



## INTRODUCTION

Metal Doors & Frames Industries Corp. is a professional manufacturer of a wide range of hollow metal doors, frames and wood doors for commercial and residential construction. GH Hollow Metal Doors & Frames Industries Corp. has more than 20 years experience and the occupying area of company is 1, 200,000 sq. ft., state of manufacturing facility includes manufacturing for nearly 1,000,000 sets of door and 1,000,000 sets of frame every year. GH products constantly strive to meet the demands of the doors by providing premium products to the customers. The GH commitment is to provide superior quality and efficient service, at competitive pricing to our valued customers.



# Metal Doors & Frames



# FLUSH STEEL COMMERCIAL DOORS

## STEEL DOOR SKIN:

16GA (1.5mm), 18GA (1.1mm), 20GA (0.9mm)  
 A40 Galvanized Or Cold-rolled Steel Skins  
 Construction is 1-3/4" (45mm) Thickness

Hinge, closer, lock and strike plate reinforcements shall be provided.

Hinge reinforcement: 10GA (3.5mm)  
 Closer reinforcement: 12GA (2.5mm)  
 Lock reinforcement: 16GA (1.5mm)  
 Strike plate reinforcement: 16GA (1.5mm)

The top, bottom and side closures are fabricated from 16GA(1.5mm) thick channel shaped steel sections welded to the front and back door skins.

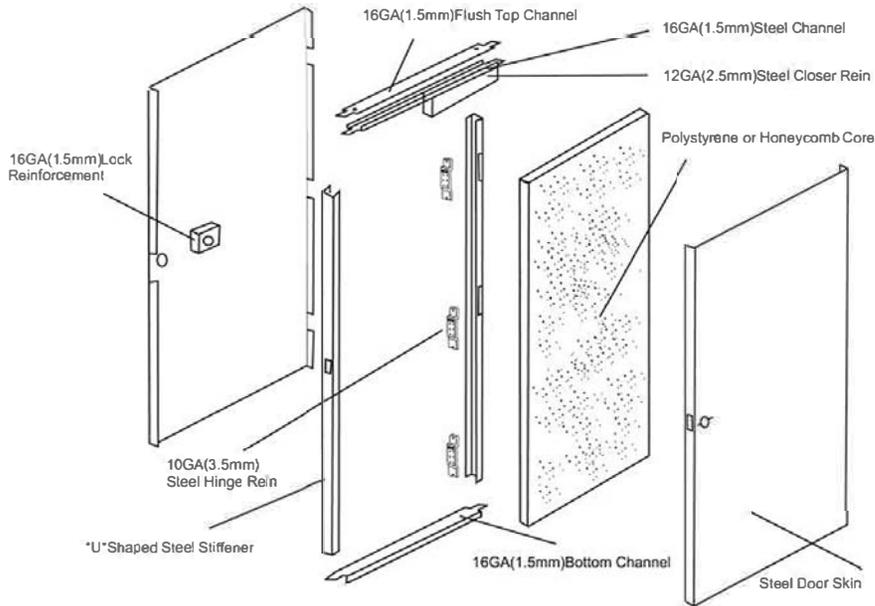
Flush top channel: 16GA(1.5mm)

Laser-welded side-seamed edge.

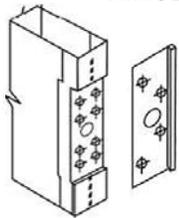
Widths up to and including 4'0"

Heights up to and including 8'0"

Available with polystyrene core or honeycomb core.

