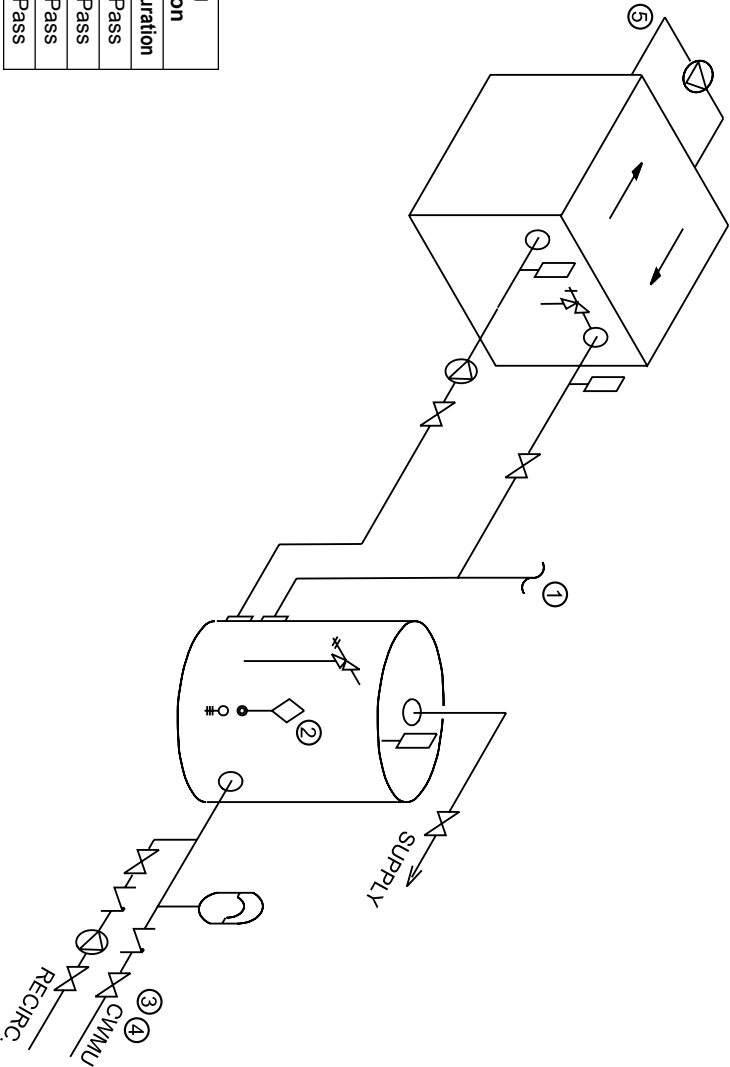


# ONE HEATER, TWO PASS WITH VERTICAL TANK



| Heater Connection Pipe Sizing<br>and Heat Exchanger Configuration |                 |               |
|-------------------------------------------------------------------|-----------------|---------------|
| Heater Model                                                      | Pipe Size (NPS) | Configuration |
| 175-400                                                           | 1½              | Two Pass      |
| 500-850                                                           | 2               | Two Pass      |
| 1010-1825                                                         | 2½              | Two Pass      |
| 2000-2450                                                         | 4               | Two Pass      |

**NOTES:**

- Optional CWMU & Recirc. line location
- When using intermittent pump and EM<sup>2</sup> locate remote aquastat well in lower 1/3 of tank with heat sensing compound.
- Back flow preventer may be required, check local codes.
- Thermal expansion tank may be required, check local codes.
- When using optional factory mounted pump, max pipe length 30' total, 6-90° elbows, full pipe size.

- This drawing depicts a two-pass heat exchanger.
- CAUTION: PUMP SIZING MUST BE BASED UPON WATER HARDNESS AT JOB SITE.**

**⚠ WARNING**

This drawing shows suggested piping configuration and valving. Check with local codes and ordinances for additional requirements.

**KEY**

Water Category Grain Hardness Per Gallon  
**S** = Soft 1 Through 7.5  
**N** = Normal 7.6 Through 17  
**H** = Hard Over 18  
P.P.M. 17.1 = Grains Hardness Per Gallon



