

# THE ENTIRE WORLD OF LAB AIR MANAGEMENT

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At the Achema, TROX presents itself as an innovative systems provider

The entire world of lab air management – this is the TROX motto for the Achema. 'Innovative components alone are not sufficient today; what our customers expect are complete solutions. This is why TROX presents a complete lab air system in operation and provides a wealth of information on innovative system solutions for the lab air management of the future', says Patric Unterdorfer, Global Sales Manager Labs & Cleanrooms, TROX GmbH.

System solutions from a single source. Control. Safety. Efficiency.

TROX products control and monitor all ventilation and air conditioning functions in small and medium-sized systems. With its X-CUBE air handling unit and the dedicated X-CUBE CONTROL, the X-AIRCONTROL room and zone control system, TROXNETCOM control for fire protection and smoke extract, and the lab air management system LABCONTROL, the TROX set of control systems ensures safety, energy efficiency and comfort. The overall control system continuously checks the values from the room and zone control and from the fire protection control system and adjusts the operating mode of the air handling unit accordingly.

Lab air management with LABCONTROL

To provide safety and comfort in laboratories at all times, the components of an air conditioning system are interconnected. An intelligent lab air management system records all relevant data, evaluates them and ensures that any setpoint values are maintained. With LABCONTROL and the EASYLAB controller TROX has developed an air management system which is ideal for highly sensitive areas. The integral plug and play functions allow all controllers in the network to immediately communicate once they have been installed, i.e. no component addressing is required. Due to their modular hardware structure controllers can be adapted to individual requirements. Plug-in connections combine easy installation with flexible expansion options. Once a fume cupboard has been commissioned, it can be included in the room control, and removed again, at any time and without readjustment. This is real plug and play.

Advantages:

- > Energy-efficient and highly functional
- > Ideal combination of all product features
- > Fan control based on the damper blade position
- > Air change rate based on room air quality
- > Single source solution ensures quick system setup

*Picture: X-CUBE CONTROL, LABCONTROL, X-AIRCONTROL and TROXNETCOM are integrated and ensure energy efficiency, excellent functional reliability, and unsurpassed comfort.*

FMS Flow Monitoring System

While complete solutions for the control and monitoring of volume flow rates do have their advantages, there are areas of application that require the monitoring of volume flow rates, of differential pressures or of face velocities only. This is where Type FMS monitoring systems are used. These self-powered systems for the electronic monitoring of volume flow rate, differential pressure or face velocity in fume cupboards, fume hoods and similar components are suitable for new buildings as well as for refurbishment projects. The systems are easy and safe to use, and offer maximum energy efficiency and data transparency.

*Picture: The new FMS monitoring systems are used for the electronic, self-powered monitoring of volume flow rate or face velocity in fume cupboards, fume hoods and similar components.*

#### Advantages

- › Easy installation, commissioning and expansion due to plug connections
- › Sockets for the most important connections are located on the outside of the casing
- › Monitoring hardware can be expanded with modules
- › Innovative operation to support bespoke project requirements
- › Control input signal for fans
- › Configurable monitoring functions and alarm signalling
- › Easy installation due to interactive EasyConnect configuration software
- › Two control panels can be connected, e.g. for fume cupboards with sashes on two sides

#### Type BE-SEG control panels for EASYLAB fume cupboard controllers and FMS monitoring systems

The Type BE-SEG control panel used for displaying operating values, setting functions and signalling operating states has been considerably improved. The extra slim control panel fits into every fume cupboard and has a large, three-colour display. What is more, the new OLED display shows operating values and system messages. Both optical and acoustic alarms are issued in case of a problem. Push buttons and the range of functions can be adjusted to meet individual requirements, for example, available function buttons are visible, unavailable function buttons are not visible. The function buttons can be used to set operating modes, to control the automatic sash device, or to switch the fume cupboard lighting on or off. Continuous self monitoring of the communication between controller and control panel ensures excellent operating reliability.

*Picture: The new BE-SEG control panel is an impressive device due to its very slim construction, improved functions, and display of fume cupboard operating states. It ensures outstanding operational reliability.*

TROX COOLDESK. Energy efficiency and very high comfort levels.

TROX COOLDESK is the intelligent solution for labs with high thermal loads. The heat produced by laboratory equipment is led from the top of the workbench through the lab furniture to a high-efficiency air-water heat exchanger and cooled to pleasant room temperature. COOLDESK effectively prevents an increase in the room temperature such that the air change rate can be kept to the energy-efficient standard minimum.

#### Advantages

- › Energy-efficient dissipation of thermal loads due to air-water heat exchanger
- › Dissipation of thermal loads at the source
- › Reduction of air change rate to the minimum air change rate according to EN 1946

*Picture: COOLDESK is fitted into lab furniture from where it leads high thermal loads to an air-water heat exchanger, thereby creating a pleasant room temperature.*

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TROX is leading in the development, manufacture and sale of components, units and systems for the ventilation and air conditioning of rooms. With 30 subsidiary companies in 28 countries on 5 continents, 14 production facilities, and importers and representatives, TROX is present in over 70 countries. Founded in 1951, TROX generated in 2014 with a total of 3,700 employees around the globe revenues of €455 million.

This press release can also be found under [www.trox.de/PR\\_ACHEMA2015](http://www.trox.de/PR_ACHEMA2015)

For further information or should you have any questions about TROX, please contact:

Christine Roßkothen  
Corporate Marketing  
voice: +49 (0) 2845 202464  
fax: +49 (0) 2845 202587  
[c.rosskothen@trox.de](mailto:c.rosskothen@trox.de)  
[www.troxtechnik.com](http://www.troxtechnik.com)