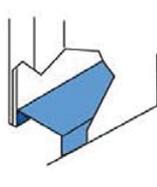


### HINGE SHIM

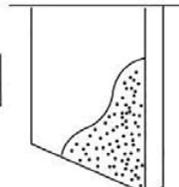


10GA(3.5mm) Steel Hinge Rein.  
 4-1/2" Hinge

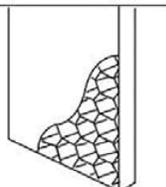
### CORE SERIES



16GA(1.5mm) bottom channel



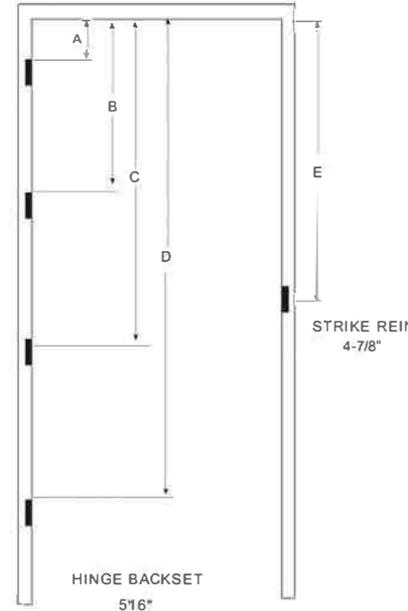
Polystyrene Core



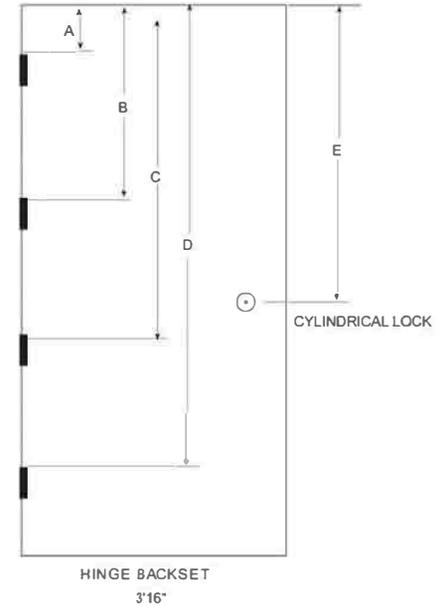
Honeycomb Core

## HINGE AND LOCK PREP LAYOUT

### FRAME



### DOOR



**FRAME** Other locations are available. We make to request.

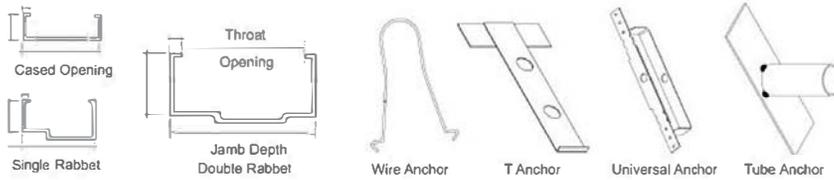
SIZE	A	B	C	D	E
6'8"	7-1/2"	37-7/16"	67-3/8"		39-11/16"
7'0"	7-1/2"	39-7/16"	71-3/8"		43-11/16"
8'0"	7-1/2"	32-51/64"	58-3/32"	83-25/64"	55-11/16"

**DOOR** Other locations are available. We make to request.

SIZE	A	B	C	D	E
6'8"	7-3/8"	37-5/16"	67-1/4"		39-9/16"
7'0"	7-3/8"	39-5/16"	71-1/4"		43-9/16"
8'0"	7-3/8"	32-43/64"	57-31/32"	83-17/64"	55-9/16"

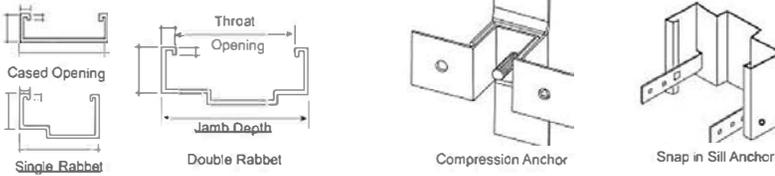
For mortise lock, dimension E is 3/8" greater.

