



جرين هولولابواب المعدنية ش.ذ.م.م GREEN HOLLOW METAL DOORS L.L.C

Specialists In Steel Doors And Frames Manufacturing



Firerated Steel Doors & Frames



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"Due to continuous progress and product improvement, GREEN HOLLOW METAL reserves the right to make changes without notice"



DISCLAIMER OF WARRANTIES: GREEN HOLLOW METAL products are designed on “SDI”, “NFPA”, technological data in the interest of improving the safety for the public benefit. GREEN HOLLOW METAL disclaims any liability for any personal injury, loss of life, property damage, or other damage of any nature whatsoever, whether special, indirect, consequential or compensatory, direct or indirectly resulting from any accident, regardless of legal theory. In no event shall GREEN HOLLOW METAL’s liability exceed the amount paid by the customer / contractor to that individual product cost OR US\$1000/- whichever is lesser, regardless of legal theory.

Note: Steel Doors once install, needs to be strictly maintained for every month and operation performance should be recorded by trained engineer or concern department experts, as per the Operation and Maintenance manual.

BREAKS

Fire & Smoke Path



GREEN HOLLOW METAL Steel Doors are design based on SDI and NFPA technological data in the interest of improving the safety for the public benefits.

Today as per the BOCA International standards, building safety is a demandable choice by the public, in case of fire accidents. GREEN HOLLOW METAL fire rated Steel Doors are produced with the toughest UL and SDI standards to prevent any spread of smoke fire breakup. For more details about GREEN HOLLOW METAL UL listed products contact on Tel: +971 4 2963321

FIRE RATED STEEL DOOR SPECIFICATIONS

GENERAL

Scope:

This specification applies to standard steel doors as shown on the plan and door schedules and as manufactured by GREEN HOLLOW METAL DOORS L.L.C

Quality Assurance:

Green Hollow Metal will provide doors in compliance with ANSI/SDI-100 requirements. GREEN HOLLOW METAL will provide fire rated doors labeled and listed by Underwriters Laboratories Inc. (or) warringtonfire mideast.

PRODUCT

Door Construction:

45mm ($1\frac{3}{4}$ ") thick full flush construction with the details confirming to SDI-111A-EDGE considered.

Manufactured from cold rolled steel sheets to ASTM A366 or from galvanized steel to ASTM A526. Available in nominal 1.2mm (18ga.) or 1.5mm (16ga.).

Vertical edges are interlocked.

1.5mm (16ga.) deep end channels at top and bottom of door for lasting integrity.

Hardware reinforcing in accordance to ANSI, SDI, NFPA standards requirements.

Tested according to UL10(B) and labelled up to 3 hours.

Available with wide range of glass light and louver preparations.

Fire rated, Labeled: Available in sizes up to 4'x8' single and 8'x8' double. larger sizes are also available with oversize certification.

HARDWARE PREPARATION

Hinge Preparation:

Green Hollow Metal will provide doors with 4.0mm thick steel hinge reinforcements welded to the doors in compliance with SDI-100. Standard hinge preparation is to be 41/2"x4" for regular weight 0.134" thick hinge, three preparations through 2286mm (7'6") height and four preparations over 2286mm (7'6") and up to 3048mm (10') height in compliance with NFPA 80.

Lock Face Plate Preparation:

Green Hollow Metal will provide Doors with 3.0mm thick steel lock face plate reinforcement with tapped holes welded to the Doors.

Standard lock preparation is to be provided in compliance with ANSI A115.2.

Closer and Other Reinforcement:

Green Hollow Metal will provide all doors with minimum 2.0mm (14gauge) reinforcement as necessary to support the scheduled hardware in compliance with ANSI/SDI-100. Drilling and tapping for surface applied hardware to be performed at the building site by others.



Glazing:

Doors are to be provided with steel channel glazing beads for installation of glazing. Installation of glazing by others.

Painting:

After fabrication Door thoroughly cleaned (to assure proper adhesion) and polyester powder coated finish applied. Wooded finish paint will be provided as a optional finish.

FIRE PROTECTION:

Labeled fire rated Door tested in accordance with UL (or) Warringtonfire-mideast with rating as specified in the plans and door schedule. Fire doors & frames are to be manufactures by Green Hollow Metal in accordance with the approved procedures issued by UL (or) Warringtonfire-mideast.

Labels:

Fire rated Door shall bear the appropriate fire labels.

Execution:

Installation of the frames plumb, square and in true alignment in compliance with SDI-122. Installation and troubleshooting guide for standard steel doors and frames.

