

Paper Industry CASE Study

Flash-Fold™ Barrier Door Protects Employees From Potential Hazard at Laminations Facility



The Flash-Fold Barrier Door from Frommelt Safety Products remains closed when the paper slitter is in operation to prevent access to the machine. The remaining perimeter of the machine is guarded by the fixed Robo-Guard fencing to prevent unauthorized access.

Great Northern Corporation's Laminations Division located in Appleton, Wisconsin manufactures VBoard™ edge protectors that are used in the packaging industry. In early 2004, the Lamination facility faced a major safety issue when they learned that their employees could bypass the safety device around a paper slitter. The company had installed a photo-eye/light guard in front of the slitter that was designed to stop the machine when the beam of light was broken. However, employees easily bypassed the photoeye by reaching around the light sensor.

When the plant's Safety Committee learned of this potential hazard, they quickly began researching safer alternatives. They used the Internet and spoke with neighboring facilities to learn how others were protecting their employees from similar hazards. Laminations also faced the OSHA requirement that the photoeye light beams be placed twenty-five feet away from the machine. Because the slitter takes five seconds to come to an emergency stop, ample reaction time was required to stop the machine before an employee

reached the slitter. However, maintaining 25 feet of clear space in front of the slitter was neither practical nor efficient.

After an extensive research process, the Safety Committee realized that Laminations would need a solid barrier, rather than a light beam to make the machine entirely safe. They contacted Frommelt Safety Products, a division of Rite-Hite Corporation, to discuss their safety solutions. Frommelt quickly assessed the situation, and recommended the Flash-Fold™ Automated Barrier Door.

The Flash-Fold barrier was the ideal solution. The barrier moves into position from the ground up, accommodating the overhead crane loading of paper spools into the machine. The Flash-Fold door opens quickly and brings the paper slitter to a slow jog when it is open. This allows the operator to make necessary adjustments to the spool of paper without jeopardizing their safety. The safety barrier remains in place while the slitter is in operation to prevent unsafe access to the operating machine, yet is automated to open and allow proper loading, unloading

and adjustments. In an effort to further accommodate Laminations, Frommelt Safety also supplied a customized pit-mounted installation that ultimately provides easier access to the paper slitter. The Flash-Fold's low profile design is mounted directly in front of the paper slitter, and also saves the valuable 25 feet of floor space in front of the machine that would be lost with the use of photoeyes.

As an added safety measure, Laminations also installed Frommelt Safety Products' Robo-Guard™ Fencing around the exposed perimeter of the paper slitter. The Robo-Guard is a fixed fencing solution to prevent access to the paper slitter through the areas not protected by the Flash-Fold. The combination of the Flash-Fold and the Robo-Guard provide complete protection around the entire machine perimeter, helping the paper slitter run both safely and efficiently.



The paper slitter is powered down to a slow jog before the Flash-Fold opens for improved safety. The low profile Flash-Fold is mounted into the floor to allow unobstructed access to the paper slitter for easy loading and unloading.

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