

DESCRIPTION

SUPERFIRE is an Automatic Fire Curtain that in the case of fire, limits and controls the fire, reduces not only radiation emission but also heat transfer creating isolation from the fabric so that protection of people and goods is maximized, with classification EI 120.

The curtain is composed of fibreglass fabric coated on both sides and seamed with reinforced steel wire and fixed to a steel roller of 78 mm in diameter, galvanized steel elements as headbox, side guides and bottom bar, irrigation system for the opposite side of the fire.

All of the systems are driven by a 24 V tubular motor and controlled by an electronic board, the CRM (Control and Regulation for Motor) with a special Gravity Fail-Safe System.

The control panel for automatic curtains (CBM), with a nominal input voltage of 115 V or 220 V and an output voltage of 24 V.

Uninterruptible Power Supply (UPS System) with autonomy for up to 6 hours exists in all control panels.

Tested in accordance with EN 1634-1 and classified in accordance with EN 13501-2.

CLASSIFICATION

EI 120



superfire

OPERATION

The system can be activated by a SHEV, fire alarm contact, internal fire and smoke detection devices, or manual emergency buttons. In the event of a fire, the Control Panel (CBM) receives the signal alarm and the automatic curtain deploys automatically, with a controlled and safe constant speed of descent, even following total power loss on all curtains. A solenoid valve connected to the control panel can activate the irrigation system. If there is a false alarm the curtains return to the stand-by position automatically after resetting the alarm from the main Fire Management Systems. In case of main power loss, the curtain will remain fully retracted for up to 6 hours thanks to the battery backup system.

FABRIC

The fibreglass fabric has low radiation, high isolation properties and resists up to 1,100°C. All seams are done with reinforced stainless steel wires with a coating of Kevlar.

HEADBOX

Galvanized Steel headbox 1.2 mm thickness with different possibilities to adapt to different architectural spaces, and maintenance requirements. Dimensions of the headbox vary depending on the width and height of the curtain.

SIDE GUIDES

Galvanized Steel from 1.5 to 3 mm in thickness and different dimensions depending on the width and height of the curtain.

ROLLER

Galvanized Steel of 1.5 mm thickness and 78 mm diameter. Special slide system for fixing the fabric.

BOTTOM BAR

Galvanized Steel of 1.5 mm thickness. Two-part system, easy to mount.

ELECTRIC MOTOR

Tubular motor: 24 V.
Maximum power: 24 W/ 18 Nm.
Maximum current: 3 A.
Average linear speed: 0.10 m/s to 0.15 m/s.

CRM MOTOR REGULATION BOX

Polyester box IP56 with an electronic board inside to control the movement of the motor.
Dimensions (W x H x D): 120 x 160 x 75 mm.

CBM CONTROL PANEL

Receives the signal alarm from the Fire Management System and controls the movement of curtains. Visual and acoustic alert system.
Dimensions (W x H x D): from 300 x 230 x 140 mm to 400 x 400 x 210 mm.
Input: 115 or 220 V 50Hz.
Output: 24 V.
Battery: 2 x 12 V 7,5 Ah rechargeable (up to 6 hours autonomy).
Maximum capacity: up to 12 motors.

IRRIGATION SYSTEM PANEL

A solenoid valve connected to the control panel can activate the irrigation system with a delay of 3 minutes for standard. As an option, the solenoid valve can be dependent on a thermal sensor in order to avoid water spray in false alarm conditions, so even if there is a fire alarm the irrigation system doesn't work until the sensor reaches 77°C. In this case and for safety reasons, the irrigation system will not be activated until the following conditions meet together:

- 01** Fire alarm;
- 02** 3 minutes delay;
- 03** Thermal sensor above 77°C.

The number of sprinklers depends on the area of each system. The water conditions are the following:

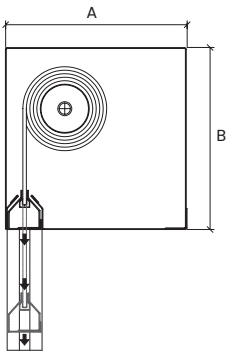
Water Flow ≥ 6.5 l/min/m².
Pressure ≥ 3.2 bar.

