

QuickSetter+™ balancing valve with flow meter

132AFC series



01283/24 NA

Replaces 01283/22 NA



NSF/ANSI/CAN 372



Function

The QuickSetter+™ manual balancing valve contains a built-in flow meter and sight gauge, negating the need for differential pressure gauges and reference charts. Circuit balancing is fast, easy and accurate. Constructed of DZR low-lead brass, QuickSetter+ is ideally suited for use in plumbing applications such as hot water recirculation systems. The built-in check valve protects against circuit thermosiphoning. The outlet temperature gauge (optional) verifies the fluid temperature in the circuit. The flow meter sight gauge is dry (not exposed to the fluid) thus eliminating the possibility of gauge clouding/scaling over time. Peroxide-cured EPDM seals provide chlorine and chloramine resistance and long operating life. The QuickSetter+ can also be used in heating systems. The valve complies with NSF/ANSI/CAN 372, low lead, as certified by ICC-ES.

Caleffi code 290030 and 290031 full-port ball valve is designed for isolating the QuickSetter+ 132AFC series that has 1" metric "G" thread union connections. The isolation valve installs in between the valve body and the tailpiece fitting assembly. Male x Female configuration and bi-directional full ball valve flow capacity provides flexibility for using one, two or three isolation valves for the primary functioning valve. Code 290031 has an extended stem for those projects that require pipe insulation.

Product range

132AFC series Balancing valve with flow meter, includes inlet check valve and optional dual-scale outlet temperature gauge.....sizes ½", ¾", 1" with NPT male, sweat, press, PEX crimp, PEX expansion union connections

Technical specifications

Materials

Valve

| | |
|---------------------|----------------------|
| Body: | DZR low-lead* brass |
| Ball: | stainless steel |
| Ball control stem: | brass, chrome plated |
| Ball seal seat: | PTFE |
| Control stem guide: | PSU |
| Seals: | peroxide-cured EPDM |

Flow meter

| | |
|---------------------------------------|---------------------|
| Body and headwork: | DZR low-lead* brass |
| Bypass valve stem: | stainless steel |
| Springs: | stainless steel |
| Seals: | peroxide-cured EPDM |
| Flow meter float and indicator cover: | PSU |

* Meets the "lead free" requirement of Section 1417 of the Safe Drinking Water Act (SDWA). This product has a weighted average lead content of less than 0.25% for its wetted surfaces contacted with consumable water.

Performance

| | |
|--------------------------------------|---|
| Suitable Fluids: | water, glycol solutions |
| Max. percentage of glycol: | 50% |
| Max. working pressure: | 150 psi (10 bar) |
| Working temperature range: | 14 °F - 230 °F (-10 °C -110 °C) |
| Flow rate range unit of measurement: | 0.5 - 1.8 gpm 2 - 7 gpm |
| Accuracy: | ±10% |
| Control stem angle of rotation: | 90° |
| Control stem adjustment wrench: | 9 mm |
| Outlet temperature gauge (optional): | 2" diameter Dual-scale 32 °F - 210 °F (0 °C -100 °C) |

Certifications

1. NSF/ANSI/CAN 372, Drinking Water System Components-Lead Content Reduction of Lead in Drinking Water Act, California Health and Safety Code 116875 S.3874, Reduction in Drinking Water Act, Vermont Act 193 - The Lead in Plumbing Supplies Law and Maryland's Lead Free Law HB.372, certified by ICC-ES, file PMG-1360.
2. PEX crimp fittings certified to ASTM F 1807.
3. PEX expansion fittings certified to ASTM F 1960.

Connections

Main connections:

½", ¾", 1" sweat union
½", ¾", 1" NPT male union
½", ¾", 1" PEX crimp union
½", ¾", 1" PEX expansion union
½", ¾", 1" press union

Lay length (press connection):

size ½ inch without gauge: 7 5/16"
size ½ inch with gauge: 10 1/8"
size ¾ inch without gauge: 7 5/16"
size ¾ inch with gauge: 10 1/8"
size 1 inch without gauge: 8 1/2"
size 1 inch with gauge: 10 3/4"

