

HOLBY TEMPERING VALVE

APPLICATION

THE HOLBY TEMPERING VALVE is a temperature regulating valve, designed to be used as a master, zone, fixture or individual appliance regulator to control the predetermined temperature of hot water. Water delivered from hot water generating equipment such as storage tanks, heat exchangers, submerged coils, or any other source, is frequently too hot or scalding. This condition can be corrected by the installation of a HOLBY TEMPERING VALVE. It is a necessary part of any submerged tankless water heating system.

The HOLBY TEMPERING VALVE is also used in regulating temperatures for engines, heating systems, compressors, cooling towers, processing machinery and many other applications.

DESCRIPTION

THE HOLBY TEMPERING VALVE is rugged, constructed entirely of bronze and copper and hydrostatically tested to a pressure of 300 pounds. It has the following features:

1. A long mixing chamber with vanes at an angle to the longitudinal axis of the valve which causes a thorough mixing of the hot and cold water.
2. The unusual length of the hydraulic thermostatic element, assures effective surface contact with the water.
3. The thermostatic element is placed inside the body of the valve where the hot and cold water mix. It is immediately sensitive to any change in water temperature and makes proper corrections by opening or closing the hot and cold water inlets in the valve.
4. The sensitive parts of the thermostatic element are inside a heavy non-ferrous tube which protects them from any corrosive or scaling action caused by the continuous flow of water past them.
5. The extraordinary length of the thermostatic element provides fifteen to twenty times the number of corrugations found in the usual short thermostat. Thus, the total expansion is divided over these numerous corrugations, so that the flexing of each is reduced to mere thousandths of an inch with resulting long life of the instrument.
6. The action of the thermostatic element moves a piston over the hot and cold water openings, opening the cold as it reduces the opening of the hot, thus uniformly blending the hot and cold water, producing an even temperature of the delivered water without any change in volume. This action eliminates the building up of temperature in circulating systems at times when little or no hot water is being used.

THE HOLBY TEMPERING VALVE IS NOT AN ANTI SCALD VALVE.

INSTALLATION

THE HOLBY TEMPERING VALVE will operate satisfactorily when installed in any position WITHOUT TRAPPING. It can be installed with a minimum number of extra fittings, reducing installation costs to a minimum. Its extraordinary length takes the place of expensive brass pipe. When installing, our basic piping diagrams must be followed for our warranty to be effective.

The end of the valve, where the adjusting screw is located, should NOT be placed against, nor in line with any other fixed object for a (minimum) space of twenty-four inches. This will allow access to the inner parts of the valve, if necessary.

TEMPERATURE RANGE

THE HOLBY TEMPERING VALVE can be adjusted to deliver water within close tolerances of any temperature between 120° to 200° Fahrenheit, providing the hot water supplied to the valve is of a higher temperature than that for which the valve is set.

HIGHER or LOWER temperature ranges are available on special order.

For outlet temperatures below 120° Fahrenheit, please specify for low temperature operation.

REGULATION

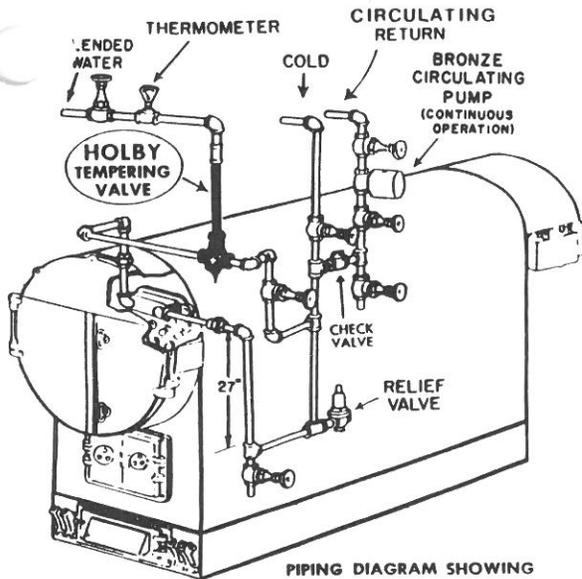
The temperature of the water delivered by the HOLBY TEMPERING VALVE can be changed by turning the adjusting screw to the right or clockwise for lower temperatures; and to the left or counter clockwise for higher temperatures. It will maintain a uniform desired temperature regardless of the temperature of incoming water. To facilitate adjustment a thermometer should be placed in the outlet line beyond the HOLBY TEMPERING VALVE as shown in the diagram and water should be flowing through the HOLBY TEMPERING VALVE while adjustment is being made.

