

PRO-Source™ steel pressurized water system tanks

application

Use wherever pressurized tanks are needed in water systems applications.

specifications

- Shell** – Heavy gauge steel

- Base** – High-impact composite, ABS

- Finish** – Electrostatically applied, baked-on polyester paint

- Water Cell** – One piece seamless PVC, made from FDA listed material

- Flange** – Reinforced polypropylene

- Service Connection** – Reinforced polypropylene integral to flange

- Air Valve** – Rubber stem/brass body Schrader valve assembly

- UV Valve Cover** – High density polyethylene

certification



UL Classified to ANSI/NSF Standard 61, Drinking Water System Components – Health Effects

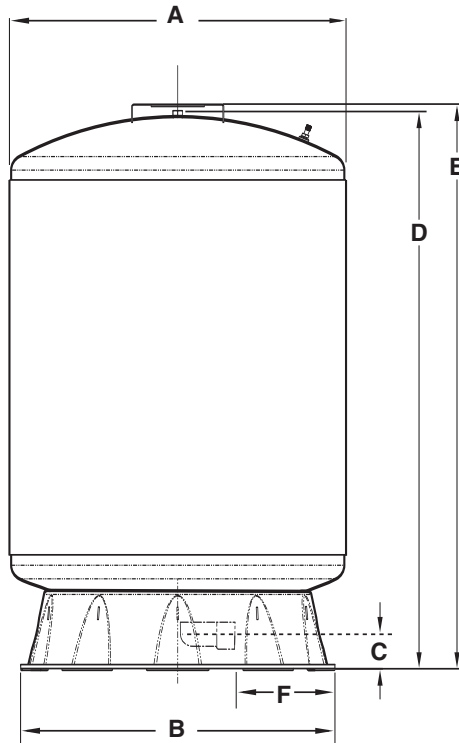
PRO-Source™ is a trademark of WICOR Industries.



- ▶ Heavy Gauge Metal Construction** – Sturdy “welded wrapper and head design.” Built to last.
 - Water never touches the steel tank material
- ▶ Polyester Paint Finish** – Electrostatically powder painted, then oven baked for a smooth high-gloss, appliance-quality finish. Resists corrosion.
 - Translucent bag material facilitates manufacturing quality control inspection
- ▶ NEW Elongated, Seamless Water Cell** –
 - Controlled 2-dimensional cell expansion
 - Rugged, seamless “water cell” prevents the most common cause of pump failure – “waterlogging”
- ▶ NEW Composite Sealing Flange** –
 - Corrosion-resistant
 - Integral o-ring groove better traps the water cell’s sealing ring
 - Reinforcing ribs strengthen and maintain a flat, smooth sealing surface
- ▶ Integral Stand Pipe** – Keeps the water cell standing erect, promoting complete flushing of the water entering/exiting the tank
 - Nitrogen-Rich Precharge – Decreases air permeation three to four times over straight air precharge
- ▶ 40 PSI Precharge** – Ready for use with 40/60 pressure range systems. Enables installer to reduce pressure depending on pressure switch setting.
 - **Sturdy Base** – Tested-tough composite construction
- ▶ Five Year Warranty** – We are the only U.S. pump manufacturer to design and manufacture fibrewound and steel tanks!
 - **Sturdy Base** – Tested-tough composite construction

PRO-Source™ steel pressurized water system tanks

outline dimensions



Dimensions (in inches) are for estimating purposes only.

dimensional data

Catalog Number	Discharge NPT	A	B	C	D	E	F
C-PS15-S02	3/4"	12.0	-	in-line	16.1	-	-
C-PS30-T01	1"	16.1	15.5	2.0	23.0	-	2.3
C-PS42T-T02	1"	16.1	15.5	2.0	27.8	-	3.9
C-PS75T-T02	1"	16.1	15.5	2.0	43.0	-	2.3
C-PS42S-T02	1"	20.1	15.5	2.0	-	21.5	2.3
C-PS82T-T05	1"	20.1	15.5	2.0	33.0	-	2.3
C-PS120-T50	1-1/4"	24.1	22.7	2.5	33.2	-	5.5
C-PS200-T51	1-1/4"	24.1	22.7	2.5	40.1	-	5.5
C-PS220-T52	1-1/4"	24.1	22.7	2.5	51.5	-	5.5
C-PS320-TR50	1-1/4"	24.1	22.7	2.5	68.6	-	5.5