Flow rate ranges

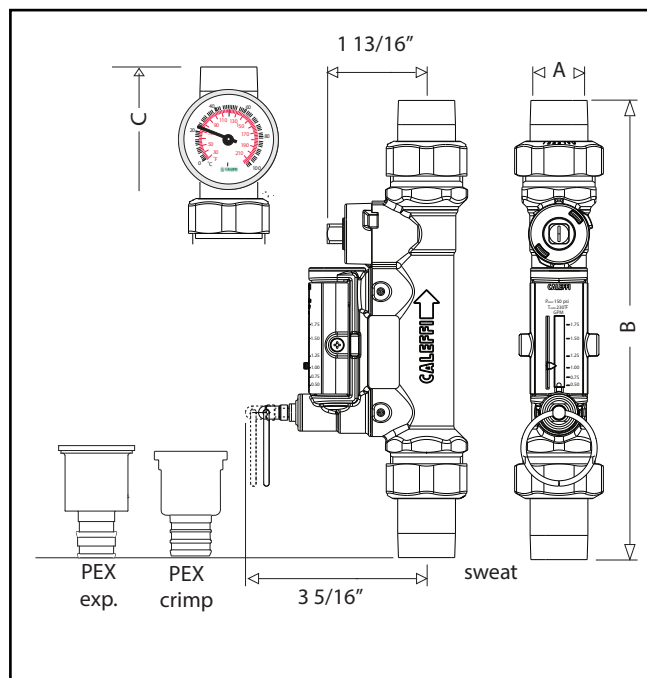
Without temperature gauge.

| Code | Union Connections | Flow rate (gpm) | Fully open Cv |
|-----------|-------------------|-----------------|---------------|
| 132434AFC | ½" PEX crimp | 0.5 - 1.8 | 1.0 |
| 132432AFC | ½" PEX expansion | | 1.0 |
| 132436AFC | ½" press | | 1.0 |
| 132439AFC | ½" sweat | | 1.0 |
| 132430AFC | ½" NPT male | | 1.0 |
| 132534AFC | ¾" PEX crimp | | 1.0 |
| 132532AFC | ¾" PEX expansion | | 1.0 |
| 132536AFC | ¾" press | | 1.0 |
| 132539AFC | ¾" sweat | | 1.0 |
| 132530AFC | ¾" NPT male | | 1.0 |
| 132634AFC | 1" PEX crimp | | 1.0 |
| 132632AFC | 1" PEX expansion | | 1.0 |
| 132636AFC | 1" press | | 1.0 |
| 132639AFC | 1" sweat | | 1.0 |
| 132630AFC | 1" NPT male | | 1.0 |
| 132454AFC | ½" PEX crimp | 2.0 - 7.0 | 6.3 |
| 132452AFC | ½" PEX expansion | | 6.3 |
| 132456AFC | ½" press | | 6.3 |
| 132459AFC | ½" sweat | | 6.3 |
| 132450AFC | ½" NPT male | | 6.3 |
| 132554AFC | ¾" PEX crimp | | 6.3 |
| 132552AFC | ¾" PEX expansion | | 6.3 |
| 132556AFC | ¾" press | | 6.3 |
| 132559AFC | ¾" sweat | | 6.3 |
| 132550AFC | ¾" NPT male | | 6.3 |
| 132654AFC | 1" PEX crimp | | 6.3 |
| 132652AFC | 1" PEX expansion | | 6.3 |
| 132656AFC | 1" press | | 6.3 |
| 132659AFC | 1" sweat | | 6.3 |
| 132650AFC | 1" NPT male | | 6.3 |

With temperature gauge.

