

Summary - Imperial version

This document catalogues all of the HVAC equipment and Air Terminal families that are provided within the RevitWorks HVAC collections and shows the out-of-the-box (OOTB) family types supplied. The **standard collection** includes items that architects generally require and the **premium version** includes additional items for engineers.

Standard collection includes:

Supply, return and exhaust air terminals
 Supply and return linear slot diffusers
 Supply air grills
 Return air diffusers
 FCU Cassettes
 No low detail (blank) selections

Active and passive chilled beams
 Split systems (heat pumps)
 Heat recovery units (HRUs)
 Surface mounted fans
 Exhaust and outside air louvres

Additional Premium collection includes:

Air handling units (AHUs)
 Fan coil units (FCUs)
 FCU plenums
 Computer air-con (CRAC) units
 Variable air volume (VAV) units
 Attenuators
 Fans (in-line and standalone)

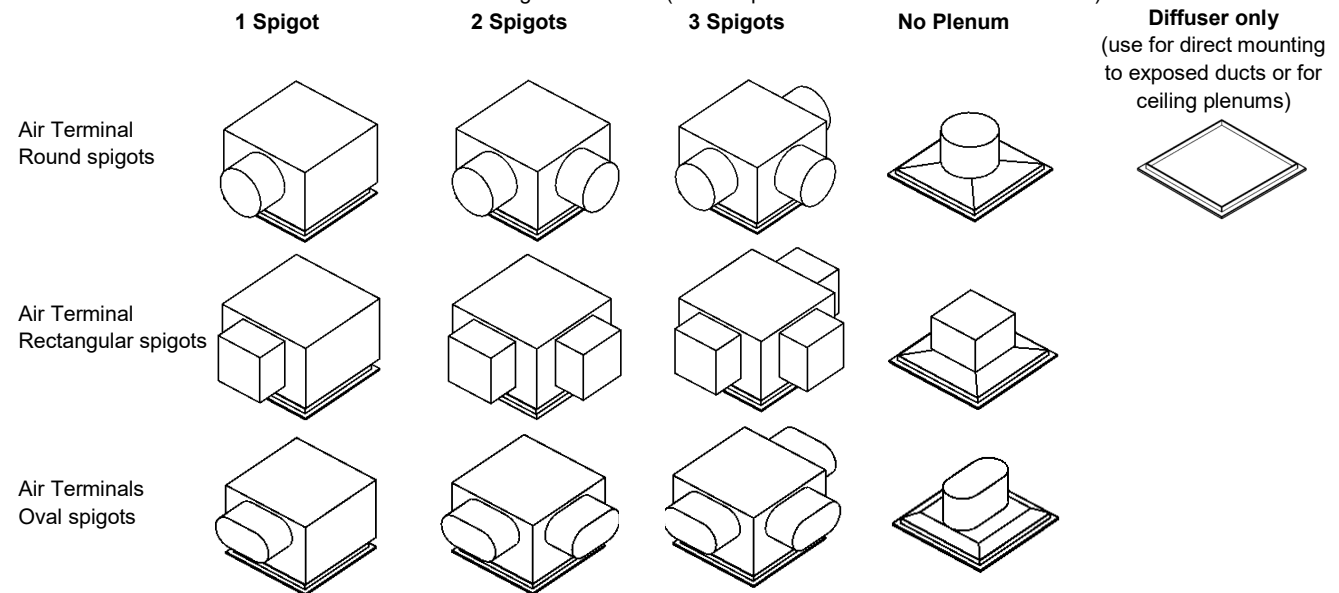
Standard Collection: A total of over 85 families are provided, with over 245 preconfigured types.
Premium Collection: A total of over 180 families are provided, with over 520 preconfigured types.

Users can create more types to add to the collection, change dimensions, change spigot locations, materials, specifications and air flows to create unlimited variations of these families. Please read this document in conjunction with the RevitWorks HVAC Equipment and Air Terminal Specification PDFs which explain detail levels, object categories, shared parameters, type and instance parameters.

Supply, Return and Exhaust Air Terminals

Supply, return and exhaust air terminals are provided assembled with spigots, plenums and necks. They also come with diffuser pull-down selections within them (refer to the next section).