FIRE DOOR TYPES - DF

GHM-100 Series - Honeycomb core door
GHM-200 Series - Polystyrene core door
GHM-300 Series - Stiffened Door with fiberglass insulation
GHM-400 Series - Stiffened Door with Rock wool insulation
GHM-500 Series - Polyurethane core door

GHME-100 Series - Embossed steel doors-honeycomb
GHME-200 Series - Embossed steel doors (Fire rated) honeycomb

GHMSS-100 Series - Stainless steel hollow metal honeycomb core door

GHMSS-200 Series - Stainless steel hollow metal door with Polystyrene core

GHMSS-300 Series - Stainless steel hollow metal door with fiberglass insulation

GHMSS-400 Series - Stainless steel hollow metal door with fiberglass insulation

GHMSS-500 Series - Stainless steel hollow metal door Polyurethane door

Single Door

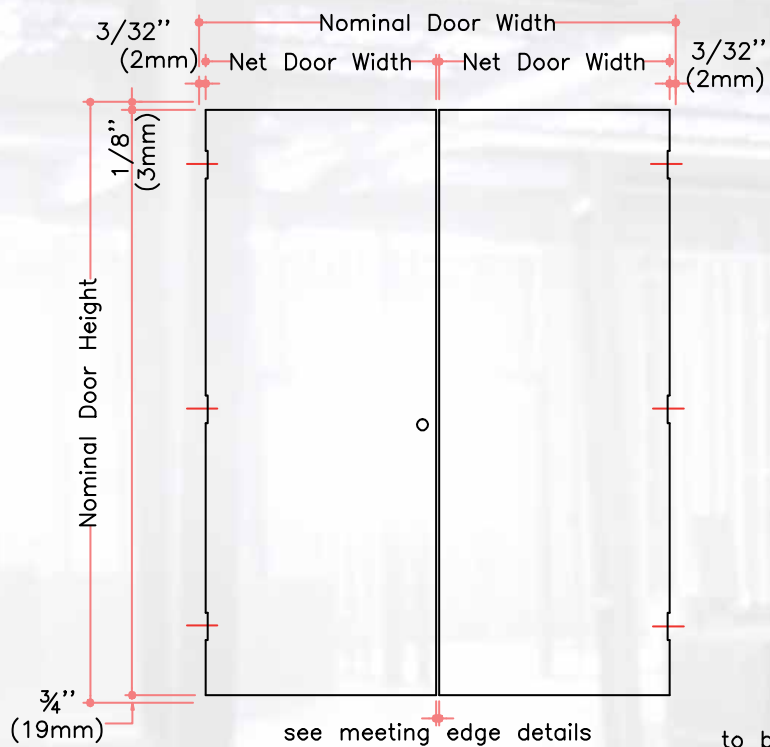


Double Door

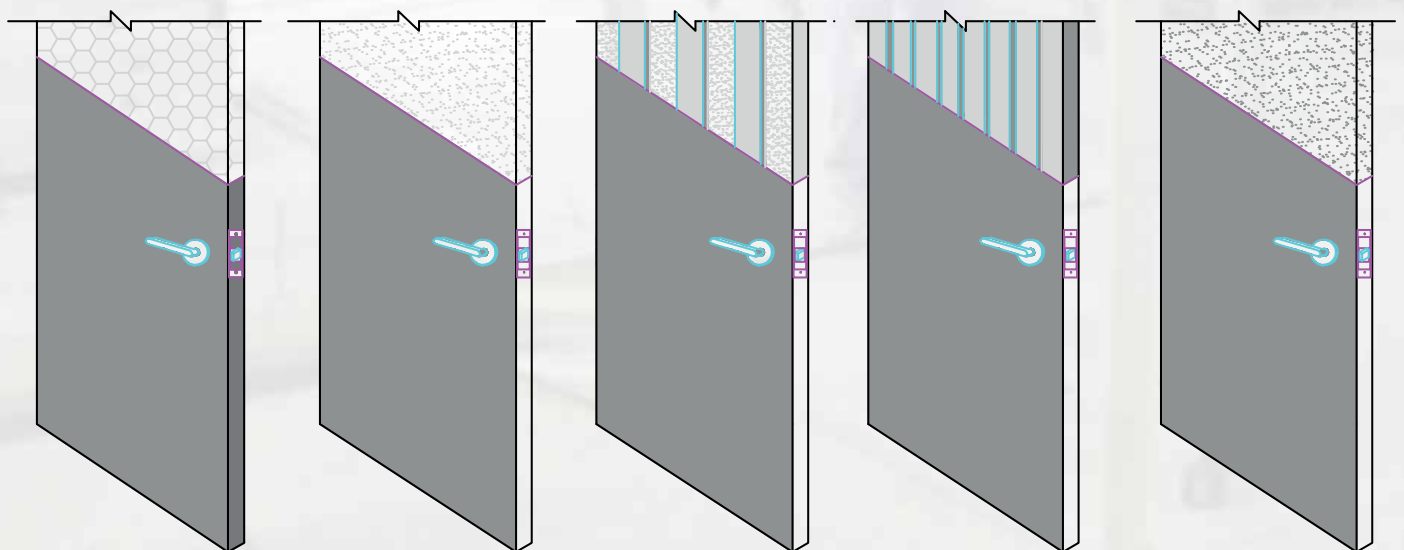
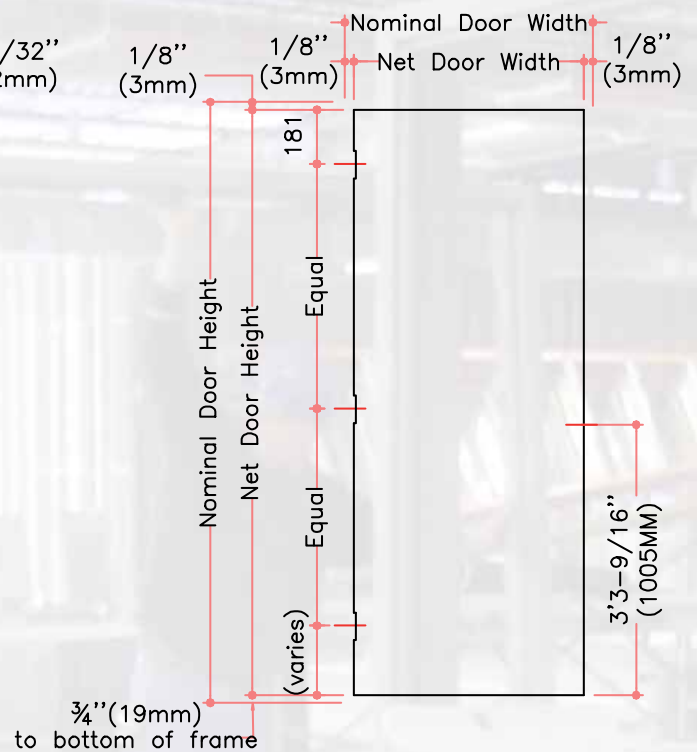


