Utkarsh STEEL DOOR

A House of complete Fire Solutions metal door

Message from our Founder

"UTKARSH" was an idea ahead of its time when it came into being in 2022. Though the initial years were a struggle, company has always tried to stay one step ahead by innovating and transforming its process, refining service offerings, redefining customer standards internally and externally and using technology to drive up customer satisfaction. Our commitment and quality standards are the key factor to achieve new milestone & scale new heights each year.

"UTKARSH" brand offers complete solutions to its customers, at par with the best practiced quality and standards of International repute. To maintain the same quality our products go for regular testing at Indian/Internationa labs.

We take jobs for supply & installation of Fire Rated Glazed / Metal Pressed Steel Door & Window frames, Fire Hydrant Shaft Doors, Rolling Shutters / M.S. Railing etc. We also execute the jobs of Fire Curtain, Fire Retardant Paint, Fire Stoppage Barrier, Fire rated glass & hardware.

We, at **"UTKARSH"**, strive to deliver the best without compromising on Quality Commitment and Speed. There is no compromise, not even on the smallest activity. We deliver the best to our clients, helping them in identifying their requirements, based on what they actually need.

Our customers have been our assets and prime moves in our journey towards service excellence and we would like to honour and return what we have received from them. It has been our endeavor for last one decade, to provided passive fire services from single window with completion, quality, commitment and speed according to the requirements of client and site. We consider it our moral and professional responsibility to educate our valued clients on the subject before anytime else.

Our values are the key driving fores that help us align our organisation towards customer sensitivity and deliver beyond customer's expectations. They encompass our attitude, behavior, action and delivery promise.

Sayed Ghufran Ahmad

Managing Director

Our Products :

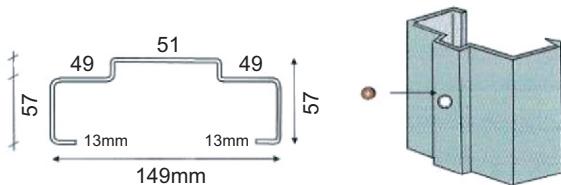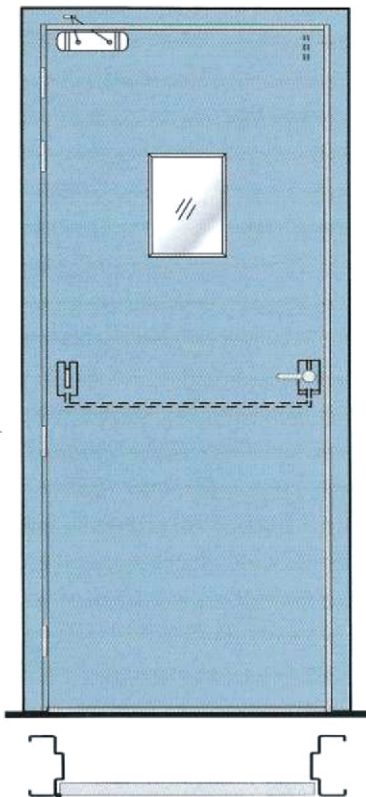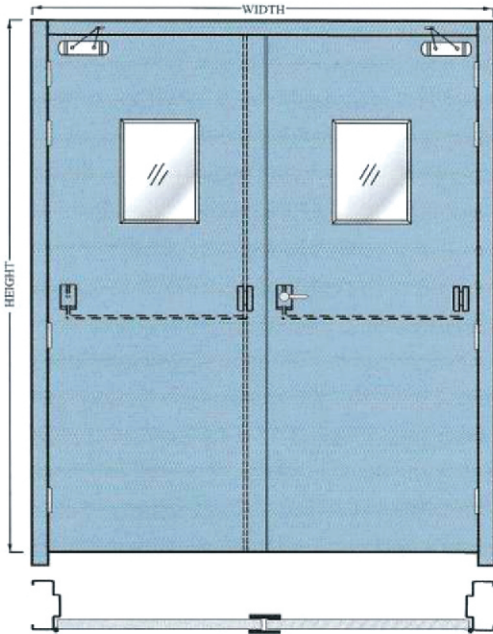Metal Fire Door / Acoustic Cum Fire Doors

Glazed Fire Doors / Fire Rated Glazed Fixed Partition

(Fire Rated Glass)

Steel / Wooden Lead Line Doors / Clean Room Doors

Pressed Steel Doors & Windows

Fire Rated Hardware

Architectural Systems

Metal Fire Rated Door Specification

(Single leaf door / Equal leaf door / Un-equal leaf door)

Door Type : Metal Fire Rated Door

Fire Rating : 120 mins

Shutter Thickness : 46 mm

Criteria : Stability, Integrity & with Insulation Material

Testing Standards : BS 476 Part 20-22, IS 3614 Part 2

Frame Size : 100 x 57 mm Single Rebate
143 x 57mm Double Rebate.

Construction Details

Steel Frame Profile Design

Frame Thickness - 1.20 mm/ 1.60 mm Galvanized Steel

Shutter Sheet Thickness - 1.0 / 1.2 mm Galvanized Steel

Vision Panel - 2Hrs. Fire rated Toughened clear Glass

(Optional)

Shutter Thickness - 46 mm

Shutter Infill Insulation - Fire Rated Insulation

Finish powder coated finish in desired shade

Recommended Hardware

1. SS Ball Bearing Hinges - SS 304 of
   Size 100mm x 75mm x 3mm
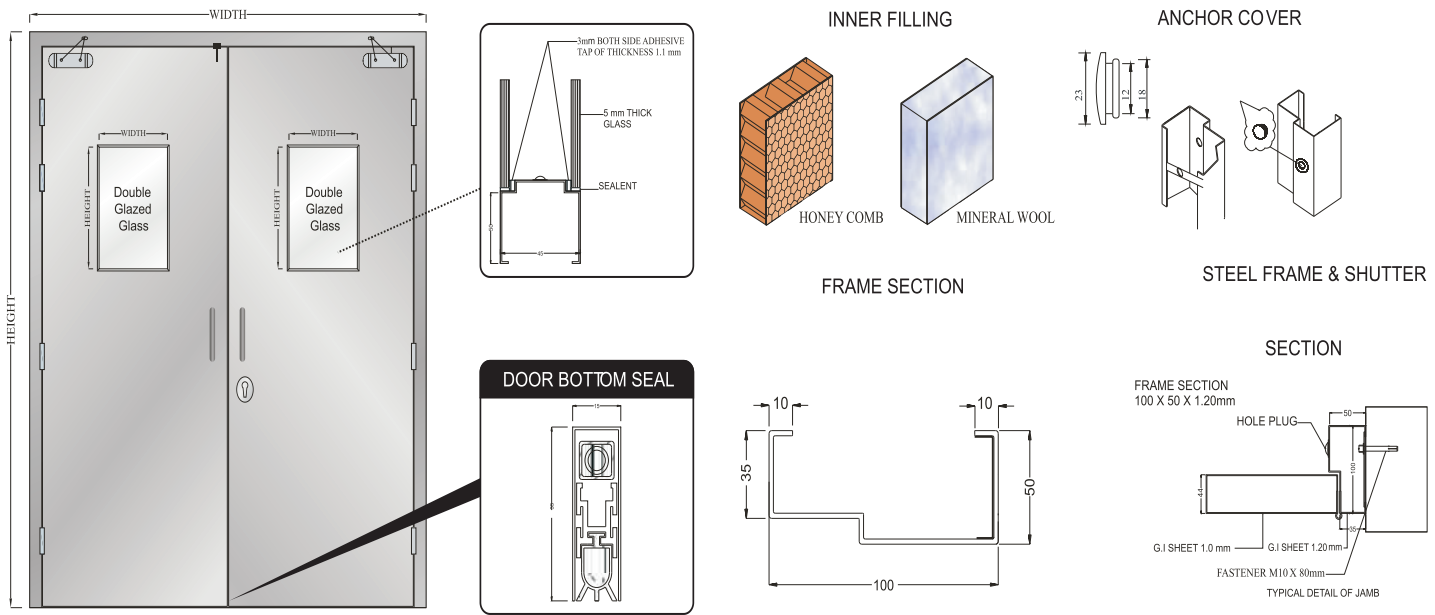2. Door Closer - Fire reated
3. Tower Bolt   / Flush Bolt

