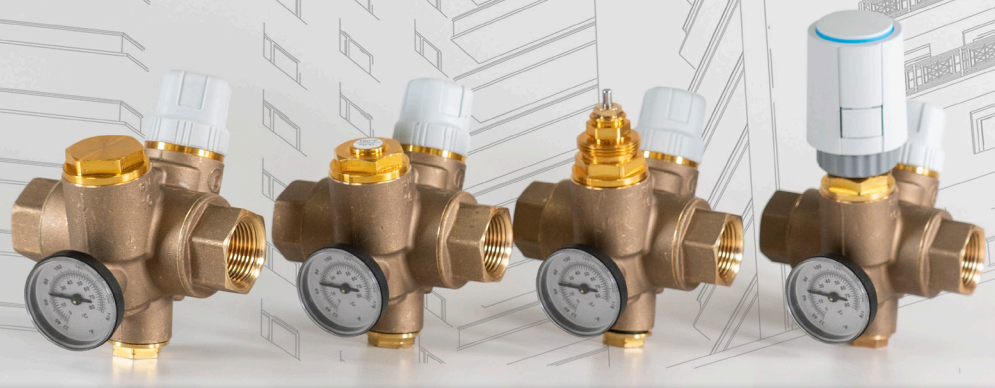
RECIRCSETTER™

THERMOSTATIC BALANCING VALVE



OVERVIEW

The RecircSetter™ by Jomar Valve is an adjustable thermostatic balancing valve for domestic hot water recirculation system applications. This balancing valve utilizes a thermostatic cartridge, which eliminates the need for pressure ports to balance the system and allows the valve to balance based on temperature as opposed to pressure or flow.

The RecircSetter™ is certified to NSF 61 and NSF 672 for potable hot water systems and has an adjustable hand wheel with a temperature range from 95°F to 140°F. It can be equipped with a thermal cartridge for thermal disinfection treatment at a fixed temperature of 160°F, or with an actuated bypass to fully control the thermal disinfection process with a Building Management System (BMS). The RecircSetter™ is available with female NPT connections, a drywell thermometer, and is equipped with a temperature sensor port for remote monitoring (½" NPT plugged).

FEATURES

FIELD ADJUSTABLE
For all models, the desired recirculation temperature is chosen by the system designer and is field adjustable (95°F to 140°F) should the system demand change.

STANDARD DRYWELL THERMOMETER
Each model comes standard with a drywell thermometer to easily identify the water temperature flowing through each valve. Drywells are located on each side of the RecircSetter™ for orientation flexibility.

SUPERIOR ASSEMBLIES
Featuring fewer connections, shorter assembly length, and an integrated check valve option, the RecircSetter™ allows for cost savings, less space requirements, and seamless installation.

FIELD SERVICEABILITY
Double union connection options in our dual isolation (MG) models allow for ease of field serviceability.

TEMPERATURE SENSOR PORT
The RecircSetter™ is equipped with a 1/2" NPT temperature sensor port that allows for remote monitoring through a BMS.

THERMAL DISINFECTION CAPABILITIES
TG-130/150 models are engineered for disinfection capabilities at a fixed temperature of 160°F or at a chosen temperature actuated through a BMS.

THE RECIRCSETTER™ IS THE DYNAMIC SOLUTION NECESSARY FOR A DYNAMIC SYSTEM

RECIRCSETTER™ LINEUP

TB-120G

SIZE FXF	PART NO	CHECK VALVE
1/2"	180-103-B	N
3/4"	180-104-B	N
1/2"	180-104-B-C	Y
3/4"	180-104-B-C	Y

TB-130G

SIZE FXF	PART NO	CHECK VALVE
1/2"	180-103-D	N
3/4"	180-104-D	N
1/2"	180-104-D-C	Y
3/4"	180-104-D-C	Y

TB-150G

SIZE FXF	PART NO	CHECK VALVE
1/2"	180-103-X	N
3/4"	180-104-X	N
1/2"	180-104-X-C	Y
3/4"	180-104-X-C	Y

TB-150G + ACTUATOR

SIZE FXF	PART NO	CHECK VALVE
1/2"	180-103-A	N
3/4"	180-104-A	N
1/2"	180-104-A-C	Y
3/4"	180-104-A-C	Y

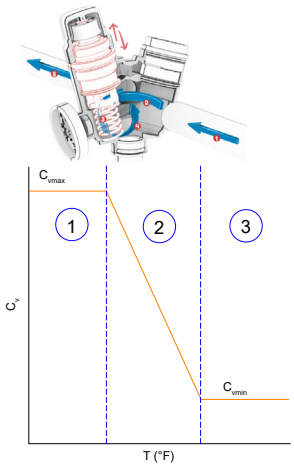
DUAL ISOLATION

MODEL	SIZE FXF	PART NO
TB-120MG	1/2"	180-103MG-B-I
TB-120MG	3/4"	180-104MG-B-I
TB-130MG	1/2"	180-103MG-D-I
TB-130MG	3/4"	180-104MG-D-I
TB-150MG	1/2"	180-103MG-X-I
TB-150MG	3/4"	180-104MG-X-I
TB-150MG	1/2"	180-103MG-A-I
TB-150MG	3/4"	180-104MG-A-I

