



MS 3D Pipe V10

Application for 3D piping design
for MicroStation Connect Edition

➤ Pipe classes ➤ Reporting ➤ 3D cells ➤ Isometric ➤ PI diagram design

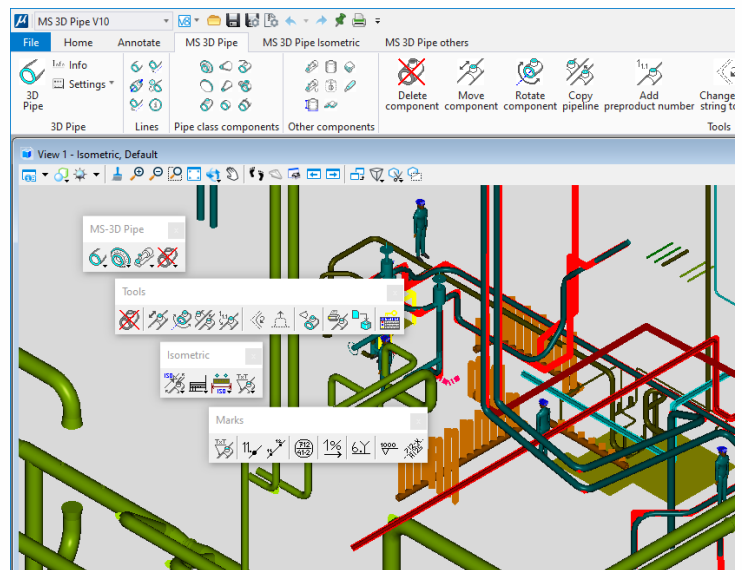
3D volumetric modeling application built on top of MicroStation Connect Edition for 3D piping design, 2D isometric creation and reporting of materials in industrial, power plant, mining and construction environments

- ✓ MS 3D Pipe has been developed for piping designers, with the needs of piping designers in mind. The application is also suitable for piping design for mechanical units and heat distribution rooms.
- ✓ The application supports laser-scanned point clouds. Attach the point cloud as reference, and you can directly utilize millimeter-precise source material.

The application includes EN-standard compliant pipe classes and components updated in 2022 by PSK Standards Association
(<https://psk-standardisointi.fi/?lang=en>)

PSK Standards Association has defined a pipe class as follows: "A pipe class refers to the selection of pipes and pipe parts suitable for the same pipeline, in which the dimensions and materials are defined. The strength of all pipe parts has been calculated as required by the Pressure Equipment Directive."

Thus, the designer doesn't need to calculate the suitability of the pipe, as long as he chooses the right pipe category based on pressure, material and temperature. The application selects the right components according to the chosen pipe category.



Extremely easy to use

- ✓ Point to a line, the application automatically selects a component suitable for the pipe category.
- ✓ There are no practical limits on the scope of the design environment. For example, you can model an entire factory plant with its pipelines in 3D, and quickly and easily make the necessary 2D drawings, reports and listings. References and layers allow you to control what is displayed in one 3D design environment.
- ✓ Due to the volume model, the editing features of a pipe are excellent. The strength of the pipe wall is shown in the model, and thus modeling and dimensioning of detailed joints is easy.
- ✓ You can also use an exact 3D model (cell) of the component.



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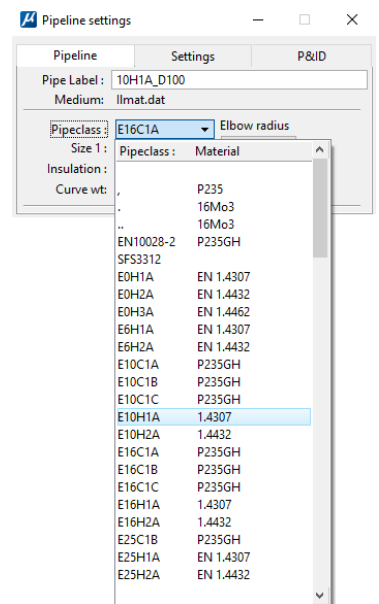
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Pipe classes

MS 3D Pipe includes all EN-standard compliant carbon and stainless steel pipe classes and pipe class components as prepared by the PSK Standards Association (2022).