Optional Hardware

4. Mortise Dead Lock Set with Cylinder - complete with
   D Shape Pull handle for Push / Pull Operations
5. Mortise Sash Lock with Cylinder -
   Complete with Lever Handle for Push / Pull Operations
6. Fire Rated Panic Bar - Push Side Operation
   Fire Rated External Panic Trim - Pull side Operation

Recommended Finishes

1 Powder Coating in desired RAL Shade Code
2 Polyurethane Coating in desired RAL Shade Code
3 Selective Wood Grain Finishes available

SCIENTIFIC / CLEAN ROOM STEEL DOOR

INNER FILLING
HONEY COMB   MINERAL WOOL

FRAME SECTION

ANCHOR COVER

STEEL FRAME & SHUTTER

3mm BOTH SIDE ADHESIVE TAP OF THICKNESS 1.1 mm
5 mm THICK GLASS
SEALENT

DOOR BOTTOM SEAL

SECTION

FRAME SECTION 100 X 50 X 1.20mm
HOLE PLUG
G.I SHEET 1.0 mm   G.I SHEET 1.20mm
FASTENER M10 X 80mm
TYPICAL DETAIL OF JAMB

CONSTRUCTION DETAILS

Detail   Description

1   Steel frame Profile Design- NCL 100 x 50

2   Frame manufactured with 1.2mm Galvanised Steel

3   Shutter Thickness- 44mm

4   Shutter infill- Honeycomb/Mineral wool

5   Shutter manufactured with 0.8/1 mm Galvanised Steel

6   Double Glazed Glass as per requirement (5mm each)

Recommended   Hardware

1   Stainless steel Ball Bearing Hinges - SUS 304 of size 100mm x 75mm x 3mm

2   Door Closer- Having capacity up to 60 kg per leaf / Shutter

3   Mortise Dead Lock Set with 70mm long Cylinder and estucheon- complete set with D Shape Pull
     Handle for pull side and push plate (SS 304) on Push side

4   Mortise Sash lock with 70mm long Cylinder, estucheon, lever handle - Complete Set for
     Push/Pull operation

5   Automatic Mortised Drop Down Door Bottom Seal

6   Perimeter Seal All around Frame
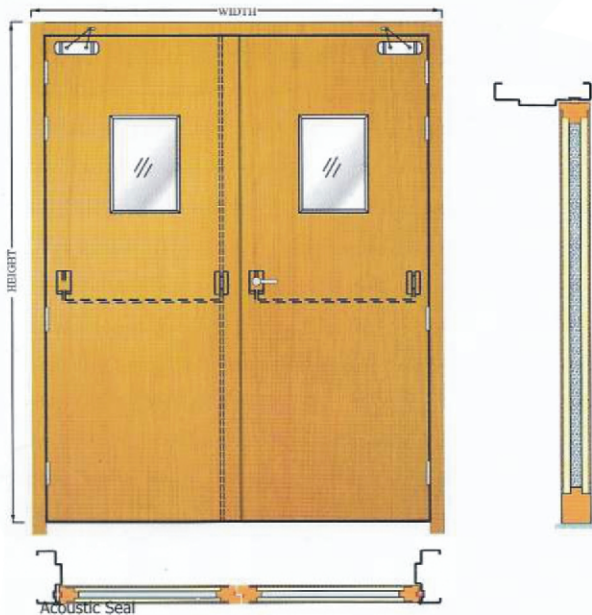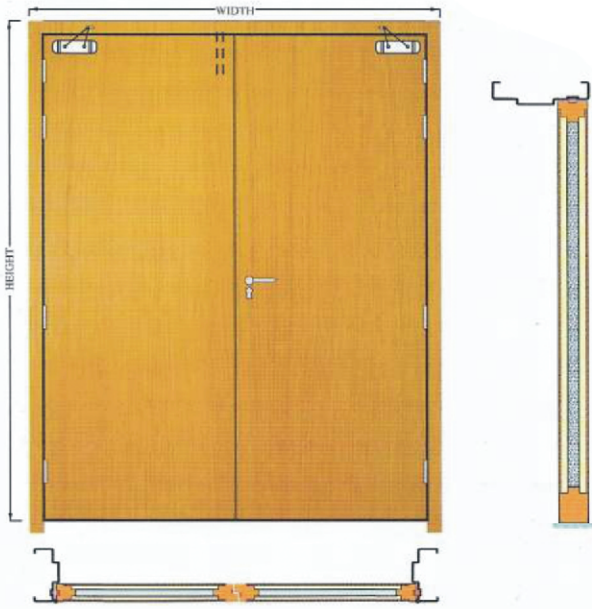
Optional   Hardware

1   Door Coordinator

2   Concealed Flushbolt

3   Dust Proof Strike

Recommended   Finisher

1   Powder Coating in desired RAL Shade Code

2   SS 304 Matt / Glossy Finish on demand

Door Type	Scientific door
Criteria	Clean Room
Rating	Not Applicable
Door Thickness	44 mm
Standard	Clean room
Application	Hygeine

Wooden Fire Rated Door Specification (Acoustic Cum Fire Doors)

Door Type	: Wooden Fire Rated Door
Fire Rating	: 60mins/ 120 mins
Shutter Thickness	: 77 mm
Criteria	: Stability, Integrity & With Insulation
Testing Standards	: BS 476 Part 20-22, IS 3614 Part 2
Frame Size	: 140 x 65mm

Construction Details

* Wooden door Frame made out of Hardwood Mirandi Teak/ Teakwood / Ivory coast Teak asper requirement.

