



THERMXTROL®

Commercial Thermal Expansion Tanks



188

AntiLegionella.



Antimicrobial.



Turbulator.



DeepDrawn.



THERMXTROL®

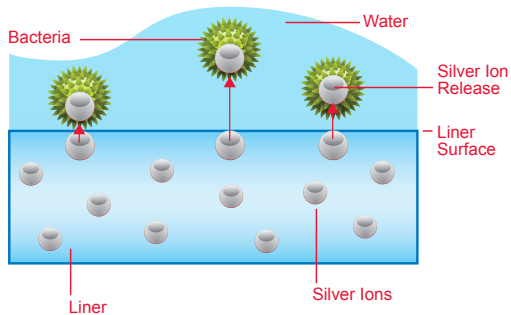
Amtrol thermal expansion tanks are engineered to control pressure build-up in closed, potable water systems. Available in diaphragm, full acceptance and partial acceptance bladder designs, all Therm-X-Trol expansion tanks are made in the USA at our ISO 9001:2015 certified facility. ASME tanks meet Section VIII, Division 1 Standards.

Deep Drawn Construction

- Deep drawing doubles dome strength.
- Requires half the welds vs. head & shell.
- Integral diaphragm design features a unique hoop ring and groove configuration that securely locks together the diaphragm, liner and domes.
- Small footprint fits tight mechanical rooms.
- End-mounted charging valve for easy air adjustments on in-line models.

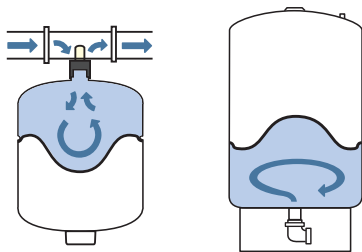
Patented Anti-Legionella Liner

- Safe, Silver-Ion technology targets active microorganisms to neutralize bacteria on contact.
- Compound is molded into the liner.
- Protection lasts the life of the tank.

