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The Evolution of
ISB's
Press Control

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Over the past two years, ISB's Engineering Department has successfully developed this new cost-effective press control and automation solution that shops of all sizes can afford to install on every one of their presses and press brakes.

Technology used in pressroom electronics has improved drastically over the past 30 years and ISB has played an integral role in the evolution of this technology. In the decade of the 1970's, most commercially available press controls being offered utilized relay logic and most safety light curtains made use of fluorescent or incandescent light sources.

During this same era, ISB was already successfully manufacturing one of the earliest safety light curtains that used pulsed invisible infrared light sources. Today, most light curtain manufacturers worldwide now utilize this technology pioneered by ISB over 30 years ago. In the late 1970's, ISB also pioneered one of the metal stamping industry's earliest microprocessor based, solid-state press control



systems. Many of these earliest ISB Solid-State press controls are still in operation today and providing the highest level of control reliability.

Thirty years and many thousands of successful installations later, ISB continues to address the challenges facing the metalworking industry. Back in the 1970's, the primary challenge facing each metalworking shop with regards to press safety was to find a way to comply with the very challenging and often confusing OSHA Regulations pertaining to machine safeguarding and control reliability. Today's metalworking shops are facing their biggest challenges ever. In addition to complying with all the OSHA Control Reliability requirements, they also must automate their presses in order to compete globally. Manufacturers of all sizes want and need this technology on all their presses in order to be safer and more productive, but with today's leaner budgets and reduction in maintenance personnel, these devices are often only reserved for just a few of the key production machines on the shop floor. ISB has once again heard the requests of many metal fabricators who desired a press control / automation package that is affordable, compact in size and totally self-contained in order to eliminate cluttering the machine with numerous enclosures and complicated wiring to interconnect these device, easy to install, and simple enough for their plant personnel to utilize and maintain. One might believe that all these features included in an affordable press control are wishful thinking.

Over the past two years, ISB's Engineering Department has successfully developed this new cost-effective press control and automation solution that shops of all sizes can afford to install on every one of their presses and press brakes. Every control contains firmware to operate power presses as well as mechanical friction clutch and air clutch press brakes. By utilizing today's most powerful microprocessors and by designing our circuit boards with modern Surface Mount Technology components to shrink our package size, we turned what might have been considered wishful thinking into reality. The ISB RBPC (Resolver Based Press Control) was debuted at last year's Metalform Show and contains features normally only found in



much higher priced products.

The ISB RBPC Control has a compact design for easy installation. The entire press control and automation package, including the operator interface, is self-contained in a panel-mount housing that could fit into your brief case. The entire control measures 12" x 7.3" x 1.8" and often can be mounted on the existing power box or console. All electrical connections are made with plug-in terminal blocks for easy installation by most plant maintenance personnel, as well as allowing for easy field serviceability. Most factories today have downsized their maintenance departments, so to have a complete press control and automation package that can be swapped out in a matter of minutes in the event that it needs to be serviced is a big advantage that will help keep presses running. The RBPC control is equipped with automatic top stop compensation, which means no more adjusting of complicated cam switch timing every time you change jobs or press speed and this feature also makes the initial installation very easy. The very user-friendly operator interface has a 4-line LCD readout that is easy to read and displays complete fault messages and operator prompting. Although there are some competitive products that boast larger

LCD Screens or color touch screens, ISB engineers have carefully designed its message center and operator prompting in order to make this product full-featured but with a significant cost savings by using a smaller 4 line LCD Display.

ISB RBPC Controls can accommodate multiple palm button stations and electric foot switches and even a treadle input for mechanical press brake applications. Modes of operation, such as Inch, Timed Inch, Single Stroke, Auto-Continuous, Auto Single Stroke (for feed lead press applications), and Kwik Trip are included. A brake monitoring system as well as Light Curtain and barrier guard circuitry are standard. RBPC units can be used in English or Spanish language modes.

Built-in Die Protection channels (4) and Programmable Limit Switch channels (4) are included. An additional 21 die protection channels and 8 PLS Channels are available if additional channels are required. The programmable limit switches can be used with built-in timers and counters in order to provide the ultimate versatility. Numerous counters and hour meters allow for users to run production automatically and allow for scheduling of preventative maintenance. All RBPC units have 300-job storage capability,

Feature The Evolution of ISB's Press Control



making it easier to save previous set-ups. Multiple levels of password protection

give Press Operators only the level of access that they need, while Set-up and Supervisor Personnel have their own levels of password protection. RBPC Units are equipped with internal fault message logging, which gives data of the last 1000 reasons your press shut down. A serial port is standard with all RBPC units to allow for upgrading of the operating system, or to provide back up and restore functions for stored data.

A circular LED Array has become a standard part of many newer resolver based press controls; this provides for a visual indication of where you are in the press stroke. The ISB RBPC has made this feature much more valuable by utilizing a Multi-color LED Circular Array. A green LED is illuminated on the array to show actual position of the press. Yellow LED's are illuminated on the array each time the press stops to display the presses braking angle. RED Led's on the circular array are used to display the dwells on the programmable limit switches and blue

LED's are used to display dwells of the die protection "look windows". Press operators and set-up personnel continually comment favorably about the value added by having the color-coded circular array.

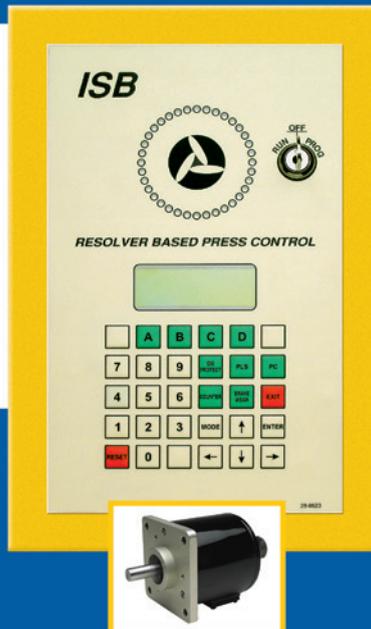
Computer network capability is available as an option, either through an Ethernet hard-wired connection, or by utilizing wireless technology. If the ISB RBPC is equipped with this option, the system's internal operating system is encrypted with all the software you will ever need to access this control's data from a remote location. You don't need to buy any extra piece of software or hardware to make it work, just turn on your wireless laptop computer, and you're done! Each control will have its own IP address and by utilizing your PC's Internet Explorer, you can access the RBPC and monitor all the parameters of the control. This newest advancement of the RBPC opens up many opportunities moving forward. □

For more details, visit www.isblite.com.

ISB RBPC RESOLVER BASED PRESS CONTROL

EASY TO USE, EASY TO INSTALL AND NOW AVAILABLE WITH REMOTE NETWORKING CAPABILITY ETHERNET/ WIRELESS • DISPLAY IS AVAILABLE IN ENGLISH / SPANISH

- Built-in brake monitor
- Multi-level password protection
- Numerous built-in counters
- Automatic Top Stop Compensation
- Multi-color LED circular array position, PLS & Die protection settings
- Built-in PLS Channels (4)



- Built-in Die protection channels (4)
- Built-in 300 job storage capability
- Additional PLS/Die protection channels available
- Fault messages recording
- Message center, LCD 4 line
- Meets OSHA, ANSI and CSA standards

Plus many more features!
Contact **ISB**
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