  Door Shutter - Internal Frame made of Hardwood Tack with facing of 6 mm thick commercial ply or veneered ply on both face.

  Shutter Insulation - Sandwich type Fire rated mineral wool treated with fire retardant paint & Calcium silicate board.

  Vision Panel - 1hr / 2hrs. Fire rated clear Glass (Optional)

  Shutter Thickness - 77 mm.

  Intumescent fire / smoke seal 20 x 4mm or 10 x 4mm at all three sides of door frame and shutters excepts bottom.

Recommended Hardware

1. SS Ball Bearing Hinges - SS 304 of
   Size 100mm x 75mm x 3mm
2. Door Closer - Fire rated

Recommended Hardware

3. Mortise Dead Lock Set with Cylinder - complete with
   D Shape Pull handle for Pus / Pull Operations
4. Mortise Sash Lock with Cylinder -
   Complete with Lever Handle for Push / Pull Operations
5. Fire Rate Panic Bar - Push Side Operation
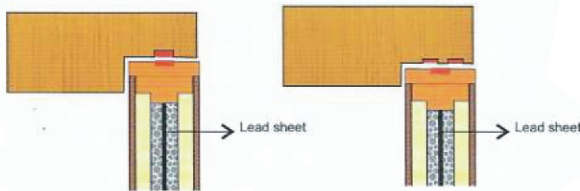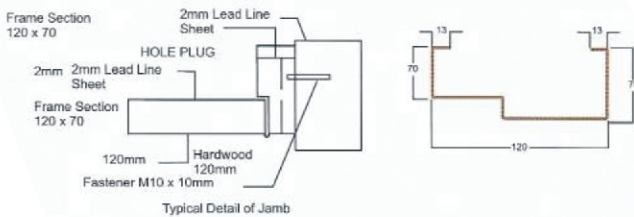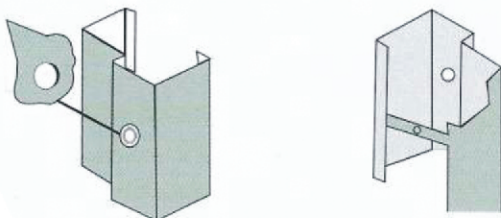   Fire rated Panic Trim - Pull Side Operation

WIDTH

HEIGHT
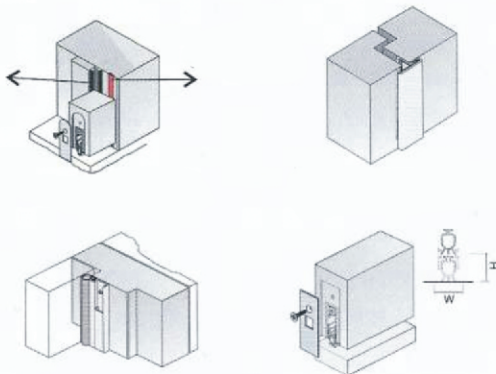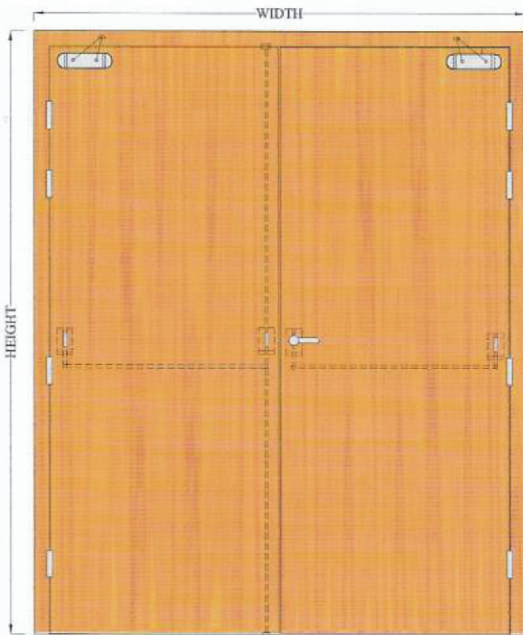
Wooden Lead Lined Door

Door Type	: Wooden Lead Lined Door
Criteria	: Nuclear/Radiation Protected
Rating	: Not Applicable
Door Thickness	: 46mm
Standards	: AERB/DRS
Application	: Radiology & Nuclear Medicine

Construction Details

Wooden Frame Pfofile Design-BFPPL Hardwood Red
Marindi/Teackwood of section 120x70 with 2mm lead
sheet sandwiched or pressed steel door frame profile
designe BFPPL single rebated 100x57x1.20mm G.I. Sheet.
Hardwood Internal Timber frame work
2mm (±1%) lead sheet with 99% purity
BFPPL core construction, 4mm thick with commercial ply.
Shutter thickness with commercial ply, board & limitation
both side - 4mm x 2mm Galvanised Steel
Vision panel if required shall be of lead glass only.
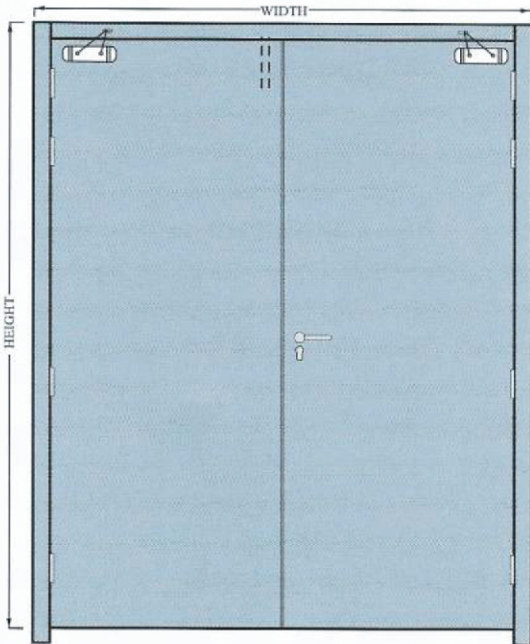
Recommended Hardware

1. SS Ball Bearing Hinges - SS 304 of
   Size 100mm x 72mm x 3mm
2. Door Closer - Fire rated
3. Tower Bolt   / Flush Bolt

Ootional Hardware

4. Mortise Dead Lock Set with Cylinder - complete with
   D Shape Pull handle for Push / Pull Operations
5. Mortise Sash Lock with Cylinder -
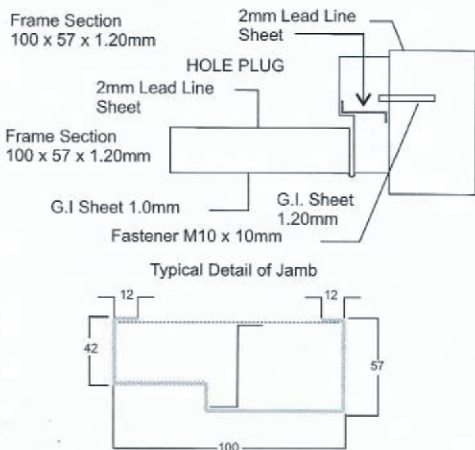   Complete with Lever Handle for Push / Pull Operations

