

ESTONIA: A LARGE STEP FOR A SMALL COUNTRY

# Calibration and Service Centre FOR THE BALTIC STATES

Estonia is the most northerly of the Baltic states and is situated opposite Finland. To the east it borders with Russia and to the south lies Latvia. With a population of 1,439 million and a surface area of 45 000 km<sup>2</sup> it is the smallest of the three Baltic countries. The capital Tallinn has around 408 000 inhabitants and lies directly on the Baltic Sea.

Estonia's natural gas supply comes from Russia. It flows through a pipeline at a pressure of 55 bar near the town of Värskä in the south east of the country. The gas is measured in a gas border-station which is equipped with Elster high-pressure turbine gas meters and Elster volume correctors. This station was supplied and installed by "Internationale Gas Apparaten" (IGA) of the Netherlands in 1994.



Aivar Pärna, Head of the Calibration Dept. (in the middle) with his colleagues

Very soon after the political changes, the national gas supply organisation EESTI GAAS decided to renovate the obsolete gas supply network and bring it up to state-of-the-art standards with the aim of moving away from the flat-rate system of charging the customers to an exact and fair measurement of the energy used. Business relations between Elster and EESTI GAAS started in 1994 and came about via IGA Netherlands.

In the meantime, a large number of Elster meters such as diaphragm, turbine and rotary meters as well as volume correctors have been delivered. With these systems, EESTI GAAS has been able to establish a precise monitoring of the gas consumption in the country.

However, the metering systems do require maintenance and/or recalibration after a certain time – in some cases they even need to be repaired because there is a high degree of dust



Border-station at Värskä

in the gas. On account of the large distances between Germany and Estonia, Elster was asked to help EESTI GAAS carry out this work by themselves. After discussing the technical specifications and environmental conditions, Elster designed a test rig in order to calibrate diaphragm, turbine and turbine meters up to a flow rate of 2500 m<sup>3</sup>.

The volume correctors also had to undergo the appropriate tests and, therefore, measures were also taken to establish the relevant test facilities. All of the parts for this purpose were also designed and supplied by Elster. Both test rigs have been approved by both the PTB (The Physical and Technical Institute of Germany) and EVS "The National Standards Board of Estonia". The staff required to operate the rigs were trained by Elster on their premises in Mainz-Kastel.

EESTI GAAS has been using the test rigs for four years now and since July 2001 the "Estonian Calibration Laboratory" has been certified in accordance with EN ISO/IEC17025, which is the equivalent of an international approval.

So, as you can see, with the help of Elster, EESTI GAAS has a service centre for the repair and recalibration of gas devices and not only for their own use. The neighbouring country of Latvia is also benefiting from the centre as will other nearby countries who have already shown an interest in the test facilities.

Estonia is a good example of a country that has in a very short period of time embraced state-of-the-art methods and has thus moved into the 21st century as far as gas metering technology is concerned.

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