TYPICAL DOOR TYPES

Double Door Elevation



Single Door Elevation



GHM-100 Series
Honey Comb Core

GHM-200 Series
Polystyrene Core

GHM-300 Series
Steel stiffened with
Fiberglass

GHM-400 Series
Steel stiffened with
rock wool

GHM-500 Series
Polyurathane Core

TYPICAL ELEVATIONS



GHM-100 Series: Pre-foamed Honey Comb bonded to both Door skins using a heated power press thus ensuring maximum adhesion and flat warp and distortion free panel.

GHM-200 Series: Pre-foamed polystyrene slab of 18Kg/m³ (1.12pcf) density, filling the inside of the door and secured to face skins with adhesive.

GHM-300 Series: Constructed using 0.8mm (22 gauge) thick vertical steel stiffeners welded to each face of the door at 100mm centers and spaced 190mm centers. Voids

filled with fiberglass insulation.

GHM-400 Series: Constructed using 0.8mm (22 gauge) thick vertical steel stiffeners welded to each face of the door at 100mm centers and spaced 190mm centers. Voids are filled with rock wool insulation.

GHM-500 Series: Foamed-in-place polyurethane core exceeding 35Kg/m³ (2.18 pcf) compressed density, entirely filling the inside of the door.

FIRE RATED STEEL FRAME SPECIFICATIONS:

1.0 GENERAL:

Scope:

This specification applies to standard steel frames as shown on the plan and door schedules and as manufactured by Green HOLLOW METAL DOORS LLC

Quality Assurance:

GREEN HOLLOW METAL will provide frames in compliance with ANSI/SDI-100 requirements. Green Hollow Metal will provide fire rated frames labeled and listed by UL (or) Warringtonfire-mideast.

PRODUCT:

Frame Construction:

Frames are constructed of 1.2mm (18 gauge) or 1.5mm (16 gauge) or 2mm (14 gauge) or 2.5mm (12 gauge) commercial quality cold rolled steel ASTM A366 or hot dip galvanized steel sheet ASTM A526, G90 for doors of either 45mm ($1\frac{3}{4}$ "") or 35mm ($1\frac{3}{8}$ "") thickness with the details conforming to SDI-111A. All bends shall be formed with a true sharp radii.

Welded Frames:

Welded frames will be factory assembled, face welded and ground smooth. All welded frames will include the appropriate anchors to match the wall construction they are intended to be installed.

Knocked Down Frames:

All KD frames will include the appropriate anchors to match the wall construction, they are to be installed with appropriate reinforcement.

Architectural Entrances, Sidelites and Borrowed Lites:

GREEN HOLLOW METAL will provide all architectural entrances, sidelites and borrowedlites fabricated from 1.5mm(16gauge) cold rolled or hot dipped galvanized steel sheet. Construction, preparations and profiles to match masonry frames. All mul-lion sections to be closed. All joints and corners of the assem-bly shall be face welded and ground smooth. Green Hollow Metal will provide steel channel glazing beads for all areas with glass. Field joints shall be permitted when the size of the total assembly exceeds shipping limitation.

Hardware Preparation:

Hinge Preparation:

GREEN HOLLOW METAL will provide frames with 4.0mm thick steel hinge reinforcements welded to the frames in compliance with SDI-100. Standard hinge preparation is to be $41\frac{1}{2}$ "x4" for regular weight 0.134" thick hinge, three preparations through 2286mm(7'6") height and four preparations over 2286mm (7'6") and up to 3048mm(10') height in compliance with NFPA 80.

Strike Preparation:

GREEN HOLLOW METAL will provide frames with 3.0mm thick steel lock strike reinforcement with tapped holes welded to the frames. Standard strike preparation is to be for $2\frac{3}{4}$ " or $4\frac{7}{8}$ " strike in compliance with ANSI A115.1 or A115.2



Closer and Other Reinforcement:

Green Hollow Metal will provide all frames with minimum 2.0mm(14 gauge) reinforcement as necessary to support the scheduled hardware in compliance with ANSI/SDI-100. Drilling and tapping for surface applied hardware to be performed at he building site by others.