## MASONRY/STUD CONSTRUCTION FRAME



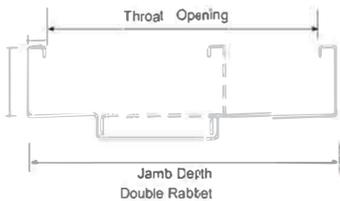
Jamb Depth	4-3/4"	5-3/4"	6-1/4"	6-3/4"	7-1/4"	7-3/4"	8-1/4"	8-3/4"	9-1/4"	10-1/4"
Throat Opening	3-3/4"	4-7/8"	5-1/4"	5-3/4"	6-1/4"	6-3/4"	7-1/4"	7-3/4"	8-1/4"	9-1/4"

## DRYWALL FRAME



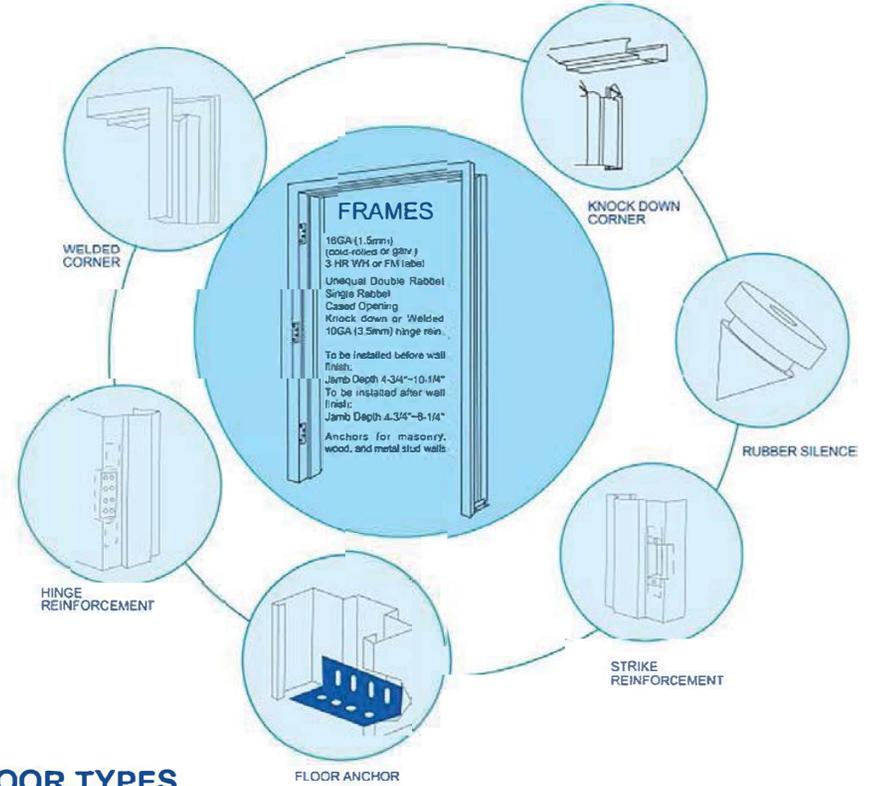
Jamb Depth	4-3/4"	5-7/8"	6-1/4"	6-5/8"	7-1/4"	7-3/4"	8-1/4"
Throat Opening	3-3/4"	4-7/8"	5-1/4"	5-5/8"	6-1/4"	6-3/4"	7-1/4"

## ADJUSTABLE FRAME

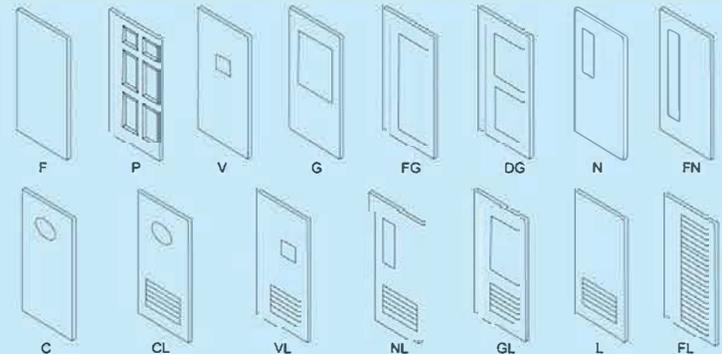


Jamb Depth	Mini Size 5-7/8"	Max Size 8-7/8"
Throat Opening	Mini Size 4-7/8"	Max Size 7-7/8"

