Panametrics
a Baker Hughes business

Application note

Panametrics technology optimizes global tire manufacturer's compressed air network

Benefits:

- No pressure drop
- No leaks
- Ease of maintenance
- Energy balance
- ISO 50001 measurement

Summary

A well-known global tire manufacturer wanted to find a way to optimize the amount of compressed air for its tire production site in Western Europe.

Compressed air, delivered at sufficient pressure, is a critical parameter for the operational efficiency of the plant. However, too much air or excessive pressure significantly decreases the overall energy efficiency of the plant.

The air is not only used to inflate tires, but also for pneumatic actuation of multiple devices across the plant.

The customer recognized that the accurate and reliable measurement of air production on the distribution line could reduce energy costs by around 20% and play a part in its decarbonization strategy as per the ISO 50001 Energy Management standard.

Application

Medium:	Compressed air
Pipe size and material:	DN25, 32, 40, 50, 65, 80, 100 (1" up to 4") in carbon steel and stainless steel
Flow rate:	Various
Temperature:	Ambient
Pressure:	5 to 8 bar (72 to 116 psi)
Requested accuracy:	±2% of reading

Challenges

Producing compressed air is a very energy intensive process. This is exacerbated when the air lines experience pressure drops or leaks, as valuable energy is lost.

Therefore, the customer required the compressed air flow measurement to be monitored accurately to ensure there was sufficient air supply for the plant's needs. The customer also favored a solution that avoided production line shutdown and was easy to install and maintain.

Reliability and stability were also critical factors to avoid air-network disruption.

Solution

Panametrics recommended its gas clamp-on meters, model GC868 coupled with CRS-402 transducers. The clamping fixtures came with different configurations to meet the specific application needs for the different line sizes.

A total of 15 compressed air measurement points were installed. The customer experienced no down-time during installation or maintenance.

The customer is benefiting from accurate and reliable measurements, optimizing its compressed air network and therefore reducing its energy usage and costs.

Panametrics, a Baker Hughes business, provides solutions in the toughest applications and environments for moisture, oxygen, liquid and gas flow measurement.

Experts in flare management, Panametrics technology also reduces flare emissions and optimizes performance.

With a reach that extends across the globe, Panametrics' critical measurement solutions and flare emissions management are enabling customers to drive efficiency and achieve carbon reduction targets across critical industries including: Oil & Gas; Energy; Healthcare; Water and Wastewater; Chemical Processing; Food & Beverage and many others.

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