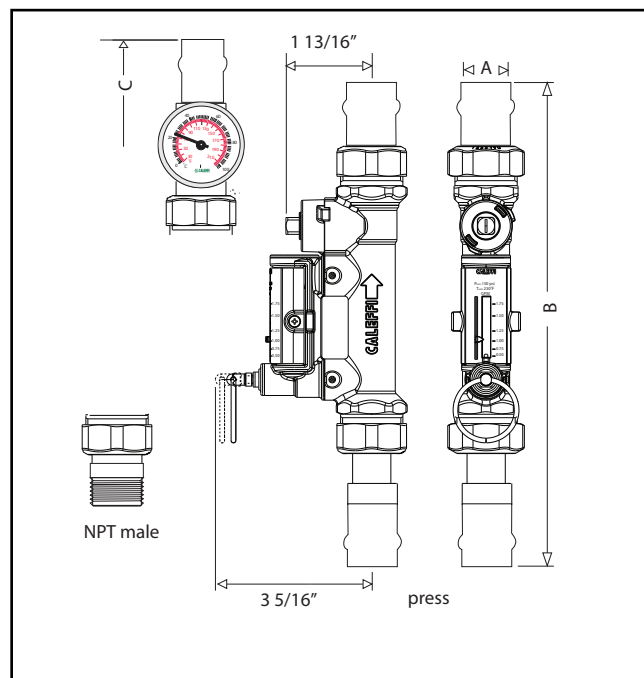
| Code | Connection | Flow rate (gpm) | Fully open Cv |
|-----------|------------------|-----------------|---------------|
| 132435AFC | ½" PEX crimp | 0.5 - 1.8 | 1.0 |
| 132433AFC | ½" PEX expansion | | 1.0 |
| 132437AFC | ½" press | | 1.0 |
| 132438AFC | ½" sweat | | 1.0 |
| 132431AFC | ½" NPT male | | 1.0 |
| 132535AFC | ¾" PEX crimp | | 1.0 |
| 132533AFC | ¾" PEX expansion | | 1.0 |
| 132537AFC | ¾" press | | 1.0 |
| 132538AFC | ¾" sweat | | 1.0 |
| 132531AFC | ¾" NPT male | | 1.0 |
| 132635AFC | 1" PEX crimp | | 1.0 |
| 132633AFC | 1" PEX expansion | | 1.0 |
| 132637AFC | 1" press | | 1.0 |
| 132638AFC | 1" sweat | | 1.0 |
| 132631AFC | 1" NPT male | | 1.0 |
| 132455AFC | ½" PEX crimp | 2.0 - 7.0 | 6.3 |
| 132453AFC | ½" PEX expansion | | 6.3 |
| 132457AFC | ½" press | | 6.3 |
| 132458AFC | ½" sweat | | 6.3 |
| 132451AFC | ½" NPT male | | 6.3 |
| 132555AFC | ¾" PEX crimp | | 6.3 |
| 132553AFC | ¾" PEX expansion | | 6.3 |
| 132557AFC | ¾" press | | 6.3 |
| 132558AFC | ¾" sweat | | 6.3 |
| 132551AFC | ¾" NPT male | | 6.3 |
| 132655AFC | 1" PEX crimp | | 6.3 |
| 132653AFC | 1" PEX expansion | | 6.3 |
| 132657AFC | 1" press | | 6.3 |
| 132658AFC | 1" sweat | | 6.3 |
| 132651AFC | 1" NPT male | | 6.3 |

Dimensions



| Code (w/o gauge) | Code (w/ gauge) | A | B (w/o gauge) | C (w/ gauge) | Wt (lb)* |
|---------------------------------|--------------------|--------------------|---------------------|-----------------|-------------|
| Flow rate 0.5 to 1.8 gpm | | | | | |
| 132434AFC | 132435AFC | 1/2" PEX crimp | 9" | 10 5/16" | 1.8/2.2 |
| 132432AFC | 132433AFC | 1/2" PEX expansion | 9 1/8" | 10 7/16" | 1.8/2.2 |
| 132439AFC | 132438AFC | 1/2" sweat | 8 3/8" | 9 11/16" | 2.0/2.4 |
| 132534AFC | 132535AFC | 3/4" PEX crimp | 10 1/8" | 12 5/8" | 2.0/2.4 |
| 132532AFC | 132533AFC | 3/4" PEX expansion | 10 7/8" | 13 3/8" | 2.0/2.4 |
| 132539AFC | 132538AFC | 3/4" sweat | 8 7/16" | 9 13/16" | 1.8/2.2 |
| 132634AFC | 132635AFC | 1" PEX crimp | 8 11/16" | 10 1/4" | 2.2/2.6 |
| 132632AFC | 132633AFC | 1" PEX expansion | 9 11/16" | 11 1/4" | 2.2/2.6 |
| 132639AFC | 132638AFC | 1" sweat | 8 9/16" | 10 1/8" | 2.4/2.8 |
| Flow rate 2.0 to 7.0 gpm | | | | | |
| 132454AFC | 132455AFC | 1/2" PEX crimp | 9" | 10 5/16" | 1.8/2.2 |
| 132452AFC | 132453AFC | 1/2" PEX expansion | 9 1/8" | 10 7/16" | 1.8/2.2 |
| 132459AFC | 132458AFC | 1/2" sweat | 8 3/8" | 9 11/16" | 2.0/2.4 |
| 132554AFC | 132555AFC | 3/4" PEX crimp | 10 1/8" | 12 5/8" | 2.0/2.4 |
| 132552AFC | 132553AFC | 3/4" PEX expansion | 10 7/8" | 13 3/8" | 2.0/2.4 |
| 132559AFC | 132558AFC | 3/4" sweat | 8 7/16" | 9 13/16" | 1.8/2.2 |
| 132654AFC | 132655AFC | 1" PEX crimp | 8 11/16" | 10 1/4" | 2.2/2.6 |
| 132652AFC | 132653AFC | 1" PEX expansion | 9 11/16" | 11 1/4" | 2.2/2.6 |
| 132659AFC | 132658AFC | 1" sweat | 8 9/16" | 10 1/8" | 2.4/2.8 |