## WELDED OR KNOCK DOWN STEEL FRAMES

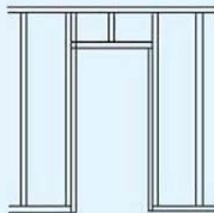


## DOOR TYPES



## MASONRY/STUD CONSTRUCTION FRAME INSTALLATION

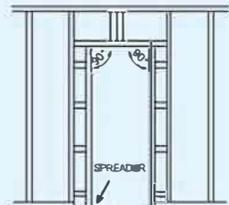
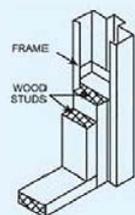
### WOOD STUD CONSTRUCTION



ROUGH STUD OPENING

Width=Nom. frame width + 4-3/8" min. to 4-3/4" max. (i.e. 3'0" =40-3/8" min. to 4-3/4" max.)

Height=Nom. frame height + 2-1/4" min. (i.e. 6'8"=82-1/4" min.)



ROUGH STUD OPENING

- (1) Insert a minimum of three anchors per jamb. Can't anchors in frame throat and tap in with a hammer. Place frame in rough stud opening.
- (2) Bend anchor tabs around stud leaving desired clearance between frame return and stud.
- (3) Set spreader and level frame. Shim under jambs if necessary.
- (4) Square and nail top anchors to studs on ONE SIDE ONLY. Check plumb and square and continue to nail balance of anchors to studs.

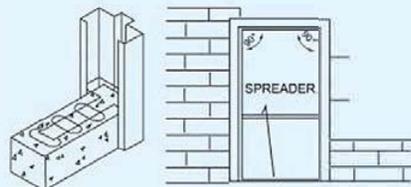
### MASONRY CONSTRUCTION



SPREADER

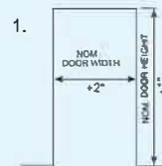
Typical wood spreader must be square and fabricated from lumber no less than 1" thick. Correct length is the door opening width between the jambs at the header. Cut clearance notches for frame stops. Spreader must be nearly as wide frame depth for proper installation.

i.e., Single door 3'0"=36"  
Double door 6'0"=72"

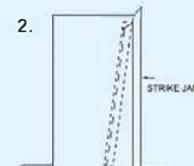


- (1) Set and plumb frame.
- (2) Install three anchors per jamb at quarter points as wall is laid up. Grout frame in the area of the anchors.
- (3) A second spreader is recommended at the mid point of the door opening to maintain the door opening dimension.
- (4) Continually check plumb and square as wall progresses.

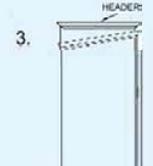
## DRYWALL FRAME INSTALLATION



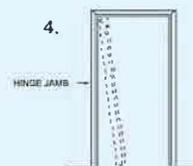
1. Prepare rough opening  
Door nominal width + 2" Door nominal height + 1" (i.e., 3070=38" width, 85" height.)



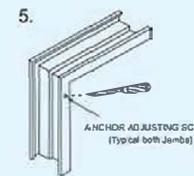
2. Install strike jamb by sliding over wall at top and engaging corner reinforcing into header. Pivot jamb into place.



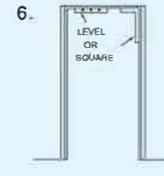
3. Install header into position approximately 1" from top and in the center of rough opening.



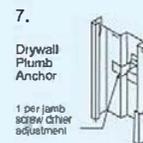
4. Repeat Step #2 with hinge jamb.



