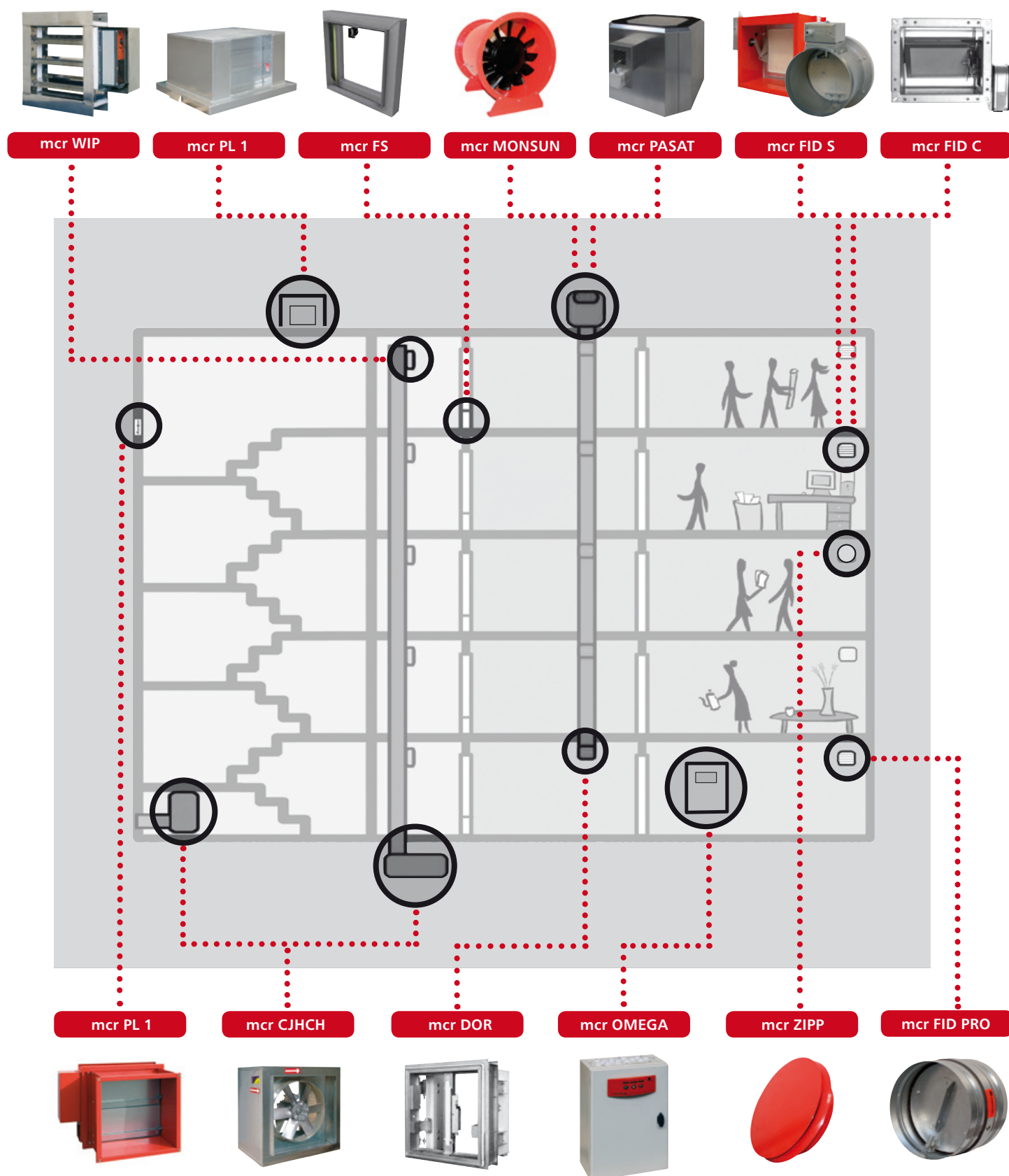


fire ventilation systems

**FIRE DAMPERS
FANS
CONTROL SYSTEMS
OVERPRESSURE SYSTEMS**

fire protection devices

examples of application



fire dampers and smoke exhaust dampers

CE



mcr FID PRO

single-blade cut-off fire damper
and damper for fire ventilation systems

Fire resistance

EIS 120, EIS 120 AA – depending on method of manufacturing, as well as method and place of installation.