*(without temperature gauge / with temperature gauge)



| Code (w/o gauge) | Code (w/ gauge) | A | B (w/o gauge) | C (w/ gauge) | Wt (lb)* |
|---------------------------------|--------------------|---------------|---------------------|-----------------|-------------|
| Flow rate 0.5 to 1.8 gpm | | | | | |
| 132436AFC | 132437AFC | 1/2" press | 9 3/8" | 11 5/8" | 1.8/2.2 |
| 132430AFC | 132431AFC | 1/2" NPT male | 8 1/4" | 10 15/16" | 1.8/2.4 |
| 132536AFC | 132537AFC | 3/4" press | 9 7/8" | 12 1/8" | 1.8/2.2 |
| 132530AFC | 132531AFC | 3/4" NPT male | 8 5/16" | 10 1/2" | 2.0/2.6 |
| 132636AFC | 132637AFC | 1" press | 10 1/4" | 12 1/2" | 2.2/2.6 |
| 132630AFC | 132631AFC | 1" NPT male | 8 1/4" | 10 15/16" | 2.4/2.8 |
| Flow rate 2.0 to 7.0 gpm | | | | | |
| 132456AFC | 132457AFC | 1/2" press | 9 3/8" | 11 5/8" | 1.8/2.2 |
| 132450AFC | 132451AFC | 1/2" NPT male | 8 1/4" | 10 15/16" | 1.8/2.4 |
| 132556AFC | 132557AFC | 3/4" press | 9 7/8" | 12 1/8" | 1.8/2.2 |
| 132550AFC | 132551AFC | 3/4" NPT male | 8 5/16" | 10 1/2" | 2.0/2.6 |
| 132656AFC | 132657AFC | 1" press | 10 1/4" | 12 1/2" | 2.2/2.6 |
| 132650AFC | 132651AFC | 1" NPT male | 8 1/4" | 10 15/16" | 2.4/2.8 |

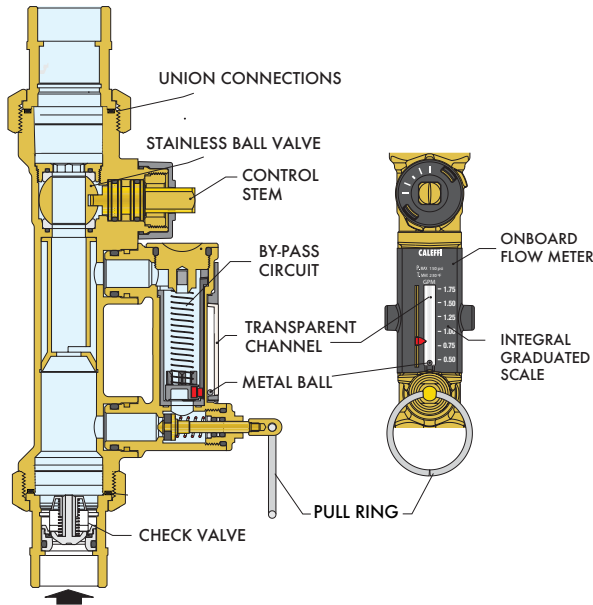
*(without temperature gauge / with temperature gauge)

Lay length (press connection):

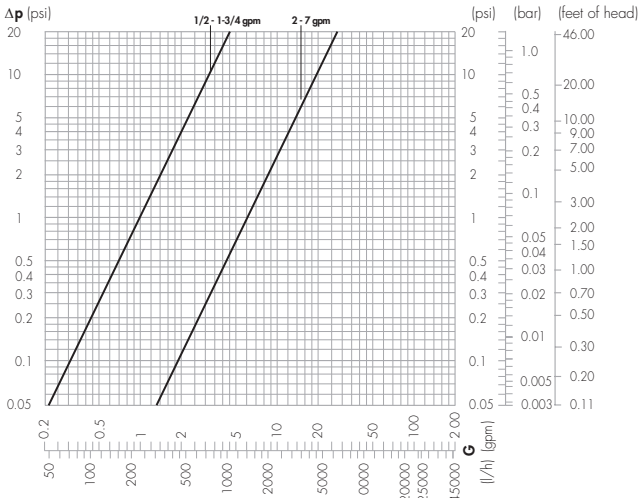
size 1/2 inch without gauge: 7 5/16"
size 1/2 inch with gauge: 10 1/8"
size 3/4 inch without gauge: 7 5/16"
size 3/4 inch with gauge: 10 1/8"
size 1 inch without gauge: 8 1/2"
size 1 inch with gauge: 10 3/4"

Operating principle

The balancing valve is a hydraulic device that controls flow rate. The control mechanism is a ball valve, operated by a control stem. The flow rate is manually and properly set by use of the convenient onboard flow meter housed in a bypass circuit on the valve body. This circuit is automatically shut off during normal operation. The flow rate is indicated by a metal ball sliding inside a transparent channel with an integral graduated scale. The QuickSetter+ also includes a inlet check valve to prevent reverse flow.