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ordering information

Catalog Number	Maximum Capacity gal/liter	Diameter* inch/cm	Height* inch/cm	Length inch/cm	Precharge PSI/kPa	Connection Size Female	Drawdown in Gallons/Liter			Weight lbs/kg
							20-40	30-50	40-60	
VERTICAL MODELS										
C-PS15-S02	6.0 / 22.7	12 / 30.5	16.1 / 40.9	–	40 / 276	3/4" NPT	2.2 / 8.3	1.8 / 6.8	1.6 / 6.0	18 / 8.2
C-PS30-T01	14 / 53	16 / 40.6	23 / 54.4	–	40 / 276	1" NPT	4.8 / 18.2	4.1 / 15.5	3.6 / 13.6	37 / 16.8
C-PS42S-T02	19 / 72	20 / 51	21 / 53.3	–	40 / 276	1" NPT	6.9 / 26.1	5.8 / 21.9	5.0 / 18.9	45 / 20.4
C-PS42T-T02	19 / 72	16 / 40.6	27.5 / 70	–	40 / 276	1" NPT	6.9 / 26.1	5.8 / 21.9	5.0 / 18.9	40 / 18.1
C-PS75T-T03	32 / 121	16 / 40.6	43 / 109	–	40 / 276	1" NPT	11.6 / 43.9	9.8 / 37.1	8.5 / 32.2	56 / 25.4
C-PS82T-T05	35 / 133	20 / 51	33 / 84	–	40 / 276	1" NPT	12.7 / 48.1	10.7 / 40.5	9.3 / 35.2	66 / 29.9
C-PS120-T50	50 / 189	24 / 61	32.5 / 83	–	40 / 276	1-1/4" NPT	18.3 / 69.3	15.5 / 58.7	13.4 / 50.7	84 / 38.1
C-PS200-T51	62 / 235	24 / 61	39.5 / 100	–	40 / 276	1-1/4" NPT	21.4 / 81.0	18.3 / 69.3	16.0 / 60.6	112 / 50.8
C-PS220-T52	85 / 322	24 / 61	51 / 130	–	40 / 276	1-1/4" NPT	30 / 113.6	26 / 98.4	22 / 83.3	124 / 56.2
C-PS320-TR50	119 / 450	24 / 61	68 / 173	–	40 / 276	1-1/4" NPT	41.3 / 156.3	35.4 / 134.0	31.0 / 117.3	140 / 63.5
HORIZONTAL MODELS										
C-PS15H-S05	6.0 / 22.7	12 / 30.5	13.8 / 35.0	16 / 40.6	40 / 276	3/4" NPT	2.2 / 8.3	1.8 / 6.8	1.6 / 6.0	22 / 10
C-PS42H-S00	19 / 72	16 / 40.6	17.5 / 44.5	28 / 71.1	40 / 276	1" NPT	6.9 / 26.1	5.8 / 21.9	5.0 / 18.9	40 / 18

*Subject to change without notice. Maximum Liquid Temperature: 120°F (49°C) Maximum External (Ambient) Temperature: 125°F (52°C)

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	C-PS30	C-PS75T	C-PS42T	C-PS82T	C-PS42T	C-PS82T
7-1/2	C-PS75T	C-PS82T	C-PS75T	C-PS120	C-PS75T	C-PS200
10	C-PS75T	C-PS200	C-PS82T	C-PS200	C-PS82T	C-PS220
12-1/2	C-PS82T	C-PS200	C-PS120	C-PS220	C-PS120	C-PS220
15	C-PS120	C-PS220	C-PS120	C-PS120 (2)	C-PS200	C-PS200 (2)
20	C-PS200	C-PS200 (2)	C-PS200	C-PS200 (2)	C-PS220	C-PS220 (2)
30	C-PS220	C-PS220 (2)	C-PS120 (2)	C-PS220 (2)	C-PS200 (2)	C-PS220 (3)
30	–	–	C-PS320	C-PS320 + C-PS220	C-PS320	C-PS320 (2)
50	C-PS200 + C-PS220	C-PS220 (3)	C-PS220 (2)	C-PS220 (4)	C-PS220 (2)	C-PS220 (5)
50	–	C-PS320 (2) + C-PS200	–	C-PS320 (3)	C-PS320 (2)	C-PS320 (4)

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.
Pumps installed with a PRO-Source™ tank require a 100 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

drawdown volume multiplier* (approx.)

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.

tank sizing rule

Size tank for one gallon of draw-down 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™ tank is a C-PS220-T52, which has a 26 gallon drawdown.

