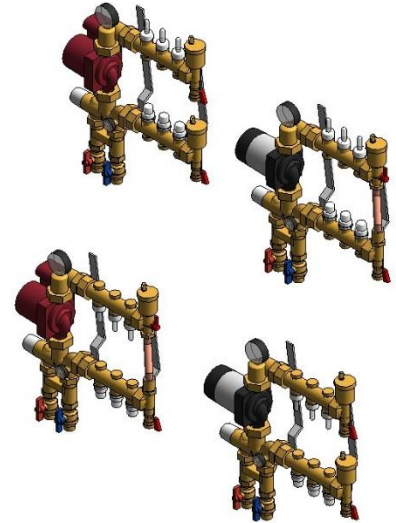## Manifold Mixing Station

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172 Series

Revit Content Instructions Guide

Manufacturer & Product: **Caleffi 172 Manifold Mixing Station**

Manifold_Mixing_Station-3_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-3_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-4_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-4_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-5_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-5_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-6_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-6_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-7_Outlet-Caleffi-172_Series.rfa

Files: *Manifold_Mixing_Station-7_Outlet-Caleffi-172_Series-ByPass.rfa*
Manifold_Mixing_Station-8_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-8_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-9_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-9_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-10_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-10_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-11_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-11_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-12_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-12_Outlet-Caleffi-172_Series-ByPass.rfa
Manifold_Mixing_Station-13_Outlet-Caleffi-172_Series.rfa
Manifold_Mixing_Station-13_Outlet-Caleffi-172_Series-ByPass.rfa

Type Catalog: Not Applicable
Rendering file: Not Applicable
Schedule file: Not Applicable

These families contain the following main variations or types:
- 3 Speed Pump with and without ByPass (*example: 1725C1A*)
- 3 Speed Pump Inverted with and without ByPass (*example: 1725C1A IN*)
- High Efficiency Pump with and without ByPass (*example: 1725C1AHE*)
- High Efficiency Pump Inverted with and without ByPass (*example: 1725C1AHE IN*)

Manifolds with and without bypass have separate families and applicable family should be selected from the list of files provided above.

Instance Properties

Here is a curated list of notable parameters for the Revit user within the 3-port Caleffi 172 Manifold Mixing Station families.

Construction	
Vertical Offset (default)	This controls placement of the family.
Offset from Mounting Surface (default)	This controls placement of the family.
▼ Manifold Port Connection Options (default) ❶ MPT_3/4in. (default) ❶ Universal PEX_5/16in. (default) ❷ Universal PEX_3/8in. (default) ❸ Universal PEX_1/2in. (default) ❹ Universal PEX_5/8in. (default) ❺ Universal PEX_3/4in. (default) ❻ PEX-AL-PEX_3/8in. (default) ❼ PEX-AL-PEX_1/2in. (default) ❽ PEX-AL-PEX_5/8in. (default)	Select one of the connection options per loop.

❾ PEX-AL-PEX_3/4in. (default)	
▼ Loop Return Port Manifold Operator Options (default) ❶ Manual Knob (default) ❷ 6563 - Actuator (default) ❸ 6563 - Actuator w/Micro-Switch (default) ❹ 6564 - Actuator (default) ❺ 6564 - Actuator w/Switch (default)	Select one of the return port options per loop.
Mechanical	
Manifold Flow Status (default)	This tells you if the flow you specified for any of the loops below exceeds the maximum allowable for the manifold.
Manifold Actual Supply Flow (default)	This tells you the total flow on the manifold without Recirculation Flow Rate considered.
Radiant Port 01 Flow (default)	Specify a flow for this loop.
Radiant Port 02 Flow (default)	Specify a flow for this loop.
Radiant Port 03 Flow (default)	Specify a flow for this loop.
Recirculation Flow Rate (default)	Specify a flow for recirculation.
Total Radiant Port Flow (default)	This shows the total flow from everything you've specified on each port along with the Recirculation Flow Rate.
Mechanical - Loads	
Manifold Actual Pressure Drop (default)	This tells you the pressure drop of the manifold and the critical radiant port pressure drop
Radiant Port 01 Pressure Drop (default)	Specify a pressure drop for this loop.
Radiant Port 02 Pressure Drop (default)	Specify a pressure drop for this loop.
Radiant Port 03 Pressure Drop (default)	Specify a pressure drop for this loop.
Manifold Pressure Drop (default)	Specify a pressure drop for the manifold.
System Pressure Drop (default)	This takes into account the Pressure Drop Feet of Water.
Pressure Drop Feet of Water (default)	Specify the pressure drop in feed of water.
Water Heater Pressure Drop (default)	Specify the water heater pressure drop.

