



TRIPLE DUTY VALVES

APPLICATION

The Thrush Triple Duty (TD) Valve is a quarter turn, non-lubricated, flow control valve, non-slam check valve and flow meter. The TD valve can be used as a service valve in either direction. The valve stem is sealed with dual o-rings and does not need any adjustment. The standard seals are ethylene propylene. **DO NOT USE IN SYSTEMS THAT CONTAIN HYDROCARBONS.** Consult factory for other seal compounds.

Operating limits: 175 psi cold water, 125 psi at 250°F.

INSTALLATION

1. Vertical - flow up in direction of arrow.
2. Horizontal - flow with direction of arrow.
Valve may be rotated around the pipe centerline looking at the inlet and stem vertical: 20° clockwise or 160° counter-clockwise.
3. If flow meter is to be used, install at least 10 diameters of straight pipe, sized to the TD valve, upstream of valve and at least 5 diameters of straight pipe downstream of the TD Valve.
4. Place the TD valve in a position which provides for convenient connection of the hoses from the differential pressure gauge.
5. Remove plastic thread protectors from the HI and LO meter connections and install brass valves supplied with TD valve.
6. Once flow rate has been set, the memory clamp may be set by rotating clockwise, looking at stem, against the stop. This will prevent anyone from changing the setting. The memory clamp can be rotated counter-clockwise against the stop, which will allow the valve to be reset to its original setting if valve has to be closed at any time.

FLOW METER OPERATION

1. Remove caps from the valves at the HI and LO pressure taps.
2. Connect the high-pressure hose (red) of the differential pressure gauge to the upstream of HI pressure connection on the TD valve and the low-pressure hose (green) to the downstream of LO pressure connection. Note: Hose ends to be connected require valve depressors. Check opposite end of hose if not visible inside hose end. Valves are opened automatically as the hose end is screwed on.
3. Prepare the differential pressure gauge as per instruction in Gauge Kit.
4. The flow can be determined by reading the differential pressure indicated at the gauge, noting the valve opening from the scale and pointer and transferring this data to the Flow Chart (published separately).
5. When flow readings are complete, follow directions supplied with differential pressure gauge.
6. Replace metal caps on valves at the HI and LO pressure taps.