Schott – Kimax Glass Fittings - Revit MEP 2010

Customized Revit® families have been created to represent the Kimax Laboratory Glass Drain and Vent Systems. The following instructions describe how to use these families within a Revit® project file.

Please Note: Instructions based on Revit® version 2010.

Prior to loading any custom fitting into a Revit® project, the Lookup Tables must be copied into the "Lookup Table" location.

Lookup Tables

- Lookup tables are .csv files that contain the controlling dimensions of a fitting.

- Most fittings will have an associated lookup table, with the exception of those that have a minimal number of sizes.

- Each lookup table needs to be installed into the folder that Revit® references. The default folder is located at "C:\ProgramData\Autodesk\RME 2010\LookupTables". It is beneficial to setup a network location for the lookup tables if more than one user is to use the fittings. Once a network location is created each user needs to update the Revit.ini file located at the default location "C:\Program Files\Autodesk Revit MEP 2010\Program" in order to update the location Revit® references.

- The text line within the Revit.ini file which needs to be updated is "LookupTableLocation=C:\Program Files\Autodesk Revit MEP 2010\Program". The location after the "=" should be updated to reference the network location. When the update is complete save the file, close, and restart Revit.

Once the lookup tables are in the correct location the fittings can be loaded into the project. On the Navigation Tab, select "Insert", then "Load Family". Locate the desired family (.RFA) file.   Highlight the family name and click "Open."

Set up of Kimax Pipe Type

Material

First a material needs to be set up. Follow these steps to create the material that will be used for the Kimax Pipe Type.

1. On the Manage tab of the ribbon select MEP Settings then Mechanical Settings. This will open a dialog box shown below.
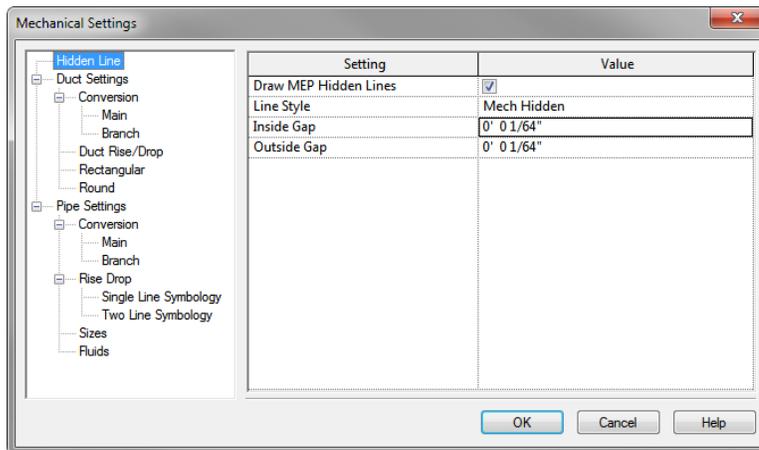
2. Select Pipe settings and uncheck the "Use Annot. Scale for Single Line Fittings" check box. This is to ensure that the single line representation of the fittings is accurate. (Note: Any fitting that has been inserted prior to this step will need to be edited individually. To do this go the Instance Properties of the fitting and under the Graphics heading uncheck "Use Annotation Scale").
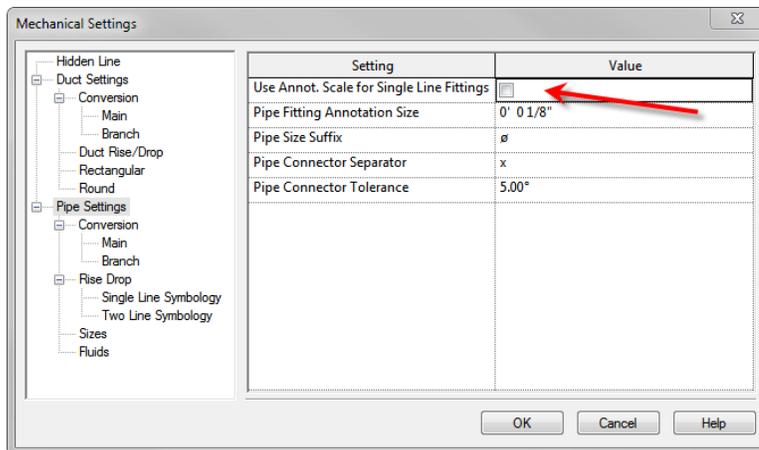
3. Select Sizes on the Navigation Pane

