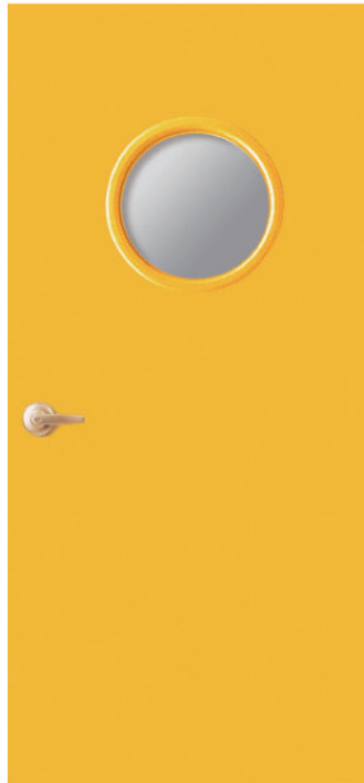




**FD-N100**  
Standard Size  
1000mm(W) x 2100mm(H)



**GD-N101**  
Standard Size  
1000mm(W) x 2100mm(H)



**LV-N100**  
Standard Size  
1000mm(W) x 2100mm(H)



**GD-N102**  
Standard Size  
1000mm(W) x 2100mm(H)



**GD-N100**  
Standard Size  
1000mm(W) x 2100mm(H)



**GD-N105**  
Standard Size  
1000mm(W) x 2100mm(H)

\* The color of image may be different from actual product.

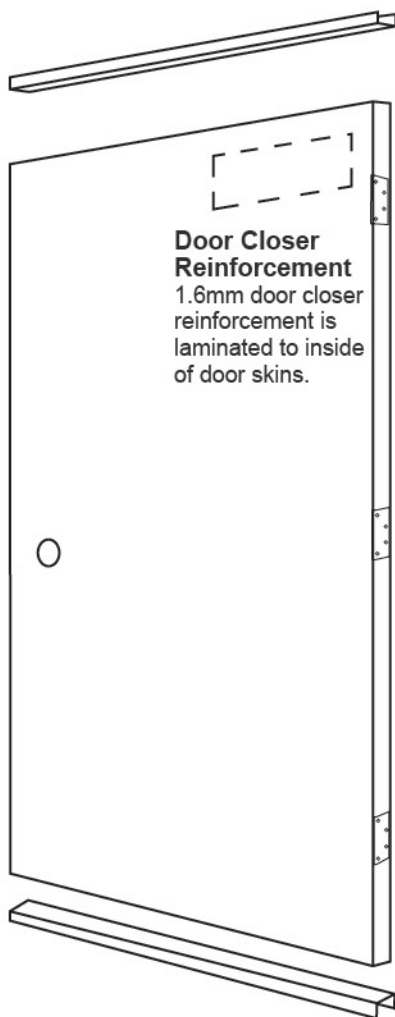
# Fire Labeled Steel Doors

## Doors

Dongbang Novoferm's fire labeled steel doors are 1 3/4"(45mm) in thickness and are available in 1.6mm or 1.2mm steel sheets. Door skins are mechanically interlocked vertically along the hinge and lock edge. Door edges are bevelled 1/8"(3mm) in 2"(50mm) and door surfaces are flush, welds or seams. All standard doors are manufactured from galvanized steel and are prepared and reinforced to receive specified architectural hardware in accordance to **ANSI A115 Standards**.

### Fire Labels:

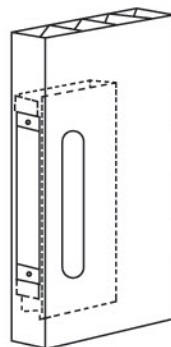
Dongbang Novoferm's fire labeled steel doors are approved by both Underwriters Laboratories (UL) and Warrington fire research(BS) Fire Labelling Programs. Fire labeled steel doors must be installed with an equivalent fire labeled frame with approved fire listed hardware. For fire labelling restrictions and limitations refer to the Fire Labelling Guide for Steel Door.



**Door Closer Reinforcement**  
1.6mm door closer reinforcement is laminated to inside of door skins.

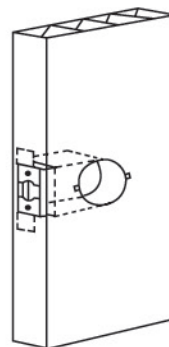
### Top Channel

1.2mm inverted end channel is spot welded to door skins and tack welded at each corner of the door for extra rigidity.



