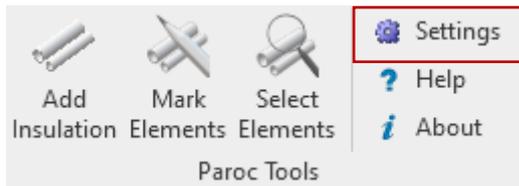


MANUAL BIM

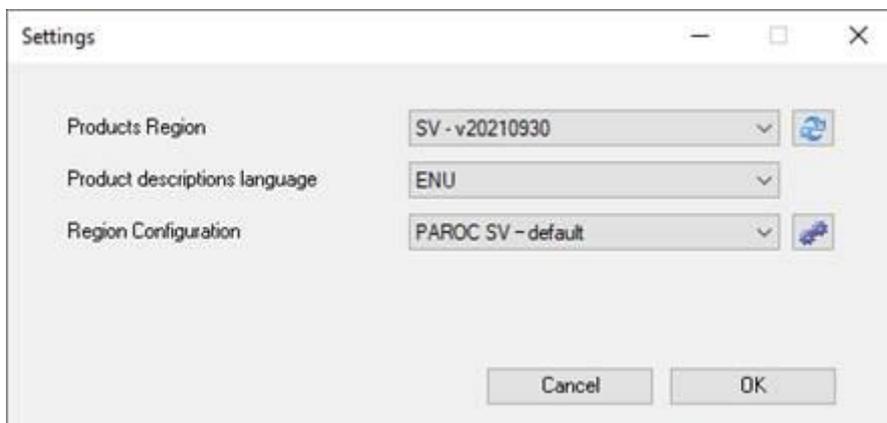
PAROC HVAC PLUG-IN FOR REVIT

SETTINGS



Select Settings button on Paroc ribbon in the Paroc Toolspanel

Select the product region, product description language and default configuration for the **Add Insulation** command window.



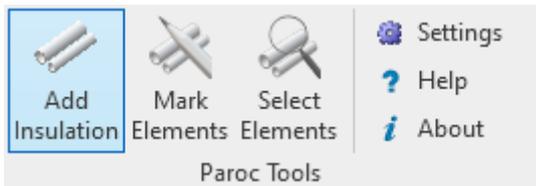
Save the settings by pressing **OK**.

ADDING INSULATION

Select the **Add Insulation** button on the Paroc Tools panel on the ribbon in Autodesk Revit.

For more information, please click the **Help** button or contact your PAROC representatives.

In the case of advanced needs of searching for elements through additional filters, use the **Mark Elements** or **Select Elements** functions – for more details, move to the section **CHOOSING ELEMENTS**.



Select the element group by selecting system in the system list.

Items that do not have insulation are automatically selected.

NOTE: There are two ways to load data:

1. you can manually select the range of elements you want to insulate on the screen or
2. if a certain set of elements is not selected, the program will load all available elements (e.g. ducts, pipes, fittings, etc.) when you choose **Add Insulation**

NOTE: The **AutoFix** button is an auxiliary button for automating the completion of missing data in families used in the project. Automatic sizing is based on the default algorithm. If you want to change the settings individually, click the button next to the **AutoFix** button - pen. It is also possible to fill in the data directly in the table. For more details, go to section **AUTOFIX**.

Insulate Pipes And Ducts

System:

Configuration: Product Family:

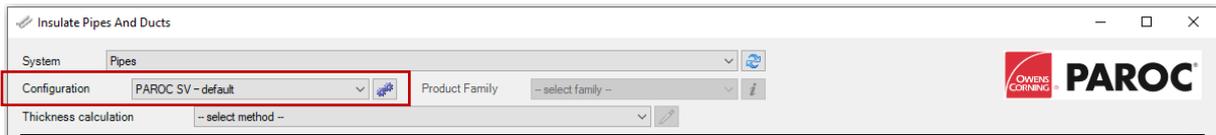
Thickness calculation:

