DJH DESIGNS INC

WFM1™
ONLINE WET FILM THICKNESS MEASUREMENT

DJH Designs WFM1™ brings a whole new capability to paint line coater setup, providing accurate Wet Film Thickness (WFT) on the coater roll and the strip, and predicted Dry Film Thickness (DFT) on the strip before painting commences.

At the press of a button WFM1™ measures wet film thickness on the coating roll. A sophisticated coating model predicts both the wet and dry film thickness on the strip. An accurate value for paint volume solids, provided by the DJH PVS1™ instrument is needed to accurately predict DTF.

- Eliminate out-of-specification product from the first metre of each coil
- Avoid wet film wheel track marks at the start of each coil
- Checks film builds as low as 1µm with ease
- Automated operation

Measurement of wet film thickness on the coater before painting commences requires advanced coating model algorithms that account for several factors. WFM1™ measurements account for:

- Paint transfer efficiency between the coater roll and the strip – leakage is paint that does not end up on the strip
- Compensation for coating roll and coater roll bearing electricity
- Compensation for the ribbing (roping) of the paint that occurs on the coater roll especially before coating commences
- Compensation for the difference in wet paint thickness between ‘before’ and ‘during’ painting

WFM™ is not suitable if heavy ribbing on the coater roll becomes evident on the strip.

SIMPLE PRINCIPLE OF OPERATION

WFM1™ uses an intrinsically safe confocal sensor to measure the position of the wet paint surface on the coater roll and then again the position of the surface of the coater roll at the same location. A pair of narrow, soft, and fully automated wipers on either side of the sensor is used to wipe paint off the roll to expose the position of the roll's surface. As the instrument measures the actual position of the surfaces, there is no need for calibration. DJH Designs has patented the use of the measurement sensors above the rolls in a paint line coater. WFM1™ is the only system to measure WFT before painting commences to ensure your product is in specification from the first metre of strip.

SPECIFICATIONS

Power Supply: 240V 50Hz AC or 110V 50/60 Hz AC, 10 Amps.
Confocal Sensor: 4 Watts white light source - CE accredited
Film Thickness Range: From 1.5µm and up

Software is licensed to the end user.
A software maintenance plan provides regular updates.
Internet is required.

Specifications subject to change without notice.

Technical Enquiries: All technical enquiries should be sent to sales@djh.com.

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