



The world's largest closed loop

For high-pressure calibration of flowmeters

The facility

- 12" (300 mm) high-pressure closed loop for calibration of flow meters
- 10" (250 mm) high-pressure closed loop for calibration
- 4" primary twin Piston prover system
- 24" (600 mm) and 65 bar high-pressure closed loop for calibration of flow meters
- 34" (850 mm) and 65 bar high-pressure closed loop for calibration of flow meters, with meter line of 48 metres in length, and a 30" length compensator with a horizontal movement of 2 meters
- Dp over the MUT system up to 1,5 bar
- The length compensator ensures that customer meter lines are calibrated under operation conditions equivalent to on-site conditions.
- Four monitors control the meter (MUT) during the calibration to register differences in the reading between the monitors and the working standards.
- The parallel working standards enable adjusting the calibration conditions to the customer meter.

Unique high-pressure calibration system

The technology behind the high-pressure calibration system is unique in the world. It is built as a closed loop with low pressure loss, allowing calibration at maximum pressure and flow all year round, irrespective of the season. It is known as the world's largest closed loop.

Specification

Calibration pressure	3-65 bar
Flow	3-60000 m ³ /h
Power	3,6 MW
Meter sizes	2" - 60"
Maximum N flow	5,5 mill. per. hour
CMC	0,14-0,20%



A new closed MEGA loop was built in 2023. Based on the same technology as the existing high-pressure calibration facility, it is hydrogen-ready for the transition to Power-to-X with the ability to operate with up to 25% hydrogen.



All closed loops are connected to a transmission pipeline, allowing a fast supply of gaseous flows like air, natural gas, biogas and mixtures with hydrogen within an hour.

After the calibration, the gas is carefully discharged to the grid, ensuring maximum environmental caution.

Types of meters calibrated in the closed loops

- Turbine meters
- Swirl meters
- Ultrasonic measuring instruments
- Ultrasound meters
- V-cone meters
- Vortex meters
- Coriolis meters
- Thermal mass flow meters

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