

Sustainable solution

The Austria-based Gartner Group has opted to install the B200 Movex screw compressor of Wiegel Transport Equipment on all its silo lorries, reports Henriëtte van Norel

Annually, the Gartner Group conducts approximately 900,000 road transports by vehicles from their own fleet and 32,000 rail transports. Despite the logistical challenges which this internationally operating Austrian company faces on a daily basis, the organisation continuously strives for quality, flexibility, reliability in conjunction with an environmentally friendly policy.

In striving to minimise CO₂ emissions while seeking a responsible use of fossil fuels, a reduced fuel consumption and an even quicker delivery of liquid loads, Gartner management opted to install the B200 Movex screw compressor of Wiegel Transport Equipment on all its silo lorries.

In the next 20 months, Wiegel Transport Equipment will deliver 140 screw compressors to the Gartner Group. Subsequently, the screw compressors will be installed on fleet vehicles by Gartner's mechanics, who will do this following an extensive installation in-situ workshop given by mechanics of Wiegel Transport Equipment GmbH for the first vehicles.

Background

Having been in operation over 100 years, the Gartner family firm, with its head office in the Austrian Lambach, is one of the most prominent transport companies in Europe. The main core competencies are road transport, intermodal traffic and the supply



of warehouses. Additionally, the Gartner Group owns subsidiaries, sales offices and/or collaborating partner companies in Austria, Germany, Hungary, Romania, Spain, France, Belgium, the Netherlands, Greece, Czech Republic and Slovakia.

The company fleet consists of 2,000 lorries of brand names such as MAN, Mercedes-Benz, Scania, DAF and Iveco and more than 2,700 trailers. Covering 20 locations in nine countries, with 4,100 employees, the Gartner Group realised an impressive annual turnover of €541 million in the last financial year.

Thomas Arnezeder, Warehouse Manager with Gartner, explains: "For our company, the important requirements for the above-mentioned order were to achieve a substantial fuel consumption reduction as well as lower emissions of our silo lorries intended for the transport of chemical fluids. This happens

within the framework of responsible and sustainable operations endorsed by our company. Moreover, an essential requirement was that the prospective new compressors should be simple to install and easy to maintain. This technology needed to be better than any alternatives, such as pumps or rotary vane compressors."

Compressor differences

Although rotary vane compressors are usually more economical than screw compressors, they have the disadvantage of having a substantially heavier design, a lower compressed air output while requiring more installation space.

Moreover, graphite may eventually end up in the compressed air due to wear and tear. Just as rotary vane compressors, pumps are definitely not the preferred solution. Due to cross-contamination they may become damaged prematurely as

a result of corrosion. With screw technology all of such issues may be prevented from happening." With screw compressors, rotating at the same speed in a more compact housing it is possible to realise a transmission that will produce the desired air volume. The B200 Mouvex screw compressor is an illustrative example. These screw compressors always provide 100% pure oil-less air.

Although Gartner had some practical experience with the Mouvex B200 screw compressor merely weighing 26.5 kg, they extensively tested some of these models prior to the definitive transition to screw technology.

Since the results met their expectations, Gartner management decided to equip all of their fleet's silo lorries with this fluid pumping technology.

Although the B200 may be powered by a drive shaft or a hydraulic motor, Gartner has chosen to use a direct connection to the PTO. No drive shaft is required and the compressor may directly be mounted to the power take-off. Consequently, the configuration is extremely lightweight and compact.

It can easily be installed on a lorry with a limited availability of space. Compared to a rotary vane compressor this solution saves a weight of approximately 35 kg. It saves fuel, reduces emissions and it definitely is an asset for a higher 'payload'.

More importantly, the higher compressed air output speeds up the fluid delivery compared to a rotary vane processor. This results in a time savings of 40 minutes, or a diesel fuel advantage of 3-4 litres per delivery. Annually, the conversion represents a significant savings for Gartner.

Installation

In order to shorten installation time for Gartner mechanics, Wiegel Transport Equipment

Gartner: an eye for innovation



Operating with advanced position tracking systems, Gartner has an extensive insight in the kilometres covered by their empty lorries. By limiting the percentage to a minimum, they provide a substantial contribution to the CO₂ reduction. Particularly in combination with the Mouvex B200 technology, one may conclude that Gartner makes a significant difference.

supplies all screw compressors with a special, custom-made bent stainless steel pressure line and a customer-specific installation kit, in a so-called 'plug-and-play' design.

Wiegel Transport Equipment produces these bent pressure lines in their shop. Since the pressure lines are seamless, no welding is required, contributing to an even shorter installation time.

Easy Maintenance

Regarding maintenance, it is interesting to mention that ex-works the B200 rear bearing block comes provided with lifetime lubrication.

Under no circumstances should the oil sump on the compressor's drive side come into contact with the product. In order to prevent this from happening, labyrinth seals have been installed, so that under all circumstances the B200 generates fully oil-less air.

Meanwhile, the first models

were successfully installed by Gartner mechanics, so these lorries are already fully operational.

Arnezeder explains: "Despite the compact design of these B200 screw compressors, they are able to effectively produce 180 cubic metres of compressed air per hour, with a 2.5 bar operational pressure while only needing to draw 200 cubic metres of air per hour.

"Until now, we are exceptionally satisfied about the results of this ingenious, Mouvex patented screw compressor system with its combined pressure/flow control. This is a good step on the way to a more sustainable society."

