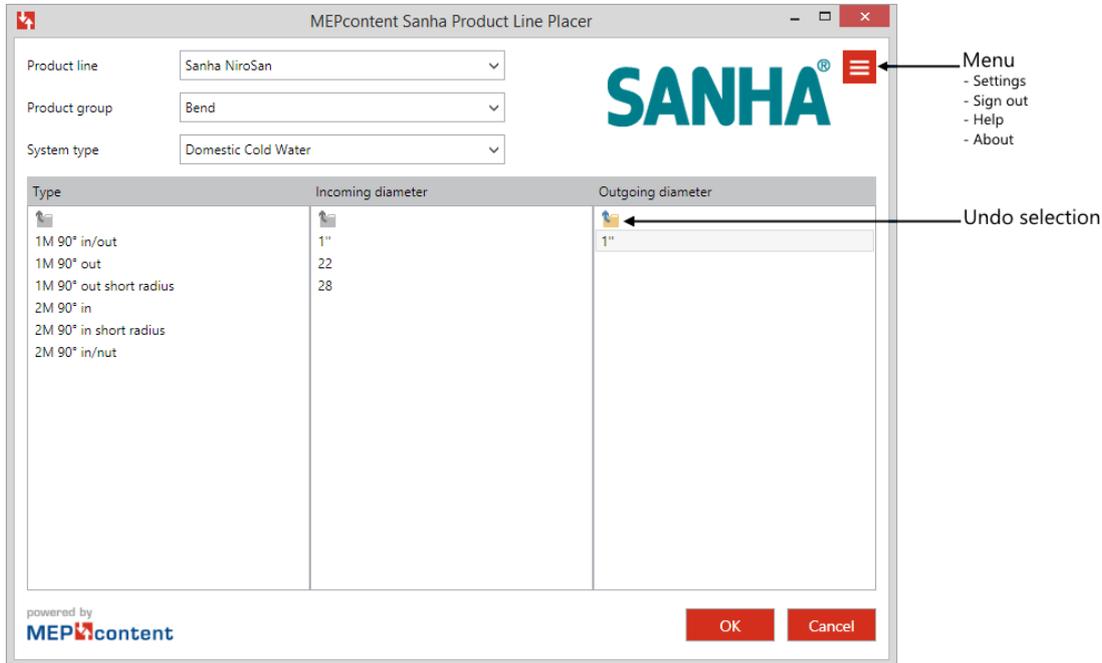# 1. About the Product Line Placer (PLiP)

## 1.1 UI overview



## 1.2 Starting the MEPcontent Product Line Placer

The MEPcontent Product Line Placer can be started from the **Add-Ins**-tab within Revit.

## 1.3 Sign in

To make use of the MEPcontent Product Line Placer you will need to have a MEPcontent account. You can sign up for one by clicking here.

Optionally you can check the option **Stay signed in** in order to automatically sign in in future Revit sessions. When the option is not checked, you will be signed in only during the current Revit session. The system types listed in the menu are found in your Revit project.

## 1.4 Content selection

First select the **Product line**, **Product group** and **System type** you would like to use from the corresponding pulldown menus.
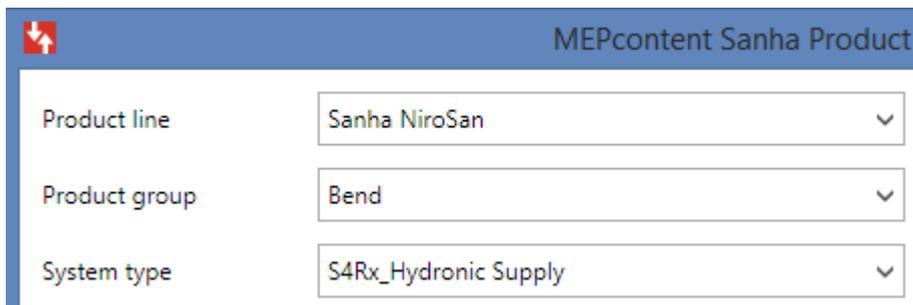


## 1.5 Article type specification

After having specified the **Product line**, **Product group** and **System type** you can select the article type you would like to use.

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| Type | Incoming diameter | Outgoing diameter |
|------|-------------------|-------------------|
| Bend 45° 3120 | 1/8" | 1/8" |
| Bend 45° 3121 | 1/4" | 1/4" |
| Bend 90° 3001 | 3/8" | 3/8" |
| Bend 90° 3003 | 1/2" | 1/2" |
| Bend 90° 3090 | 3/4" | 3/4" |
| Bend 90° 3090.1 | 1" | 1" |
| Bend 90° 3091 | 1 1/4" | 1 1/4" |
| Bend 90° 3092 | 1 1/2" | 1 1/2" |
| Bend 90° 3092.1 | 2" | 2" |
| Wall plate 90° 3471 | 2 1/2" | 2 1/2" |

powered by
**MEPcontent**

OK       Cancel

When you have specified all dimensioning information you can click **OK** to place the selected article.

