

AIR MANAGEMENT IN CLEAN ROOMS

Your clean room becomes clean not only through the air exchange and the filtration stage.

To make your clean room **safe** for operation, **Air management systems** are also very important in addition to air change and filtration. They ensure an even air balance and regulate the various air volume flows in the room, such as supply air, fresh air, recirculated air and extract air.

Depending on the room type and classification, there may be an additional control variable – **room pressure** – in addition to room balance control. As clean rooms are becoming increasingly airtight, it is particularly important to use a system that meets these high requirements.

- Intelligent components communicate with complementary to one another, they monitor and control parameters for clean rooms and ensure that these parameters are maintained.
- Ventilation and air conditioning components must communicate with each other, only then can they also work together perfectly – especially when they serve the safety of people and facilities.
- Intelligent communication systems for data **to be queried, collected, made visible and monitored** via the central BMS.

AIR MANAGEMENT SYSTEMS: CENTRALISED OR DECENTRALISED?

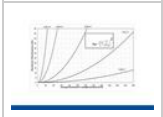


TROX room air management systems are **optimised for high system requirements** such as those in clean rooms.

Regardless of whether you need a **centralised or decentralised system**, TROX offers you a tailor-made solution:

- **Room management function**
All room related data and configurations are stored on one controller.
- **Room pressure, temperature, humidity, etc.**
Comprehensive control system for the complete HVAC system
- **Interfaces to central BMS**
LON, BACnet, Modbus, IP-based web server
- **Plug and play**
Automatic data exchange between the controllers; no addressing required; interactive commissioning
- **Easy maintenance**
including room diagnosis and room configuration
- **Rapid and precise response** of the setpoint values
- **Modular structure** of the hardware

ROOM BALANCE, ROOM PRESSURE, LEAKAGE – ALL REGULATED!



Targeted positive pressure in clean room production avoids contamination and prevents undesired airflows or undesired particles from entering a room.

TROX provides systems which ensure that the correct positive pressure is maintained.

Complex room balancing and room monitoring functions are likewise possible.

- Via the system's internal communication line, all network participants can be networked quickly and easily via plug and play, which ensures a **continuous data exchange** between these participants.
- The system can easily be connected to the **central BMS** using the standard communication interfaces LON, BACnet, or Modbus.
- Quick-response control loops are suitable for the volume flow control in installations and for room pressure control.
- Crucial for effective and efficient room pressure control is a **defined leakage**. . As rooms are built tighter and tighter, it is even more important to plan the right leakage for each room.

YOUR PERSONAL ADVISOR



I AM HAPPY TO ADVISE YOU.

Whether new construction, design, optimisation, system expansion, refurbishment or maintenance - TROX is at your side. Describe your specific needs to us or arrange a non-binding consultation.

E-Mail: info@troxgroup.com / sami.akaydin@troxgroup.com

Phone: +971 4 341 7448