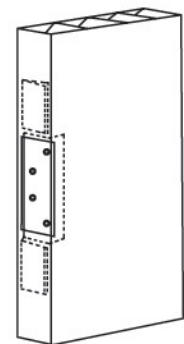
### Mortise Lock Prep

Government Series 86 edge door prep is reinforcement with a 1.6mm reinforcement box to help hold mortise lock in its proper position in accordance to ANSI A115.1 requirements. 2-3/4"(70mm) backset



### Cylindrical Lock Prep

Government Series 161 Cylindrical Lockset door prep is equipped with 1.6mm reinforcement and an added barrel support spot welded to the edge of the door in accordance to ANSI A115.2 requirements. 2-3/4"(70mm) backset



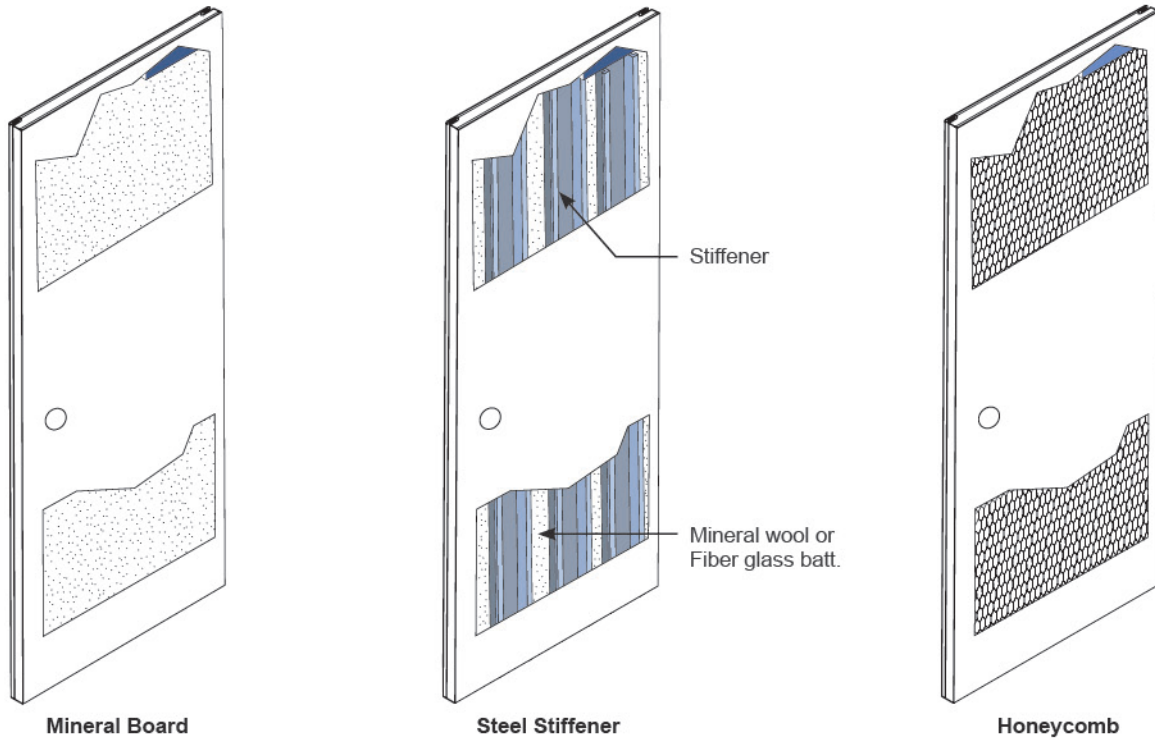
### Hinge Reinforcement

3.5mm high frequency hinge reinforcement with return bend for added strength.

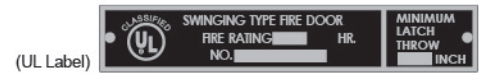
### Bottom Channel

1.2mm inverted end channel is spot welded to door skins and tack welded at each corner of the door for extra rigidity.

