**Checklist – Sheet Metal**

This checklist covers the items that should be confirmed when preparing to release a drawing for custom Sheet Metal. Engineers reviewing a drawing should inspect the document for appropriate notations covering the items in the checklist. This list is not exhaustive, and care should be taken to make sure that special features of the part designed are appropriately noted.

The drawing covered by this checklist is a design record for engineering used to communicate the requirements of the part to suppliers for their process control and to your company incoming inspection processes.

## Common Drawing Format Requirements

| Item | Description | Check |
| --- | --- | --- |
| 1.1 | Company Name, Address, Contact Information |  |
| 1.2 | Proprietary Information Statement |  |
| 1.3 | Drawing Title |  |
| 1.4 | Drawing Number |  |
| 1.5 | Revision |  |
| 1.6 | Default Dimensional System (inches / mm) and Tolerances |  |
| 1.7 | Sheet Number and Total Number of Sheets |  |
| 1.8 | Method of Approval |  |
| 1.9 | Angle projection symbol (First or third) |  |
| 1.10 | Sheet size |  |

## Attachments

| Item | Description | Check |
| --- | --- | --- |
| 2.1 | CAD file (e.g., STEP) appended or zipped to the Electronic Drawing  Is the CAD file the same version as the Drawing? |  |
| 2.2 | Graphics Artwork files appended or zipped to the Electronic Drawing |  |
| 2.3 | Are special workmanship standards required (e.g. cleanliness, packaging, part markings)? |  |

## Material Specifications

| Item | Description | Check |
| --- | --- | --- |
| 3.2 | Material Type and Grade or Specification |  |
| 3.2 | Material Thickness (Gauge or Dimension) |  |

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## Edge and Surface Finish

| Item | Description | Check |
| --- | --- | --- |
| 4.1 | Deburr and Break Sharp Edges? |  |
| 4.2 | Slag removal and surface finish (e.g., sanding, bead blasting) |  |
| 4.3 | Welding / Grinding (type of weld, filler material, penetration, location, etc.) |  |
| 4.4 | Conversion Coating  Clear and colored Chromate |  |
| 4.5 | Painting  Type – Wet, Powder Coat  Color Specification: Color Description, Mfg and Part Number of Paint – or –  Color Standard: RAL, Pantone, Federal Standards  Texture Specification  If custom, consider Paint Chips to distribute for color matching. |  |
| 4.6 | Plating – Nickel, Zinc, etc.  Thickness, Specification |  |
| 4.7 | Anodizing  Type or standard, thickness  Color – beware of matching colors part-part or batch-batch |  |
| 4.8 | Silkscreen or Pad Printing information and location. Attach artwork file |  |

## Bill of Materials

| Item | Description | Check |
| --- | --- | --- |
| 5.1 | Swaged nuts, standoffs, fittings  Manufacturer, Part Number, Quantity, Reference Designation |  |
| 5.2 | Other components swaged or welded by fabricator |  |

## Dimensions

| Item | Description | Check |
| --- | --- | --- |
| 6.1 | Identify Critical Dimensions to be checked on Incoming Inspection |  |
| 6.2 | Identify dimensions and tolerances that are tighter than the default tolerances. |  |
| 6.3 | Are tolerances appropriate for fabrication method? |  |
| 6.4 | Dimension and Tolerance Standards and Stack-up |  |
| 6.5 | Part flatness, parallelism, twist, etc. |  |
| 6.6 | For swaged hardware/ inserts, are dimensions called per manufacturers recommendations? Distance to edge dimensions? |  |

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## Notes

| Item | Description | Check |
| --- | --- | --- |
| 7.1 | RoHS / REACH Compliance (material and finishing processes) |  |
| 7.2 | Default Tolerances for use with attached CAD (STEP) files. |  |
| 7.3 | Assembly notes |  |
| 7.4 | Processing notes like ‘remove oil / grease prior to shipment’ or ‘manufacture per workmanship standard’ |  |
| 7.5 | Part marking with part number/ revision / location on part |  |
| 7.6 | Minimum radius on bends (unless otherwise specified) |  |