# How clamp-on ultrasonic technology is delivering a simple, cost-effective hydrochloric gas flow measurement solution to chemical manufacturers

Inder the challenging operational conditions within chemical sites, the advantages of using innovative clamp-on ultrasonic flow metering and concentration measurement really come to the fore. Non-intrusive and maintenance free, this technology offers optimum process plant control of downstream production systems with no downtime.

# Flow measurement of hydrochloric gas on the DN150 supply to the integrated plant network

Producing methylene diphenyl-diisocyanate (MDI) as part of the polyurethane production chain, the plant of a major German chemical manufacturer is not only important in terms of the final product, but also supplies the site with pure gaseous hydrogen chloride. A vortex meter was used for quantity measurement and downstream valve control, however vibrations coming from the valve were interfering with the sensitive vortex measurement, resulting in erroneous readings.

## If nothing flows here, receiving plants cannot produce

That was the headache. Receiving plants plan their operation based on exact amounts of hydrochloric gas, and

the inaccurate vortex measurements made this impossible. Site operators urgently needed a reliable replacement with no downtime for removal of the defective measuring device.

#### Supply of hydrogen chloride to the site was ensured by simply retrofitting the measuring point with non-invasive clamp-on ultrasonic technology

Following a convincing flow metering demonstration by market leading ultrasonic clamp-on manufacturer FLEXIM, a permanent flowmeter was installed for non-invasive flow measurement of the hydrochloric gas. This meter has since been reliably recording the hydrogen chloride levels generated in the MDI plant and delivered to the site, ensuring the operation of the downstream production plant, and avoiding a plant shutdown.

#### **Find out more**

For a detailed application report of how these innovative non-invasive meters were successfully used at sites such as Dow, and to find out how you can reduce operational headaches like theirs.

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