

Beamex Case Story

**Mazovian Gas Company (MSG), Plant Łódź
(Mazowiecki Operator Systemu Dystrybucyjnego
Sp. z o.o. Oddział Zakład Gazowniczy Łódź), Poland**



Ensuring proper billing through accurate calibration of gas conversion devices.

beamex

POLISH OIL AND GAS COMPANY (PGNiG), THE PARENT FIRM OF MAZOVIAN GAS COMPANY, IS ONE OF THE LARGEST COMPANIES IN POLAND.

Polish Oil and Gas Company (PGNiG) is Poland's largest gas exploration and production company, and the only vertically integrated Polish gas company with a leading market share in all gas sectors in Poland. The company produces oil and gas from domestic sources, and imports gas from Russia, Norway, Germany and the Central Asian countries. In 2006, PGNiG produced 4.3 bn cubic meters of gas, which accounts for 31 % of the total gas consumption in Poland, and 530 thousand metric tons of oil and condensate in on-shore Poland.

Polish Oil and Gas Company (PGNiG) is the parent firm of Mazovian Gas Company (MSG). MSG operates in the north-eastern part of Poland and covers an area of 87 thousand square kilometres, which corresponds to 27.7 % of the territory of Poland. There are 761 localities in this area, including 120 towns, Warsaw and Łódź among them. The Łódź plant distributes natural gas all over the entire province of Łódź to a total of 386,000 individual clients, including approximately 350 large industrial companies. Jacek Midera is a measurement specialist at the Łódź plant.

The situation

Calibration in a gas company is a matter of accuracy, safety and profitability. Most importantly, accurate measurements ensure proper billing. The impact of even a small measurement error can be tremendous in terms of lost revenue. This is indication of the direct economic importance of making accurate calibrations in these applications.

Periodic calibration of instruments is required. The typical process parameters calibrated at Łódź plant are related to delivering natural gas.



The Beamex® MC5-IS Intrinsically Safe Multifunction Calibrator was a perfect fit to the calibration needs at Łódź plant.

Therefore, most calibration needs are related to pressure and temperature instruments that are connected to gas conversion devices. Midera explains, "Customers want to pay for the exact amount of gas they've received. Therefore, gas conversion devices must be extremely accurate in measuring delivered gas. This means that requirements for the calibrators are especially high. The Beamex® MC5-IS meets the requirements perfectly".

Calibrating instruments properly in a timely manner is an important aspect of ensuring that the measurement system is functioning accurately. Calibration documentation can be used to verify that calibrations have been performed properly to reduce the number of billing errors. Should there be a problem, this information may prove to be a key in determining when, where and/or how an error occurred and how to appropriately correct the error.

“Very often calibration must be performed in difficult weather. The intrinsically safe Beamex® MC5-IS, with its IP65-rated case protection, is an ideal tool for this”, Jacek Midera comments.

The solution and main benefits

There are 750 instruments that require calibration at the Łódź plant. Most of them are for measuring temperature or pressure parameters. Instruments are calibrated two times a year – the first calibration is an extensive calibration, covering all ranges. The calibrations are made with portable Beamex® MC5-IS Intrinsically Safe Multifunction Calibrators. The MC5-IS makes automated calibrations and stores all results in its memory. Calibration reports can then be printed out using Beamex® Calibration Software.

The conditions for calibration can often be quite challenging in demanding weather conditions. “Very often calibration must be performed in difficult weather. The intrinsically safe Beamex® MC5-IS, with its IP65-rated case protection, is an ideal tool for this”, Jacek Midera comments. He continues, “Additionally, the MC5-IS is very accurate and reliable. And what’s important, it can be used in hazardous areas.”

The MC5-IS was a perfect fit to the calibration needs at the Łódź plant. “We were looking for a good calibrator and Beamex® MC5-IS has been recommended by other users in the same line of business,” Midera explains. He says, “We invited the local Beamex distributor to give us a presentation in Poland. After the presentation, we had no doubts about what to choose.” The company’s first purchase was in 2006 with the MC5-IS calibrator together with Beamex® Calibration Software. Once employees began using the calibrator and calibration software, they realized just how simple the Beamex Calibration System is to use, and not only that, it meets their requirements. After a year, the company decided to purchase another MC5-IS. What’s even better, the Beamex® calibrators have the user-interface



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in Polish. After the purchase they also got one-day training session provided by the Beamex distributor in Poland.

Overall experiences have been extremely positive at the Łódź plant, and the company has been very satisfied with Beamex’s calibration equipment due to its reliability, ease of use, accuracy and suitability to demanding and hazardous conditions.

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CASE STORY IN BRIEF

Customer profile

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Business Situation

MSG operates in the north-eastern part of Poland and covers an area of 87 thousand square kilometres, which corresponds to 27.7 % of the territory of Poland. There are 761 localities in this area, including 120 towns, Warsaw and Łódź among them. The Łódź plant distributes natural gas all over the entire province of Łódź to a total of 386,000 individual clients, including approximately 350 large industrial companies. Calibration in a gas company is a matter of accuracy, safety and profitability. Most importantly, accurate measurements ensure proper billing.

Solution description

- Beamex® MC5-IS Intrinsically Safe Multifunction Calibrators
- Beamex® Calibration Software
- Beamex® PG-Series Calibration Pumps

Main benefits

- Accurate calibration ensures proper billing
- Reliability
- Easy-to-use calibrators with Polish user-interface
- Possibility to use in difficult industrial conditions
- Documenting functionality – calibration results are stored in the internal memory
- ATEX certified calibrators – can be used in hazardous area

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