

Note: Operating System may change as per final discussion with client.

Entrance Door Automation



Rolling Shutter

**Solutions,
That You Need!**



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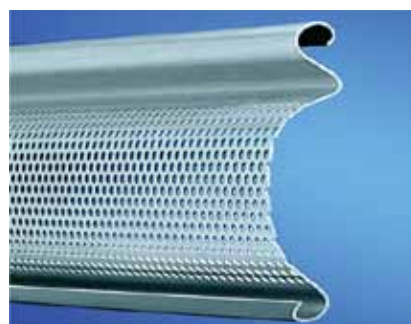
Single Wall Rolling Shutter

A roller shutter is a type of door consisting of many horizontal slats (or sometimes bars or web systems) hinged together.

The door is raised to open it and lowered to close it. On large shutters, the action may be motorized.



Slat Profile



Perforated Slat



Grill Pattern

Specifications

Slat Profile:-

The individual rolled interlocking laths or slats with which the rolling shutter curtain is assembled. By inserting slats into one other it is locked by hammering projected part into the groove.

Various types of slat profiles are available - Corrugated, Perforated, Grilled pattern.

Bottom Profile:-

It is the bottom most part of the shutter, into which last slat is inserted and locked. Angle strip is provided at the bottom of it which prevent bottom plate to struck down to ground and thus provides protection to the shutter.

Guide Channels:-

The channels on either side in which the shutter moves up and down. Guide is used to guide the all slats locked together. Clearance of 5mm between slats and guide on both sides should be provided to allow free movement of curtain and at the same time to prevent rattling of the curtain due to wind.

Winding Shaft:-

It's nothing but the MS hollow tubular section inside which flange is welded, through the flange steel shaft is inserted. The diameter of roller pipe varies with the weight of shutter

Bracket Plate:-

The supporting plates at either end on the top, together with the U-shaped clamps supporting the entire moving mechanism of the rolling shutter. Size and thickness of bracket varies with dimensions (height) of the shutter which is to be installed. The bracket plate shall be of hexagonal and square contour.

Door Dimensions:-

Width max: 8000 mm X Height max: 8000 mm (Larger dimension shutters are available on request)

PRODUCTS FEATURES:

- Maintaining highest safety standards
- Finger-tip control to raise and lower shutters of any size with the utmost ease, from a single push-button switch, or a radio remote control transmitter.
- Protecting against burglary, vandalism and storms.
- During power failure, the door can be opened manually using a hand crank or a chain drive.
- **Safety:** Electrical safety edge with rubber profile (optional), Photo cell (optional), Emergency button (optional)
- **A wide range of accessories:** Remote control & receiver, Key switch, Push button, Electrical safety edge with Rubber sealing, Flashing light



M.S. Rolling Shutter



G.I. Rolling Shutter



Aluminium Rolling Shutter



Stainless Steel Rolling Shutter



Poly carbonated Rolling Shutter



Double Wall Rolling Shutter

Roller shutter, double-skinned, insulated, made of coated steel profiles, galvanized consoles.

Double wall type rolling shutters provides maximum security. The main feature that differentiate it from other rolling shutters is that it is fashioned using two wall for slates stuffed with Polyurethane isolation.

It consists of primer coated winding shaft with aluminum side guide rails with rubber insert from both sides, aluminum bottom profile with EPDM rubber profile.

Specifications

Slat Profile:-

The individual rolled interlocking laths or slats with which the rolling shutter curtain is assembled. Various types of slat profiles are available - Insulated profile, profile with glazing and profile with ventilation grill.

Bottom Profile:-

It is the bottom most part of the shutter, into which last slat is inserted and locked.

Guide Channels:-

The channels on either side in which the shutter moves up and down. Guide is used to guide the all slats locked together. Aluminum profile with wear proof easy to change rubber inserts at both sides of the shutter inside guide rail.

Winding Shaft:-

It's nothing but the MS hollow tubular section inside which flange is welded, through the flange steel shaft is inserted. The diameter of roller pipe varies with the weight of shutter. Primer coated steel tube with welded in shafts on Both the sides for drive and bearings.

Bracket Plate:-

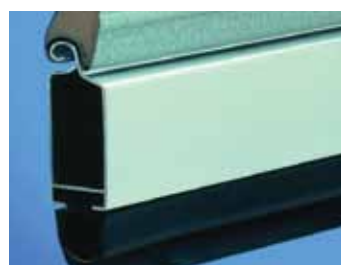
The supporting plates at either end on the top, together with the U-shaped clamps supporting the entire moving mechanism of the rolling shutter. Size and thickness of bracket varies with dimensions (height) of the shutter which is to be installed. The bracket plate shall be of hexagonal and square contour.

