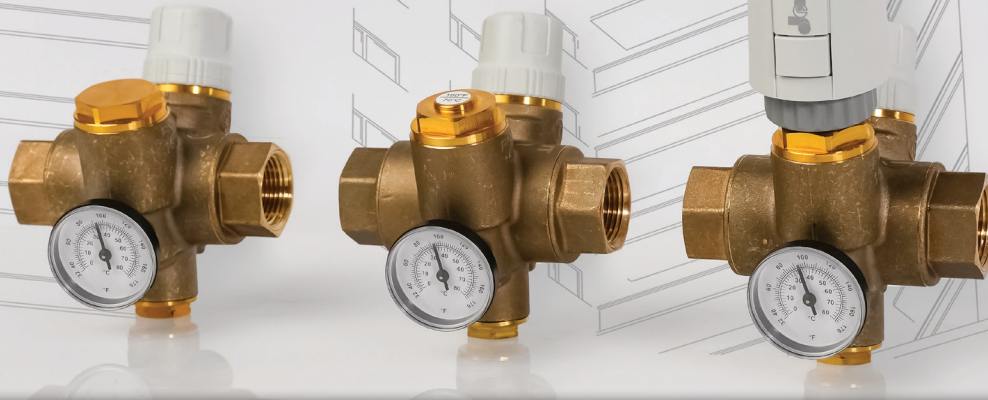




RECIRCSETTER™

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 (1/2" 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 integrated check valve options, the RecircSetter™ allows for cost savings, less space requirements, and seamless installation.
-  **FIELD SERVICEABILITY**
Double union connection options in our dual isolation (MG/MFG) 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-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-A-I
TB-150MG	3/4"	180-104MG-A-I

DUAL ISOLATION + FILTER BALL®



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

OPERATING PRINCIPLE

TEMP SETTING RANGE

95°F - 140°F

C_{vmax}

2.10

C_{vmin}

0.23

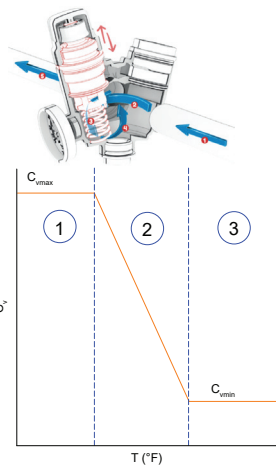
$C_{vdisinf}$

1.16 - 1.21

$C_{vdesign}$

0.53 - 0.59

TB-120G

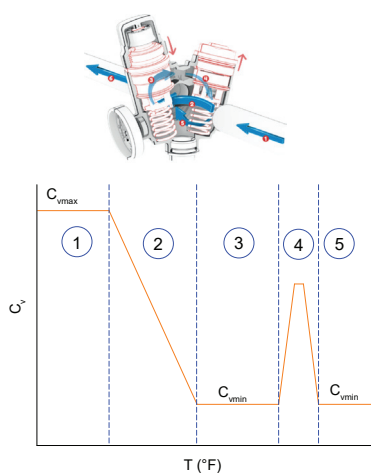


Working Area 1: Maximum C_{vmax} , $T_{water} \ll T_{desiredrecirc}$
In this temperature range, the valve is completely open and a spring is balancing the thermostatic cartridge

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} , $T_{water} \geq T_{desiredrecirc}$
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} , $T_{water} \ll T_{desiredrecirc}$
In this temperature range, the valve is completely open and a spring is balancing the thermostatic cartridge

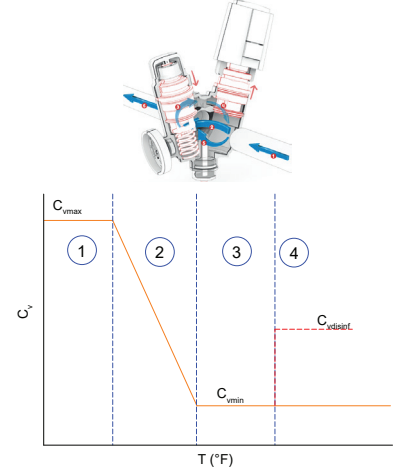
Working Area 2: Variable C_v , when T_{water} is reaching $T_{desiredrecirc}$
When the water temperature is approaching the selected balancing temperature, the thermostatic cartridge is expanding until it reaches the "closed" position where the minimum flow is met, C_{vmin}

Working Area 3: C_{vmin} , $T_{water} \geq T_{desiredrecirc}$
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: $C_{vdisinf}$, $T_{water} \geq T_{disinf}$
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} , $T_{water} \geq T_{disinf}$
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} , $T_{water} \ll T_{desiredrecirc}$
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} , $T_{water} \geq T_{desiredrecirc}$
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: $C_{vdisinf}$
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).