

Montreal's centralised hospital laundry service provider, BCM, has seen productivity rise by nearly 50% since investing in new equipment and a high-efficiency compressed air system at its Montreal facility in Québec, Canada.

New Air System is a Clean Winner for BCM

In 1973, in an effort to rationalize operations and reduce costs, Montreal's hospitals, in conjunction with the Department for Social Affairs and the local health authority, decided to combine their laundry services into a single community laundry, the Buanderie centrale de Montréal Inc (BCM). Established as a non-profit public enterprise, BCM has been providing its centralised laundry services to hospitals in and around the Montreal area since 1979. However, continued growing demand recently prompted the organisation to invest in six new folding machines in order to maintain its reputation for flexibility and quality service.

To meet these needs it was therefore necessary to also upgrade the existing compressed air supply, and installation of a new highly efficient compressed air system was completed in January 2006 in close co-operation with Kaeser Compressors Inc., Canada.

The benefits of this investment in new equipment can now be clearly seen, as productivity at BCM has since increased by nearly 50%.

The best possible system

Frank Pigeon, BCM's Technical Director, explained, "The old compressed air system comprised two 40 hp units and one 50 hp unit, all of which were between 15 and 25 years old, and had trouble meeting our growing compressed air needs. Fluctuating pressure and inconsistent performance all affected pro-

ductivity and led to increased rejection levels at the folding machines. The decision was therefore made to modernize the compressed air supply and to

Productivity has risen by nearly 50%

invest in the best possible system for the future of our organisation". As a result, BCM invited several air systems providers to come up with a suitable new compressed air solution. After carrying out a detailed air demand analysis (ADA), Kaeser recommended a high-performance compressor system comprising a water-cooled Kaeser SFC 75 frequency-controlled compressor, a KFS 625 and KOR 625 filter system, a TE 141 Secotec refrigeration dryer, electronic 'ECO DRAIN' condensate drains and 2 air receivers (a 240 gallon air receiver installed at the furthest point from the compressor and a 660 gallon air receiver installed in close proximity to the air system). Kaeser's proposal also included an air-ring main – which allows bi-directional airflow to the point of use and ensures minimal pressure drop – and an environmentally friendly Aquamat condensate treatment system.

Sorting it all out ...



The new equipment ensures perfect folding results



Quality, dry air with the Kaeser compressed air system

Fluctuating air demand

Frank Pigeon explained the decision to invest in the Kaeser system was based upon BCM's demand for reliability, durability and excellent overall efficiency. Further considerations were Kaeser's service support and the ability of the system to efficiently cope with the laundry facility's fluctuating air demand. Etienne Fex, Kaeser Service Technician, explained further "The BCM facility's air demand fluctuates between 100 cfm during quieter periods and 400 cfm at busier times. The air demand analysis and subsequent results from the KESS (Kaeser Energy Saving System) revealed that a frequency-controlled compressor solution was the most efficient and versatile answer to meeting BCM's needs. As for the rest of the system, the large capacity refrigeration dryer and two stages of filtration remove condensate, suspended oil vapour and particulate in the compressed air to ensure a dependable supply of clean compressed air – we are aware of how essential air quality is to guarantee BCM's productivity and service quality".

Highly reliable

As the compressor system and air-ring main were supplied under one umbrella, Kaeser was able to preinstall all components at the BCM facility prior to

final installation of the compressor. The new air installation, which operates at 108 psi, was commissioned at the beginning of January 2006. When asked if there were any difficulties during this period, Frank simply responded, "It couldn't have been smoother. Everything was already installed by the time the compressor arrived and change-over to the new system meant that throughout the whole process BCM experienced minimal downtime".

Considerable savings

The new system has not only virtually eliminated reject levels at the folding machines but has also brought about considerable savings, as the heat from the compressor cooling water, which would otherwise be wasted, is used to warm the inlet water for the laundry systems. In addition, the compressor is equipped with Kaeser's advanced PC-based SIGMA CONTROL compressor controller to allow optimised system operation. But perhaps the most

important benefit has been the near 50% increase in BCM's productivity, which has risen from 32 kg per hour worked/ per employee to 51 kg since the new system was installed. As Frank concluded, "Thanks in no small part to the Kaeser compressed air system we hope to shortly increase this figure to 55 kg and that's good for us and the future of our organisation".

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