

# FIRE PROTECTION AND SMOKE EXTRACT IN CLEAN ROOMS

## A COMPREHENSIVE APPROACH TO CLEAN ROOMS MUST BE THE GOAL!

- Clean rooms are high-risk areas that must be treated with special care during planning. The requirements for clean rooms are particularly demanding in the pharmaceutical, medical technology, biotechnology and semiconductor and food manufacturing industries.
- Based on the **risk of contamination** for people, products and the environment, these spaces must be closely monitored and controlled.
- The clean room is the **heart of production** of sensitive, valuable goods. Any contamination, for example by dust, microorganisms or even smoke, can severely disrupt production processes and product quality.
- However, **personal safety** also poses a particular challenge, since, on the one hand, **no toxic substances may be released** during the evacuation and on the other hand a correct discharge may no longer be possible.
- As **typical causes of fire**, as well as spontaneous ignitions or leaks in the containers of easily flammable or spontaneously combustible liquids or gases.
- Within minutes, fire damage to equipment and installations **cause losses in the millions**. Even a small fire can cause considerable damage by producing and spreading smoke.
- For this reason, a **high safety level in clean rooms with preventive and active fire protection** is particularly important and absolutely necessary.

## COMPREHENSIVE SOLUTIONS FOR YOUR SAFETY



In the event of a fire, personal safety, support of the fire and rescue service, and protection of property are the prime objectives, and they have to be met by an advanced central BMS and an effective safety management concept:

Through the comprehensive integration of all components, we combine these systems into total solutions for your specific requirements.

## YOUR CONTACT PERSON



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](mailto:info@troxgroup.com) / [sami.akaydin@troxgroup.com](mailto:sami.akaydin@troxgroup.com)

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## INTELLIGENT CONTROL SYSTEMS



*The illustration from the brochure shows the combination of control systems for fire protection and smoke extract.*

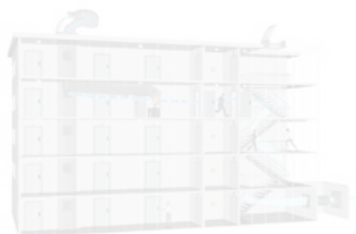
### COMBINING FIRE PROTECTION AND SMOKE EXTRACT

Due to increasing digitisation, even in our industry, you can combine the various products of a **fire- and smoke protection system** into one intelligent systems.

This leads to a huge reduction in the fire load, installation and maintenance costs and supports the requirements of the line system guideline (MLAR / LAR).

In our "Intelligent control systems - application examples fire protection and smoke extraction" brochure, we provide you with an overview.

## EVERYTHING FROM A SINGLE SOURCE



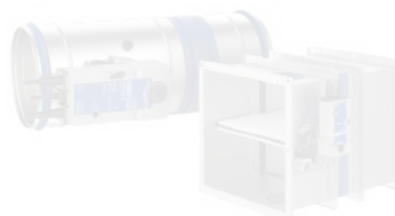
### SMOKE EXTRACT SYSTEMS

The TROX X-FANS safety systems make it possible to keep escape routes free of smoke. The advantages of complete systems:

- Coordinated, functional safety packages
- All components from a single source
- Consultancy in designing entire systems

[Click here for TROX X-FANS safety systems](#) (de)

MRA (de)



### FIRE DAMPERS

Fire dampers prevent the propagation of fire and smoke to adjacent fire compartments.

Whether ceiling or wall, round or square – TROX has the right fire damper in any case.

All TROX fire dampers are also available in an **ATEX-compliant construction**.

[Go to the TROX fire dampers](#)

RDA (de)



### SMOKE EXTRACT AND SMOKE PROTECTION DAMPERS

Smoke control dampers are an important part of mechanical smoke extract systems, which are supposed keep escape routes, for example, free in case of fire.

[Go to the TROX smoke control dampers](#)