

# Hidden Shield

Textile Fire protection closures EI 30/90

Hidden Shield EI 30

Hidden Shield EI 90

*10<sup>th</sup> world novelty  
... and already awarded*

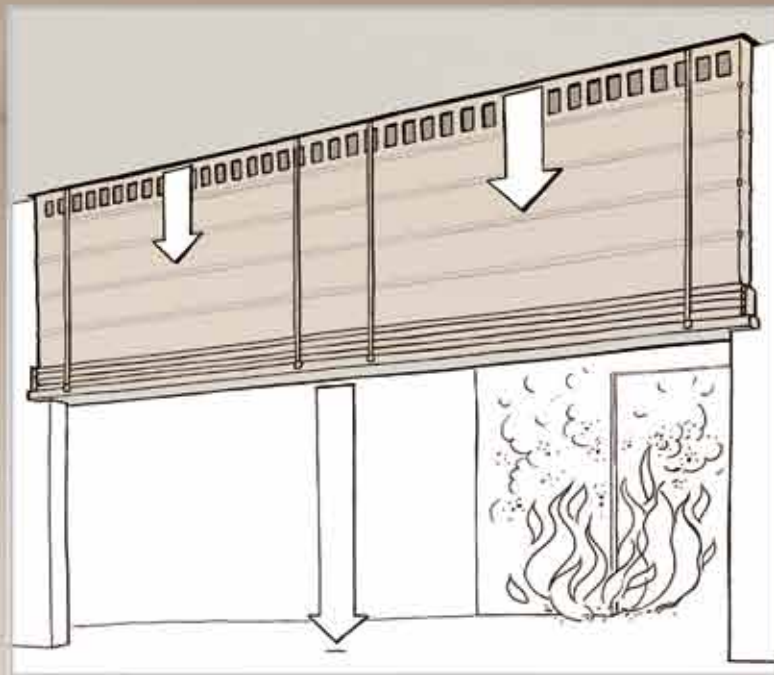


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**STÖBICH**  
FIRE PROTECTION

*Innovation for your Protection!*

# Hidden Shield



## System details

- Insulating effect by radiation reducing fabric for fire protection targets up to EI 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

