The most advanced modular press automation system available with control, sequencing, monitoring, job storage, diagnostic and communication functions to increase productivity and quality in press production processes to new levels for global competitiveness.

**The OmniLink 5100 - APC:**
- Integrates press, feed, and auxiliary systems functions.
- Increases ease of operation for complex press production systems.
- Increases productivity and reduces downtime.
- Enhances quality control.
- Reduces scrap parts.
-Protects presses and dies.
-Records and reports production information.
-Provides job and PM scheduling.
-Provides paperless recordkeeping.
OmniLink 5100-APC Control

- Large 10.4" LCD TFT Touch Screen Display with 800 x 600 Full Color Resolution.
- Job Storage for 1000 Jobs.
- Ten Production Counters.
- English or Spanish Standard.
- Access Control allows for assigning limited access to 16 different users.
  - Each user (group of users) is assigned a name and password.
  - Permissions such as job recall, job storage, or changing a tonnage monitor limit can be assigned to each user.
- Extensive On Screen Diagnostics.
- Optional Serial Feed Communication.
- Optional PLC and Modbus Interfaces.
- Programmable Limit Switch (PLS) Module.
- Tonnage and Analog Signal Monitor Module.
- Auto Setup Module.

Digital Die Protection and Process Monitor

- Die Protection Modules Provide 8 or 16 inputs.
- Expandable up to 5 modules for a maximum of 80 inputs.
- Programming of all die protection settings from one screen.
- Sensors may have NPN, PNP or Contact outputs.
- RealTime Capture of Sensor Transition.
- Extensive Sensor Diagnostics.

Programmable Limit Switch (PLS) Module

- Each PLS Module Provides 8 or 16 Outputs.
- Expandable up to 96 PLS Outputs.
- Provides Speed Advanced, Timed, Counted Outputs.
- Status and Diagnostic information displayed for individual channels.
- Inputs for tracking or controlling the PLS Outputs.
Part Tracking

- Part Tracking is configurable in both the Die Protection and PLS.
- A means to “mark” or identify a part with in a particular station in the die.
- The Part Tracking function can be configured for up to 12 strips and each strip can contain 32 stations.
- Marking the part allows the press to continue to stroke while knowing the condition of the part within the parameters set.
- Allows for positive control and real part count to be done within the process and give the ability to “eject” the bad part or divert the bad part as it exits the die.
- Keeps an accurate count of good parts made and allowing only those good parts to be shipped to customers or used further in the process.

Tonnage and Analog Signal Monitor Module

- Can be configured for two or four channel.
- Detailed at-a-glance status for each channel.
- Tonnage Graph screen shows actual signature of the die.
- Reference graphs can be stored for each job.
- Tonnage Limits can be set manually or automatically.
- Optional Analog Signal Monitor for in-process monitoring.

Auto Setup Module

- Provides recall and automatic adjustment of shut height and air pressures.
- Displays setpoints and status of Shut Height, Counter Balance and Cushion Control.
- Shut Height repeatability of less than .001 inches.
- Automatically adjust pressures to compensate for temperature and other factors that affect air pressure.
Superior Safety Design:

OmniLink System 5100-APC Press Controls are designed to meet all functional safety requirements of current and anticipated OSHA 29 CFR 1910.217, ANSI B11.1, and CSA Z142 standards, and to provide safety features in addition to these standards when properly applied, adjusted, installed and used.

- Dual separately powered diverse microprocessor logic systems perform safety logic and cross-check each other.
- Crankshaft angle and stroking speed is provided to both microprocessor logic systems by a rugged resolver/encoder unit so that any failure within either the resolver or encoder circuits can be detected and press stroking stopped and inhibited.
- Input modules provide dual tracking asynchronously pulsed inputs with short circuit and cross-connection detection for E-Stop Buttons, Safety Blocks, Light Curtains, and other protective inputs such as interlocked barriers.
- Clutch/Brake outputs are controlled by four monitored relays with force guided contacts. The wires that connect to the dual air valve solenoids for clutch/brake operation are monitored for any combination of shorts or inadvertent cross connections.

Control Functions:

- Stopping Time Performance (Brake) Monitor, Motion Detection, Clutch Engagement Time Monitor.
- Stroking Speed 6-2000 SPM.
- Stroking Modes- Inch, Timed Inch, Setup/Stop time Test, Single Stroke, Continuous, Automatic Single Stroke, Operator Maintained Continuous, Continuous On Demand.
- Event log displaying reason for the last 256 stops.
- Standard Input module provide for 56 24VDC inputs, Additional 56 Optional.
- Dual Microprocessor Logic System.
- Provides for Lubrication Control and Monitoring.
- Hydraulic Overload Control and Monitor.
- Motor Control.
- Optional Safety Relays for sending stops to ancillary equipment.
- AD1 Angle/Speed Display Optional.

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