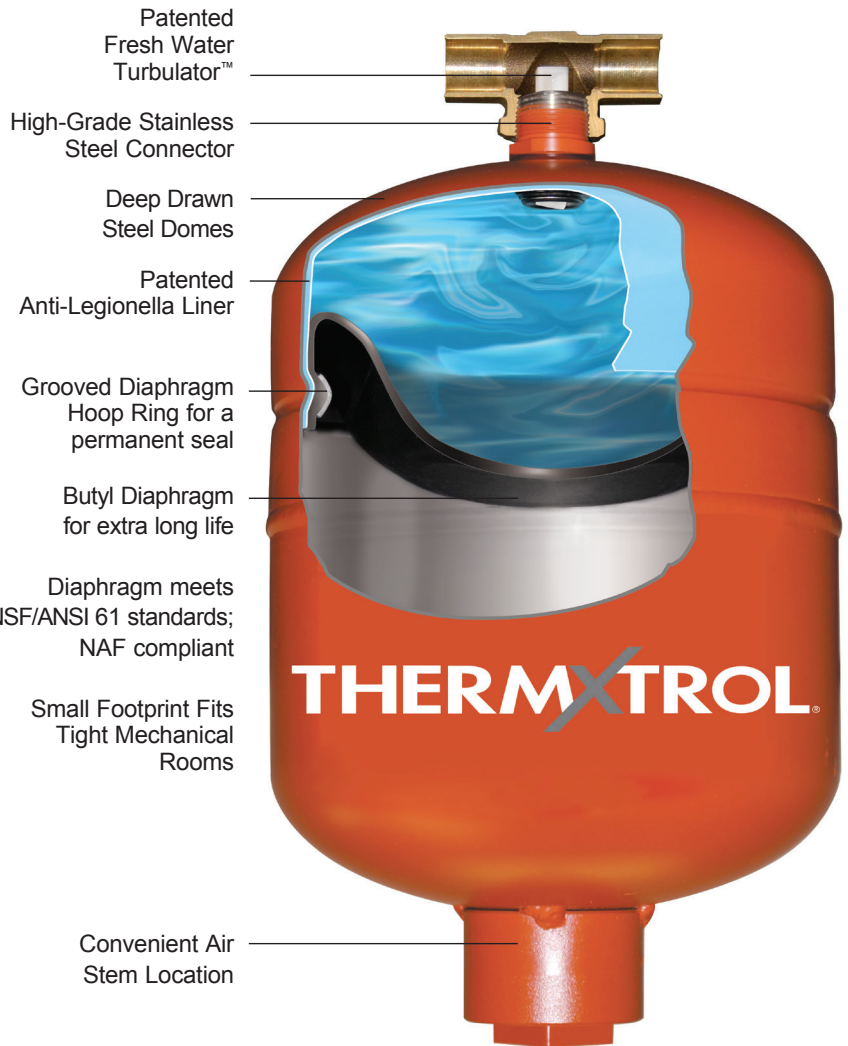


Patented Fresh Water Turbulator™

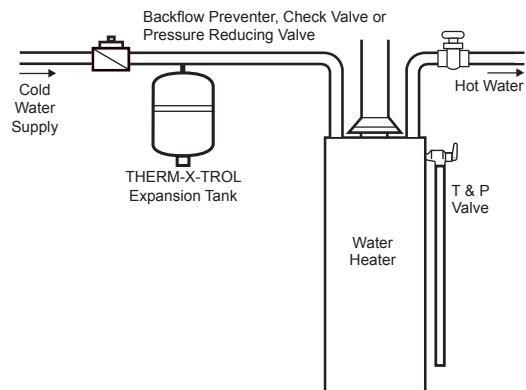
- Agitates incoming water to remove debris.
- Helps extend the life of the tank.
- Eliminates stagnant water in VFD Systems.



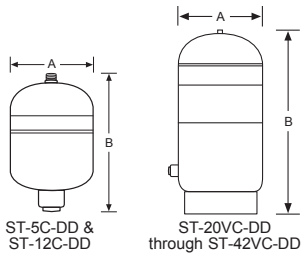
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AntiLegionella. Antimicrobial. Turbulator.



Typical Installation



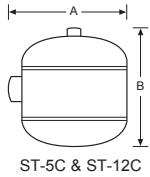
ASME Thermal Expansion Tanks



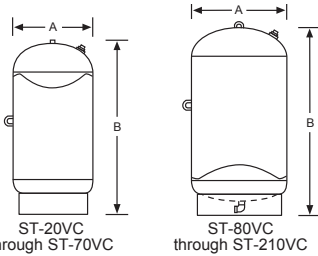
ASME Deep Drawn Diaphragm Series Specifications

| Model Number | Tank Volume (Gallons) | Max. Accept. Volume (Gallons) | A Diameter (Inches) | B Height (Inches) | System Conn. ¹ (Inches) | Shipping Weight (lbs.) Max. Working Pressure | | | |
|--------------|-----------------------|-------------------------------|---------------------|-------------------|------------------------------------|--|---------|---------|---------|
| | | | | | | 150 PSI | 175 PSI | 250 PSI | 300 PSI |
| ST-5C-DD | 2.0 | 0.9 | 8 | 14 | 3/4 NPTM | 10 | 12 | - | - |
| ST-12C-DD | 6.4 | 3.2 | 12 | 18 | 3/4 NPTM | 17 | 19 | - | - |
| ST-20VC-DD | 8.6 | 3.2 | 12 | 22 | 3/4 NPTM | 36 | 38 | - | - |
| ST-30VC-DD | 16.6 | 11.3 | 15 | 25 | 3/4 NPTM | 48 | - | - | - |
| ST-42VC-DD | 23.2 | 11.3 | 15 | 33 | 3/4 NPTM | 68 | - | - | - |

¹Stainless Steel System Connection. Maximum Operating Temperature: 200°F. Factory Pre-charge: 55 PSIG.



ST-5C & ST-12C



ST-20VC through ST-70VC
ST-80VC through ST-210VC

Anti- Legionella Liner & Fresh Water Turbulator featured in all diaphragm tank models.

