

Thermally insulated textile fire protection closure

System: Fibershield®
Series: Fibershield®-I



CO₂ reduction

with thermally insulated fire protection curtains

learn more on page 4 and 5

Requires less installation space

compared to the conventional fire protection gate

learn more on page 11

Stöbich.

Pioneer and global market leader for structural fire protection for 40 years.

The company Stöbich Brandschutz GmbH develops, manufactures and installs individual and standard structural fire protection solutions across the world and is one of the most innovative global leaders in the industry. Since 1980 the Goslar-based family business has been setting trends in the field of fire and smoke protection systems.

In addition to the conveyor system closure division, Stöbich has also become a specialist and market leader in textile fire protection over the past 25 years. Using state-of-the-art high-performance fabrics at the production site in Lower Saxony, the company produces various textile fire protection solutions for many application fields.



> 150 Patents



11 Global innovations



> 90 Countries

Textile smoke and fire protection closures

Buildings are divided into fire or smoke compartments to prevent the uncontrolled spreading of fire and smoke in case of fire. To prevent the fire from spreading to adjacent compartments, openings in walls and ceilings must be effectively closed and barriers must be provided to direct the smoke. From an aesthetic point of view, conventional door and gate solutions, which are still frequently used, represent a significant impairment of the building design and the visions of architects and planners.

Textile smoke and fire barriers, which are invisibly installed in a suspended ceiling, offer planners and architects an attractive and versatile alternative to the massive and visible structural

solutions. They are characterised by smooth installation, low weight, less space requirements and enormous user benefit!

These multi-talents for preventive structural fire protection are not only highly popular for open and architecturally sophisticated room concepts, but these streamlined curtain systems are real problem solvers especially where space is tight.



space-saving

low space requirement for installation due to thin fabric



invisible

Subtle integration into the planned building structure thanks to installation in the false ceiling



lightweight

Low weight thanks to textile concept, which means a lower static load



resource-saving

Less use of materials that release a lot of CO₂



LESS IS MORE

CO₂ reduction

with thermally insulated fire protection curtains

You could say that sustainable product development has an inherent ambition to make more of less! An efficient (fire protection) solution should therefore not conflict with resource-saving use of materials.

Yes to fire protection, but how to implement it?

Fire compartments prevent the uncontrolled spreading of a fire and can be implemented by various measures. Conventional door solutions or textile curtain systems reliably ensure this building segmentation is maintained in the event of fire.

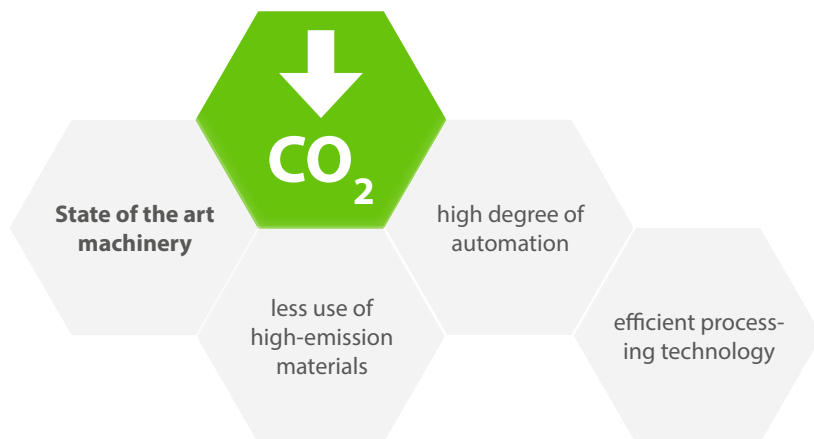
The material makes all the difference!

The use of resources, in this case steel, has a significant influence on the CO₂ balance. The steel used in gate production has a significant impact on CO₂ emissions - which is of course much lower for curtains. Naturally, Fibershield®-I requires much

less steel! In contrast to gates with damper elements or roller armoring made of steel sheet, the sealing surface is formed by a textile curtain. And the curtain's few sheet metal housing elements feature a reduced material thickness. All in all, considerably less steel is used in the production of a thermally insulated curtain.

Advanced manufacturing technology for sustainable production.

With modern and largely automated machinery, production processes can be implemented more rapidly and in an energy-efficient manner. Since we can process sheet metal components with low wall thickness, the use of materials is further reduced.

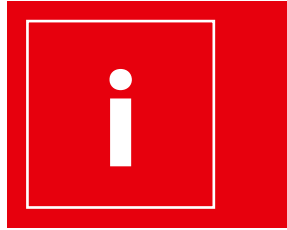




OPEN CURTAIN



CURTAIN HALFWAY CLOSED



Engineering and customer benefits

The Fibershield[®]-I system is the latest generation of thermally insulated textile fire protection closures made by Stöbich.

