



# *Stay Out Of Hot Water With ITV!*

**ThermOmegaTech's Industrial Tempering  
Valve Keeps Drain Water Up to Code**

Discharging water over 140°F from commercial equipment can result in failed inspections, costly fines, or piping and equipment damage. ThermOmegaTech's self-operating Industrial Tempering Valve (ITV) offers a simple solution—automatically mixing in cold water when temperatures exceed the set point, then shutting off once cooled to conserve water.

Available in ¾" and 1" in stainless steel, the ITV is a compact, reliable & cost-effective way to temper hot effluent to a safe, code-compliant level.

## **MARKETS SERVED**



Breweries



Food Processing



Pharmaceutical



Municipal Sewage



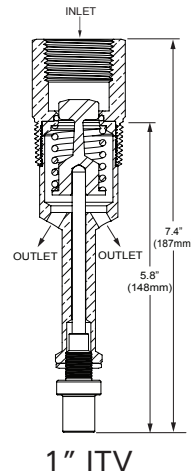
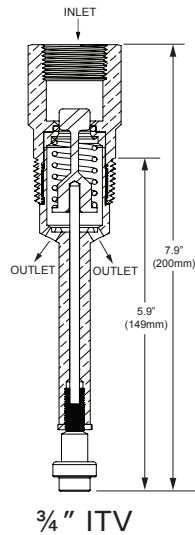
## **TYPICAL APPLICATIONS**

- Autoclaves
- Boilers
- Humidifiers

See ThermOmegaTech's ITV in action at [ThermOmegaTech.com/ITV](http://ThermOmegaTech.com/ITV)

 **ThermOmegaTech®** (877) 379-8258 | [www.ThermOmegaTech.com](http://www.ThermOmegaTech.com)





## SPECIFICATIONS

Maximum Inlet Pressure.....125 PSIG (8.6 BAR)  
 Maximum Temperature.....250°F (121°C)  
 Full Open Temperatures.....120°F, 125°F, 130°F, 140°F  
 (48.9°C, 51.7°C, 54.4°C, 60°C)

Weight		Flow Coefficient
3/4".....1.2Lbs (0.5Kg)		3/4".....2.0
1".....1.5Lbs (0.7Kg)		1".....4.0

Size (NPT)

Water	Drain
Inlet	Connection
3/4".....1"	
1".....1-1/4"	

## SAMPLE CALCULATION

**How much effluent can be tempered with a 1" ITV valve?**

1) Flow capacity through cold water port of 1" ITV with Cv = 4.0:  
 $CW\ GPM = Cv \times \sqrt{\text{pressure drop}}$

Assume 50 PSIG cold water pressure, drain pressure = 0 PSIG

$CW\ GPM = 4 \times \sqrt{50} = 28.3\ GPM$

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:

$CW \times (MT - CT) / (HT - MT)$

MT - CT = 80

HT - MT = 72

Maximum effluent flow rate =  $28.3 \times 80 / 72 = 31.4\ GPM$

## BENEFITS

- Rugged, clog resistant valve design
- Easily installed using standard pipe fittings and tools
- Operates in any orientation
- Minimizes water waste
- Modulates to conserve cooling water
- Effluent tempering capacity limited only by cold water flow rate through ITV

## ORDERING INFORMATION

326-100000-XXX.....3/4" ITV Stainless Steel

327-100000-XXX.....1" ITV Stainless Steel

### NOTES

Install a water hammer arrestor between the ITV and check valve/backflow preventer to prevent damage to the ITV. Failure to do so will void the warranty. Optional arrestors and backflow preventers are available—[contact us](#) for details.

## TYPICAL INSTALLATIONS

