



ThermoSetter™

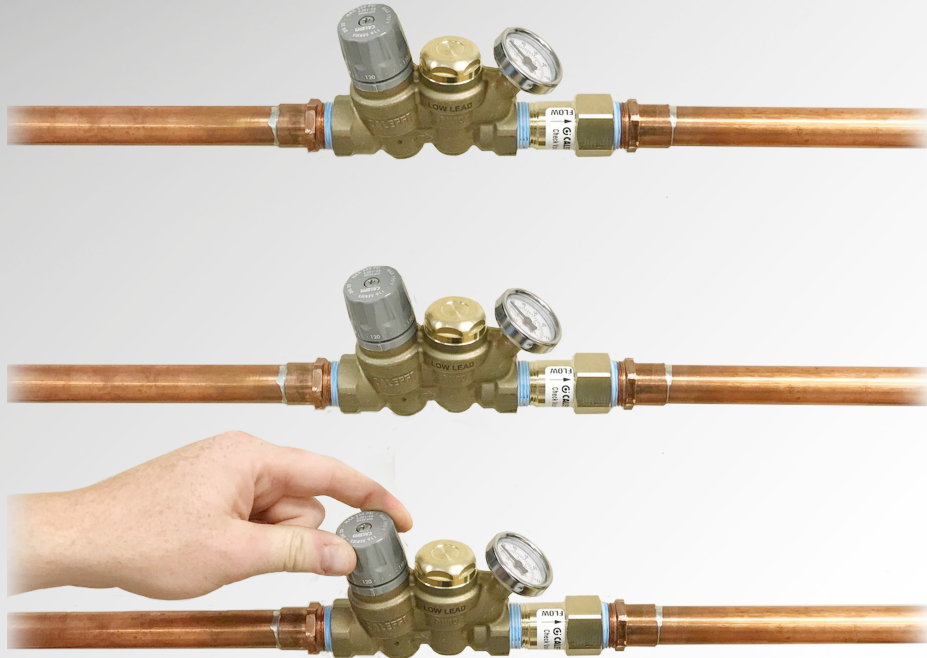
ADJUSTABLE THERMAL BALANCING VALVE

CALEFFI
Hydronic Solutions



Plumbing

Protecting the system to protect your water



PRODUCT FEATURES

- **Automatically maintains recirculation temperature at fixtures:**
Modulates flow rate within each circuit so the hot water temperature at fixtures remains constant.
- **Set it and forget it:**
Unlike traditional balancing valves, ThermoSetter™ requires no differential pressure instruments or reference charts. Simply set knob to desired circuit temperature. That's it!
- **Industry-exclusive temperature adjustability:**
Field adjustable temperature from 95-140°F, or 95-150°F, depending on size. Adjustment knob is lockable for tamper-proofing.
- **Temperature gauge and dry well:**
For circuit indication. Dry well alternatively can be used for BAS temperature monitoring.
- **Minimized electrical costs:**
When matched with variable speed circulator in constant pressure mode, ThermoSetter™ valves and circulator harmoniously modulate to deliver only the flow within each circuit required to maintain their set temperature. Optimizes energy consumption.
- **Automatic thermal disinfection:**
For systems employing thermal disinfection for Legionella protection, a thermostatically controlled by-pass cartridge model or an electrically actuated by-pass valve model allowing full flow during disinfection cycles.

Ease of commissioning and fixture temperature consistency

ThermoSetter™ is the industry's first field adjustable thermal balancing valve. Place in each return branch and they self-balance, negating need for instrumentation. Through periods of no demand, delivery temperature fluctuation and water heater draw down, they modulate harmoniously to maintain consistent hot water temperature at the fixtures. Factory assemblies with inlet and outlet isolation valves are available.

PRODUCT RANGE - ThermoSetter™



CODE	OUTLET TEMP GAUGE	CHECK VALVE (C)	NPT female
116140A(C)	--	√	1/2"
116141A(C)	√	√	
116150A(C)	--	√	3/4"
116151A(C)	√	√	
116160A(C)	--	√	1"
116161A(C)	√	√	
116170A(C)	--	√	1 1/4"
116171A(C)	√	√	

CODE	OUTLET TEMP GAUGE	CHECK VALVE (C)	NPT female
116X40A(C)	√	√	1/2"
116X50A(C)	√	√	3/4"
116X60A(C)	√	√	1"
116X70A(C)	√	√	1 1/4"

CODE	OUTLET TEMP GAUGE	CHECK VALVE (C)	NPT female
116340A(C)	√	√	1/2"
116350A(C)	√	√	3/4"
116360A(C)	√	√	1"
116370A(C)	√	√	1 1/4"

With second thermostatic by-pass cartridge for thermal disinfection function. X=2, 160°F (70°C) disinfection temp.; X=6, 140°F (60°C) disinf temp.

