

WELL-X-TROL[®] ASME

WATER SYSTEM TANKS

ASME Water Tanks for
Commercial & Industrial
Applications



WELL-X-TROL[®]
ASME WX Series by AMTROL[®]

WELL-X-TROL® ASME: The Professionals Choice

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The AMTROL Advantage

- AMTROL — A world-leading provider of advanced water system solutions supplies a complete line of quality-engineered, cost efficient, heating and water systems that you can count on.
- ISO 9001-2000 Certified.
- With over 50 years experience, AMTROL sets the standard for service, reliability, innovation, design and manufacture of water system equipment.
- Fully qualified technical staff available to help ensure solid solutions for your water and heating needs.

A Wide Range of Applications

WELL-X-TROL® ASME water tanks continue to set industry standards for quality and reliability and have been performance-proven in a variety of applications ranging from municipal well systems or pressure boosting stations to sprinkler systems at your local golf course. A few examples are listed below:



- In a municipal well system or pressure boosting station, WELL-X-TROL®s are used to control sequential start of the main pumps. At the same time, it reduces surge and provides the jockey pump with guaranteed minimum run times during the peak demand periods.
- High-pressure booster applications in high-rise buildings, irrigation systems and community wells are ideally suited for the WELL-X-TROL® 400 Series. The 450 Series can be used on pressure regulation stations to provide dampening during periodic high peak loading.
- Many times, two model WELL-X-TROL®s can be used together on the same system. For example, on a golf course sprinkler system, a larger 450 Series protects and assures proper pump operation while a smaller 400 Series protects “dead end” lines from hammer and surge.

AMTROL ASME WELL-X-TROL® Benefits....

- Pump protection
 - Reduces surge
 - Dampens pressure spikes
 - Offers a point of pressure control
 - Provides minimum run-time
- Provides rapid system response and adequate protection at the end of long pipe runs.
- *Controls system shock and pressure fluctuations when your system utilizes:
 - Back flow preventors
 - Check valves
 - Solenoid
 - Mixing and meter valves
 - Pumps and other system controls

**Caution: Do not use for shock with flow velocities greater than 10 FPS (3.04 MPS).*



WELL-X-TROL® ASME Commercial/Industrial Water System Tanks

Features

- Designed, constructed and tested per ASME Code Section VIII, Division 1 standards.
- Most robust heavy-duty butyl bladder with 0.100" (2.54 mm) minimum thickness (WX-440-C/WX-450-C Series).
- Replaceable bladder design (WX-440-C/WX-450-C Series).
- Diaphragm and bladder NSF/ANSI 61 approved.
- Pre-pressurized, sealed-in air charge.
- Corrosion resistant virgin polypropylene liner (WX-400-C Series).

Superior Performance with AMTROL's Heavy-Duty Butyl Bladder

Bladder Cross-Section Comparison



AMTROL



Brand "X"



Brand "Y"

THICKER IS BETTER!

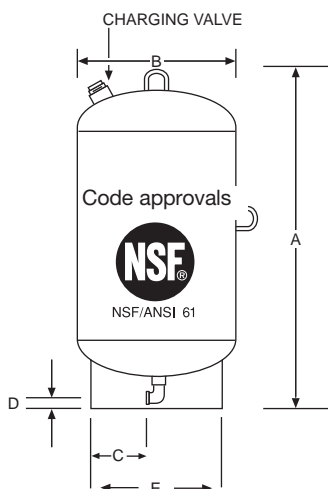
Maximum Operating Conditions

| | |
|-------------------------------|-------------------------------------|
| Working Pressure: | 125 psig (8.8 bar) |
| | 150 psig (10.5 bar) |
| | 175 psig (12.3 bar) |
| | 250 psig (17.6 bar) |
| Operating Temperature: | WX-400-C Series 200°F (93°C) |
| | WX-440-C/450-C Series 240°F (115°C) |

Materials of Construction

| Description | WX-400-C Series Standard Construction | WX-440-C/WX-450-C Series Standard Construction |
|-------------------|--|---|
| Shell | Steel | Steel |
| Diaphragm | Heavy-Duty Butyl/EPDM NSF/ANSI 61 | - |
| Bladder | - | Heavy-Duty Butyl NSF/ANSI 61 |
| Liner | Polypropylene | - |
| Coating | Red Oxide Primer | Red Oxide Primer |
| System Connection | Malleable Iron (NPT) | Malleable Iron (NPTF) |

WX-400-C Series (ASME)

