



Premium Steel Pressurized Tanks



- ✓ **Stainless Steel Service Connection** – “The Professional’s Choice”
- ✓ **Metal Air Valve Assembly** – “Field-Serviceable”
- ✓ **125 PSI Maximum Operating Pressure** – Four Sizes: PSP50, PSP62, PSP85 and PSP119

APPLICATIONS

- Residential Water Systems
- Industrial, Commercial and Agricultural

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 – 304SS

Service Connection – NPT threads, integral to flange

Air Valve – Nickel-plated brass, threaded for ease of service

PRO-Source PLUS™ is a trademark of Pentair Water.

In order to provide the best products possible, specifications are subject to change.

ORDERING INFORMATION

| Catalog Number | Maximum Capacity gal/liter | Diameter* inch/cm | Height* inch/cm | Precharge PSI/kPa | Connection Size Female | Drawdown in Gallons/Liter | | | Weight lbs/kg | Maximum Operating PSI |
|------------------------|----------------------------|-------------------|-----------------|-------------------|------------------------|---------------------------|--------------|--------------|---------------|-----------------------|
| | | | | | | 20-40 | 30-50 | 40-60 | | |
| VERTICAL MODELS | | | | | | | | | | |
| PSP19S-T02 | 19 / 72 | 20 / 51 | 21 / 53.3 | 40 / 276 | 1" NPT | 6.9 / 26.1 | 5.8 / 21.9 | 5.0 / 18.9 | 49 / 22.2 | 100 |
| PSP19T-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 | 44 / 20.0 | 100 |
| PSP32-T03 | 32 / 121 | 16 / 40.6 | 43 / 109 | 40 / 276 | 1" NPT | 11.6 / 43.9 | 9.8 / 37.1 | 8.5 / 32.2 | 60 / 27.2 | 100 |
| PSP35-T05 | 35 / 133 | 20 / 51 | 33 / 84 | 40 / 276 | 1" NPT | 12.7 / 48.1 | 10.7 / 40.5 | 9.3 / 35.2 | 70 / 31.8 | 100 |
| PSP50-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 | 88 / 39.9 | 125 |
| PSP62-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 | 116 / 52.6 | 125 |
| PSP85-T52 | 85 / 322 | 24 / 61 | 51 / 130 | 40 / 276 | 1-1/4" NPT | 30 / 113.6 | 26 / 98.4 | 22 / 83.3 | 128 / 58.1 | 125 |
| PSP119-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 | 125 |

* Subject to change without notice.

Maximum Liquid Temperature: 120° F (49° C). Maximum External (Ambient) Temperature: 125° F (52° C).



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FEATURES

- Service Connection** – 304 stainless steel.
- Air Valve** – Nickel-plated brass.
- Maximum Operating Pressure** – 100 PSI on 16" and 20" tanks; 125 PSI on 24" tanks.
- Heavy Gauge Metal Construction** – Sturdy “welded wrapper and head design.” Built to last.
- Polyester Paint Finish** – Electrostatically powder painted, then oven baked for a smooth high-gloss, appliance-quality finish. Resists corrosion.
- Elongated, Seamless Water Cell** – Controlled 2-dimensional cell expansion.
 - Rugged, seamless “water cell” prevents the most common cause of pump failure – “waterlogging”
 - Water never touches the steel tank material.

- Translucent bag material facilitates manufacturing quality control inspection.
- NEW Stainless Service Connection** –
 - Corrosion-resistant.
 - Stainless steel – the professional’s choice.
- Integral Stand Pipe** – Promotes 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.

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 PLUS™ tank is a PSP85-T52 which has a 26 gallon drawdown.

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 | PSP19T | PSP32 | PSP19T | PSP35 | PSP19T | PSP35 |
| 7-1/2 | PSP32 | PSP35 | PSP32 | PSP50 | PSP32 | PSP62 |
| 10 | PSP32 | PSP62 | PSP35 | PSP62 | PSP35 | PSP85 |
| 12-1/2 | PSP35 | PSP62 | PSP50 | PSP85 | PSP50 | PSP85 |
| 15 | PSP50 | PSP85 | PSP50 | PSP50 (2) | PSP62 | PSP62 (2) |
| 20 | PSP62 | PSP62 (2) | PSP62 | PSP62 (2) | PSP85 | PSP85 (2) |
| 30 | PSP85 | PSP85 (2) | PSP50 (2) | PSP85 (2) | PSP200 (2) | PSP85 (3) |
| 50 | PSP62 + PSP85 | PSP85 (3) | PSP85 (2) | PSP85 (4) | PSP85 (2) | PSP85 (5) |
| 50 | - | PSP119 (2) + PSP62 | - | PSP119 (3) | PSP119 (2) | PSP119 (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 PLUS™ tank require a relief valve equal to the tank’s maximum operating pressure. Relief valve must be capable of relieving entire flow of pump at relief pressure.

