

Gas generation MAPs for high-speed bagging

In Australia, two of the most advanced processing and packaging technologies currently available were combined to demonstrate the benefits of modified atmosphere processing (MAP) using on-site gas generation in high-speed bagging of snack food. Domnick Hunter Maxigas nitrogen generation equipment was coupled with Rovema VPK 260 bag forming, filling and sealing machine to determine the suitability of continuously generated nitrogen at 99.5 per cent purity to extend the shelf-life of potato chips. Positive results were achieved at packaging speeds of up to 135, 40 g bags/min.

The trials involved Maxigas N2MAX 110 equipment producing nitrogen from compressed air at flows up to 19.1 Nm³/h and 5 bar gauge pressure. It was proved that snack food manufacturers can use continuously generated nitrogen at 99.5 per cent purity instead of depending on nitrogen cylinders at 99.999 per cent. Maxigas system eliminates the need for storage, multiple manhandling and continual changing of bulky gas cylinders. Results showed that residual oxygen levels of about 1 per cent were achieved. *Contact: Domnick Hunter, Australia. Tel: +61 (3) 9762 9922; Or JL Lennard, Australia. Tel: +61 (2) 9807 7200.* (Food and Pack, November 2001)