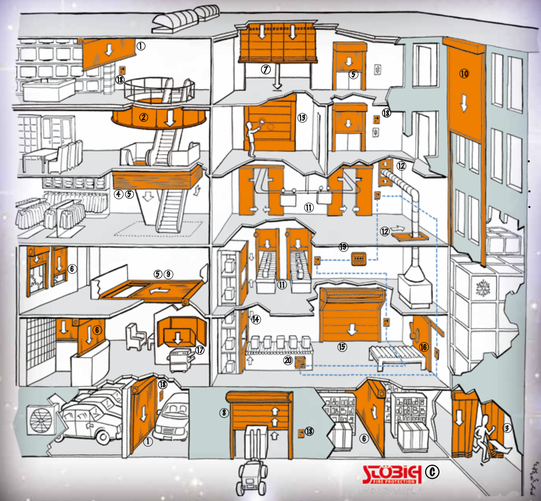
Stöbich - innovative fire protection

20 x Fire protection challenges / protection targets ?

20 x !

20 x Customer benefits



1. Smoke extraction by automatic or fixed textile smoke curtains
2. Smoke curtains with a curved course
3. Automatic textile smoke curtain with the feasibility to pass through
4. Creation of areas for smoke conduction or as fire protection closure
5. Automatic smoke protection closures
6. Automatic textile fire protection closures for openings and walls
7. Textile fire protection closures EI 90 without water admission
8. High speed doors with integrated fire protection
9. Automatic textile fire protection closure for openings in ceilings
10. Fire protection closures for facades, external installation
11. Conveyor system closures for uninterrupted and interrupted conveyor systems
12. Conveyor system closures for pneumatic conveyor systems
13. Fire protection closures for industrial kitchen exhaust system
14. Elevator shaft doors as fire protection closure
15. Fire protection stacking doors
16. Isogate – fire protection insulation doors and - gates
17. Fire protection hoods for electric devices
18. Control units
19. CANopen bus – cross linked hold open units with approval Z-6.5-1990/2011
20. Emergency power back up unit "Powerdrive" 400 VAC

1. Smoke extraction by automatic or fixed textile smoke curtains

How can you fulfill the demands of safe smoke extraction concepts without the need to have large openings for exhaust and for fresh air intake or with cross streams in high rooms? How can rooms be optimizes for mechanical extraction?

Smoke barriers Supercoil and Moducoil with CE-label.

For the mechanical extraction rooms can be compartmentalized with room-high smoke curtains what significantly reduces the fan capacity. In case of emergency, automatic smoke curtains coil down to the corresponding level indicated by the extraction concept. Well integrable in the interior design and for this awarded several times ("Invisible fire protection").

2. Smoke curtains with a curved course

How can you integrate a smoke curtain in an architecturally attractive surrounding, e.g. a shopping malls and at the same time also provide a leakage of 0%?

Smoke curtain Smokeshield-C – the curved smoke curtain with a leakage of 0%

The Smokeshield-C can be perfectly integrated in the architecture because of it different shapes like circle- or ellipse shape but also as open curved (serpentine) system. The smoke curtain is hidden in the suspended ceiling and provides a leakage of 0%.

3. Automatic textile smoke curtain with the feasibility to pass through

How can you fulfil the demand of safe smoke extraction concepts in areas where smoke barriers close all the way down to the floor level - especially if there are requests for escape doors?

Smoke barrier Stripecoil with CE-label.

Creation of smoke compartments in escape routes respectively in areas where the smoke barrier is closed down to the floor level and persons have to pass through the system. The Stripecoil system is available in drop length up to 3,5m with a twin coil system for unlimited widths. The frequency of persons passing through the smoke barrier is at approx. 200/minute at a width of 3m. Due to the little demand of space for the casing, the walk through height (headroom) has minimal limitations (invisible fire protection)

4. Creation of areas to guide smoke or as fire protection closure

How can the existing high demands on tightness of smoke barriers be fulfilled? Or how can a fire protection closure for a room in prestigious buildings be adjusted to the architecture? No limitation by side guides or pillars can be accepted.

