

APPLICATION NOTE

Dow Corning

MINISONIC CLAMP ON ULTRASONIC FLOWMETERS - FROM ULTRAFLUX

BACKGROUND:

DOW CORNING manufacture many of the silicon based products on the market and provide specialist products such as Molycote.

THE PROBLEM:

DOW CORNING were looking for a solution to a metering problem to enable greater process and quality control over one of their processing plants. The product had problems where it would 'gel up' in the lines, the plant therefore needed constant cleaning and maintenance. This causes problems with many standard types of instrumentation, dp for example would need the impulse lines cleaning, vortex would require the shedder bar and sensor to be cleaned and turbines would just stop altogether. Coriolis meters had been ruled out due to cost (the special tube material required is not suitable in the straight thru design due to SCC) and the requirement for cleaning as it requires a straight through cleaning with a water jet. The plant also required some exotic materials to be used and most of the pipe work is PTFE lined. The area is also classed ATEX Zone 1, so EEx d was required.

FLOWLINE'S METERING SOLUTION:

Flowline's' solution was to offer a clamp on meter. These can be used with many types of pipe material and pipe liners and as the sensors can be left in place whilst the cleaning operation is in progress there is a reduced amount of down time on the plant. The measurement section is also just part of the process pipework, so special materials are not required.

The MINISONIC 600 was offered as a completely non intrusive system, offering the measurement where other systems would have failed over time. The measurement system was rated ATEX ZONE 1 EEx D.

The MINISONIC range of flowmeters were also selected for their range ability and ease of installation. Where pipework has been installed, clamp-on meters can be selected for their retrofit capability. Flows are not interrupted or by-passed and the installation can be easily checked by the in-built diagnostics. Temperatures from -50 C to 180 C are a standard on some sensors and pipe sizes of 10-3300 mm are offered through firmware and sensor options. 2 channel and 2 chord versions are available. The 'ESC' autofocus function increases the performance of the meter in extreme conditions.

flowline
SPECIALISTS IN FLOW MEASUREMENT

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Further Information



For Further information on the MINISONIC range of Clamp on Ultrasonic Flowmeters contact Flowline on 020 8207 6565
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EQUIPMENT DESCRIPTION:

EQUIPMENT SPECIFICATION:

MINISONIC 600 pipe i. d. up to 600mm,
MINISONIC 2000 pipe i. d. up to 3300 mm.
Single / Dual Channel / Chord Options.
Probe Types, Clamp On and Wetted.
Outputs, 2x 4-20mA, 2 relays for alarm, flow direction, flow threshold, totaliser, fault, RS232 and 485, JBUS-MODBUS Protocol.
Power Supply 10-30 VDC, 9-18 VAC,
Consumption < 5W Typical
Accuracy +/- 1% of reading, repeatability +/- 0.05%
Now available with ESC (Echo Shape Control), and the new high technology probes for difficult applications.
These meters now have an integral keypad, display and an incredible autofocus/noise rejection capability. Full user lists and references are available.