



Test Rigs for Industrial Gas Meters

Calibration of industrial Gas Meters with ambient air

The inotech test rigs for the calibration of industrial gas meters are designed to meet the highest accuracy with the shortest practical calibration time. All kinds of



industrial gas meters (manufacturer independent), in all sizes can be calibrated (e.g. turbine gas meters, ultrasonic gas meters, rotary piston gas meters).

The test rig is equipped with sensors to measure the temperature, the pressure and the differential pressure to ensure the high-level accuracy in calibration. The software using the information from the process control system

monitors the system condition and carries out a permanent plausibility check for all measured values.

With the use of high-quality rotary gas meters, turbine gas meters and critically operated nozzles as references the test rig to meet the customer specific requirements.

Furthermore, it guarantees the highest accuracy and the fastest flow control. An optional available pneumatic clamping system with the easy installation of the meter under test and the inlet- and outlet section reduces the set-up time to the minimum. The test rig

can handle all kinds of pulse generators, among others also a laser sensor for direct detection of a pistons revolution of a rotary gas meter.

The inotech meter calibration software provides fully automatic predefinable test sequences.

The software visualizes all process and measuring data together with an active flow diagram, and Diagrams for the relevant measurement variables as well.

The certified error calculation meets the international standards. The measurement results and measured values of the sensors are stored in a data base and are available on screen and printer as well.



Technical Data

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Type of the test facility:

Test rig for industrial gas meters with individual recording of the test volume of the MuT

Type of Meters:

- Turbine gas meter
- Rotary gas meters
- Ultrasonic gas meters
- Diaphragm gas meters

Meter sizes:

- G25 - G10,000

Standards in use:

Critically operated nozzles, turbine gas meters, rotary piston gas meters

Sensors in use:

- Temperature sensors
- Pressure sensors
- Differential pressure sensors

Flow range:

- 0.5 m³/h - 16,000 m³/h

Test medium:

Ambient air

Operating mode:

Suction operation

Calibration of sensors and standards:

EBBW, subordinated to the PTB, traceable calibration based on the PTB testing rules and standards

Accuracy in measuring (without meter under test):

- $\leq 0.35\%$ bei Q_{\min}
- $\leq 0.25\%$ über $0.2 \cdot Q_{\max}$ bis Q_{\max}

Volume Measurement:

- Gaging meter volume by pulse generators
- Gaging counter by light sensor
- Gaging Counter by start-/stop device
- Communication via interface

Displaying of meter and process data:

MUT-Modul with display next to test location

Data Entry:

Hand-Held-Scanner / Terminal / PC-Keyboar

Process control and measurement data acquisition:

PLC with inotech measurement components

PRODUCT RANGE

- Low pressure test rigs for domestic and industrial gas meters
- High pressure test rigs for gas meters designed as closed-loop or as bypass
- Mobile gas meter test rigs
- Modernization of test rigs
- Test rigs for gas pressure regulators
- Test rigs for water meters and heat meters
- Purging units
- Leakage test units

SERVICE PROGRAM

- Remote support and service support
- Spare parts
- Maintenance contracts
- Preventive maintenance
- Update service
- System availability service
- System extension
- Software support with customized adaptations
- Standard and tailor-made trainings



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