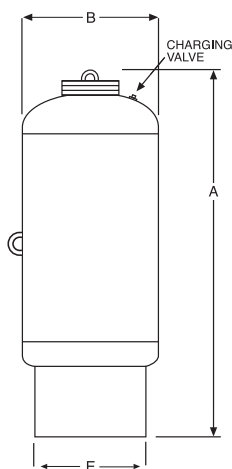


| Model No. | Tank Vol. | | Max. Accept. | | A Height | | B Diameter | | C Conn. | | D Inset | | E Stand | | Sys. Conn. |
|-----------|-----------|------|--------------|------|----------|------|------------|------|---------|------|---------|------|---------|------|------------|
| | Lit. | Gal. | Lit. | Gal. | mm | ins. | mm | ins. | mm | ins. | mm | ins. | mm | ins. | |
| WX-401-C | 68 | 18 | 42.75 | 11¼ | 794 | 31¼ | 413 | 16¼ | 124 | 4⅞ | 38 | 1½ | 324 | 12¾ | 1 |
| WX-402-C | 95 | 25 | 42.75 | 11¼ | 1010 | 39¼ | 413 | 16¼ | 124 | 4⅞ | 38 | 1½ | 324 | 12¾ | 1 |
| WX-403-C | 129 | 34 | 42.75 | 11¼ | 1251 | 49¼ | 413 | 16¼ | 124 | 4⅞ | 38 | 1½ | 324 | 12¾ | 1 |
| WX-404-C | 258 | 68 | 129.20 | 34 | 1209 | 47⅝ | 610 | 24 | 159 | 6¼ | 41 | 1⅝ | 406 | 16 | 1¼ |
| WX-405-C | 341 | 90 | 129.20 | 34 | 1505 | 59¼ | 610 | 24 | 159 | 6¼ | 41 | 1⅝ | 406 | 16 | 1¼ |
| WX-406-C | 417 | 110 | 129.20 | 34 | 1778 | 70 | 610 | 24 | 159 | 6¼ | 41 | 1⅝ | 406 | 16 | 1¼ |
| WX-407-C | 500 | 132 | 174.80 | 46 | 1470 | 57⅞ | 762 | 30 | 254 | 10 | 44 | 1¾ | 610 | 24 | 1¼ |

All dimensions are approximate.