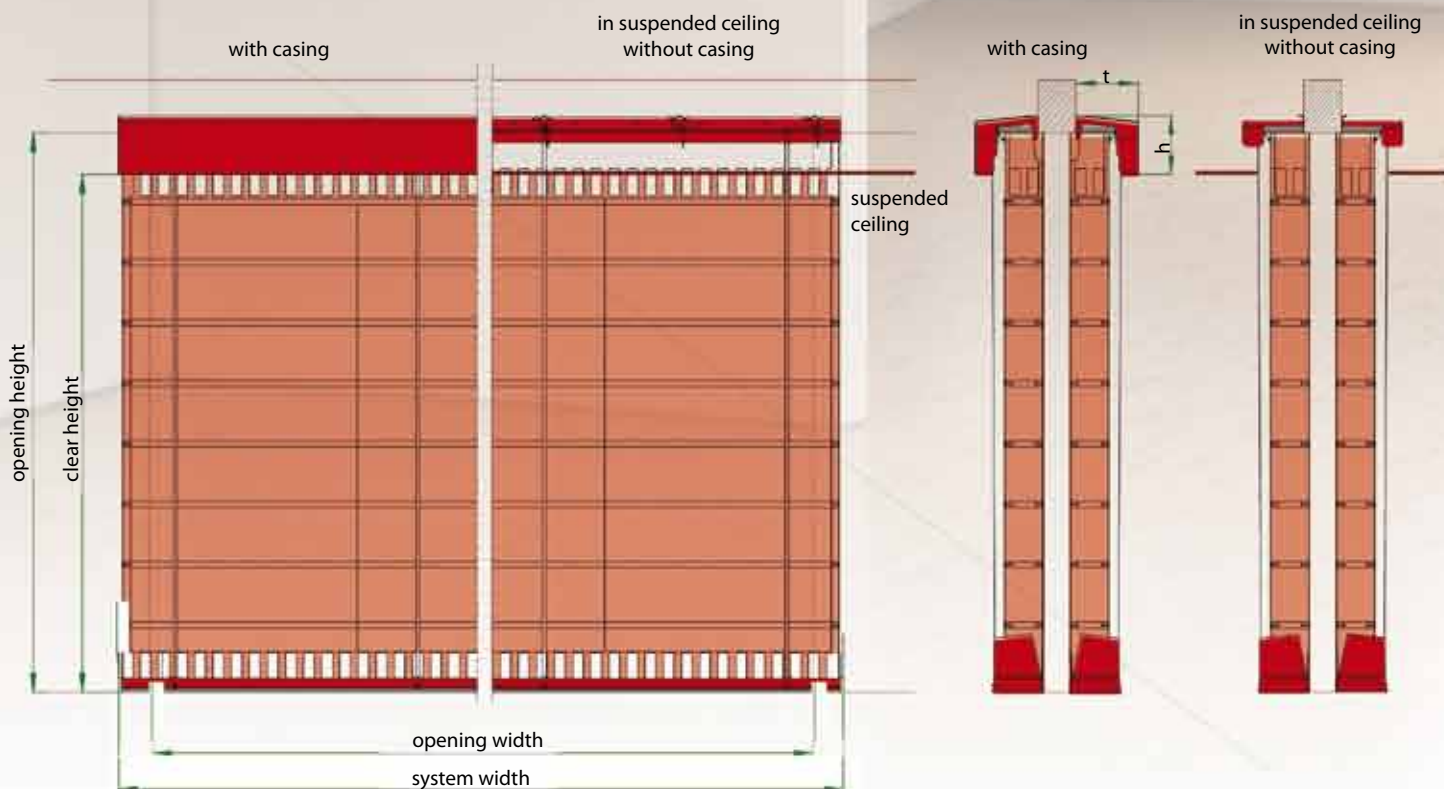
## Calculation formula

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

## Some examples

Clear height in mm	opening height in mm	t mm	h mm
2500	2760	415	375
3370	3700	415	450
5000	5460	415	575

## Dimensions



## Challenge: Harmonious balance between form and function

Fire protection doors  
with one or more leaves



One or multi-part  
fire protection sliding doors



Roller Shutter  
(up to EI 60)



### Disadvantages:

- Frame constructions are necessary
- Free standing door leaves
- Fixed fields necessary, depending on the opening size
- Restrictions of the theoretically possible passage width

### Disadvantages:

- Disturbing components like rail, inlet profile and counterweight box
- Much required space on the wall

### Disadvantages:

- Much required space for casing (depending on the respective space conditions)
- High static load of the fire wall due to the high weight
- Necessary side guides on the wall

## Solution: hidden fire protection closure "Hidden Shield"



## Advantages:



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



More design freedom for architects and planners:

- by hiding the closure in the suspended ceiling
- by design freedom of the embrasure style
- because the surface finish for the ceiling can also be chosen for the bottom tray
- no additional inspection openings are necessary



Minimum static load of the wall by the light weight of the curtain; the lintel can be omitted when the system is installed at the ceiling



No restrictions in the passage area through disturbing frames or side guides, thus no risk of damage

Double sided fire protection roller shutter > EI60

High static load of the fire wall

Risk of damaging system components



**Disadvantages:**

- Much required space for protection target demands of EI 60 because a double roller shutter construction is needed
- Disturbing side guides and casing on both sides

**Disadvantages:**

- High static load for the wall and the lintel by the heavy weight of the door construction that can increase disproportionately to the opening size

**Disadvantages:**

- Risk of malfunction for traditional fire protection doors by damaging important guidance components
- Higher repair sensitivity at mechanical transit traffic

**For highest architectural demands**



Standard bottom tray  
Powder coated surface  
(colour freely selectable)

Bottom tray with lighting devices

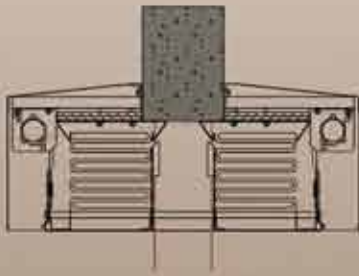
Powder coated surface of the bottom tray  
(adaption to the ceiling plan)

**Award at the exhibition „Bau 2011“ in Munich**

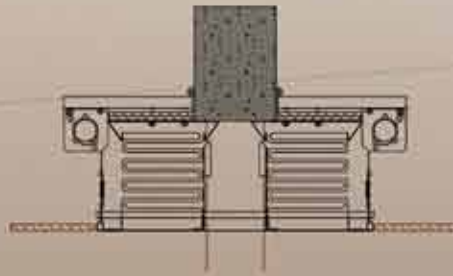


- ▶ Fire protection for highest architectural demands and open design concepts
- ▶ First closure without side guides worldwide
- ▶ Offers more design freedom to architects and planners