PROCEDURE:

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

$$\frac{\text{Pump GPM} \times \text{Minute Run Time}}{\text{Multiplier (X)}} = \text{Min. Tank Capacity Required}$$

EXAMPLE:

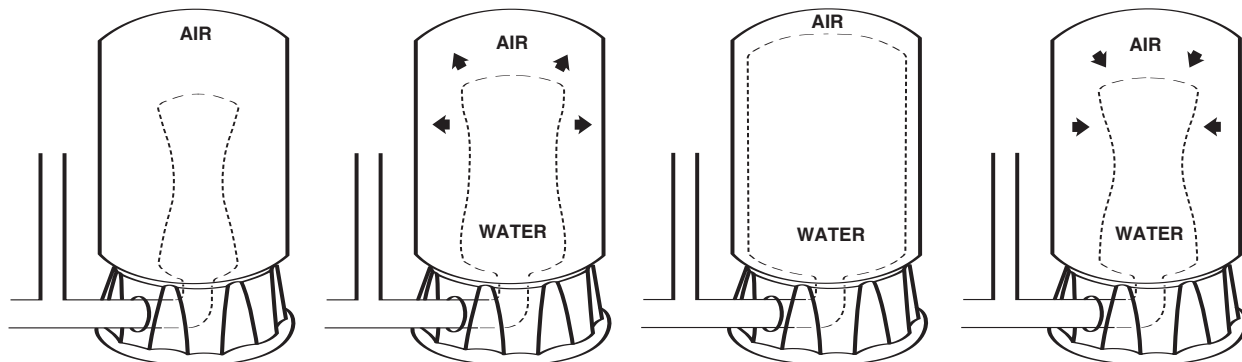
An example of a 20 GPM pump with a minimum run time of 1 minute, installed on a 50-70 PSIG system pressure range:

$$\frac{20 \text{ GPM} \times 1 \text{ Minute}}{.24 \text{ (factor) from Drawdown Volume Multiplier chart}} = 83.3 \text{ Minimum U.S. Gallon Tank Capacity Required}$$

Referring to "Ordering Information" chart, the model C-PS220-T52 has the closest U.S. gallon capacity that is greater or equal to the minimum volume requirement of 83.3 U.S. gallons.

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operating cycle



1. Separator is completely empty – A new cycle is ready to begin. Simple, positive action produces maximum drawdown on every cycle.

2. Water begins to enter the tank – Air is compressed around the water separator as it fills with water.

3. Pump up cycle completed – Air is now compressed to the cut-off setting of pressure switch.

4. Water is being drawn from the tank – Compressed air in the tank forces water out of the separator.

multiple tank installations

PRO-Source™ tanks can be connected together to increase the supply of usable water (drawdown). Two tanks of the same size will double the supply and three tanks will triple the supply. See Figures No. 1 and 2 below for the typical installations of this kind.

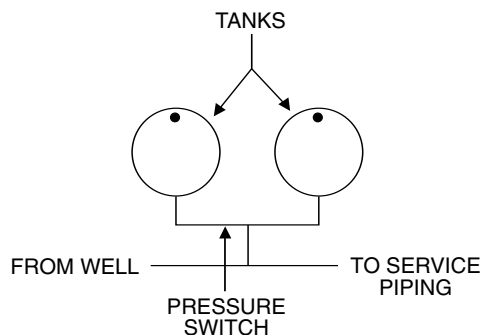


Figure 1

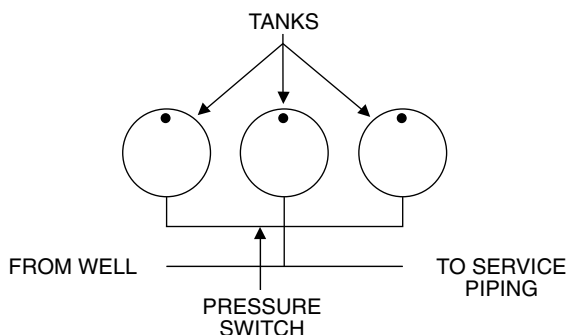
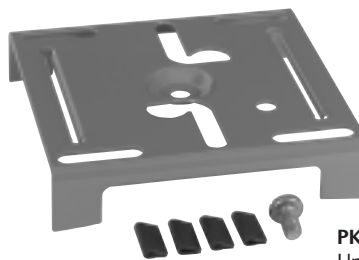


Figure 2

accessories



PKG 198
Universal Jet Mounting Bracket



PKG 111, PKG 112 or PKG 207
Jet Pump-to-Tank Mounting Pkg.

ordering information

Catalog Number	Description
PKG 198	Jet Pump Mounting Bracket
PKG 111	Pump to Tank Fitting Package for composite jet pumps
PKG 112	Pump to Tank Fitting Package cast iron series jet pumps with composite fittings
PKG 207	Pump to Tank Fitting Package for cast iron series jet pumps, with galvanized fittings