3.1 **Material:** Click the Add Material button next to the Material drop down tool which will bring up the New Material dialog box. Under Material Name type "Glass – ASTM C 1053-90" (Note: the "Material Based on:" is not important because all information will be updated).
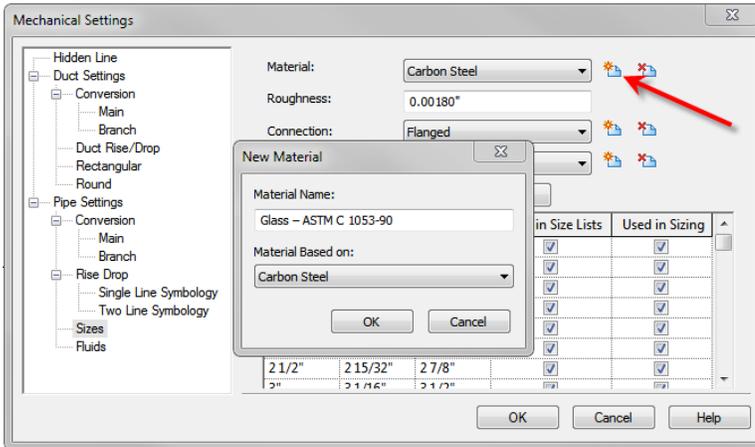
3.2 Roughness: 0.00180"

3.3 Connection: Click the Add Connection button next to the Connection drop down tool which will bring up the New Connection Type dialog box. Under New Connection Name type "Coupling" (Note: the "New Connection Based on:" is not important because all information will be updated).

3.4 Schedule / Type: The Schedule/Type is to be "Schedule 40". If Schedule 40 is not available click the Add Schedule button next to the Schedule/Type drop down tool and under "New Schedule Name:" type "Schedule 40". (Note: the "New Schedule Based on:" is not important because all information will be updated); Delete all other schedules that may be present.

3.5 Sizes: In order to input the correct sizes of the Kimax glass pipe the existing sizes must be deleted. It is not possible to edit sizes once they are created. Click the existing size and then click the Delete Size button.
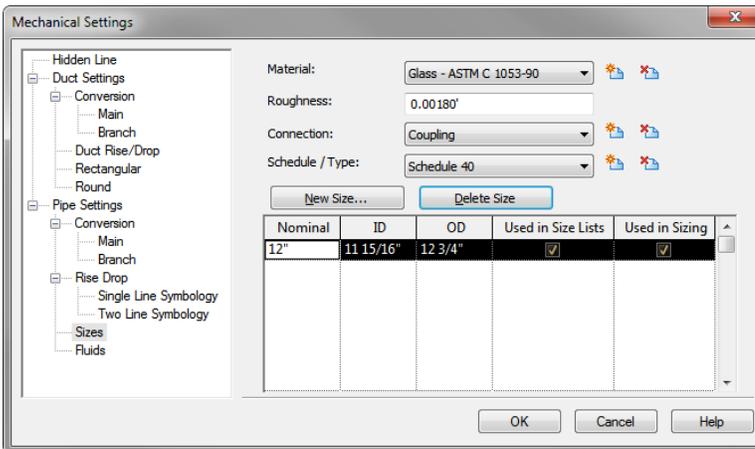

4. Click the New Size button and create the sizes as follows:

Nominal	ID	OD
1 1/2"	1 15/32"	1 27/32"
2"	2"	2 11/32"
3"	3"	3 13/32"

|		
4"	4"	4 17/32"
6"	6"	6 21/32"

