



AW-LAKE
PROCESS FLOW MEASUREMENT



APPLICATION SPOTLIGHT

High Accuracy Flow Metering for Pump Skid



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APPLICATION:

A metering pump manufacturer provided a metering pump skid to CNOOC (Chinese National Offshore Corporation) for use on its offshore platforms. The skid used MEG (monoethylene glycol) as a medium with a measurement range between 5 and 50 m³/h and an actual maximum flow of 30 m³/h. The skid utilizes flow meters as part of its instrumentation.

SOLUTION:

An AW-Lake HM Turbine Flow Meter with a body construction of 316SSTi alloy and RT-30EX Flow Rate Transmitter with CSA certification met IP67 ratings for protection against dust and water immersion up to 1 meter for 30 minutes. The transmitter is ideal for any industry or flow measurement application requiring an explosion-proof local rate & total display.

PRODUCT SUPPLIED:

- HM 5/15 High Pressure Turbine Flow Meter
- RT-30EX Flow Rate Transmitter

TECHNICAL ADVANTAGES:

Tests by CNOOC Measurement and Testing Center showed full compliance of the AW-Lake RT-30EX Flow Rate Transmitter. Specific measurement results are outlined below:

CHALLENGES:

For this pump skid associated with an offshore platform reform project, CNOOC required stringent metering with 0.5% accuracy and 0.1% repeatability. Typical accuracy of normal metering pumps could not meet these technical requirements. As flow meters installed on offshore platforms exposed them directly to air, CNOOC defined higher requirements for measurement stability and protection degree.

- Test measurement medium: water
- Test measurement range: 6 to 35 m³/h
- Test maximum error: -0.44%
- Test repeatability: 0.0883%