Hydraulic characteristics at 100% open

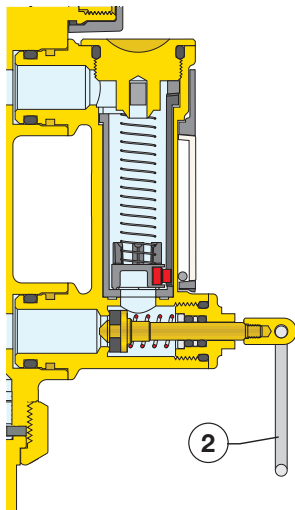


| Size | Connection | Flow rate (gpm) | Fully open Cv |
|------|--|-----------------|---------------|
| 1/2" | sweat, PEX crimp, PEX expansion, press, NPT male | 0.5 - 1.75 | 1.0 |
| 3/4" | | 0.5 - 1.75 | 1.0 |
| 1" | | 0.5 - 1.75 | 1.0 |
| 1/2" | | 2.0 - 7.0 | 6.3 |
| 3/4" | | 2.0 - 7.0 | 6.3 |
| 1" | | 2.0 - 7.0 | 6.3 |

Construction details

Flow meter

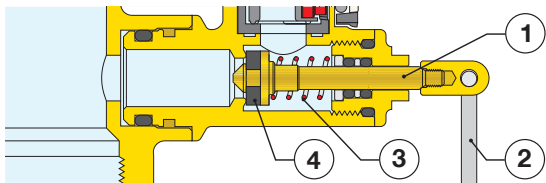
When activated by pulling the operating ring (2), the flow rate is indicated on the flow meter housed in a bypass circuit on the valve body. When finished reading the flow rate, the flow meter is automatically shut off, isolating it during normal operation. Use of a flow meter greatly simplifies the process of system balancing since the flow rate can be measured and controlled at any time without differential pressure gauges or reference charts. The onboard flow meter eliminates the need to calculate valve settings during system setup. Additionally, the unique onboard flow meter offers unprecedented time and cost savings by eliminating the long and difficult procedure of calculating pre-settings associated with using traditional balancing devices.



Flow meter bypass valve

The bypass valve (1) opens and closes the circuit between the flow meter and the valve. The bypass valve is easily opened by pulling the operating ring (2), and is automatically closed by the internal return spring (3) when finished reading the flow rate. The spring and the EPDM seal (4) provide a reliable seal to isolate the flow meter during normal operation.

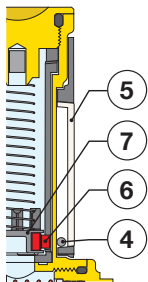
The operating ring (2) material has low thermal conductivity to avoid burns if the flow meter is opened while hot fluid is passing through the valve.



Ball/magnet indicator

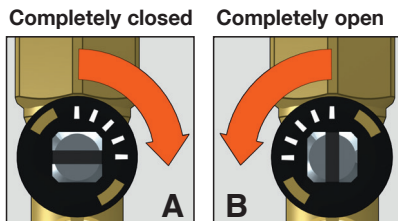
The metal ball (4) that indicates the flow rate is not in direct contact with the fluid passing through the flow meter.

This is an effective and innovative measuring system in which the ball slides up and down inside a transparent channel (5) that is isolated from the fluid flowing through the body of the flow meter. The ball is moved by a magnet (6) connected to a float (7). In this way the flow rate indication system **remains perfectly clean and provides reliable readings over time.**



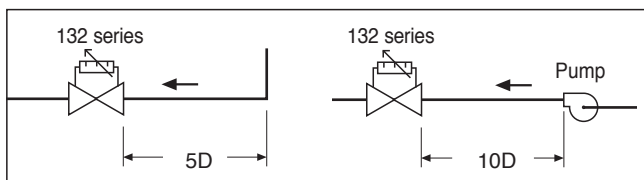
Complete closing and opening of the valve

The valve can be completely closed and opened. A slot on the control stem indicates the valve position. When the control stem is turned fully clockwise (the slot is perpendicular to the axis of the valve), the valve is fully closed (A). When the control stem is turned fully counter-clockwise (the slot is parallel to the axis of the valve), the valve is fully open (B).

