

BREAK THROUGH PRODUCTION BOTTLENECKS WITH 7 DFM TIPS FOR METAL ENCLOSURES

When it comes to metal enclosures, design matters. Designs that are not optimized for manufacturability make it difficult for companies to translate their design into metal without sacrificing quality or adding cost or lead time to their project. We're here to help!

Material selection, hard-to-join metals and overloading your design with rivets are just three examples of how you may be adding to the production time and cost of your metal enclosure. Take these 7 DFM (Design for Manufacturing) tips from our engineering team to help you expedite lead times, reduce unnecessary spending and improve product performance for your metal enclosure.

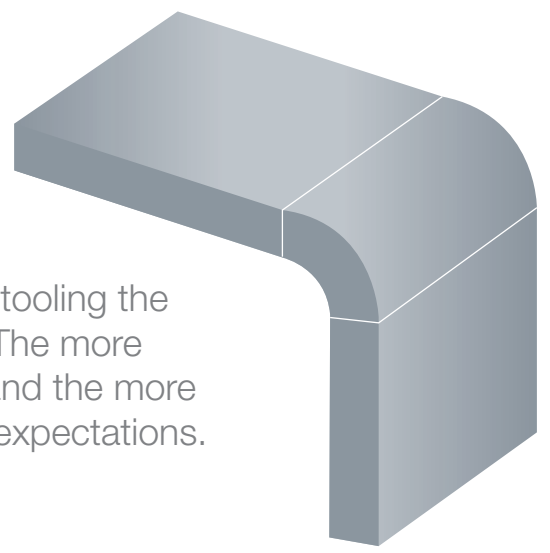
DON'T OVERLOAD YOUR ENCLOSURE WITH HARDWARE

Limiting hardware (nuts, studs, screws, pins and rivets) is crucial for DFM. The number and types of hardware can add both cost and time to production and assembly (think about keeping track of all of those fasteners?!). Using other methods, such as formed features in the part to join them, can cut down on the amount of hardware needed - plus it's easier to scale efficiently!



GO EASY ON THE NUMBER OF BEND RADII

The more bend radii involved, the more specialized tooling the project needs, which ups the overall tooling costs. The more complicated the process, the longer the lead time and the more challenging it will be to meet scaled-up production expectations.



BE SPARING WHEN IT COMES TO RIVETS

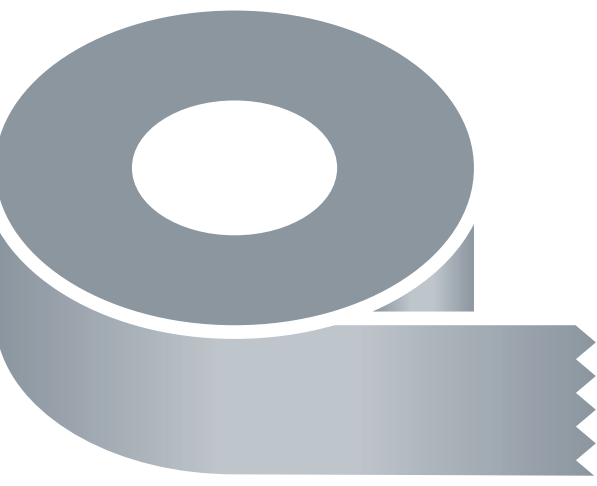
Rivets are a great joining method, but keep in mind they typically require more manual labor than typical fasteners, so to keep your design in line with DFM principles, less is definitely more. Five or six won't cause problems, but if your enclosure has 50? That's going to add to labor time and cost.

CHOOSE EASILY ACCESSIBLE MATERIAL

Nobody wants to add more time to their project, especially if it's just time spent waiting — in some cases months — for material. Designs that require easily accessible raw material in common thicknesses will help you meet your lead time goals.

POWDER COATING > WET PAINT

Powder coating has several advantages over wet paint, especially in terms of DFM. Powder coating is incredibly durable, and since it undergoes a thermal bonding process for curing, it's more resistant to fading, chipping and scratching. And, since it's solvent-free, it doesn't require expensive pollution control measures.



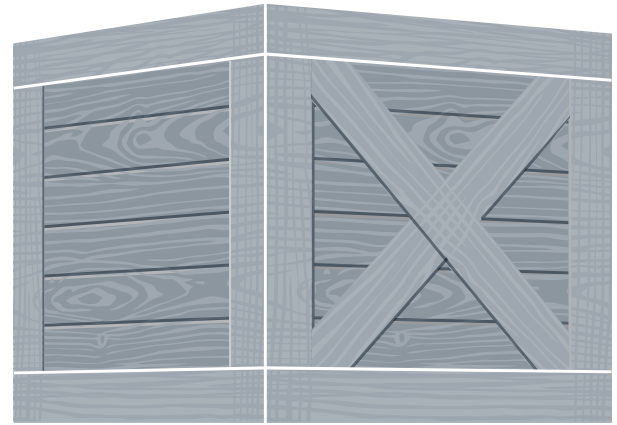
MINIMIZE MASKING POINTS

Masking can help keep certain areas of a piece covered during the powder coating and painting process, which is important for keeping the enclosure grounded and protected from electrical hazards. But, it's a manual process so requiring too much masking in the design adds time and a layer of complication. Opt for a grounding strap or grounding pad instead to keep things simple and cost-effective.

SEE THE BIG PICTURE WHEN IT COMES TO PACKAGING COSTS

Post-fabrication, the packaging step can be vital to the success of your product. Consider returnable, reusable packaging crates for high-volume projects.

Corrugated boxes (and the wooden pallets they are delivered on) mean recycling costs. Reusable crates will be more cost-effective in the long run.



Following Design for Manufacturing (DFM) principles can have an incredibly positive impact on your project in terms of cost savings and your timeline. Work with a fabricator that understands and applies DFM principles to get the most out of your next custom sheet metal enclosure project.

SPEED UP YOUR TIMELINES AND GET THE QUALITY CUSTOM METAL ENCLOSURES YOU NEED USING DFM. TALK TO MAYSTEEL NOW.