METERS TOURING THE WORLD

Transfer packages on the test rig

As a result of the Treaty of Dordrecht (The Netherlands) in June 1999, the national measuring chains for high-pressure natural gas in Germany and the Netherlands were harmonised. Since then, the Ruhrgas high-pressure test rig 'pigsar', which is equipped with ELSTER master meters, has been recognised as the test rig corresponding to the state-defined reference measurements for high-pressure natural gas in Germany. In order now to obtain a worldwide comparison of high-pressure test rigs, the Physical Technical Federal Institute (PTB) has initiated a project entitled 'BIPM / CIPM Key Comparison Project'.

Fig. 2: Transfer package with ELSTER master meters

The aim of the project is to collect metering data from all high-pressure test rigs in the world and then to prepare the data in such a way that it can be easily compared. In order to guarantee the objectiveness of the metering results, transfer packages from a variety of manufacturers and a number of different metering principles were combined and these packages are now touring the world, so to speak. Together with all of the other master meters, the ELSTER meters (Fig. 1) were calibrated on the 'pigsar' test rig.

Fig. 1: ELSTER's high-pressure sonic nozzle master meter for natural gas

Immediately after the Flomeko 2003, a conference dealing with the metering of gases and liquids, the information event 'Tech Tour' was held at the 'pigsar' high-pressure test rig in Dorsten. In the course of this event the international participants were given a presentation of the 'pigsar' test rig itself, were shown the new test hall and were introduced to the BIPM / CIPM Key Comparison Project. The first series of transfer packages were presented and were tested on 'pigsar' at pressures of 16 and 50 bar. On top of this, the participants also experienced a remote measurement of a transfer package, which was carried out by the PTB from Braunschweig to Dorsten, Germany. During the event, the participants were also given the opportunity to see some metering results from ELSTER's high-pressure sonic nozzle master meter (Fig. 2).

The team responsible for 'pigsar' really put together a fantastic event on this occasion. Now, the transfer packages are setting off on their long journey to the different high-pressure test rigs around the world.

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