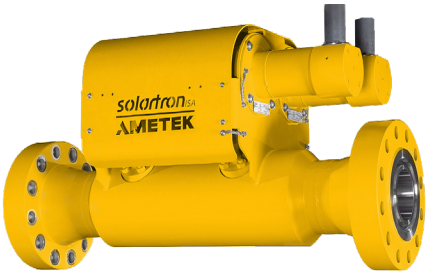
Seastream - SPFM Gas Injection Metering

APPLICATION

In the oil industry, “gas injection” is typically a secondary production technique used to increase reservoir pressure production in older formations. As reservoir pressures fall, hydrocarbons may become trapped, re-establishing reservoir pressure effectively ‘sweeping’ stranded production to the well bore.

On Subsea wells, Reservoir Engineers typically generate injection rate data by either:

- Low accuracy solution – measuring the differential pressure across an injection choke (valve)
- Higher accuracy solution – a flow meter installed on the subsea tree or manifold



CHALLENGE

Approximately 30% of the hydrocarbons in a reservoir can be extracted, but gas injection increases the recovery factor, helping maintain the production rate of a reservoir over a longer period.

How does the reservoir engineer improve the recovery factor, when:

- Subsea real estate is at a premium
- Injection rates can change dramatically over the life of the field
- Incorporating accurate flow calculations into a subsea system can be challenging

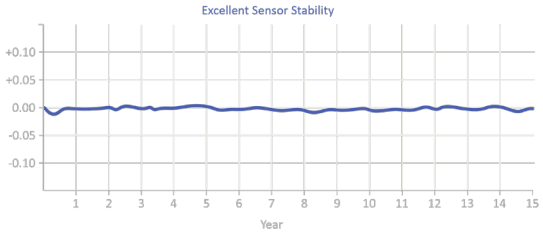
SOLUTION

Seastream meters, designed by our flow metering specialists, offer high accuracy and reliable injection data, even in the harshest of subsea environments. Our meters, supported by the ISO5167 international flow measurement standard, is recognized as a robust ‘Fit and Forget’ flow metering solution.

SEASTREAM

The Compact Gas Injection Seastream Flowmeter has been specifically developed to reduce envelope size, provide unrivalled injection data, while reducing lead time and installed cost. Fully digital sensors and unique FloCalculator software are integrated as standard, ensuring long term stability of measurements and ease of integration into subsea control systems.

Deploy our Compact Water Injection Seastream to play a key role in efficient well management and improve recovery factors from subsea oil fields.



Typical Operating Pressure (Bar)	Typical Flow Range (MMSCD)	Extended Range (MMSCFD)	Typical Accuracy %
50	0 - 5	0 - 9	±3%
100	0 - 10	0 - 15	±3%
150	0 - 10	0 - 15	±3%
200	0 - 15	0 - 20	±3%
300	0 - 15	0 - 25	±3%
400	0 - 20	0 - 30	±3%

- New compact design – 55% reduction in length
- Enhanced Flow range – 30% additional flow capacity
- Assured measurement – unique flow rate output
- Reservoir optimization tool