FUNCTIONS

1. To deliver, control or regulate water at a uniform predetermined temperature within close tolerances between 120° and 200° F., providing that such entering water is of the proper temperature necessary and required for the adjustment and operation of the HOLBY TEMPERING VALVE. Other temperature ranges are available, on special order.
2. To prevent wide variations in the temperature of the water, causing excessive expansion and contraction of pipe lines, with resulting costly breakage of pipes, and excessive subsequent damage.
3. To prevent a building up of temperature in the hot water lines during off peak periods. As hot water enters THE HOLBY TEMPERING VALVE the thermostat closes the hot water inlet, and opens the cold water inlet allowing the return circulating water to bypass back into the hot line and thus controlling the rate of circulation. It will not stop circulation but merely regulate it, maintaining a uniform temperature.
4. To increase the capacity of water heating systems, by automatically introducing cold water to the hot water lines and delivering a blended mixture, at the desired temperature.
5. To deliver water at different desired temperatures to various locations from one originating source.

HOLBY TEMPERATURE REGULATING VALVE-TYPICAL INSTALLATIONS

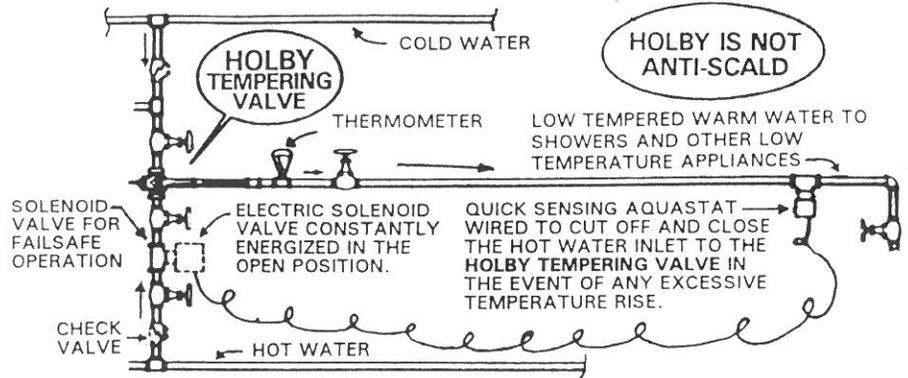
Constantly Updated & Improved Since 1930



PIPING DIAGRAM SHOWING HOLBY TEMPERING VALVE

IN A VERTICAL* POSITION CONTROLLING THE TEMPERATURE OF HOT WATER DELIVERED BY A SUBMERGED TANKLESS WATER HEATER

* CAN BE INSTALLED IN ANY POSITION



PIPING DIAGRAM SHOWING THE USE AND APPLICATION OF A CONSTANTLY ENERGIZED ELECTRIC SOLENOID VALVE, WIRED TOGETHER WITH A QUICK ACTING AND SENSING IMMERSION AQUASTAT (MERCURY TYPE PREFERRED FOR VISUAL INSPECTION.)

