

Problem-oriented thinking leads to inventive "combi" measuring instruments



Haffmans new Gehaltemeters c-DGM and c-AGM, allowing the combined measurement of CO₂ and O₂, are absolute hits. These revolutionary measuring instruments allow breweries and manufacturers of soft drinks to improve their quality management while increasing their efficiency. This new technology is a perfect example of 'outside of the box' thinking.

In the beverage industry, oxygen is becoming an increasingly significant factor. "Oxygen is highly detrimental to beer and soft drinks, because it negatively affects the best before dates and flavour. The growing number of different flavours and the use of more and more sensitive ingredients make a low oxygen level ever more important", explains Frank Verkoelen, Senior Product Manager for Quality Control Equipment at Haffmans.

Frank Verkoelen and Jos Sloesen, Senior Product Manager for CO₂ Systems are jointly responsible for the launch and sale of Haffmans' CO₂/O₂ Gehaltemeters.

During the last few years, the changing market situation in the beverage industry has generated an increased demand for ingenious and efficient measuring technologies. Globalisation is also one of the points on the daily agenda in this line of industry. Although the number of breweries in the market is constantly decreasing, exports are growing. Distances from the production site to the consumer are increasing. Jos Sloesen: "In the past, breweries almost exclusively covered the regional market. Today, the areas covered are notably larger. Exports to ever remoter places and the question of extended best before dates imply a higher product quality to meet increasing requirements."

Due to many years of experience in the fields of CO₂ and O₂, and thanks to the fact that

Haffmans has always focussed on problem oriented thinking, the company was able to quickly adapt to the changing market situation. At the same time Haffmans immediately recognized the market requirements that would result from this change. "In addition to the CO₂ management system proven with our customers, we concentrated on the management of oxygen. High quality CO₂ is produced when recovering CO₂ from the fermenting process. The recovered CO₂ has very low O₂ concentrations, thus making it highly suitable for use in the soft drinks industry. Oxygen is also removed from the water that is used, for instance, to blend beer and for lemonades. This process results in almost oxygen-free water", explains Sloesen. The combined Gehaltemeters are exemplary for high-tech solutions, allowing the beverage industry to manage these important gases. Four years of intensive research and development work preceded the products' launch on the market last year. Haffmans test series are always very exhaustive! Starting in own laboratories, these tests are followed by precise measurements in field tests. One of the golden rules for Haffmans is: "A new product will only be launched when its functions are optimal."

For the first time now, this new O₂ measuring technology, combined with CO₂ measurement, is being used in breweries and in the soft drinks industry. "Requirements and regulations are higher in the beverage

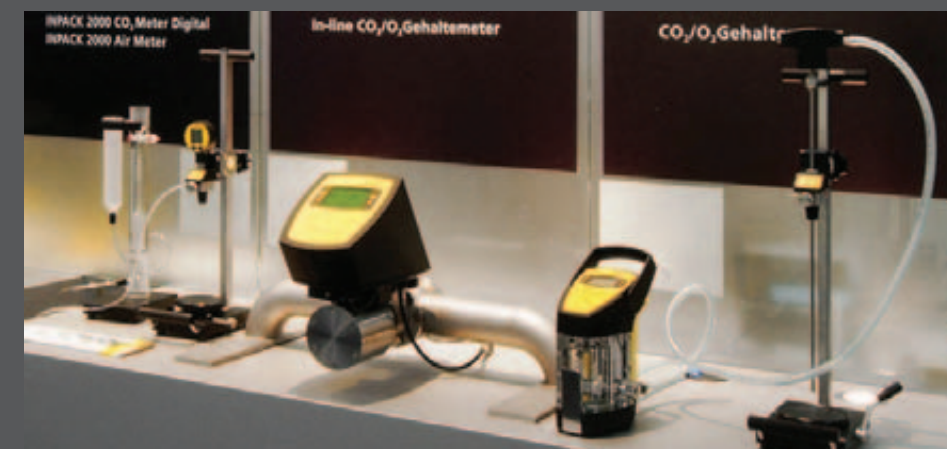
industry. Therefore, the technology must function even under the most difficult conditions, thus making good quality indispensable", states Jos Sloesen. Haffmans has created a very high requirements profile to meet the standards of this industry. "Measurements must be perfectly accurate, even at extremely low oxygen levels. Another fundamental requirement is the reliability and stability of the measuring results over longer periods of time. From the efficiency point of view, the objective has been to minimize the response time of the measurement."



The official launch of the "combi"-meters in the market took place on the occasion of the Drinktec 2005. The trade fair in Munich is one of the most important B2B platforms for the international beer and beverage industry. Verkoelen: "We were pleased to see that the reaction of our customers was very positive. It was an overwhelming success." Haffmans' team has travelled around the world to inform the industry about the innovative Gehaltemeters "on the spot". They gave convincing presentations of the c-DGM and c-AGM in the 25 largest breweries. "In our line of industry, Haffmans, belonging to Norit 'leading in purification', is known as a reliable supplier of innovative measuring methods. With this product, I think we have surpassed the expectations of our customers", says Verkoelen. "Our target was to find answers to questions from the world wide beverage industry, for which so far no suitable solutions were available."

The new Gehaltemeters were enthusiastically welcomed wherever Haffmans presented them. The product launching team was able to arouse curiosity and interest in the market instead of being confronted with restraint or even scepticism. "Normally it is necessary to gently push the market into the right direction", concludes Sloesen. "This time, however, we have noticed a certain impatience among our customers. We were asked time and again when the Gehaltemeters would finally be launched. In the meantime we have had to increase our production capacities to be able to cope with demand."

The beer and beverage industry has fully understood the added value of the combined



CO₂ and O₂ Gehaltemeters from Haffmans. The 'in-line' version (c-AGM) allows for measurements of the concentration of both gases at critical points. In addition, the measurement can also be extended to a CO₂ control and dosing system, this function being already integrated in the in-line version. This enables the beverage industry to even better monitor and control their quality processes. Frank Verkoelen: "With the General Food Law coming into effect, manufacturers can be held liable for the contents of their products more than in the past. For instance, the origin must be traceable at all times." The regulations applicable to breweries and manufacturers of soft drinks are becoming increasingly stringent on the one hand, and on the other hand the number of different drinks is growing. In the meantime, combined measurement has proven itself in the field of quality control.

Double measuring also fits in with the subjects 'efficiency' and 'cost reduction'. Two measurements at a time allow more efficient operation. The portable version (c-DGM) allows the operator to measure the critical parameters at different locations of production at a time. In this manner, quality management is coupled with increased efficiency and cost saving possibilities.

Such a double effect is an excellent example for the 'outside of the box' approach. This approach in thinking is a daily challenge for Haffmans' more than 100 employees. Problem-oriented thinking controls the technical know-how and the experience of Haffmans. The company looks for solutions to problems surfacing in the market and focuses on quality improvement and cost saving opportunities. Haffmans is already

thinking about the issues of the future. The company is a forerunner in its line of industry and has no intention to change this status. The new c-DGM and c-AGM proof this!

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General / Technical Data:

Haffmans CO₂/O₂ Gehaltemeter

- Combined CO₂/O₂ measurement
- Lower Total Cost of Ownership
- Fast, reproducible measurement
- Calibration-free O₂ measurement
- Easy to calibrate CO₂ measurement

c-DGM

- Portable instrument
- Less beer losses than with separate CO₂ and O₂ measurements

c-AGM

- In-line instrument
- Sanitary connection
- Integrated control of CO₂ dosing