Labeled Fire Doors

1-3/4" Regent and Omega Fire Doors
Honeycomb Core

FIRE DOOR DESIGNS

F  V  N  E601  E603  G  FG  LB  2G  VX

<table>
<thead>
<tr>
<th>HOURLY RATING</th>
<th>MAX. EXPOSED WIDTH, HEIGHT AND AREA</th>
<th>UL LISTED FUSIBLE LINK LOUVERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HOURS</td>
<td>SEE GLASS MANUFACTURERS CLASSIFICATION LISTING FOR THESE LIMITS.</td>
<td>None</td>
</tr>
<tr>
<td>1-1/2 HOURS</td>
<td>24&quot; x 24&quot; MAX.</td>
<td></td>
</tr>
<tr>
<td>1 HOUR</td>
<td>24&quot; x 24&quot; MAX.</td>
<td></td>
</tr>
<tr>
<td>3/4 HOUR</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>1/3 HOUR</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

***DO NOT USE FUSIBLE LINK LOUVERS IN FIRE DOORS FOR A CLASS I, II, III PANEL, FIRE EXIT HARDWARE, WITH 1/3 OR 3 HOUR LABELS. 1/3 HOUR DOORS ARE FOR USE WHERE SMOKE & DRAFT IS A PRIMARY CONSIDERATION.

Regent doors are handed, Omega doors are non-handed. Honeycomb Core-Steel Glazing Trim, UL, WH or FM label. Classified for openings rated from 20 minute up to and including 3 hours. 30 minute temperature rise > 650° F. For additional data, on Regent and Omega doors, see sections D1 and D2. Embossed 6 panel designs are eligible to be fire rated.

14 gage Regent doors are available only as a seamless design.

Min. 6" stiles and rails required for glass lite designs.

* Maximum size:
(18, 16 or 14 ga.) 4'-0" x 9'-0" single 3 hour
(18, 16 or 14 ga.) 8'-0" x 9'-0" pair 3 hour
(20 ga.) 4'-0" x 8'-0" single 3 hour
(20 ga.) 8'-0" x 8'-0" pair 3 hour

* Note: Some hardware and/or glass lite combinations may not be available in sizes listed. Consult customer service for detailed information.

* Latchset: UL listed, 1/2" minimum throw.

* Test: UL10B, UL10C, NFPA252 & UL1784

Experience a safer and more open world

Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm
Labeled Fire Doors

1-3/4" Imperial, Versadoor & Mercury Fire Doors
Foamed in Place Polyurethane Core

FIRE DOOR DESIGNS

F   N   V   G   FG   LB   2G   VX   EC03
E601 E801 E603 E205 E101 E201 E202 E203 E609

E301 E302 E303

* Do not use fusible link louvers in fire doors for a glass lite, vision panel, fire exit hardware, with 1/3 hour or 3 hour labels. 1/3 hour doors are for use where smoke & draft are a primary concern. Imperial & Mercury doors are hinged. Versadoor & Mercury doors are non-handed, polyurethane foam core steel glazing trim, classified for openings rated from 20 minute up to and including 3 hours. 30 minute temperature rise > 650°F. For additional data on Versadoor or Imperial doors, see sections D3 & D4. Data on Mercury door, see section D16.

Imperial & Versadoor Maximum Size, UL & WH
(18, 16 or 14 ga.) 4'-0" x 7'-0" single 3 hour
(18, 16 ga.) 6'-0" x 7'-0" pair 3 hour

Imperial & Versadoor Maximum Size, UL & WH
(20 ga.) 4'-0" x 7'-0" single 1-1/2 hour
(20 ga.) 6'-0" x 7'-0" pair 1-1/2 hour

Mercury Maximum Size, UL & WH
(18, 16 or 14 ga.) 4'-0" x 7'-0" single 3 hour
(18, 16) 6'-0" x 7'-0" pair 3 hour

- Astragal is required for 3 hour rated pairs, and is optional for other pairs.
- Latchset: UL listed, 1/2" minimum throw.
- Note: Some hardware and/or glass lite combinations may not be available in sizes listed. Consult customer service for detailed information.
- Classified for use with all types of labeled fire exit hardware.
- Test: UL10B, UL10C, NFPA252 & UL1784
- 14 gage doors will be weld seamless.

Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm
1-3/4" MEDALLION FIRE DOORS  
VERTICALLY STEEL STIFFENED

Fire Door Designs

<table>
<thead>
<tr>
<th>Fire Door</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td></td>
</tr>
<tr>
<td>LB</td>
<td></td>
</tr>
<tr>
<td>FG</td>
<td></td>
</tr>
</tbody>
</table>

**HOURLY RATING**

- **3 HOURS**
- **1-1/2 HOUR**
- **1 HOUR**
- **3/4 HOUR**
- **1/3 HOUR**

**MAX. EXPOSED WIDTH, HEIGHT AND AREA**

- **SEE GLASS MANUFACTURERS CLASSIFICATION LISTING FOR THESE LIMITS.**

**UL LISTED FUSIBLE LINK LOUVER***

- **None**
- **24" x 24" MAX.**

**DO NOT USE FUSIBLE LINK LOUVERS IN FIRE DOORS PREPARED FOR TEMPERATURE RISE, GLASS LITE, VISION PANEL OR FIRE EXIT HARDWARE.**

**+1/3 HOUR DOORS ARE FOR USE WHERE SMOKE CONTROL IS A PRIMARY CONSIDERATION.**

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

- Medallion doors are handed. Vertically Steel Stiffened-Steel Glazing Trim, UL, WH or FM label ...classified for openings rated from 20 minute up to and including 3 hours. (12 gage doors are limited to 1-1/2 hours)
- 30 minute temperature rise rating of 450° F may be achieved with 20 min. thru 1-1/2 hour fire ratings.
- Astragal is required for some 3 hour rated pairs, and is optional for other pairs.
- Latchset: UL listed, 1/2' minimum throw (single) [12 gage doors are limited to mortise locks], and (pairs) thru 1-1/2 hours. 5/8' minimum throw 3 hour (pairs).
- See page D5A for construction features of temperature rise door.
- For additional data on Medallion doors, see pages D5.

**Maximum size:**

- (12 ga.) 4'-0" x 8'-0" single 1-1/2 hour
- (14 ga.) 4'-0" x 9'-0" single 3 hour
- (18 or 16 ga.) 4'-0" x 10'-0" single 3 hour
- (16, 18 ga.) 8'-0" x 10'-0" pair 3 hour
- (14 ga.) 8'-0" x 9'-0" pair 3 hour

Classified for use with all types of labeled fire exit hardware. (12 gage doors are limited to mortise exit)

Note: Some hardware and/or glass lite combinations may not be available in sizes listed. Consult customer service for details.

- Test: UL10B, UL10C, NFPA252 & UL1784

Experience a safer and more open world
Labeled Fire Doors

1-3/4" Medallion Fire Doors Vertically Steel Stiffened Oversized Doors (Over 40" Wide and/OR Over 100" Tall)

Fire Door Designs

- Medallion doors are hinged & vertically Steel Stiffened.
- Steel glazing trim must be UL or WH label classified for openings rated from 20 minutes up to and including 1-1/2 hours.
- 30 min. temperature rise rating of 450° F may be achieved with 20 min. thru 1-1/2 hour fire ratings and special construction.
- 100 sq. inches of glass available with 450° F temperature rise.
- Classified in accordance with UL103, UL10C, NFPA252 & UL1784.
- Standard swing same direction pairs only.
- Minimum 3/4" latch throw for mortise lock, surface or flush bolts.

Maximum size:
- 50" x 120" singles and 100" x 120" pairs
- 16 or 14 ga. face sheets
- 22 ga. min., 20 ga. max. stiffener thickness.
- 14 ga. end channels
- 16 ga. steel top cap tackwelded to end channel

HARDWARE:
1.) UL listed Mortised fusible link popper (auxiliary latch) required. To be located no more than 6" to centerline from lock edge. At top of active leaf of pair. Auxiliary latch is to be installed in door & strike in frame head.
2.) UL listed closer required.
3.) 3/4" overlapping astragal strip required on active or inactive leaf of pair, supplied by Ceco.
4.) Mortise locks are required with singles and pairs. Locks are to be UL listed for use on 40" x 100", 1-1/2 hour hollow metal doors minimum.
5.) Flush or surface bolts required for inactive leaf. Bolts with extensions up to 60" in length permitted. Bolts are to be UL listed for use on 40" x 100", 1-1/2 hour hollow metal doors minimum.
6.) Hinges: Full mortise hinges meeting the requirements of BHMA A156.1 are the only hinging option.

*DO NOT USE FUSIBLE LINK LOUVERS IN FIRE DOORS PREPARED FOR TEMPERATURE RISE, GLASS LITE, VISION PANEL OR FIRE EXIT HARDWARE.

*1/3 HOUR DOORS ARE FOR USE WHERE SMOKE CONTROL IS A PRIMARY CONSIDERATION.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)
Labeled Fire Doors

1-3/4" Fuego Fire Doors
Solid Mineral Fiber Core
250°F (121°C) Max. Temp. Rise

Fire Door Designs

F  N  V  E601

<table>
<thead>
<tr>
<th>Hourly Rating</th>
<th>Max. Exposed Width, Height and Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Hours</td>
<td>See Glass Manufacturers Classification Listing for these Limits.</td>
</tr>
<tr>
<td>1-1/2 Hour</td>
<td></td>
</tr>
<tr>
<td>1 Hour</td>
<td></td>
</tr>
<tr>
<td>3/4 Hour</td>
<td></td>
</tr>
<tr>
<td>1/3 Hour</td>
<td></td>
</tr>
</tbody>
</table>

- Do not use fusible link louvers in fire doors prepared for temperature rise.
- 1/3 hour doors are for use where smoke control is a primary consideration.