OPTIONAL EXTRAS

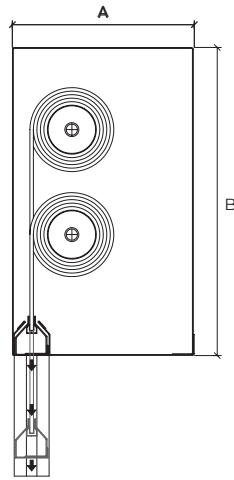
Irrigation system: hidden inside the headbox.
Thermal sensor: electronic sensor activates solenoid at 77°C (for irrigation).
RAL coating: headbox, side guides, bottom bar and false ceiling extra accessories.
Stainless steel elements: headbox, side guides, bottom bar, screws, rivets.
Headbox: customized set-up for specific architectural or special operational requirements.
Side guides: customized set-up for specific architectural or special operational requirements.
Bottom bar: aluminum profile painted RAL 9003 (white) for using with the false ceiling accessories.
False ceiling accessories: aluminum profiles painted RAL9003 to hide the headbox over the false ceiling.
Electric motor: special 24 V motors up to 80 Nm without CRM. Special 230 V motors up to 120 Nm without CRM.
CRM: customized board for high speed deployment.
CBM control panel: special designs up to 48 motors in one control panel, additional information output, micro switches, communication with other devices, special battery backup, possibility of delaying curtain deployment.
Escape button: pushing this button the curtain goes up and the user can escape through the opening, the curtain deploys 30s later automatically.
Emergency button: pushing this button the curtain deploys immediately.

Note: other requirements and customized solutions on demand.

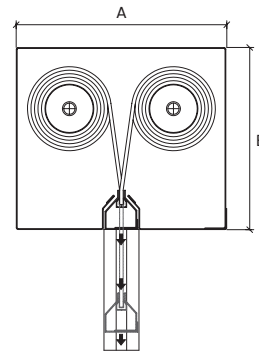
HEADBOX



SINGLE ROLLER
A: 180-260 mm
B: 180-260 mm

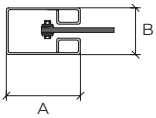


MULTI ROLLER VERTICAL
A: 190-270 mm
B: 300-500 mm

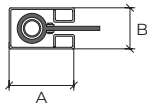


MULTI ROLLER HORIZONTAL
A: 250-400 mm
B: 170-260 mm

SIDE GUIDES

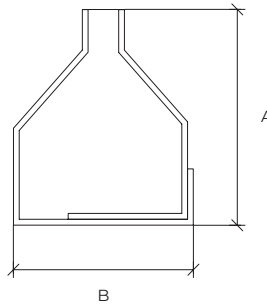


SCREW SIDE GUIDES STANDARD
A: 80-100 mm
B: 50-50 mm



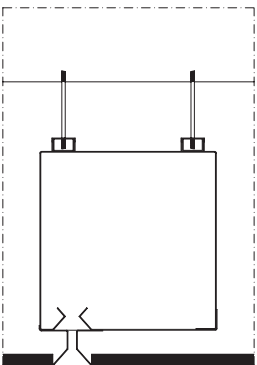
TUBE SIDE GUIDES HIGH PRESSURE AREAS
A: 100-120 mm
B: 50-76 mm

