

Fire Rated Hollow Metal Doors

¾ Hour rating

Maximum door size	Minimum gauge	Single	Pairs	Double Egress (pair)	Vision panels
4'0" x 8'0"	20, 18, 16	X	X		1296 sq. in. per opening
4'0" x 7'2"	18, 16	X	X	X	1296 sq. in. per opening
3'0" x 7'0" Flush or embossed	20, 22	X	X		1296 sq. in. per opening
4'0" x 9'0" (¾" latch bolt required for over 8'0")	16, 18	x			1296 sq. in. per opening

1 ½ Hour rating

Maximum door size	Minimum gauge	Single	Pairs	Double Egress (pair)	Vision panels
4'0" x 8'0"	20, 18, 16	X	X		100 sq. in. per door
4'0" x 7'2"	18, 16	X	X	X	100 sq. in. per door
3'0" x 7'0" Flush or embossed	20, 22	X	X		100 sq. in. per door
4'0" x 9'0" (¾" latch bolt required for over 8'0")	16, 18	x			100 sq. in. per door

3 Hour rating

Maximum door size	Minimum gauge	Single	Pairs	Double Egress (pair)	Vision panels
4'0" x 10'0" (3 point concealed latch required in singles or active leaf. 2 point concealed latch in inactive leaf)	18, 16	X	X		100 sq. in. per door as permitted by AHJ
4'0" x 8'0"	20, 18, 16	X	X		100 sq. in. per door as permitted by AHJ

Fire rating door notes:

- Fire rated louvers up to 24" x 24" are permitted up to a maximum fire rating of 1 ½ hours
- Maximum of 2 fire rated door viewers are permitted in a fire door up to a maximum fire rating of 1 ½ hour
- If a combustible material is added to a hollow metal door such as a wood veneer or panel, it will negate the fire rating.

Fire Rated Hollow Metal Frames/Screens/Windows

Product Type	Profile: Min / Max	Minimum gauge	Maximum door rebate		Maximum Rating	Wall type
			Single	Pairs		
3 or 4 sided frame welded	5 ¾" / 13"	16	4'0" x 10'0"	8'0" x 10'0"	3 hour	Masonry or Drywall
3 or 4 sided frame welded or knockdown	4 ¾" / 13"	18	4'0" x 8'0 ½" "	8'0" x 8'0 ½"	3 hour	Masonry only
3 or 4 sided frame welded, knockdown, or adjustable	4 ½" / 13"	18	3'0" x 7'0"	6'0" x 7'0"	1 ½ hour	Masonry or Drywall
Double Egress frame	5 ¾"	16	N/A	8'0" x 7'2"	1 ½ hour	Masonry or Drywall
Multi-Opening frame. Max 4 doors per frame. Max door width 4'0"	5 ¾" / 13"	16	N/A	12'10" x 7'2 5/8" overall	1 ½ hour	Drywall only
Multi-Opening frame. Max 4 doors per frame. Max door width 4'0"	5 ¾" / 13"	16	N/A	12'10" x 7'4" overall	1 ½ hour	Masonry only
Screen Window Transom	4 ½" / 13"	16	13' 1 ¾" x 10'0" overall		¾ hour	Masonry or Drywall
<p>Notes for window openings in fire rated Screen/Window/Transom: Maximum allowable exposed glass: 1296 sq. in. No horizontal dimension to exceed 46 ¾" No vertical dimension to exceed 54" If a combustible material is added to a frame, screen, or window, such as a wood veneer, the fire rating will be negated.</p>						

Wood Door Fire Ratings

Maximum door size	Minutes of Rating	Single	Pairs	Double Egress	Vision panels
4'0" x 10'0" astragal for pairs required	20	X	X	X	1296 sq. in. per door
For lite dimensions in 20 min rated doors: maximum width allowed: 30", maximum height allowed: 54"					
4'0" x 10'0"	45	X			1296 sq. in. per door
8'0" x 9'0"	45		X		1296 sq. in. per door
8'0" x 8'0"	45			X	1296 sq. in. per door
For lite dimensions in 45 min rated doors: maximum width allowed: 30", maximum height allowed: 54"					
4'0" x 10'0"	60 or 90	X			100 sq. in. per door
8'0" x 9'0"	60 or 90		X		100 sq. in. per door
8'0" x 8'0"	60 or 90			X	100 sq. in. per door
For lite dimensions in 60 or 90 min rated doors: maximum width allowed: 10", maximum height allowed: 33"					

Notes:

- All lites must be a minimum of 5" from door edges, preps (including mortised pockets), or other openings
- Maximum allowable louvre size for 20, 45, 60, or 90 minute ratings allowable is 24" x 24". Louvre must be located a minimum of 6" from door edges, and 10" from door bottom.

HARDWARE SPECIALTIES Inc.