Technical construction system "Hidden Shield"

Double / two-sided fire protectionroller shutter construction > El60

High static load of the fire wall

opening size

Risk of damaging system components



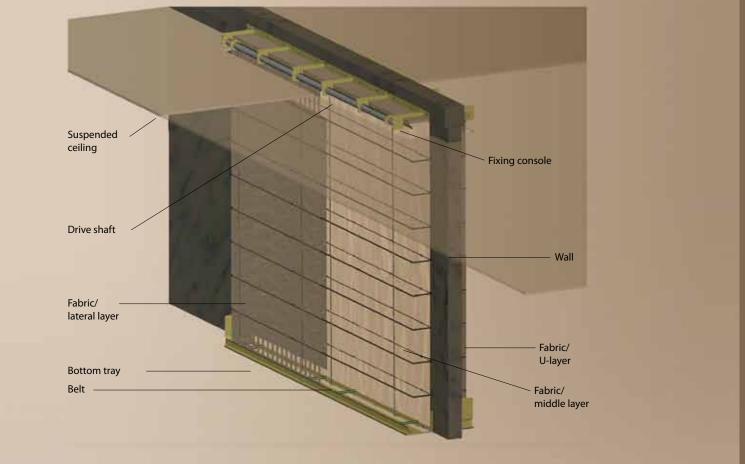
Disadvantages:

- · High place requirement for protection target demands of > EI60 as a double roller shutter construction is needed
- · Disturbing side guides and casings on both sides

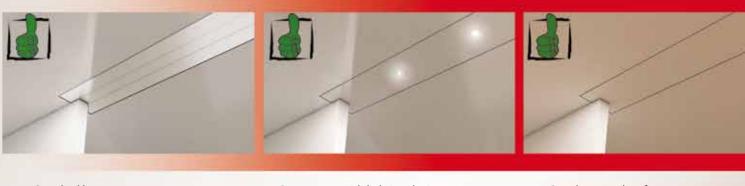
Disadvantages: · High static load for wall and lintel due to heavy weight of door construction which could gain weight in a disproportionate way according to

Disadvantages:

· Risk of malfunction at with conventional fire protection doors by damaging important guidance components Higher repairing sensitivity at mechanical through-going traffic



For highest architectural demands



Standard bottom tray Powder coated surface (colour shades selectable)

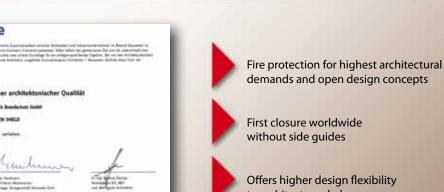
INNOVATIONSPREIS

Bottom tray with lighting devices

Award for the "Hiddenshield"

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Powder coated surface of the bottom tray (adaption to the ceiling plan)



to architects and planners

Awards and innovation prices **Invisible fire protection**







IP Management Award 2014

German Award of Innovation "Architecture + Civil Engineering"

"Fire Protection of the Year 2011" by FeuerTRUTZ

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Leader" 2010

"Encyclopedia of the German Award of Innovation German World Market "Architektur + Bauwesen"

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Hidden Shield

Textile fire protection closures El₁30/90

Hidden Shield El₁ 30 Hidden Shield El₁ 90



10. World Novelty – and this has already been awarded!

www.stoebich.com info@stoebich.com



Challenge: Harmonious balance between form and function

Single-leaf or multiple-leaf fire protection doors

Disadvantages:

· Free standing door leaves

· Fixed fields necessary,

possible passage width

Single-part or multi-part fire protection sliding doors

Single (up to

Single-leaf roller shutter (up to El60)

· Frame constructions are necessary

depending on the opening size

· Restrictions of the theoretically

· Disturbing components like rail,

inlet profile and counterweight box

· High place requirement for parked door

Disadvantages:

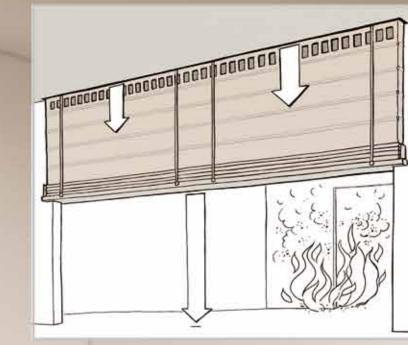
space at the wall



Disadvantages:

High place requirement for casing at the wall (depending on the respective space conditions)
High static load of the fire wall due to the high weight
Necessary side guides on the wall