## 1.6 Article placement

Once the article is specified it can be placed in your model directly. Just click the position where the article should be placed or where you would like to start drawing a system.

## 1.7 Autorouting

When you have a MEPcontent system type loaded into your model you can benefit from the autorouting support. Just simple click the grip from the article and choose **Draw Pipe** and continue building your system. Autorouting will put automatically the right bends, tees and helper parts.

## 2. Working with the Product Line Placer (PLiP)

### 2.1 General

The PLiP functionality is based on:
- Product datasheets from manufacturers
- Revit autorouting functionality
- Intelligent families

### 2.2 Acquire knowledge about the product

Before you start with using the PLiP, it is important to have or acquire the right knowledge about the product line you will use in your design. Revit autorouting can provide solutions that do not meet the reality. Our advice is to read the documentation and installation manuals provided by the manufacturer.

### 2.3 Placing fittings

You can select and place fittings from the PLiP interface (see 1.4). First select the type of fitting you would like to place, after that you can choose between different available sizes and connection types provided by the manufacturer.

### 2.4 Drawing pipes

From the PLiP interface, select **Pipe** from the product group selector (see 1.4). The PLiP will show the available types and sizes from the manufacturer. After specifying the type and size to use, click **OK** to start drawing the selected pipe system. When you draw bends or other nodes, Revit autorouting will automatically generate these fittings regarding the routing preferences configured for the system type (see also 2.5).
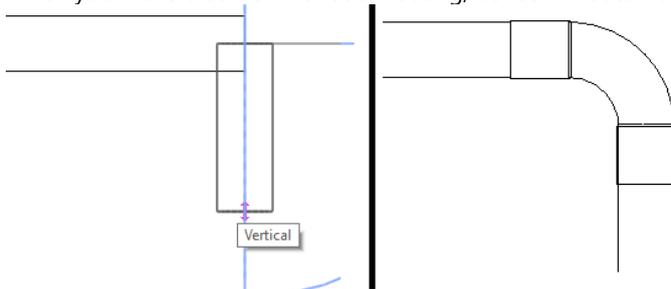
### 2.5 Connecting pipes

When you design with autorouting systems, you will notice that for each kind of node a predefined solution will be used. These predefined solutions are stored in the routing preferences of each system, they can be found as follows:
1. Select an existing pipe, or start drawing a new pipe.
2. Click **Edit Type** from the properties panel.
3. Click the **Edit** button behind the Routing Preferences parameter.
4. In this menu you can see and modify which families will be used by default for each kind of node. The configuration made by the PLiP is confirmed with the manufacturer as prefered, we do not advise to adjust this.
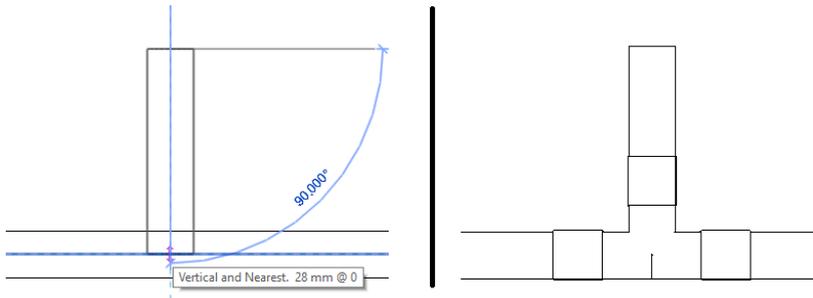
#### 2.5.1 Bends

When you make a corner with auto routing, bends will automatically be placed.



In this case a bend with 2 sockets is placed, as it is predefined in the autorouting preferences.
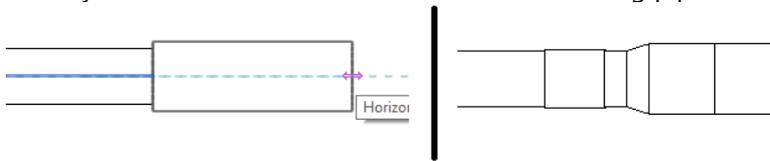
#### 2.5.2 Tees

When you connect a pipe perpendicular to an existing pipe, a tee will be placed.

In this case a tee with 3 sockets is placed, as it is predefined in the autorouting preferences.

