ThermOmegaTech®

DTV

DRAIN TEMPERING VALVE

BENEFITS

- Compliant with drain temperature limitations of plumbing codes
- Prevents damage to PVC piping due to over-temperature conditions
- Self-operating, no power or signal required
- Minimizes water waste
- Easy to install
- Adaptable to almost any drain size

DESIGN FEATURES

- Exclusive **Thermoloid**® thermal actuator
- Rugged, clog resistant valve design
- Install using standard pipe fittings and tools
- Operates in any orientation
- Modulates to conserve cooling water
- Effluent tempering capacity limited only by cold water flow rate through DTV



Mini DTV ½" DTV ¾" DTV 1" DTV

APPLICATIONS

The DTV can be used in applications where a high temperature discharge flow to a drain/sewer must be tempered with cold water.

Examples:

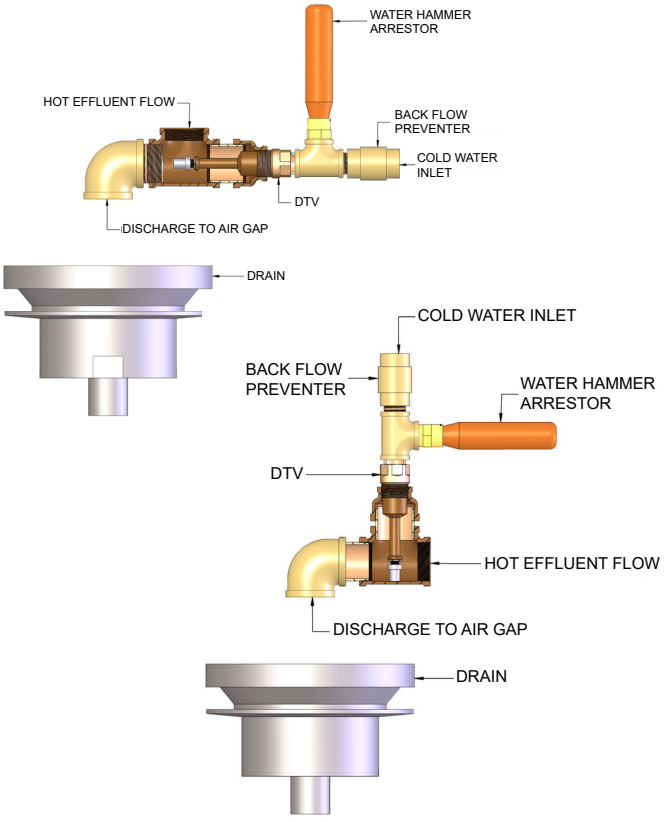
- Commercial dishwashers/warewashers
- Sterile processing equipment
- Mechanical rooms

OPERATION

The **DTV** is installed into the drain line so that the hot effluent flows over its thermal actuator. This actuator regulates the cold water inlet port based on the effluent temperature. When the effluent temperature exceeds the valve's set-point, the **DTV** opens to inject cold water, tempering the discharge to a safe level. As the effluent cools, the **DTV** automatically modulates to reduce the cold water flow. Once the temperature drops approximately 10°F below the full-open set-point, the valve fully closes the cold water inlet to minimize water usage.

By operating only when the effluent temperature exceeds the set-point, the DTV effectively conserves water, supplying cooling only when necessary.

