



LEADING GAS PRODUCER DECREASES OPERATING AND CAPITAL COSTS WITH ROSEMOUNT CONDITIONING ORIFICE TECHNOLOGY

Customer

Leading gas producer in North America

Application

Gas flow allocation measurement in gas fields

Challenge

A leading gas producer operating over 2,000 wells in the western United States was looking for a gas flow meter that was less susceptible to errors from varying amounts of produced liquids (wet gas). High accuracy was needed for these wells for allocation measurements. The operator was using a traditional orifice plate which caused inaccuracies in the gas flow measurement, resulting in unreliable data and high field allocation factors.

The only other option that the producer was aware of was to place a separator at each well so that an accurate gas flow rate could be determined. This option would have made a large environmental impact and resulted in high capital costs.

To solve this problem of high capital costs and environmental sensitivity, a flow meter needs to be installed in the pipe before it reaches the header and be accurate with minimum straight run.

Results

- Decreased operating costs with reduced piping
- Reduced environmental impact
- Improved field allocation with industry leading wet gas measurement

This producer has standardized on the Rosemount Conditioning Orifice Plate, enabling them to better determine overall well performance and improved field measurement with reduced capital costs and environmental impact.

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Solution

Emerson proposed the Rosemount™ 1595 Conditioning Orifice Plate in place of the traditional orifice plate to accommodate a short meter run and handle produced liquids. This solution eliminated the separator and flowline lengths, decreasing capital costs while reducing environmental impact.

To handle the liquids, the Rosemount Conditioning Orifice Plate was positioned with one of the four holes on the bottom of the pipe, which allowed any free liquids to continue flowing and cause minimal damming effect. The Rosemount Conditioning Orifice Plate utilizes a four-hole design and advanced orifice technology to improve accuracy while reducing the requirements for upstream straight piping to two pipe diameters downstream of most disturbances.

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Rosemount 1595 Conditioning Orifice Plate

For more information, visit
[Emerson.com/dpflow](https://www.emerson.com/dpflow)

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