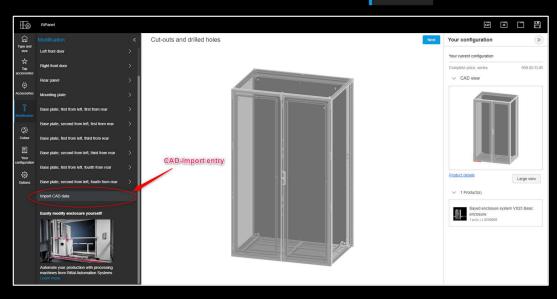# RiPanel CAD Import

With the Rittal RiPanel CAD import, you can easily upload your drawings to our configurator and project them onto the surface of your choice in the machining area. In this guide, we explain the individual steps and answer the most frequently asked questions about our CAD import.

Where can I find the CAD import?

You can find the CAD import under "Modification" below the surface selection
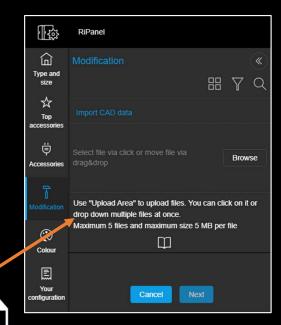

How do I upload my data?

Use our upload window and drag your file to the dashed area or open your explorer with a click in the upload window and upload your file.

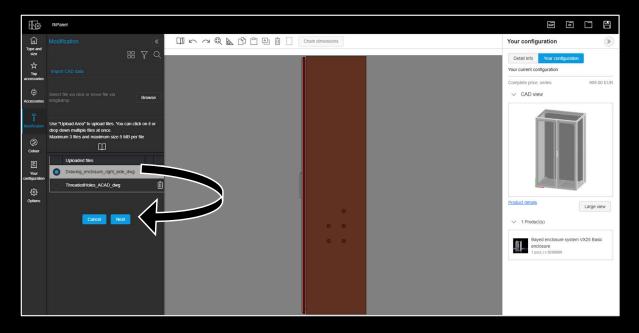## Which file formats are supported and how large can they be?

The RiPanel Cad import supports .dwg and .dxf formats and a maximum of 5 files with up to 5 MB each can be loaded.
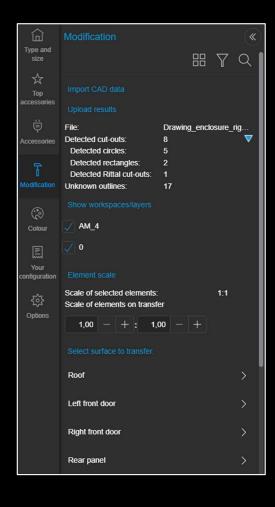
RiPanel CAD Import

How do I open the file?

The loaded files are displayed below the upload window. There they can also be deleted again. With a "click" on the file you get a preview of the drawing displayed. With "next" you confirm the selection and can now work with this drawing.

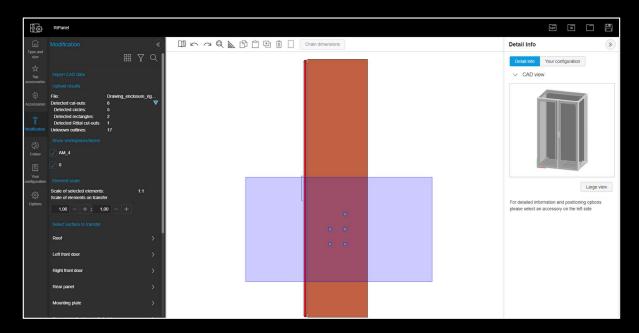
What information does the CAD import show me?

1. **Results** – all detected items such as circles are displayed in a bulleted list. The unknown and non-selectable geometries are also listed.

2. **View Workspace** – displays the recognized layers (drawing layers) of the CAD drawing. These can be selected to make the required geometries even more selectable.

3. **Scale of the element** – The scale of the drawing is shown, and it is possible to define the scale you want to use when handing it over.

4. **Selectable surfaces** – all available surfaces are displayed, on which you can transfer the geometries.
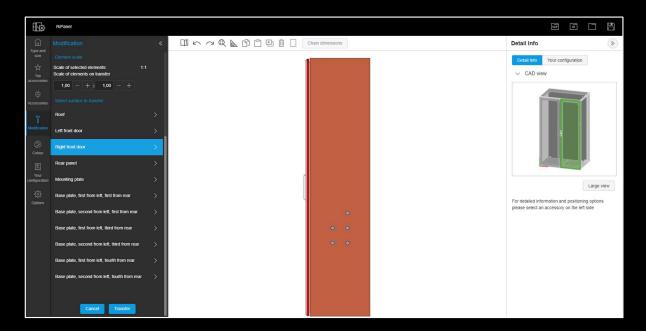
RiPanel CAD Import

How do I pass over values from my drawing?

