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## **PBI-Dansensor launches revolutionary new gas mixer and state-of-the-art gas analyser for Modified Atmosphere Packaging**

PBI-Dansensor has developed a revolutionary new 'smart' gas mixer for Modified Atmosphere Packaging (MAP). The MAP Mix Provectus uses an entirely new operating principle to produce a remarkably compact, powerful, versatile and easy-to-use gas mixing system. The MAP Mix Provectus can be coupled to PBI-Dansensor's latest gas analyser, MAP Check 3, to provide constant monitoring and automatic adjustment of mixture and flow to achieve maximum efficiency.

Conventional gas mixers have remained essentially unchanged for the past 40 years, based on proportional gas mix controlled manually and the need to increase the size of the mixer if a greater capacity is necessary. Furthermore, different gas mixtures often require different mixers to be used. The state-of-the-art MAP Mix Provectus, on the other hand, uses the latest mass flow technology – used widely in the gas industry but which has not until now been exploited for the food packaging sector.

This allows the mixer to be housed in an extremely small cabinet and yet to exhibit great versatility and a high flow rate. The large amount of different gas mixtures typically used in MAP can be achieved with only two different MAP Mix Provectus models. MAP Mix Provectus can deliver an outstanding flow of up to 1500 l/min and if greater capacity is needed it is simply a case of coupling together more units. Another important issue is that there is very low pressure drop over the mixer, making it suitable for working with nitrogen or oxygen generators.

Different MAP Mix Provectus models can mix either two or three gasses and the instrument is programmable. There are ten different programs allowing the operator to set parameters such as gas mix and outlet pressure, and so forth. An intuitive touch-screen display makes the MAP Mix Provectus simple to operate and it contains all the necessary connectivity for data logging control. This means, for example, that it can be linked into the packaging line's process monitoring system so that the quality manager can monitor factors such as total gas consumption, current gas flow and gas mix at any time.

The launch of MAP Mix Provectus coincides with the unveiling of PBI-Dansensor's latest gas analyser, MAP Check 3. This has a new 5" colour touch screen for easy use, and excellent connectivity for data logging and control through USB, Ethernet and Modbus TCP and is delivered with PC software. MAP Check 3 allows the operator to combine monitoring of gas content on a vertical or horizontal flow packaging machine with real time control of package flushing via an advanced GasSave function. For most manufacturers, this could translate into a 20–50% decrease in gas consumption.

Importantly, MAP Check 3 is designed to operate seamlessly in tandem with the MAP Mix Provectus. The analyser constantly monitors the gas mixture entering the packaging machine. If it detects a change in the oxygen level it can send a signal back to the MAP Mix Provectus to make the appropriate adjustments of the gas flow automatically. This sophisticated feedback control ensures that the correct amount of gas enters the package at all times for ultimate efficiency, consistency and quality assurance: and therefore reduced waste and increased cost-savings.

“We are constantly striving to innovate and to improve,” says PBI-Dansensor’s sales and marketing director Karsten Kejlhof. “We believe that these two new products will increase a MAP packaging line’s quality and efficiency substantially – especially if they are used together.”

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