5. Delete the extra size.

6. Below is the final sizes dialog box. Select OK.
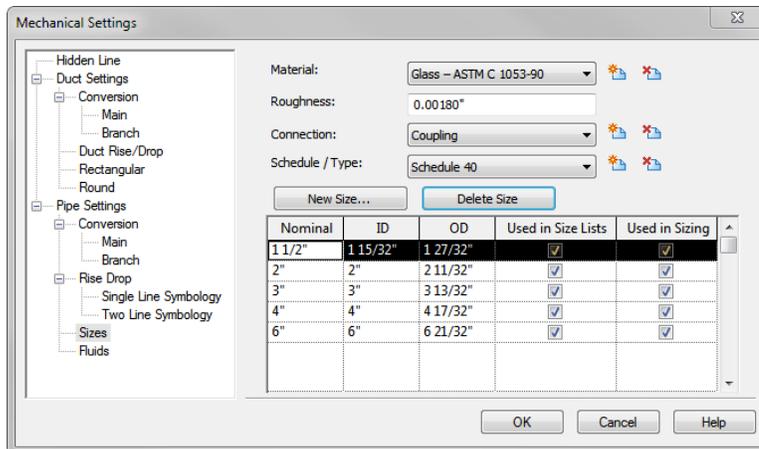
Pipe Type

Once the material is established, the Pipe Type can be created.