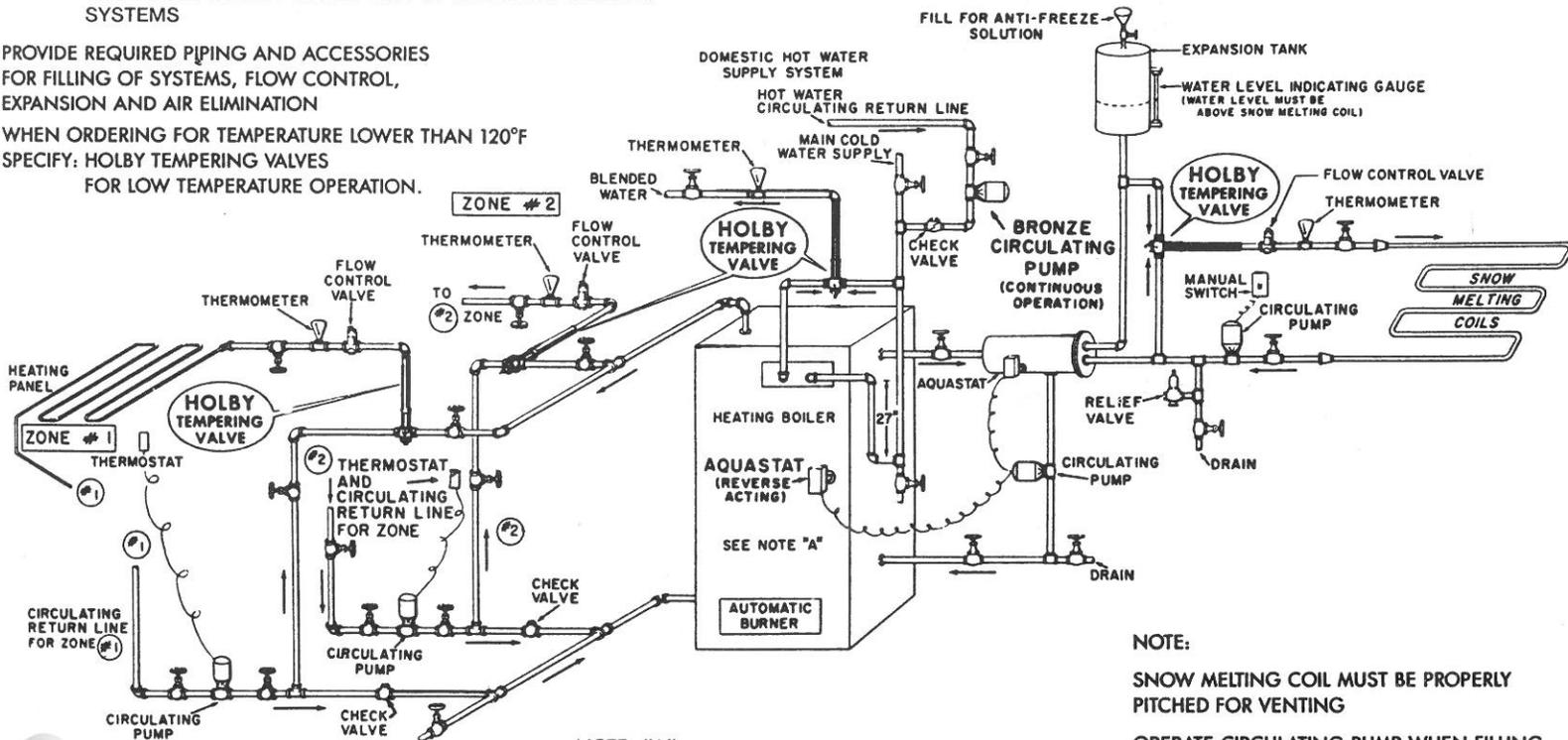
THE ABOVE MENTIONED FAILSAFE AND SAFETY APPLICATION HAS BEEN PUBLISHED, PRINTED AND RECOMMENDED FOR MANY YEARS WITH OUR GROUP SHOWER SCHEMATIC DRAWINGS, FORMS: NO. 10 W/SH PAGE 24 & FORM: NO. 11 W/O SH PAGE 25 OF OUR CATALOGUE.

PIPING DIAGRAM SHOWING HOLBY TEMPERING VALVES

AS USED TO CONTROL THE REQUIRED TEMPERATURES TO SUPPLY THE DIFFERENT TYRES OF HEATING UNITS* TO THE VARIOUS ZONES IN A HYDRONIC HEATING SYSTEM, ALSO AS USED FOR THE DOMESTIC HOT WATER SUPPLY AND SNOW MELTING SYSTEMS

PROVIDE REQUIRED PIPING AND ACCESSORIES FOR FILLING OF SYSTEMS, FLOW CONTROL, EXPANSION AND AIR ELIMINATION

WHEN ORDERING FOR TEMPERATURE LOWER THAN 120°F SPECIFY: HOLBY TEMPERING VALVES FOR LOW TEMPERATURE OPERATION.



NOTE:

SNOW MELTING COIL MUST BE PROPERLY PITCHED FOR VENTING

OPERATE CIRCULATING PUMP WHEN FILLING SNOW MELTING SYSTEM WITH ANTI-FREEZE SOLUTION

RADIATORS, COILS, BASEBOARD RADIATION, LOW TEMPERATURE FLOOR AND CEILING PANEL GRIDS, ETC.

ADDITIONAL ZONES CAN BE ADDED

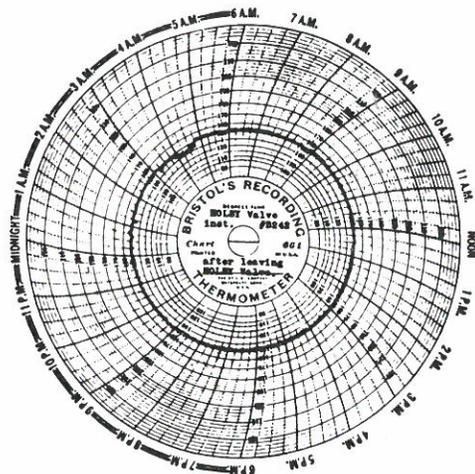
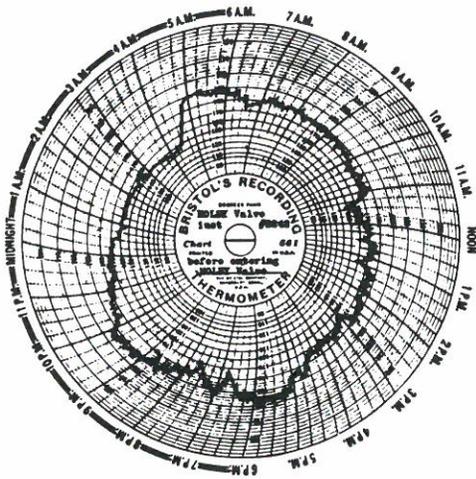
NOTE: "A"
REVERSE ACTING AQUASTAT TO STOP CIRCULATING PUMPS WHEN TEMPERATURE IN BOILER DROPS BELOW TEMPERATURE REQUIRED FOR DOMESTIC HOT WATER SUPPLY SYSTEM (CONNECTED TO BREAK LIVE WIRE TO PUMPS)

