BricsCAD® Sheet Metal

V17

Import, create, unfold, rework and export sheet metal parts using the most intuitive 3D direct modeling techniques.

www.bricsys.com/sheetmetal/

Sheet Metal design done right with BricsCAD

Creating new sheet metal parts or reworking existing ones? BricsCAD is your best choice. It is free of conceptual mistakes of history-based MCAD software. You will never need to restart your design from scratch, because we guarantee maximum flexibility for changing your models by combining the freedom of direct modeling with the power of feature-based design.

Import or create from scratch
Import Sheet Metal parts from any CAD system. Supported formats include neutral ones - such as STEP and IGES - native formats - such as CATIA, Inventor, SolidWorks - and kernel formats. Create the desired shape of the solid using direct modeling operations such as adding chamfers, creating a shell and creating a hole.

Prepare for production
By converting your parts to sheet metal, you can easily distinguish one sheet metal feature from another and visually validate them. Each of the sheet metal features – flanges, bends, junctions and reliefs - has its own assigned color.

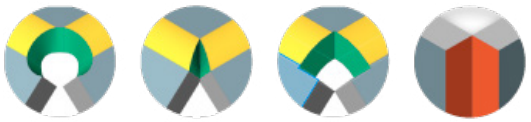
Automatically unfold Sheet metal parts
BricsCAD Sheet Metal features one-click sheet metal parts unfolding. The software automatically detects and highlights any colliding bends. Once your design is ready for production, simply convert it to .dwg and .dxf files. You can add annotations for manufacturing with CAM systems.

Rework at any time
You will never need to restart your design from scratch. We guarantee maximum flexibility for changing your models by combining the freedom of direct modeling with the power of feature-based design.

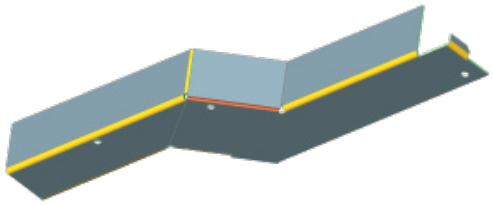
Export to CAM systems
BricsCAD already exports sheet metal parts in .dxf or .osm formats for prepping for CNC programming by JETCAM and LVD systems. BricsCAD also generates .dxf files for CAM systems by CYBELEC and DELEM.

Sheet Metal Features

Junctions and Reliefs
With BricsCAD V16 or later sheet metal designers can use a new type of junction called Full overlap, as well as two new corner reliefs (V-type and circular).



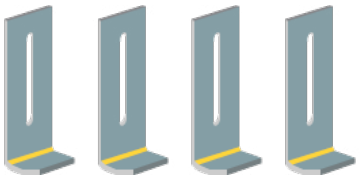
Feature Coloring
With feature coloring you can easily distinguish one sheet metal feature from another and visually validate your sheet metal parts. Each of the sheet metal features – flanges, bends, junctions and reliefs - has its own assigned color. You can easily re-set colors in the settings menu.



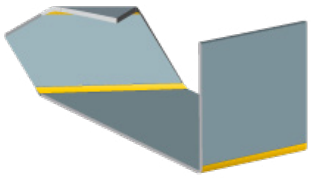
Lofted Bends
BricsCAD V16 and later versions allows you to create sheet metal parts with lofted surfaces. Supported profiles include lines, arcs, circles, rectangles, polylines and splines. Imported sheet metal parts with lofted bends can be edited and unfolded.

With BricsCAD Sheet Metal you can start working from whichever design phase you're in.

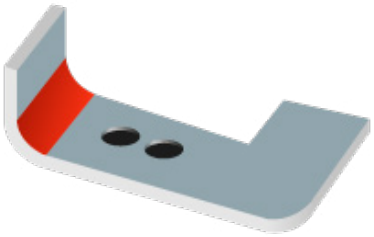
Batch Processing
Batch processes of sheet metal parts and assemblies can be automated in large numbers using a dedicated LISP API. This automation feature accomplishes tasks, such as producing families of sheet metal parts of different sizes. Example LISP scripts are included with BricsCAD.



Flange bend
Flange bend lets you bend an existing flange along a line, obeying the k-factor for given bend radius. The "k-factor" determines how much of the material's thickness compresses and how much stretches during the bending process. When you import geometry, BricsCAD recognizes incorrectly-made bends and automatically repairs them.

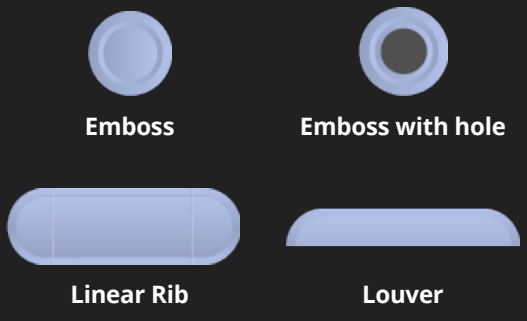


Wrong bend
Features can be recognized in imported geometry and automatically repaired. All wrong bends are marked red in the sheet metal parts and the properties bar.



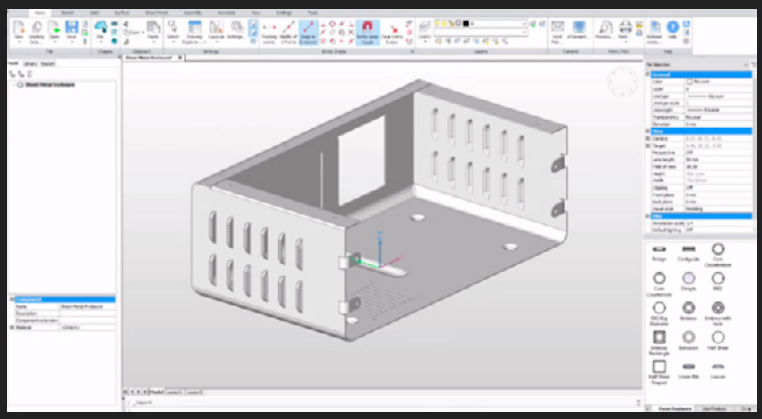
Form features
BricsCAD V17 adds parametric form features to the sheet metal module. "Form features" mimic the process when a forming tool deforms a piece of sheet metal. After the form is applied, you can edit it directly and parametrically through the Properties bar.

Form Library
The library contains most commonly used form features, such as bridge, louver, and emboss. You can import form features from other systems, and define your own custom forms. When you import geometry from other CAD systems, you can search for similar form features, and then replaced them with ones from your libraries.



In manufacturing more than 80% of the imported sheet metal parts from a CAD program are not ready to be manufactured

Christian Lecomte
Sheet Metal expert



Why BricsCAD is the best choice for Sheet Metal

Creating Sheet Metal Parts

Create or import and unfold sheet metal parts without limit, including lofted bends. Rework your sheet metal part without limit. In BricsCAD, creating is very fast because you can start from a solid:

- **Create the shape with direct modeling**
- **Substitute hard edges with junctions or bends**

Preparing for manufacturing: unfolding

"In manufacturing more than 80% of the imported sheet metal parts from a CAD program are not ready to be manufactured"

Rework your sheet metal part without limit

In BricsCAD you can rework your sheet metal parts at any time.

Do you need high-quality 3D data exchange between major MCAD formats?

With BricsCAD Communicator you can exchange all major MCAD formats (STEP, IGES, CATIA, Inventor, SolidWorks, Parasolid. Export to ACIS, DWG, 2D PDF etc.)

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