design FAQs

Specifying and Customizing Non-Metallic Industrial Enclosures

FREQUENTLY ASKED QUESTIONS

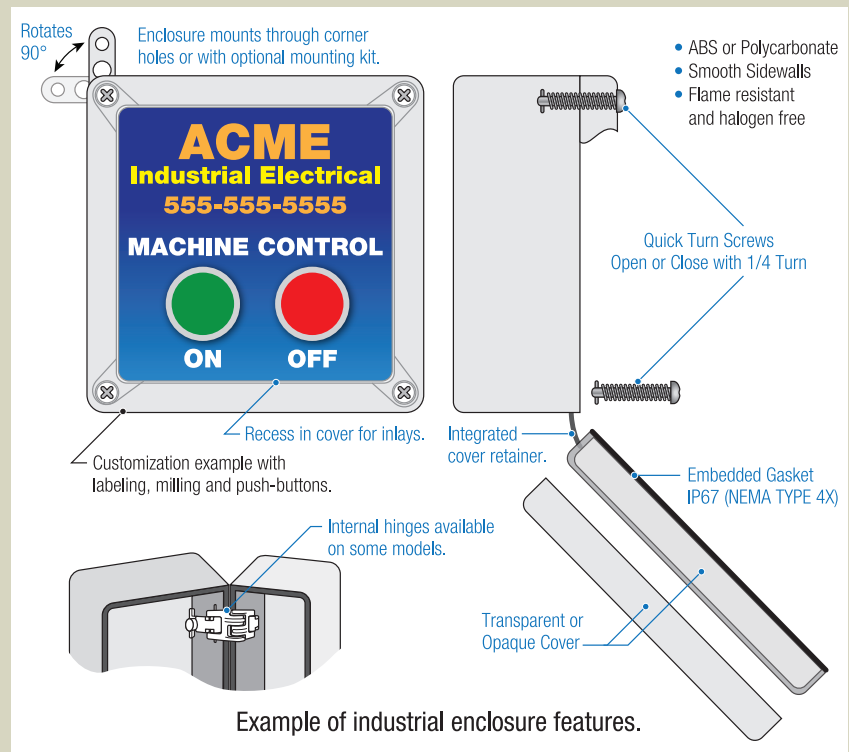**Q: I'm just starting my search for an enclosure for my application. Any suggestions?**

A: Consider collecting and writing down all your eventual needs and then find a company that offers whatever you require all in one place. This will save additional time in researching vendors to perform secondary tasks such as providing custom printing or milling custom openings in the enclosure. But first, be sure to get the enclosure that meets your specific needs. Some companies offer an enclosure finder on their website to make narrowing your choices easier.

Q: What are some of the features of a standard enclosure that I might want to look for?

A: Dependent on how often you expect your enclosure to be opened and closed, you might want to make sure it is equipped with quick-turn screws that provide quarter-turn operation. For control circuits, consider an enclosure that offers a cover recess so that you can incorporate your own detailed label inlay or membrane keypad. An integrated cover retainer or hinge kit can make using the enclosure easier. Most applications also require some type of mounting provisions inside the enclosure so look for integral mounting studs.

Q: My company is involved in a number of different industries in the machine tool and automation industry. How might I provide a solution for a variety of space and mounting challenges?

A: Look for enclosures that are equally flexible and available in multiple sizes. For example, there are enclosures

Rotates 90°

Enclosure mounts through corner holes or with optional mounting kit.

ACME
Industrial Electrical
555-555-5555
MACHINE CONTROL
ON   OFF

Customization example with labeling, milling and push-buttons.

Recess in cover for inlays.

Internal hinges available on some models.

Integrated cover retainer.

- ABS or Polycarbonate
- Smooth Sidewalls
- Flame resistant and halogen free

Quick Turn Screws Open or Close with 1/4 Turn

Embedded Gasket IP67 (NEMA TYPE 4X)

Transparent or Opaque Cover

Example of industrial enclosure features.

available that offer corner-hole mounting as well as those having optional mounting kits that flip 90 degrees for vertical or horizontal space requirements. Another consideration might be using an enclosure that's equipped with internal hinges.

Q: What about products that have to function in different environments?

A: Enclosures are available that are flame resistant, water-tight, and halogen free. Companies such as Altech offer enclosures in different materials and with different ratings. For example, their TG enclosures are available in ABS and Polycarbonate.

ABS enclosures are ideal for indoor use while the company's Polycarbonate enclosures, on the other hand, are suitable for indoor or outdoor use in remote or harsh applications. Their Polycarbonate enclosures are also UL Approved to meet the needs of most industries. Both versions are available in sixteen different sizes, have gray or transparent covers, and smooth sidewalls.

Q: Since we make more than one model of our machines, can we get different customization for each?

A: Enclosures can be customized per company or per system or machine. Look for a company that can provide

printing or labeling and milling so you don't have to go outside and look for those services separately. In fact, completely customized industrial enclosures not only help with branding, but also provide a more professional appearance overall.

Q: Are there other benefits to selecting customized enclosures?

A: Other benefits include stronger branding, more professional appearance, competitive pricing, and the elimination of legend plates or additional labels and reduction of label waste. If you're using an enclosure with a recessed cover design, high-performance overlays are perfect, plus you can get digital printing on short production runs for efficiency and flexibility. Screen printing is also available for larger production runs. The idea is for companies to be able to make the enclosure look as though it is an integral part of their equipment.

Q: All these features are very beneficial. Do heavy-duty enclosure models offer these features?

A: You'll want to check with the manufacturer, but be sure your choices are protection rated. For example, the plastic enclosures mentioned earlier offer a Class IP 67 rating. They are not only dustproof, but also reliably protect installed electrical or electronic equipment against ingress of water during short-term submersion. The Polycarbonate versions have passed NEMA 4X Type approval through UL. This means they have undergone rigorous testing for impact, corrosion, dust and water resistance as well as UV exposure testing. Enclosures are meant to satisfy demanding applications and provide protection in harsh industrial environments even for highly sensitive electronics. ■

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