Temperature Rise Limitations:
- 30 minute 250°F temperature rise rating will be maintained if a max. of 100 square inches of exposed glass per leaf must be maintained.
- Single embossed face doors may be 30 minute 250°F temperature rise rated.
- Doors with embossed face both sides may be 30 minute 450°F temperature rise rated.

- Fuego doors are handed. Complies with NFPA-80 recommendations for "vertical egress" (stairwells)
- 250°F (121°C) Temperature Rise Rated Fire Doors (Solid Mineral Fiber Core-Steel Glazing Trim) UL, WH or FM label: classified for openings rated from 20 minute up to & including 3 hours.
For additional data on Fuego doors, see page D6.
- Latchset: UL listed, minimum throw 1/2" (single), and thru 3/4 hour (pairs).
5/8" min. throw 1-1/2 hour thru 3 hours (pairs)

- Classified for use with all types of labeled fire exit hardware.
- Test: UL10B, UL10C, NFPA252 & UL1784
- Astragal is required for 3 hour rated and 20 gage pairs, and is optional for other pairs.

Maximum size:
- (18, or 16 ga.) (3 hour) 4'-0" x 9'-0" single
- (14, or 20 ga.) (3 hour) 4'-0" x 8'-0" single
- (18, or 16 ga.) (3 hour) 8'-0" x 9'-0" pair
- (14, or 20 ga.) (3 hour) 8'-0" x 8'-0" pair

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)
Labeled Fire Doors

1-3/4" Legion and Ultrador Fire Doors
Polystyrene Core

Fire Door Designs

LEGION AND ULTRADOR FIRE DOORS

- Legion doors are hinged. Ultrador doors are non-handed.
- Styrene Core-Steel Glazing Trim, UL, WH label...classified for openings rated from 20 minute up to and including 3 hours. 30 minute temperature rise >650°F.
- For additional data on Legion and Ultrador doors, see pages D4A and D4B.

**Do not use fusible link louvers in fire doors for a glass lite, vision panel, fire exit hardware, with 1/3 hour or 3 hour labels.
- 1/3 hour doors are for use where smoke and draft are a primary concern.
- 14 gage doors will be weld seamless.

**Maximum size:
(20, 18, 16 & 14 ga.) 4'-0" x 8'-0" single (3 hour.)
(18, 16 & 14 ga.) 8'-0" x 8'-0" pair (3 hour.)
(18 or 16 ga.) 8'-0" x 9'-0" pair (1-1/2 hour.)
(20, 18, 16 & 14 ga.) 80'0" x 80'0" pair (1-1/2 hour.)

**Note: Some hardware and/or glass lite combinations may not be available in sizes listed. Consult customer service for detailed information.
- Astragal is required for 3 hour rated and 20 gage pairs, and is optional for other pairs.
- Classified for use with all types of labeled fire exit hardware.
- Latchset: UL listed, 1/2" minimum throw.
- Test: UL10B, UL10C, NFPA 252 & UL1784

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)
1-3/4" TRIO FIRE DOORS
VERTICALLY STEEL STIFFENED

FIRE DOOR DESIGNS

<table>
<thead>
<tr>
<th>HOURLY RATING</th>
<th>MAX. EXPOSED WIDTH, HEIGHT AND AREA</th>
<th>UL LISTED FUSIBLE LINK</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HOURS</td>
<td>SEE CLASS MANUFACTURERS CLASSIFICATION LISTING FOR THESE LIMITS.</td>
<td>None</td>
</tr>
<tr>
<td>1-1/2 HOUR</td>
<td></td>
<td>24&quot; x 24&quot; MAX.</td>
</tr>
<tr>
<td>1 HOUR</td>
<td></td>
<td>24&quot; x 24&quot; MAX.</td>
</tr>
<tr>
<td>3/4 HOUR</td>
<td></td>
<td>24&quot; x 24&quot; MAX.</td>
</tr>
<tr>
<td>1/3 HOUR</td>
<td></td>
<td>None</td>
</tr>
</tbody>
</table>

Trio handed doors are HE & HF.
Trio non-handed doors are NE & NF.
Vertically Steel Stiffened-Steel Glazing trim,
UL and WH label ...classified for openings
rated 20 minute up to and including 3 hours.

• 1/3 hour doors are for use where smoke and
draft are a primary concern.

For additional data on Trio doors,
see pages D19 & D19A.

*Do not use fusible link louvers in fire doors for a
glass lite, vision panel, fire exit hardware,
with 1/3 hour or 3 hour labels.