Frame Section 120 x 70

2mm Lead Line Sheet

HOLE PLUG

2mm 2mm Lead Line Sheet

Frame Section 120 x 70

120mm Hardwood 120mm

Fastener M10 x 10mm

Typical Detail of Jamb

13 13
70 70
120

Lead sheet Lead sheet

Rockwool Insulation

Frame Section
100 x 57 x 1.20mm

2mm Lead Line Sheet

HOLE PLUG

2mm Lead Line Sheet

Frame Section
100 x 57 x 1.20mm

G.I Sheet 1.0mm

G.I. Sheet 1.20mm

Fastener M10 x 10mm

Typical Detail of Jamb

Steel Lead Lined Door

Door Type	:	Steel Lead Lined Door
Criteria	:	Nuclear/Radiation Protected
Rating	:	Not Applicable
Door Thickness	:	44mm
Standards	:	AERB/DRS
Application	:	Radiology & Nuclear Medicine

Construction Details

Steel Frame Profile Design-BPFPL 100x50

Frame Manufactured with 1.2mm Galvanized Steel

Shutter Thickness - 44mm

Shutter Infill - Honeycomb / Mineral wool including

2mm Lead Sheet

Shutter Manufactured with 1mm Galvanised Steel

Ingle Glazed Lead Glass as per requirement of size

200mmX300mm   (5mm+ - 2mm)

Recommended Hardware

1. SS Ball Bearing Hinges - SS 304 of
    Size 100mm x 75mm x 3mm
2. Door Closer - Fire rated
3. Tower Bolt / Flush Bolt

Optional Hardware

4. Mortise Dead Lock Set with Cylinder - complete with
    D Shape Pull handle for Push / Pull Operations
5. Mortise Sash Lock with Cylinder -
    Complete with Lever Handle for Push / Pull Operations
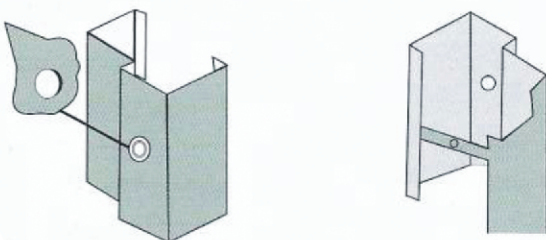
Recommended Finishes

1 Power Coating in desired RAL Shade Code
2 Polyurethane Coating in desired RAL Shade Code
3 Selective Wood Grain Finishes available
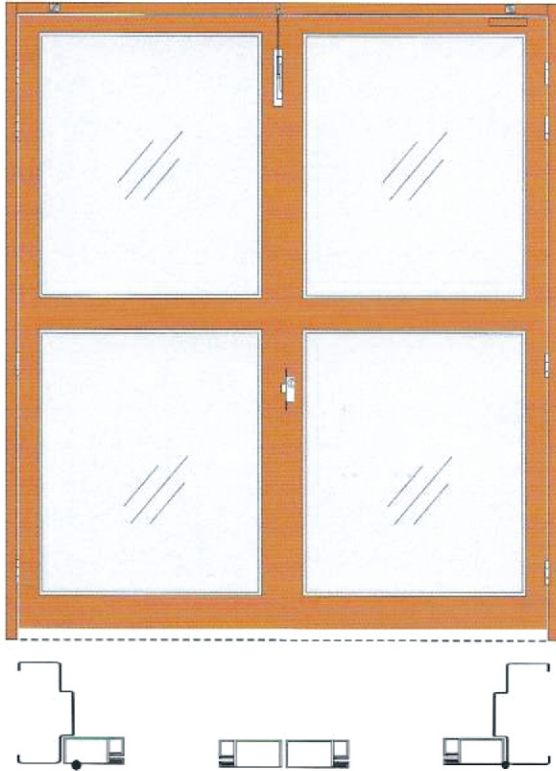
Glazed Metal Fire Rated Door Specification

Door Type   : Glazed Metal Fire Rated Door
Fire Rating   : 60mins/ 120 mins
Door Frame   : 143 X 57 X 1.60 mm
Shutter Thickness   : 50 X 1.60 mm
Shutter Stiles   : Vertical & Top Members 50 X 100 X 1.60 mm bottom members 50 X 200 X 1.60 mm
Criteria   Stability, Integrity & With Insulation Material
Testing Standards   BS 476 Part 20-22, IS 3614 Part 2
Glazings   Glass - 2hrs. Fire rated clear Glass
Shutter Infill Insulation   Mineral Wool Insulation

Construction Details

Steel Frame Profile Design

Frame Thickness - 1.6 mm Galvanised Steel

Shutter Sheet Thickness -   1.6mm Galvanised Steel

Glass - 2hrs. Fire rated clear Glass

Shutter Infill Insulation -   Mineral Wool Insulation

Recommended Hardware

1. SS Ball Bearing Hinges - SUS 304 of
    Size 102mm x 89mm x 3mm
2. Door Closer - Fire rated
3. Tower Bolt / Flush Bolt

Optional Hardware

4. Mortise Dead Lock Set with Cylinder- complete with
    D Shape Pull handle for Push / Pull Operations
5. Mortise Sash Lock with Cylinder -
    Complete with Lever Handle for Push / Pull Operations
6. Fire Rate Panic Bar - Push Side Operation
   Fire rated Panic Trim - Pull Side Operation

Recommended Finishes

1 Powder Coating in desired RAL Shade Code

2 Polyurethane Coating in desired RAL Shade Code

3 Selective Wood Grain Finishes available
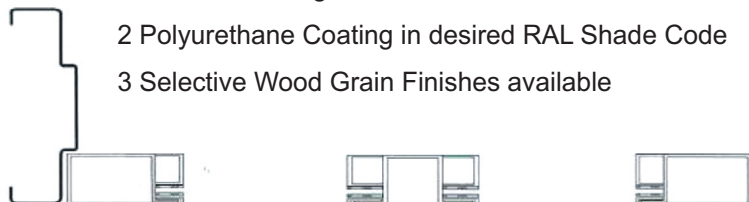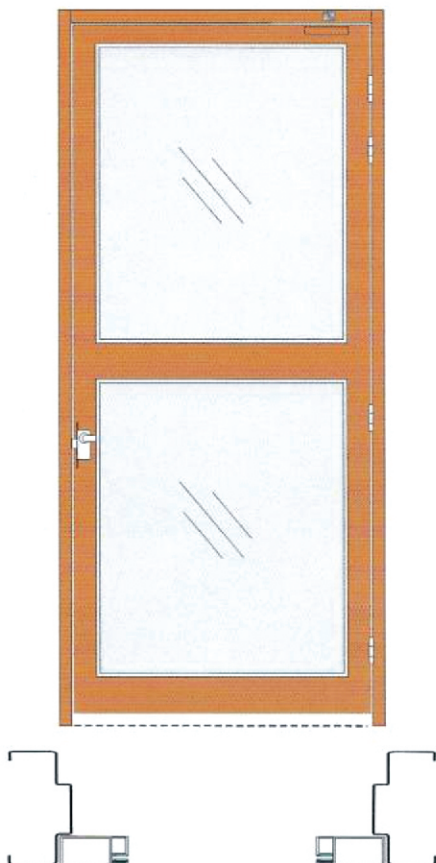
Glazed Metal Fire Rated Door with Fixed Partition

