

# CAD-standard for panels and formparts



RIEDER

## General Requirements

- Panel details (CAD files) must be submitted in dxf or 3dm format.
- All files will be reviewed based on Rieder's requirements for dxf files or excel order list. If submitted CAD files have not been prepared in accordance with these requirements, Rieder reserves the right to reject those files. It's the responsibility of the customer to adapt all files according to Rieder's standards and resubmit it.
- Panels which differ from each other in some property of the material, e.g. in color or texture, have to be defined in separate files.
- If the panels of a project are expected to be delivered in separate shipments, they have to be defined in separate files (1 file per material and per call-off).
- Panels can be represented as boundary curves or as surfaces.

The actual size of the curve or surface defines the panel size, dimension objects are not evaluated.

- The panels should be located close to the coordinate origin.
- All panels have to be arranged in a way so that they are clearly separated and do not overlap. The spacing between panels should be at least half a panel length or width, but can be larger as well.
- All panels have to be defined with the same orientation, either visible side up or back side up. The chosen orientation has to be stated in the file.
- The curves and surfaces representing panels should be black and not coloured.
- A test file is available on our website in the download section.

## Planar Panels from Curves

Planar panels can be defined by their boundary curves.

- Boundary curves are closed curves which do not self-intersect (=polyline).
- Boundary curves have to be planar and lie in the xy-plane.
- The boundary curve should be as simple as possible.  
A rectangular panel, for example, should be represented by a closed polyline consisting of 4 linear segments.
- Put curves on layer "panel curve".

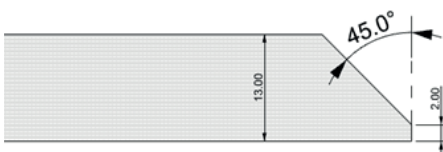
## Bores

A bore may be marked by:

- a) a cross or a circle
- 2 intersecting line segments, e.g. a cross, the intersection point defines the bore coordinates,
- c) a closed curve, e.g. a circle. In case of a circle the bore coordinates are defined by the center, otherwise by the area centroid.  
The closed curve has to be shorter than 35 mm.

## Mitre Cuts

- Mitre cuts are marked by linear line segments, separately for each edge, the line segments must not be joined into a polyline.
- The mitre square will be calculated from the distance between the mitre cut mark and the edge, considering the panel thickness and the height of bevel (which is fixed at 2 mm). To allow for verification the mitre square must be included as text close to the mitre cut (e.g. 45°).  
The mitre square is defined as angle between the mitre cut and the surface normal:



- Put mitre cut marks on layer "mitre".

## Position Numbers

- Position numbers are unique identifiers for the different panels in a file. The position number consists of up to 12 character (letters, digits, "-", "\_", and "."), starting with a letter or a digit.
- The position number may be defined by a text or a text dot object. The text content gives the position number, text size, font, etc. can be chosen at will.
- Text objects must be placed in the center of and inside the panel.  
A text object containing a position number is assigned to a particular panel by closeness. The center of the text must be closer to the center of the assigned panel than to the center of any other panel. This means that the position number text objects should be positioned close to the center of the panel, in any case the center of the text should lie inside the panel.
- Put position number text objects on layer "position number".
- Every leg and back of a formpart needs to be marked with a position number and name:  
Back: POS01\_Back  
Leg 1: POS01\_Leg1  
Leg 2: POS01\_Leg2

## Number of Panels

- If several copies of a panel are to be produced, the quantity can be specified with a text object. Only the digits of this text object are evaluated, it may contain letters as well, e.g. "Quantity: 12" or "12 pieces" or just "12".
- The default quantity is 1, for panels which have no text assigned.
- Put quantity text objects on layer "quantity".