



Integra Enclosures Stand Up to 15 Years Of Outdoor Stresses

POLYCARBONATE ENCLOSURES TAKE A BEATING
SO CRITICAL ELECTRONICS CAN GO ON WORKING

When electric motor controls leave the Controls, Inc. Medina, Ohio, facility, it's uncertain the type of environment they'll be used in. Some control fire suppression systems inside buildings. But many end up outdoors—to control agricultural irrigation systems or oils wells, for instance—exposed to sun, water and impact.

No matter their destination, the electronic controls leave encased in polycarbonate enclosures made by Integra Enclosures. From 15 years of experience using Integra enclosures, Bob Cowen, President of Controls, Inc., has learned that his control systems are well protected against whatever environmental stress they encounter.

“With Integra enclosures, we know that we will get better longevity out of our products, and our customers get a better experience because of the protection,” Cowen explains. The enclosures typically outlast the lifetime of the electronics they protect—some lasting 15 years, since Controls, Inc. became an Integra customer.





Polycarbonate Enclosures Pass the Test

Early on in Cowen's relationship with Integra, a Controls, Inc. customer questioned his recommendation to use Integra's polycarbonate enclosures. The customer dismissed the enclosures as "plastic boxes."

So, for his own assurance as much as his skeptical customer's, Cowen placed one of the enclosures on the ground, backed his half-ton pickup on it, stopped for a minute, then drove off it. It survived without a crack. Similarly, Integra Enclosures has held up well for the past 15 years as Control Inc.'s enclosure of choice for a wide range of applications that involve harsh environmental and operating conditions. Among polycarbonate's most significant characteristics:

- Impact resistance—as Bob Cowen proved—that is far superior to other plastics and even stainless steel
- Corrosion resistance, even in marine applications

Controls, Inc. commonly uses the enclosures for oil and gas, construction, chemical, manufacturing, refining and wastewater treatment applications, where they encounter a lot of abuse. In applications in isolated areas, Integra polycarbonate enclosures have on occasion even resisted the impact of a bullet to protect Controls, Inc.'s electronic boards. "Maybe not a high-caliber bullet, but a .22," Cowen said.

Polycarbonate also protects electronics from the violent vibrations of 600- to 700-horsepower rock crushers that tear up roads— "one of the highest vibration operations in our line of work," Cowen said.

Polycarbonate, a polymer produced by the reaction of bisphenol A and phosgene, has many other desirable qualities: excellent electrical insulation, heat resistance, UV resistance (bolstered by the addition of UV stabilizers) and fire suppression (with flame retardants added by Integra).

A few of Controls, Inc.'s customers still insist on sheet metal enclosures, as that's what they're used to working with. But for all other customers, Controls, Inc. uses Integra enclosures. They stand up to the half-ton pickup test, but more important, they provide protection against the common rigors of outdoor applications—water, sun and impact—for the lifetime of the electronic units they protect.

The enclosures typically outlast the lifetime of electronics they protect—some lasting 15 years.



ABOUT INTEGRA ENCLOSURES

Integra manufactures and markets thermoplastic enclosures designed for use in construction, water treatment, utility, telecommunication, instrumentation, remote monitoring, energy and other applications requiring enclosures that are non-corrosive, non-conductive, easy to install/modify and competitively priced.
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