PUMP



VALVE



GLOBE VALVE



CHECK VALVE



PRESSURE REDUCING VALVE



3-WAY VALVE



TEMPERATURE SENSOR



THERMOMETER



EXPANSION TANK

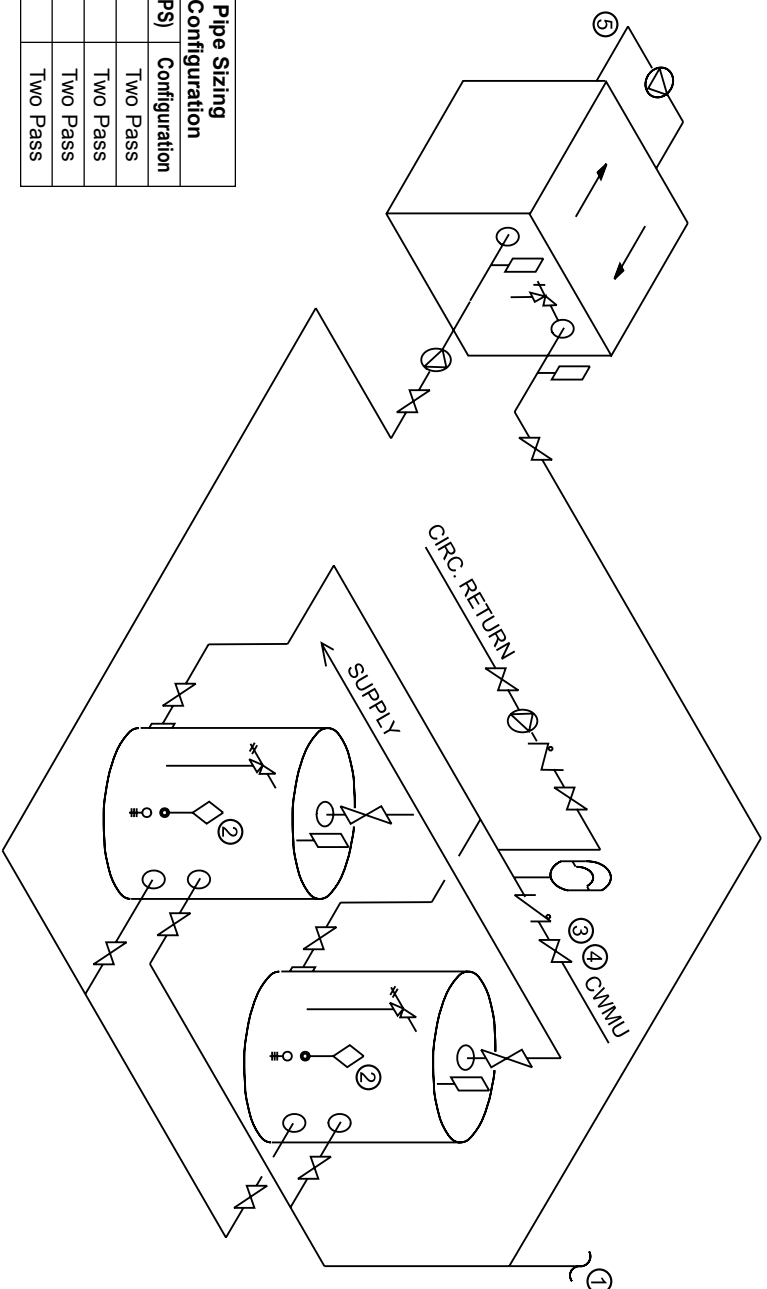


PRV



TPRV

# ONE HEATER, TWO PASS WITH VERTICAL TANKS



| Heater Connection Pipe Sizing<br>and Heat Exchanger Configuration |                 |               |
|-------------------------------------------------------------------|-----------------|---------------|
| Heater Model                                                      | Pipe Size (NPS) | Configuration |
| 175-400                                                           | 1½              | Two Pass      |
| 500-850                                                           | 2               | Two Pass      |
| 1010-1825                                                         | 2½              | Two Pass      |
| 2000-2450                                                         | 4               | Two Pass      |

**NOTES:**

1. Optional CWMU & Recirc. line location
2. When using intermittent pump and EM<sup>2</sup> locate remote aquastat well in lower 1/3 of tank with heat sensing compound.
3. Back flow preventer may be required, check local codes.
4. Thermal expansion tank may be required, check local codes.
5. When using optional factory mounted pump, max pipe length 30' total, 6-90° elbows, full pipe size.

6. This drawing depicts a two-pass heat exchanger.
7. **CAUTION: PUMP SIZING MUST BE BASED UPON WATER HARDNESS AT JOB SITE.**

**⚠WARNING**

This drawing shows suggested piping configuration and valving. Check with local codes and ordinances for additional requirements.

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PUMP



VALVE



GLOBE VALVE



CHECK VALVE



PRESSURE REDUCING VALVE



3-WAY VALVE



TEMPERATURE SENSOR



THERMOMETER



EXPANSION TANK



PRV



TPRV