Door Type	:	Glazed Metal Fire Rated Door with Fixed Partition
Fire Rating	:	60mins/ 120 mins
Shutter Thickness	:	60 mm
Criteria	:	Stability, Integrity & With Insulation Material
Testing Standards	:	BS 476 Part 20-22, IS 3614 Part 2
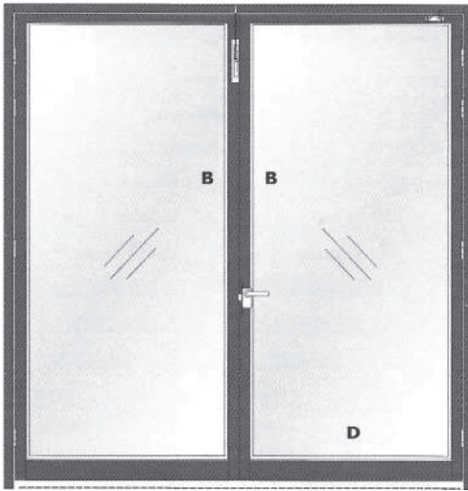
Construction Details

Steel Frame Profile Design

Frame Thickness - 1.6mm Galvanised Steel

Shutter Sheet Thickness - 1.6mm Galvanised Steel

Glass - 2hrs. Fire rated clear Glass

Shutter Infill Insulation - Mineral Wool Insulation

Recommended Hardware

1. SS Ball Bearing Hinges - SUS 304 of
   Size 102mm x 89mm x 3mm / 102mm x 76mm x 3mm
2. Door Closer - Fire rated
3. Tower / Flush Bolt

Optional Hardware

4. Mortise Dead Lock Set with Cylinder - complete with
   D Shape Pull handle for Push / Pull Operations
5. Mortise Sash Lock with Cylinder -
   Complete with Lever Handle for Push / Pull Operations
6. Fire Rate Panic Bar - Push Side Operation
   Fire rated Panic Trim - Pull Side Operation

Recommended Finishes

1 Powder Coating in desired RAL Shade Code

2 Polyurethane Coating in desired RaL Shade Code

3 Selective Wood Grain Finishes available
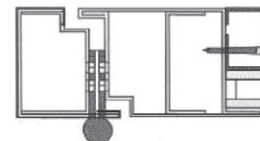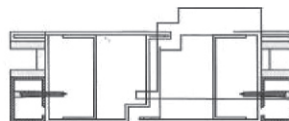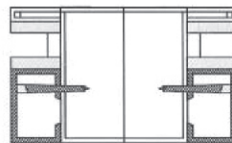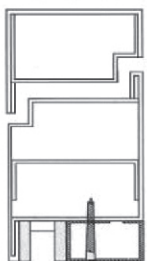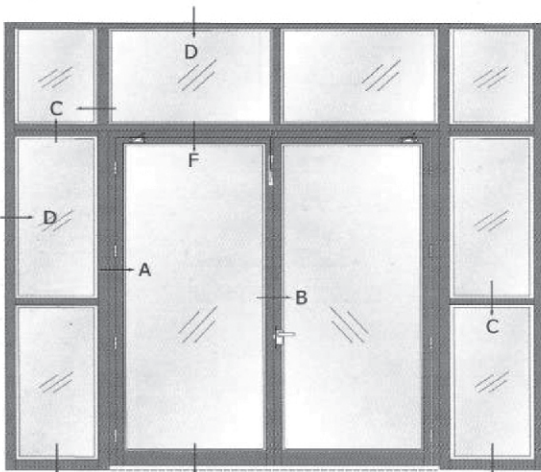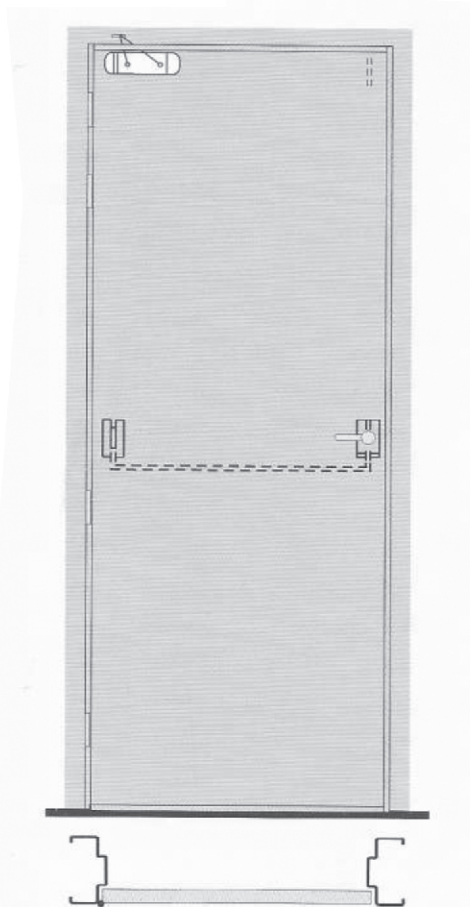
HMPS Doors (Hollow Metal Pressed Steel Door)