ASME Head & Shell Diaphragm Series Specifications

| Model Number | Tank Volume (Gallons) | Max. Accept. Volume (Gallons) | A Diameter (Inches) | B Height (Inches) | System Conn. ¹ (Inches) | Shipping Weight (lbs.) Max. Working Pressure | | | |
|--------------|-----------------------|-------------------------------|---------------------|-------------------|------------------------------------|--|---------|---------|---------|
| | | | | | | 150 PSI | 175 PSI | 250 PSI | 300 PSI |
| ST-5C | 2.1 | 0.9 | 10 | 10 | 3/4 NPTF | - | - | 25 | 30 |
| ST-12C | 6.4 | 3.2 | 12 | 14 | 3/4 NPTF | - | - | 42 | 50 |
| ST-20VC | 8.0 | 3.2 | 12 | 19 | 3/4 NPTF | - | - | 50 | 62 |
| ST-30VC | 14.0 | 9.0 | 16 | 19 | 3/4 NPTF | - | 64 | 96 | 108 |
| ST-42VC | 18.0 | 11.0 | 16 | 24 | 3/4 NPTF | - | 75 | 101 | 112 |
| ST-60VC | 25.0 | 11.0 | 16 | 32 | 3/4 NPTF | 85 | 113 | 125 | 139 |
| ST-70VC | 34.0 | 11.0 | 16 | 45 | 3/4 NPTF | 99 | 122 | 136 | 151 |
| ST-80VC | 53.0 | 35.0 | 24 | 37 | 1 1/4 NPTF | 224 | 296 | 305 | 340 |
| ST-120VC | 68.0 | 35.0 | 24 | 44 | 1 1/4 NPTF | 266 | 340 | 375 | 400 |
| ST-180VC | 77.0 | 35.0 | 24 | 49 | 1 1/4 NPTF | 285 | 360 | 380 | 420 |
| ST-210VC | 90.0 | 35.0 | 24 | 57 | 1 1/4 NPTF | 319 | 380 | 405 | 440 |

¹Stainless Steel System Connection. Maximum Operating Temperature: 200°F. Factory Pre-charge: 55 PSIG.

ASME Full Acceptance Bladder Series Specifications

| Model Number | Tank Volume (Gallons) | Max. Accept. Volume (Gallons) | A Diameter (Inches) | B Height (Inches) | System Conn. ¹ NPTF (Inches) | Shipping Weight (lbs.) Max. Working Pressure | | | | |
|--------------|-----------------------|-------------------------------|---------------------|-------------------|---|--|---------|---------|---------|---------|
| | | | | | | 125 PSI | 150 PSI | 175 PSI | 250 PSI | 300 PSI |
| ST-447C | 53 | 53 | 24 | 45 | 2 | 236 | 262 | 290 | 370 | 425 |
| ST-448C | 80 | 80 | 24 | 59 | 2 | 274 | 340 | 430 | 492 | 540 |
| ST-449C | 106 | 106 | 24 | 73 | 2 | 320 | 360 | 450 | 510 | 560 |
| ST-450C | 132 | 132 | 24 | 87 | 2 | 354 | 400 | 460 | 570 | 632 |
| ST-451C | 158 | 158 | 30 | 73 | 2 | 494 | 587 | 680 | 815 | 895 |
| ST-452C | 211 | 211 | 30 | 91 | 2 | 593 | 625 | 699 | 1,005 | 1,107 |
| ST-453C | 264 | 264 | 36 | 86 | 3 | 667 | 760 | 845 | 1,100 | 1,205 |
| ST-454C | 317 | 317 | 36 | 98 | 3 | 762 | 850 | 960 | 1,265 | 1,400 |
| ST-455C | 370 | 370 | 36 | 110 | 3 | 842 | 935 | 1,065 | 1,350 | 1,490 |
| ST-456C | 422 | 422 | 48 | 82 | 3 | 1,152 | 1,423 | 1,650 | 1,660 | 1,830 |
| ST-457C | 528 | 528 | 48 | 97 | 3 | 1,335 | 1,505 | 1,875 | 2,230 | 2,455 |

¹Bronze System Connection. Maximum Operating Temperature: 240°F. Factory Pre-charge: 25 PSIG.

