

The Customer

The company is a leader in the development of high performance, low cost, flexible packaging. They use rotogravure and flexographic printing presses to apply solvent borne inks to a variety of web materials including plastic, paper and foil. Their products include packaging for the food, beverage, pharmaceutical, personal products and agriculture industries.

The Process

The substrate is fed into the printing press from a roll. The image is printed as the substrate is pulled through a series of printing stations where different ink colors are applied. The inks are solvent based and consist of mixtures of Ethyl Alcohol, Ethyl Acetate, n-Propyl Acetate and Propyl Alcohol. These mixtures vary from color to color and job to job. After the ink has been applied the substrate runs through a dryer to evaporate the solvent off. This drying process occurs at every printing station. The presses also have inline adhesive lamination capabilities.

The Problem

The company was installing two new flexographic presses. They typically operate below 25%, but wanted to purchase LFL equipment for both safety and ventilation control in order to save energy; rather than using fixed ventilation air, which is costly.

The Solution

The customer was interested in using infrared technology for its LFL monitoring. They chose the AcuPro Infrared Process Analyzer over a competitor's IR sensor because of its unique multiple-wavelength design. This design reduces the variation in reading different solvent types. Multiple infrared detectors at select wavelengths help convert concentration data into %LFL flammability readings with greater accuracy. The customer's solvent list was within the capabilities of the AcuPro. In addition, if the company expands its process blends, the additional solvents would be in the range of the AcuPro calibration and no additional adjustments would be required. The process is clean, low temperature and operates at or below 25% LFL, hence meeting all the requirements for AcuPro selection.

Analyzer Placement

The press catwalk did not offer easy access to the analyzers if they were directly mounted on the individual exhaust ducts. The customer mounted them near the catwalk and sample probes were directed to the exhaust ducts.



SIC Codes

- 3089: Plastics Products

NAICS

- 326199: All other plastics product manufacturing

