# SUPERFIRE

**SMS**
SMOKE MANAGEMENT SYSTEMS

## DESCRIPTION

SUPERFIRE EI120 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 EI120.

The curtain is composed by: fiberglass fabric coated on both sides and seamed with reinforced steel wire and fixed to a steel roller of 78mm of diameter; galva-nized steel elements as head-box, side guides and bottom bar; irrigation system for the opposite side of the fire.

All the system is driven by a 24Vdc tubular motor and controlled by an electronic board, TRIA's CRM (Control and Regulation for Motor) with special gravity fail safe system.

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

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

Tested and approved according to the European Standards UNE EN 1634-1 and UNE EN 1363-1.

## 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 TRIA's Control Panel (CBM), receives the signal alarm, and the automatic curtain deploys automatically, with controlled and safe constant speed of descent even following total power loss on all curtains. A solenoid valve connected to TRIA´s control panel can activate the irrigation system. If there is a false alarm the curtains return to stand-by position automatically after reset of alarm from main Fire Management Systems. In case of main power loss, the curtain will remain fully retracted up to 6 hours thanks to TRIA's battery back-up system.

## FABRIC

The fiberglass fabric has low radiation, high isolation properties and resists up to 1100°C. All seams are done with reinforced stainless steel wires with a coating of Kevlar.

## HEADBOX

Galvanized Steel head-box 1,2mm thickness with different possibilities to adapt to different architectural spaces, and maintenance requirements.
Dimensions of the head-box varies depending on width and height of the curtain.

## SIDE GUIDES

Galvanized Steel from 1,5 to 3mm thickness and different dimensions depending on width and height of the curtain.

## ROLLER

Galvanized Steel of 1,5mm thickness and 78mm diameter. Special slide system for fixing the fabric.

## BOTTOM BAR

Galvanized Steel of 1,5mm thickness. Two-parts system easy to mount.

## ELECTRIC MOTOR

TRIA tubular motor 24Vdcc
**Maximum power:** 24 W/ 18,5Nm
**Maximum current:** 3 A
**Average linear speed:** 0.08 m/ s

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## 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):** 120mm x 160mm x 75mm

## CBM CONTROL PANEL

Receives the signal alarm from 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 140mm to 400 x 400 x 210mm
**Input:** 115 or 220 Vac 50Hz
**Output:** 24Vcc
**Battery:** 2 x 12Vcc 7,5 Ah rechargeable (up to 6 hours autonomy)
**Maximum capacity:** up to 12 motors.

## IRRIGATION SYSTEM PANEL

A solenoid valve connected to TRIA´s 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 this 3 conditions meet together, 1st – fire alarm and 2nd – Three minutes delay and 3rd – Thermal Sensor above 77°C. The number of sprinklers depends on the area of each system. The fluid conditions are the following:

Water Flow ≥ 3.8 l/min/m²
Pressure ≥ 1.4 bar

## OPTIONAL EXTRAS

**Irrigation system:** hidden inside the headbox.
**Thermal sensor:** electronic sensor activates solenoid at 77°C (for irrigation).
**RAL coating:** head-box, side guides, bottom bar and false ceiling extra accessories.
**Stainless steel elements:** head-box, 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 false ceiling accessories.
**False ceiling accessories:** aluminum profiles painted RAL9003 to hide head-box over false ceiling.
**Electric motor:** special 24Vdc motors up to 80Nm without CRM; Special 230Vac motors up to 120Nm 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.
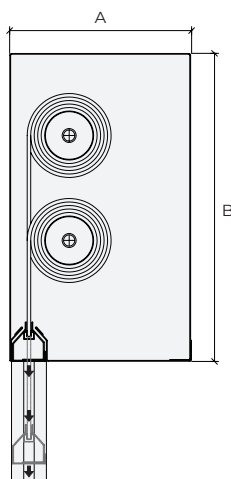**Emergency button:** pushing this button the curtain deploys immediately.

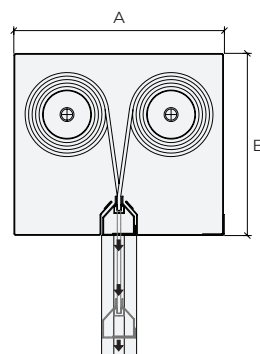**Note:** other requirements and customized solutions on demand.

# HEADBOX
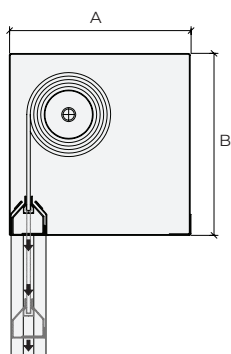
**SINGLE ROLLER**

A: 180-260mm
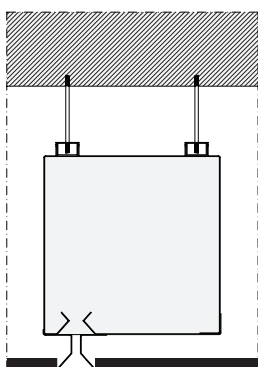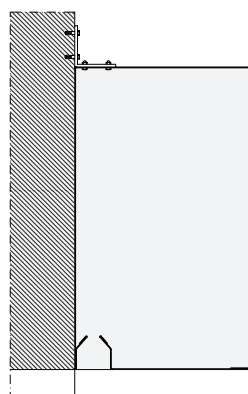B: 180-260mm