| System Classification | System Type | System Name | Level | Category | Family | Size | Mark | D | Di | Do |
|-----------------------|-----------------|-----------------|---------|---------------|----------------------------------|----------------------|-------|-------|-------|-------|
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipes | Pipe Types: Standard | 50 mma | 499 | 50 mm | 48 mm | 51 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipes | Pipe Types: Standard | 32 mma | 524 | 32 mm | 28 mm | 32 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipes | Pipe Types: Standard | 32 mma | 525 | 32 mm | 28 mm | 32 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipes | Pipe Types: Standard | 32 mma | 526 | 32 mm | 28 mm | 32 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipes | Pipe Types: Standard | 32 mma | 531 | 32 mm | 28 mm | 32 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipes | Pipe Types: Standard | 20 mma | 561 | 20 mm | 16 mm | 19 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipes | Pipe Types: Standard | 20 mma | 566 | 20 mm | 16 mm | 19 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipes | Pipe Types: Standard | 20 mma | 568 | 20 mm | 16 mm | 19 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipe Fittings | M_Tee - Generic: Standard | 20 mma-20 mma-20 mma | 1925 | 20 mm | 16 mm | 22 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipes | Pipe Types: Standard | 20 mma | 840 | 20 mm | 16 mm | 19 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipes | Pipe Types: Standard | 20 mma | 866 | 20 mm | 16 mm | 19 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipe Fittings | M_Elbow - Generic: Standard | 20 mma-20 mma | 1467 | 20 mm | 16 mm | 22 mm |
| Hydronic Return | Hydronic Return | Hydronic Return | Level 1 | Pipe Fittings | M_Elbow - Generic: Standard | 20 mma-20 mma | 1-14 | 20 mm | 16 mm | 22 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipe Fittings | M_Transition - Generic: Standard | 32 mma-20 mma | 1-41 | 32 mm | 28 mm | 35 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipe Fittings | M_Elbow - Generic: Standard | 32 mma-32 mma | 1216 | 32 mm | 28 mm | 35 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipe Fittings | M_Elbow - Generic: Standard | 32 mma-32 mma | 1218 | 32 mm | 28 mm | 35 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipe Fittings | M_Tee - Generic: Standard | 50 mma-50 mma-50 mma | 1242 | 50 mm | 48 mm | 54 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipe Fittings | M_Transition - Generic: Standard | 50 mma-32 mma | 1-154 | 50 mm | 48 mm | 54 mm |
| Hydronic Supply | Hydronic Supply | Hydronic Supply | Level 1 | Pipe Fittings | M_Transition - Generic: Standard | 40 mma-17 mma | 1-156 | 40 mm | 40 mm | 48 mm |