Installation

The closure has the winding kinematics of a rolling gate and requires little installation space above a wall opening. Also, due to the patented lintel lock, the panels around the winding shaft can be dispensed with as an option. This way the installation dimension can be reduced even further.

The multi-layer design of the fire protection curtain with its alternating layers of insulating and cooling layers allows the sparing use of the fabrics and thus a reduction of the weight compared to conventional models.

Due to the low weight and low installation space requirements, the Fibershield[®]-I system is also ideal for modifying or retrofitting fire protection systems in existing buildings.

Design

In new buildings, the closures provide for exceptional design options for the reliable closing of particularly wide openings in the event of fire.

The Fibershield[®]-I system can be integrated almost invisibly into the suspended ceiling. Parking positions next to the wall opening that usually need to be kept free for conventional fire protection elements can be used for other purposes.

The main focus in the further development of the Fibershield[®]-I was on easy installation. The guide rails have plug connectors and require no visible screw connections.

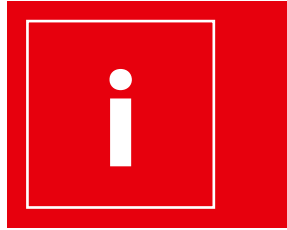
THERMALLY INSULATED TEXTILE FIRE PROTECTION CLOSURE

In the event of fire, textile fire protection closures are used to close wall or ceiling openings. Their constructional design (unrolling and folding equipment) and the use of various fabrics opens up a wide area of applications and allow for various protection objectives or classifications and time classes. The housings and guide rails of these flexible systems blend almost invisibly into the building and offer a great deal of design freedom for architecturally sophisticated open space concepts.



EI₁ 30 – EI₁ 90

EI₂ 30 – EI₂ 120



Constructive system design

The textile curtain is attached to a winding shaft and works similar to a rolling gate. This means that relatively little installation space is required on the wall panel above the opening. As the shielding element closes in a top to bottom line, only a relatively narrow closing area must be kept free.

The system can be supplied with two different drive variants. The variant that integrates tubular motors in the winding shaft is particularly space-saving, low-maintenance and aesthetically attractive. The variant with external chain drive offers more

freedom in terms of adjusting the opening and closing speed.

Both drive variants feature an integrated hold-open device and closing speed control. Therefore, in case of fire, they will close by means of their own weight without any auxiliary energy.

Type	Heat-insulating fire protection closure with textile design
Verification	CE marking according to EN 16034:2014 in conjunction with EN 13241:2003+A2:2016
Closing direction	From top to bottom
Fire resistance	El ₁ 30 - El ₂ 120 Tested according to EN 1634-1:2014-03 Classified according to EN 13501-2:2016
Smoke protection	S _a : for joint length 14.5 m for El ₁ 30 - El ₂ 120 Tested according to EN 1634-3:2005-01 in connection with EN 1363-1:2012-10 Classified according to EN 13501-2:2016
Closing cycles	C0, C1, C2 Tested according to EN 12605:2000-08 Classified according to EN 13501-2:2016
Fire behaviour of textile	B-s1, d0; E-d2 Tested according to ISO 11925-2 and EN 13823 Classified according to EN 13501-1:2018
Environmental conditions	Special environmental conditions are not taken into account (e.g. humidity > 80 %, ambient temperature < 5 °C and > 45 °C, wind loads etc.).
Visible surfaces	galvanized RAL, smooth, silk gloss, standard colour shade NCS standard color Stainless steel type I V2A material A-1.4301 (bright) Stainless steel type II V2A material A-1.4301, K240 (ground) in each case for the visible surfaces of the housing and the guide rails

Constructive system design (system drawing)

