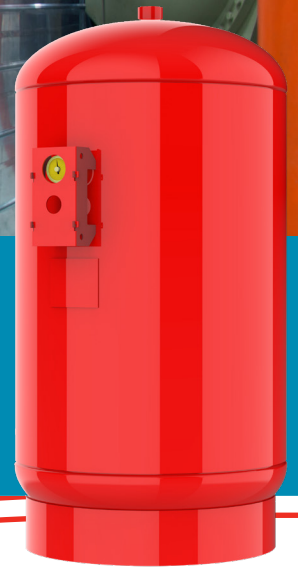


# ASME Expansion Tanks

## SERIES D PRE-CHARGED DIAPHRAGM TANKS



Designed for Closed Hydronic  
Heating and Cooling Systems

### DESCRIPTION

Series D expansion tanks are ASME rated pre-charged diaphragm-type pressure vessels. The Series D tank is designed to absorb the expansion forces of heating/cooling system water while maintaining proper system pressurization under varying operating conditions. The heavy duty diaphragm separates system water from the tank air charge thereby eliminating waterlogging problems.

- Increases system performance
- Reduces oxygen corrosion
- Prevents waterlogging
- Tank sizes: 8-211 gallons
- Suitable for both horizontal and vertical installation
- Signed and built according to ASME Section VIII, Division 1 standards
- 125 PSI standard maximum working pressure
- 175 PSI and 250 PSI maximum working pressures also available
- Maximum operating temperature: 240°F
- Integrated bladder integrity monitor on all models
- Seismic restraints available
- Sight glass available



# Series D Diaphragm Tanks

## OPERATING DATA

**Maximum Working Pressure:** 125 PSI (862 kPa)

**Maximum Operating Temperature:** 240°F (115°C)

## MATERIALS OF CONSTRUCTION

**Shell:** Carbon Steel

**Diaphragm:** Heavy Duty Butyl Rubber

**System Connection:** Forged Steel

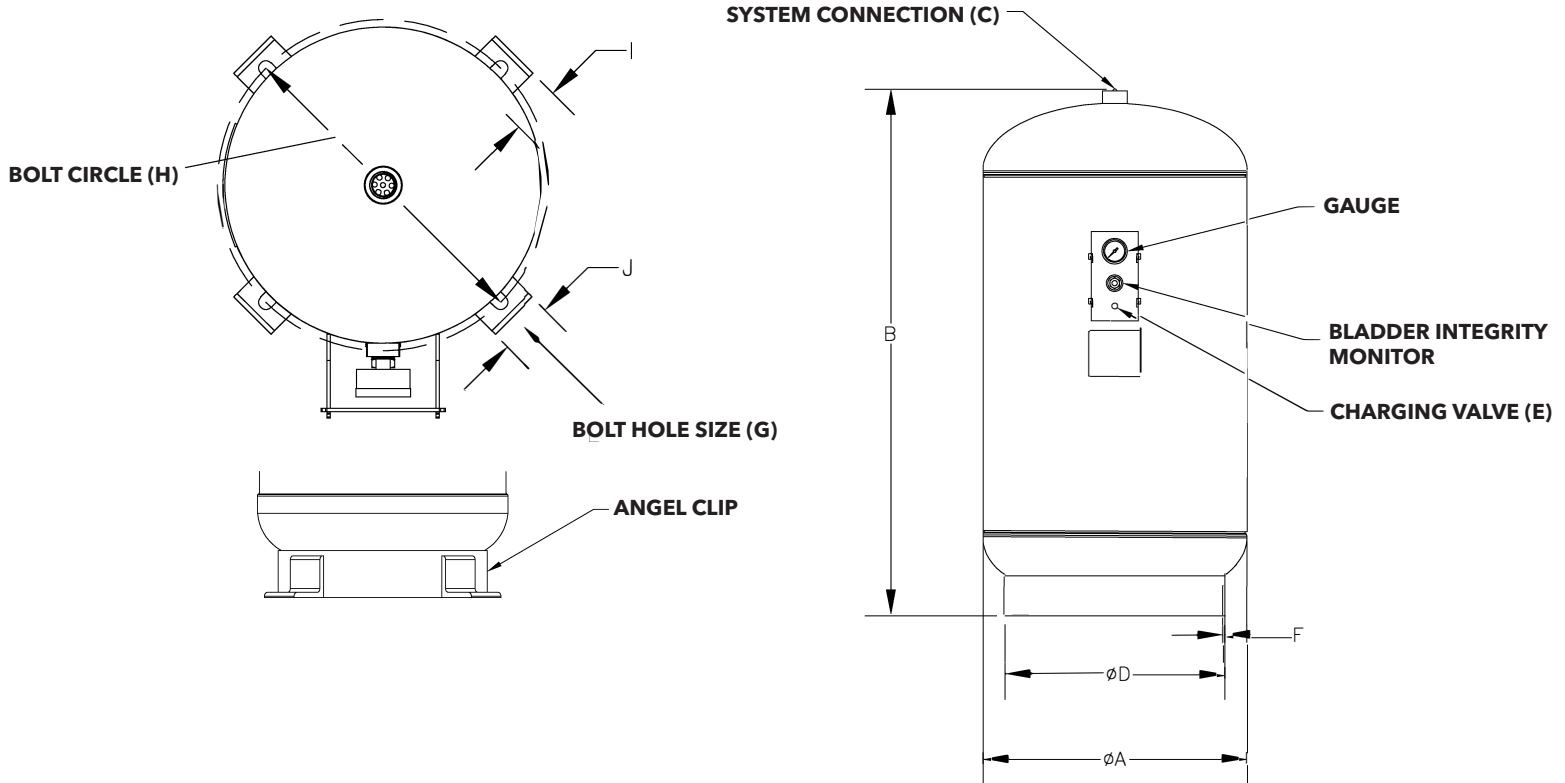
Designed and Constructed per ASME  
Section VIII, Division 1

