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Drive for Quality in German Lift Market

The high quality of ride comfort offered by German lift manufacturer OSMA-Aufzüge can be in part attributed to the unique drives and software package that Control Techniques Drive Centre in Hennef has developed for the company.

In particular, the smoothness of the cost-competitive gearless range has helped OSMA to offer an ultra-reliable, high performance solution for the German market.

OSMA prides itself on the flexibility and individuality of its lifts. With all of the design and build being carried out in-house and with an extensive network of installers, the Osnabrück-based company has total control of every aspect of the production of its lifts for the commercial, public and private markets. Each installation is custom-designed and manufactured using the latest materials and techniques to meet customers expectations.

The company switched to drives from Control Techniques in 2005. This also coincided with the launch of a new low-cost gearless system. Initially, OSMA's interest was in the Commander SE AC drive, but, as the relationship developed and the powerful programming capabilities of the Unidrive SP opened up new possibilities in product design, this became the standard and Unidrive SP has become the company's drive of choice, incorporated in over 80% of projects.

"We have worked very closely with Dr Holger König at Control Techniques on developing advanced lift software and have developed a very good product offer with more features than before," comments OSMA's Technical Manager Herr Klaus Hebbeler. "On both synchronous and asynchronous motors, the ride profile is more accurate, comfortable and smooth – and the same type of drive does both – the Unidrive SP. This helps to keep our costs down – one drive for open loop and closed loop, one spare part, one software tool and one lot of training. It has proved to be an elegant solution all round."

Control Techniques Germany has been supplying OSMA with Unidrive SP multi-mode AC drives up to 90 kW, complete with special lift software and PC management software that removes complexity during set-up and commissioning. Each drive is also fitted with a CAN-Bus module for communication with the OSMA control system and, depending on the system requirements, additional modules are added for encoder, sin/cos or resolver feedback.

Over the last 18 months, more and more of the capabilities of the Unidrive SP have been utilised. "For example, we wanted to use small UPS units to bring the cabin to the nearest floor," says Herr Hebbeler, "but these are easily over-loaded and can burn out. We asked Dr König to help and he wrote a special piece of software to limit demand on the UPS. This works very well."

The Secure Disable feature, built into Unidrive SP drives, is helping to further reduce the overall system costs. The secure disable function is failsafe in operation, so that when the secure disable input is disconnected, the drive will not operate the motor. It is also independent of the drive firmware and, as such, meets the requirements of EN954-1 category 3 for the prevention of motor operation. OSMA has put together a scheme, using the secure disable feature in conjunction with just one contactor, to meet the current requirements of EN81-1 for the operation of lifts.

"The 'fit' between the OSMA approach and Control Techniques is excellent," concludes Herr Hebbeler, "in terms of flexibility, quality and support. We have complete confidence in both the products and in the outstanding support we get from the German Drive Centre and, in particular, the whole technical team of Control Techniques. If CT promises to do something, they never fail to deliver!"

KEY BENEFITS

- RELIABILITY
- PROGRAMMING CAPABILITIES
- ACCURATE & SMOOTH RIDE PROFILE
- SECURE DISABLE
- TECHNICAL SUPPORT

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