1. In the project browser go to Families then Pipe Types.

2. Right click Standard and duplicate the pipe type.

3. Rename "Standard 2" to "Kimax Borosilicate Glass".

4. Right click the new pipe type "Kimax Borosilicate Glass" and select Properties.

5. Select the Material drop down menu and select the material "Glass – ASTM C 1053-90"
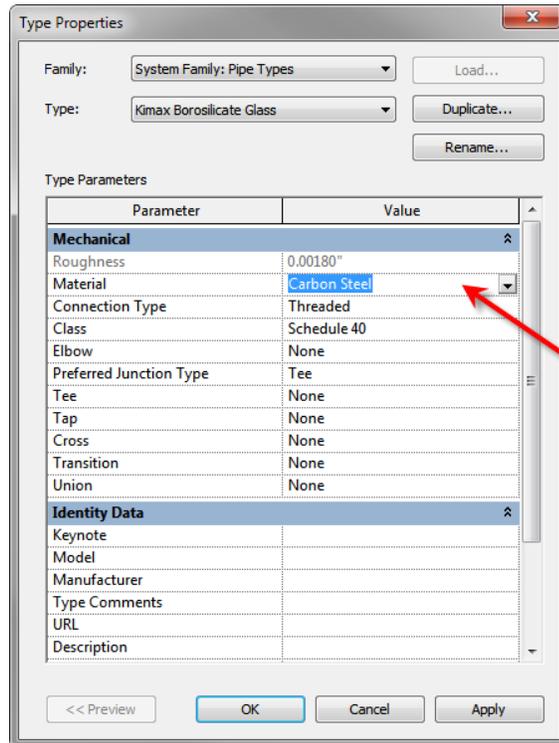
This dialog box will be used to set the standard fittings used when laying out the piping system. To choose the default fittings that will be placed while designing, select the drop down menu next to the fitting type. The drop down menu sorts all fittings that have been loaded into the project.
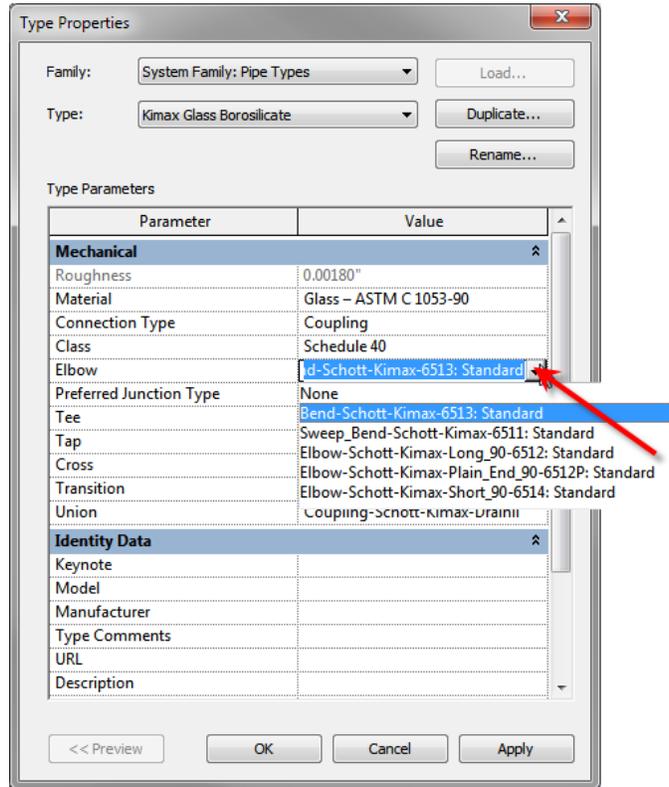
When placing fittings back to back it is imperative that one of the joining couplings be "turned off" to avoid overlapping couplings. Couplings are nested into the fitting families in order to facilitate design for the user and avoid the user having to place couplings at each fitting individually. An error shown below is displayed if overlapping couplings are placed within a project.
