

CASE STUDY

FOOD & BEVERAGE

Société des Eaux Minérales de Luchon cuts cost with oil-free compressor

900 m³ of air an hour. That's what it takes to produce 50 million bottles of water each year. And thanks to a D110 RS oil-free compressor from CompAir, Société des Eaux Minérales de Luchon's bottling plant now has a cheaper, more dependable supply.

CompAir's oil-free air is inherently safe avoiding the expense of product recall, giving the client greater peace of mind and better process security. Cost of ownership has also reduced by installing one compressor in place of two units.

Overview

Client

Société des Eaux Minérales de Luchon

Location

Luchon, France

Application

Production and bottling of water and flavoured drinks

Products

CompAir D110 RS oil-free compressor

Customer Benefits

Cost of ownership reduced/energy efficiency optimised

Application Details

Les Eaux de Luchon sits at the foot of the Pyrenees, the source of its quality mineral water. The water's purity is monitored closely, so with compressed air used across the whole plant, Les Eaux de Luchon must be able to rely on a clean, oil-free supply. And, this supply must also be energy-efficient to help reduce utility costs.

Energy Efficiency

The company installed two fixed-speed piston compressors when the plant first opened in 1994, but as energy prices escalated they became more costly to run. To guarantee continuous air supply, both units had to operate at full power and simultaneously or the entire plant would be without pressure and some production stations could become inoperable. The client had enjoyed excellent service from local CompAir distributor Air Comprimé and chose the performance and easier maintenance of the CompAir D110 RS oil-free compressor.

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Benefits at a glance

- ▶ Variable-speed compressor balances energy input to air demand - optimum energy efficiency
- ▶ Guaranteed oil-free compressed air - does not compromise production quality, saving the expense of rework or product recalls
- ▶ Trouble-free operation from 0°C to 40°C - ideal for fluctuating seasonal air temperatures
- ▶ Constant air supply up to 900 m³/h - to maintain productivity at all stations simultaneously
- ▶ Maintains 8.5 bar pressure - uninterrupted supply at the correct pressure ensures reliability
- ▶ One unit replaces two compressors - reducing service and maintenance costs
- ▶ Air cooling system - cheaper and simpler to install than cooling water systems
- ▶ Simplified maintenance and 5-year warranty - reduces lifetime ownership costs

Easier Operation

Operator intervention is minimal as an electronic control adjusts air production to meet plant demand. This operates in real-time via readings from the pressure sensor which is sensitive to one hundredth of a bar, ensuring optimum performance with minimum energy consumption.

Excellent After-Care

The plant's location, far from other industrial sites, can make after-sales service problematic and expensive. But Air Comprimé provides a locally-based team of engineers offering full maintenance and support. Plant Maintenance Manager, Serge Manent explains, "With the old piston compressors we had to check the clearance under the pistons regularly depending on the length of operating and idling times. The easy-maintenance CompAir unit frees the plant from this sort of concern."

Technical Data

The 110 kW unit consists of an oil-free rotary screw that compresses air in two stages to limit overheating. Non-contact and non-wearing seals prevent bearing lubricant entering the compression chamber, to guarantee completely oil-free air.

The speed of the compressor varies by reducing the basic frequency of 50Hz generated by the electricity network. A separate refrigerant drier refines the air quality before it reaches the production areas and an air-cooling system ensures that only unheated ambient air passes across the coolers, allowing the plant to operate in high temperatures with total reliability.



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