

BILLY, KLIPPAN, PAX & CO - TROX PROVIDES FRESH AIR AT IKEA NORTH

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New ventilation system requires significantly less energy and moves a total of 360,000 m3 of air per hour

From April to last Sunday, TROX Austria installed a new ventilation system at IKEA Nord, providing fresh air for employees and customers at the 22-year-old location. In total, the system of eight X-CUBE units, with separate supply and extract air, can handle more than 360,000 m3 of supply air per hour - the largest unit for the exhibition area alone can handle more than 93,000 m3. Each ventilation unit is equipped with its own integrated measurement, control and regulation technology, guaranteeing optimal and particularly energy-saving operation. For safety reasons, the individual cubes could only be lifted onto the roof of the 34,000 square metre building outside of opening hours, so the experts could only carry out their work on Sundays and public holidays. The TROX core team alone, consisting of Sales Manager Austria Norbert Lex, Team Leader Indoor Air Climate & Control Systems Matthias Toman and Project Manager for X-CUBE ventilation units Günter Frei, was busy planning the new ventilation system for over a year - this shows the size and complexity of the project.



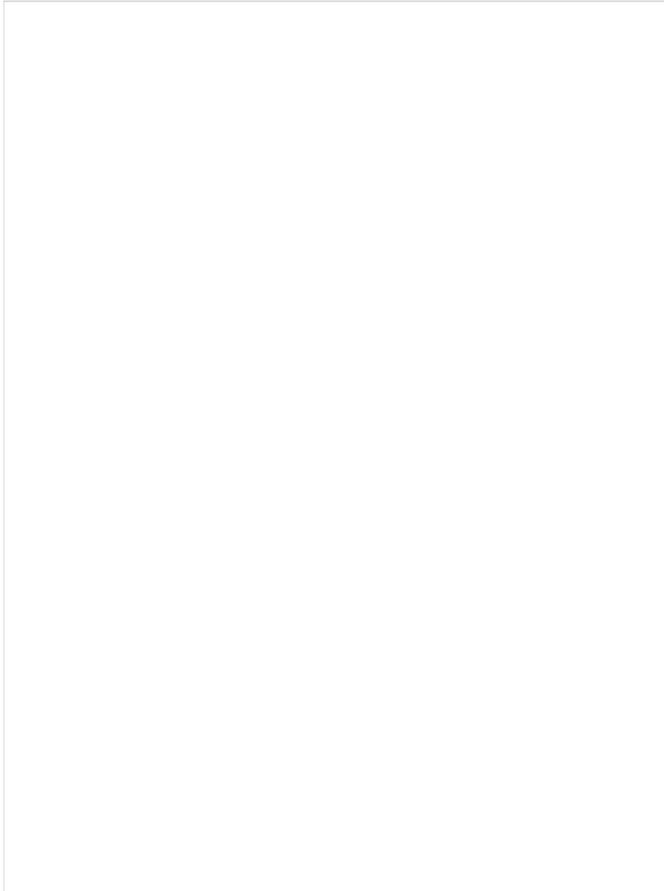
TROX Sales Manager Norbert Lex is proud that everything went according to plan with the project

"At IKEA, we want to offer our customers a shopping experience for all the senses and create optimal working conditions for our employees. Good, clean air is a natural part of this," says Tanja Buratti, store manager at IKEA North. "I'm pleased that everything went well with the installation of the new ventilation system and I'm even more pleased that the new system uses significantly less energy." Norbert Lex, Sales Manager of TROX Austria adds: "There were some tough nuts to crack in the project, such as the statics of the building. It makes me proud that our team managed everything perfectly, from planning to implementation.

The entire plant weighs 98 tonnes

The key data of the project:

- For safety reasons, installation on the roof was only possible on Sundays and public holidays - the X-CUBE units therefore had to be delivered on time before each weekend. Due to the unit dimensions, each of these deliveries required up to six lorry low loaders from the factory in Anholt / Germany travelled 1,000 kilometres to Vienna for each of these deliveries.
- The static uncertainty on the roof of the IKEA building made it necessary to assemble a separate steel structure to support the individual parts of the installation. Due to the limited crane load, the individual registers had to be divided and then joined together on the roof.
- Supply and extract air systems were installed separately for static reasons. The X- CUBE ventilation units have integrated measurement, control and regulation technology. In total, the units weigh 98,000 kilograms.
- To save weight, a change-over register was used instead of the usual heating and cooling registers. Thanks to the the integrated plate heat exchanger and the on-site supply of heat and cold, the pump station guarantees perfectly conditioned air.
- Thanks to heat recovery, particularly energy-saving fans, recirculation operation and integrated MSR control, TROX was able to significantly reduce the energy consumption of the new system.



The elements of the plant, which weigh several tonnes, were lifted onto the roof with a special crane