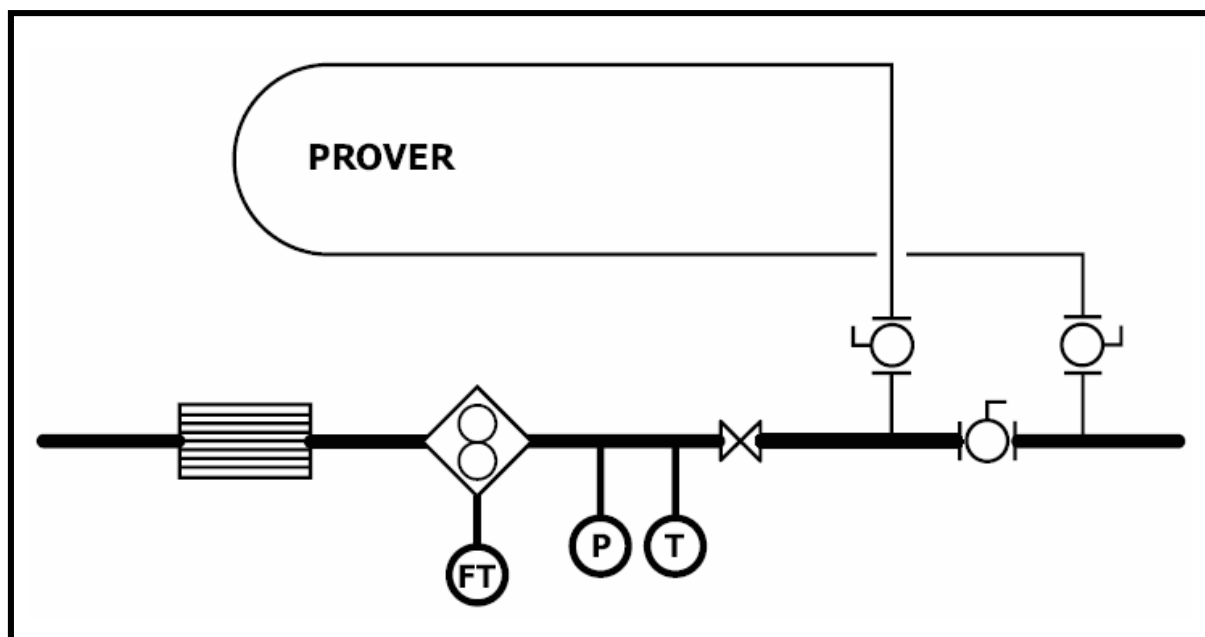


Evaluation of Metering Systems



Metering and proving station for measurement of oil flow

Metering accuracy

Accurate and reliable measurements are vital to the oil and gas industries. In the North Sea alone, vast amounts of oil and gas are metered for billing and duty purposes every year. Even minor metering errors represent large sums of money.

Choosing the optimum instrumentation and procedures for a metering system is a complicated task with many aspects to be considered:

- Accuracy required

- Properties of the fluid to be measured
- Installation
- Environmental influence
- Maintenance level.

Maintaining the required accuracy of a metering system involves establishment of:

- Quality system for the metering
- Maintenance procedures
- Operator training.



Consultancy services

The Division for Energy and Metrology of FORCE Technology has gained a considerable experience in application of metering systems both onshore and offshore.

Our services include:

- Evaluation of metering systems in the design phase, especially estimated accuracy versus required accuracy
- Standby assistance during assembling of new metering systems
- Primary accuracy testing at start-up of metering systems
- Evaluation and development of meter quality systems
- Trouble shooting on existing metering systems
- Assessment of meter accuracy maintenance.

Calibration services

The Division for Quality and Metrology offers calibration services for many types of instruments important to oil and gas measurement, such as:

- Gas density meters
- Gas meters - atmospheric pressure and high pressure calibration
- Liquid meters - also mass flow meters for liquids
- Volume standards
- Pressure and temperature transmitters.

The Division also performs determination of compressibility factors of gases and experimental determination of the mole mass of gas.

Our calibration services are accredited by the Danish Accreditation Scheme, DANAK. This ensures an independent and reliable calibration of your instruments.

The Division performs in situ calibration of liquid meters using our mobile 12" Brooks Compact Prover.



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