- ✓ Plastic pipe, firewater and hydraulic pipe classes, as well as 3D cells suitable for their pipe classes are included.
- ✓ Thousands of 3D components from different suppliers ready in genuine volume model format.
- ✓ The application utilizes Access-database, therefore users can easily add their own pipe classes and 3D cells with parts list information.
- ✓ The symbology of pipelines (e.g. colors) in the program settings are pre-defined according to the flowing substance or pipe class. The symbology information can freely be modified by the user.

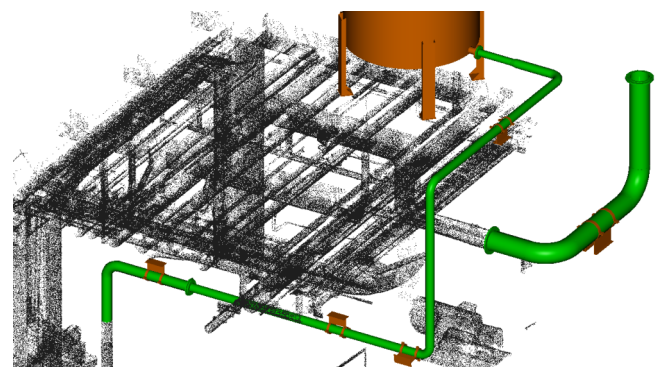


Reporting

- ✓ The reporting command of MS 3D Pipe makes a parts list of pipelines.
- ✓ You can make a parts list by pipeline or an assembly report of the entire plant.
- ✓ Reports are presented in Excel, one line per sheet and/or an assembly with the parts of all lines added together, one line per parts added together.

3D cells (3D-models)

- ✓ All 3D cells and their isometric symbols according to EN-standard pipe classes are included.
- ✓ After installation, the application is immediately ready to use without any presettings.
- ✓ In addition to pipe class components, thousands of other 3D cells are included and ready to use.
- ✓ The parts list information of the cells is in database, wherefrom the program connects it to the data of the corresponding cell for reporting.
- ✓ Adding your own 3D cells and equipment to the program is very easy.



The designer can use point cloud directly when planning the pipeline route or replace the point cloud pipe with a real pipe.



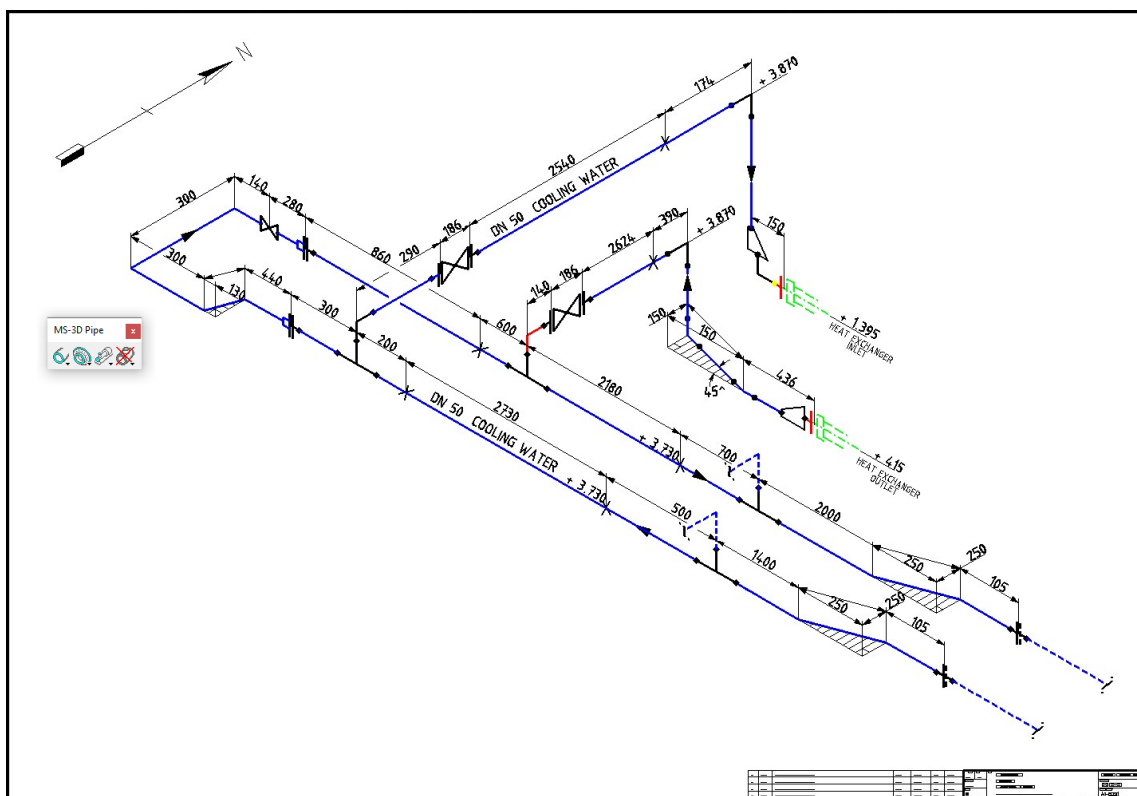
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> Pipe classes > Reporting > 3D cells > **Isometric** > PI diagram design