Hidden Shield



Solution: hidden fire protection closure "Hidden Shield"



Advantages:



Insulating fire protection closure with the protection target El₁ 90 (T 90) for highest requirements, no compensatory actions necessary like sprinkler and associated installations / investments in additional water impact



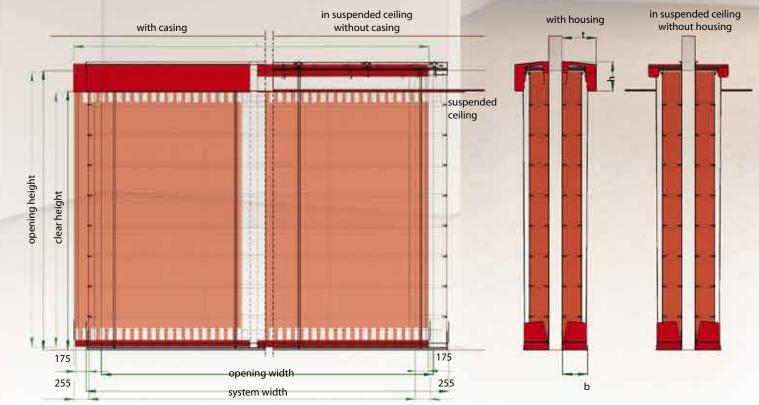
Offers higher design flexibility to architects and planners:
by hiding the closure completely in the suspended ceiling
by design flexibility of the embrasure style
by surface designing of the ceiling which can be continued for the bottom tray
no additional inspection openings

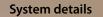


Minimal static load for the wall due to light weight of the closure, lintel can be omitted in case of installation at the ceiling

No restrictions in the passage area by disturbing frame- or side guide constructions, thus no risk of damage

Dimensions





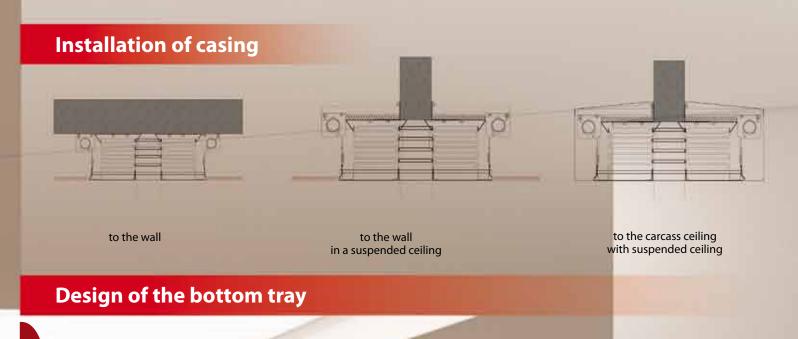
Insulating effect by radiation reducing fabric for fire protection targets up to El, 90 (T- classification)
For openings up to 12 m x 5m (clear width x clear height)
Textile fire protection closure in multi-chamber construction
Embrasure is used as guidance, that means that no side guides or other visual disturbing factors
Lateral system overlapping 175 mm
As a standard with the Gravigen drive system, that means velocity controlled closing without auxiliary energy, no fire resistant cables necessary
Low casing with symmetrical drive unit
Bottom tray with optical design possibilities
Slide and roller elements protect the wall against scratches when opening and closing
Flexible stop system provides an exact top position

Calculation formula

Some example

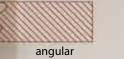
Calculation of the clear height = $0,925 \times (\text{opening width} - 61 \text{ mm})$

| les | Clear height in mm | opening height in mm | t mm | h mm | h1 mm | b mm |
|-----|-----------------------|-------------------------|---------|---------|----------|---------|
| | 2085 | 2500 | 575 | 415 | 530 | 415 |
| | 2500 | 3000 | 575 | 500 | 615 | 415 |
| | 4170 | 5000 | 575 | 830 | 945 | 415 |





Standard, three-part, powder coated

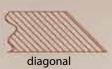


rounded

Protection target

| Protection target | Integrity and limitation Integrity and limitation of heat radiation of heat radiation | |
|----------------------|---|-----------------------------|
| | | |
| Classification | EI 30 (T 30) | EI 90 (T 90) |
| 2 Partie | MPA-BS 3,5 m x 3,7 m | FIRES |
| Test reports | | FIRES 4,3 m x 3,7 m |
| | | MFPA Leipzig 9,4 m x 3 m |

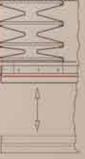
Wall Protection



Installation of lighting devices



Laminated surface



Lateral connection