Versions

S – cut-off fire damper
V – for fire ventilation systems (smoke exhaust)
M – double-function for combined systems

Purpose

The damper has been designed for separating fire-hazardous zones from safe parts of the building (S version) and assuring appropriate evacuation conditions through fire ventilation (V version) – intake and exhaust damper. Damper can be also used in so-called combined systems (M version).

Control – release

KW1 mechanism – activated by a return spring with fusible link rated at e.g. 72°C or remotely by an electromagnet (pulse or power break), reset by means of a lever or additional actuator (Vn= 24V DC or 230V AC).

RST mechanism – activated by a return spring with fusible link rated at e.g. 72°C, manual re-arming by means of a lever.

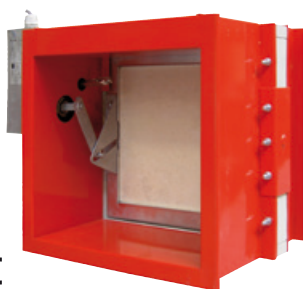
Electrical actuator – activated by a thermocouple rated at e.g. 72°C or remotely, by supply power decay (power break), remote reset by supplying power (Vn= 24V AC/DC or 230V AC).

Electrical actuator – activated remotely, by supplying power (pulse), remote reset by resupply of power (Vn= 24V AC/DC or 230V AC).

Dimensions (to the accuracy of 1 mm)

– round damper: diameter 100 - 315 mm,
– sleeve, nipple or flange type of execution.

CE



mcr FID S

single-plane cut-off fire damper
and damper for fire ventilation systems

Fire resistance

EIS 90, EIS 90 AA, EIS 120, EIS 120 AA – depending on method of manufacturing, as well as method and place of installation.

Versions

S – cut-off fire damper
V – for fire ventilation systems (smoke exhaust)
M – double-function for combined systems

Purpose

The damper has been designed for separating fire-hazardous zones from safe parts of the building (S version) and assuring appropriate evacuation conditions through fire ventilation (V version) – intake and exhaust damper. Damper can be also used in so-called combined systems (M version).

Control – release

KW1 mechanism – activated by a return spring with fusible link rated at e.g. 72°C or remotely by an electromagnet (pulse or power break), reset by means of a lever or additional actuator (Vn= 24V DC or 230V AC).

RST mechanism – activated by a return spring with fusible link rated at e.g. 72°C, manual reset by means of a lever.

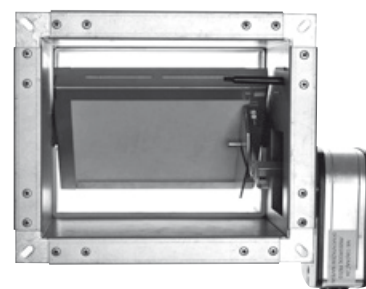
Electrical actuator – activated by a thermocouple rated at e.g. 72°C or remotely, by supply power decay (power break), remote reset by supplying power (Vn= 24V AC/DC or 230V AC).

Electrical actuator – activated remotely, by supplying power (pulse), remote reset by resupply of power (Vn= 24V AC/DC or 230V AC).

Dimensions (to the accuracy of 1 mm)

– rectangular damper with insulating separator, in a casing: width 200 – 1500 mm; height 200 – 1500 mm; casing length 296 mm,
– round damper with insulating separator, in a casing: diameter 125-1000 mm; casing length 296 mm.

CE



mcr FID C

single-plane cut-off damper
CE – according to EN 15650:2010

Fire resistance

EI 120 (ve ho i<-->o)/ E 120 (ve ho i<-->o)S

Versions

S – cut-off fire damper

Purpose

The damper has been designed for use in general ventilation systems (intake and exhaust types), at passages through space dividing elements – walls and floors.

Control – release

KW1 mechanism – activated by a return spring with fusible link rated at e.g. 72°C or remotely by an electromagnet (pulse or power break), reset by means of a lever or additional actuator (Vn= 24V DC or 230V AC).

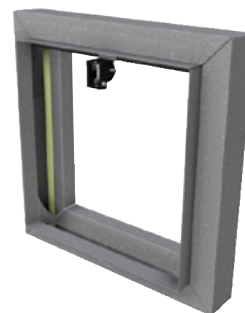
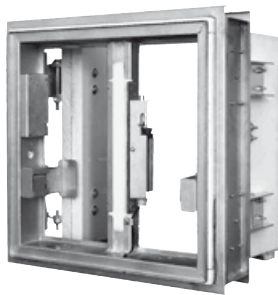
RST mechanism – activated by a return spring with fusible link rated at e.g. 72°C, manual reset by means of a lever.