Door Type : HMPS Doors

Shutter Thickness : 44/46 mm

Criteria : Stability

Frame Size : 100x57 Single Rebate
143x57 Double Rebate

Construction Details

Steel Frame Profile Design

Frame Thickness - 1.20 mm / 1.60 mm Hollow Metal Pressed Steel

Shutter Sheet Thickness - 0.8 / 1.0 mm

Shutter Thickness - 46 mm

Finish powder coated / paint finish as per desired shade

Recommended Hardware

1. SS Ball Bearing Hinges - SS 304 of
   Size 100mm x 75mm x 3mm
2. Door Closer - Fire rated
3. Tower / Flush Bolt
4. Mortise Dead Lock Set with Cylinder - complete with
   D Shape Pull handle for Push / Pull Operations
5. Mortise Sash Lock with Cylinder -
   Complete with Lever Handle for Push / Pull Operations
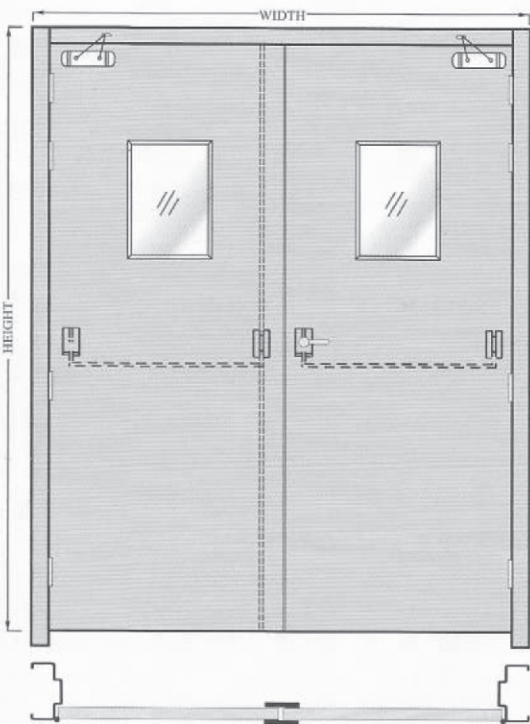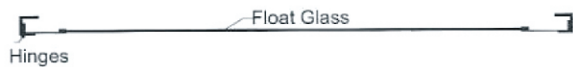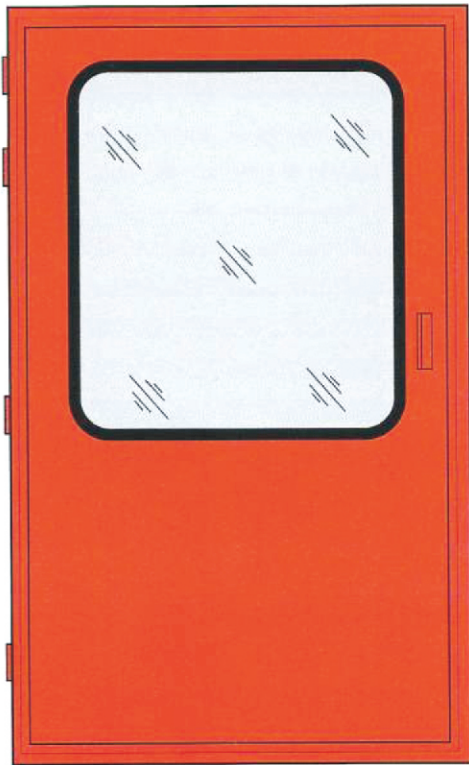
Fire Hose Cabinet Doors Specification

Door Frame	:	Angle Iron 40x40x5mm
Door Shutter	:	Outer Frame Angle Iron 25x25x3mm With Single Sheeted 2mm Thick M.S. Sheet
Finish	:	Powder coated (PO Red)
Vision Glass	:	4/5 mm Thick Float glass

Recommended Hardware

1. M.S. Butt Hinges : 4"x2.5 mm, ISI Marked
   Concealed Handle
2. Allen Key Lock
3. Fixing - Holdfast / Dash Fastners
4. Door Size. : 1200x2000 mm
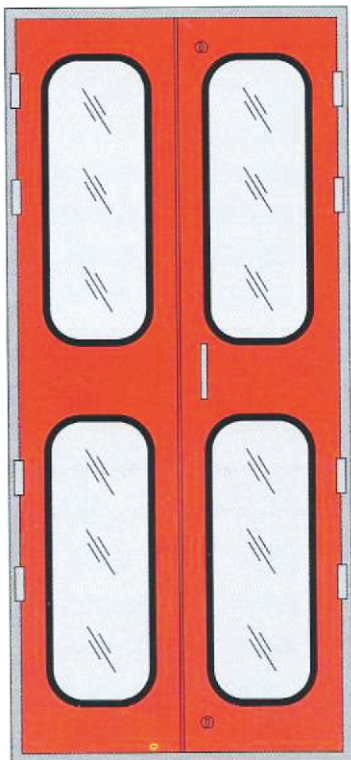
Fire Hose Cabinet Doors Specification

Door Frame	:	105x70 mm
Door Shutter	:	28 mm Thick (Single Sheeted) Non Fire Rated
Fixing	:	Anchor fastener M10x100 mm
Finish	:	Powder coated
Vision Panel	:	415 mm Thick Float glass
Door Size.	:	1200x2000 mm

Recommended Hardware

1. M.S. Butt Hinges - 4"x2.5 mm, ISIMarked
2. M.S. D-Type Handle
3. Allen Key Lock
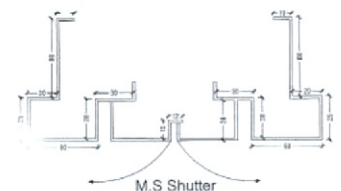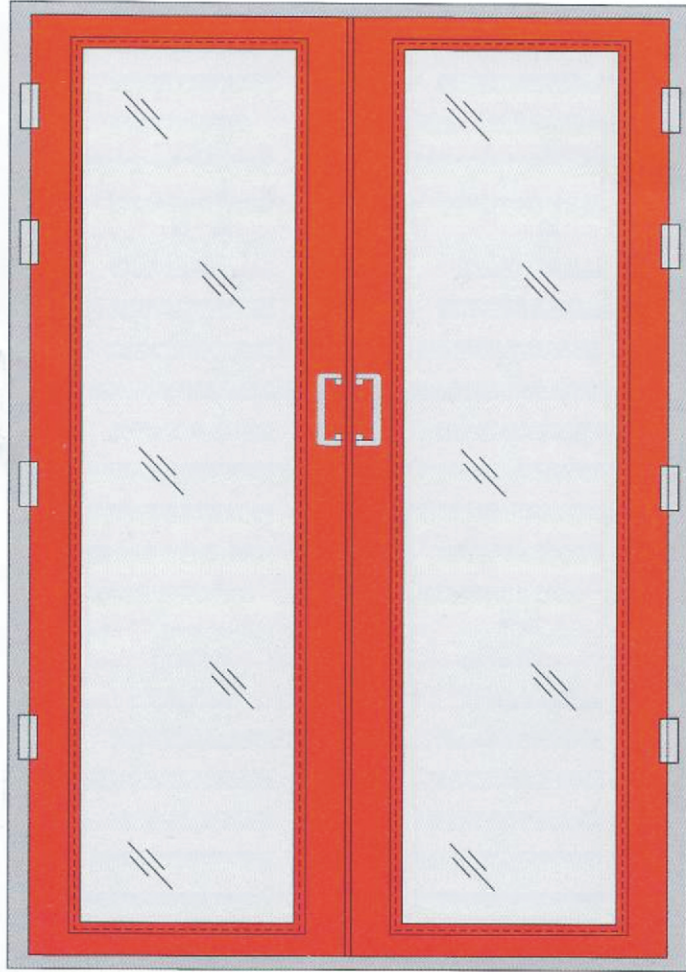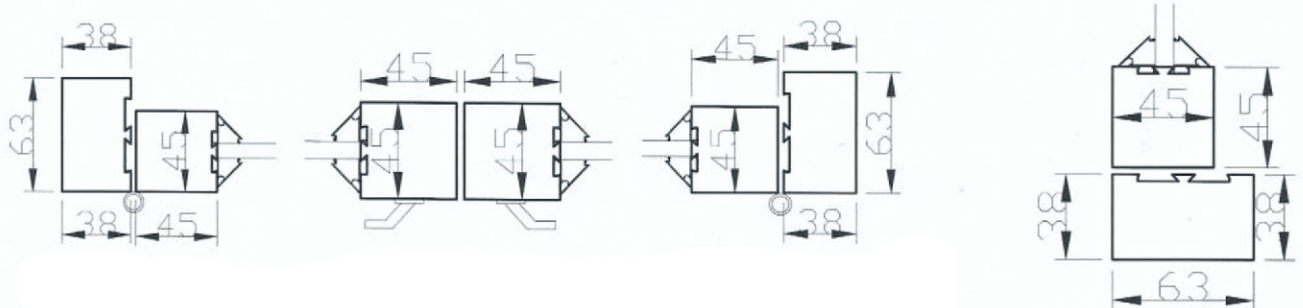
Fire Hose Cabinet Doors Specification