Plaster Guard:

Green Hollow Metal will provide 1.2mm thick steel plaster guard or mortar boxes at the back of hardware cut-outs in the frames.

Glazing:

Frames are to be provided with steel channel glazing beads for installation of glazing. Installation of glazing shall be by others.

Painting:

After fabrication frames thoroughly cleaned (to assure proper adhesion) and polyester powder coated finish applied. Wood-en finish paint will be provided as a optional finish.

FIRE PROTECTION:

Labeled fire rated door frames tested in accordance with UL (or) Warringtonfire-mideast with rating as specified in the plans and door schedule. Fire doors & frames are to be manu-factured by Green Hollow Metal in accordance with the ap-proved procedures issued by UL (or) Warringtonfire-mideast.

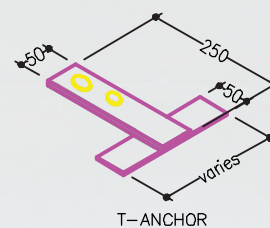
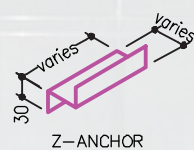
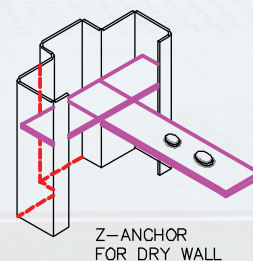
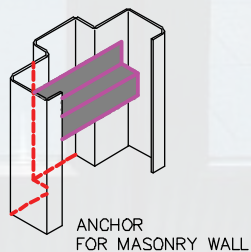
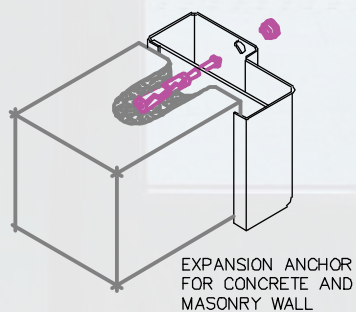
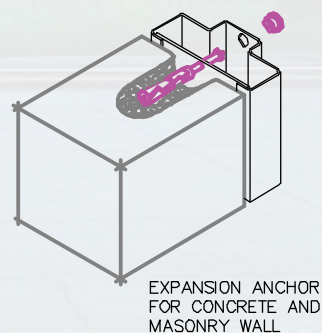
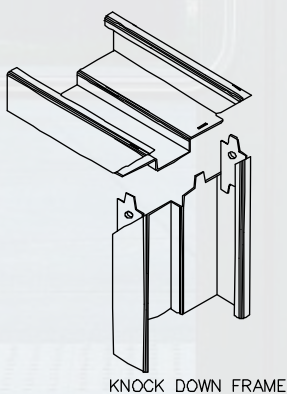
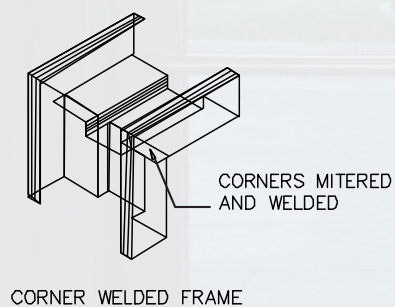
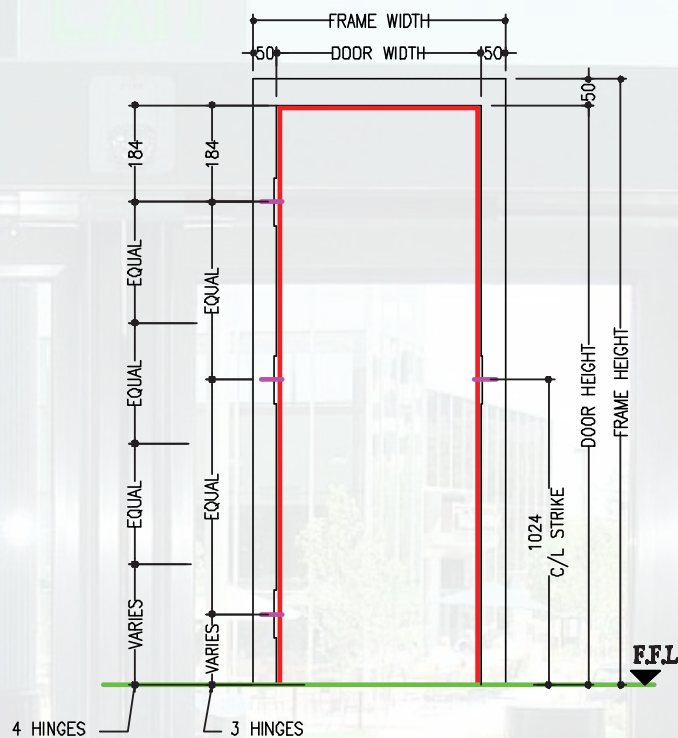
Labels:

Fire rated frames shall bear the appropriate fire labels.