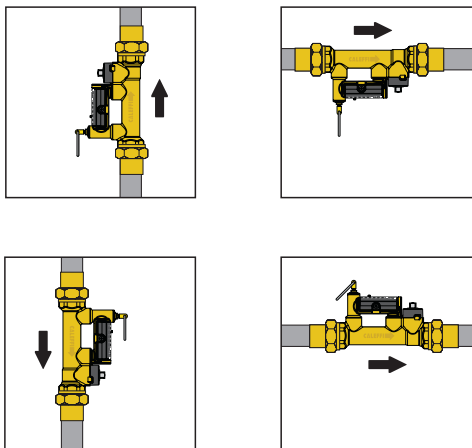


Installation

Install the balancing valve in a location that ensures free access to the flow meter shutoff valve, control stem and flow rate indicator. To ensure accurate flow measurement, straight sections of pipe installed as shown is recommended.



The valve can be installed in any position with respect to the flow direction shown on the valve body. Additionally, the valve can be installed either horizontally or vertically.

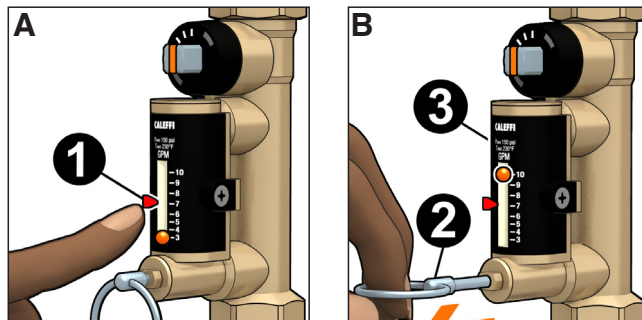


Do not install in direct sunlight.

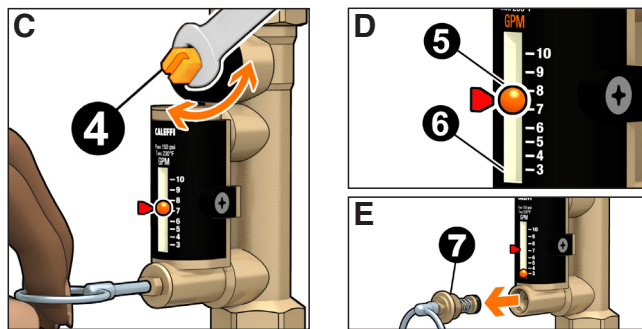
Flow rate adjustment

The flow rate is adjusted as follows:

- With the aid of the flow rate indicator (1), mark the desired flow rate.
- Use the operating ring (2) to open the bypass valve slowly. This allows fluid to flow through the flow meter (3). The bypass valve is automatically closed under normal operating conditions.



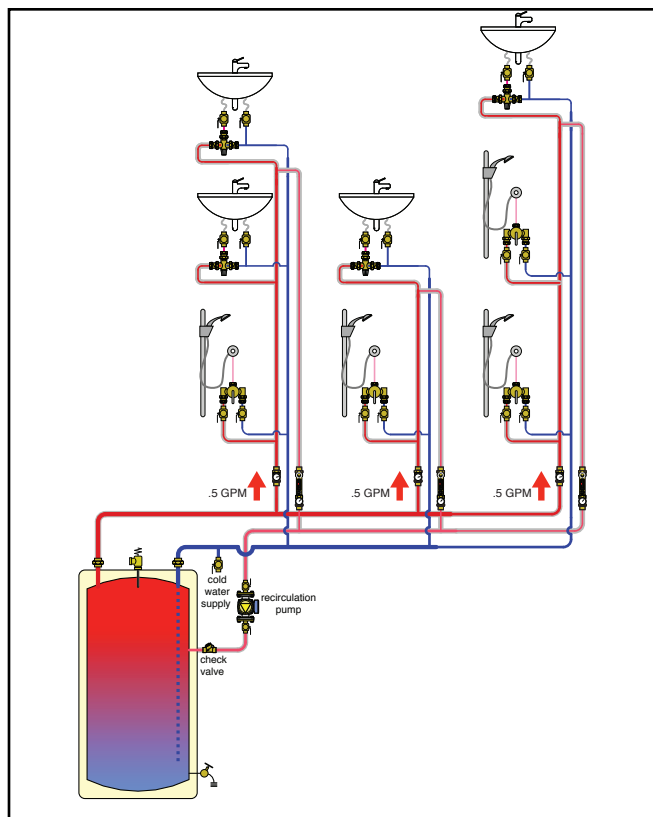
- While holding the bypass valve open, use a wrench to turn the valve control stem (4) to adjust the flow rate slowly. The resulting flow rate is indicated by the metal ball (5) that slides up and down inside a transparent channel (6) marked by a graduated scale in gpm.