Replace existing insulation

Close

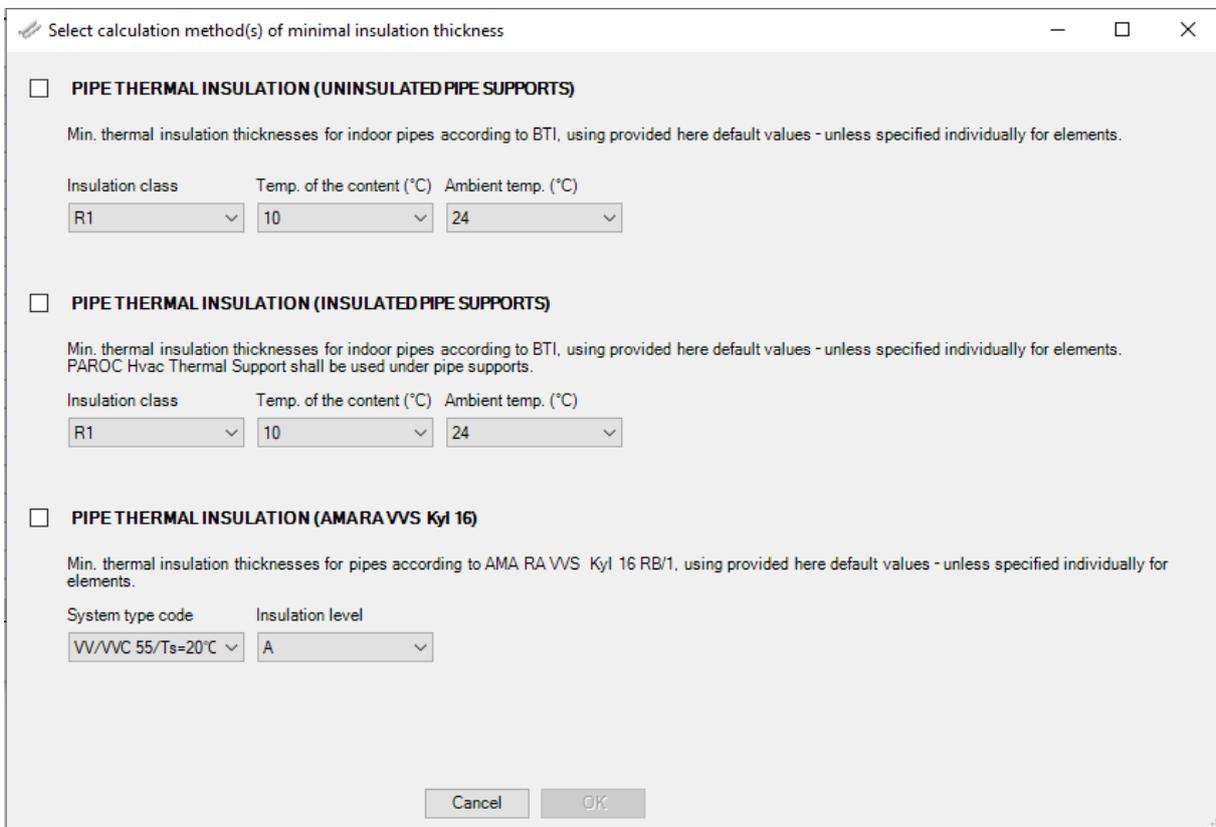
Select a configuration from the drop-down list. One configuration will be displayed automatically. You can create your own configurations - description in the **CONFIGURATION MANAGEMENT** section.



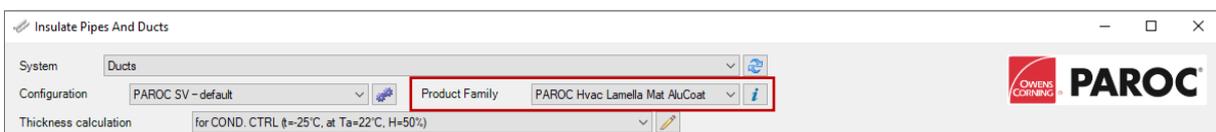
Select a thickness calculation methodology from the drop-down list. You can either choose insulation through **by Configuration** (view the suggested standard parameters via **Manage existing configurations**) or you can select specific parameters on your own via **..more** (see next step and image).



To select a calculation method (via **..more**, see previous step), mark the tip-check (white square) next to the function heading and then select boundary conditions from the drop-down lists.



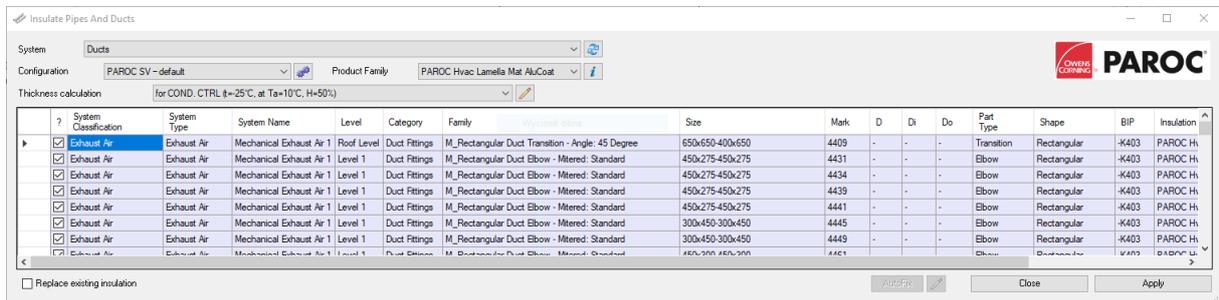
Select a Product Family from the last drop-down list.



