

Allied Moulded and Colony Custom Metals Success Story



Application: Design and supply HMI cover kits and non-metallic electrical boxes for ProSort Systems that can withstand the harsh, wet, and dusty environments associated with hog growing/finishing barns.

Scope: Allied Moulded, in partnership with Colony Custom Metals, worked to custom-build electrical boxes to control the process equipment for automated hog sorting systems.

Challenges:

- The hose-down environment requires a rustproof and corrosion-resistant electrical enclosure solution.
- Colony Custom Metals needed non-metallic electrical enclosures to house innovative HMI software-based process solutions.
- The challenge was to replace physical wires and controls with automated, software parameters controlled by a single operator.
- The equipment would need to withstand a harsh environment and allow operators to easily view process data and make quick adjustments.

Competition: Rittal and Hoffman

Solution: Allied Moulded's HMI Cover Kit

The sales team at Allied Moulded Products worked to evaluate ProSort's equipment applications and challenges. We, in partnership with Colony Custom Metals, knew that ProSort would require an efficient and durable process solution to overcome an environment that is prone to hose-down, dust, inclement weather, and possible equipment impact.

The HMI or (human-machine interface) Cover Kit would especially be critical, because this is where production operators would monitor all the hog sorting operations, from farrow to finish. The goal was to introduce smart technology into the hog finishing industry for a more efficient method of feeding the livestock until they reach market weight.

While Colony Custom Metals has machined, fabricated, and assembled custom auto-sort equipment for hog barns in the past, they were looking to address some pain points in ProSort's production that tend to reduce the equipment's life cycle and sometimes introduce electronic errors into process data.

Allied Moulded's HMI Cover Kit met the client's demanding environmental and operational specifications by providing a protective environment for electronic equipment. The 316 stainless steel hinge fasteners are corrosion-resistant and create a high-strength connection between the HMI cover and the electrical enclosure. Sealed with a formed-in-place (FIP) gasket made of strong polyurethane, the HMI Cover Kit prevents the intrusion of UV, dust, dirt, oil, and water, while reducing "noise" (both electrical and environmental) between the production environment, the electrical enclosure, and the sensitive electronic devices.

Allied Moulded's HMI Cover Kits makes access to electronic components that require routine monitoring or troubleshooting easy. Our strong and rigid design serves to protect instruments and electronics in the most rugged applications. Our UL® listed cover kits maintain a NEMA 4X rating (when used with a NEMA 4x enclosure) for agricultural and food processing, indoors or outdoors, when a degree of protection against corrosion is required, in addition to windblown dust and rain, splashing water, or hose directed liquids.

HMI Cover Kit Features

- UL® listed and recognized as non-corrosive, non-conductive, and light-weight
- Used to cover touch-pad controllers and pushbuttons mounted on the surface of NEMA 4X enclosures
- Decreases arc flash risks and safety hazards caused by opening electrical enclosures
- Latching options include screws, tamper-proof screws, or pad lockable latch
- Materials include polycarbonate frame and clear polycarbonate cover

**Allied Moulded's
HMI Cover Kits
made with
ProSort Green
and Brown colors**

