



Case Study

Thyssenkrupp Bilstein

Binks System Solutions Bring Performance and Efficiency to the Bilstein Products Paint Line



CHALLENGE

Thyssenkrupp Bilstein of America, Inc. paints high-end ride control products at their Hamilton, Ohio facility. When it became necessary to replace an existing competitor's product due to insufficient performance, Jason Meredith, an advanced coatings engineer at the company, relied on his previous experience with Binks solutions. His coating line needed to handle low flow rates for a waterborne coating applied electrostatically with three component metering, and the application needed precision flow control down to 4ccs of water-based material.

SOLUTION

Keeping in mind the tight tolerances the system needed, Meredith worked with the company's local distributor, Billy Meyer, systems sales engineer at American Industrial (an OTC Industrial Technologies company), to assist in finding a solution. Lab trials were set up at the Toledo lab facility to demo the IntelliFlow RF2 meter and mixing solution. Meredith liked the touchscreen

control panel that makes operating the machine simple and allows flexibility for adjustments, and collects, records and downloads process data in real-time. Another feature of the IntelliFlow unit is constantly flowing resin, catalyst and water, instead of dosing a little at a time, all while being monitored on the control screen.

The IntelliFlow offers many benefits but a surprising one was that color change times were cut in half. Prior to integrating the new system, Meredith says "it was necessary to flush all three channels of the system, which would take 20 minutes. The IntelliFlow unit flushes only the resin channel so effectively, it saves time and money, while increasing uptime. Meredith says they were able to reduce color change time to 9 minutes or so".

Thyssenkrupp Bilstein had struggles and set out to identify areas to reduce costs and material waste while increasing production on their paint line. A system upgrade with the Binks IntelliFlow RF2 delivered remarkable results.



Thyssenkrupp Bilstein collaborated with the local distributor, American Industrial, part of OTC Industrial Technologies, to find a solution.

"Anybody can sell equipment. People make the difference. The level of customer service we've received from American Industrial over the years is great, and the support from Binks has also been great. It's nice to know support is just a phone call away."

Jason Meredith,
Thyssenkrupp Bilstein

Bilstein's paint process has become so efficient that other Thyssenkrupp Bilstein facilities are looking at the Hamilton plant's results to guide their own cost savings and material consumption reduction efforts.

RESULT

A significant driver for installing the IntelliFlow meter and mix system was Bilstein's conveyor system upgrade to a shorter omega loop that allowed the parts to get closer to the applicator, increasing efficiency and lowering flow rates below the previous systems capabilities. The success of the IntelliFlow mix and meter system allowed for a transition from 3/8" ID tubing to 1/4 ID tubing, resulting in substantial material waste savings. End result from this one upgrade: High quality output, less waste, and more production.

SYSTEM PRODUCTS USED:

- IntelliFlow RF2 Electronic Proportioner
- Aerobell 168 Rotary Atomizer
- TurboDisk Rotary Atomizer

"Process control is key – that's why the IntelliFlow is so important. The unit's repeatability, true-ratio control, operator interface and data collection capabilities are unmatched. The unit has allowed a true reduction in flow rates which provides real-time cost savings," explains Meyer.



BENEFIT

Thanks to the investment in new Binks solutions and applications changes, Bilstein is achieving 99.8% first time quality off the paint line, according to Meredith. Additionally, color change time has been reduced from 20 minutes to below 10 minutes. That could be an extra 30 minutes or more of production per shift.

After installing the new Binks system, featuring the IntelliFlow,

Binks

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