

# TRIPLE DUTY VALVE

## INSTALLATION-OPERATION-MAINTENANCE

### SERIES TDV

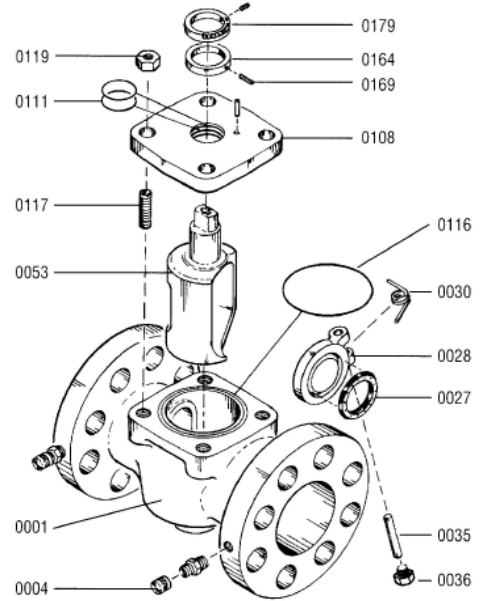
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#### INSTALLATION INSTRUCTIONS

1. Mount 1 1/2" through 8" valves in a vertical up or horizontal position with flow in the direction of the flow arrow which is cast on the side of each valve. Mount 10" through 12" valves in a vertical position only.
2. Install valve in a location which allows easy access to operating wrench and flow meter connections.
3. Install with the equivalent of at least 10 diameters of straight pipe, sized to the TDV valve, upstream of the valve and the equivalent of at least 5 diameters of pipe downstream of the TDV valve.
4. Once a flow rate has been set, adjust the memory stop located on the stem of the TDV valve (see memory stop illustration on tag attached to valve for adjustment instructions). The memory stop allows the valve to be closed and re-opened to the same balance position.

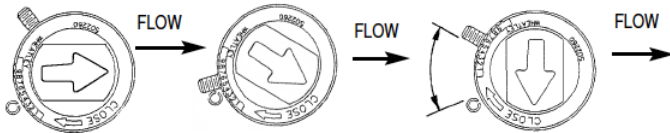
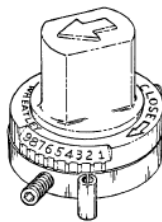
#### FLOW METER OPERATION

1. Remove caps from the metering connections at the HI and LO pressure taps.
2. Connect the high-pressure hose of the pressure gauge to the HI pressure connection on the TDV valve and the low-pressure hose to the LO pressure connection. Note: Hose ends require valve depressors to be connected. If valve depressor is not visible in hose end check opposite end of hose. Metering connection valves are opened automatically as the hose end is screwed on.
3. Prepare the pressure gauge as per instructions in the gauge kit.
4. The flow can be determined by reading the pressure indicated at the gauge, noting the valve opening from the plug position indicator and calibrated plate and transferring this data to a flow chart.
5. When flow readings are complete, follow directions supplied with the pressure gauge.
6. Replace metal caps on the metering connectors of the TDV valve.



Item Number	Description	Qty
0001	Body	1
0004	Metering connector	2
0027	Clapper seal	1
0028	Clapper	1
0030	Spring	1
0035	Clapper pin	1
0036	Pipe plug	1
0053	Plug	1
0108	Cover	1
0111	O-ring	2
0116	O-ring	1
0117	Cover stud	4
0119	Nut	4
0164	Memory stop ring	1
0169	Set screw	1
0179	Indication Ring	1

#### MEMORY STOP



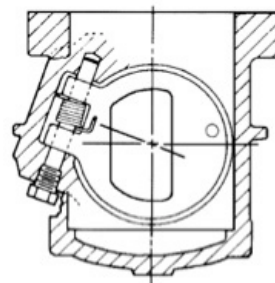
Valve is shown in open position. Memory Stop has not been set.

Valve Plug is rotated to selected balance position. Memory stop is rotated until it intercepts the stop on cover. Tighten lock screw on memory stop.

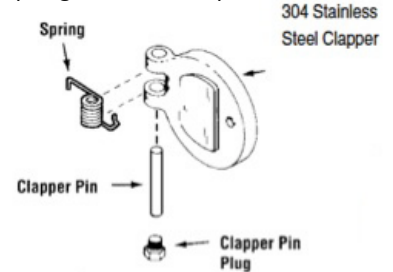
Valve plug may be closed and re-opened to same balance position.

#### INTERNAL SPRING-LOADED CLAPPER

Valve Clappers are internally spring-loaded for a positive check.



Sectional view looking upstream



NOTE: One end of clapper pin is tapped for pin removal

**SPECIFY WITH CONFIDENCE, SPECIFY PENN PUMP SYSTEMS**