Shown with rectangular diffusers. (families provided with round diffusers as well)



Supply Air Terminal Types provided

- HVAC_Air Terminal SA Rect (1 Round Spigot)
- 2x2' Louvre
- 2x2' Louvre without Plenum
- 2x2' Planar
- 2x2' Planar without Plenum
- 2x2' Swirl Radial no Vanes
- 2x2' Swirl Radial no Vanes without Plenum
- 2x2' Swirl Radial with Vanes
- 2x2' Swirl Radial with Vanes without Plenum
- 2x2' Swirl Slotted
- 2x2' Swirl Slotted without Plenum
- (blank) 2x2'
- (blank) 2x2' Swirl
- (blank) 2x2' Swirl without Plenum
- (blank) 2x2' without Plenum
- (blank) 4x2'

18 families provided with types as shown

Return Air Terminal Types provided

- HVAC_Air Terminal RA Rect (1 Round Spigot)
- 2x2' Grille
- 2x2' Grille without Plenum
- 4x2' Grille
- (blank) 2x2'
- (blank) 2x2' without Plenum
- (blank) 4x2'
- Exhaust Air Terminal Types provided**
- HVAC_Air Terminal EA Rect (1 Round Spigot)
- 2x2' Grille
- 2x2' Grille without Plenum
- 4x2' Grille
- (blank) 2x2'
- (blank) 2x2' without Plenum
- (blank) 4x2'

18 families provided for each with types as shown

Supply Air (Diffuser only) Families provided





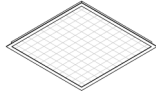



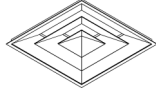

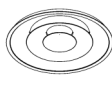

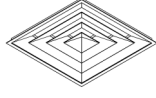

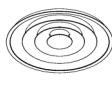

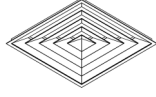

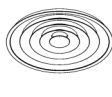

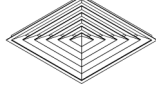



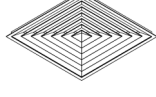



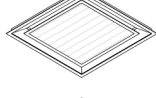

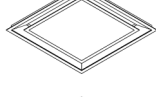











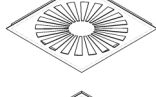







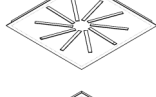







- HVAC_Air Terminal SA Rect (Diffuser Only)
- 15x15" Louvre
- 15x15" Planar
- 15x15" Swirl Radial no Vanes
- 15x15" Swirl Radial with Vanes
- 15x15" Swirl Slotted
- (blank) 15x15"
- (blank) 15x15" Swirl
- HVAC_Air Terminal SA Round (Diffuser Only)
- 15" Louvre
- 15" Planar
- 15" Swirl Radial no Vanes
- 15" Swirl Radial Slotted
- 15" Swirl Radial with Vanes
- (blank) 15"
- (blank) 15" Swirl

Return Air (Diffuser only) Families provided

- HVAC_Air Terminal RA Rect (Diffuser Only)
- 2x2'
- 4x2'
- 15x15"
- (blank) 2x2'
- (blank) 4x2'
- (blank) 15x15"
- HVAC_Air Terminal RA Round (Diffuser Only)
- 2'
- 15"
- (blank) 2'
- (blank) 15"

Supply, Return and Exhaust Air Diffusers and Grilles

All diffusers and grilles as shown below are part of the collection and are chosen within the air terminal families with a pull down menu (refer to the Air Terminal Specification.pdf document for details).

	3D (fine detail)	Plan (fine detail)		3D (fine detail)	Plan (fine detail)
Blank <i>(i.e. low detail)</i>			Round Blank <i>(i.e. low detail)</i>		
Grille			Round Grille		
Louvres 1 blade			Round Louvres 1 blade		
Louvres 2 blades			Round Louvres 2 blade		
Louvres 3 blades			Round Louvres 3 blade		
Louvres 4 blades			Round Louvres 4 blade		
Louvres 5 blades			Round Louvres 5 blade		
Planar Perforated					
Planar Plain			Round Planer		
Swirl radial 15 slots no vanes			Round Swirl 15 Slots No Vanes		
Swirl radial 15 slots with vanes			Round Swirl 15 Slots With Vanes		
Swirl radial 20 slots no vanes			Round Swirl 20 Slots No Vanes		
Swirl radial 20 slots with vanes			Round Swirl 20 Slots With Vanes		
Swirl slotted 10 slots			Round Swirl Slotted 10 Slots		
Swirl slotted 15 slots			Round Swirl Slotted 15 Slots		