**MULTI ROLLER VERTICAL**

A: 190-270mm
B: 300-500mm
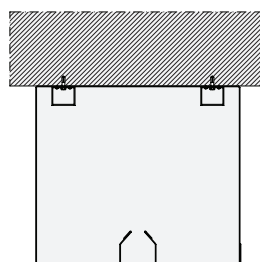
**MULTI ROLLER HORIZONTAL**

A: 250-400mm
B: 170-260mm

# HEADBOX FIXING

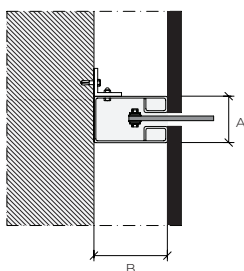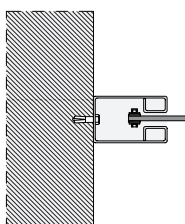**HANGING/FALSE CEILING**

**WALL**

**TOP CEILING**

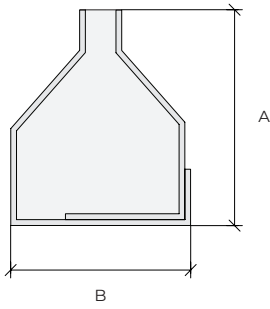# SIDE GUIDES FIXING

**HIDDEN**
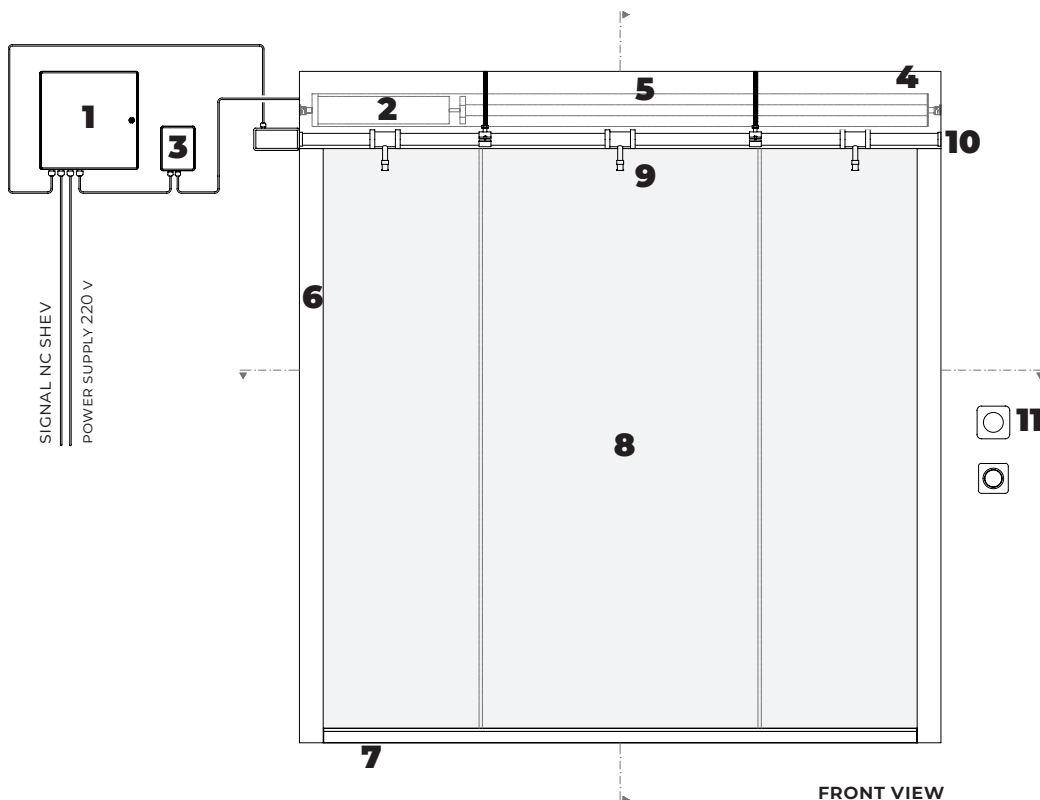
A: 50-76mm
B: 80-120mm

**SIDE WALL**
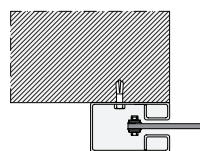
**SCREW SIDE GUIDES**
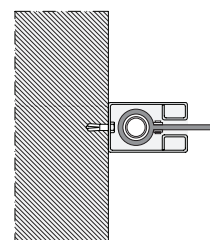
**TUBE SIDE GUIDES**

# BOTTOM BAR



**GALVANIZED STEEL**

A: 55mm
B: 47mm



SIGNAL NC SHEV

POWER SUPPLY 220 V

**FRONT VIEW**

30 to 50 CM
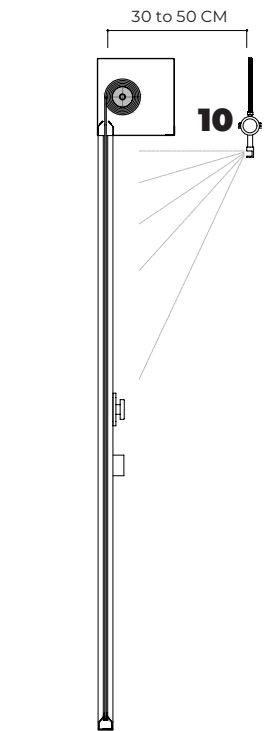
**VERTICAL SECTION**

**HORIZONTAL SECTION**

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

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