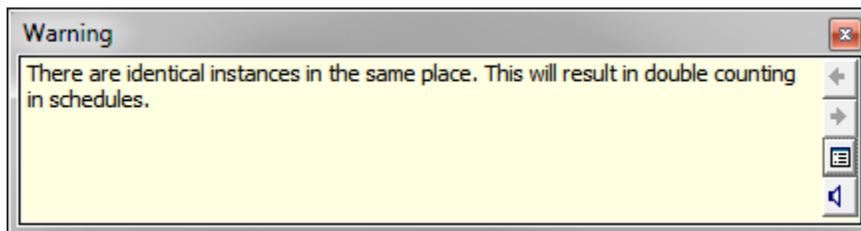
An example on the following page illustrates the case of overlapping couplings within a project.
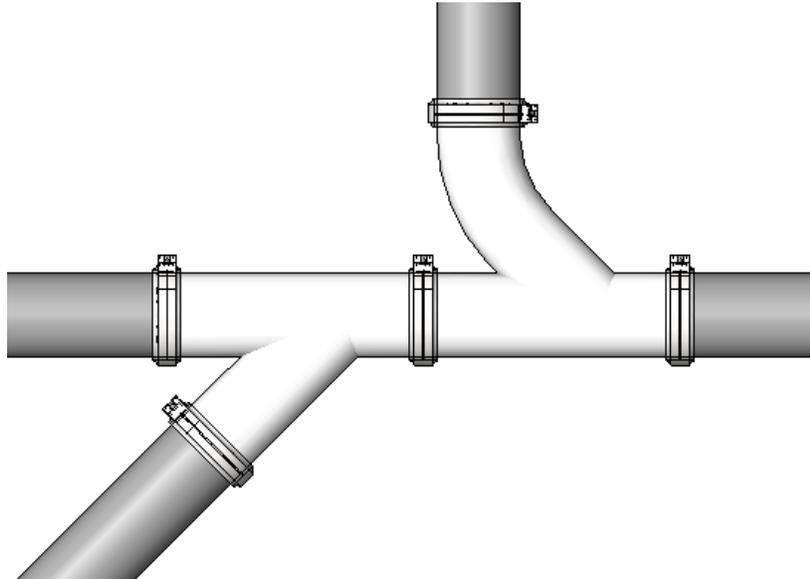
To turn off a coupling select the fitting, right click, and go to Element Properties or select the fitting and the ribbon will bring up the Modify Pipe Fittings tab, select Element Properties on the far left. This will bring up the dialog box shown on the following page.
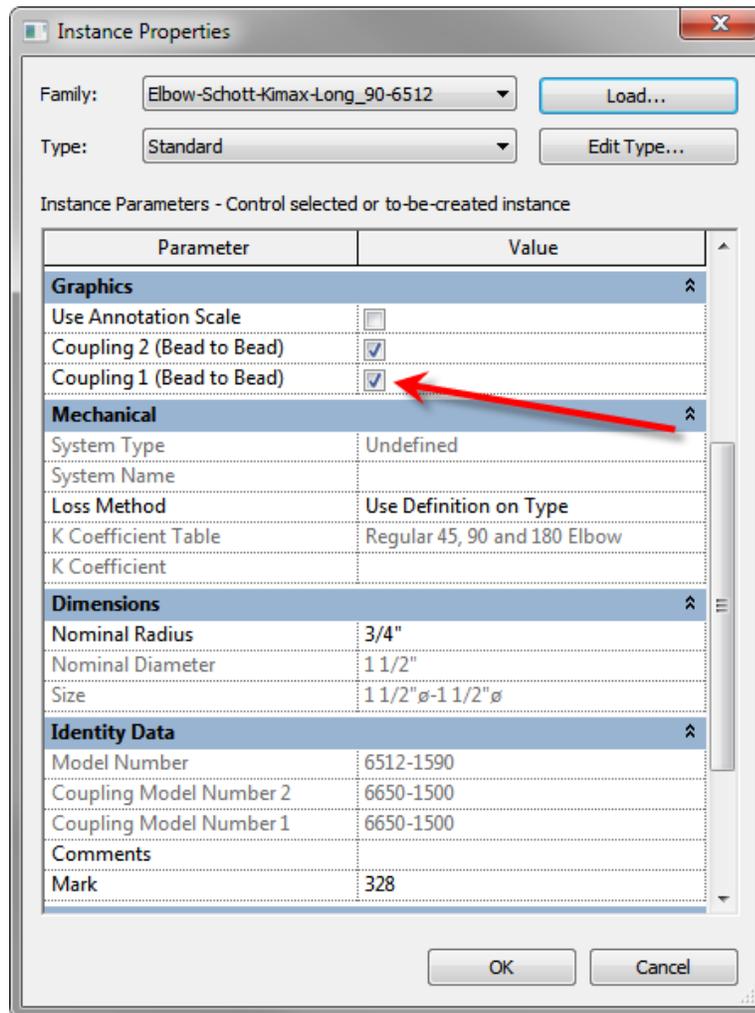
Under the Graphic heading there is a list of couplings. The numbering system is from left to right then top to bottom.
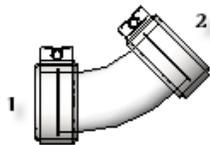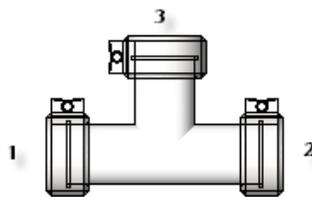
**Example 1 (Elbow)**   **Example 2 (Tee)**   **Example 3 (Cross)**
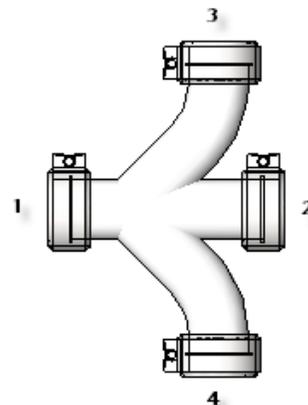
User notes for specific fittings