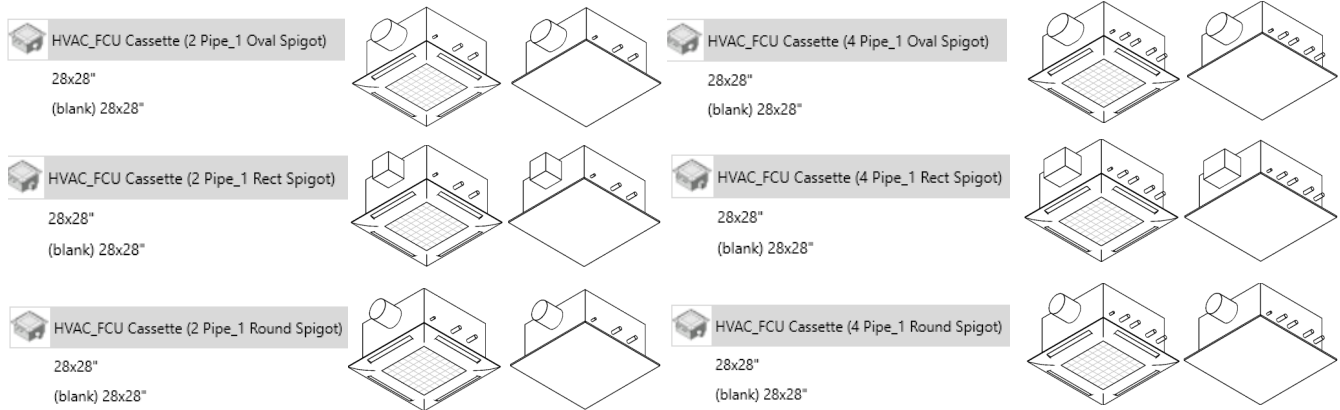
Fan Coil Unit (FCU) Cassettes

FCU Cassettes are provided assembled with spigots and plenums. Just like the Air Terminals, they also come with diffuser pull-down selections within them (refer to the previous section) to enable users to add different types.

Different families are provided depending on whether they are 2-pipe or 4-pipe and also on the shape of the spigot (rectangular, round or oval).

Different types are provided for the different diffuser (or grill) selections (1 type is provided, but a user can choose a blank diffuser (i.e. low detail version)

Hint: All duct and water pipe spigots can be moved to different locations (including to the top of the plenum) - refer to the specification document for details



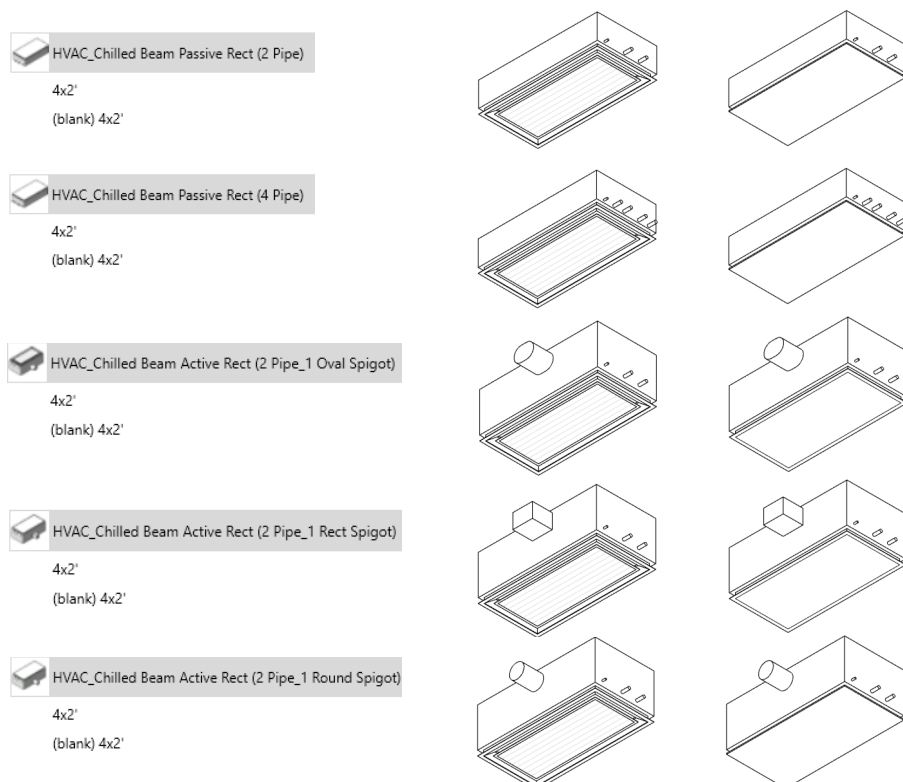
Active and Passive Chilled Beams

Chilled beams are provided assembled with spigots and plenums. Just like the Air Terminals, they also come with diffuser pull-down selections within them (refer to the previous page) to enable users to add different types.

Different families are provided depending on whether they are active or passive, have 2-pipes or 4-pipes and also on the shape of the spigot (rectangular, round or oval).

