Modifying Electrical Enclosures to Fit Every Application

Authored by: Lindsay Hartman, Corporate Sales Coordinator
Allied Moulded Products, Inc.

Electrical enclosures house a tremendous variety of electrical components, monitors, and machinery. They are utilized in industries as diverse as telecommunications and wastewater treatment; and from solar power to security systems. Due to the breadth of applications that electrical enclosures must protect, the ability to easily and affordably modify electrical enclosures is increasingly important for OEMs and panel shops.

To meet this demand, enclosure manufacturers continue to invest in equipment capable of handling these modifications, as well as customer support personnel who can aid product engineers in designing the enclosure that best meets their needs. Nonmetallic enclosure providers are best equipped to provide modification capabilities at a competitive price due to the ease of handling, drilling, and cutting molded fiberglass-reinforced-polyester and polycarbonate materials. Factory-provided modifications can include:

**Custom Holes & Cut-Outs**
By using computer-controlled CNC routers, enclosure manufacturers are able to guarantee their customers receive the right cut-outs every time. These modifications can be used to install Human Machine Interface (HMI) panels on the front of a control box or as access points for equipment and cables. However, it is important to specify NEMA 4X window covers and hole plugs to maintain the enclosure’s protection rating.

**Color-Match Molding**
Use custom colors to make enclosures blend into an environment for better aesthetics, stand out for improved safety, or differentiate between systems. Enclosure manufacturers can match any pigment and provide molded-in color that is consistent throughout each product and each batch. The color is molded throughout the enclosure so it won’t scratch off, wear down, or fade away.

**Custom Panels & Windows**
While the outside of the enclosure is important, sometimes it’s the inside that counts. Whether it’s creating the perfect view of controls inside the enclosure with a custom viewing window or the ability to mount components to hinged-front panels at any depth, enclosure manufacturers make sure that mounting and accessibility concerns are handled.

**Factory-Supplied Silkscreening**
The importance of corporate branding continues to grow, which is why silkscreened logos can help an OEM stand out from their competitors and provide a professional, recognizable appearance for their product lines. Instructions, warnings and labels can also be silkscreened on an enclosure for ease and convenience.
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EMI/RFI Shielding
Enclosures are made to protect electrical applications from harsh environments, but EMI/RFI shielding takes protection to the next level to control for electromagnetic and radio frequency interference. Utilized for critical information that must be transmitted consistently, this modification is popular for mining equipment to keep workers safe no matter where the job takes them.

Modification Ownership
Once an OEM or panel shop has designed and specified the right enclosure for their application, enclosure manufacturers should assign a specialty part number that corresponds to the customer. This ensures that OEMs and panel shops get the right product every time, and that their proprietary design is guarded and secure.

Engineering & Customer Support
Navigating the myriad of enclosure modifications can be daunting. Hiring and supporting dedicated customer service and modification specialists provides OEMs and panel builders with a partner in the design process who can share drawings and reliably deliver results. The processes and organization must be in place to consistently deliver enclosures designed for each specific application.

Electrical enclosures need to be as diverse as the systems and applications that rely on them for protection. Nonmetallic enclosures make it easy and affordable for customers to get exactly what they need with every order. Whether its custom cut-outs, silkscreened logos, or electromagnetic shielding, make sure to discuss modification capabilities with your enclosure providers and get protection designed specifically for your application.

About Allied Moulded Products, Inc.
Allied Moulded Products, Inc., established in 1958, is a leader in the production of fiberglass reinforced polyester and polycarbonate, nonmetallic electrical boxes and enclosures, for use in residential and industrial applications globally. The Bryan, Ohio-based manufacturer is continually perfecting material and design formulations that result in products with increased strength, reduced weight, corrosion resistance, non-conductivity, UV resistance and ease of installation.