

WE PRODUCE QUALITY:

Proof of this can be found on ELSTER test rigs

It can be read all over and we also experience it first hand every day – natural gas is growing in importance as a source of energy. In Germany alone, there is a consumption of almost 100 billion cubic meters a year. This, of course, has to be measured in order to send out the invoices. If the price is 28 Cents/m³, a metering error of only 0.1% can amount to as much as 28 million Euros. For this reason, the accuracy of natural gas metering is every bit as important as being able to transfer the measured data automatically. Elster has always put great emphasis at a very early stage on developing products for the future.



Fig. 1: High pressure test rig pigsar, capacity up to 6500 m³/h, test medium natural gas, pressure up to 50 bar

First of all, ELSTER turned its attention to low-pressure test technologies using air as a medium. Almost simultaneously, it became clear that it was also necessary to test the meters at high pressures using natural gas. As early as 1978, Elster's first in-house high-pressure test rig received official



Fig. 2: ELSTER temperature lab, -50 °C to +80 °C, capacity up to 100 m³/h

approval and went into operation. This was followed in 1986 by the second state-approved test rig. With this know-how in hand, ELSTER was instrumental in the design and construction of Ruhrgas AG's high-pressure test rig pigsar (Fig. 1). Pigsar was commissioned in 1993 and is equipped with a fundamental master meter, the so-called "piston prover", to determine the volume of compressed natural gas. At the beginning of the 90's, a metering system using sonic nozzles was installed in



Fig. 3: ELSTER test rig, capacity up to 12000 m³/h, test medium air

our temperature test lab (Fig. 2) and this enabled ELSTER to test gas meters at extreme temperatures. It goes without saying that standard test technology in the field of production has not been neglected and has always been kept in line with state-of-the-art systems. Test rigs which are operated with air at atmospheric pressure have been modernised and adapted to meet the rising demand for testing capacity (Fig. 3).

Finally, a few years ago, a high performance natural gas test rig for volumes up to 400 m³/h and pressures up to 16 bar was installed on our premises (Fig. 4). Many customers and production facilities



Fig. 4: ELSTER test bench, pressure up to 16 bar, test medium natural gas

ties both at home and abroad rely on ELSTER's test rig technology, e.g. in the USA, China, Russia, The Netherlands and Argentina. With the help of the above-mentioned test facilities and systems we are able to carry out tests which can prove that our products meet, and even exceed, all the requirements laid down by international and European standards: 'Quality – made by ELSTER-AMCO'.

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