

AngleMix™, MixCal™ Thermostatic Mixing Valve

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520, 521 Series

Revit Content Instructions Guide

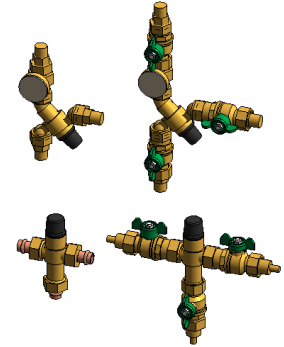
Manufacturer & Product: Caleffi 521 MixCal, 520 AngleMix

Files: *Thermostatic_Mixing_Valve-AngleMix-Caleffi-Brass-520.rfa*
Thermostatic_Mixing_Valve-MixCal-Caleffi-521.rfa

Type Catalogs: *Thermostatic_Mixing_Valve-MixCal-Caleffi-521.txt*

Rendering file: Not Applicable

Schedule file: Not Applicable



The MixCal 521 includes variations as follows:

1. Sizes include 0.5 in., 0.75 in., and 1 in.
2. Connection types include MNPT, PEX Crimp, PEX Expansion, Sweat, and Press
3. Each of the combinations from the two above also has an additional option of check valve on inlets

The AngleMix 520 includes variations as follows:

1. Sizes include 0.5 in., 0.75 in., and 1 in.
2. Connection types include MNPT, Sweat, and Press
3. Each of the combinations from the two above also has an additional option of check valve on inlets

All the above variations are included as separate types in the type catalog or built into the family as applicable

Instance Properties

Here is a curated list of notable parameters for the Revit user within the Caleffi 521 MixCal, 520 AngleMix family.

Construction	
Cold Inlet Isolation Valve (default)	This controls the isolation valve type on the cold inlet.
(0) No Isolation Valve on Cold Inlet (default)	This is active if no isolation valve is selected on cold inlet
(1) 290030 Isolation Valve on Cold Inlet (default)	This is active if 290030 isolation valve is selected on cold inlet
(2) 290031 Isolation Valve on Cold Inlet (default)	This is active if 290031 isolation valve is selected on cold inlet
Hot Inlet Isolation Valve (default)	This controls the isolation valve type on the hot inlet.
(0) No Isolation Valve on Hot Inlet (default)	This is active if no isolation valve is selected on hot inlet
(1) 290030 Isolation Valve on Hot Inlet (default)	This is active if 290030 isolation valve is selected on hot inlet
(2) 290031 Isolation Valve on Hot Inlet (default)	This is active if 290031 isolation valve is selected on hot inlet
Mixed Outlet Isolation Valve (default)	This controls the isolation valve type on the mixed outlet.
(0) No Isolation Valve on Mixed Outlet (default)	This is active if no isolation valve is selected on mixed outlet
(1) 290030 Isolation Valve on Mixed Outlet (default)	This is active if 290030 isolation valve is selected on mixed outlet
(2) 290031 Isolation Valve on Mixed Outlet (default)	This is active if 290031 isolation valve is selected on mixed outlet
Temperature Gauge Angle (default)	This controls the angle of the temperature gauge (when applicable)
Mechanical	
Hot Water Percentage (default)	This controls the hot water percentage in the mixture
Mechanical - Flow	
Design Flow Rate (default)	This tells you the flow that this component is reading in the system.
Flow Warning (default)	This tells you a warning if the flow rate exceeds the maximum allowable.
Mechanical - Loads	
Pressure Drop Feet of Water (default)	Specify the pressure drop in feet of water.
System Pressure Drop (default)	This tells you the system pressure drop.

When the isolation valve check box is selected for the family, isolation valve is placed on the port corresponding to the box. All the applicable boxes need to be checked for desired configuration.

Type Properties

Here is a curated list of notable parameters for the Revit user within the Caleffi 521 MixCal, 520 AngleMix families.