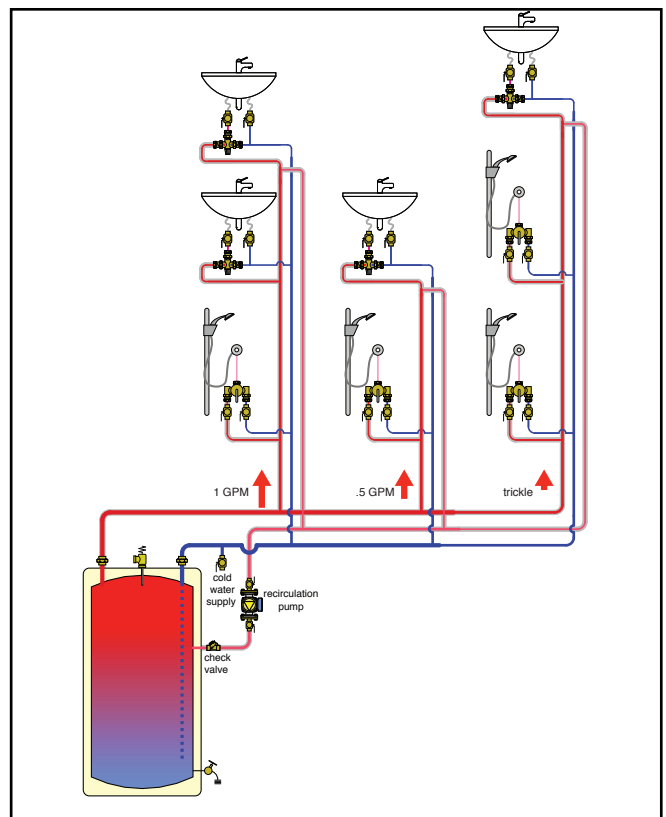
- Once the flow rate is properly adjusted, release the operating ring (2) of the bypass valve. The valve will automatically return to the closed position by means of an internal spring.
- A replacement bypass valve stem (7) with operating ring is available in event it is damaged and inoperable. Order code F19346.

Hot water recirculation

Balanced example



Unbalanced example



Balancing made fast, easy, and accurate with QuickSetter+

Hot water recirculation systems are designed to minimize wait time for hot water to arrive when a fixture is opened. Systems left unbalanced or improperly balanced result in wasted water down the drain, a costly and environmentally unfriendly situation - not to mention the undesired annoyance placed on building occupants. The QuickSetter+ takes the guess work and labor out of balancing. With the valve's exclusively designed venturi mechanism, the installer simply pulls the flow indicator by-pass pin, adjusts the flow to the desired flow rate while viewing the built-in sight gauge, and releases the pin. Easy, accurate balancing in seconds. No instruments or reference graphs are needed.



Replacement body.
Select fittings from the Catalog Product Guide, fitting section.

| Code | Description | Lbs |
|---------------|-----------------|-----|
| 132637 | 0.5 to 1.75 gpm | 1.0 |
| 132657 | 2.0 to 7.0 gpm | 1.0 |



Replacement flow meter.

| Code | Description | Lbs |
|-----------------|--|-----|
| F0000940 | 0.5 to 1.75 gpm | 0.2 |
| F0000941 | 2.0 to 7.0 gpm | 0.2 |
| F19346 | Replacement by-pass stem with operating ring | 0.2 |



QuickSetter Insulation sleeve for valve and fitting on each end.

| Code | Description | Lbs |
|-----------------|--------------------------------------|-----|
| F0000926 | For models with temperature gauge | 0.1 |
| 112001 | For models without temperature gauge | 0.1 |