Different types are provided for the different diffuser (or grill) selections (1 type is provided, but a user can choose a blank diffuser (i.e. low detail version)


Hint: All duct and water pipe spigots can be moved to different locations (including to the top of the plenum) - refer to the specification document for details




Active Chilled beams continued next page.....

Active Chilled Beams


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 HVAC_Chilled Beam Active Rect (4 Pipe_1 Oval Spigot)

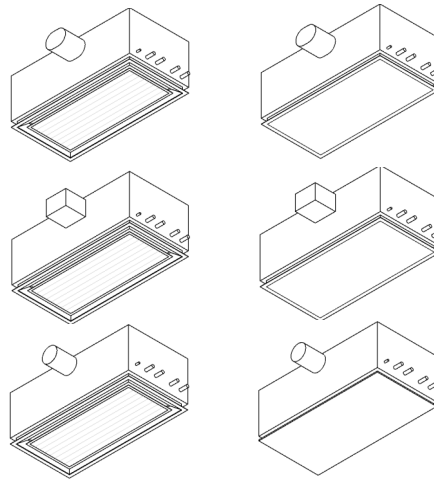
4x2'
(blank) 4x2'

 HVAC_Chilled Beam Active Rect (4 Pipe_1 Rect Spigot)


4x2'
(blank) 4x2'

 HVAC_Chilled Beam Active Rect (4 Pipe_1 Round Spigot)

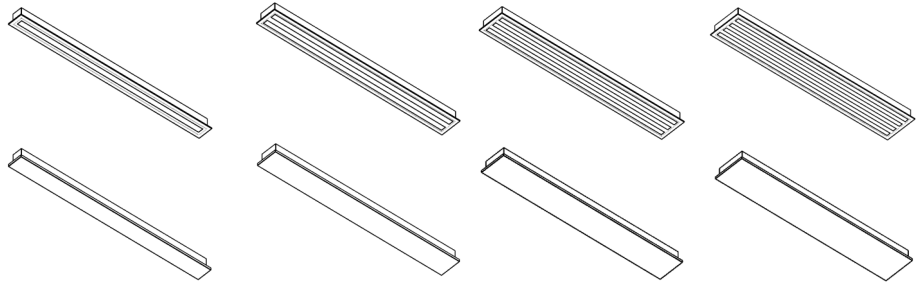
4x2'
(blank) 4x2'



Supply & Return Air Linear Slot Diffusers

 HVAC_Air Terminal Linear Slot (Diffuser Only)


- 1 Slot
- 2 Slots
- 3 Slots
- 4 Slots
- (blank) 1 Slot
- (blank) 2 Slots
- (blank) 3 Slots
- (blank) 4 Slots




Heat Recovery Units (HRU)

HRUs are provided with spigots and connections included. They also come with 3d modelled adjustable clearance zones and control boxes.


Hint: All spigots, control boxes and clearance zones can be moved to different locations (including to the top of the unit) - refer to the specification document for details

 HVAC_HRU (Oval Flanges)

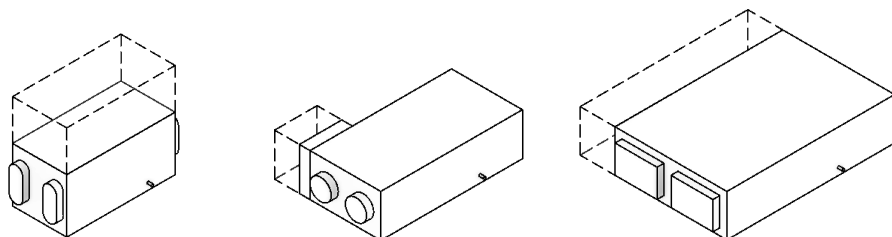
32x16x16"h

 HVAC_HRU (Rect Flanges)

47x32x12"h

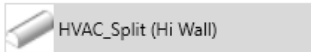
 HVAC_HRU (Round Flanges)

40x24x12"h



Split Systems

Split Systems are provided as shown
If users are *au fait* with the family editor, they can create more versions by editing the nested components within these ones and then adding it to the collection.