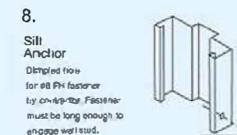
5. Turn adjusting screws in both jambs clockwise until anchor is resting against the wall.



6. If feasible, hang door now and adjust frame on wall to allow proper door/frame clearance or plumb frame with carpenter square and/or level. (adjust header levelness by shimming under jambs.)



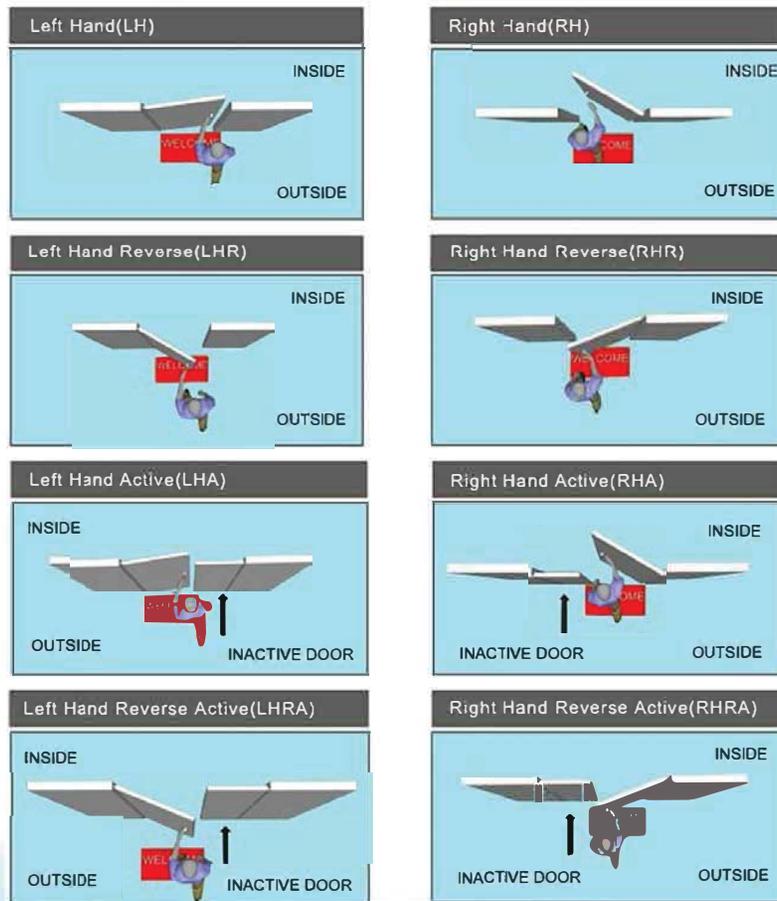
7. Drywall Plumb Anchor  
1 per jamb screw driver adjustment



8. Sill Anchor  
Check door opening dimension at base of frame (same dimension as between jambs at header.)  
Secure jambs with drywall screw(not furnished) through sill anchor at base of frame. Be sure to attach through both sill anchors on each side of jambs (4 places.)



