

Thermo Scientific 21Plus! Provides American Packaging Corporation with Greater Product Insight and Improved Quality

"We are now able to make products that previously we were unable to make. We have improved our quality and production efficiency. Better still, we have been rewarded with greater customer satisfaction."

Andy Beckman, American Packaging, Rochester, New York



American Packaging, Rochester, NY



In the Control Room



**Thermo Scientific MARK III
Scanner on the extrusion line**

American Packaging Corporation

For more than 100 years American Packaging Corporation has serviced a broad range of markets, producing award-winning packaging for some of the world's best companies. American Packaging is the 10th largest flexible packaging converter in the top 100 U.S. converters.

The Rochester, New York, facility specializes in complex extrusion and adhesive laminations that include more than 125 combinations of raw materials and resins. The plant offers the latest technology in complex barrier laminations of films, foils, papers and resins.

The tandem extrusion laminators can produce up to five layer laminations with the unique capability to adhesive laminate one of the layers in one pass. Additional capabilities include extrusion applied hot melts, non-foil barrier coatings with in-line adhesive lamination, die cutting of roll-fed lidding, along with wide web flexographic printing up to six colors.

Web Gauging Benefits and Results

The benefits achieved with the systems have been:

- Accurate, timely quality information.
- Tightened the quality variation from the extrusion line with high-resolution sensors, fast scanning and narrow data-box profiles.
- Improved quality by more than 30% in terms of product variation.
- Increased start-up times by 20%.
- Increased product changes by 20%.
- Estimated payback period was less than one and a half years.

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A Focus on Quality

The driving force behind American Packaging's web gauging project was to improve quality and was driven by their plans to make more demanding products. While their existing legacy gauging system was just ten years old, it was unable to pinpoint their quality problems. Quality problems often went undetected. The existing system did not present profile streaks very well, due to the large spot size of the sensors and the wide data box measurement zones. Additionally, the system's slow scan speed meant that machine direction disturbances were not measured properly and restricted the control effectiveness. Quality variations were simply being 'integrated out' of the picture.

American Packaging decided that it was time to evaluate their options. Their experience enabled them to clearly define their requirements for a new web gauging system. They wanted to see greater product quality detail along with tighter control, and were looking for advanced machine direction and profile controls.

A System Designed to Deliver Quality

The extrusion coating line at American Packaging's Rochester, New York, facility is capable of manufacturing a wide range of products. Therefore, a measurement and control gauging system was configured to specifically address this application. The Thermo Scientific 21Plus! system installed on this line comprises three scanners to measure basis weight at the cast end of the line, as well as prior to and following the coat station, including optimization controls and operator stations.

Basis weight variation was reduced considerably by positioning a scanner at the cast end of the process due to shorter process delay times. Profiles from this part of the process are used to supervise the extruders' auto-die actuators with the Thermo Scientific Advanced Profile Control (APC) optimizer. Again, control is faster and tighter with substantial quality improvements. According to Andy Beckman, the operator interface displays were quickly accepted by the crews and generated greater process knowledge and improved operations.

A Reliable System with Low Cost of Maintenance

The Rochester facility has had good experience with their 21Plus! since installing their system. The commissioning went very smoothly resulting in a fast turnover to the plant. They have been impressed with the experience and knowledge delivered by Thermo Fisher Scientific's service staff. The system has been robust and reliable, without a single call for service in the past year.

**Visit our website at www.thermo.com/webgauging
or contact your local Thermo Fisher account manager.**

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