HVAC_Split (Hi Wall)

32x12x10"d



HVAC_Split (Low Wall)

28x24x10"d



HVAC_Split (Outside Unit)

32x12x22"h (1 Phase)

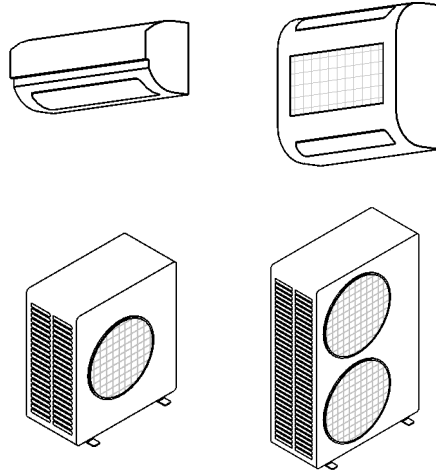
35x16x32"h (3 Phase)



HVAC_Split Twin (Outside Unit)

35x16x53"h (1 Phase)

35x16x53"h (3 Phase)



Exterior Louvres

Rectangular, trapezoidal and round louvres with exhaust air (EA) or outside air (OA) connectors are provided with adjustable blade spacing, depths and angles as well as other standard adjustable dimensional parameters.



HVAC_Louvre EA

1x1'

4x2'

4x2/40"

40x40"



HVAC_Louvre OA

1x1'

4x2'

4x2/40"

40x40"



HVAC_Louvre EA Round

1'ø

2'ø

40"ø

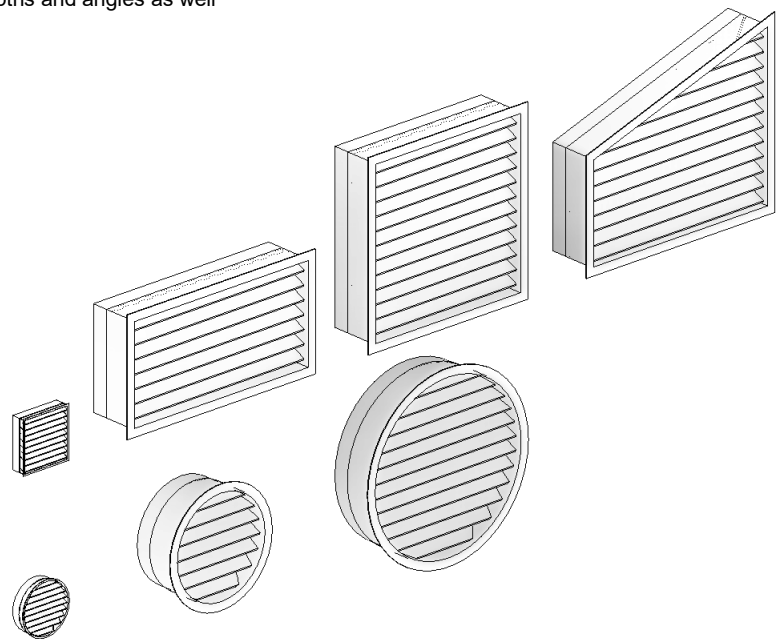


HVAC_Louvre OA Round

1'ø

2'ø

40"ø



Fans - Surface mounted



HVAC_Fan Surface Mounted Circular

12øx2"



HVAC_Fan Surface Mounted Rectangular

12x12"

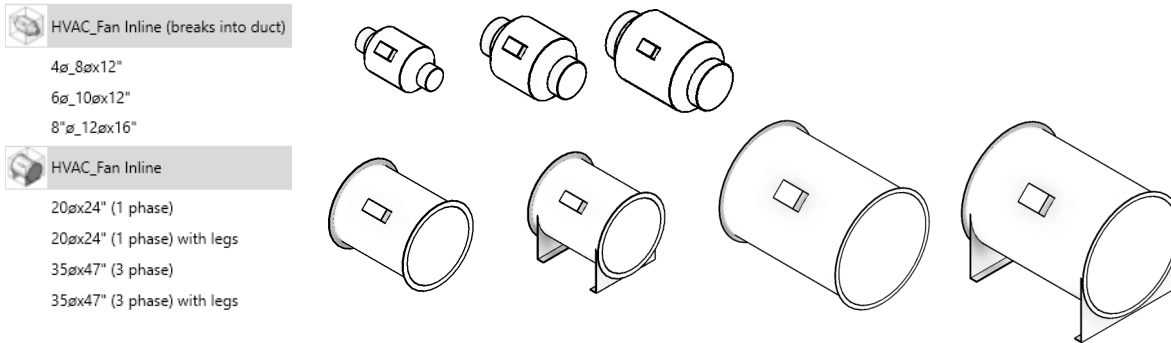


END OF STANDARD COLLECTION

(continue for additional items within the Premium collection)

