed with oven-cured epoxy, make the outer shell impervious to rust, dents and ultraviolet rays (no paint to scratch and touch up).
- ◆ **Air Cell:** Seamless, durable PEU air cell is full replaceable and constructed of heavy gauge engineered polymer. Meets Water Quality Association standards.
- ◆ **Tank Base:** Rigid molded Polypropylene is the sturdiest composite base on the market. Corrosion and impact resistant.
- ◆ **Replaceable Air Cell:** Removable air cell for replacement through bottom drain fitting.
- ◆ **Stainless Steel Service Connection:** 300 grade, the professional's choice.



Tested and certified by WQA to NSF/ANSI Std. 61 Section 8 and ORDO92 for "lead free" compliance.

COMPOSITE PRESSURE TANKS PRO-SOURCE FIBREWOUND PRESSURE

SPECIFICATIONS

INNER LINER	One-piece high-density polyethylene.
OUTER SHELL	Fiberglass-wound, oven-cured, and epoxy resin sealed.
EXCLUSIVE AIR CELL	Heavy gauged PEU, meets Water Quality Association standards.
BASE	Polypropylene base corrosion and impact resistant.
SERVICE CONNECTION	Stainless steel, 300 grade.

ORDERING INFORMATION

CATALOG NUMBER	TANK CAPACITY GAL./LITER	TANK DIAMETER INCH / CM	TANK HEIGHT INCH / CM	SYSTEM CONNECTION	WATER YIELD PER PUMP CYCLE PRESSURE SWITCH SETTING		
					20-40 GAL./LITER	30-50 GAL./LITER	40-60 GAL./LITER
PSC-14-4-02	14.5 / 55	16 / 41	26.8 / 68.1	1" FNPT	4.9 / 18.7	4.4 / 16.5	3.8 / 14.3
PSC-20-6-02	19.8 / 75	16 / 41	32.7 / 83.1	1" FNPT	6.7 / 25.5	5.9 / 22.5	5.1 / 19.5
PSC-30-9-02	29.5 / 112	16 / 41	44.7 / 113.5	1" FNPT	10.0 / 38.1	8.9 / 33.5	7.7 / 29.1
PSC-40-12-02	40.3 / 153	16 / 41	57.4 / 145.8	1" FNPT	13.7 / 52.0	12.1 / 45.8	10.5 / 39.8
PSC-48-14-02	47.1 / 178	21 / 53	42.1 / 106.9	1-1/4" FNPT	16.0 / 60.5	14.1 / 53.5	12.2 / 46.3
PSC-60-20-02	60 / 227	24 / 61	42.3 / 107.4	1-1/4" FNPT	20.4 / 77.2	18.0 / 68.1	15.6 / 59.0
PSC-80-23-02	79.6 / 301	21 / 53	62.8 / 159.5	1-1/4" FNPT	27.1 / 102.3	23.8 / 90.4	20.7 / 78.3
PSC-85-25-02	86.7 / 328	24 / 61	56.1 / 142.5	1-1/4" FNPT	29.5 / 111.5	26.0 / 98.5	22.5 / 85.3
PSC-119-35-02	119.7 / 453	24 / 61	75.1 / 190.8	1-1/4" FNPT	40.7 / 154	35.9 / 135.9	31.1 / 117.8

Maximum Operating Pressure = 125 PSI, PSC - 80-23 has a maximum operations pressure of 100 PSI.
 Maximum Internal Water Temperature: 120°F(49°C). Maximum Ambient Air Temperature: 120°F (49°C)
 Distance from base to center line of connection is 2-1/4" (5.7 cm)*. *1-3/4"(4.4 cm) for 16" diameter tanks
 Allow 12" (30.5 cm) for service clearance.

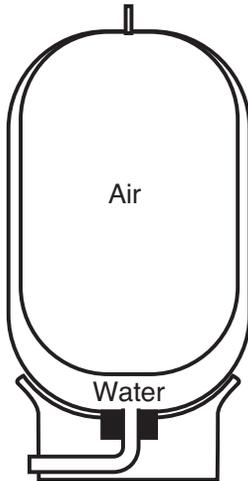
TANK SIZING RULE

Size tank for one gallon of drawdown for each gallon per minute at pump capacity.

