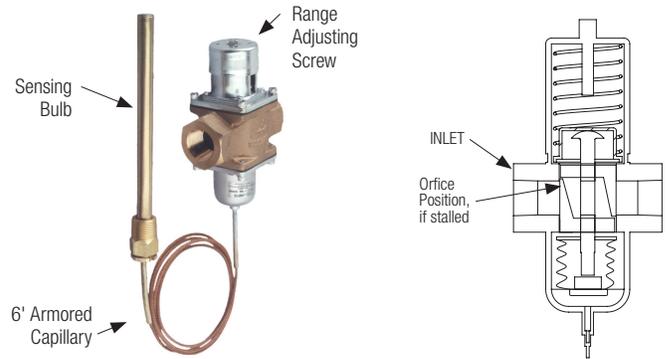


# Modulating Water Valves and Bulb Wells

**APPLICATION:** These modulating valves regulate the flow of water to the heat exchanger to maintain a desired exiting oil temperature. They open automatically when temperature increases at the sensing bulb. **No** external power source is required to actuate the valve. **Not to be** used for salt water service.

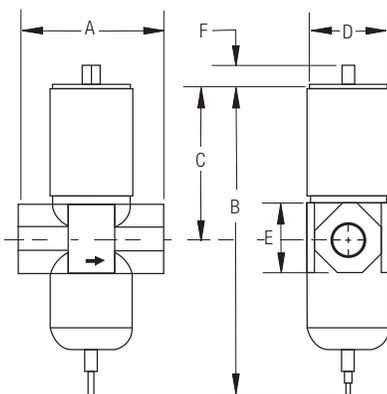
**ADJUSTMENT:** ½" to 1¼" valves can be adjusted with a screwdriver, 1½" and 2½" have a ½" square shaft. Turn the adjusting screw clockwise to **decrease** opening temperature; and counterclockwise to **increase** opening temperature. Valves are not calibrated, so final desired temperature setting must be established experimentally. Valve is fully open 36°F above opening point.



| Part Number | Water Valves    |                       |                                     |                    | Bulb Well Recommended Size |
|-------------|-----------------|-----------------------|-------------------------------------|--------------------|----------------------------|
|             | Pipe Size (NPT) | Range (Opening Point) | Sensing Bulb Size Diameter X Length | Maximum Water Flow |                            |
| 59681       | ½"              | 100°F to 175°F        | 5/8" x 6"                           | 25 GPM             | 52941                      |
| 59684       | ¾"              | 100°F to 175°F        | 5/8" x 8¼"                          | 40 GPM             | 52942                      |
| 59688       | 1"              | 100°F to 175°F        | 5/8" x 8¼"                          | 55 GPM             | 52942                      |
| 59690       | 1¼"             | 100°F to 175°F        | 5/8" x 8¼"                          | 75 GPM             | 52942                      |
| 59683       | ½"              | 60°F to 140°F         | 5/8" x 6"                           | 25 GPM             | 52941                      |
| 59686       | ¾"              | 60°F to 140°F         | 5/8" x 8¼"                          | 40 GPM             | 52942                      |
| 59687       | 1"              | 60°F to 140°F         | 5/8" x 8¼"                          | 55 GPM             | 52942                      |
| 59689       | 1¼"             | 60°F to 140°F         | 5/8" x 8¼"                          | 75 GPM             | 52942                      |
| 59691       | 1½"             | 60°F to 140°F         | 9/16" x 8"                          | 90 GPM             | 52943                      |
| 59692       | 2½" ASME        | 60°F to 140°F         | 3/4" x 11"                          | 250 GPM            | 52944                      |

Working pressure to 150 PSI Maximum. \*For additional protection of the bulb well stem, use the next longer bulb well.