Smoke guiding: Smokeshield-S
Fire protection closure: Fibershield-S

Smoke protection closure Smokeshield-S respectively fire protection closure: Fibershield-S offer a polygon shaped design. No disturbing side guides are necessary to achieve the requested tightness. Due to the flat design, the systems can be perfectly be integrated into ceilings and are available in extremely large widths and lengths where the angle may vary from +/- 90° (30° -150°).

5. Automatic smoke barrier made of a fabric

How you can make sure that the smoke will not be spread out through large openings by the elevator shaft from one floor to the next or from one room to the next ?

Or how can large openings be sealed smoke tight according to DIN 18095 or EN1634-3 ?

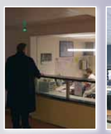
Secure, large scale smoke closures, even at high pressure loads (50 pa) and temperatures up to 200°C. Due to the small architectural design, highest demands are covered („Invisible fire protection"). Optionally smoke protection closures can be designed as fire protection closures.

6. Automatic textile fire protection closures for openings and walls

How can you seal large openings in walls and ceilings which create fire compartments although there is limited space or architectural demands?

Fire protection closure Fibershield-P, Fibershield-E, Fibershield-I and Fibershield-W, tested according to DIN EN1634-1.

These automatic systems are quite small and can be easily integrated into the architecture. Depending on the fire protection classifications you can choose between "E90 – 180", "EW60 – 90" or "EI 30 – EI 60 without water, with water - EI 120" (invisible fire protection)



7. Textile fire protection closure with the classification EI90 without water admission

How is it possible to seal openings in an architecturally appealing environment with fire curtains which need heat insulating characteristics with the classification EI 90 (T 90) while affecting the architecture as less as possible?

Fire protection closure "Hidden Shield" – the textile fire protection closure with the classification EI 30 / EI 90

This closure that meets highest architectural demands and open design concepts, is the first fire protection closure in the world without side guides. Due to the special and structural construction there are no further compensatory actions, such as sprinklers, necessary to reach the textile closures' protection target.

8. High speed doors with integrated fire protection

Is there a high speed door with fire protection characteristics? The installation of the system shall only be on one side of the wall. Therefore no limitation of the opposite wall side is necessary.

Fire protection high speed door Firefast

A fire protection closure which is completely integrated into the robust spiral high speed door or interlayer high speed doors (3m/sec. opening speed). It is installed only on one side of the wall and only one control unit is necessary for all functions.

9. Automatic textile fire protection closure for openings in ceilings

In case of high architectural demands - how can you assure that openings in ceilings, which create fire compartments, can be sealed according to the protection target?

Fire protection closure Fibershield-H tested according to DIN EN 1634-1

These systems allow for a horizontal sealing of large openings in ceilings up to a width of 20m and of great lengths. The Duplex drive system assures a safe closing process. The drive unit makes ensure safe closing. The protection targets E 120 respectively EI 120 (insulation with sprinkler) can be achieved.

10. Fire protection closures for facades, external installation

If two fire compartments converge at a buildings inside corner, or if the distance between the buildings is less than 3 – 5 meters or the roof of an extension is connected to a wall with openings it has to be assured that the fire does not spread through the openings in the façade. Which opportunities are there without having to close the openings with masonry?

Fire protection closure Fibershield façade

This protection can be ensured by the installation inside and outside the building. By installations inside or outside of the building this protection can be guaranteed. With these automatic sealing systems standard windows without fireproof glazing can be used. These standard windows are operable and therefore do not restrict the room-comfort.

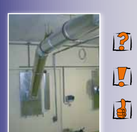
11. Conveyor system closure for uninterrupted and interrupted conveyor systems

Various goods are transported criss-cross through the building by various conveyor systems like roller-, belt-, chain carrying or circular conveyors. Thereby they often break through fire protection compartments. How can these openings be sealed in case of a fire?

Conveyor system closures of different series Universal-B, RGT, OS, ECClos

The systems are available in a large variety for the different types of conveyor techniques and are approved by the building authorities. These sealing systems don't affect the conveying process even with uninterrupted conveyor systems.

12. Conveyor system closure for pneumatic conveyor systems



It has to be assured that no fire is transferred in case that pipes where materials are conveyed with an air stream (over or under pressure) and pass through fire rated walls or ceilings. There is a danger that the thin, unstable pipes deform and therefore create openings in the walls or ceilings. Since standard fitting fire protection claps for ventilation are unsuitable what should be used?