• Maximum size:
  HF & NF (18 or 16 ga.) 4'-0" x 8'-0" single, 3 hour
  HF & NF (18 or 16 ga.) 8'-0" x 8'-0" pair, 3 hour
  HE & NE (18 or 16 ga.) 4'-0" x 8'-0" single, 1-1/2 hour
  HE & NE (18 or 16 ga.) 8'-0" x 8'-0" pair, 1-1/2 hour
  ** HF (14, or 16 ga.) 8'-0" x 9'-0" pair, 1-1/2 hour
  ** * HF (14, 16 or 18 ga.) 8'-0" x 9'-0" pair, 1-1/2 hour

• Astragal required on HE standard pairs for hourly rating
  over 1-1/2 hour.

• Latchset: UL listed, 1/2" minimum throw
  (singles), and thru 1-1/2 hour (pairs)

• Latchset: UL listed, 5/8" minimum throw on pairs, for use
  with 3 hour rating.

• Classified for use with all types of labeled fire exit hardware.

• Note: Some hardware and/or glass lite combinations
  may not be available in sizes listed. Consult customer service
  for detailed information.

• Test: UL10B, UL10C, NFPA252 & UL1784

  ** Concealed Vertical Rods, UL only, Astragal not allowed.
  Top rod only hardware must be approved for the application.

  ** * Concealed or Surface Vertical Rods, WH only, Astragal
  not allowed.
  Top rod only hardware must be approved for the application.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)
1-3/4" ARMORSHIELD FIRE DOORS
STEEL STIFFENED CORE (UL 752 LEVELS 1, 2, 3)

Fire Door Design

<table>
<thead>
<tr>
<th>BALLISTIC LEVEL</th>
<th>WEAPON TYPE</th>
<th>BULLET TYPE</th>
<th>BULLET VELOCITY</th>
<th>MUZZLE ENERGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>9mm</td>
<td>FULL METAL JACKET 124gr</td>
<td>1234 ft/s</td>
<td>380-460 ft/lbs</td>
</tr>
<tr>
<td>II</td>
<td>.357 Mag.</td>
<td>JACKETED LEAD POINT 158gr</td>
<td>1312 ft/s</td>
<td>743-889 ft/lbs</td>
</tr>
<tr>
<td>III</td>
<td>.44 Mag.</td>
<td>LEAD SOFT POINT 240gr</td>
<td>1417 ft/s</td>
<td>1370-1593 ft/lbs</td>
</tr>
</tbody>
</table>

Hourly Rating

Mortise Lock Only

Mortise Fire Exit Hardware

LATCH STRIKE

UL105B UL10C

MAX WIDTH MAX HEIGHT

1/3, 3/4, 1, 1-1/2 12 4'-0" 8'-0"

1/3 HOUR DOORS ARE FOR USE WHERE SMOKE & DRAFT IS A PRIMARY CONSIDERATION.

- Armorshield doors are handed with 12 gage face sheets.
- Doors are center seam construction with welded edge seams.
- Vertical stiffeners are 22 gage.
- Vertical stiffeners are placed no more than 6" apart and welded no more than 5" on center along their length.
- 4-1/2" heavy weight hinges are used up to and including 30' x 70".
- Doors over 30' x 70' require 5' hinges, minimum.
- Continuous hinges are an option.
- Test: UL10B, UL10C, NFPA 252, UL752 AND UL1764
- Latch set: UL listed 1/2" minimum throw.
- For additional data on Armorshield doors, see Section D7.
- Glass is not allowed in fire rated Armorshield doors.

Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm
Labeled Fire Doors

1-3/4" ThruLite Stile and Rail Fire Doors

Door Designs

<table>
<thead>
<tr>
<th></th>
<th>FG</th>
<th>2G</th>
<th>3G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singles</td>
<td>1/3, 3/4</td>
<td>16</td>
<td>4'-0&quot;</td>
</tr>
<tr>
<td>Pairs</td>
<td>1/3, 3/4</td>
<td>16</td>
<td>8'-0&quot;</td>
</tr>
</tbody>
</table>

- ThruLite doors are hinged.
- Latch set: UL listed 1/2" minimum throw.
- Astragals are optional.
- Hinge and lock stiles are 1/8" in 2" beveled edge.
- 1/3 hour doors are for use where smoke control is a primary consideration.

- ThruLite tubular construction-Steel Integral Glazing Trim, UL, WH label...classified for openings rated from 20 minute up to and including 3/4 hours. 30 minute temperature rise >650°F.

*Note: Some hardware and/or glass lite combinations may not be available in sizes listed. Consult customer service for detailed information.

**Note: Firelite or Firelite Plus glazing may be used in G2 or G3 designs only.

For additional data on ThruLite doors, see page D16.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)