With by-pass valve for thermal disinfection. Requires 656 series actuator (shown but order separately for field installation).



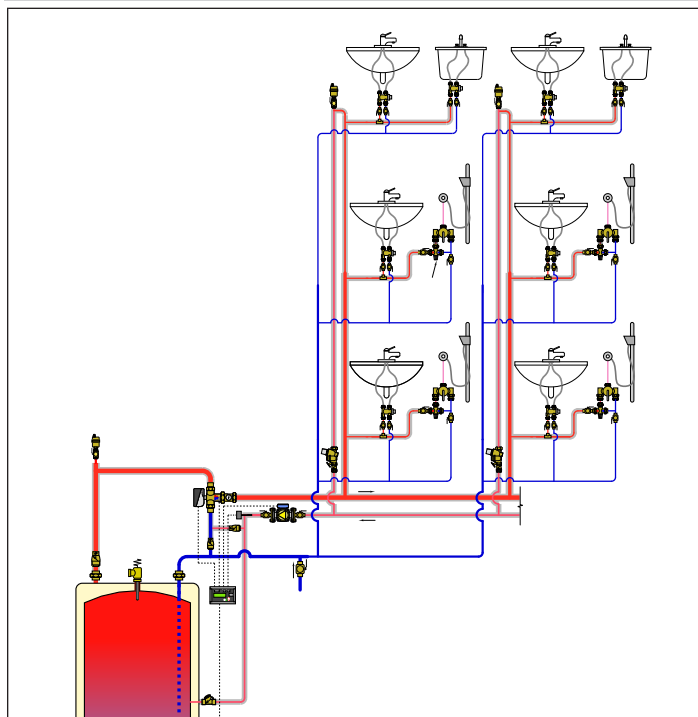
To order with isolation ball valves, add suffix "...001" to any of the 116 series code numbers listed here. See NA108 series ball valves in Caleffi catalog for isolation valve details.

PERFORMANCE

SIZES	1/2" & 3/4"	1" & 1 1/4"
TEMP ADJUSTMENT RANGE*	95 — 140°F (35 — 60°C)	95 — 150°F (35 — 65°C)
CV MAX	2.1	4.4
CV DISINFECTON	1.2	2.3
CV DESIGN	0.5	1.9
CV MIN	0.2	1.0

*Maximum temperature setting must be less than 140°F for 1" & 1 1/4" sizes when using the 140°F disinfection temperature by-pass cartridge.

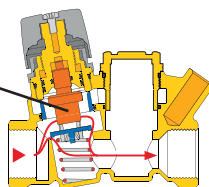
APPLICATION DIAGRAM



OPERATING PRINCIPLE

The balancing cartridge modulates the valve to control temperature to the knob set point. At the set point, the valve is at minimum position. This allows hot water supplied by the circulator to be distributed to the other branches resulting in effective automatic thermal balancing. The automatic response allows each hot water branch to quickly deliver hot water to each fixture.

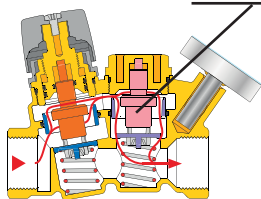
Balancing thermostatic cartridge



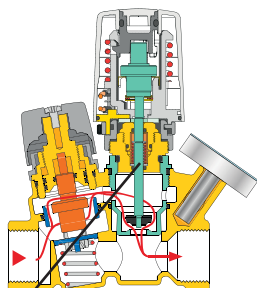
1161 models

When thermal disinfection is used for legionella growth protection, the function is activated by a second thermostatic by-pass cartridge that opens at 140°F or 160°F, selectable option, opening to allow flow for the disinfection process independent of the almost-closed balancing thermostatic cartridge. Alternatively, thermal disinfection can be achieved with a by-pass valve controlled with a separately ordered electric actuator, code 656 series.

Thermal disinfection by-pass cartridge



1162 & 1166 models



Thermal disinfection by-pass valve

1163 models

Caleffi Partner:



03598-22 NA