Door Dimensions:-

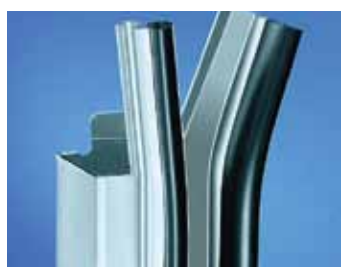
Width max: 8000 mm X Height max: 10000 mm (Larger dimension shutters are available on request)



Insulated profile



Bottom profile



Guide rail



Profile with glazing



Profile with ventilation grill

PRODUCTS FEATURES:

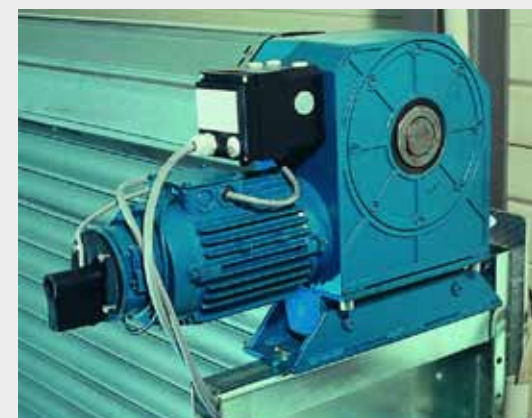
- Maintaining highest safety standards
- Finger-tip control to raise and lower shutters of any size with the utmost ease, from a single push-button switch, or a radio remote control transmitter.
- Protecting against burglary, vandalism and storms.
- Sound Insulation can provide to certain level
- During power failure, the door can be opened manually using a hand crank or a chain drive.
- Safety: Electrical safety edge with rubber profile (optional)
- **A wide range of accessories:** Remote control & receiver, Key switch, Push button, Electrical safety edge with Rubber sealing, Flashing light

BENEFITS:

- Due to the special shape of the profile, higher stability and smooth and noiseless running
- Heat insulation is more successful in combination with steel (lower heat conductivity)
- Can maintain the room temperature up to 50 °C
- Extreme high bending stiffness due to micro-profiling, hence shutters have high wind load with standing capacity
- Roller curtain in steel light weight construction

DRIVE UNIT:

- Various types of motors for rolling shutters are available from Europe, Asia to suit the requirement
- Side motor with direct mounting drive / indirect mounting drives
- Center motor (For smaller shutters up to 12 sqm)
- **Motor Details:**
 - Operating voltage : 230 V – Single phase / 400V – Three phase
 - Frequency : 50 Hz/ 60 Hz
 - Operating Temperature : -10 °C to 60 ° C
 - Protection Grade : IP 65
 - Contactors : mechanical locked
 - Breaking capacity : 400 V / 4 kw



Direct Mounting



Indirect Mounting



Fire Resistance Rolling Shutter



TYPES OF DESIGN:

Fail-Safe Design 1

Fire shutter + Relay power close + TFU-2 Fusible link

The fire shutter is always ready to receive the 24 vdc fire signal from fire control room. Once signal received, the fire shutter shall close down by motor power.
With TFU-2 thermal fusible link, Fire shutters become fail-safe, will auto close down by Gravity force when room temperature rises up to 90°C.

TFU-2 Thermal Fusible Link

This Mechanical Bi-Metal fusible link consists of one fuse metal which shall release the brake of the fire shutter motor when the room temperature reaches 90°C.. The fire shutter with this device does not require any power source of fire signal to close at all. This TFU-2 Metal fire device will Sure-Close when the Total Power failure occurs in shopping centers of office building.

ERS-400 Electric Releaser 24

Once signal received, the solenoid shall release the break of the fire shutter shall start to close down.
The design innovation is to assure the closing of fire shutter even when motor power failure.
(it is gravity drop close design)

SKB FS-2T Delay Timer

This delay timer is design for delay closing of fire shutter for evacuation needs, especially in high density areas like shopping centers. It has 2 stages of delay actions and also serve as a smoke barrier when 1st stage delay activated. After pre-set time reaches, the fire shutter shall fully close down too floor level.

