

PrevEx vs. IR in Flexible Packaging Printing

The Customer

The Company manufactures an extensive product line of flexible packaging materials including polymer films, barrier laminates and paper-bag packaging used by the food industry to package an assortment of edibles. In addition to the food industry, they sell to the medical, pharmaceutical, chemical, printing and personal care markets. Their offices and manufacturing plants are located worldwide.

The Process

Flexographic and rotogravure printing presses are used to apply solvent based inks in different colors and patterns to paper, plastic, film and foil substrates. Dryers are employed to evaporate off the solvents. The solvent flammability concentrations in the dryers are typically at 35-40%LFL.



This facility, which was purchased from a competitor, had PrevEx Flammability analyzers installed on the lines to monitor the %LFL. Plant management was very satisfied with the analyzer's performance.

The Challenge

The Company was expanding this site. New lines equipped with new presses and laminators were being added. The Corporate directive was to consider using IR Technology rather than Flame Temperature for the solvent vapor monitoring system.

The Solution

After a thorough investigation and education of the technologies and with the support of the existing plant team members, Corporate chose to equip the lines with Control Instruments' PrevEx Flammability Analyzers.

Theses analyzers offered a number of advantages:

- the unique ability to accurately measure most common process solvent vapors, including mixtures to within a few percent of the LFL without the need for recalibration—this was of great importance because of the relatively high normal concentrations of 35-40% LFL
- extremely short response times
- rugged, industrial design and corresponding long life and return on investment
- heated sample train up to 250°C which effectively prevents condensation of high dew point vapors
- low maintenance and easy servicing featuring a "Service Needed" message and relay contact that anticipates the need for maintenance before faults occur
- failsafe operation
- approvals