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TECHNICAL DESIGN CRITERIA OVERVIEW

PEI's revolutionary process allows for most of the features and functionality that you would typically find in injection molded or thermoformed enclosures. As for sheet metal fabricated enclosures, we can provide all of those features and much more.

We define enclosure features and functions as those attributes that do not involve the shape or basic construction of the product. In particular, we look at those enhancements that make an otherwise six-sided box into a functioning enclosure.

While it would be nearly impossible to list every possible feature or function that a customer may require or that PEI has provided, we have selected a number of key features and functionalities that we find our customer consistently request. Among those are:

Standoffs and Spacers

- for mounting PCB's and other components

Metal Inserts and studs

- to allow for the use of machine thread screws and nuts

Vents

- both straight through and off-set

Openings & Cutouts

- for any shape or style connector or piece of hardware

Windows

- for displays

Pockets

- for labels, overlays, and membrane switches

Shielding

- for RFI/EMI protection

Silkscreening

- for labeling and aesthetic appeal

Painting

- for color matching and advertising

As stated before, this list is not "all inclusive" and if you have features or functions that you would like to include in your enclosure be sure to bring them to attention. You may be pleasantly surprised to find that we can meet your request.

Construction - Shape, Style, and Materials

By construction we are referring to the physical make up of the basic enclosure including those items that involve the construction of the enclosure as well as the overall shape, size, look, and feel of the housing.

On that note, we can supply enclosures with curves, arcs, and rounded corners, as well as multiple surfaces and angles. The easiest way to envision what we can and can not do is to think of how you would form an enclosure by taking sheets of paper to develop the walls of the box. As with a piece of paper, we can bend, fold, and cut individual and multiple surfaces to develop a fabricated final product. Furthermore, because the plastic sheets we use have a thickness to them, we can incorporate pockets, recesses, angled vents, decorative emblems, engravings, embossing, and many other features that require a 3-D surface.

As for limitations, ours are simple. To eliminate the cost and time consuming process of utilizing hard tools and molds, we do not plasticize the material. This means we do not melt and re-form the plastic in such a way that we alter its original dimensional size. Because of this, we design and manufacture all of our enclosures without utilizing spherical shapes such as 3-D domes and contours.

However, this does not mean we cannot incorporate eye-appealing designs into your enclosure. On the contrary, due to our years of experience in designing highly aesthetic enclosures, we have developed techniques that allow us to go beyond the 'boxie' cube look of typical fabrication. With over 8 years of experience and thousands of custom designs to our credit, we can offer any low volume enclosure customer attractive enclosures that can be customized for a company's own unique look and feel.

Before deciding to take on the time constraining and capital-intensive investment of molds and hard tooling, you should talk with us about the kind of enclosure PEI we can provide. You may be pleasantly surprised that you can get what you want, when you want it, and without the compromises that come from other enclosure sources.

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