1. Click on a geometry individually or mark an area by holding down the left mouse button. The geometries are automatically marked.
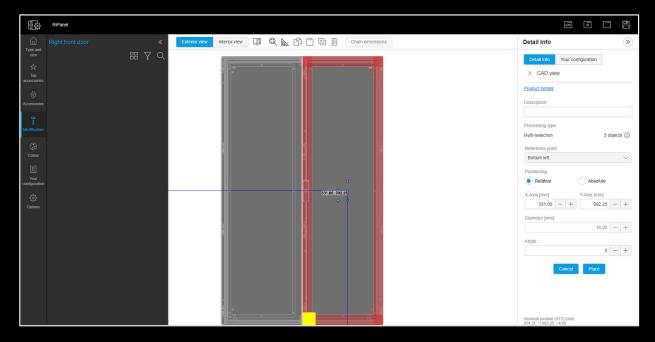

2. Then select the desired surface and confirm with "Transfer"
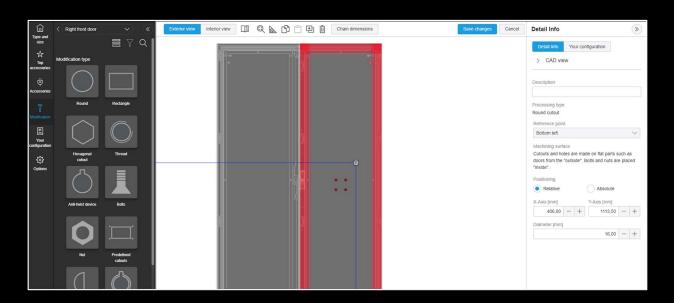
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The desired surface opens with the selected geometries.
With the editing tool, you can now define the position of the geometries. In this step you will move all selected geometries simultaneously.

The reference geometry for the position can be selected by clicking on the desired geometry. You can identify the reference geometry by the reference lines.
When your geometries are in the desired position, you can click the „Place" button on the right side. Now it is also possible to move single geometries.
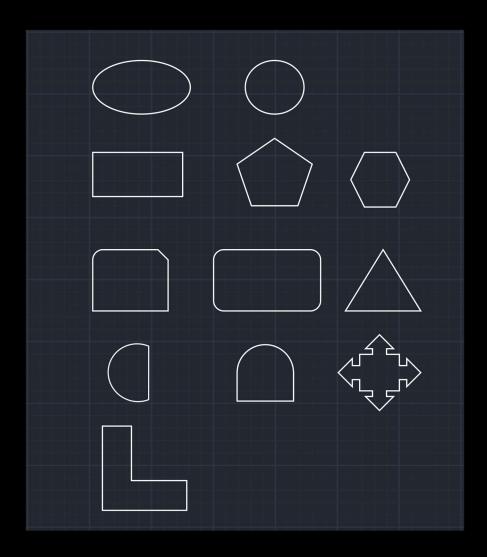
RiPanel CAD Import

Which shapes are recognized by RiPanel CAD import?

RiPanel CAD import detects:

- Circles
- Rectangles
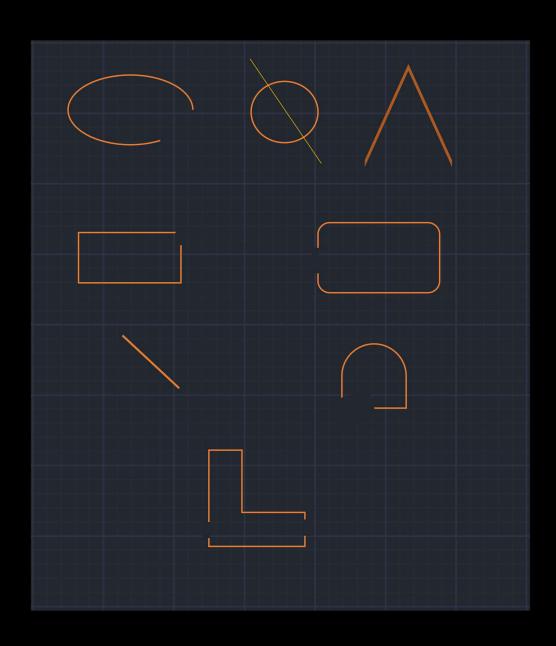- Rectangles with rounded corners
- Closed polylines
- Thread

RiPanel CAD Import

Which shapes are recognized by RiPanel CAD import?

What is not recognized:

- Simple lines
- Arcs
- Open polylines
- Elliptical arcs
- Crossed lines

RiPanel CAD Import

Which threads can RiPanel CAD import recognize?

The following thread sizes are recognized:

M2, M3, M4, M5, M6, M8, M10, M12, M16, M20, M24, M30, M36, M42, M48, M56, M64, M68

What rules apply to identifying threads?

Threads < M8 are recognized by circles and arcs. The following rules must be observed:

- The center of the arc and circle must be the same
- The distance between the arc and the circle has to be between 0.1 and 2 mm
- Arcs must have an angle between 260 and 280 degrees
- Arcs and circles should have the same scale factor

Threads >= M8 are only recognized as circles. The following dimensions must be considered:

- Circle diameter D is converted to thread size (tolerance 0.15 mm)
- D 6.647 mm for M8
- D 8.376 mm for M10
- D 10.106 mm for M12
- D 13.835 mm for M16
- D 17.294 mm for M20
- D 20.752 mm for M24
- D 26.211 mm for M30
- D 31.670 mm for M36
- D 37.129 mm for M42
- D 42.587 mm for M48
- D 50.046 mm for M56
- D 57.505 mm for M64
- D 61.505 mm for M68

RiPanel CAD Import

What restrictions apply to RiPanel CAD import?

To achieve the best performance with the modification tool, only the first 10,000 elements of the uploaded CAD file are analyzed.
In addition, only the first 1,000 analyzed elements are transferred to the configurator.
The detection accuracy for complex shapes (rectangles made of lines, threaded holes made of circles and arcs) is set to 0.1 mm. This means that points are recognized as connected or aligned even if their X and Y coordinates are up to 0.1 mm different.