Fans - Premium version only

Fans are provided as shown with 3d modelled adjustable clearance zones

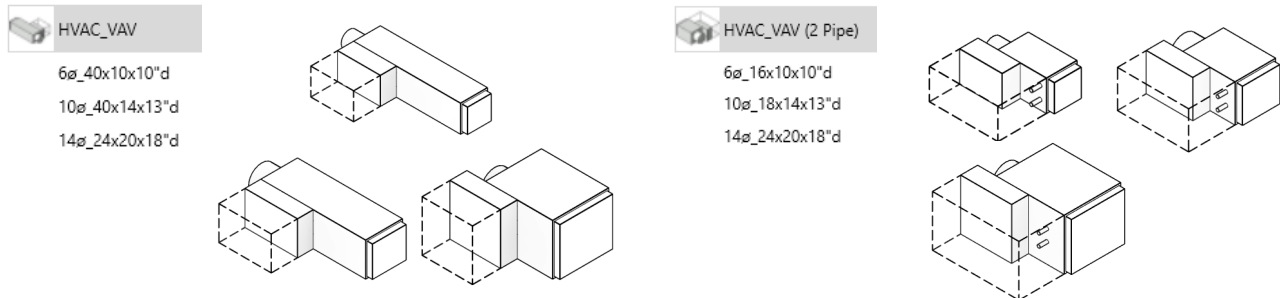


Variable Air Volume (VAV) Units - Premium version only

VAVs are provided with spigots and connections included. They also come with 3d modelled adjustable clearance zones, control boxes and options for turning on and off the base.

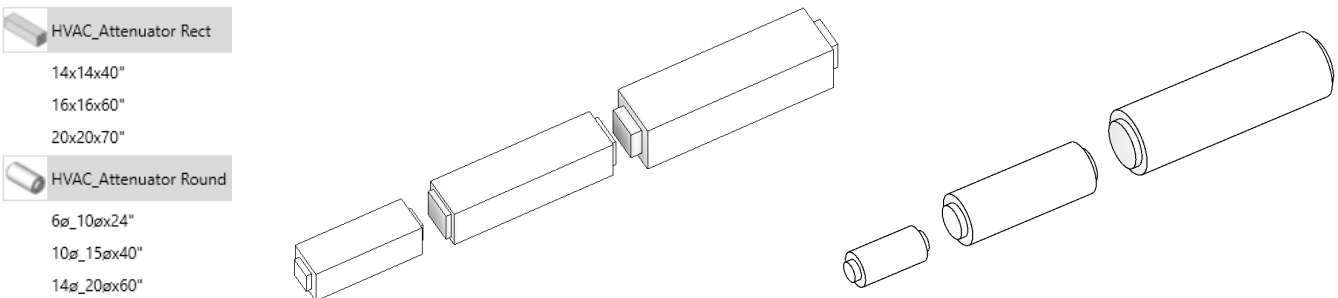
Different families are provided depending on whether they have pipes or not

Hint: All spigots, control boxes and clearance zones can be moved to different locations (including to the top of the unit) - refer to the specification document for details



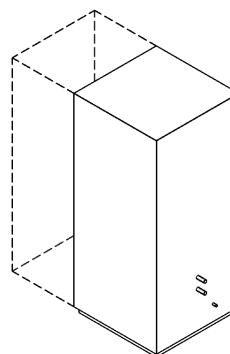
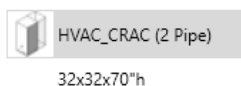
Attenuators - Premium version only

Attenuators are provided with spigots and connections included.



Computer Room Air-Con (CRAC) Units - Premium version only

A CRAC unit is provided as shown with 3d modelled adjustable clearance zones and options for turning on and off the base.

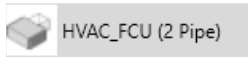


Fan Coil Units (FCUs) - Premium version only

FCUs are provided with spigots and connections included. They also come with 3d modelled adjustable clearance zones and options for turning on and off the base.

Different families are provided depending on whether they are 2-pipe or 4-pipe FCUs.

Hint: All spigots and clearance zones can be moved to different locations (including to the top of the FCU) - refer to the specification document for details



HVAC_FCU (2 Pipe)

35x32x14"h

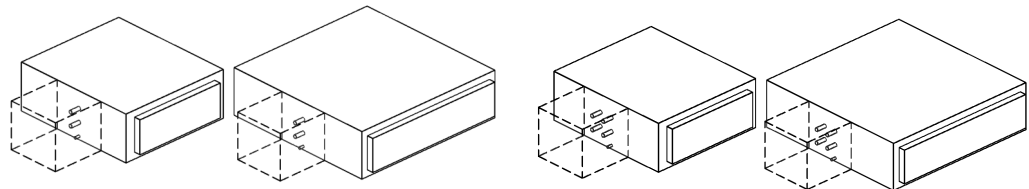
47x47x14"h



HVAC_FCU (4 Pipe)