Conveyor system closure Ecotube

The operation is always guaranteed as the cross section of the conveyor system is not affected. The systems – even for large cross sections – can be designed for over or under pressure operation. The conveyor system closures are applicable for dusty, lamellar, sliceable materials.

13. Textile Fire protection closure for increased shock load

If objects from project site or from building services might bump against the textile fire protection closure in case of fire, it must be guaranteed that this fire protection closure will neither be permeated nor destroyed.

Fire protection closure Fibershield- UL10B tested according to UL10B and UI10D (Hose Stream- / Water jet test)

With this automatic, textile fire protection closure the protection target E120 will be attained. The setup is slightly larger than the standard one and thereby the automatic systems remain very small and could well be integrated architecturally.
Due to the robustness of the textile sealing elements, the system is protected against mechanical penetrations.

14. Elevator shaft doors as fire protection closure

In the case of elevator shafts running through fire compartments e.g. ceilings, it has to be assured that the fire does not spread through the elevator shaft to another fire compartment. Are doors available which are tested according to the norm EI 30 classification?

Elevator shaft doors tested according to EN 81-58

Tested elevator shaft doors can be installed inside elevator shafts due to the low constructional depth. They provide not only resistance against the passage of fire but also the required smoke tightness in case of a fire load.

15. Fire protection stacking doors

Are there solutions, to have a fire rated closing of openings in walls, in case there is no space for the parking position e.g. for fire protection sliding doors?

Fire protection stacking door Omnicompact

The fire protection stacking door only requires minimal space above the lintel, as each element can be stacked above the lintel or can be pulled along underneath the ceiling. Design in T 30 – T 90 up to a maximum dimension of 9 x 6 m is possible and the systems can also be delivered in stainless steel.

16. Isogate - Fire protection insulation doors and -gates

Openings in fire rated walls of cold storage rooms (+4°C) or deep freeze rooms (-28°C) not only need fire protection sealing, but also insulation. This can be done with 2 doors (insulation door - fire protection door) or does there exist more efficient solutions ?

Revolving- and sliding doors of the Isogate series.

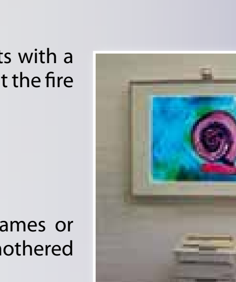
Proven for more than 15 years, these systems provide a reliable insulation, which is to say that there is no condensation water or icing when these systems are in operation. In case of a fire a safe fire protection sealing is guaranteed – this is tested according to EN 1634-1. Even uninterrupted conveyor systems in cold storage rooms can be sealed

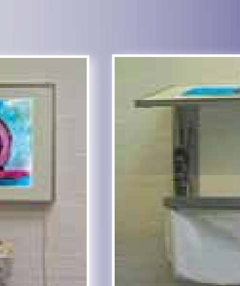
17. Fire protection hoods for electric devices

When there are photocopiers, printers or other electrical equipments with a fire load in necessary corridors in the building, it has to be ensured that the fire does not affect the escape. How can the protection be ensured without restriction of the operating procedure?

Fire protection hood copy cap

Tested fire protection hoods, automatically unfold from picture frames or ceilings and enclose the object which is to be protected. The fire is smothered and the smoke is captured underneath the hood. These hoods can even protect high-quality equipment against forge water (e.g. by activated sprinklers).





18. Control units

Are there optimised control units with a certificate of usability with fire protection doors, which are in their open position during daily operation but have to close in case of fire? Or for conveyor system closures whose safe closing shall not be hindered by conveyed materials or for complex systems?

Various choices of control units from RZ 8 type for elementary requirements RZ 3/4 up to RZ 7 BMZ

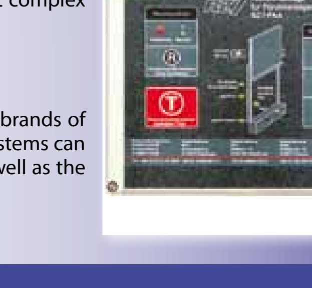
Depending on customers request from simple control units to bus-control units, where a control via the operator-panel is possible and can easily be extended. Therefore comfort and safety are increased and the installation becomes easier.