OPERATING PRINCIPLE

TEMP SETTING RANGE	95°F - 140°F	C_{VMAX}	2.10	C_{VMIN}	0.23	$C_{VDISINF}$	1.16 - 1.21	$C_{VDESIGN}$	0.53 - 0.59

TB-120G

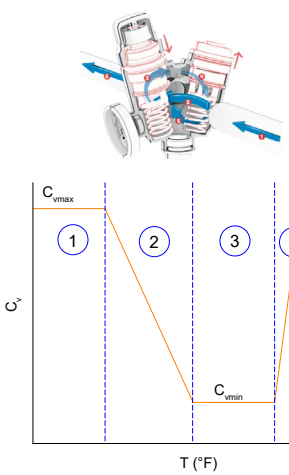


Working Area 1: Maximum C_{vmax}, T_{water} << $T_{desiredrecirc}$
In this temperature range, the valve is completely open and a spring is balancing the thermostatic catridge

Working Area 2: Variable C_v, when T_{water} is reaching $T_{desiredrecirc}$
When the water temperature is approaching the selected balancing temperature, the thermostatic cartridge is expanding until it reaches the "closed" position where the minimum flow is met, C_{vmin}

Working Area 3: C_{vmin}, T_{water} ≥ $T_{desiredrecirc}$
When the water temperature is higher than the selected temperature, the thermostatic cartridge is keeping the valve in "closed" position and the minimum flow occurs, C_{vmin}

TB-130G



Working Area 1: Maximum C_{vmax}, T_{water} << $T_{desiredrecirc}$
In this temperature range, the valve is completely open and a spring is balancing the thermostatic cartridge

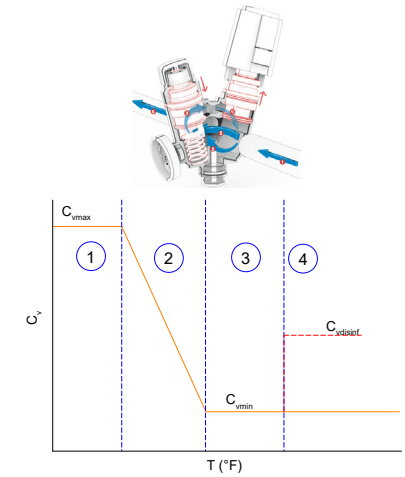
Working Area 2: Variable C_v, when T_{water} is reaching $T_{desiredrecirc}$
When the water temperature is approaching the selected balancing temperature, the thermostatic cartridge is expanding until it reaches the "closed" position where the minimum flow is met, C_{vmin}

Working Area 3: C_{vmin}, T_{water} ≥ $T_{desiredrecirc}$
When the water temperature is higher than the selected temperature, the thermostatic cartridge is keeping the valve in "closed" position and the minimum flow occurs, C_{vmin}

Working Area 4: C_{disinf}, T_{water} ≥ T_{disinf}
The thermal disinfection cartridge allows increased water flow through the valve when the temperature reaches the disinfection value (factory selected at 160°F and not modifiable by end user)

Working Area 5: C_{vmin}, T_{water} ≥ T_{disinf}
When the water temperature is higher than the disinfection point, the flow is reduced to C_{vmin}

TB-150G



Working Area 1: Maximum C_{vmax}, T_{water} << $T_{desiredrecirc}$
In this temperature range, the valve is completely open and a spring is balancing the thermostatic cartridge

Working Area 2: Variable C_v, when T_{water} is reaching $T_{desiredrecirc}$
When the water temperature is approaching the selected balancing temperature, the thermostatic cartridge is expanding until it reaches the "closed" position where the minimum flow is met, C_{vmin}

Working Area 3: C_{vmin}, T_{water} ≥ $T_{desiredrecirc}$
When the water temperature is higher than the selected temperature, the thermostatic cartridge is keeping the valve in "closed" position and the minimum flow occurs, C_{vmin}

Working Area 4: C_{disinf}
To work in this area, these conditions must be met simultaneously: (1) water temperature over 158°F; (2) the actuator must be open

Such conditions are typically controlled by an external control or BMS (not included).