

Paint Circulation Systems— Testing Various Materials



CUSTOMER

Automotive Parts Manufacturer
Brighton, Michigan

APPLICATION

This customer needed a flow measurement system to install within a facility's paint circulation system for testing all facets of the system. This system is used to test everything from various paint manufacturers' materials (water based, solvent based, high solids, etc) to testing various pumps, regulators, accumulators, flow meters and valves. The lab testing results can determine how these various paint materials will react within the circulation pipe loop including pressure drop, material shear, viscosity, temperature and many other data points.

CHALLENGE

The challenge was to come up with a meter that would handle all the various materials that would be loaded and tested within this system. The meter had to handle low to high flow rates, flush clean quickly, minimize pressure drop and yet be very accurate.

SOLUTION

The solution was quite easy as we weighed the different solutions available. We evaluated the different PD meters but ruled them out due to size/pressure drop considerations, wear of moving parts with certain paints (high solids), noise at higher flow rates and meter reporting information. The TRICOR Coriolis Flow Meter was selected for accuracy, ease of set-up and cleaning/flushing, low pressure drop and because it can report flow, total, material density and temperature. Virtually any material could be run through this meter that could be run through the circulation system.



Tricor products supplied:

- *TCM-28K Coriolis Flow Meter with Local Transmitter*

RESULTS

The results are actually a production improvement in which one meter can easily handle the many different materials that would be run through the test circulation loop. The TRICOR Coriolis Flow Meter is the ideal flow measurement solution for plant paint circulation systems, as it is able to report accurate readings regardless of the material being circulated and sprayed at the various manufacturing plants.

