



AW-LAKE
PROCESS FLOW MEASUREMENT



APPLICATION SPOTLIGHT

Auto Assembly – Underbody Coating (UBC)



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APPLICATION DESCRIPTION:

This new, state of the art UBC system, utilizes specially designed carriages that rotate the car body upside down so that robotically controlled guns can easily apply a urethane coating. This thick, non over-paintable bitumen coating is intended for rust and stone chip protection of the car underbody. Flow meters combined with the control PLC's are utilized to measure and compare applied material as part of an error proofing strategy.

TRICOR PRODUCT SUPPLIED:

TCM-3000 Coriolis Flow Meter

CHALLENGE:

The challenge in this process was coming up with a metering technology that had the precision of the existing helical meters but wouldn't be susceptible to the abrasive nature of the UBC material.

SOLUTION:

With no internal moving parts to wear out, the obvious choice was to replace the helical meters with comparably sized TRICOR Coriolis flow meters. The TCM-3000 TRICOR Coriolis flow meter with adapter fittings in place was almost identical in length to the replaced meter which made for a very easy installation process. Another great feature of the TCM meter is the ability to scale the frequency output to any flow within its range. With minor programming, this allowed the meter to output the exact frequency as the old meter, resulting in a seamless integration.

RESULTS:

With this small, but important improvement to their monitoring system, this OEM was able to virtually eliminate meter downtime and maintenance costs from their error proofing process.