Type Properties

Here is a curated list of notable parameters for the Revit user within the Caleffi 172 Manifold Mixing Station families.

Materials	
Body Material	Metal - Caleffi - Brass
Handle Material	Metal - Caleffi - Aluminum - Blue
Handle Material	Metal - Caleffi - Aluminum - Red
Motor Housing Material	Metal - Grundfos - Cast Iron - Red
Volute Material	Metal - Grundfos - Cast Iron - Red

Identity Data	
Assembly Code	D3040
Contact URL*	http://www.caleffi.com/usa/en-us/contacts/contact-us
Copyright*	©Caleffi North America
Cost	
Description	3 Outlet Manifold Mixing Station (with 3 Speed pump)
Family Version*	1
Keynote	
Manufacturer	Caleffi North America, Inc.
Model	1725C1A
Product Page URL*	https://www.caleffi.com/usa/en-us/catalogue/manifold-mixing-station-3-speed-pump-1725c1a
Type Comments	
Type Image	
Series*	172 Series
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

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 172 Manifold Mixing Station in Revit, multiple families for different loop configurations and variations are provided. Navigate to the Insert Tab > Load Family button on the Revit ribbon to load the family.

Please ensure that the visibility settings within the project are modified to have the Mechanical category visible.
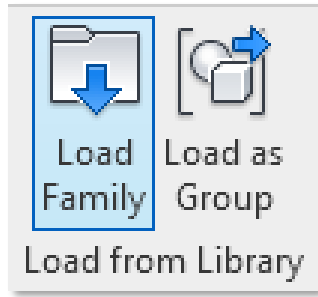
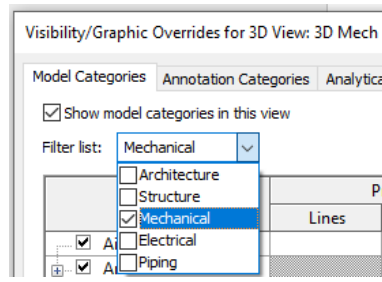
Figure 1 - Insert Tab > Load Family
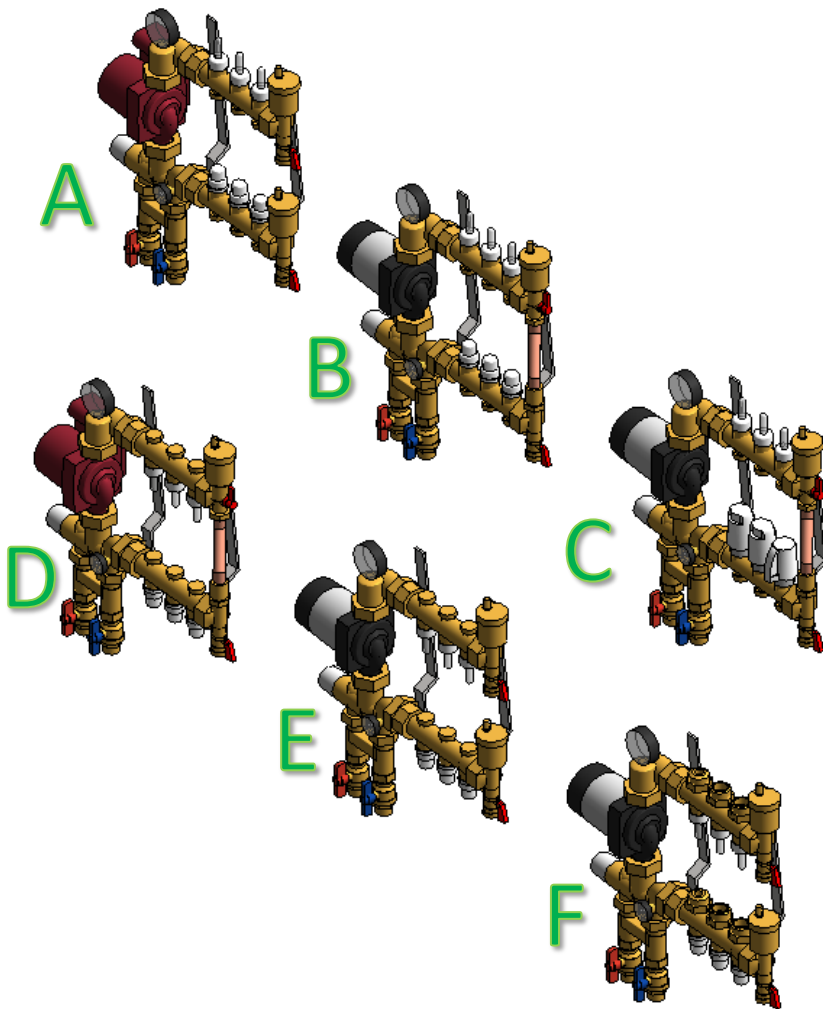

