Panametrics

Application note

Panametrics gas clamp-on flowmeters enable reduction of energy consumption at major European pharmaceutical plant

How Panametrics technology and local expertise delivered a compressed air measurement success story

Summary

A large European pharmaceutical plant required reliable compressed air flow measurement to support its manufacturing operations. The existing clamp-on meters from another manufacturer had been underperforming for more than two years and the customer was looking for alternatives.

Application

Medium:	Compressed air
Pipe size and thickness:	2" & 3" sch 10S (60.29 mm & 76.2 mm OD)
Pipe material:	Stainless Steel
Pressure:	97.2psi-a (~6.7 bar-a)
Flow rate:	11.8 – 58.9 SCFM (~20-100 Sm^3/h)
Temperature:	68°F (~20°C)
Requested accuracy:	±2% to 3% of reading

Benefits:

- Ease of installation
- Continuous live measurement
- No process shutdown required for continuous operation
- Strong local support
- Low total cost of ownership

Fig. 1: 2 x GC868 measuring compressed air

Challenges

The customer relied on clamp-on flow meters from a competitor to monitor compressed air consumption from different fabrication units, but the instruments failed to provide reliable measurements and were backed by inadequate support. Given that replacing them with inline meters would have required significant modifications and a lengthy wait for a plant shutdown, a non-intrusive alternative was needed.

The challenge was to restore confidence in clamp-on technology by delivering accurate, dependable measurements backed by strong local expertise and service.

Solution

The Panametrics local team worked with the customer to assess the application and recommend the best solution.

Thanks to the strong trust built through local support and technical expertise with many liquid clamp-on flowmeters already in operation, the customer placed the order without requesting a demonstration.

The system was installed and commissioned quickly, delivering the reliable measurements that had been missing for more than two years. The successful implementation restored confidence in clamp-on ultrasonic flow measurement and showed that the previous issues were related to the existing solution, not the technology itself.

For each of the two compressed air measurement points, the selected configuration included:

- 1 × Panametrics GC868 ultrasonic flow meter
- 1 pair of C-RS-402 transducers with its clamping fixture

The outcome was highly successful. By delivering accurate, dependable compressed air flow measurements, the GC868 resolved a long-standing measurement challenge and demonstrated the value of combining proven clamp-on ultrasonic technology with strong local technical support. As a result, the pharmaceutical plant has adopted the GC868 as its preferred solution for future compressed air flow measurement applications, supporting its energy consumption tracking and reduction objectives.

Fig. 2: Transducers with preamplifiers installed in one of the lines

Panametrics, solving measurement challenges where others fall short.

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