CHART B – 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 Chart A. Drawdown based on Boyle’s Law.

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

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

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:

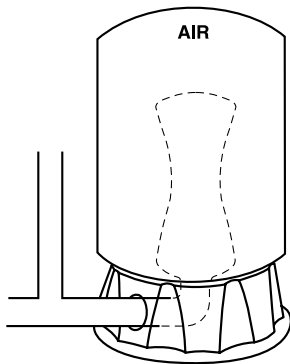
$$\frac{20 \text{ GPM} \times 1 \text{ minute}}{.24 \text{ (factor) from Chart B}} = 83.3 \text{ minimum U.S. gal tank capacity required}$$

Referring to “Ordering Information” chart, the model PSP85-T52 has the closest U.S. gallon capacity that is greater or equal to the minimum volume requirement of 83.3 U.S. gallons.

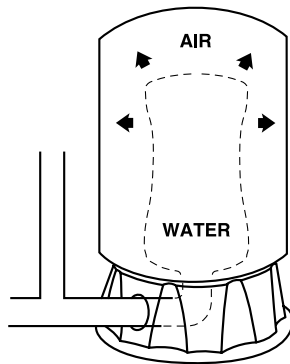


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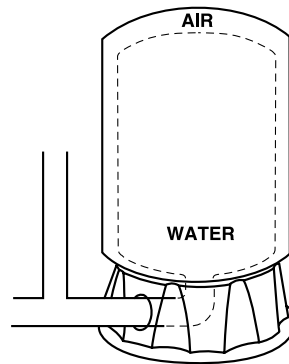
OPERATING CYCLE



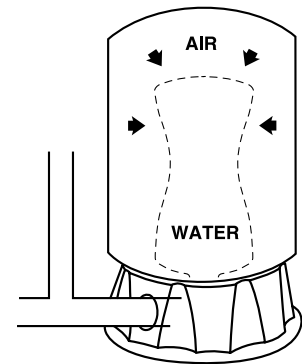
1. Separator is completely empty – A new cycle is ready to begin. Simple, positive action produces maximum drawdown on every cycle.



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

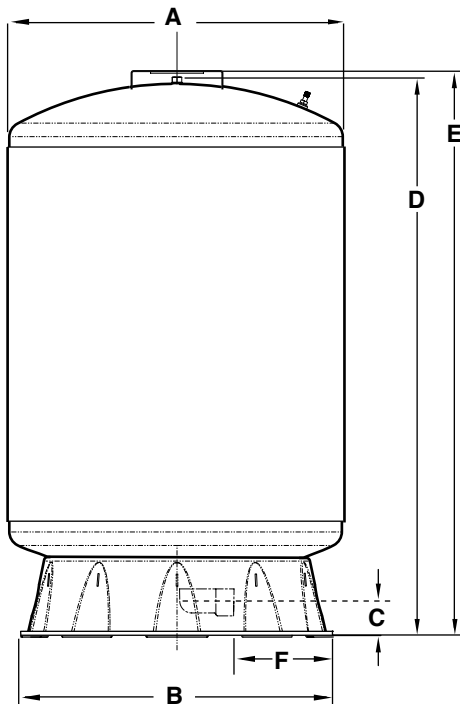


3. Pump up cycle completed – Air is now compressed to the cut-off setting of pressure switch.



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

OUTLINE DIMENSIONS



| Catalog Number | Discharge NPT | A | B | C | D | E | F |
|----------------|---------------|------|------|-----|------|------|-----|
| PSP19T-T02 | 1" | 16.1 | 15.5 | 2.0 | 27.8 | – | 3.9 |
| PSP32-T02 | 1" | 16.1 | 15.5 | 2.0 | 43.0 | – | 2.3 |
| PSP19S-T02 | 1" | 20.1 | 15.5 | 2.0 | – | 21.5 | 2.3 |
| PSP35-T05 | 1" | 20.1 | 15.5 | 2.0 | 33.0 | – | 2.3 |
| PSP50-T50 | 1-1/4" | 24.1 | 22.7 | 2.5 | 33.2 | – | 5.5 |
| PSP62-T51 | 1-1/4" | 24.1 | 22.7 | 2.5 | 40.1 | – | 5.5 |
| PSP85-T52 | 1-1/4" | 24.1 | 22.7 | 2.5 | 51.5 | – | 5.5 |
| PSP119-TR50 | 1-1/4" | 24.1 | 22.7 | 2.5 | 68.6 | – | 5.5 |

Dimensions (in inches) are for estimating purposes only.