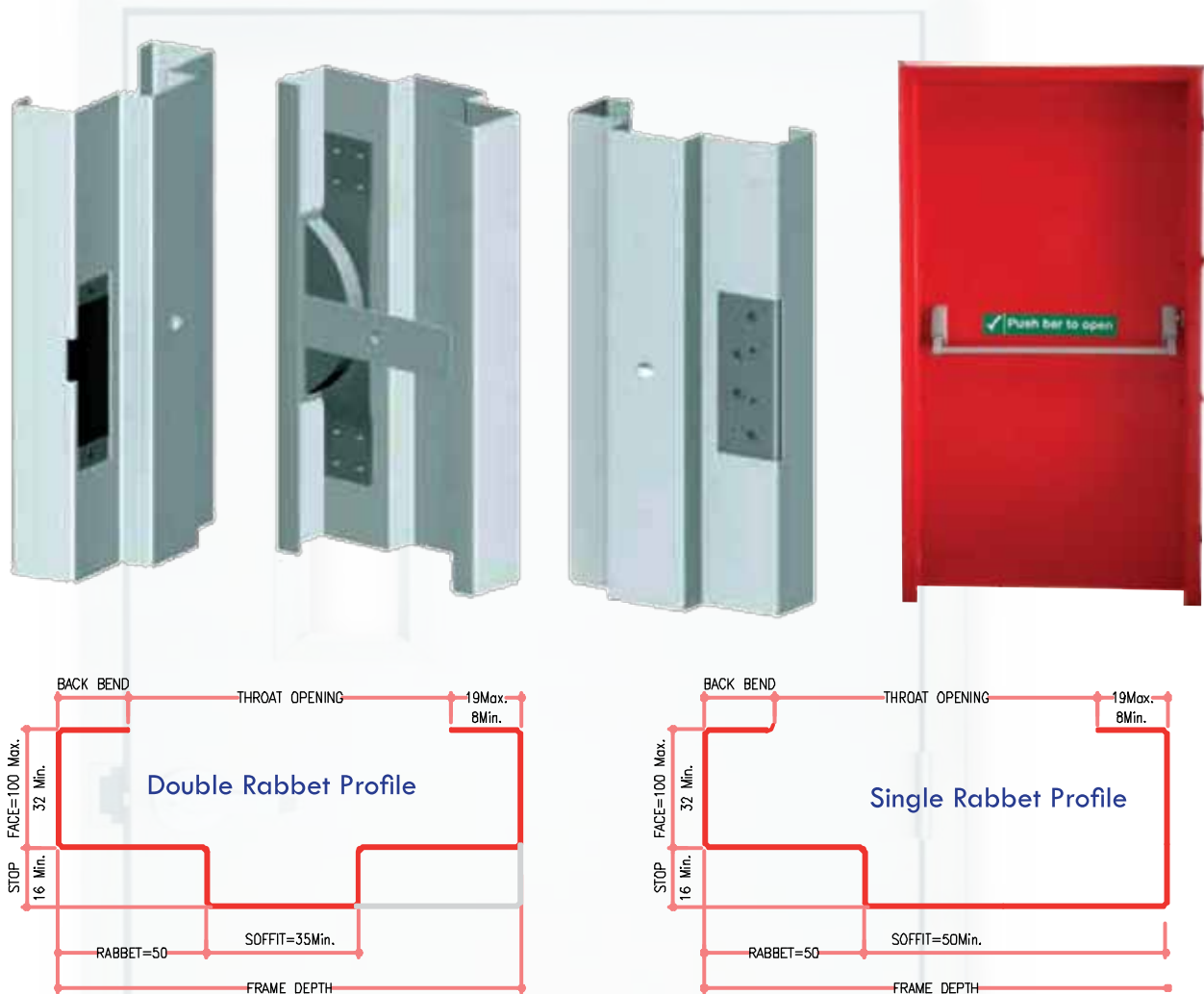
EXECUTION:

Installation of the frames plumb, square and in true alignment in compliance with SDI-122 installation and troubleshooting guide for standard steel doors & frames.