Door Frame	:	Aluminium Section- 63x38x1.5mm
Door Shutter	:	Aluminium Section- 45x45x1.5mm
Glass Clip	:	18.8x16.9 mm
Finish	:	Powder Coating (PO Red Colour)

Recommended Hardware

1. Aluminium Hinges
2. American Style Handle
3. Shaft Lock
4. 4/5mm thick Float Glass

SECTION A-A1
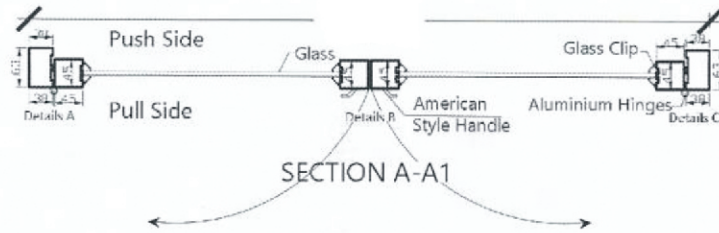
Hardware
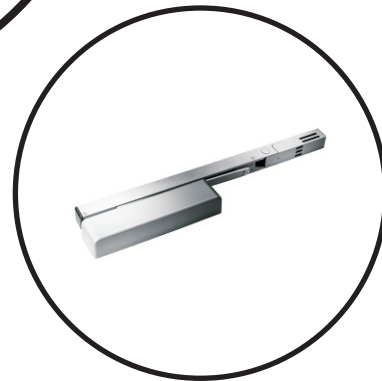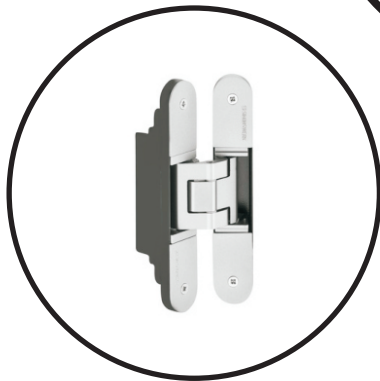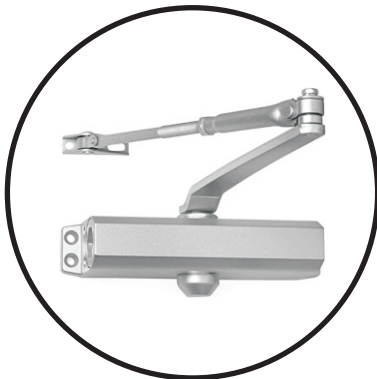
OUR CLIENT

INDIAN OIL CORP. LTD.

BGR ENERGY SYSTEMS LIMITED

ANKUR UDYOG LIMITED

GALLANTT

ISGEC

TOYO ENGINEERING

Heurtey Petrochem SOLUTIONS

VIJAY NIRMAN COMPANY PVT LTD

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FIRE DOOR STANDARDS BRIEF EXPLANATION

1. INDIAN/BRITISH STANDARD

IS 3614, Part 2, BS 476, Part 20 & 22. Building Regulations 2000-Fire Safety-Part B.

Labeling is not obligatory.

According to IS/ BS, a fire door can be tested without having leaf on an active latch bolt but with only a self-closing device.

A fire door must be self-closing. Only the active door leaf of an access panel (service ducts) can however be installed without a closer but with a dead lock and a "Fire Door, Keep Shut" sign placed clear on the door face.

Unless shown to be satisfactory when tested as part of a fire door assembly, the components of any hinge on which the door is hung should be made entirely from materials having a melting point of at least 800 degree C.

If a fire door is held open, it must be equipped with a tested, automatic release mechanism actuated by an automatic fire deduction and alarm system or a door-closed delay device.

Two fire doors may be fitted in the same opening so that the total fire resistance in the sum of their individual fire resistance.

Signs and other items of hardware containing plastic should not be fitted on the non-fire side of the metal door or frame.

2. AMERICAN STANDARD

NFPA 80-1999, NFPA 252-1995, UL 10B, UL 10C, UBC 7-2 and IBC 2000.

Afire door must have a label attached indicating the fire test rating.

Doors are rated fo 3/4th of the rating of the surrounding wall.

Every fire door must have the labeled self-latching device to engage the strike. Dead bolts may not be used in place of latch bolts.

Afire door MUST be self closing.

Steel ball bearing hinges must be used. Brass bronze or other bases cannot be used. Plain bearing hinges cannot be used as well.

If a fire door is held open, it must be equipped with a listed/tested, heat responsive or electromagnetic device, fusible link or a smoke detection device.

Only listed/ tested fire hardware shall be used.

A fire door with glass opening must be provided with listed/tested glass, a steel frame and glazing bead.