Electrical actuator – activated by a thermocouple rated at e.g. 72°C or remotely, by supply power decay (power break), remote reset by supplying power (Vn= 24V AC/DC or 230V AC).

Dimensions (to the accuracy of 1 mm)

– width 200 – 800 mm; height 200 – 400 mm; casing length 296 mm.

fire dampers and smoke exhaust dampers



mcr WIP

louver damper, cut-off type
and for fire ventilation systems

Fire resistance

EIS 60, EIS 60 AA, E 120, ES 120 –
depending on method of manufacturing, as
well as method and place of installation.

Versions

S – cut-off fire damper
V – for fire ventilation systems
(smoke exhaust)
M – double-function for combined systems
T – transfer damper

Range of application

The damper has been designed for separating
fire-hazardous zones from safe parts of the
building (S version) and assuring appropriate
evacuation conditions through fire ventilation
(V version) – intake and exhaust damper.
It can be also used in so-called combined
systems (M version), as a transfer damper
(T version) and at the end of ventilation
ducts.

Control – release

KW1 mechanism – activated by a return spring
with fusible link rated at e.g. 72°C
or remotely by an electromagnet (pulse or
power break), reset by means of a lever or
additional actuator (Vn= 24V DC or 230V AC).

RST mechanism – activated by a return spring
with fusible link rated at e.g. 72°C, manual
reset by means of a lever.

Electrical actuator – activated by a
thermocouple rated at e.g. 72°C or remotely,
by supply power decay (power break), remote
reset by supplying power (Vn= 24V AC/DC
or 230V AC).

Electrical actuator – activated remotely, by
supplying power (pulse), remote reset by
resupply of power (Vn= 24V AC/DC
or 230V AC).

mcr DOR

door-type smoke exhaust
and air-intake damper

Fire resistance

EIS 120 AA

Versions

V – for fire ventilation systems
(smoke exhaust)
D1 – single-leaf damper
D2 – double-leaf damper

Purpose

The damper has been designed for use in fire
ventilation ducts as outlet damper (smoke
exhaust) and as inlet damper for evacuation
needs (intake of fresh air).

Control – release

EM 24 D mechanism – remotely activated by
an electromagnet (pulse supply Vn= 24V AC/
DC), manual reset.

By implementing an intermediary module MP
230/24 damper can be released by 230 AC/DC
voltage.

mcr FS

louver transfer damper

Fire resistance

E 120

Versions

101 – curtain partially in air stream
201 – curtain outside of air stream
301 – curtain outside of air stream
(round damper)

Purpose

The damper is intended for unducted
mounting, in partitions – as a transfer
damper for transmission of air between
rooms.

Control – release

Spring mechanism – activated by a return
spring with fusible link rated at e.g. 72°C,
manual reset.

Electromagnetic release – activated by a
thermo element (e.g. 72°C) or remotely, by
lack of supplying power (power break Vn=
24V AC/DC or 230V AC), manual reset.

CE



CE



mcr MONSUN

duct mounted axial smoke exhaust fan
CE – according to EN 12101-3

Fire resistance

F400 - 400°C for 120 min.
F300 - 300°C for 60 min.
F200 - 200°C for 120 min.

Versions

Long casings (LC).
Single or double speed motors.

Purpose

The fan has been designed to remove smoke and hot air from enclosed interiors during fire. It facilitates evacuation of people and protects the building structure and its fittings against high temperature, it also prevents the fire spreading to the neighbouring fire compartments. The fan may be used in comfort and industrial ventilation systems as an exhaust or venting fan.

Technical data

Available in 10 sizes:
from D355 mm to D1000 mm.
Standard air output up to 100000 m³/h.
Compression of up to 1800 Pa.

Accessories

Mounting feet for horizontal installation SW, protective wire fan guard on rotor or motor side SO, vibration compensators – flexible connectors, F400 class KD, counterflanges for duct installation PK, back draft dampers KS, shock absorbers KA, control automatics OM.

mcr PASAT

exhaust roof fan
CE – according to EN 12101-3

Fire resistance

F400 - 400°C for 120 min.
F300 - 300°C for 60 min.
F200 - 200°C for 120 min.

Versions

Single or double speed motors.