TYPICAL INSTALLATIONS

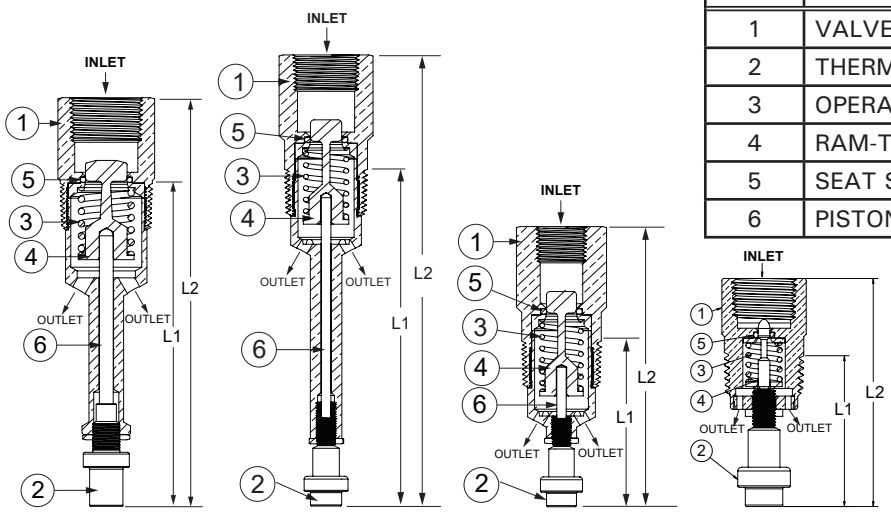


DTV

DRAIN TEMPERING VALVE

PARTS & MATERIALS

ITEM	DESCRIPTION	MATERIAL
1	VALVE BODY	Brass or 300 Series SS
2	THERMAL ACTUATOR	300 Series SS
3	OPERATING SPRING	300 Series SS
4	RAM-TYPE PLUG	300 Series SS
5	SEAT SEAL	PTFE
6	PISTON	300 Series SS



1″ DTV ¾″ DTV ½″ DTV Mini DTV

DIMENSIONS & CAPACITIES

SIZE (NPT)			L1		L2		Weight		C_V	Maximum Inlet Water Pressure	Maximum Temperature
Model	Cold Water Inlet	Drain Connection	in	mm	in	mm	Lb	Kg			
Mini DTV	1/2″	3/4″	2.1	53.3	3.1	78.7	0.4	0.18	0.5	125 PSIG (8.6 BAR)	250°F (121°C)
1/2″ DTV	1/2″	1″	2.9	73	4.9	124	1.1	0.5	2.0		
3/4″ DTV	3/4″	1″	5.9	149	7.9	200	1.2	0.5	2.0		
1″ DTV	1″	1-1/4″	5.8	148	7.4	187	1.5	0.7	4.0		

ORDERING

Part Number[1]	Description
325-000000-XXX	½″ DTV Valve (Brass)
325-100000-XXX	½″ DTV Valve (Stainless Steel)
326-000000-XXX	¾″ DTV Valve (Brass)
326-100000-XXX	¾″ DTV Valve (Stainless Steel)
327-000000-XXX	1″ DTV Valve (Brass)
327-100000-XXX	1″ DTV Valve (Stainless Steel)
328-000000-XXX	Mini DTV Valve (Brass)

SAMPLE CALCULATION

How much effluent can be tempered with a 1″ DTV valve?

1) Flow capacity through cold water port of 1″ DTV with Cv = 4.0:
   CW gpm = Cv x sqrt pressure drop
   Assume 50 psig cold water pressure, drain pressure = 0 psig
   CW gpm = 4 x sqrt (50) = 28.3 gpm
   Assume for this example:
   cold water temp = 60°F (CT)
   hot effluent temp = 212°F (HT)
   max. allowable drain temp = 140°F (MT)
2) Maximum effluent flow (gpm) that can be tempered:
   CW x (MT-CT)/(HT-MT)
   MT-CT = 80
   HT-MT = 72
   Maximum effluent flow rate = 28.3 x 80/72 = 31.4 gpm

NOTES

1. Full open temperatures "XXX" available: 120°F, 125°F, 130°F, and 140°F (48.9°C, 51.7°C, 54.4°C, and 60°C).
   a. Other temperatures are available, consult our engineers for more information.
   b. Closing temperature is typically 10°F below opening temperature.
2. A water hammer arrestor must be installed directly behind the valve water supply inlet as shown in the sample installations when any type of check valve or back flow preventer is used per code. Failure to do so may cause permanent damage to the valve and void the warranty.
3. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

ThermOmegaTech®, Inc.
353 Ivyland Road
Warminster, PA 18974
1-877-379-8258
www.ThermOmegaTech.com

Because of continuous improvements, ThermOmegaTech®, Inc. reserves the right to change the design and specifications without notice