

# Chemical Manufacturer Reduces Process Shutdowns and Eliminates Product Waste with DP Level Technology

## RESULTS

- Increased throughput by limiting process shutdowns
- Eliminated product waste
- Reduced operations cost



## APPLICATION

Latex tray level monitoring

## APPLICATION CHARACTERISTICS

Tight level range (6- 8-in. normal, 12-in. maximum)  
Small physical space, difficult to mount a device

## CUSTOMER

Chemical manufacturer in the US

## CHALLENGE

This chemical manufacturer produces PVF (polyvinyl fluoride) films being used on a broad set of products and services. Film color can be customized by means of a coating process which involves passing the film through a tray containing colored latex. Accurate and sensitive latex level monitoring is critical to product quality and throughput.

The tray has no continuous level measurement device, thus requiring constant operator attention to maintain proper latex level. Because latex is viscous and can dry and solidify, any proposed level device needed be directly mounted to the tray to minimize product coating and hardening on the measurement device. Yet, there was minimal space available to mount any type of direct level measuring device and there was no headroom around the coating machine.

Leaving the latex level unmonitored resulted in the inaccurate and improper coating of the film. Improper coating resulted in frequent process shutdowns to re-establish latex level, remove improperly coated film, and install a new roll of film. Additionally, the improperly coated product is scrapped since it cannot be reworked. The frequent production downtime limited product throughput, increased operating costs, and caused an excess of raw material usage.

*An estimated 35,000 dollars is saved annually from combined elimination of product waste and reduction of production downtime.*



Rosemount 3051L

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### SOLUTION

A Rosemount 3051L Flanged-Mounted Liquid Level transmitter provided an accurate and sensitive level measurement, which resolved the need for constant operator attention previously required to maintain proper latex level. Due to the compact size of the 3051L, it was direct mounted to the tray within the small available space. The 3-in. FFW diaphragm seal provided the necessary sensitivity to measure the tight level range and allowed easy process connection clean up if ever the product hardened.

The 3051L Flanged-Mounted Liquid Level transmitter continuously monitors the process and alarms the operator when latex needs to be added to the tray resulting in proper coating and good quality product. Since latex is now added before the level drops too low, process shutdowns are avoided. An estimated 35,000 dollars is saved annually from the reduction of product waste, increased throughput by limiting process shutdowns, and reduced operations costs.

### RESOURCES

#### Emerson Process Management Chemical Industry

<http://www.emersonprocess.com/solutions/chemical/>

#### Rosemount 3051L Liquid Level

<http://www2.emersonprocess.com/siteadmincenter/PM%20Rosemount%20Documents/00813-0100-4001.pdf>

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