WELL-X-TROL® ASME Commercial/Industrial Water System Tanks

WX-440-C/460-C Series (ASME) 125 PSIG Working Pressure



| Model No. | Tank Vol. | | 0 PSIG Acc. Vol. | Max. Recomm. Acc.Vol. | | A Height | | B Diameter | | Sys. Conn. | C Conn. Inset | D Conn. Ctr.Line | E Stand Dia. | Ship Wt. | |
|-----------|-----------|------|------------------|-----------------------|------|----------|---------------------------------|------------|------|------------|-------------------------------|-------------------------------|--------------|----------|------|
| | Lit. | Gal. | Gal. | Lit. | Gal. | mm | ins. | mm | ins. | ins. | ins. | ins. | ins. | kg | lbs. |
| WX-447-C | 200 | 53 | 53 | 129 | 34 | 1150 | 45 ¹ / ₄ | 610 | 24 | 2 | 2 | 3 ³ / ₄ | 19 | 120 | 263 |
| WX-448-C | 300 | 80 | 80 | 197 | 52 | 1502 | 59 ¹ / ₈ | 610 | 24 | 2 | 2 | 3 ³ / ₄ | 19 | 143 | 315 |
| WX-449-C | 400 | 106 | 106 | 261 | 69 | 1857 | 73 ¹ / ₈ | 610 | 24 | 2 | 2 | 3 ³ / ₄ | 19 | 145 | 319 |
| WX-450-C | 500 | 132 | 132 | 322 | 85 | 2200 | 86 ⁵ / ₈ | 610 | 24 | 2 | 2 | 3 ³ / ₄ | 19 | 159 | 351 |
| WX-451-C | 600 | 158 | 158 | 386 | 102 | 1867 | 73 ¹ / ₄ | 762 | 30 | 2 | 3 ¹ / ₂ | 5 ¹ / ₂ | 24 | 224 | 493 |
| WX-452-C | 800 | 211 | 211 | 519 | 137 | 2312 | 91 | 762 | 30 | 2 | 3 ¹ / ₂ | 5 ¹ / ₂ | 24 | 273 | 602 |
| WX-453-C | 1000 | 264 | 264 | 647 | 171 | 2184 | 86 | 914 | 36 | 3 | 4 ¹ / ₂ | 7 | 30 | 307 | 676 |
| WX-454-C | 1200 | 317 | 317 | 780 | 206 | 2489 | 98 | 914 | 36 | 3 | 4 ¹ / ₂ | 7 | 30 | 346 | 762 |
| WX-455-C | 1400 | 370 | 370 | 908 | 240 | 2804 | 110 ³ / ₈ | 914 | 36 | 3 | 4 ¹ / ₂ | 7 | 30 | 382 | 843 |
| WX-456-C | 1600 | 422 | 422 | 1037 | 274 | 2080 | 81 ⁷ / ₈ | 1220 | 48 | 3 | 7 ¹ / ₂ | 7 ⁷ / ₈ | 42 | 523 | 1154 |
| WX-457-C | 2000 | 528 | 528 | 1298 | 343 | 2470 | 97 ¹ / ₄ | 1220 | 48 | 3 | 7 ¹ / ₂ | 7 ⁷ / ₈ | 42 | 604 | 1331 |
| WX-458-C | 2498 | 660 | 660 | 1624 | 429 | 2134 | 84 | 1524 | 60 | 4 | 8 | 6 | 54 | 658 | 1450 |
| WX-459-C | 2998 | 792 | 792 | 1949 | 515 | 2438 | 96 | 1524 | 60 | 4 | 8 | 6 | 54 | 984 | 2169 |
| WX-460-C | 3501 | 925 | 925 | 2275 | 601 | 2718 | 107 | 1524 | 60 | 4 | 8 | 6 | 54 | 1043 | 2300 |
| WX-461-C | 3997 | 1056 | 1056 | 2596 | 686 | 2972 | 117 | 1524 | 60 | 4 | 8 | 6 | 54 | 1197 | 2638 |
| WX-462-C | 4996 | 1320 | 1320 | 3247 | 858 | 2743 | 108 | 1829 | 72 | 4 | 8 | 6 | 60 | 1588 | 3500 |
| WX-463-C | 7494 | 1980 | 1980 | 4871 | 1287 | 3556 | 140 | 1829 | 72 | 4 | 8 | 6 | 60 | 1860 | 4100 |

Maximum Operating Conditions

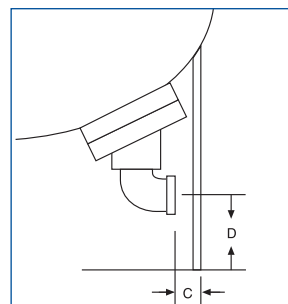
| | |
|-----------------------|--------------------|
| Operating Temperature | 240° F (115° C) |
| Working Pressure | 125 PSIG (8.8 bar) |

Specifications

| Description | Standard Construction |
|-------------------|------------------------------|
| Shell | Steel |
| Bladder | Heavy Duty Butyl NSF/ANSI 61 |
| Bladder Thickness | .100 Ins. Minimum |
| System Connection | Malleable Iron (NPTF) |
| Coating | Red Oxide Primer |
| Factory Precharge | 25 PSIG (1.8 bar) |

Constructed per ASME Code Section VIII, Division 1.
All dimensions and weights are approximate.

- For higher pressures please contact factory.
- Note: Allow 18" (460mm) minimum clearance.
- All dimensions are approximate.



WELL-X-TROL® ASME Commercial/Industrial Water System Tanks

Well-X-Trol Bottom Connection Bladder Series

The WELL-X-TROL WX Series vessels incorporate seamless bladder construction and contoured bladder design that ensures repeatable and predictable long-life expectancy. The WX partial acceptance bladder is designed to gently unfold to accept expansion fluids without stretching the bladder and causing undo stress. Made of heavy-duty butyl material they are designed and built to provide reliability, durability, and dependability you can count on.

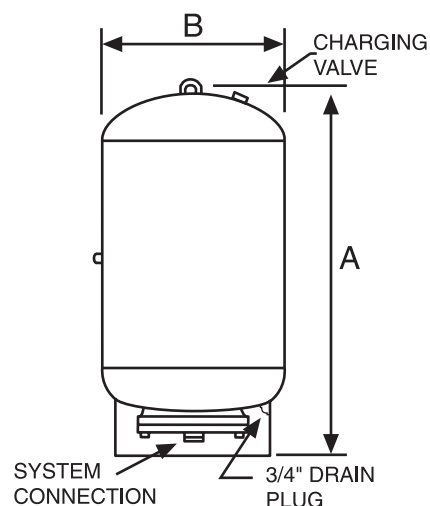
- Designed and constructed per ASME Section VIII, Division 1 standards
- Replaceable bladder design
- Stainless Steel system connection
- Available with optional seismic restraints and site glass