35x32x14"h

47x47x14"h



Fan Coil Unit Plenums - Premium version only

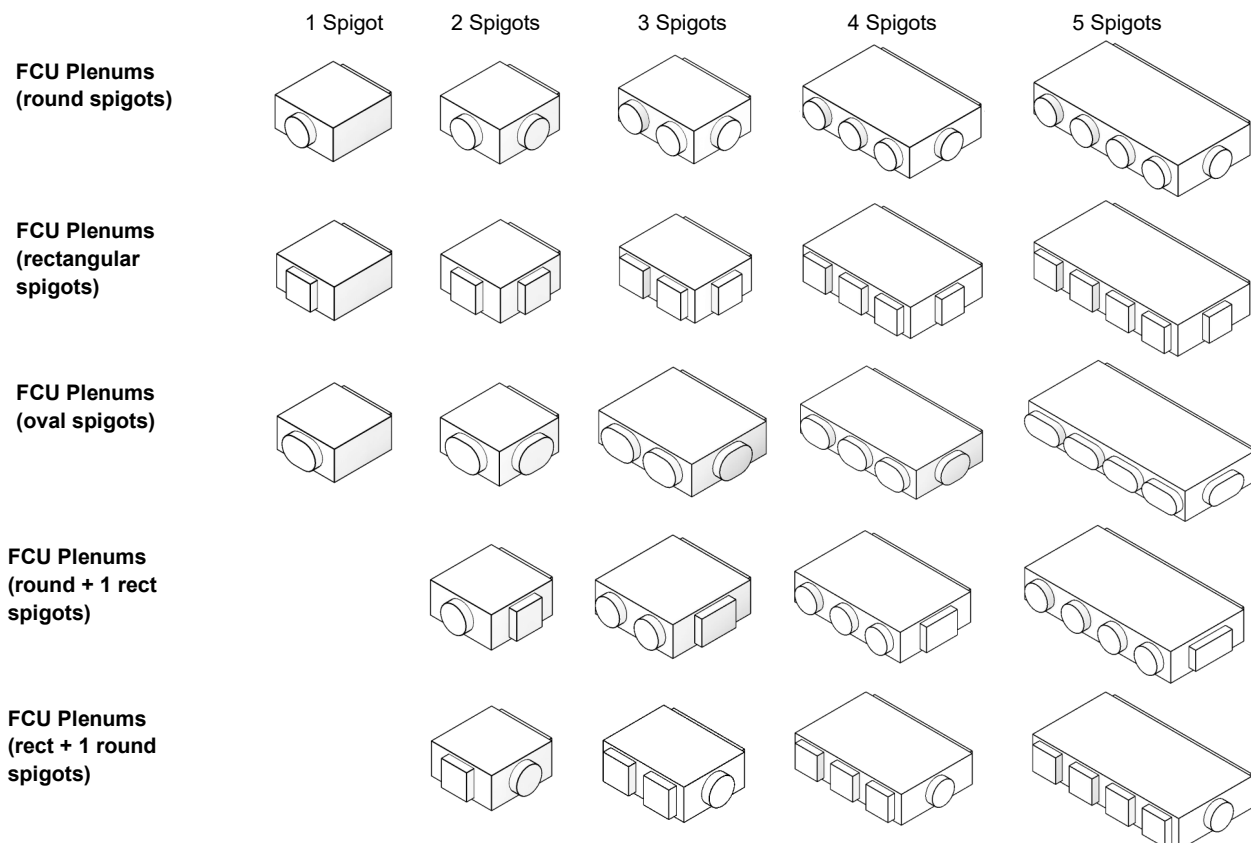
A variety of FCU Plenums are provided with a number of different shaped spigots and connections included.

Different families are provided depending on whether they have supply air, return air, or outside and return air plenums, the number of spigots that they have to connect ducts to (1-5) and the shape of the spigots (rectangular, round or oval + some combinations)

All of these combinations mean **64 different FCU plenums are provided** out-of-the-box.

Hint: All spigots can be moved to different locations (including to the top of the plenum): location and size are controlled with instance parameters - refer to the specification document for details

Depending on the type of plenum selected, the out-of-the-box positions of the spigots vary; images below are indicative only.



Supply, Return and Exhaust Air Linear Slot Plenums - Premium version only

Supply, return and exhaust air linear plenums are provided as separate components for the linear diffusers, allowing users to place them easily at different locations along the linear diffuser lengths.

Different families are provided depending on spigot shape (round, rectangular or oval) and for supply and return air versions.