19. CANopen-Bus cross linked hold open device with approval Z-6.5-1990/2011

Are cross linked control units (hold open units) with a certificate of usability for smoke doors, fire protection doors, conveyor system closures, etc. available? They need to communicate with bus control units, have to protect complex units and need to be handled easily.

Bus control unit RZ-7 MBZ 2 with or without RZ 7-FAA

The bus control unit for Stöbich products as well as for all further brands of smoke and fire protection closures. Using the operator panel, all systems can be controlled and easily be extended. This increases the safety as well as the comfort and reduces the effort for installation.

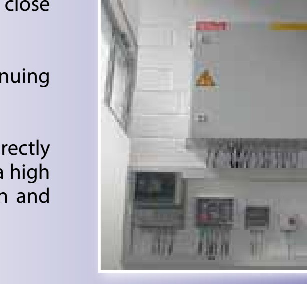


20. Emergency power back up unit "Powerdrive" 400VAC

The closing area has to be free due to the demand that even in case of loss of primary power supply (mains supply) the conveyor system closure has to close safely. What does an efficient solution look alike?

Emergency power supply system Powerdrive, which guarantees a continuing power supply to conveyor drive systems.

This local power supply units with a capacity of 5 kW can be installed directly on site, directly near the driving motors of the conveyor technic and offer a high safety as well as a low space requirement and a low effort in installation and maintenance. 2,4 or 6 driving motors can be relieved for each unit.



Stöbich – Fire Protection

Since 1980 Stöbich Brandschutz has become the global market leader for conveyor system closures as well as an international trendsetter in the field of textile fire and smoke protection.

The know-how, which grew by the impressive number of completed projects and fire tests as well as by the proven constructive competence, made Stöbich the fire protection specialist with a wide range of products and an extensive range of services.

Eleven world novelties and five awards so far, express the innovative and customer orientated design of the Stöbich products and an effective control of all the processes.

Four branch offices and numerous national and international agencies allow for the direct presence and proximity to our customers during all phases of the project.

Headquarter

Branch South

Branch East

Branch West

Awards „Invisible fire protection“

„Bauen im Bestand“ from the Federal Ministry

MDR 1 award for the TV series „simply genious“

„Fire protection of the year 2011“ by FeuerTRUTZ

„Encyclopedia of the German World Market Leader“

German Award of Innovation Architecture and construction

Headquarter
Stöbich Brandschutz GmbH
Pracherstieg 6
38644 Goslar, Germany
Phone +49-(0)5321-5708-19
Fax +49-(0)5321-5708-1991

Branch South
Stöbich Brandschutz GmbH
Gewerbehof 8
73441 Bopfingen, Germany
Phone +49-(0)7362-9614-0
Fax +49-(0)7362-9614-50

Branch East
Stöbich Brandschutz GmbH
Geltestraße 12
06188 Landsberg OT Queis, Germany
Phone +49-(0)34602-552-0
Fax +49-(0)34602-552-50

Branch West
Stöbich Brandschutz GmbH
Max-Planck-Straße 13
59423 Unna, Germany
Phone +49-(0)2303-98689-17
Fax +49-(0)2303-98689-50

International sales partners respectively subsidiaries

· Argentina
· Austria
· Australia
· Bahrain
· Belarus
· Belgium
· Bosnia and Herzegovina
· Brazil
· Bulgaria
· Canada
· Chile
· China
· Colombia
· Croatia
· Cyprus
· Czech Republic
· Denmark
· Estonia
· Finland
· France
· Greece
· Hong Kong
· Hungary
· India
· Ireland
· Iceland
· Israel
· Italy
· Kazakhstan
· Latvia
· Liechtenstein
· Lithuania
· Luxembourg
· Malaysia
· Macedonia (FYROM)
· Mexico
· New Zealand
· Norway
· Paraguay
· Poland
· Portugal
· Qatar
· Romania
· Russia
· Saudi Arabia
· Sweden
· Switzerland
· Serbia and Montenegro
· Singapore
· Slovakia
· Slovenia
· Spain
· The Netherlands
· Turkey
· UAE
· Ukraine
· United Kingdom
· Uruguay
· USA

04 /2014-04-K-250-DE

Innovation for your Protection!