Maximum Operating Conditions

Maximum Working Pressure: 125 psig (8.8 bar)

Operating Temperature: 240°F (115°C)

| *Model No. | Tank Volume | | Accept Volume | | A Height | | B Diameter | | Sys. Conn. ¹ | | Ship Weight | |
|--------------|-------------|------|---------------|------|----------|---------------------------------|------------|------|-------------------------|-------------------------------|-------------|------|
| | Lit. | Gal. | Lit. | Gal. | mm | ins. | mm | ins. | mm | ins. | kg | lbs. |
| WX-35-CL(L) | 35 | 10 | 35 | 10 | 948 | 37 ¹ / ₁₆ | 254 | 10 | 32 | 1 ¹ / ₄ | 32 | 69 |
| WX-50-CL(L) | 50 | 13 | 40 | 11 | 941 | 37 ¹ / ₁₆ | 305 | 12 | 32 | 1 ¹ / ₄ | 35 | 76 |
| WX-85-CL(L) | 85 | 22 | 40 | 11 | 872 | 34 ⁵ / ₁₆ | 406 | 16 | 32 | 1 ¹ / ₄ | 42 | 92 |
| WX-100-CL(L) | 100 | 26 | 40 | 11 | 991 | 39 | 406 | 16 | 32 | 1 ¹ / ₄ | 45 | 98 |
| WX-130-CL(L) | 130 | 34 | 100 | 27 | 881 | 34 ¹ / ₁₆ | 508 | 20 | 38 | 1 ¹ / ₂ | 62 | 136 |
| WX-165-CL(L) | 165 | 44 | 100 | 27 | 1008 | 39 ¹ / ₁₆ | 508 | 20 | 38 | 1 ¹ / ₂ | 67 | 146 |
| WX-200-CL(L) | 200 | 53 | 100 | 27 | 1039 | 40 ⁷ / ₈ | 610 | 24 | 38 | 1 ¹ / ₂ | 91 | 198 |
| WX-300-CL(L) | 300 | 80 | 100 | 27 | 1423 | 56 | 610 | 24 | 38 | 1 ¹ / ₂ | 108 | 236 |
| WX-400-CL(L) | 400 | 106 | 200 | 53 | 1743 | 68 ⁵ / ₈ | 610 | 24 | 50 | 2 | 129 | 282 |
| WX-500-CL(L) | 500 | 132 | 200 | 53 | 2096 | 82 ¹ / ₂ | 610 | 24 | 50 | 2 | 144 | 316 |
| WX-600-CL(L) | 600 | 158 | 200 | 53 | 1702 | 67 | 762 | 30 | 50 | 2 | 206 | 450 |



¹System connection is NPTF

All dimensions and weights are approximate.

*Model No.: "CL" in code indicates ASME vessel. "L" in code indicates Non-ASME vessel.

WELL-X-TROL® ASME Commercial/Industrial Water System Tanks

“Typical Specification Water Systems ASME Vessels”

WX-400-C Series (Diaphragm type) & WX-440-C/WX-450-C (Bladder type)

The water system shall include a WELL-X-TROL®, diaphragm type/ bladder type pre-pressurized storage tank Model No. WX - _____ -C. Dimensions shall be as indicated on the drawings.

The storage tank shall be welded steel, constructed, tested and stamped in accordance with Section VIII, Division 1 of the ASME Code for a working pressure of (125 psig/8.8 bar) (150 psig/10.5 bar) (175 psig/12.3 bar) (250 psig/17.6 bar) (_____) and air pre-charged.

Use following paragraph for diaphragm type tank:

Each tank will have a heavy-duty butyl/EPDM diaphragm with code approvals NSF/ANSI 61. Each tank shall have a polypropylene liner.

Use following paragraph for bladder type tank:

Each tank will have a heavy-duty butyl bladder with code approvals NSF/ANSI 61. The bladder shall have a minimum thickness of 0.100 inches (2.54mm).

The tank shall be supported by steel legs or a base (integral ring mount) for a vertical installation. The vessel(s) shall be painted with one shop coat of red oxide primer.

The manufacturer shall be AMTROL Inc. The manufacturer shall have at least five years experience in the fabrication of diaphragm/bladder type ASME tanks.

*Refer to installation manual for warranty information or visit our website at www.amtrol.com



www.amtrol.com

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