## Installation of casing



to the wall



to the wall  
in a suspended ceiling



to the carcass ceiling  
with suspended ceiling

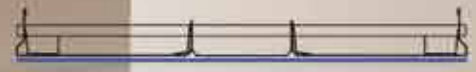
## Design of the bottom tray



Standard, three-part, powder coated



Installation of lighting devices



Laminated surface

## Design of the embrasure



angular





rounded

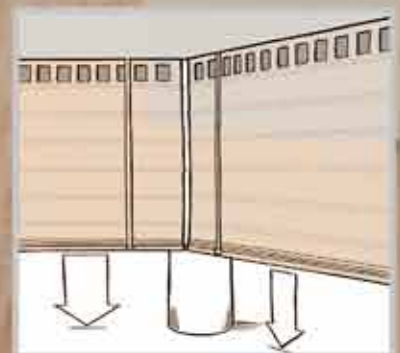
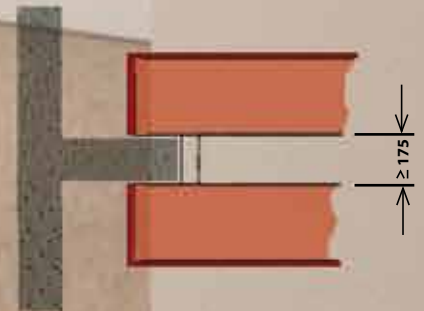


diagonal

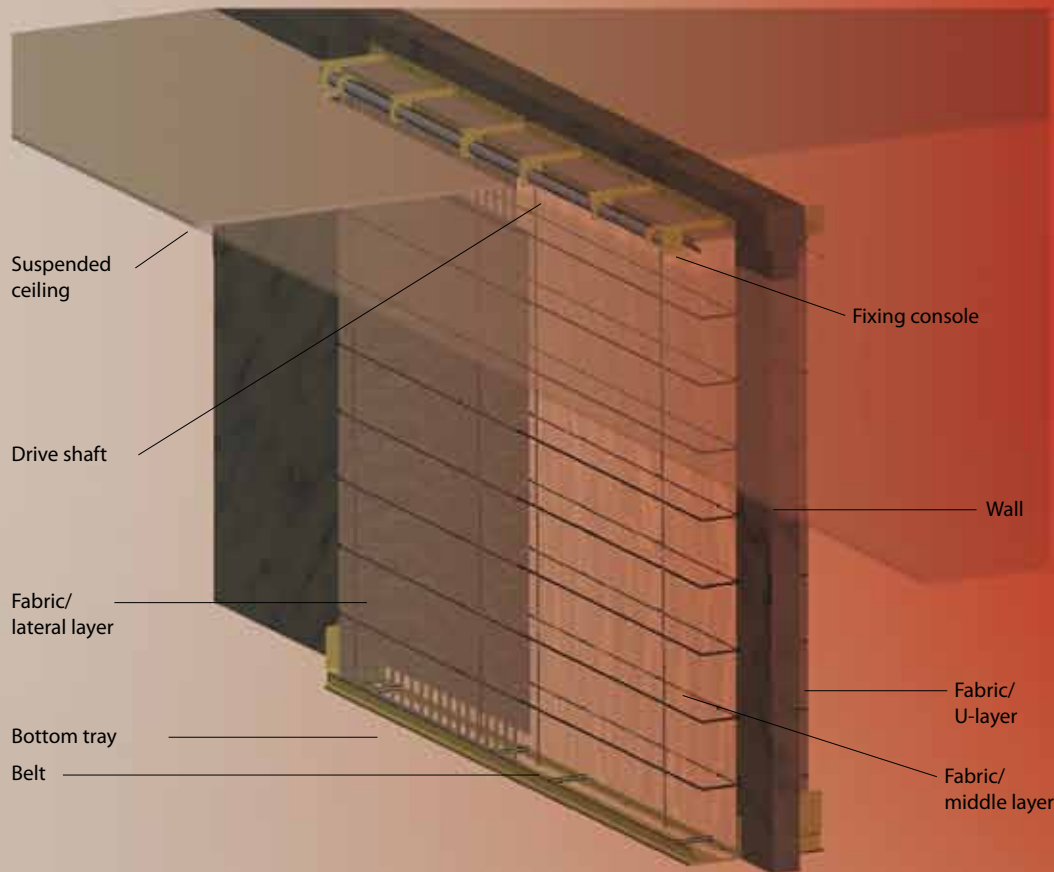
## Protection target

Protection target	Integrity and limitation of heat radiation	Integrity and limitation of heat radiation
		
<b>Classification</b>	EI 30 (T 30)	EI 90 (T 90)
<b>Prüfberichte</b>	MPA-BS	FIRES

## Lateral connection



# Technical construction system "Hidden Shield"



## Awards and innovation prizes

# Invisible fire protection



"Bauen im Bestand"  
from the federal ministry



MDR1 award  
for the series "einfach genial"



Certificate mips, Moscow



German Award of Innovation

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