Purpose

The fan has been designed to remove smoke and hot air from enclosed interiors during fire. It facilitates evacuation of people, it also prevents the fire spreading to the neighbouring fire compartments. The fan may be used in comfort ventilation systems.

Technical data

Available in 7 sizes:
from D315 mm to D710 mm.
Standard air output up to 32000 m³/h.
Compression of up to 1800 Pa.

Accessories

PDN base, vibration compensator KD, back draft damper KS-V, protective wire fan guard SO.

mcr ZIPP

cut-off fire valve

Fire resistance

EIS 120

Versions

– vertically mounted
– horizontally mounted

Purpose

The valve has been designed for assembly at the end of ventilation ducts and is used for separating fire-hazardous zones from safe parts of the building as well as for transferring air through building partitions.

Technical data

Available in 4 sizes:
D100 mm, D125 mm, D160 mm, D200 mm.

Control – release

RST mechanism – activated by a return spring with fusible link rated at e.g. 72°C, manual reset.

EMz mechanism – activated by a return spring with fusible link rated at e.g. 72°C or remotely by an electromagnet (pulse and power break Vn= 24V DC or 230V AC), manual reset.

overpressure systems for vertical evacuation paths



mcr PL1

overpressure and bleed damper,
product in compliance with EN 12101-6

The overpressure bleed damper has been designed for the maintenance of the desired pressure differences before and behind its partition and is implemented as a pressure relief damper in overpressure systems of staircases. It can also be used in any room protected against smoke by establishing overpressure.

mcr CJHCH

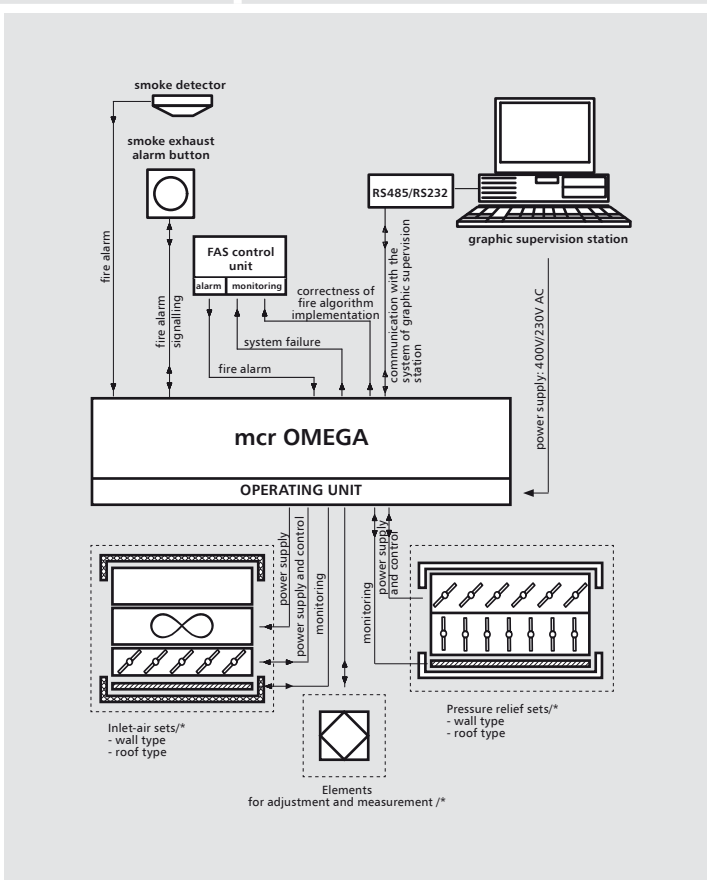
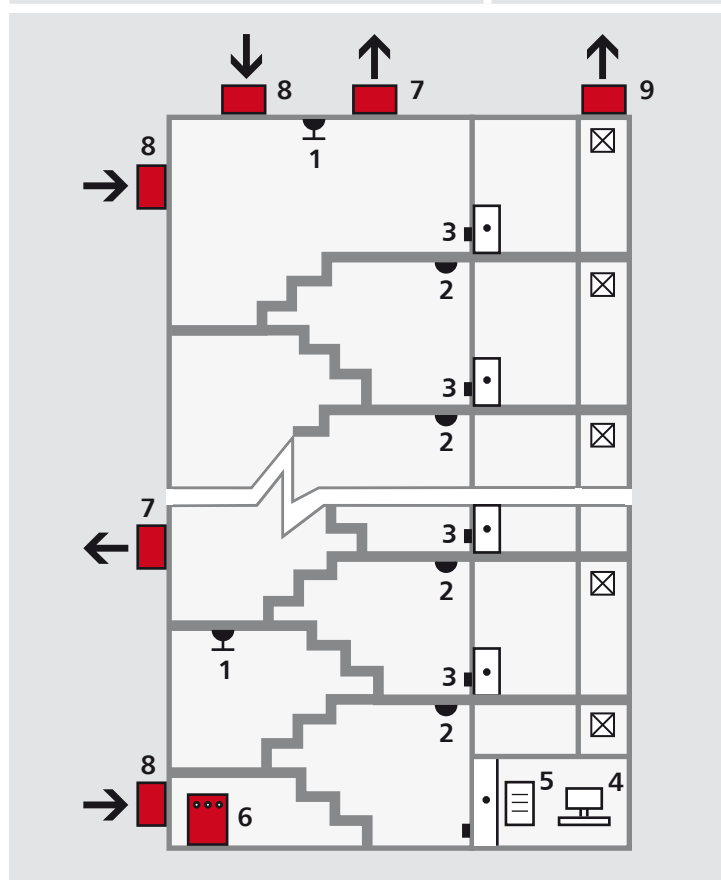
axial-flow intake and exhaust fan
with casing insulated acoustically

