



## DIAPHRAGM **EXPANSION** TANKS

### Sizing for Hydronic Heating/Cooling Systems

Job Name: \_\_\_\_\_ Date: \_\_\_\_\_

Job Location \_\_\_\_\_ Salesman: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Model #: \_\_\_\_\_

#### Information Required:

1. Total system water content. \_\_\_\_\_ gallons
2. Temperature of water when system is filled. \_\_\_\_\_ °F
3. Average maximum operating temperature \_\_\_\_\_ °F
4. Minimum operating pressure \_\_\_\_\_ psig
5. Maximum operating pressure (10% below relief valve) \_\_\_\_\_ psig

#### Model Selection:

6. Enter total system water content. (from line 1. above) \_\_\_\_\_ gallons
7. Using the expansion factor table, find and enter the expansion factor \_\_\_\_\_
8. Multiply line 6 by line 7. Enter expanded water volume. \_\_\_\_\_ gallons
9. Using acceptance factor table, find and enter the acceptance factor. \_\_\_\_\_
10. Divide line 8 by line 9, enter total tank volume required. \_\_\_\_\_ gallons

**Line 8. \_\_\_\_ gallons Expanded Water (acceptance volume)**

**Line 10. \_\_\_\_ gallons total tank volume**

Select diaphragm expansion tank

NTA Models must satisfy both lines 8 and 10 above.

NLA Models are selected by gallons only from line 10.

NVA Models are selected by gallons only from line 10.

For large systems, multiple tanks can be manifolded together.

**CAUTION:** This chart is for water only. For expansion factors for glycol solutions contact the Wessels factory or your local Wessels dealer.