ASME Partial Acceptance Bladder Series Specifications

| Model Number | Tank Volume (Gallons) | Max. Accept. Volume (Gallons) | A Diameter (Inches) | B Height (Inches) | System Conn. ¹ NPTF (Inches) | Shipping Weight (lbs.) Max. Working Pressure | |
|--------------|-----------------------|-------------------------------|---------------------|-------------------|---|--|--|
| | | | | | | 150 PSI | |
| ST-35CL | 10 | 10 | 10 | 37 | 1 | 76 | |
| ST-50CL | 13 | 11 | 12 | 37 | 1 | 78 | |
| ST-85CL | 22 | 11 | 16 | 35 | 1 | 95 | |
| ST-100CL | 26 | 11 | 16 | 39 | 1 | 102 | |
| ST-130CL | 34 | 27 | 20 | 35 | 1 | 134 | |
| ST-165CL | 44 | 27 | 20 | 40 | 1 | 153 | |
| ST-200CL | 53 | 27 | 24 | 41 | 1 | 205 | |
| ST-300CL | 80 | 27 | 24 | 56 | 1 | 254 | |
| ST-400CL | 106 | 53 | 24 | 69 | 1 | 308 | |
| ST-500CL | 132 | 53 | 24 | 83 | 1 | 352 | |
| ST-600CL | 158 | 53 | 30 | 67 | 1 | 442 | |

¹Stainless Steel System Connection. Maximum Operating Temperature: 240°F. Factory Pre-charge: 25 PSIG.

Visit amtrol.com for sizing information.



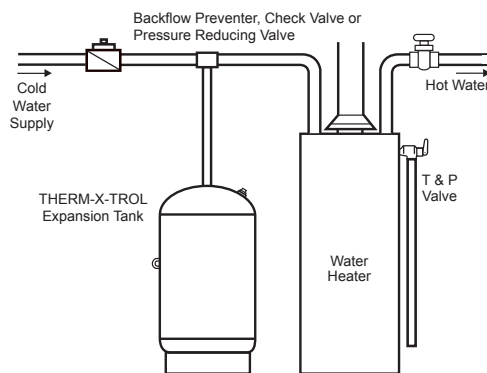
Head & Shell Construction Tanks



Diaphragm Models ST-60VC through ST-210VC

- Head and shell design with internal diaphragm tank(s).
- Anti-Legionella liner neutralizes bacteria on contact.
- Tested to JIS Z 2801 for reduction of Legionella, staphylococcus and E. coli.
- Follows ASHRAE 188 Anti-Legionella guidelines.
- Diaphragm meets NSF/ANSI 61 standards; NAF compliant.

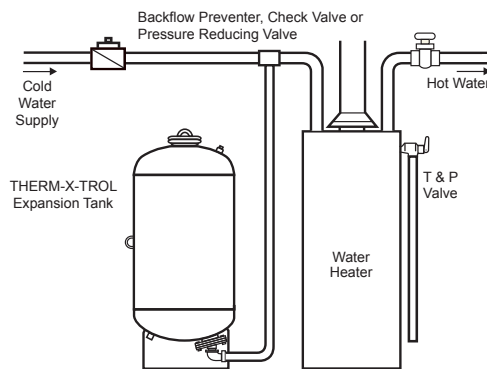
Typical Installation



Bladder Models ST-440/450 & ST-CL/L Series

- Industry's thickest butyl bladder.
- Replaceable bladder avoids costly tank replacement.
- Full and partial acceptance models available.
- Full acceptance bladder meets NSF/ANSI 61 standards; NAF compliant.

Typical Installation



1400 Division Road, West Warwick, RI 02893 USA
T: 800.426.8765 www.amtrol.com