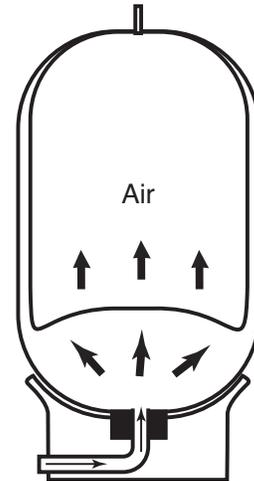
Example: For a 1 HP, 20 GPM unit pumping 20 gallons per minute on a 30-50 pressure switch setting, the properly sized Pro-Source composite tank is a PSC-80-23, which has a 23.8 gallon drawdown.

OPERATING CYCLE

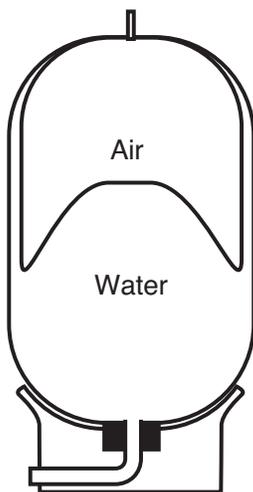
1. **Pro-Source Composite tank is nearly empty:** Air cell is fully expanded.



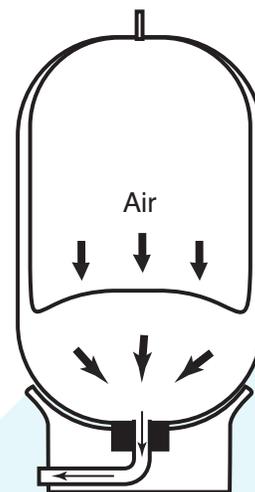
2. **Water is pumped into tank:** Air in cell is compressed.



3. **Pump-up cycle is complete:** Air is now compressed to "cut off" setting of pressure switch.



4. **Water is drawn from tank:** Pressure in air cell provides water as needed, until tank is empty and cycle repeats.



COMPOSITE PRESSURE TANKS PRO-SOURCE FIBREWOUND PRESSURE

CHART A - TANK SELECTION CHART

PUMP GPM	SYSTEM PRESSURE SWITCH SETTING - PSI					
	20-40		30-50		40-60	
	RUN TIMES					
	1 MINUTE	2 MINUTE	1 MINUTE	2 MINUTE	1 MINUTE	2 MINUTE
5	PSC-20-6	PSC-30-9	PSC-20-6	PSC-40-12	"PSC-20-6	PSC-40-12
7.5	PSC-30-9	PSC-48-14	PSC-30-9	PSC-60-2	PSC-30-9	PSC-60-20
12.5	PSC-40-12	PSC-80-23	PSC-48-14	PSC-85-25	PSC-60-20	PSC-119-3
15	PSC-48-14	PSC-119-35	PSC-60-20	PSC-119-35	PSC-60-20	PSC-119-35
20	PSC-60-20	PSC-119-35	PSC-80-23	PSC-80-23	PSC-80-23	PSC-80-23
30	PSC-85-25	PSC-85-25	PSC-119-35	PSC-119-35	PSC-119-35	PSC-119-35
50	PSC-80-23	PSC-119-35	PSC-85-25	PSC-119-35	PSC-119-35	PSC-119-35

Note: Drawdown will be affected by operating temperature of the system, accuracy of the pressure switch and gauge, the actual precharge pressure and rate of fill.

CHART B - DRAWDOWN VOLUME MULTIPLIER* (APPROXIMATE)

PUMP OFF PRESSURE PSI	PUMP START 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

*Utilize this chart if proper selection cannot be made using tank selection chart. Drawdown based on Boyle's Law.

PROCEDURE:

- Identify drawdown multiplier relating to specific application.
- Insert multiplier (X) into the following formula:

$$\frac{\text{Pump GPM} \times \text{Min Runtime}}{\text{Multiplier (X)}} = \text{Minimum Tank Capacity Required}$$
- Refer to "Ordering Information" Table - Max. Capacity Gals.



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