Figure 2 - Visibility/Graphic Overrides

A. Manifold with 3 Speed Pump
B. Manifold with High Efficiency Pump
   - With ByPass
C. Manifold with High Efficiency Pump
   - With ByPass
   - With 6563 Actuator on return port 1, 6563 Actuator with micro-switch on return port 2, 6564 Actuator on return port 3
D. Inverted Manifold with 3 Speed Pump
   - With ByPass
E. Inverted Manifold with High Efficiency Pump
F. Inverted Manifold with High Efficiency Pump
   - With 3/8" Universal PEX port 1, 3/4" Universal PEX port 2, and 5/8" PEX-AL-PEX port 3

Figure 3 - Caleffi 172 Manifold Mixing Station

Caleffi North America

Project Behavior

One way to place a Caleffi 172 Manifold Mixing Station is to go to the Systems Tab on the Revit ribbon and navigate to the Component button with Place a Component fly-out selected. The Caleffi 172 Manifold Mixing Station family can be placed on a face, such as on a wall in Revit.
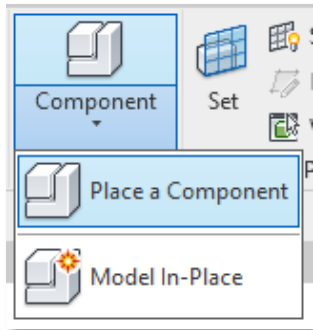

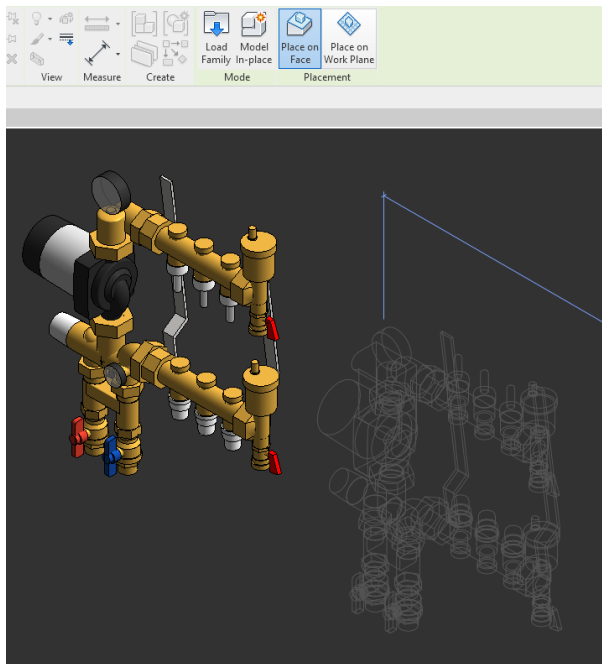*Figure 4 - Systems Tab > Component > Place a Component*

Figure 5 - Place on a Wall

The Caleffi 172 Manifold Mixing Station family is work plane based and includes multiple instance options for configuration once placed.

