



ARCUS APPLICATION EXAMPLE

DIPTECH SYSTEMS, INC

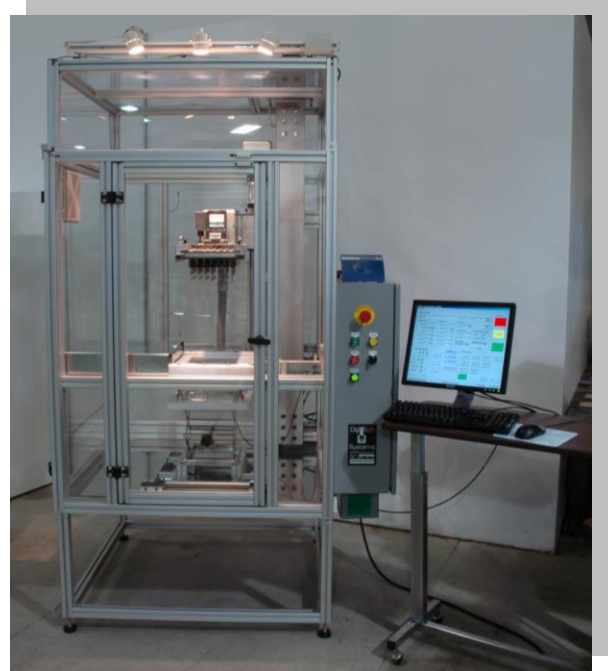
4-Axis Coating System using USB, RS-485 and Ethernet Communication

Overview

DipTech Systems, Inc. (Kent, OH) is a manufacturer of dipping and coating systems for a wide range of products. Their Diplomat™ system is a lab-scale multi-axis robot used in product and process development for all types of polymer molded and coated products.

Why Arcus?

Several different indexers were evaluated to serve as the motion controller for the Diplomat™ control system, which is PC-based. In the past, it was common to use an ISA- or PCI-based indexer card plugged into the backplane of the PC. While this approach provides an excellent throughput rate, it also limits the options for PC architecture, and is subject to obsolescence of the selected architecture over time. The Arcus Performax (PMX-4EX-SA, PMX-4ET-SA) system is mounted external to the PC, and is thus independent of the PC architecture. Any PC format, from a laptop to a desktop, can be used as the control platform. The Performax product is available with common PC-friendly communication options, such as Ethernet, USB and RS-485. Its terminal block connection option provides an easy termination method for integration into industrial control systems.



Design Benefits

The Diplomat™ control program is developed in VisualBasic. Arcus provides an ActiveX software interface to VisualBasic that allows motion commands to be streamed to the Performax controller. This permits the Performax to be used as a programmable motion controller without the need to run an internal program, although it is capable of doing that as well. The Performax physical package fits compactly in the Diplomat™ control panel, and its connection system makes it easy to interface to external devices, such as stepper drives, proximity switches, etc. The onboard I/O (8 discrete inputs and 8 discrete outputs) is enough to serve all I/O needs for DipTech's smaller systems, thus eliminating a costly additional I/O system.

Customer Testimony

“The Performax product has been a workhorse in our Diplomat™ systems for years. During those years, Arcus has done a great job of enhancing the product with desirable features, like opto-isolated I/O, Ethernet communication interface and an available screw-terminal connector system. Their engineers are very knowledgeable and are always ready and willing to help when we need technical support. We anticipate that this product will continue to serve our control system needs for years to come.”

- David Osborn, Senior Electrical Engineer, DipTech Systems, Inc.