Case Study:

Gauging Solution for Roofing Materials Manufacturer

Non-Nuclear Gauging Solution Needed to Replace Costly Nuclear System.

Objective

- Replace the existing gauging system with a non-nuclear solution for a manufacturer of roofing materials.

Solutions

- Provided the customer with a non-nuclear scanning system that uses a Terahertz scanner.

Results/Benefits

- All sources of harmful, ionizing radiation were removed, creating a safer work environment for all personnel.
- The new solution is 9 times faster than their previous system, and provides a higher resolution of samples for better process control and thinning of costly materials.
- The customer can now produce superior products for their customers.
- The new, non-nuclear gauging system is less complicated and expensive to maintain as it does not require any specialized licensing or safety personnel to be present.
- Quad Plus added another loyal customer to our roster with excellent service and communication at all points during the project.

Background

A roofing materials manufacturing customer needed a non-nuclear gauging solution to replace two gamma backscatter scanners. The customer's current system was costly to maintain because of special licensing specifications along with the requirement for a Radiation Safety Officer (RSO) to be present. Gamma backscatter systems are also slow to scan and relatively inaccurate, especially when compared to newer technologies. The customer was using a different supplier, but was not happy with the service and turned to Quad Plus for a better solution.

Quad Plus Solution

The Quad Plus Gauging team provided the customer with a non-nuclear scanning system. The Terahertz sensor in their new system does not produce any harmful ionizing radiation. That means that employees can safely use the system with no special licensing requirements or additional personnel present.

The new solution is also scanning nine times quicker than the gamma backscatter scanner we replaced and provides measurement updates at a rate of 1000 per second. The customer will enjoy a faster scanning system and a higher resolution of samples allowing for tighter process control, thinning of costly layers of product, and a superior product to provide to their customers.

We also successfully removed all sources of harmful ionizing radiation. This means a safer work environment for all employees as well as reduced expenses related to maintenance and training. The final result is less equipment to maintain, fewer complications with licensure and specially-qualified personnel, and a faster, more accurate gauging system.

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