STEEL DOOR FRAME ELEVATION

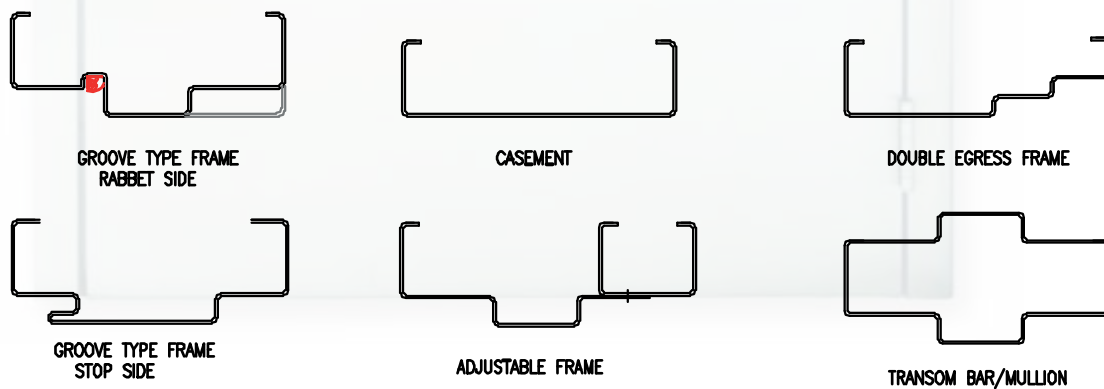


TYPICAL PROFILE DETAIL



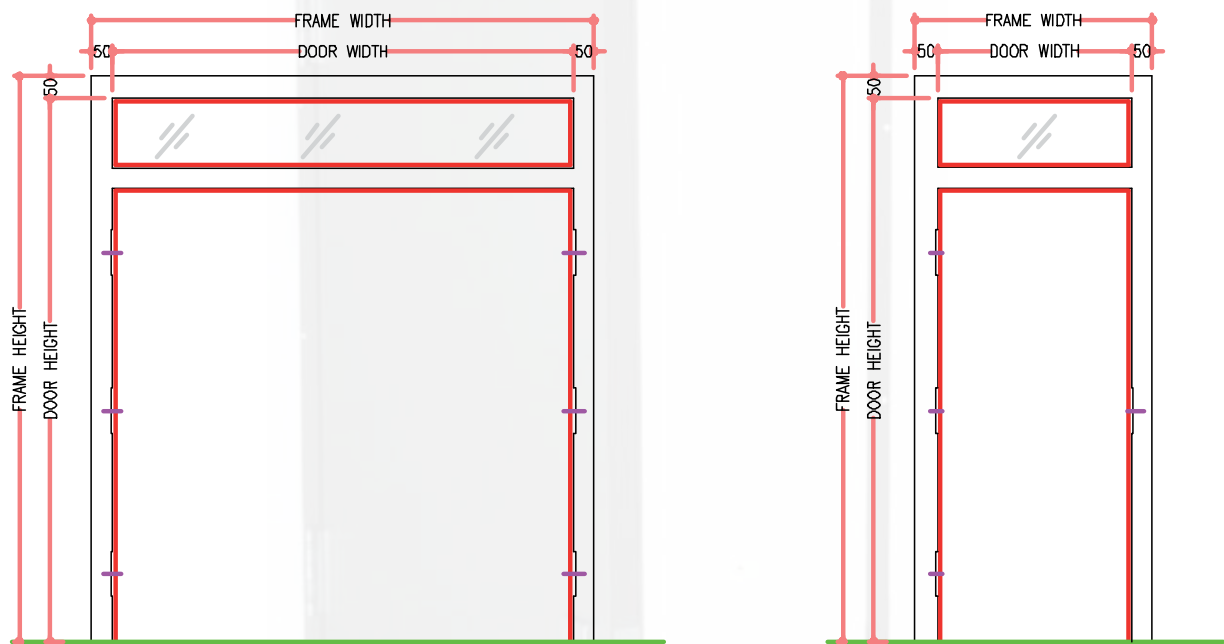
Labeled frames shell fabricated from cold rolled or galvanized steel sheet. Bends shall be brake formed to assure true, sharp radius and to minimize camber. Labeled Masonry and Dry wall frames can be shipped either knockdown or welded. Transom framed shall be shipped welded only. Standard hardware preparations for labeled fire door frames for 45mm (13/4") thick doors Max. 3Hrs. Fire Label Provided

