



MCERTS APPROVED FLOW METER FOR STACK FLOW DISCHARGE

BACKGROUND

Our customer had recently won a project to upgrade the boiler house discharge stack at a large hospital in the Southeast of England. Part of the requirement was to monitor the flue gas flow rate to meet with Environment Agency permitted consent levels.



CHALLENGE

We conducted a comprehensive survey of the site and provided recommendations regarding the appropriate type of flowmeter, as well as the optimal installation height within the stack, taking into account factors such as stack diameter and flow rate. Additionally, we suggested the installation of a permanent access platform to facilitate the Environment Agency's comparative checks and ensure easy access to the differential pressure transmitter for calibration purposes.

Despite the flow rate being quite low, which resulted in a limited differential pressure range, our extensive experience with similar applications instilled confidence that the recommended flowmeter would effectively meet the project's requirements.



SOLUTION

We submitted a quotation for the SKI GmbH AccuFlo QAL: Stack Flow Meter, which comprises a SKI pitot tube, a Siemens P320 differential pressure transmitter, a three-valve manifold, and the SKI AccuMind flow computer. Additionally, we provided a comprehensive commissioning service, with installation performed by a third-party contractor.

Monitoring emissions of exhaust gases requires a flow measurement system that is either QAL1- or MCERTS-certified. It was essential to have a robust measurement system tailored to the specific requirements of the application. The SKI integrated measurement system for flow temperature and pressure is particularly advantageous when only a single mounting flange is available.

This system was subsequently ordered, supplied, and successfully commissioned.





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RESULT

Following the provision of instrumentation, a site contractor successfully installed the pitot tube onto the pre-installed flanged socket. Our sister company, Process Instrument Services, subsequently integrated the Siemens P320 differential pressure transmitter, which included the installation of impulse piping, cable connections, and cable glanding.

The instrument was calibrated using our Beamex MC6 multi-function calibrator, along with a low-pressure hand pump and module. Additionally, the flow computer was connected to the site Building Management System (BMS) for data logging, which can be accessed from the flow computer. This data is stored securely, allowing for review without the capability to alter it.

EQUIPMENT SUPPLIED

SKI AccuFlo® QAL: Stack Flow Meter QAL1 and MCerts certified volume flow monitor for flue gas applications in exhaust stacks

Siemens P320 Differential Pressure Transmitter

Lisberg 3 valve manifold

SKI AccuMind Universal Flow Computer



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