The fan has been designed for air intake in overpressure systems of vertical evacuation paths (stairways), it can be implemented in systems designed for comfort ventilation as well.

mcr OMEGA

control and power supply unit
for fire ventilation and overpressure systems

mcr Omega control unit – controls and supplies power to overpressure protection systems for vertical evacuation paths including air intake fans, airflow regulating dampers actuators and overpressure damper sets, as well as other devices in the system.



Overpressure system:

1. inspection and measurement elements
2. smoke sensors
3. alarm buttons
4. supervision station
5. FAS control unit
6. mcr Omega control unit
7. pressure relief sets/* (roof or wall type)
8. intake-air sets/* (roof or wall type)
9. exhaust air/* (roof or wall type)

*/ location and quantity depending on air demand of the system

Arrangement and quantity of each system element depend on the requirements, construction and location of the protected staircase, lobby, lift shaft, etc.

table of initial choice of devices

		type of device						
		mcr FID PRO	mcr FID S	mcr FID C	mcr WIP	mcr DOR	mcr FS	mcr ZIPP
designation	cut-off dampers for ventilation and air-conditioning ducts	X	X	X	X	–	–	X
	smoke exhaust dampers for fire ventilation	X	X	–	X	X	–	–
	transfer dampers	–	–	–	X	–	X	X
fire resistance class	EIS 60 / EIS 60 AA	X/X	X/X	–	X/X	–/X	–	X/–
	EIS 90	X	X	–	–	–	–	X
	E 120	X	X	–	X	X	X	X
	ES 120	X	X	–	X	–	–	X
	EIS 120	X	X	X	–	–	–	X
	EIS 120 AA	X	X	–	–	X	–	–
mounting location	ventilation and air-conditioning ducts at penetrations through fire partitions	X	X	X	X	–	–	X
	escape corridor	X	X	X	X	X	X	X
	lobby	X	X	X	X	X	X	X
	garage	X	X	X	X	X	X	X
	at the end of a duct	–	–	–	X	X	X	X
minimum wall thickness with a damper installed	concrete	110 mm	110 mm	110 mm	110 mm	110 mm	110 mm	110 mm
	made of bricks	120 mm	120 mm	120 mm	120 mm	120 mm	120 mm	120 mm
	made of aerated concrete blocks	115 mm	115 mm	115 mm	115 mm	115 mm	115 mm	115 mm
	made of gypsum boards on a metal studs framing	125 mm	125 mm	125 mm	–	110 mm	125 mm	125 mm
	made of fire resistant boards	–	–	–	–	50 mm	–	–
dimensions	width from – to [mm]	–	200–1500	200–800	160–1000	200–1150	100–1250	–
	height from – to [mm]	–	200–1500	200–400	120–1020	300–1250	100–1016	–
	diameter from – to [mm]	100–315	125–1000	–	100–1000	–	100–1016	100–200
	length from – to [mm]	140–310	296–390	296–390	135	125	154–202	130



FIRE PROTECTION SYSTEMS

- ▶ fireproof partitions
- ▶ smoke and heat exhaust systems
- ▶ fire ventilation systems
- ▶ fire protection of building structures



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