HMI Systems for Pharmaceutical Packaging

*Depends on EAO’s HMI Components Expertise*

Pharmaceutical packaging equipment must allow machinery operators to quickly and easily set up and adjust new production processes. EAO’s goal was to make this process easier, faster, and more accurate.
The HMI System interface could be used with blister packaging, tube filling or pill coating equipment. Fine tuning a system prior to actual production saves time and effort and allows the system to be properly prepared.

Business Challenge
Manufacturers of high technology, automatic pharmaceutical packaging equipment satisfy the primary, secondary, and end-of-line packaging demands of the pharmaceutical industry.

- Equipment includes:
  - Solid dose processing
  - Aseptic processing
  - Blister packaging and tray forming
  - Counting
  - Tube filling
  - Labelling

Innovation and compact design are driving factors in the development of pharmaceutical packaging equipment.

Manufacturer’s are committed to flexibility in operation and changeover, combined with easy cleaning. To be successful, a manufacturer needs expertise in machine integration and functioning logic, project management, appropriate documentation for line qualification, and testing of centralized advisory services, such as SCADA, to provide pharmaceutical partners with a unique reference point.

As part of their commitment to innovation, these companies design new control systems to allow operators to quickly and easily set up and adjust new production processes. The goal is to make this essential process easier, faster, and more accurate.

Solution
EAO worked with one major pharmaceutical packaging equipment manufacturer to understand the requirements for a pendant control system. The pendant allows engineering in a pharmaceutical processing plant to set up each piece of packaging equipment. A pendant design allows an engineer to view the equipment and the process from multiple angles, to ensure that it is functioning according to specification.

In addition, the mobility of the pendant provides the engineer the ability to view the machine as it is engaged in the process.

The HMI System interface could be used with any pharmaceutical packaging equipment, from blister packaging, through tube filling, to pill coating. Fine tuning a system prior to actual production saves time and effort and allows the system to be properly prepared.

This pendant includes EAO Series 70 and a Series 84 emergency stop switch. Series 70 switches are momentary tactile-type
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switches which can be used in membrane switching systems. They are available in multiple colours and can be clearly seen in daylight conditions by incorporation of optional LED illumination. EAO’s Series 70 products are well known for their even dispersion of illumination over the entire lens surface and their ability to withstand rugged use, as compared to standard tact switches. The keypads in the pendant allow the user to easily operate the equipment to run packaging processes and perform set-up.

The keypads feature custom legends and graphics for point-and-push set-up and a membrane overlay for easy wipe-downs and clean-up procedures. The Series 84 E-Stop is ideal for this slim pendant design as it provides a compact behind-panel depth of just 18 mm maximum. It features “mono-block” construction for easy installation and a twist-to-release actuator for deliberate re-setting of the emergency control device.

With optional LED illumination, the E-Stop is visible both from the front and side, and can easily indicate switch status. Series 84 E-Stops meet ISO 13850, and comply with EN IEC 60947-5-1 and EN IEC 60947-5-5 requirements.

Using its in-house HMI Systems expertise, EAO works to ensure that the pendant control design is functionally and aesthetically suited for the application. From keypad to connector, EAO designed exactly the right pendant control system to meet operator and corporate requirements.