

Application Palletizing in the Packaging Industry

Product packaging and palletizing is an essential step in the manufacturing process. Every finished product will eventually be boxed and palletized for transport or to minimize shelf storage space. Lantech Inc., Louisville, Kentucky, manufactures the packaging industry's most comprehensive line of stretch wrappers, end-of-line palletizers and conveyor systems and is often solicited to customize machines for special projects.



Recently a major cereal manufacturer contacted Lantech to design an automatic conveyORIZED stretch wrapping system to meet their production requirements. The S-Series (Model 3500) automatic, shown at left, was selected as it is especially designed to unitize tall, lightweight, unstable loads such as cereal. The specifications for the automation and control of the pallet load wrapping process required control of 4 different outputs; one AC motor and 3 DC motors. The automated unit is controlled by an Allen Bradley SLC-500 series PLC.

The environment in which the machine operates is also subject to electrical noise. Isolation becomes an important issue because of the ground loops that can be generated in any industrial control environment. Finally, the customer had an existing system with cumbersome potentiometers and Lantech wanted to convert these into analog controls.

Spectrum Controls had a solution meeting the criteria set by Lantech. The 1746sc-INO4vi module has 4 configurable input channels, 4 input voltage ranges, 3 current ranges and 750vdc channel-to-channel optical isolation negating the use of external isolators. The module allows the user a variety of software configuration settings accomplished through the use of your existing ladder logic programming software. Module data is available in proportional counts, engineering units or scaled for PID with true 16-bit resolution. Onboard auto-calibration insures accurate data.

Spectrum Controls offers isolated analog and discrete input and output modules along with a variety of specialty I/O modules for Allen-Bradley SLC 500 and PLC 5 controllers.