FRAME PROFILES



TYPICAL DETAILS

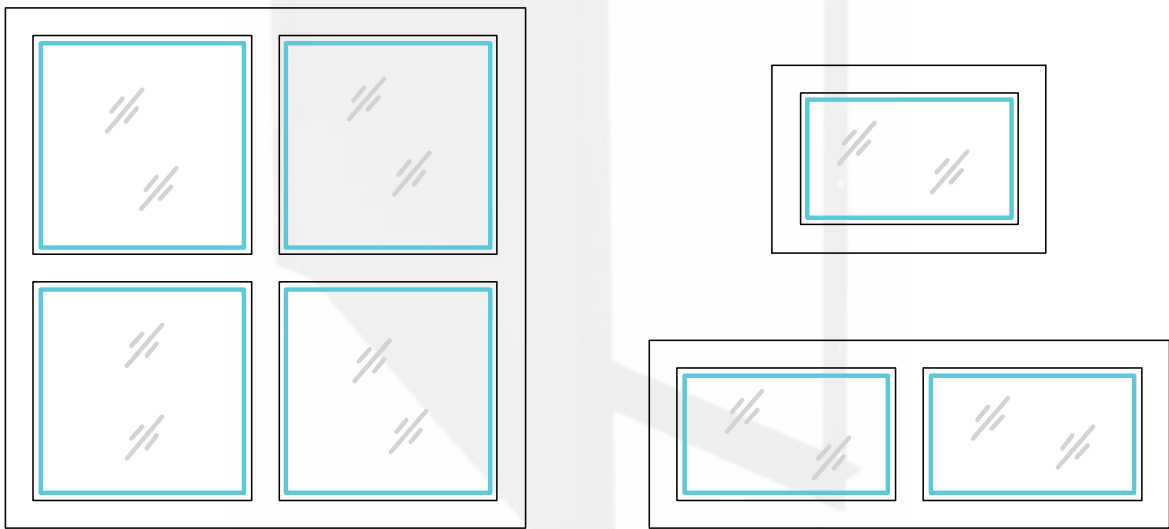
TRANSOM FRAMES



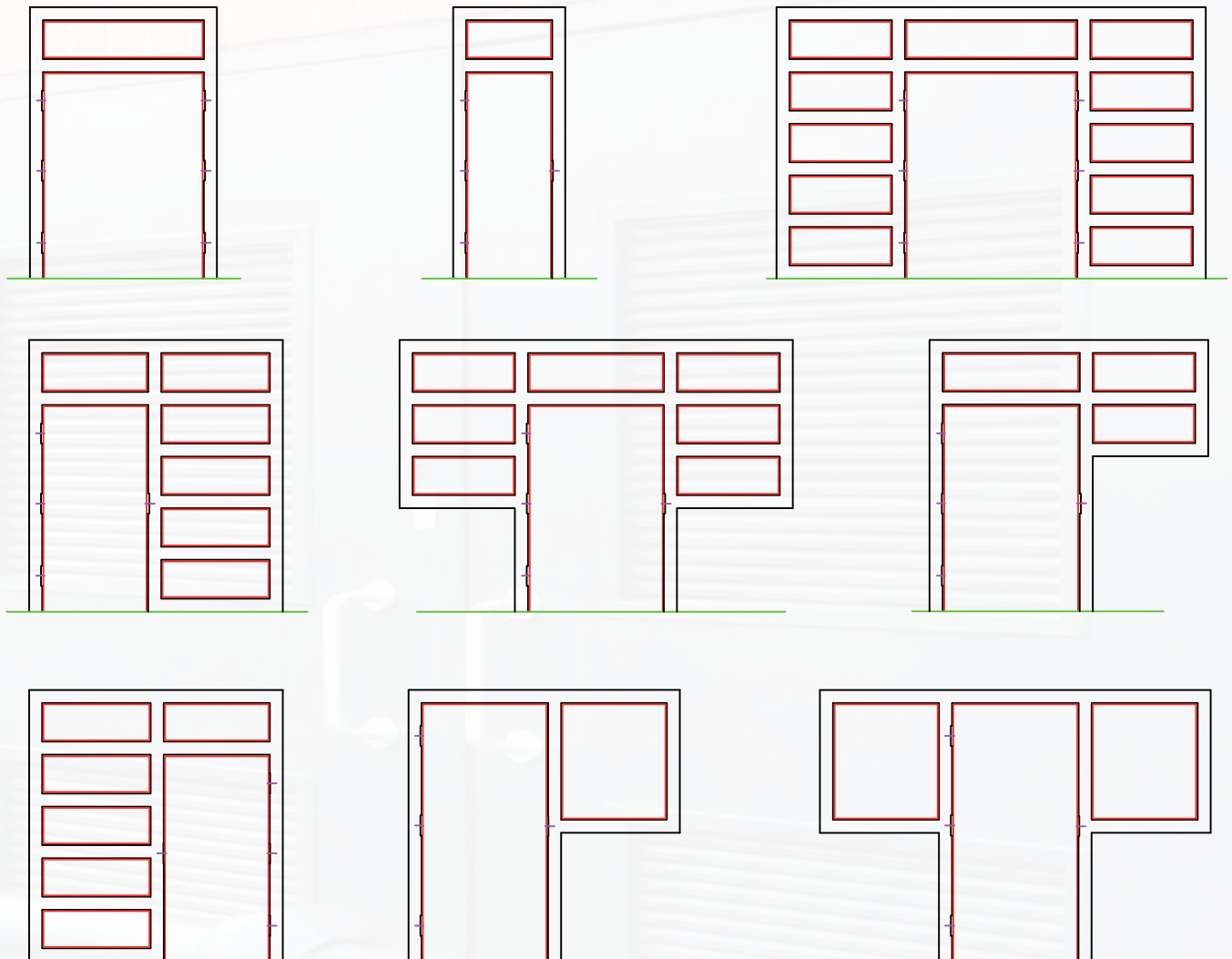
Max. Overall Frame Size:
1320 x 3100mm. for Single;
2540 x 3100mm. for pair.

Transom Frames must be shipped
from factory as set-up welded units
with panels installed.

FIRE WINDOW FRAMES



TYPICAL ELEVATIONS



Transom side light frames may be of 1.5mm (16ga.) or

2.0mm. (14ga.) Steel Sheet

Maximum Frame Size:

3650 x 3048 mm or 3048x3650mm. For masonry

Wall installations and

3650 x3048mm. for dry wall installations.

Maximum Door Opening Size:

1220x2438mm. for single

2438x2438mm. for pair.

Jamb Depth:

120mm. min thru 323mm. max.

(4³/₄" thru 12³/₄")

Maximum Throat Opening :

114mm for masonry Wall; 92mm. for dry wall

PRODUCT RANGE

HOLLOW METAL DOORS AND FRAMES (HMD):

| SR.No. | SERIES | PRODUCT |
|--------|----------|--|
| 1 | HMD | Steel Doors Non Fire Rated |
| 2 | HMD (FR) | Steel Doors Fire Rated |
| 3 | HMD AC | Sound Proof (Acoustic) Doors and Frames |
| 4 | HMD BU | Bullet Proof Doors and Frames |
| 5 | HMD XR | X-ray Proof Doors and Frames |
| 6 | HMD GA | Gas Tight Doors and Frames (Air Tight) |
| 7 | HMD TR | Transom and Sidelite Frames |
| 8 | HMD DE | Detention (Cell Doors) Doors and Frames |
| 9 | HMD EM | Embossed Steel Doors and Frames |
| 10 | HMD DU | Dutch Doors and Frames |
| 11 | HMD AC | Access Doors and Frames |
| 12 | HMD WI | Window Frames and Security screens. |
| 13 | HMD PR | Prepainted Doors and Frames (Low Cost Doors) |
| 14 | HMD SS | Stainless Steel Doors and Frames |
| 15 | HMD TO | Toilet Partitions |
| 16 | HMD SE | Seamless Doors and Frames |
| 17 | HMD FO | Folding Doors |

