

Case Study: Gauge Frame Retrofit



Quad Plus®



TPO Roofing manufacturer needed an upgrade for its existing gauge system.

Objective

- Upgrade existing gauge system to implement new technology while keeping costs minimized.

Solutions

- Retrofitted existing frame with new sensor and control software.
- Replaced APC control panel.
- Reinstalled cooling blower.
- Rebuilt die with new wiring and bolt heaters.

Results/Benefits

- Retrofitting the new system saved the customer the expense of a complete replacement.
- The new gauging system is faster, more reliable, more accurate, and repeatable.
- The customer now has multiple layer thickness feedback and delamination detection and reporting that was not present in the old system.
- Repairing and recommissioning the automatic die control made the system faster to come into spec and reduced demand on the machine operator.
- The customer was finally able to benefit from an APC system that was present for 15 years, but had never worked correctly.

Background

The Quad Plus gauging team was called for a TPO Roofing manufacturer who was looking to upgrade their current gauge system to detect delamination between plies of product while keeping an eye on the cost of the improvement. Their current system was not only inaccurate, but also scanning very slowly. The customer also complained that their automatic profile control (APC) never worked correctly and was removed years ago.

Quad Plus Solution

Our first step was to inspect the existing gauge frame to see if a retrofit would be possible in order to save the customer the cost of a complete replacement. Our team was able to upgrade their current system and retrofit into the existing frame. Next, we replaced the APC control panel. To complete the job, we also reinstalled a cooling blower and rebuilt the die with new wiring and bolt heaters.

The customer had their initial problem solved with the new gauging system that was reliable, faster, more accurate, and more repeatable than their existing system. The new configuration also provided multiple-layer thickness feedback and delamination detection and reporting that was missing from the previous system. Plus, we were able to offer additional benefits by repairing and commissioning their automatic profile control. This made the system faster to come into specifications and took the responsibility off the machine operator.