# Wintriss Die Protection Applications

Wintriss is publishing die protection tips monthly. These are application notes on how to apply die protection sensors and use them with Wintriss SmartPAC2 or DiPro 1500 die protection systems. The latest tip is:

Prox Sensors in the Lower Die for Feed Detection

An effective way to verify feed progression is to install a proximity sensor in the lower die to detect a hole that should be present when the material is properly fed. A sensor installed in this way can detect both shortfeed and overfeed. A normally-closed sensor is used so that the sensor will actuate when the hole "uncovers" the sensing field.
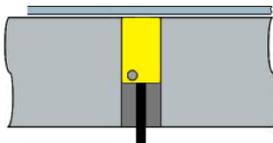
See all the details at http://www. wintriss.com/general/52012.html. Other tips posted in the archive include: http://www.wintriss.com/general/die_protection_tip_archive.html.

- Know Your Critical Angle
- Selecting the Right Stop Type
- Improve the Press's Stopping Time
- Partial Feed Detection

PRI can help you with die protection controls, press automation controls, sensors, and sensor interfaces. Call or e-mail us if you'd like more information or on site application assistance. 800-863-3164 or sales55@production-resources.com.

New Coe Press Equipment Stock Straightener
COE's New Clam Shell Straightener for Easy Access and Cleaning

Increase your productivity, straightening capacity, and improve your part quality with a Clam Shell Straightener from COE Press Equipment. This equipment design allows the upper straightener rollers to be easily opened, providing direct access to the straightener rollers for inspection and cleaning. This head opening feature is exceptionally helpful when running materials such as pre-painted steel, aluminum and stainless steels with critical finish requirements. The rolls can be easily inspected to ensure they are clean and free of debris that might mark the material surface.

Easy to Use
The upper straightener rollers are raised by hydraulic cylinders.

Range of Sizes
The Clam Shell design can be applied to any COE straightener. Models available to handle high yield HSLA materials!

Better Quality
Access to the rollers ensures your stamping process is debris free.

Area And Perimeter Guarding Applications
HTM category 4 body protection light curtains and Safety Mats

These category 4 light curtains are available with 21", 33", 37", and 49" high protective heights. These devices are typically used for area and perimeter guarding applications such as robotic cells, fabrication cells, or coil lines. Generally they work best where the operator does not frequently interact with the machine or enter a hazardous area. The beam spacing on these devices is further apart than conventional light curtains and is intended to detect the body versus fingers; accordingly, the devices are less expensive. The devices are configured as a light curtain transmitter/receiver pair, a set of cables, safety relay/controller, and power supply.

PRI also offers Shadow light curtains for power press point of operation guarding applications where greater object sensitivity is required. They are also suitable for other machine guarding applications where finger protection is required. Shadow light curtains area available in sizes from 12" to 60" and can be interfaced with Wintriss clutch brake controls or any OSHA/ANSI compliant clutch brake control.

PRI can provide onsite surveys for compliance with OSHA or ANSI power press standards and/or risk assessments and guarding recommendations for other types of machinery.

- 2, 3, or 4 Beam Models
- Operating Distance Up To 25m (82.02 feet)
- 31mm x 32mm (1.22" x 1.25") Compact Profile
- Auto / Manual / Reset Select
- Optical Synchronizing

Is It Time To Consider Upgrading Your Press Clutch/Brake And Automation Controls?

Press Safety is paramount. Operators, helpers, and passersby need to be protected from point of operation and any other press related hazards. This can be done without adversely affecting productivity.

Press safety controls and associated automation controls have undergone significant technological advance is recent years. Some older controls may not comply with current OSHA and ANSI standards and it's unlikely they provide automation features that could provide you significant competitive advantage.

Are your clutch brake controls safe and do they comply with OSHA 1910.217 and ANSI B11.1-2009 standards? Older relay based systems often have had lots of undocumented wiring changes that may or may not compromise safety but certainly complicate maintenance and troubleshooting. A sure sign of this problem is a control cabinet full of wire nut connections. Check to see that you have current up to date schematics.

Perhaps you've purchased or are considering the purchase of a used machine. If so, you'll want to consider the press control and safeguarding required and the associated costs. See our website technical resources: http://www.production-resources.com/pdfs/Controls_for_Used_Presses.pdf.

Brake Monitoring: Older press control systems may use top stop overrun brake monitors. While these are technically compliant with current OSHA standards, they do not comply with the latest ANSI standards nor can they determine stop time/safety distance.

Control Reliability: Older systems may not incorporate redundancy and self-checking to eliminate the potential for single point failure modes. These systems pose a safety hazard; especially, for hands in die operations.

Self-Diagnostics: Newer control designs feature self-diagnostics not present on older systems.

Press automation: Features are often integrated with newer clutch/brake control designs but are readily available as an add ons to existing controls. Common productivity features include:
- Programmable limit switches and "global cams"
- Die protection and in die measurement – on the fly quality control
- Servo Feed Interface
- Tonnage monitoring and load envelope signature monitoring

(Continued in next column)

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Visit our website:
www.production-resources.com

Dorner High Capacity 2200 Series Low Profile Conveyor

This engineered special model increases weight carrying capacity to a 200-pound maximum load. The 2200 Series is able to move these heavy load while maintaining a 1.4" diameter pulley for optimal part transfer and machine interface. This compact design allows the conveyor to fit into tight spaces where other conveyors simply can't.

What gives the 2200 Series the added weight capacity is its engineered cogged belt with teeth that engage and grip the two sprocket pulleys on each end of the conveyor. The action of the teeth on the back of the belt engaging the sprocket pulleys prevent slippage, which means the conveyor can carry a much heavier load. These engineered features increased the carrying capacity to more than 65 %. In addition, the conveyor can handle this weight capacity while pushing or pulling the load.

Features of the 2200 High Capacity Series include:
- 12-tooth T10 profile
- Positive drive no-slip belting
- Compatible with Dorner standard drive conveyors
- Loads up to 200 pounds
- Belt speeds up to 370 feet-per-minute
- Belt widths between 1.75' to 24'
- Conveyor lengths between 1.5' to 30'

Call us for immediate quotes on standard Dorner conveyor or parts at 800-863-3164.

- Electronic stroke, parts, and batch counting/control—it's likely more useful than you think. See our application note: Wintriss SmartPAC2 Application Note: Getting the Most Out of the SmartPAC2 Counters System.
- Shut height and Counterbalance
- Data Collection, communication, and remote viewing/monitoring
- Preventive Maintenance
- Payback $$$—Wintriss safety and automation controls fully pay for themselves in a few months. Take a look at a sample payback example: http://www.production-resources.com/pdfs/Control-System-Cost-Analysis.pdf

Want to learn more about press automation and safety controls? Application Note: http://www.production-resources.com/pdfs/Time_to_Consider_Upgrading_Your_Press_Controls.pdf

FYI

Additional technical information is available at no charge on our website: www.production-resources.com. Just click on "Technical Resources."

PRI has Application Engineers available to help you at your facility. We can be reached at:

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