Click **Apply** – insulation will be added to the project according to the chosen calculation principle and product family.

NOTE: If there was an error preventing the selection of insulation for all elements, the program will automatically add insulation to the elements without error and simultaneously filter out elements to

which insulation has not been added. After adding insulation to the marked elements, it is possible to choose a different calculation principle or different product from the **Product Family** for the remaining elements.



NOTE: By checking or unchecking, you can select or remove elements that should be insulated using the selected method and insulation product; If there are elements in a chosen system that need to be insulated with different insulation products or if several calculation methods are to be used to insulate different elements showing on the selected list of elements, you can add different principles and products to different elements by selecting/deselecting elements before applying the insulation to the project.

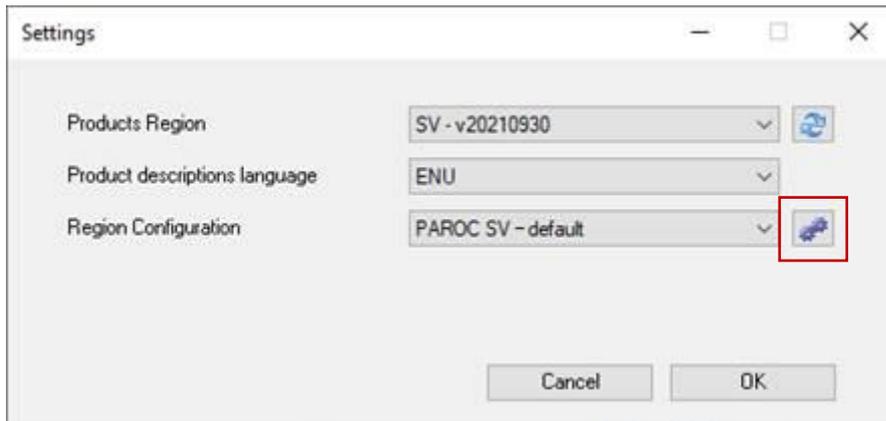
When finished, click **Close**.