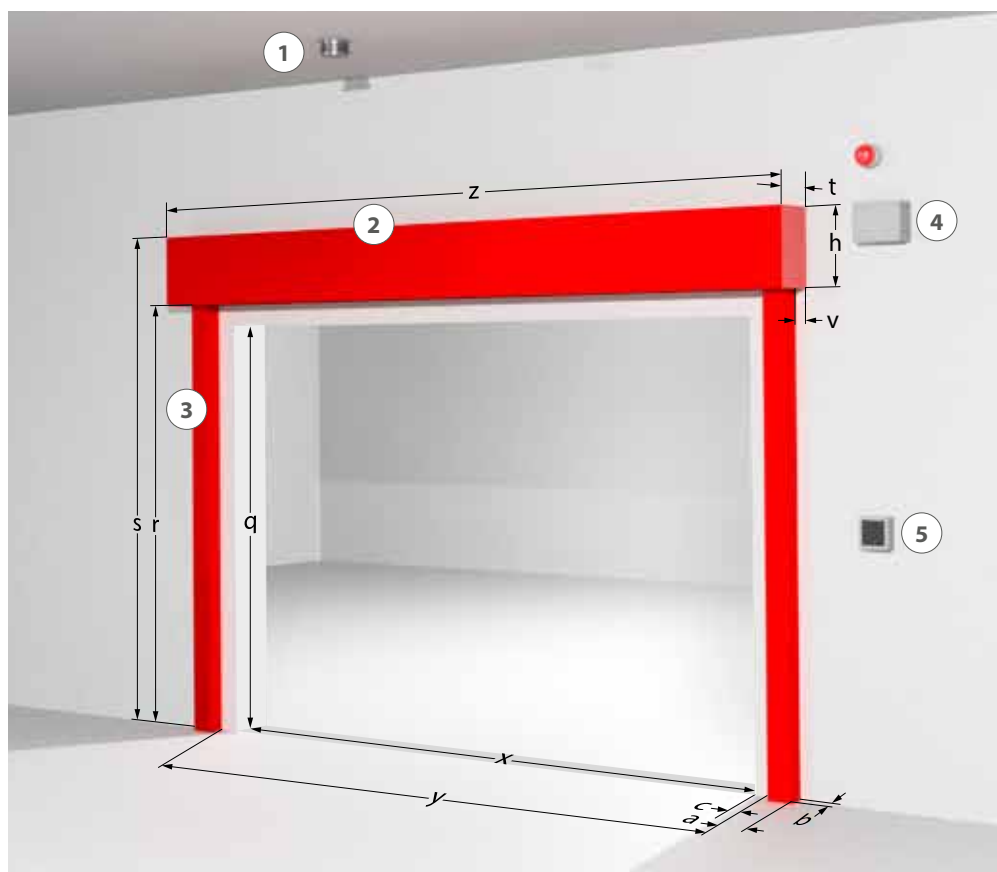
Fire resistance/ classifications	Size max.* [y x r] in mm	Fabric	Wall thickness** in mm	Housing	Guide rails
E ₁ 30/E ₂ 30	7315 x 3800	Stratex 3	150	Type A	Type 1 or Type 3***
E ₁ 30/E ₂ 30	7315 x 4950	Stratex 3	150	Type B	Type 1 or Type 3***
E ₁ 60	6600 x 4840	Stratex 12	150	Type B	Type 2
E ₂ 60	4400 x 3400	Stratex 6	150	Type A	Type 1 or Type 3***
E ₂ 60	4400 x 4400	Stratex 6	150	Type B	Type 1 or Type 3***
E ₂ 60	6600 x 4840	Stratex 9	150	Type B	Type 1
E ₁ 90	6000 x 4400	Stratex 12	150	Type B	Type 2
E ₂ 90	6000 x 4400	Stratex 9	150	Type B	Type 1
E ₂ 120	6000 x 4840	Stratex 12	175	Type B	Type 2
S _a	S _a = joint length must not exceed 14.5 m (normative: 3-sided without end strip)				
C0	7315 x 4950	Stratex 3, E ₁ 30/E ₂ 30		Type A	Type 1
	7315 x 3800	Stratex 3, E ₁ 30/E ₂ 30		Type B	Type 1
C1	4400 x 4300	Stratex 6, E ₁ 60		Type A	Type 1
	4400 x 4400	Stratex 6, E ₂ 60		Type B	Type 1
	6000 x 4400	Stratex 9, E ₂ 60		Type B	Type 1
	6000 x 4400	Stratex 9, E ₂ 90		Type B	Type 1
C2	6600 x 3800	Stratex 3, E ₁ 30/E ₂ 30		Type A	Type 1
	6600 x 4840	Stratex 3, E ₁ 30/E ₂ 30		Type B	Type 1
	6600 x 4400	Stratex 12, E ₁ 90		Type B	Type 2

The installation situation must comply with the building code requirements of the country of installation. The fire resistance of a ceiling or wall support structure and the adjacent components must at least correspond to that of the fire and/or smoke protection closure/fire and/or smoke protection curtain. Proof of the stability and serviceability of the adjacent walls and components must be provided under general ambient conditions and in the event of fire. See also notes on the standard supporting structure in EN1366-7:2004 or EN1363-1:2020. The fire protection system must not be subjected to any additional loads other than its own weight, even in the event of fire.