520 AngleMix

Identity Data	
Assembly Code	D2020
Contact URL*	http://www.caleffi.com/usa/en-us/contacts/contact-us
Copyright*	©Caleffi North America
Cost	
Description	Angle-Style Thermostatic Mixing Valve, Temperature Gauge
Family Version*	1
Keynote	
Manufacturer	Caleffi North America, Inc.
Model	520410A
Product Page URL*	https://www.caleffi.com/usa/en-us/catalogue/anglemixtm-thermostatic-mixing-valve-temperature-gauge-520516a
Type Comments	
Type Image	
Series*	AngleMix™
Standards*^	ASSE 1017, CSA B125.3, UPC, IPC, IRC, NPC, NSF/ANSI/CAN 372
URL	https://www.caleffi.com/usa/en-us

521 MixCal

Identity Data	
Assembly Code	D2020
Contact URL*	http://www.caleffi.com/usa/en-us/contacts/contact-us
Copyright*	©Caleffi North America
Cost	
Description	
Family Version*	1
Keynote	
Manufacturer	Caleffi North America, Inc.
Model	521400A
Product Page URL*	https://www.caleffi.com/usa/en-us/catalogue/mixcaltm-adjustable-thermostatic-and-pressure-balanced-mixing-valve-npt-521400a
Type Comments	
Type Image	
Series*	521 Series
Standards*	ASSE 1017, CSA B125.3, UPC, IPC, IRC, NPC, NSF/ANSI/CAN 372
URL	https://www.caleffi.com/usa/en-us

Halftone text in the property tables indicates that the value is locked from editing.

*Indicates Shared Parameter and can be scheduled

^Indicates Standard certifications for the size/variation shown. Other size variations have different Standard certifications.

Rendering

Note: Standard Caleffi materials are imported. These may be modified, but please ensure that the modification selection matches an actual manufacturer supplied option.

Loading and Placing into the Project

To work with the Caleffi 521 MixCal, 520 AngleMix in Revit, a family and a type catalog are provided where applicable. Navigate to the Insert Tab > Load Family button on the Revit ribbon to load the family. Be sure the type catalog (.txt) file is located in the same folder as the family you are loading. Please ensure that the visibility settings within the project are modified to have the Piping category visible.

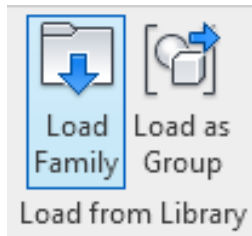


Figure 1 - Insert Tab > Load Family

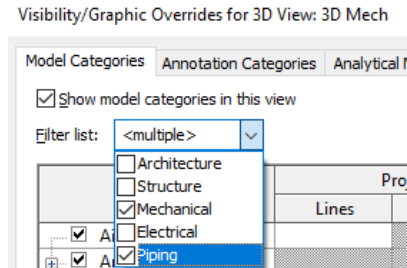


Figure 2 - Visibility/Graphic Overrides

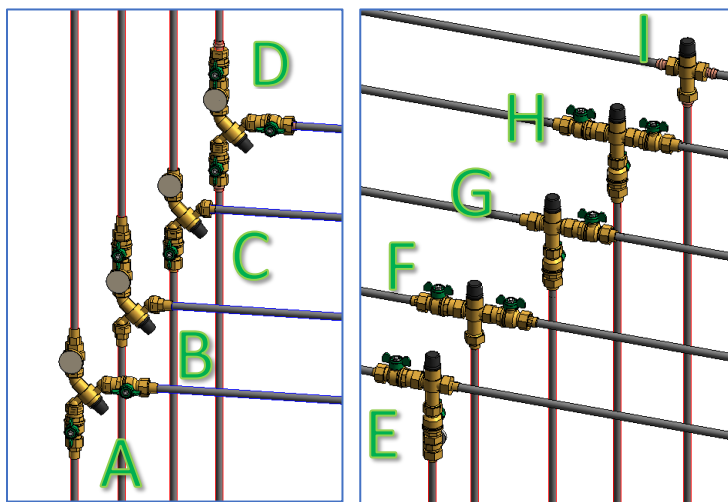


Figure 3 - Caleffi 521 MixCal, 520 AngleMix

AngleMix

- A. 0.5 in. MNPT Union connection AngleMix with isolation valves at inlets
- B. 0.5 in. MNPT Union connection AngleMix with inlet checks with isolation valve at outlet
- C. 0.5 in. Sweat connection AngleMix with isolation valve at hot inlet
- D. 0.5 in. Press connection AngleMix with isolation valves at all ports

MixCal

- E. 0.5 in. Sweat connection MixCal with inlet checks and isolation valves at cold inlet and outlet
- F. 0.5 in. MNPT connection MixCal with isolation valves at both inlets
- G. 0.5 in. PEX Expansion connection MixCal with isolation valve at hot inlet and outlet
- H. 0.5 in. PEX Crimp connection MixCal with isolation valves at all ports
- I. 0.5 in. Press connection MixCal

Project Behavior

One way to place a Caleffi 521 MixCal, 520 AngleMix is to go to the Systems Tab on the Revit ribbon and navigate to the Component button with Place a Component fly-out selected.