Different types are provided to match the widths of the linear diffusers provided


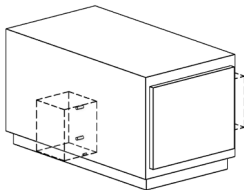
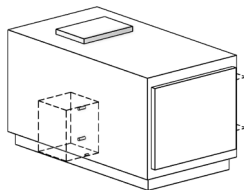
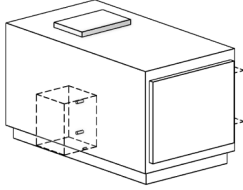

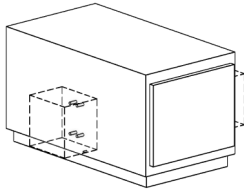
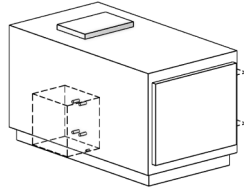
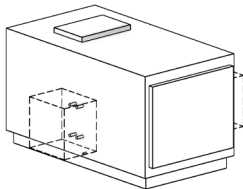

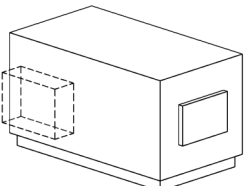
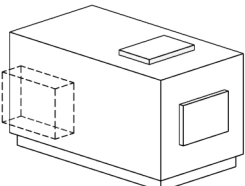
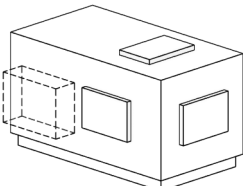



			3D		
 HVAC - Plenum SA Linear Slot (1 Oval Spigot)	 HVAC - Plenum RA Linear Slot (1 Oval Spigot)	 HVAC_Plenum EA Linear Slot (1 Oval Spigot)	 Plenum SA linear slot Oval spigot		
1 slot 1200mm	1 slot 1200mm	1 slot 1200mm			
2 slot 1200mm	2 slot 1200mm	2 slot 1200mm			
3 slot 1200mm	3 slot 1200mm	3 slot 1200mm	 Plenum SA linear slot Rectangular spigot		
4 slot 1200mm	4 slot 1200mm	4 slot 1200mm			
 HVAC - Plenum SA Linear Slot (1 Rect Spigot)	 HVAC - Plenum RA Linear Slot (1 Rect Spigot)	 HVAC_Plenum EA Linear Slot (1 Rect Spigot)	 Plenum SA linear slot Round spigot		
1 slot 1200mm	1 slot 1200mm	1 slot 1200mm			
2 slot 1200mm	2 slot 1200mm	2 slot 1200mm			
3 slot 1200mm	3 slot 1200mm	3 slot 1200mm			
4 slot 1200mm	4 slot 1200mm	4 slot 1200mm			
 HVAC - Plenum SA Linear Slot (1 Round Spigot)	 HVAC - Plenum RA Linear Slot (1 Round Spigot)	 HVAC_Plenum EA Linear Slot (1 Round Spigot)			
1 slot 1200mm	1 slot 1200mm	1 slot 1200mm			
2 slot 1200mm	2 slot 1200mm	2 slot 1200mm			
3 slot 1200mm	3 slot 1200mm	3 slot 1200mm			
4 slot 1200mm	4 slot 1200mm	4 slot 1200mm			

Air Handling Units (AHUs) - Premium version only

AHUs are provided with spigots and connections included. They also come with 3d modelled adjustable clearance zones and options for turning on and off the base.

Different families are provided depending on whether they are 2-pipe or 4-pipe AHUs and also on the type of duct spigots included in the family; Outside Air (OA), Supply Air (SA), Return Air (RA), and/or Exhaust Air (EA).

Hint: All spigots and clearance zones can be moved to different locations (including to the top of the AHU) - refer to the specification document for details

 HVAC_AHU OA-SA (2 Pipe) 80x43x40"h	AHU OA-SA (2 pipe) Back 	AHU OA-SA-RA (2 pipe) Back 	AHU OA-SA-RA-EA (2 pipe) Back 
 HVAC_AHU OA-SA (4 Pipe) 80x43x40"h	AHU OA-SA (4 pipe) Back 	AHU OA-SA-RA (4 pipe) Back 	AHU OA-SA-RA-EA (4 pipe) Back 
 HVAC_AHU OA-SA-RA (2 Pipe) 80x43x40"h	AHU OA-SA Front 	AHU OA-SA-RA Front 	AHU OA-SA-RA-EA Front 
 HVAC_AHU OA-SA-RA (4 Pipe) 80x43x40"h			
 HVAC_AHU OA-SA-RA-EA (2 Pipe) 80x43x40"h			
 HVAC_AHU OA-SA-RA-EA (4 Pipe) 80x43x40"h			