Fail-Safe Design 2

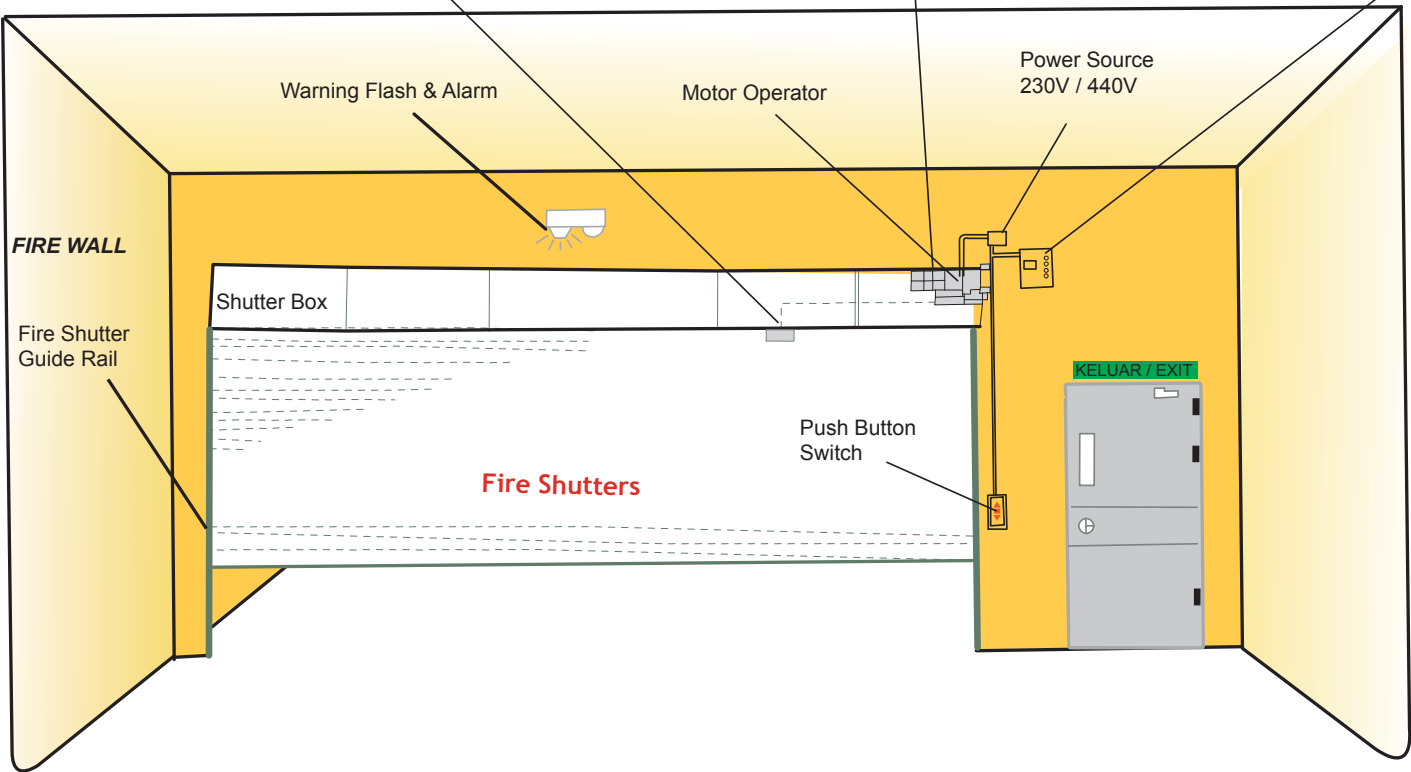
Fire shutter + Tfu-2 Fusible link + FS-2T Delay timer

The fire shutter is always ready to receive the 24 vdc fire signal from fire control room. Once signal received, the fire shutter shall close down by motor power.
With TFU-2 thermal fusible link, Fire shutters become fail-safe, will auto close down by Gravity force when room temperature rises up to 90°C.

Fail-Safe Design 3

Fire Shutter + TFU-2 Fusible link + FS-2T Delay Timer + Warning

The fire shutter is always ready to receive the 24 vdc fire signal from fire control room. Once signal received, the fire shutter close down to a pre set height to allow evacuation requirements, after second pre set timer, the fire shutter shall power close down until floor level. Warning Flash & Alarm shall activate at the same time. With TFU-2 thermal fusible link, fire shutter become Fail-Safe, will auto close down by Gravity force when room temperature rises up to 90°C.



Fail-Safe Design 4

Fire Shutter + ER-S-400 + TFU-2 Fusible Link

The fire shutter is always ready to receive the 24 vdc fire signal from fire control room. Once original received, the fire shutter shall close down by Gravity Force without delay.
With TFU-2 thermal fusible link, Fire shutter become Fail-Safe, will auto close down by Gravity force when room temperature rises up to 90°C.

