Meeting stringent benchmarks for air quality

KAESER Compressors has satisfied Tatura Milk Industries stringent internal benchmarks for air quality in its food processing operations. Four Kaeser dry-running screw compressors were recently installed at two of the company's sites to provide absolutely oil free clean air.

Tatura Milk Industries Ltd (Tatura), a wholly owned subsidiary of Bega Cheese, is nestled in the heartland of the Goulburn Valley in Australia. Tatura has been manufacturing dairy products of the highest quality since its humble beginnings in 1907 and is the largest Australian owned supplier of infant formula and the historic dairy brand TATURA.

80,000 tonnes of dairy products are processed annually by Tatura, with milk supplied by 65,000 cows from best practice dairy farms located in the immediate area. This milk is used to manufacture a wide range of quality dairy products that serves the Asia, European and local markets.

High-quality clean air is a fundamental component of dairy manufacturing. It ensures that the quality raw dairy ingredients remain uncontaminated during processing. As such Tatura operates production systems which are marked by the most rigorous benchmarks and specifications.

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The four KAESER DSG series dry-running screw compressors that were recently installed at two of the company's sites, along with Kaeser Compressors' quality assurance, have proven to meet and exceed these requirements.

At the first site, Tatura opted for a specially designed KAESER compressor station. This includes two DSG290-2 series 8 bar dry-running screw compressors, one DSG290-2 SFC series 8 bar frequency controlled dry-running screw compressor, a 13700L air receiver, one heated DW series desiccant dryer, one heatless DC series desiccant dryer (standby), and a Sigma Air Manager system (station controller).

Jeff Coyle, KAESER Compressors Engineering Manager said: 'this is an extremely effective compressed air system, with energy efficiency at its core. The SFC compressor [frequency control drive] is utilised during all operations to adsorb the minor fluctuations in air demand. When a surge in air demand occurs; one of the DSG's [direct drive] kicks in at full load to supply the extra air in a complete block.

Direct drive compressors operate most effectively when operating at maximum capacity, so the Sigma Air Manager (SAM) is programmed to run each compressor at its most efficient levels against fluctuating air demands. Master controllers (SAM) are vital for any multi-compressor station. It is an automatic optimisation of the compressor station to match with altered consumption (adaptive behaviour) to achieve maximum cost effectiveness for the entire compressor station.'

The second compressor station includes a KAESER DSG290-2 series 8 bar dry-running screw compressor, a 3800L air receiver and one heated DW series desiccant dryer. An important component of both stations is the heated DW1053 desiccant dryers that ensure there is no purge loss. There are two purge air outlets; connected to an insulating, descending collective line; consequently, leaving the compressor room similar to outdoor ambient temperatures.

These highly advanced compressors have garnered a quiet satisfaction amongst Tatura's managers for their smooth and continuous operation.

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