Preferred file formats for Engineering and Production

Louis Industries tries to use our customer's print and part models when making parts. These are the file formats that work best for Louis Industries in the Engineering department and on the production floor.

Engineering

All file formats are listed in the order of preference. The files types listed for engineering are used to help us program our CNC machines. Note, .slddrw files require a .sldprt or .sldasm file. The .slddrw file type links the one to the other or both in some cases.

Formed Parts

1. SolidWorks (.sldprt, .slddrw and .sldasm) files
2. .step
3. .dwg
4. .dxf
5. .pdf

Flat Parts

1. Solidworks (.sldprt, .slddrw and .sldasm) files
2. .dwg
3. .dxf
4. .step
5. .pdf

Bend radii should have a 1:1 ratio to the material thickness. If a larger or smaller bend radii are needed, bend relief requirements need to be clearly shown.

Production Floor

We use our customer's prints on the shop when making the part. In the occasion where the customers print is determined un-readable or un-clear, a Louis Industries generated print is used. Customer approval of this print is required upon sales request.

The production floor employees need a print to verify the parts to. All file formats are listed in the order of preference.

1. .pdf print
2. .dwg print
3. .dxf print
4. .jpeg/.png print

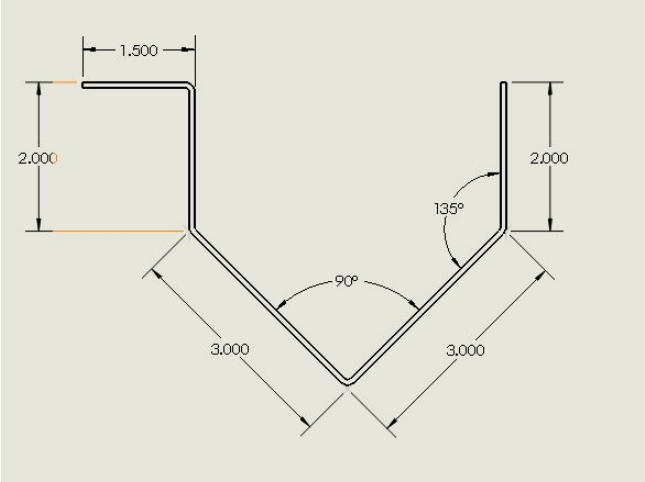
Other useful information that helps Louis Industries with engineering and production processes. Ex: part use, critical dimensions, features not easily seen.

Inspection

To help insure part accuracy, Louis Industries has installed InspecVision's Planar inspecting system. This system uses an ultra-high resolution digital camera that takes a snap shot of the flat part. This digital picture is then compared to a dxf file to determine its accuracy. This system can also be used to assist in the reverse engineering of flat parts.

Dimensioning References

When adding dimensions to prints, please use the following dimension practices:



You should notice that all linear dimensions measure to the outside of the part.

All dimension that are measuring a flange length to a bend, go to the apex of the bend. This makes it easier for our machine operators to program and measure parts.

Angle dimension are preferred to be located on the inside of the angle. This helps press brake operators with machine set-ups.

Use reference dimensions where run out can be applied.

Assembly and Welding

Consider using slots and tabs on parts to help with part alignments on a weldment.

Need a reference line on a part, consider using etch lines. These lines can be added during the laser cutting process.

Please ask for more information on these manufacturing processes.