Every assembly configuration SUCH c transom panel, frame material, thickness of metal, leaf construction, core type, door set type (single, double or double egress), ect., must be covered by the test certificate of global assessment report issued by the testing agency.
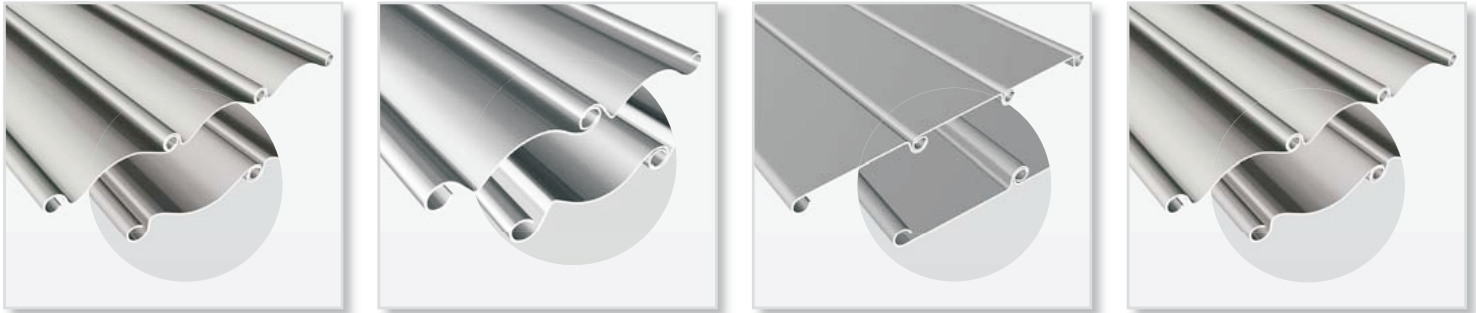
Important Fire Door's Requirement as per New 2005 Revised National Building Code of Indian-Part 4

Clause No.	Explanation
2.13	A way out leading to an escape route having panic bar hardware provided on the door.
3.4.8.3	The inspection door for electrical shafts/ducts shall be not less than 2hrs. For other service shafts/ducts, the same shall have fire resistance not less than 1 hr.
4.2.9	Fire doors with 2 hrs. resistance shall be provided at appropriate places along the escape route and particularly at the entrance to lift lobby and stair well where a 'funnel or flue effect' may be created, inducting an upward spread of fire to prevent spread of fire ans smoke.
4.9.10 (b)	For building 15 min. height or more, access to main staircase shall be through a fire/smoke check door of a minimum 2 hrs. fire resistance rating. Fire resistance rating may be reduced to 1 hr. for residental buildings (except hotels & starred hotels)
4.12.2 A	A Horizontal exit shall be equipped with at least one fire/smoke door of minimum 1 hr. fire resistance, of self closing type. Further, it is required to have direct connectivity to the fire escape staircase for evacuation.
6.1.4.6	Door leadings to room in which flammable liquids are stored or used shall be self-closing and shall be posted with a sign on each side of the door in 25 mm high block letters stating "FIRE DOOR-KEEP CLOSED"
Annex C-1.5 (h)	Exit from the lift lobby, if located in the core of the building, shall be through a self-closing smoke stop door of Half an Hour fire resistance
Annex C-1.6.2	The Staircase of basement shall be of enclosed type hying fire resistance of not less than 2 hrs. & shall be entered at ground level only from the open air & in such positions that smoke from any fire in the basement shall not obstruct any exist serving the ground & upper stores of the buildings & shall communicate with basement through a lobby provided with fire resisting self-closing doors of 1 hr fire resistance.
Annex C-1.9 (a)	Service ducts & shafts shall be enclosed by walls of 2 hrs & doors of 1 hr fire rating. All such ducts/shafts shall be properly sealed & fire stopped at all four levels. Annex C-1.18 ©, Entry to this room shall be provided with a composite door of 2 hr fire resistance (Boiler Rooms).

Fire Rating - Indicative Chart

| S.No.	Description and use of opening	Wall Rating (Hrs)	Doors and Frame Rating Minutes	
			BS 476 / EN 1634	IS 3614*1
1	Walls that separate buildings or divide a single building into designated fire areas	4	120	120
2	Enclosures of vertical communication	2	60	120
3		1	60	120
4		1	30	60
5		2	60	120
6		1	30	60

Curtain Profiles

Curtain is fabricated of interlocking profiles of

- Single Skin Galvalume Steel / Galvanised Steel
- Single Skin MS Steel

- Single Skin Extruded Aluminium alloy
- Double Skin Extruded Aluminium alloy
- Double Skin PUF insulated Aluminium / Galvanised Steel
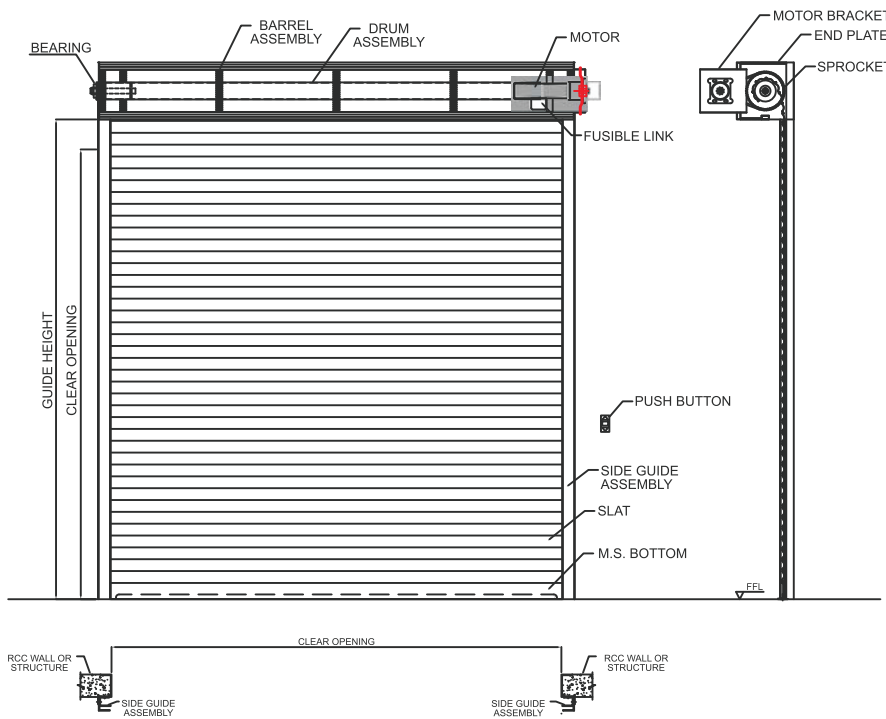
Hood

0.9mm thick pressed Galvalume / Galvanised Steel hood box complete with reinforced bracket as required to suit the shutter width.

Shutter Operation

Electrically operated: Shutters are fitted with a geared motor complete with a push button station with "UP", "DOWN" and "STOP" buttons.

Auto - Closing Mechanism

All Fire Shutters are equipped with fusible link mechanism. Upon sensing a temperature of 74°C, the fusible link mechanism releases the brake of the motor and allows it to descend by gravity. Where Fire Shutters are needed to be activated by fire alarm signal, a dual fusible link (electric solenoid releaser) is used which releases the brake of the motor, upon receipt of a 24VDC, 400mA fire alarm signal. A reset pull is provided to reapply the brake on the motor.

Barrel Bracket Plate

Suitable design of thickness 4mm. Fitted with suitable anchor fastners for fixing to the RCC / steel structure.

Product Gallery

We work with all supporting latest hi-technology heavy and light machinery