SPECIAL USAGE DOORS (SUD):

| SR.No. | PRODUCT |
|--------|---|
| 1 | Security Doors and Frames |
| 2 | Blast Proof Doors and Frames (Blast Resistance) |
| 3 | Sliding Doors |
| 4 | Sliding Gates |
| 5 | Oversize (Panelized Doors) with Pass Doors |
| 6 | Security Wall System and Ceiling (Metal Partitions) |
| 7 | Fire Rates Sliding Doors |
| 8 | Hanger Doors |
| 9 | Fiberglass Doors and Frames (Corrosion Resistance Doors) |
| 10 | Roof Hatches |

The unexposed face of the doorsets to fire after 120 minutes of testing

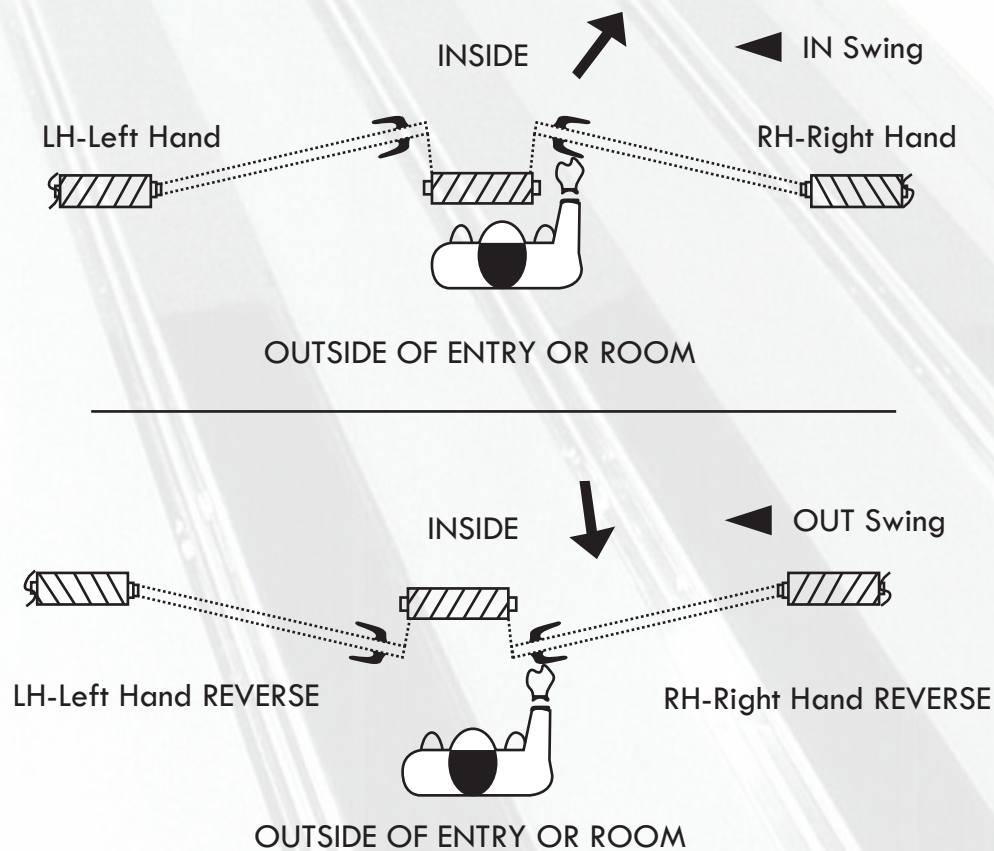


The exposed face of the doorsets to fire immediately after testing



Picture of sample doors tested in a private lab for pre-assessment and pre-qualification procedures.

DOOR HANDING CHART



THE HANDING OF THE DOOR IS ALWAYS DETERMINED FROM THE OUTSIDE

HERE ARE A FEW RULES TO FOLLOW

- The outside of the exterior door is the street or entrance side
- The outside of a room door is the hall side
- The outside of a closet door is the room or hall side



F



G



FG



FG2



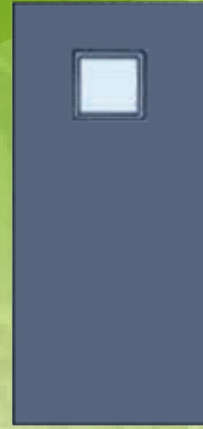
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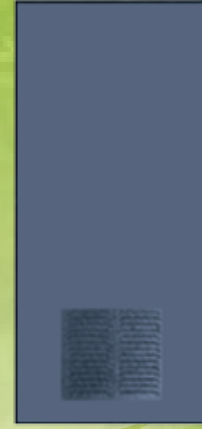
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