Creating isometrics

- ✓ The creation of an isometric diagram is semi-automatically done directly from the 3D model by pipeline.
- ✓ Creating a semi-automatic isometer from a line is easy and fast.
- ✓ The program generates isometric automatically from the 3D model; the user only needs to scale the line to fit the sheet, and add dimensions and part numbers with automatic creation commands. After the parts list has been added to the drawing (automatically as well), the isometric is finished. It only takes 5-20 minutes per diagram.
- ✓ All sheet sizes and their extended sizes are included.
- ✓ You can create an unlimited number of isometrics, creation doesn't cost anything extra.
- ✓ The diagram can be printed either on a printer or as a PDF. The parts list can also be printed to Excel.





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> Pipe classes > Reporting > 3D cells > Isometric > **PI diagram design**

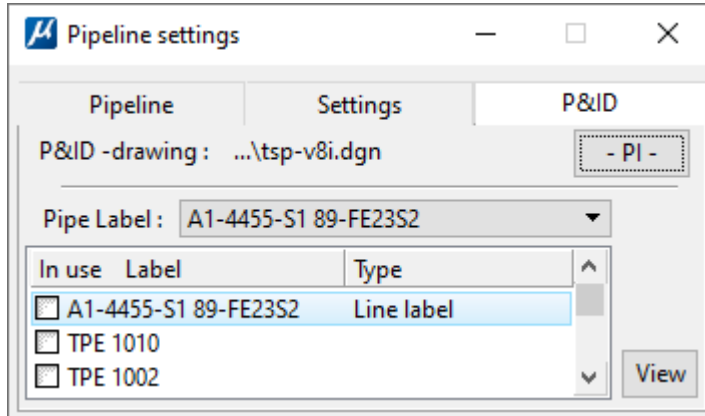
Utilizing PI diagram in pipeline design

The names (labels) of components and pipelines entered in the PID-program are copied directly to the pipeline program.

The PI diagram created with our MS PID v10 application is automatically compatible with MS 3D Pipe v10.

You can select the desired PI diagram with the piping program command. The pipeline and component data of the selected diagram are copied to the form, where you can select the desired line or component label.

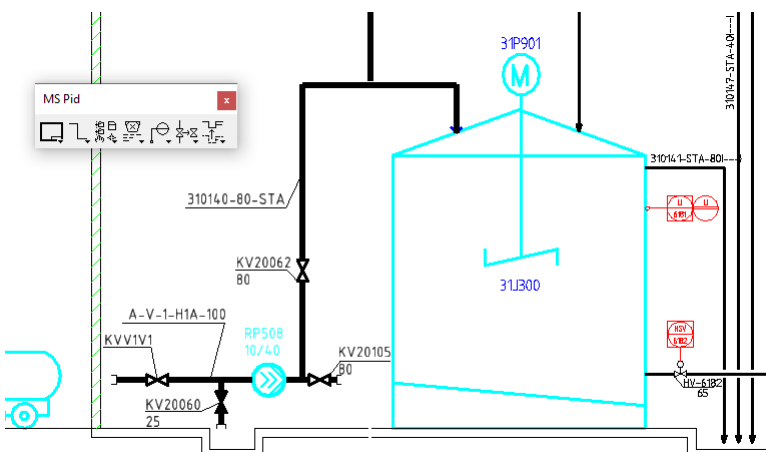
By doing this, you don't have to write the labels by hand, and thus the chance of making errors is minimized.



All lines have been read from the diagram and the selected line is shown on the form.

The labels of the line's components are displayed below the selected pipeline.

You can select the desired label and start placing it in the 3D model.



The designer saves time and minimizes errors when there is no need to read labels and information from the PI diagram separately.