## Water Valves

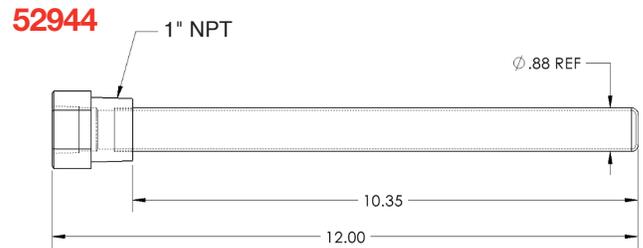
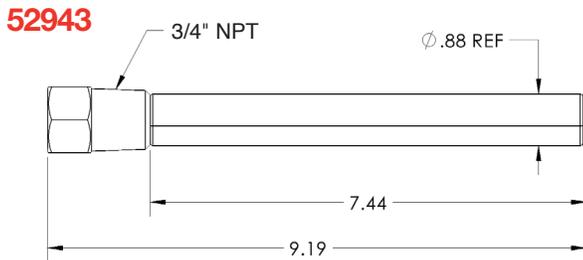
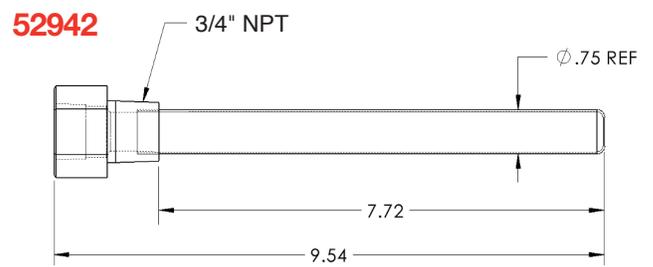
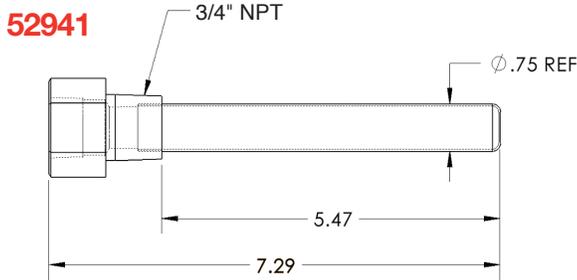
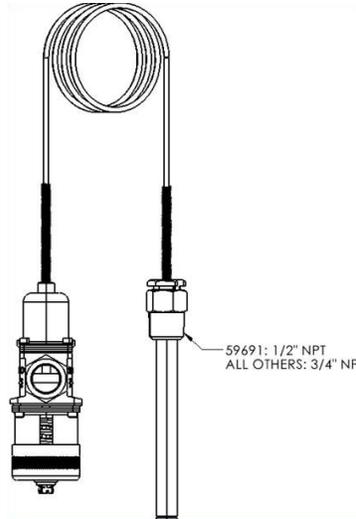


| Valve Size | Dimensions (Inches) |     |    |    | Approximate Shipping Weight (LBS) |
|------------|---------------------|-----|----|----|-----------------------------------|
|            | A                   | B   | C  | D  |                                   |
| 1/2"       | 3¼                  | 6⅜  | 3⅜ | 2⅜ | 4.4                               |
| 3/4"       | 3⅜                  | 7⅝  | 3¼ | 2⅜ | 7.7                               |
| 1"         | 4¾                  | 8⅞  | 3¾ | 2¾ | 9.72                              |
| 1-1/4"     | 5¼                  | 8⅞  | 3¾ | 2¾ | 12.5                              |
| 1-1/2"     | 5⅝                  | 13⅝ | 6⅝ | 2¾ | 14                                |
| 2½"        | 6¾                  | 16⅞ | 6⅝ | 7  | 30                                |

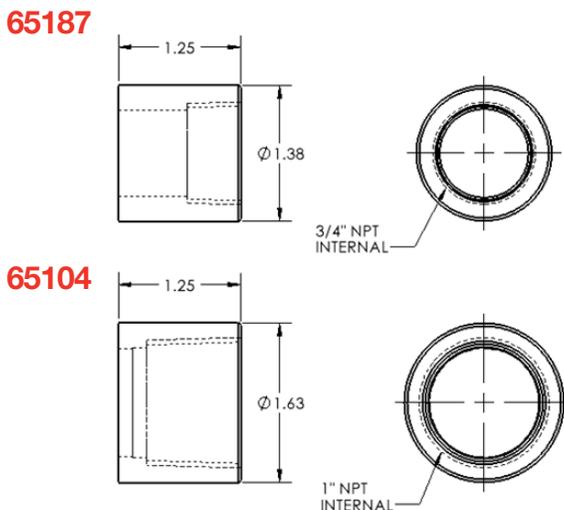
| Valve Size | Flange Specifications (Inches) |                |             |                 |
|------------|--------------------------------|----------------|-------------|-----------------|
|            | Number of Bolt Holes           | Bolt Hole size | Bolt Circle | Flange Diameter |
| 2½"        | 4                              | ¾              | 5½          | 7               |

Standard temperature elements are furnished with 6' capillary. Longer capillary lengths not available. Valve Disc: Buna N in brass disc retainer.

# Modulating Water Valves and Bulb Wells



## Weld Spud Fittings for Bulb Wells



| Valve Part Number | Pipe Size     | Bulb Well | Weld Spud Fitting |
|-------------------|---------------|-----------|-------------------|
|                   | (NPT)         |           |                   |
| 59681             | 1/2"          | 52941     | 65187             |
| 59682             | 1/2"          |           |                   |
| 59683             | 1/2"          |           |                   |
| 59684             | 3/4"          | 52942     |                   |
| 59685             | 3/4"          |           |                   |
| 59686             | 3/4"          |           |                   |
| 59687             | 1"            |           |                   |
| 59688             | 1"            | 52943     |                   |
| 59689             | 1 1/4" NPT    |           |                   |
| 59690             | 1 1/4" NPT    |           |                   |
| 59691             | 1 1/2" NPT    | 52944     | 65104             |
| 59692             | 2 1/2" FLANGE |           |                   |