○ Cores



○ Fire Labelling Guide for Steel Doors



Type	Elevation	Min. THK.	Max. Nominal Door Sizes	Available Rating	Notes
Flush		1.2mm	48" X 115" (1214mm X 2910mm) Single 96" X 115" (2432mm X 2910mm) Double	1 1/2hr	
Flush		1.2mm	42" X 95" (1070mm X 2414mm) Single 84" X 95" (2140mm X 2414mm) Double	2hr	
Flush		1.2mm	46" X 93" (1165mm X 2350mm) Single 92" X 93" (2330mm X 2350mm) Double	3hr	
Glass Lights		1.6mm	48" X 115" (1214mm X 2910mm) Single 96" X 115" (2428mm X 2910mm) Double	1 1/2hr	Glass area 600mm X 600mm
		1.0mm	48" X 91" (1214mm X 2310mm) Single 96" X 91" (2428mm X 2310mm) Double	1 1/2hr	Glass area 600mm X 600mm 300mm X 1000mm

## Frames

Dongbang Novoferm's manufactures full range of a Fire Labeled Steel Frames of standard sizes and profiles to custom sizes and profiles. Steel frames are available in 1.6mm for 1 3/4"(45mm) doors. All standard frames are manufactured from galvanized steel and are prepared and reinforce to receive specified architectural hardware in accordance to ANSI A115 Standards.

### Fire Labels:

Dongbang Novoferm's fire labeled steel frames are approved by both Underwriters Laboratories (UL) and Warrington Fire Research(BS) Fire Labelling Programs. Fire Labeled steel frames must be installed with an equivalent fire labeled door with approved fire listed hardware. For fire labelling restrictions and limitations refer to the Fire Labelling Guide for Steel Frames.



**Knock Down Corner**  
Easy, quick and sharp mitered corners provide for rapid installation and assembly for a clean uniform appearance.

**Hinge Reinforcement**  
3.5mm high frequency hinge reinforcement with return bend for added strength.

- Standard Fire Labeled frames are available welded-up or knock down. Standard widths range from 2'-0" (600mm) to 3'-10" (1170mm) in 2" (50mm) increments with height 6'-8" (2032mm) or 7'-0" (2134mm). Throat sizes range from 3 1/2" (89mm) to 7 3/4" (197mm).
- Hinge jambs are prepared and reinforced to receive 3 standard weight 4 1/2x4 1/2(114mmx114mm) butt hinges.
- Strike jambs are prepared and reinforced are to receive one standard 4 7/8" (124mm) strike in accordance to ANSI A115.1.
- Hinge and strike jambs are supplied with appropriate wall anchors.
- On welded-up frames all welded joints are ground smooth and touched-up with prime paint.

**Welded Corner**  
Welded corners are ground smooth and prime painted (touched up) to provide a seamless look.

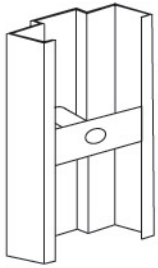
**Strike Reinforcement**  
1.6mm strike reinforcement supplied with closed back eliminating the need to install an additional dust or mortar protection cover in accordance to ANSI A115.1 reinforcements.