* Deviations from size dimensions on request

** tested wall types according to the installation instructions

*** Guide rails type 3 maximum size 3000 x 2870 mm



Legend System components:

- 1 = Smoke detector
- 2 = Housing
- 3 = Guide rail
- 4 = Control module
- 5 = Trigger device (see the valid general type approval of the brake system for design details of the electrical components.)

Legend Dimensioning:

Structure

- q = Clear shell construction height
- x = Clear shell construction width

System

- s = System height
- r = Clear system height
- y = Clear system width
- z = System width

Housing

- t = Depth
- h = Height
- v = Offset between housing and guide rail

Guide rail

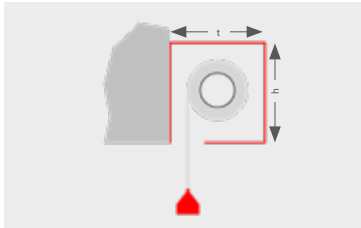
- a = Width
- b = Depth
- c = Cover

≤ EI₁ 90
≤ EI₂ 120

Installation variants

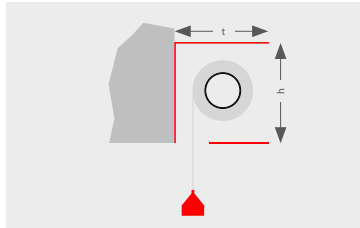
Housing

Wall with housing cover



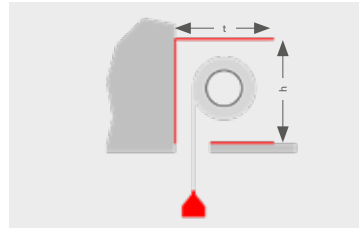
Type A: t 380 mm, h 350 mm
Type B: t 460 mm, h 430 mm

Wall without housing cover



Type A: t 380 mm, h 350 mm
Type B: t 460 mm, h 430 mm

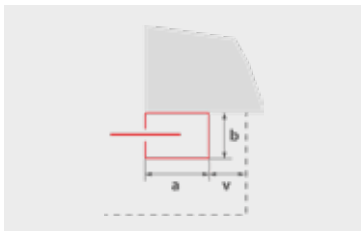
Wall without housing cover, with false ceiling



Type A: t 380 mm, h 350 mm
Type B: t 460 mm, h 430 mm

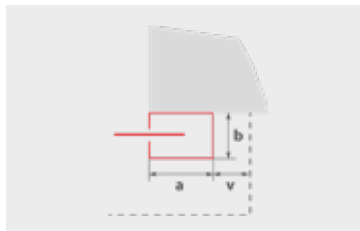
Guide rails

Type 1



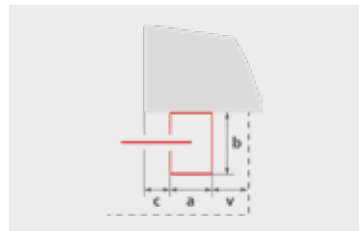
a 200 mm, b 82 mm, v 47 mm

Type 2



a 230 mm, b 110 mm, v 42 mm

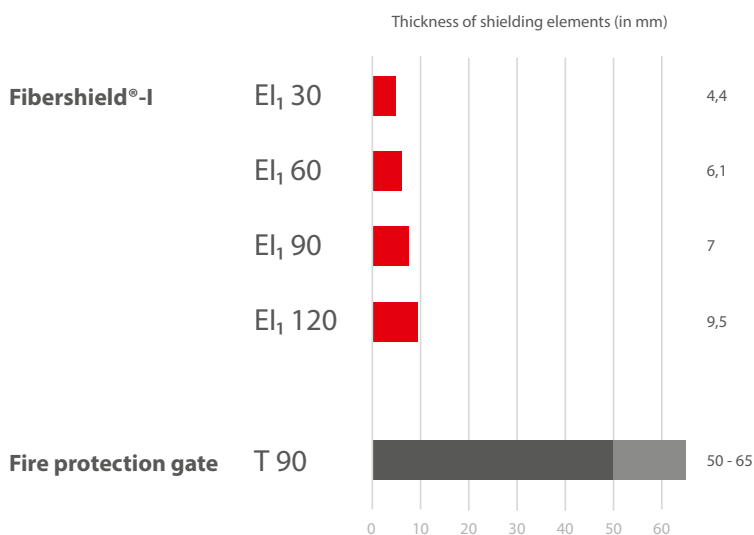
Type 3



a 90 mm, b 120 mm, v 60 mm,
c 0 mm for EI₁ 30, EI₂ 30,
c 60 mm for EI₂ 60

Note: Dotted line for the winding shaft receptacle (housing)

Shielding elements comparison



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