NOT TO SCALE

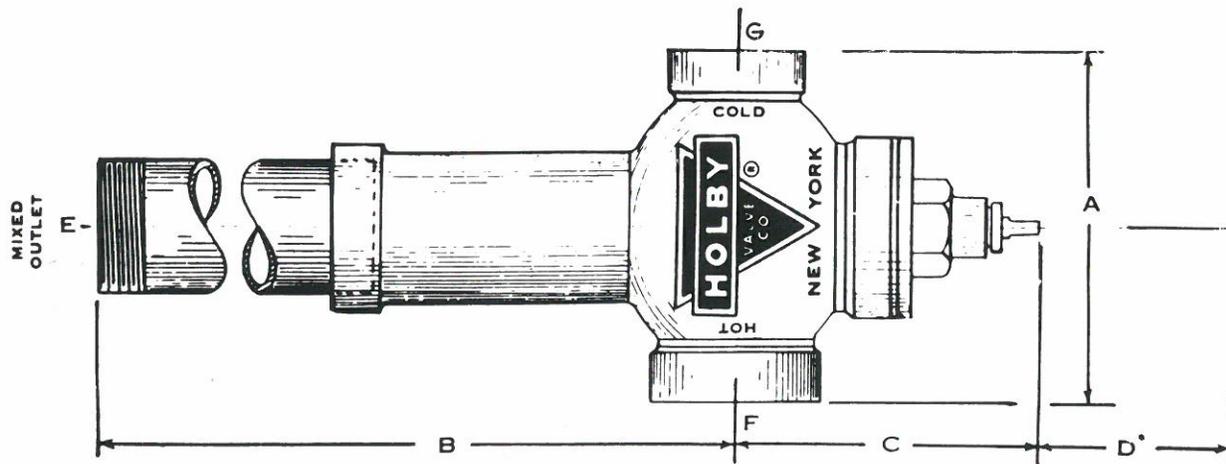
PIPING DIAGRAMS FOR OTHER USES AND APPLICATIONS AVAILABLE ON REQUEST

Temperature of water before entering the HOLBY TEMPERING VALVE

Temperature of water after leaving the HOLBY TEMPERING VALVE



DIMENSIONS



SIZE	A	B	C	D*	STANDARD PIPE TAP			SHIPPING WEIGHTS
					E MIXED OUTLET	F HOT INLET	G COLD INLET	
1/2"	4 1/4"	8"	3 1/4"	6"	1/2"	1/2"	1/2"	7 LBS.
3/4"	4 1/4"	8"	3 1/4"	6"	3/4"	3/4"	3/4"	7 LBS.
1"	4 1/4"	11 1/4"	4 1/4"	12"	1"	1"	1"	8 LBS.
1 1/4"	4 3/4"	19"	4 1/2"	15"	1 1/4"	1 1/4"	1"	14 LBS.
1 1/2"	5 1/2"	23"	5"	20"	1 1/2"	1 1/2"	1 1/4"	17 LBS.
2"	6 3/8"	25"	6"	20"	2"	2"	1 1/2"	25 LBS.
2 1/2"	7 1/2"	27 3/4"	6 1/2"	24"	2 1/2"	2 1/2"	2"	40 LBS.
3"	9"	29 1/8"	7"	24"	3"	3"	2 1/2"	59 LBS.
4"	10 1/4"	31"	8"	24"	4"	4"	4"	95 LBS.

*NOTE: "D" is clearance required for regulating and servicing

GUARANTY

We guarantee each new HOLBY TEMPERING VALVE to be free from defects in material and workmanship for a period of one year from date of installation. Any HOLBY TEMPERING VALVE or part, returned to us carriage prepaid, will, if found defective upon our examination, be repaired or replaced, without charge. All carriage charges to be paid by the customer.

For this guarantee to be effective, installation must be properly made according to our piping recommendations. We will not be responsible for any incidental damage or labor caused by defective material.

For the proper installation of the HOLBY TEMPERING VALVE for any special application, please obtain our piping diagrams.