**Floor Anchor**  
1.0mm

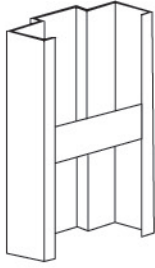
# Fire Labeled Steel Doors

## ○ Anchors

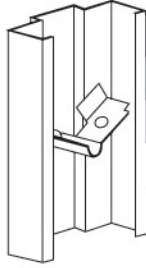
### ● Masonry Wall Applications



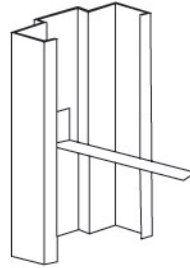
Masonry Tube & Screw Anchor



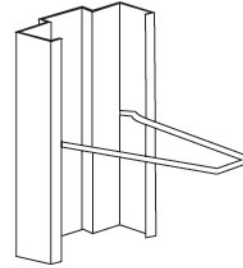
Metal Builder Anchor



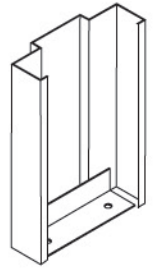
Existing Masonry Anchor



Masonry Strap Anchor

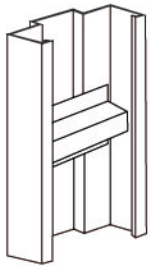


Masonry Wire Anchor

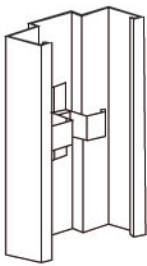


Floor Anchor

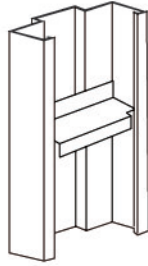
### ● Dry Wall Applications



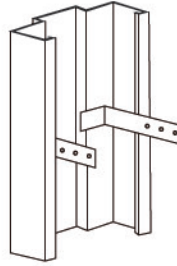
Closed Steel Stud Anchor



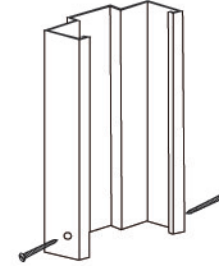
Pressure Anchor



"Z" Anchor

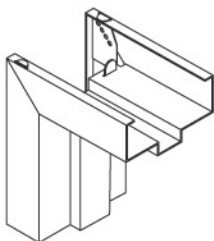


Strap Anchor

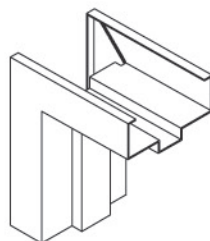


Base Anchor

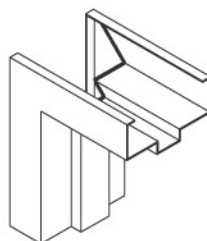
## ○ Corner Details



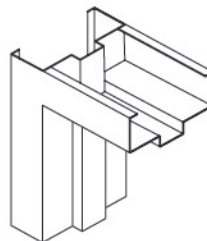
Knock Down (Mitered)



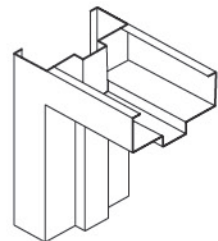
Face Welded Only (Mitered)



Continuous Fully Welded (Mitered)




Face Welded Only (Butted)



Continuous Fully Welded (Butted)

## ○ Fire Labelling Guide for Steel Frames

(UL Label)  FIRE DOOR FRAME 0063-1-1-S0902  
LISTED NO. HN367200

Type	Elevation	Min. THK.	Max. Nominal Frame Sizes	Available Rating	Notes
Basic Frames		1.2mm	52" X 118" (1321mm X 3000mm) Single  100" X 118" (2538mm X 3000mm) Double	2 hr 1 1/2 hr 3/4hr	For Drywall or Masonry Openings. Available Knock Down or Welded Up.



## UL

1. Door & Window Frames, File No. R10522
2. Pair & Single Swing Hollow-Metal Type Swing Fire Door, 1 1/2hr - File No. R18674
3. Pair & Single Swing Hollow-Metal Type Swing Fire Door, 2hr - File No. R18674
4. Pair & Single Swing Hollow-Metal Type Swing Fire Door, 3hr - File No. R18674
5. Pair & Single Swing Hollow-Metal Type Swing Fire Door, UL Canada  
Certificate No.051110-R19674, Report Reference No. R18674



## BS (Warrington Fire Research consultancy Testing)

1. Fire Resistance Test in Accordance with BS 476: Part 22: 1987, Clause 8 on Two Single-Acting, Single-Leaf Steel Doorsets, 2hr, WARRES No. C68110
2. Fire Resistance Test in Accordance with BS 476: Part 22: 1987, Clause 8 on a Single- Acting, Double-Leaf Steel Doorsets, 1 1/2hr, WARRES No. C68109



## ANSI 250.4

- Hollow-Metal Door & Fire Door Frame, No. AU10074031-1  
Twist Test / Cycle Test - 1,000,000 Cycles



## GOST (Russia)

1. Single Swing Hollow-Metal Type Swing Fire Door, 1hr, No.001.B05914
2. Pair Swing Hollow-Metal Type Swing Fire Door, 1hr, No.001.B05915



## Middle East

1. Fire Rated Steel Door, No.9/2006 (Kuwait Governmental authorization)
2. Swing Type Fire Door, No. PS-21124-PA (Qatar Governmental authorization)



## KS (Korean Standard)

- KS F 3109 Door Sets, No. 99-0856  
Fire Resistance Test in Accordance with KS F 2268-1, 1hr, 2hr

## ISO 9001

## ISO 9001

- ISO 9001, No.QSC80914