

## THE NEW BK-G100 INDUSTRIAL DIAPHRAGM METER

# *Quattro + Quattro = OTTO*

The Italian speakers among us will no doubt remember the word *Quattro* (Italian for four) from back in 2002 when we launched the BK-G40 and BK-G65. We used the term *Quattro* because in these industrial diaphragm meters there are up to four 6-litre measuring units working away in their own precise manner. The principle of using several measuring units in parallel in the BK-G25 and BK-G40/65 has proved to be highly successful and has been further developed. This has led to the new member of the BK family, the BK-G100, where EIGHT measuring units operate in parallel. Naturally, in keeping with the original idea for the name, we have called this device *OTTO* (Italian for eight). And now our largest, the BK-G100, can also boast the same well-known advantages as the other devices in the BK series.



*Different versions of the BK-G100*

The first public appearance the BK-G100 made was at the GAT in Leipzig, a specialized fair and exhibition. Experts in the audience were able to take a really close look at the BK-G100 as it was on display in a transparent Plexi-glass housing.

In order to meet the required measuring range, it was necessary to couple together eight 6-litre measuring units. The principle used in the BK-G40/65 whereby the movement of the measuring gears was synchronised with the help of coupling rods is also used here in the same way and ensures that the gears run in a quiet and smooth fashion. The measured gas is fed via two outlet channels into one 'collection' channel, which is directly connected with the outlet of the housing.

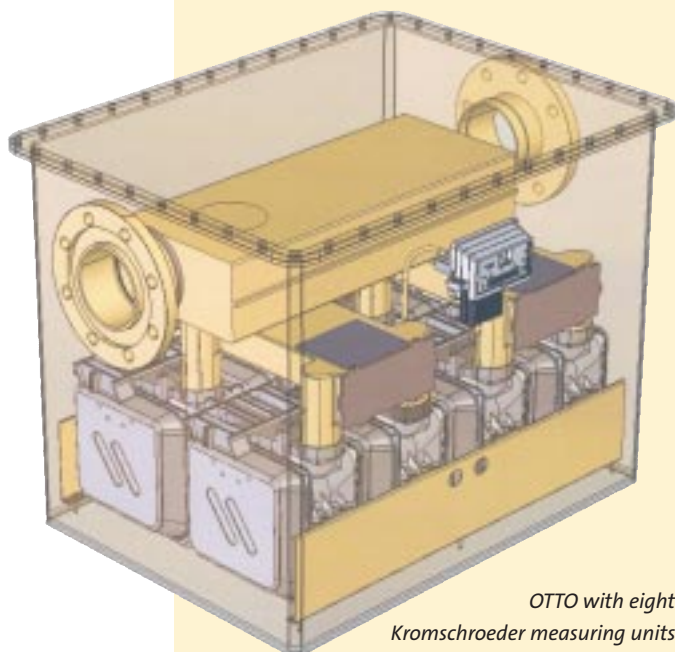
It was not possible to have the measuring units on two levels as we had to keep to the required housing dimensions. The solution we came up to arrange the measuring units in the housing is to serialize the units in two groups of four opposite each other. Depending on which version is chosen, the BK-G100 can weigh as much as 25% less than its predecessor the G100. The volume of the measuring chamber is reduced from 120 litres to 48 litres. It all sounds a bit like an advert for Weight Watchers but it does in fact give some idea of the advantages that become apparent when installing the device and which every fitter will most definitely appreciate. Apart from the fact that it is easy to handle, the BK-G100 naturally also benefits from the usual features of the BK series.



*Compact and handy: By comparison BK-G100 and predecessor G100*

The BK series is famed, among other things, for its low-noise operation and its resistance to impurities in the gas, brought about by the use of the small slides (Resistance Power Factor 0.8). All BK meters include the so-called 'K system', which helps to

improve the metering accuracy and is used to adjust the measuring units. This is now also available in the largest industrial diaphragm meters since they now also use the 6-litre measuring units.



*OTTO with eight Kromschroeder measuring units*

Furthermore, the mechanical temperature compensation system used in the TC versions of the residential diaphragm meter can now also be used in the BK-G100. In this version, the influence of the gas temperature is compensated with the aid of a bimetal element. This option first has to be developed for the BK-G10/16 and then put into production. We'll keep you informed.

Now that the largest industrial diaphragm meter has been added to the BK family, all of the diaphragm meters produced by Elster-Instromet have the same well-known and highly successful features. At the moment the BK-G100 is undergoing the 5000-hour endurance test with good results. The approval tests will, however, be completed very shortly and the BK-G100 will go into production in the first quarter of 2006. Look out for it and look forward to it! Curious? Then call us!

**Carsten Lorenz**

c.lorenz@elster-instromet.com