Swivel Traps (6700, 6700B, 6701, 6701B, 6704, 6704B)

1. When placing the fitting keep in mind that the vertical portion of the trap (6705) is static and the elbow (6513, 6512, 6512P) is the portion that rotates.

2. Due to the complexity of these fittings it is easiest to place an instance of the part to be used, modify its details and then draw the pipe from the fitting.

3. It is possible to place onto an existing pipe by creating an instance of the fitting and pressing the space bar to toggle between the insertion points. Lastly, select the pipe the fitting is to be attached to.
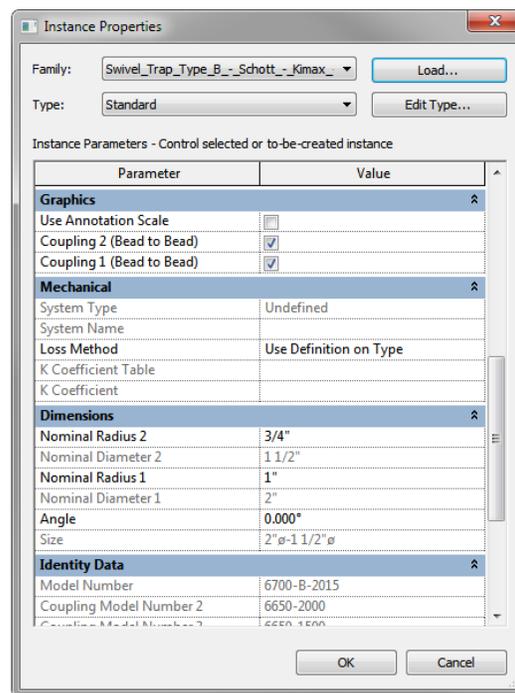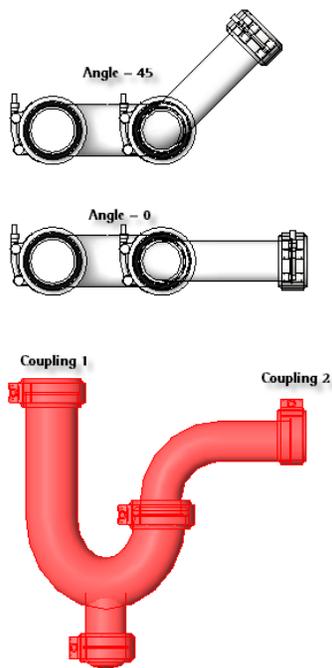

Eccentric Reducer (6537)

1. Due to the complexity of this fitting it is easiest to place an instance of the part to be used, modify its details and then draw the pipe from the fitting.

2. It is also possible to place the fitting and then drag an end onto the end of a pipe.

Padded Pipe Hanger (7290) (*Note: This family is face based which facilitates placement on a surface within a project.)*

1. Load the family into the project, select Pipe Accessory and choose Pipe_Hanger-Schott-Kimax-Padded-7290

2. In the 3D view select the floor above
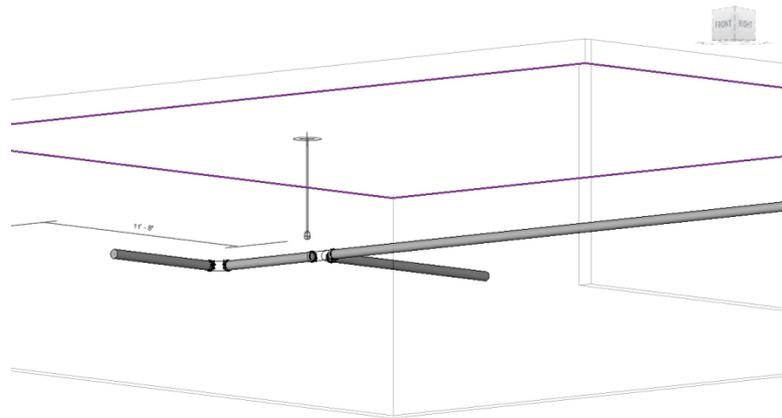
3. In the plan view align to pipe and lock
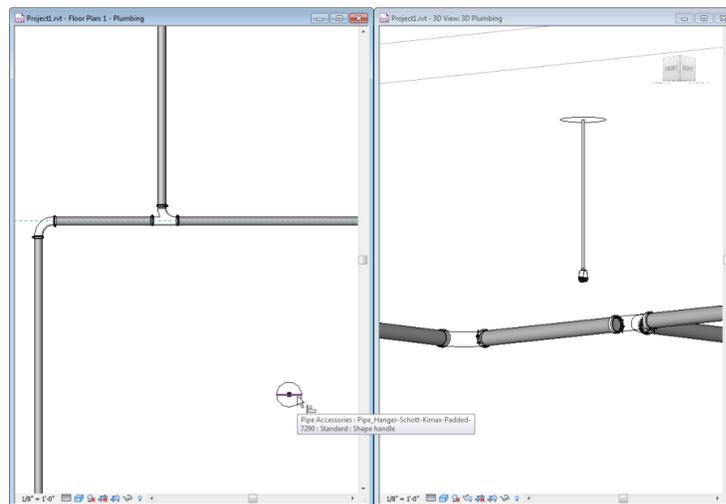
4. Select the hanger and go to the instance parameters. Set the Nominal Radius to match the pipe size.

5. In the elevation view align the height to the center of the pipe and lock.