- Vertical Offset
- Offset From Mounting Surface
- Manifold Port Connection Options (per loop customization)
  - MPT
  - Universal PEX
  - PEX-AL-PEX
- Loop Return Port Manifold Options (per loop customization)
  - Manual Knob
  - 6563 - Actuator
  - 6563 - Actuator w/ Micro-Switch
  - 6564 - Actuator
  - 6564 - Actuator w/ Switch
- Individual Radiant Port Flows per loop
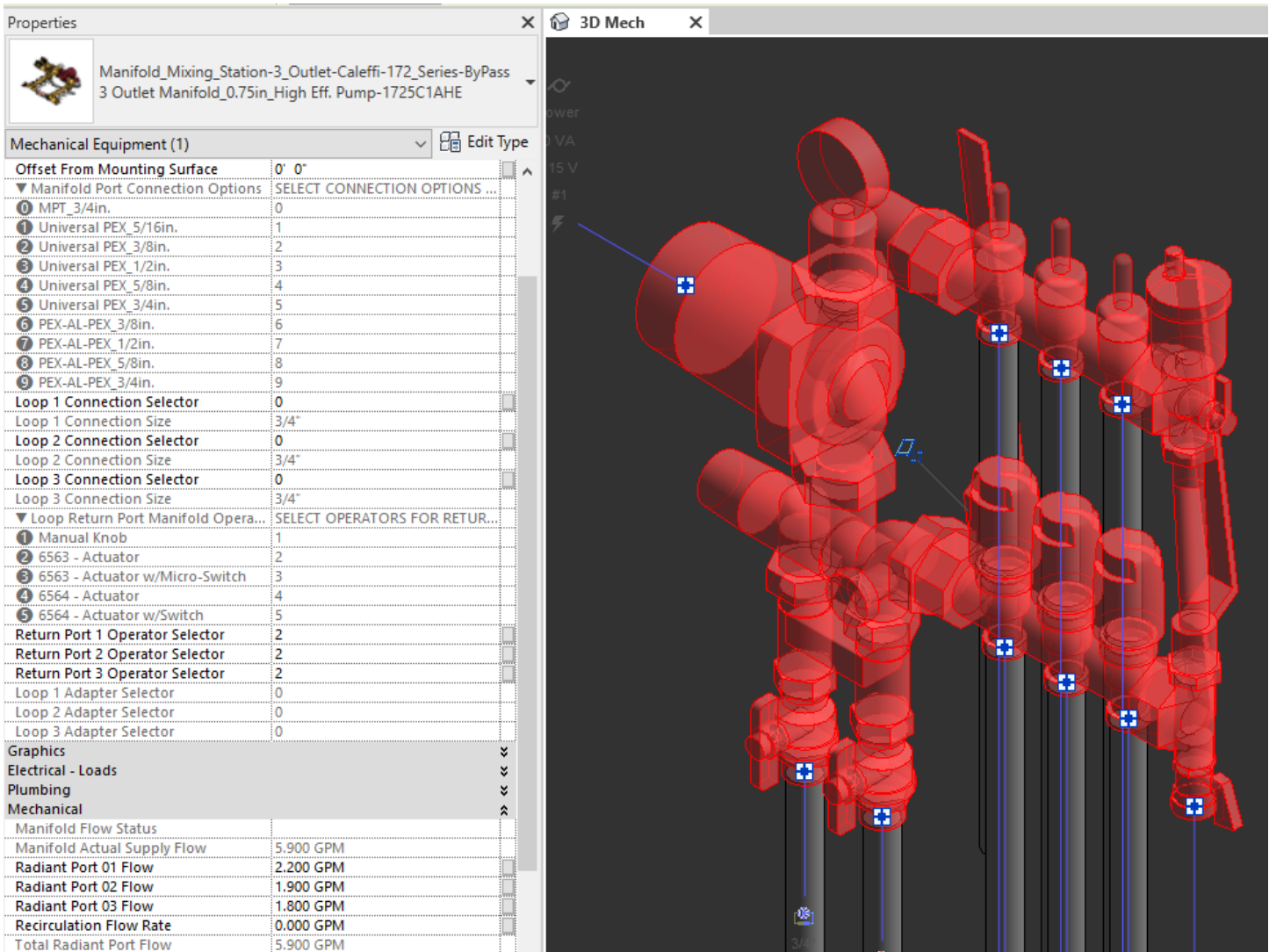- Individual Pressure Drop per loop

Caleffi North America

*Figure 6 - A desired connection option of "**0**" (MPT) and Loop Return Port Manifold Operator "**2**" (6563 – Actuator) were selected. Individual Radiant Port Flows were specified. The manifold itself functions as a terminal unit, so the supply/return piping near the valves would be the only required pipes to integrate the Caleffi 172 Manifold Mixing Station into your system. The pipe connecting to individual loops would be optional. Pipe can be drawn from any connection point via right click > draw pipe.*

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 Mechanical Equipment schedule in your project will show counts/quantities of the Caleffi 172 Manifold Mixing Station as well as separate quantities/counts of any separately purchased accessory products that do not come in box with the Caleffi 172 Manifold Mixing Station.