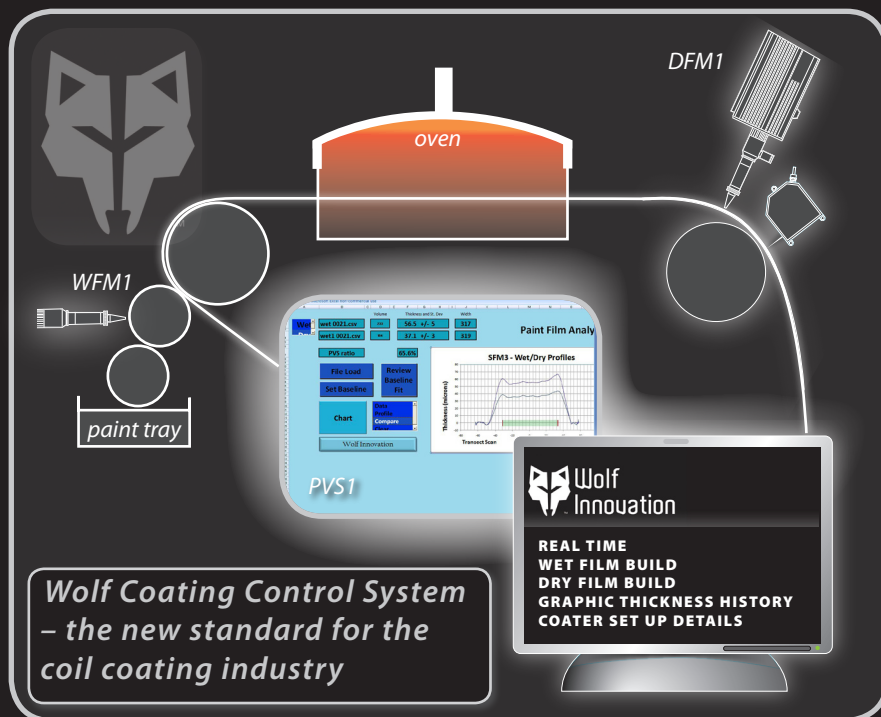


Wolf Innovation Coating Control System **CCS1**

Complete control and monitoring of your coating operation at every stage of the coating process

The Wolf Coating Control System has been developed for the coil coating industry. It comprises three components that work together to provide total coating thickness control. The system is available as a manual measurement and diagnostic system or as an automated system that dynamically controls coating thickness.

tolerances. A base CCS system provides coater setup before painting via WFM1 and ongoing monitoring of actual thickness via DFM1. The off line paint volume solids instrument PVS1 provides actual paint volume solids data needed by WFM1 to accurately predict dry film thickness.



Principle of Operation

A central industrial PC runs the WFM1 and DFM1 components, providing a holistic system overview for monitoring and controlling the coating process. At the start of production, the roll coater is adjusted to apply a known wet film build. This is measured with an intrinsically safe non-contact sensor located above the applicator roll, using the roll surface prior to paint application to determine a reference value. The system can optionally be used to monitor wet film thickness throughout production to supplement data from DFM1.

Dry and wet film thickness algorithms utilize inputs of coating mode, line speed, and applicator roll speed for final dry film thickness prediction prior to application of the coater head. The system needs the paint volume

solids value, which can be measured with the PVS1 instrument. When paint application commences, DFM1 will provide immediate confirmation of actual film builds and provides early warning of any drift in coating thickness. The coating thickness can be controlled to within the designated quality parameters automatically by adjustment of the paint temperature, pick up or applicator roll speed, or roll to roll displacement.

The three components of the CCS1 work together to monitor and optionally control the coating process:

- WFM1 - dynamic wet film sub-system located in the coater room,
- PVS1 - paint volume solids instrument, and
- DFM1 - dynamic dry film sub-system located after the topcoat cure oven.

CCS systems are individually tailored to meet the requirements of each specific coil coating line or other industrial application. Components of the system utilize non contact measurement methods to sub micrometer