

► Smoke extraction ►►



**Universal.
Modular.
Safe.**

EK-JZ smoke control damper

TROX[®] TECHNIK
The art of handling air

► Modular structure for all applications ►►

EK-JZ – Highest performance smoke extraction

Smoke control dampers with the largest possible openings are required to keep escape and rescue routes smoke-free. This is the only way to achieve large volume flow rates at low airflow velocities – a prerequisite for the effective functioning of pressure differential systems (PDS). The calcium silicate dampers of the EK-JZ series from TROX are ideal for this task.

New: vertical fins for narrow rooms

To complement the existing series, vertical fins have now been certified to provide the required cross sections, especially in narrow shafts, such as those next to firefighters' elevators. This makes it possible to achieve openings over the entire slab to slab height.



EK-JZ smoke control damper over slab to slab height with cover grille (cut-away)



Maximum volume flow rates

Another new feature is the possibility of combining several smoke control dampers to form an extremely large smoke removal area or for space-saving arrangement of several smoke extraction lines. Depending on the structural design, up to six modules can be combined with each other in dry direct bonding. The volume flow rates thus made possible meet the highest performance requirements.

Minimum dimensions

But the new EK-JZ smoke control damper also offers a solution for extremely small installation spaces. With a size of just 200 x 230 mm, the damper ensures effective smoke extraction even in confined spaces



► Maximum size, maximum performance ►►

Lowest possible wall clearances

Instead of the usual 75 mm edge distance, the EK-JZ smoke control damper can function with an extremely small 3 – 5 mm distance from load-bearing ceiling slabs, thereby maximizing the openings.

To simplify installation, partial dry mortarless installation in combination with peripheral gap filling of up to 150 mm is also possible.



Colour according to preference – all RAL colours available

Use in many areas




The concept of the EK-JZ smoke control damper series is based on controlled smoke extraction via large openings to smoke extraction shafts.

The new vertical design makes it possible for the first time to achieve large free cross sections with high flow velocities of up to 20 m/s even in narrow vertical ducts.

With the diverse grille variants, the exacting demands on function and design are taken into account. The grilles are available in a wide range of designs and colours. The EK-JZ smoke control damper is completely concealed behind the designer grilles

Detailed documentation

To ensure correct installation, TROX provides support in the form of a detailed operating and installation manual, thereby facilitating the installation measures and commissioning, including acceptance, directly on site. A barcode affixed to the damper confirms proper implementation.

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	EK-JZ-R/DE/1200x630/03/FF/B24AM		
	TROX ® TECHNIK Entrauchungsklappe EK-JZ DoP / EK-JZ / 00x	TROX GmbH Heinrich-Trox-Platz 47504 Neukirchen-Vluyn http://www.trox.de	
S/N 1234567890123	MSFD/LG/01D	EN 12090 (www.trox.de) S1000 C... HOT 400/30 MA mult EN 12101 - 8.2011	Jahr/year-2x 1322 17

► Wide range of applications ►►

Ideal for keeping rescue routes free from smoke

The CE-certified EK-JZ smoke control damper can be used in walls, shafts or conduits. It has been designed in particular for installation in CE-certified shaft walls with one-sided panelling for dissipating smoke and heat from floors of a building that are on fire, which means it is ideal for keeping stairwells smoke-free by means of pressure differential systems. EK-JZ can of course also be installed in fire-resistant smoke extract ducts and in underground car parks.

The EK-JZ smoke control damper in pressure differential systems

Pressure differential systems (PDS) ensure a constant positive pressure by means of a controlled supply of fresh air. This keeps escape and rescue routes, and their vestibules such as safety stairwells, firefighters' elevators and escape tunnels, smoke free. This is an essential prerequisite for evacuating people and for the fire department to fight fires, even over a relatively long period of time.

When a door is opened, the positive pressure in the stairwell prevents the toxic fumes from flowing in. However, this means that the smoke must be removed via another route. Smoke control dampers are used here, and provide the necessary output with large openings.



Sample applications

- Pressure differential systems
- Underground car parks
- Shaft walls with panelling on one side
- Lightweight partition walls



► Smoke control damper EK-JZ ►►

Advantages at a glance:

Superior quality

The EK-JZ smoke control damper is made of calcium silicate panels and withstands very high temperatures; it features aerodynamic blades and an innovative two-level sealing system, which ensures minimum leakage with both high and low temperatures. EK-JZ smoke control dampers can be released manually or automatically.

Ideal dimensions

Due to its compact installation depth and the variable number of blades, the EK-JZ smoke control damper is ideal for confined spaces; even the smaller sizes offer maximum flow cross sections for the volume flow.

Overall safety

Controlled by an intelligent system such as TROXNETCOM, the EK-JZ smoke control damper ensures networked safety with connection to the central building management system.

Highest output in all dimensions

- Different nominal sizes from 200 x 230 mm to 1,200 x 2,030 mm
- Several dampers can be combined with dry bonding
- Classification EI 120/90 ($h_{odw}, v_{edw}, i \leftrightarrow o$) S1000 C_{mod} HOT400/30 MA multi
- CE marking to EN 12101-8 Smoke and heat control systems – Smoke control dampers
- Pressure level 2 (-1,000 to 500 Pa)
- Quick and easy installation due to rectangular casing without any protruding parts
- Casing, damper blades and actuator encasing made of calcium silicate
- Only low pressure losses because of aerodynamic blade contours
- TROXNETCOM, Agnosys and SLC technology-tested and CE-certified
- Manual release; in the event of a fire, EK-JZ will open even after 25 minutes
- Attachment to heat-insulated smoke extraction ducts with verification as well as sheet steel smoke extraction ducts possible
- C_{mod} = for smoke extraction and ventilation in combined systems, which allows for pneumatic volume flow rate balancing as the damper blade can take intermediate positions

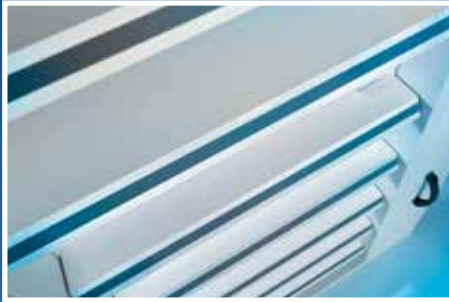


Upstream velocities up to 20 m/s

Volume flow rate at minimum dimension up to 3310 m³/h (920 l/s)

Volume flow rate at maximum dimension up to 175,390 m³/h (48,720 l/s)

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($h_{odw}, v_{edw}, i \leftrightarrow o$) S1000 C_{mod}
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