

BLADDER EXPANSION TANK

Sizing Procedures

Diaphragm & Bladder Expansion Tanks for Hydronic Heating Systems

Information Required:

- 1. Total system water content. Gallons _____
- 2. Temperature of water when system is filled. (COLD) °F _____
- 3. Average maximum operating temperature. (HOT) °F _____
- 4. Minimum operating pressure. psig _____
- 5. Maximum operating pressure (10% below relief valve). psig _____
- 6. Enter total system water content. (from line 1. above). Gallons _____
- 7. Using the expansion factor (table 1), find and enter the expansion factor _____
- 8. Multiply line 6 by line 7. Enter expanded water volume. Gallons _____
- 9. Using acceptance factor (table 2), find and enter the acceptance factor. _____
- 10. Divide line 8 by line 9, enter total tank volume required. Gallons _____

PLEASE USE FOLLOWING FORMULA TO FIND ACCEPTANCE FACTOR, IF THE PRECHARGE PRESSURE DOES NOT EQUAL THE MINIMUM OPERATING PRESSURE AT TANK OR MINIMUM/MAXIMUM OPERATING PRESSURES AT TANK ARE NOT LISTED IN TABLE 2

$$\text{ACCEPTANCE FACTOR} = \frac{(\text{LINE 5}) + 14.7 - (\text{LINE 4}) + 14.7}{(\text{LINE 4}) + 14.7 - (\text{LINE 5}) + 14.7}$$

Select diaphragm or bladder expansion tank model from pages 3-1 through 3-12.

NOTE: THIS IS FOR WATER ONLY! FOR GLYCOL PLEASE CONTACT MECHANICAL ROOM SUPPLIES.

JOB NAME _____ LOCATION _____ _____ CONTRACTOR _____ CONTRACTOR P.O. NO. _____	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">ITEMS</th> <th style="width: 50%; text-align: center;">QUANTITY</th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </tbody> </table>	ITEMS	QUANTITY	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
ITEMS	QUANTITY														
_____	_____														
_____	_____														
_____	_____														
_____	_____														
_____	_____														
_____	_____														