## DOOR AND FRAME HANDING CHART



# Metal Doors & Frames

## FIRE DOOR REQUIREMENTS

Opening	Label Classification	Location In Building	Glass
	3 HOUR RATING	3 hour rated opening (Class A). Openings are in walls separating buildings or dividing a single building into fire areas. Doors for these openings require a fire protection rating of 3 hours.	None
	1-1/2 HOUR RATING	1-1/2 hour rated opening (Class B). Openings are in enclosures of vertical communication through buildings. These could be stairwells or elevator shafts. While not a means of vertical communication, boiler room doors are generally categorized as Class "B" openings. Doors for these areas require a fire protection rating of 1-1/2 hours, and glass areas may not exceed 100 square inches per individual door leaf except as noted below.	100 Sq. In. per door Leaf
	3/4 HOUR RATING	3/4 hour rated opening (Class C). Openings are in corridors and room partitions. Doors for these areas require a fire protection rating of 3/4 hour, and the glass area cannot exceed 1296 square inches per light with no dimension exceeding 54 inches except as noted below.	1296 Sq. In.per Light
	1-1/2 HOUR RATING	1-1/2 hour rated opening (Class D). Openings are in exterior walls which are subject to severe fire exposure from the outside of the building. Doors for these areas require a fire protection rating of 1-1/2 hours.	None
	3/4 HOUR RATING	3/4 hour rated opening (Class E). Openings are in exterior walls which are subject to moderate or light fire exposure from the outside of the building. A typical example would be a door leading to an exterior fire escape. Doors for these openings require a fire protection rating of 3/4 hour with glass areas not exceeding 1296 square inches per light with no dimension exceeding 54 inches.	1296 Sq. In.per Light
	20 MINUTE	20 minute fire rated door frame assemblies are normally found in interior partitions and are intended for installation with 20 minutes fire rated doors of the single or swing in pairs.	1296 Sq. In.per Light

# CERTIFICATIONS

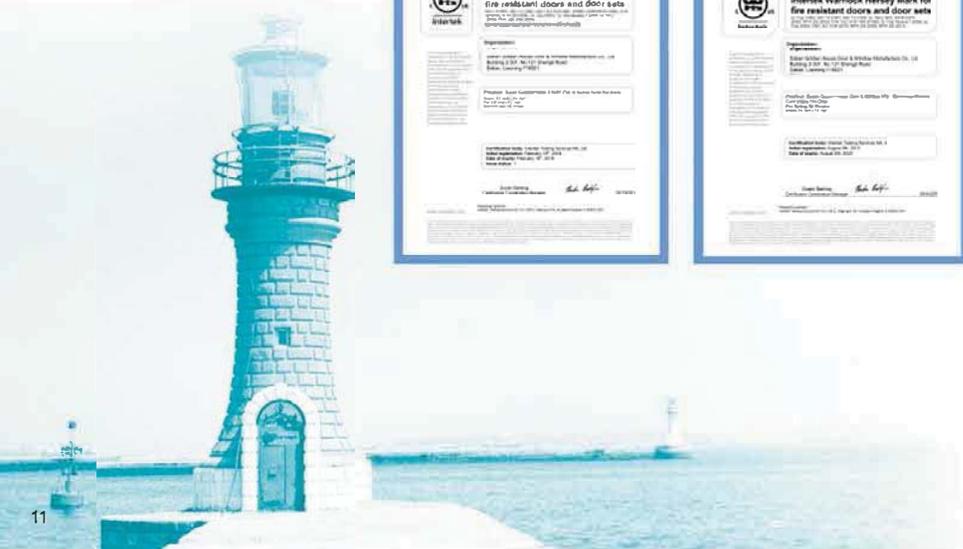
Intertek WH 3HR approval for single steel doors and frames.  
 Intertek WH 1.5HR certificate for double steel doors and frames  
 Intertek WH 1.5HR approval for wood doors.



FM Approval 3HR certificate for double steel doors and frames  
 FM Approval 1.5HR certificate for single steel doors and frames  
 FM Approval 1HR certificate for steel-wooden doors and frames



# Metal Doors & Frames



## FIRE RATED DOOR GALLERY



### Our Metal Doors



The steel used in our metal doors is widely recyclable and is frequently sourced from post-consumer sources such as the auto industry. Steel is the most commonly recycled material in the United States. More than 50 percent of the steel has been recycled through the steel manufacturing process. Impressive history of recycling, a wide variety of collection programs exist to recycle steel products.

## HARDWARE



Closer



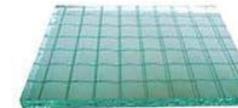
Mortise Lock



Cylinder Lock



Hinge



Wire Glass



Panic Bar