Product range

Conversion chart for building material classifications according to DIN EN 13501-1 for the Stöbich product range

Conversion chart for building material classifications according to DIN EN 13501-1

	German standard	European classification		
Requirements from construction supervision	Building material classification according to DIN 4102	Additional requirements		European classification according to DIN EN 13501-1
		No smoke		Building products, except linear tube insulation material
Non-combustible/ non flammable	A A1 A2	X		A1
		X		A2 – s1,d0
Combustible/flammable	B			
Low flammability	B1	X		B – s1,d0; C – s1,d0
				A2 – s2,d0: A2 – s3, d0: B– s2, d0; B – s3, d0; C – s2,d0: C – s3, d0
		X		A2 – s1,d1; A2 – s1, d2; B – s1,d1; B – s1,d2; C – s1,d1 C – s1,d2
				A2 – s3, d2; B – s3,d2; C – s3,d2
Normal flammability	B2			D – s1,d0; D– s2, d0; D – s3,d0; E
				D – s1,d1; D – s2,d1; D – s3,d1; D – s1,d2;; D – s2,d2; D – s3,d2; E – d2
Easily inflammable	B3			F
Derivation of the short cuts		**Criterion**		**Range of application**
S (Smoke)		Smoke emission		Requirements on the smoke emission
D (Droplets)		Dripping of burning parts		Requirements on the burning parts which drip off

Conversion chart for fire resistance classifications for special building components according to DIN EN 13501-2

	German standard		European classification						
			Special building component						
			Fire protection closures (also for conveyor systems)						
Requirements from construction supervision	Classification according to DIN 4102-2	Short cut according to DIN 4102-2	Without smoke protection	With smoke protection	Smoke protection doors	Cable ducts	Pipe sealings	Fire-protective glazing	Lift doors in combination with fire resistant lift walls
Fire-retardand	Fire resistance classification „F30“	F 30 – B	$EI_2 30$-C…			EI 30	EI 30-U/U	E30	E30
Fire-retardand and made of non combustible building materials	Fire resistance classification „F30“ and made of non combustible building materials	F 30 – A							
Highly fire-retardand	Fire resistance classification „F60“ and considerably made of non combustible building materials	F 60 – AB	$EI_2 60$-C…			EI 60	EI60-U/U	E 60	E 60
	Fire resistance classification „F60“ and made of non combustible building materials	F 60 – A					EI 60-C/U		
Fire proof	Fire resistance classification „F90“ and made of non combustible building materials	F 90 – AB	$EI_2 90$-C…			EI 90	EI 90-U/U EI 90-C/U	E 90	E90
Fire proof and made of non combustible building materials	Fire resistance classification „F90“ and made of non combustible building materials	E 90 – A							
Fire resistance 120 minutes			-			EI 120	EI 120-U/U EI 120-C/U		
Smoke tight and self closing					S_m-C…				

Comments to the European architectural drawings

Derivation of the short cuts	Criterion	Range of application
R (Resistance)	Bearing capacity	To describe the fire resistance capability
E (Integrity)	Integrity	
I (Insulation)	Heat insulation under fire load	
W (Radiation) (originally coming from „Watt“)	Limitation of the radiation	

Derivation of the short cuts	Criterion	Range of application
S_m (Smoke $_{max. leakage rate}$)	Limitation of the smoke permeability (tightness, leakage), it fulfils the requirements of both ambient temperatures as well as at 200°C.	Smoke protection door, ventilation systems including hatches
C… (Closing)	Self closing characteristics including cycle test	Smoke protection doors, fire protection closures (including conveyor systems)
P (originally coming from „Power“)	To maintain the power supply and/or transmission of the signal	Electrical cable systems in general
I1, I2	Different criterias for the thermal insulation	Fire protection closures (including closures for conveyor systems)

Classification for smoke barriers according to DIN EN 13501-4

Benefits

All smoke barriers have to prevent the passage of smoke. Thereby the specimen has to keep its dimensional stability without

a) create gaps or openings in dimensions larger than stated in EN 12101-1
b) creating flames in an ongoing manner (additionally no parts are allowed to drop from the specimen during the first 600 seconds)
c) to break down
D – Duration of dimensional stability at 600°C
DH – Duration of dimensional stability at higher temperatures (ISO curve)

Classes

D600	30	60	90	120	A	„A“ is the time above 120 minutes
DH	30	60	90	120	A	