BOTTOM BAR

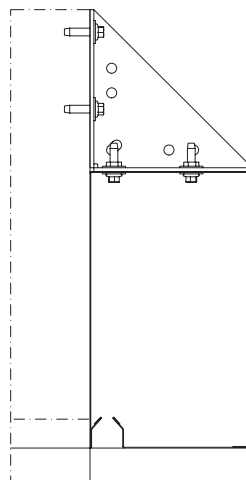


GALVANIZED STEEL
A: 55 mm
B: 47 mm

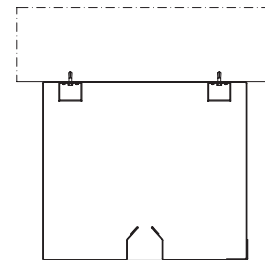
HEADBOX FIXING



HANGING FALSE CEILING

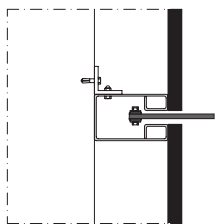


WALL

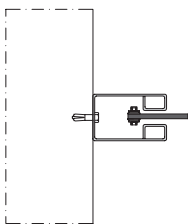


TOP CEILING

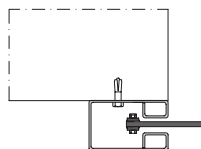
SIDE GUIDES FIXING



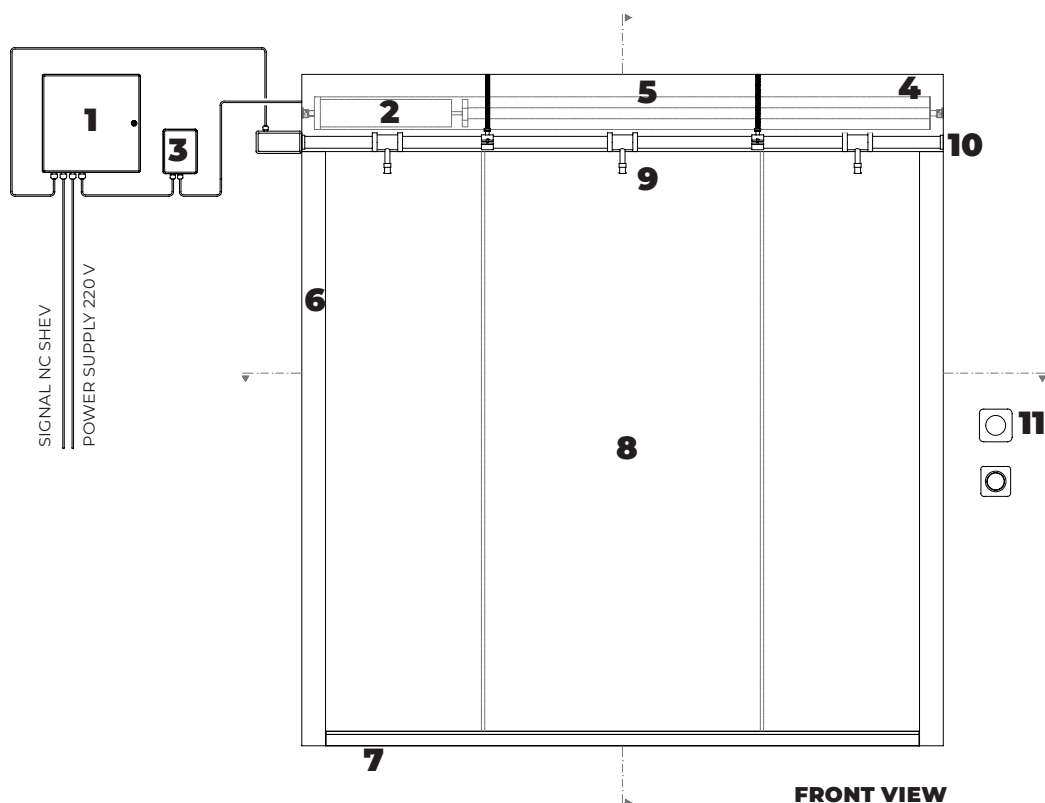
HIDDEN



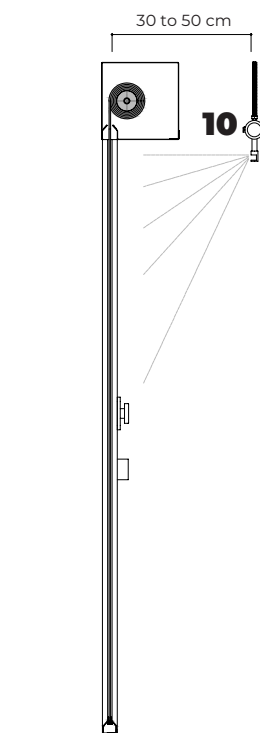
BACK WALL



SIDE WALL



FRONT VIEW



VERTICAL SECTION



HORIZONTAL SECTION

- | | |
|--|---------------------------------------|
| 1. control panel CBM | 7. galvanized steel bottom bar |
| 2. tubular motor 24 V | 8. fire resistant fabric |
| 3. CRM electronic control board | 9. sprinkler |
| 4. galvanized steel headbox | 10. solenoid valve |
| 5. galvanized steel roller | 11. emergency button |
| 6. galvanized steel side guides | |