CONFIGURATION MANAGEMENT

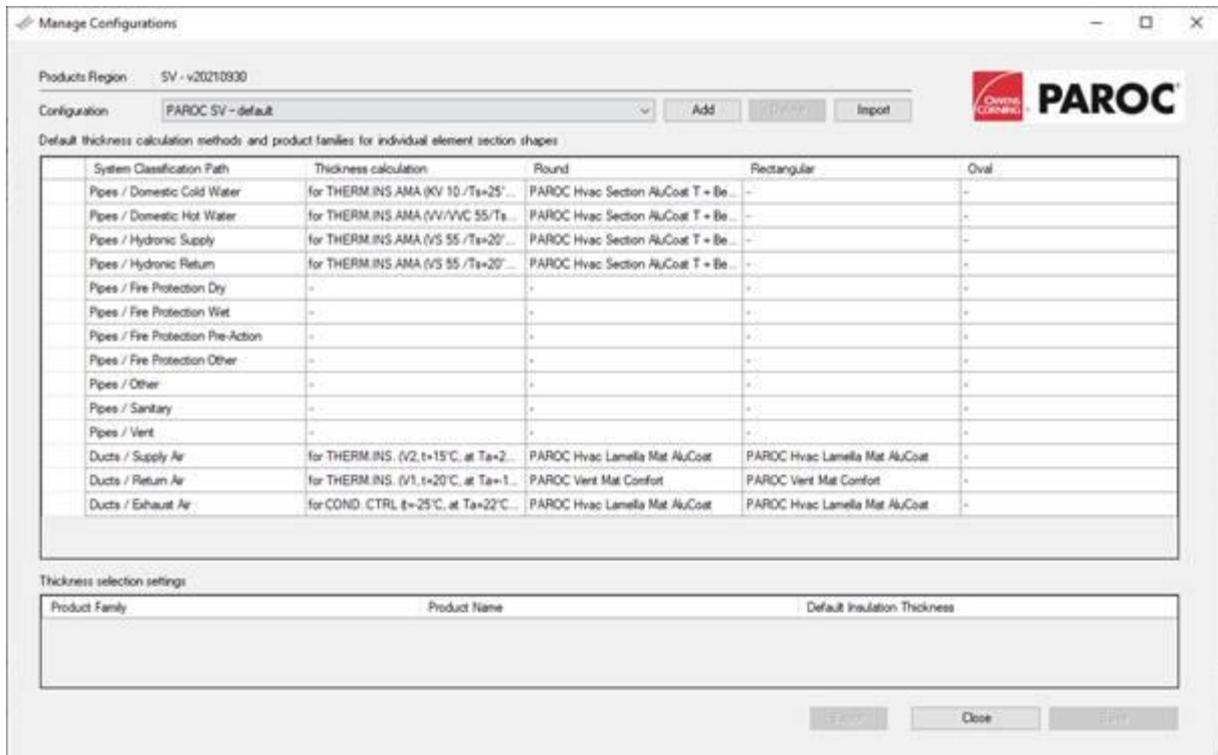
Select **Settings** on the Paroc Tools panel



Select **Manage existing configurations** to the right of **Region Configuration**.



Click **Add** and name the new configuration.



To create a new configuration, select the insulation methodology and needed parameters from the drop-down list for ***Thickness Calculation*** for each system. Finally, press ***Save***.

To select own configuration, in the insulation selection process when selecting a configuration from the drop-down list, please select the newly created configuration from the drop-down list.

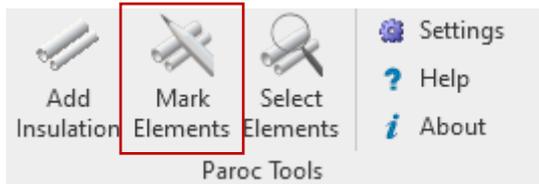
NOTE: When adding new configuration, you can by clicking the pen in the upper right-hand corner add all customized system classification paths from a project. After adding project-specific paths you can then create configurations for all these project-specific systems. The default System Classification Paths include only those items that are automatically created by Revit.

NOTE: By using the import/export button, you can load or prepare a file (your own configuration) for shipping. In this way, you can copy your own configurations e.g. as a backup or send to PAROC for consultation.

CHOOSING ELEMENTS

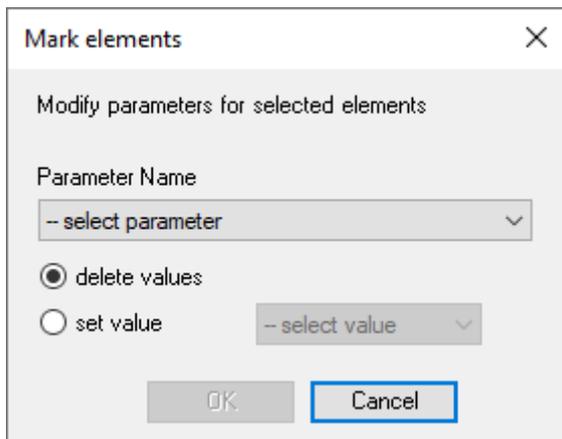


Mark Elements



The mark element function allows you to delete values or set them based on the Parameter Name.

To use mark elements function, select the elements for which you wish to define a certain parameter value or which you wish to delete parameter values for. After selecting a set of elements, set the desired condition through **Mark Elements**: here you either delete values based on chosen parameter name or you add value to the elements based on chosen parameter name. Then click **OK**.