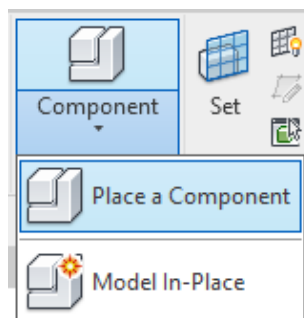


Figure 4 - Systems Tab > Component > Place a Component

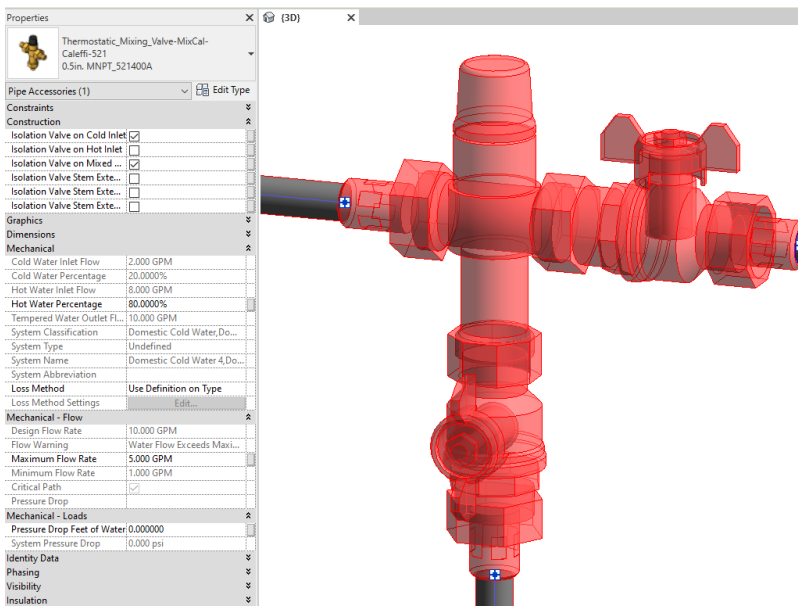
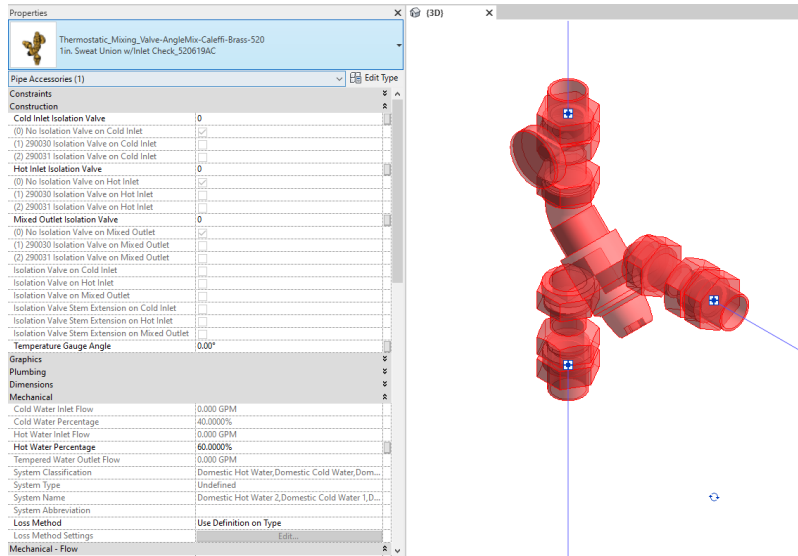


Figure 5 – The Caleffi 521 MixCal, 520 AngleMix families can be found under pipe accessories in the project browser and placed directly onto pipe of the same size. It will then read flows and consider pressure drop in the system. In this case, it shows a message that the water flow exceeds the maximum allowable.

Schedule Creation

Within the type and instance properties dialogues, the Revit user will find useful information for scheduling purposes such as Type, Part Description, Part Number/Model, Family Version, Manufacturer, Series, & Product Page URL. The resulting Pipe Accessories schedule in your project will show counts/quantities of the Caleffi 521 MixCal, 520 AngleMix as well as separate quantities/counts of any separately purchased accessory products that do not come in box with the Caleffi 521 MixCal, 520 AngleMix.