### 2.5.3 Reducers
When you continue with a different size on an existing pipe, a reducer will be placed.



In this case a reducer with 2 sockets is placed, as it is predefined in the autorouting preferences.

**Note:**
When you change the dimensions of a pipe, the families that are connected to the pipe will also change. If the dimension change is supported by another article from the manufacturer, the product data will also change. If the dimensions are not supported, you will get a Revit message that a custom fitting is created.

## 2.6 FAQ
### 2.6.1 How can I choose another fitting when a fitting was placed by autorouting?
Sometimes you want to use a different solution then the fitting that is placed by autorouting. For example, you want a bend with one socket, but auto routing placed a bend with two sockets.
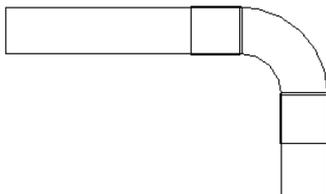


Follow the steps below to select the desired fitting:
1. Make sure the desired family is loaded into you project. This can be done by opening the PLiP and selecting the correct product.

| Type | Incoming diameter | Outgoing di |
|---|---|---|
| 1M 90° | 15 | 15 |
| | 18 | 18 |
| | 22 | 22 |
| | 28 | 28 |
| | 35 | 35 |
| | 42 | 42 |
| | 54 | 54 |

2. Click **OK.**
3. Select the family with two sockets you want to change.
4. Go to **Properties** panel.
5. Select the family with 1 socket.
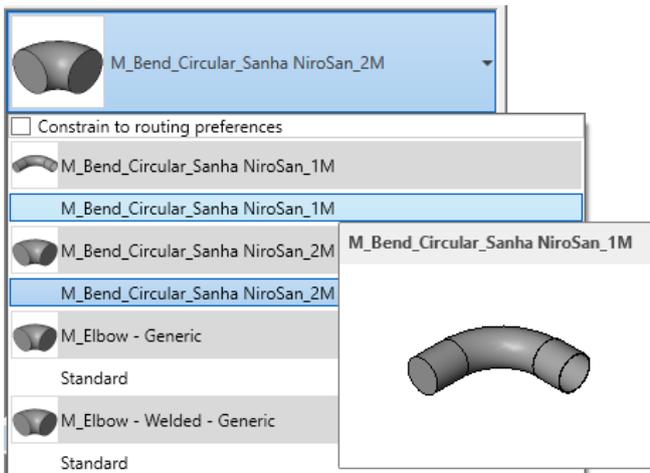
6. Now the family with 1 socket is used.
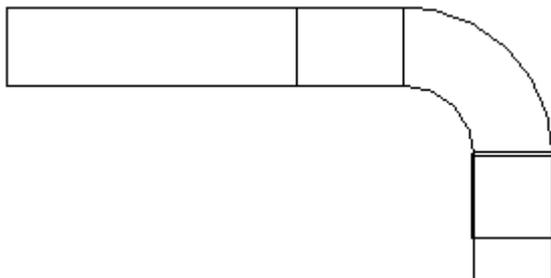


### 2.6.2 What does the message "Custom fitting was created" mean?

Revit autorouting will always change the family that is used in a node based on the diameters of the connected parts. If you change the dimensions of a pipe, and there is no fitting solution that is supported by the manufacturer, you will get this message.

### 2.6.3 How do I combine two fittings to solve a node?

This is not possible with Revit auto routing. Auto routing will always try to solve the node with one fitting. There is one exception: If Revit finds a reducer that can connect a fitting to another pipe, then Revit will automatically place a reducer.

### 2.6.4 Where can I find the wall plates?

Sanha wall plates can be found at MEPcontent.eu. You can make use of the MEPcontent browser to easily insert the wall plates into your project.

### 2.6.5 Where can I find the cross tees?

Sanha cross tees can be found at MEPcontent.eu. You can make use of the MEPcontent browser to easily insert the wall plates into your project.

### 2.6.6 Where can I find the crossovers?

Sanha crossovers can be found at MEPcontent.eu. You can make use of the MEPcontent browser to easily insert the wall plates into your project.

### 2.6.7 Where can I find the compensators?

The compensators are currently not available from the application, these will be added soon.

### 2.6.8 Where can I find the union couplings?

The union couplings are currently not available from the application, these will be added soon.

# 3. Updates

### 3.1 Application

The application will check for new updates regularly. When there is an update, you will get a notification and can decide to apply the update. Some updates are mandatory to install before being able to continue using the MEPcontent Sanha Product Line Placer application.

### 3.2 Product lines

When you select a Product Line, the application will check for existence of the product line in your model. When the Product Line is found, it's version will be checked against the server. If the server contains a newer Product Line version, you will be asked whether to update the existing Product Line information in your model.