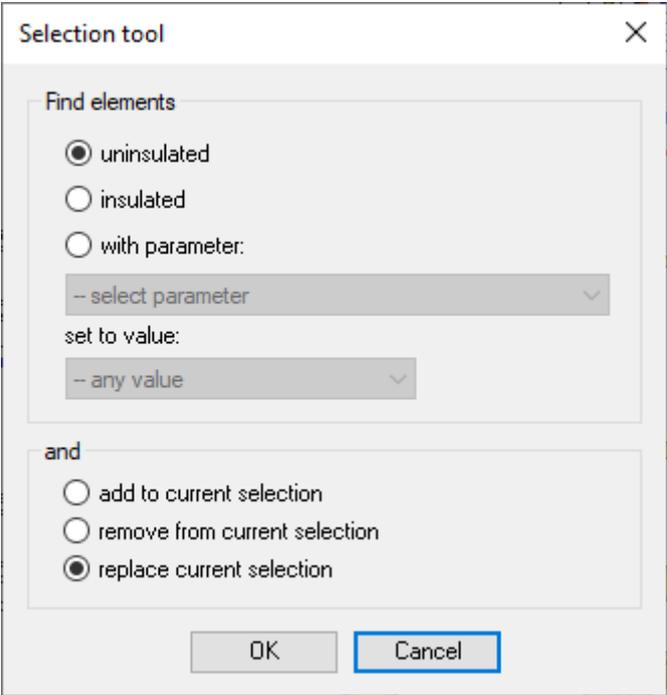


Select Elements

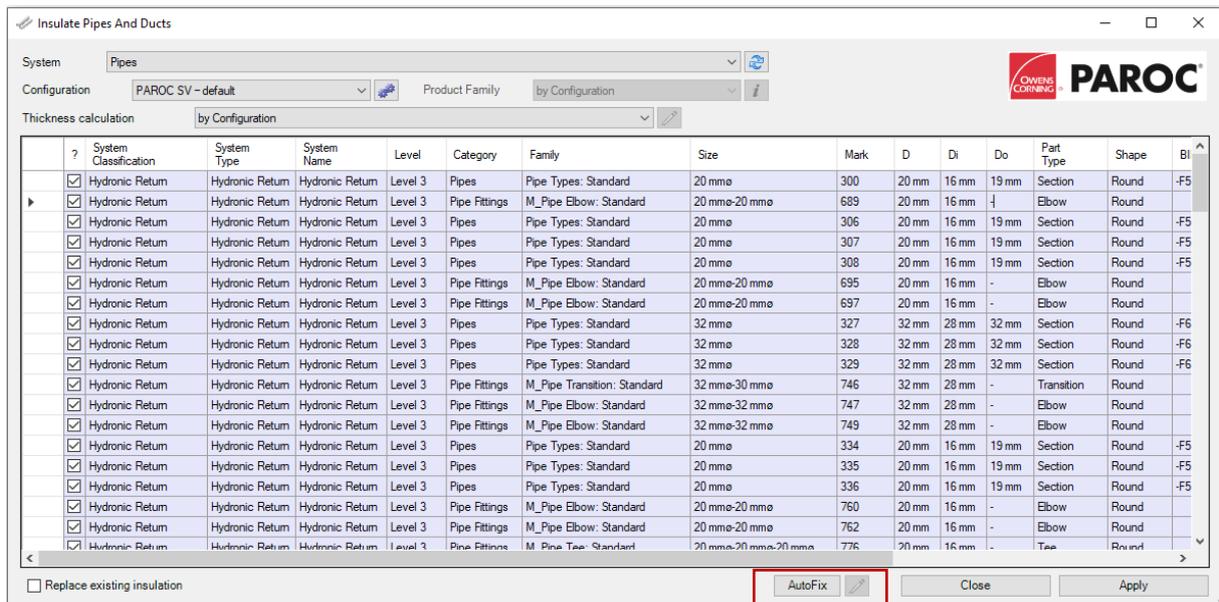


The select elements function allows you to identify elements according to following parameters: uninsulated, insulated and based on specific parameter values. With the selection tool you can either add selected elements to your current selection or you can remove selected elements from your current selection. You can also replace your current selection with the elements identified using the selection tool.