## Dimensions

| Model | Tank and Acceptance |             | A           | B          | C<br>(NPTM) | E<br>Charging Valve | D        | F        | G         | H        | I      | J      | Ship Wt.  | Flooded Wt.*  |
|-------|---------------------|-------------|-------------|------------|-------------|---------------------|----------|----------|-----------|----------|--------|--------|-----------|---------------|
|       | Gallons (Liters)    |             | Inches (mm) |            |             |                     |          |          |           |          |        |        |           | LBS (KG)      |
| D-15  | 7.8 (30)            | 6.3 (24)    | 12 (305)    | 19 (483)   | 3/4         | .302"-32 NC         | 10 (254) | 0.14 (4) | 9/16 (14) | 12 (305) | 2 (51) | 2 (51) | 42 (19)   | 107 (49)      |
| D-20  | 11 (42)             | 8.8 (33)    | 12 (305)    | 25 (638)   | 3/4         | .302"-32 NC         | 10 (254) | 0.14 (4) | 9/16 (14) | 12 (305) | 2 (51) | 2 (51) | 52 (24)   | 144 (65)      |
| D-40  | 25 (95)             | 20.2 (76)   | 16 (406)    | 33 (838)   | 1           | .302"-32 NC         | 14 (356) | 0.14 (4) | 9/16 (14) | 16 (406) | 2 (51) | 2 (51) | 84 (38)   | 292 (132)     |
| D-60  | 35 (132)            | 28 (106)    | 16 (406)    | 44 (1,118) | 1           | .302"-32 NC         | 14 (356) | 0.14 (4) | 9/16 (14) | 16 (406) | 2 (51) | 2 (51) | 97 (44)   | 389 (176)     |
| D-80  | 45 (170)            | 36 (136)    | 20 (508)    | 38 (965)   | 1           | .302"-32 NC         | 18 (457) | 0.14 (4) | 9/16 (14) | 20 (508) | 2 (51) | 2 (51) | 148 (67)  | 523 (237)     |
| D-100 | 60 (227)            | 48.5 (184)  | 20 (508)    | 49 (1,245) | 1           | .302"-32 NC         | 18 (457) | 0.14 (4) | 9/16 (14) | 20 (508) | 2 (51) | 2 (51) | 175 (79)  | 675 (306)     |
| D-120 | 70 (265)            | 56.5 (214)  | 24 (610)    | 46 (1,168) | 1-1/2       | .302"-32 NC         | 22 (559) | 0.14 (4) | 9/16 (14) | 24 (610) | 2 (51) | 2 (51) | 259 (117) | 842 (382)     |
| D-144 | 80 (303)            | 65 (246)    | 24 (610)    | 49 (1,245) | 1-1/2       | .302"-32 NC         | 22 (559) | 0.14 (4) | 9/16 (14) | 24 (610) | 2 (51) | 2 (51) | 268 (122) | 934 (424)     |
| D-180 | 90 (341)            | 73 (276)    | 24 (610)    | 52 (1,321) | 1-1/2       | .302"-32 NC         | 22 (559) | 0.14 (4) | 9/16 (14) | 24 (610) | 2 (51) | 2 (51) | 283 (128) | 1,033 (468)   |
| D-200 | 115 (435)           | 93 (352)    | 24 (610)    | 66 (1,676) | 1-1/2       | .302"-32 NC         | 22 (559) | 0.14 (4) | 9/16 (14) | 24 (610) | 2 (51) | 2 (51) | 325 (147) | 1,283 (582)   |
| D-240 | 140 (530)           | 113.5 (430) | 24 (610)    | 78 (1,981) | 1-1/2       | .302"-32 NC         | 22 (559) | 0.14 (4) | 9/16 (14) | 25 (635) | 3 (76) | 3 (76) | 362 (164) | 1,528 (693)   |
| D-260 | 158 (598)           | 128 (485)   | 30 (762)    | 63 (1,600) | 1-1/2       | .302"-32 NC         | 24 (610) | 0.14 (4) | 9/16 (14) | 27 (686) | 3 (76) | 3 (76) | 591 (268) | 1,907 (865)   |
| D-280 | 211 (799)           | 171 (647)   | 30 (762)    | 81 (2,057) | 1-1/2       | .302"-32 NC         | 24 (610) | 0.14 (4) | 9/16 (14) | 27 (686) | 3 (76) | 3 (76) | 752 (341) | 2,510 (1,138) |

Dimensions subject to change. Not to be used for construction purposes. Refer to submittals for optional seismic restraints.

\*Approximate weight 100% full occurs if bag fails or if air charge is lost.  
No lifting ring.



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