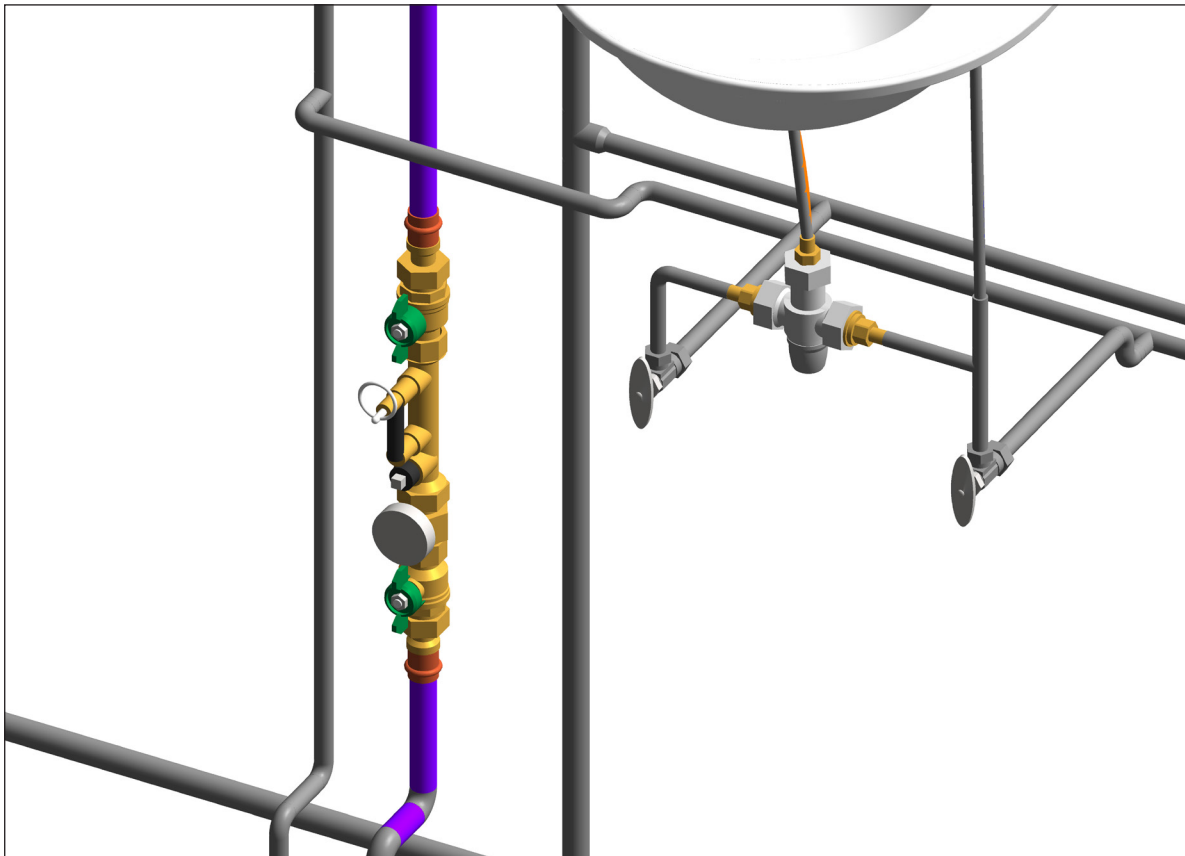
Isolation ball valve.
Low lead Male x Female union fits 1" valves between body and tailpiece. See below.

| Code | Description | Lbs |
|---------------|---|-----|
| 290030 | Isolation ball valve 1" M x 1" F union | 1.0 |
| 290031 | Isolation ball valve. extended stem 1" M x 1" F union | 1.0 |

For more information, consult Technical Brochure 1397-24 NA at www.caleffi.com



Isolation ball valves, installed on QuickSetter+ without optional temperature gauge.



Find us in
MasterSpec®
 a product of The American Institute of Architects



<https://get.caleffi.info/specpoint>

find BIM Revit files and system templates at
<https://bim.caleffi.com/en-us>

SPECIFICATION SUMMARY

132 series

Balancing valve with flow meter. NPT male, Sweat, Press. PEX crimp and PEX expansion union connections 1/2", 3/4", 1". PEX crimp fittings must comply with ASTM F 1807. PEX expansion fittings must comply with ASTM F 1960. DZR low-lead brass body (<0.25% Lead content) certified by ICC-ES file PMG-1360. Stainless steel ball. Chrome-plated brass ball control stem. PTFE ball seal seat. PSU control stem guide. DZR low-lead brass flow meter body and headwork. Stainless steel flow meter bypass valve stem. Stainless steel flow meter springs. PSU flow meter float and indicator cover. Peroxide-cured EPDM seals. Provided with inlet flow check valve. Water and glycol solutions. Maximum percentage of glycol 50%. Maximum working pressure 150 psi (10 bar). Working temperature range 14 to 230 degrees F (-10 to 110 degrees C). Flow rate range unit of measurement gallons per minute (gpm). Accuracy ± 10%. Control stem angle of rotation 90°. Provide with optional mixed outlet dual-scale temperature gauge, 30 to 210 degree F scale and 0 to 100 degree C scale, 2 inch diameter. Provide with optional inlet and outlet isolation ball valves, code 290030 or 290031, separately sourced, field installed.

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