To use select elements function, start by defining selection principle directly through **Select Elements** selection tool. Then click **OK**.

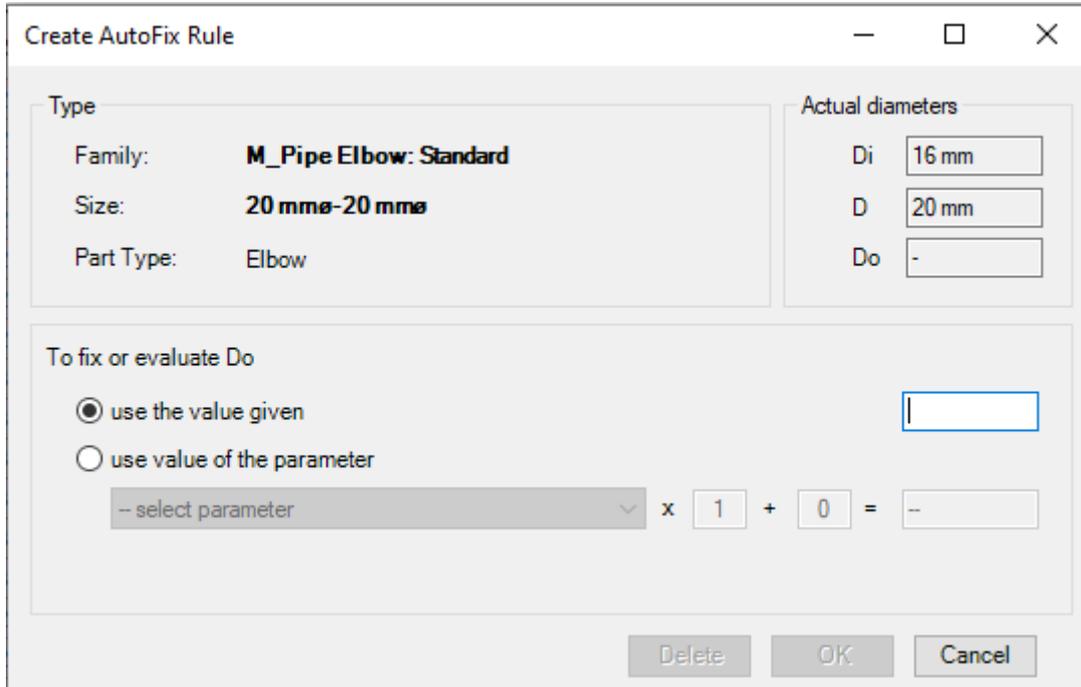


AUTOFIX



The **AutoFix** button available in the Add Insulation command window allows you to automatically fix incorrect or missing values of pipe diameters in the **Di/Do** columns.

To use this function, after selecting a cell with an incorrect/missing diameter value, click the pencil button next to the AutoFix button and define the appropriate rule.



1. Select the cell in the **Di** or **Do** column and click the pencil button next to the **AutoFix** button

2. In the Create AutoFix rule dialog window:

a) enter the correct diameter value for the given element size and confirm with OK, or

b) check the option ***use value of parameter*** and select one (or two for some types of parts) of the family parameters, which, together with the multiplier and correction, can be used in calculating the diameter for any size of this family element. For part types requiring the selection of two parameters, the larger of the calculation results will be used as the diameter value

3. Save the rule by pressing OK.

Similarly, you can modify the rules defined earlier.

To delete a rule - use the ***Delete*** button in the rule definition window.

Diameter values corrected with the ***AutoFix*** function are highlighted in blue italics.

NOTE: Rules defined for a specific size take precedence over rules defined for all family members.