

## FE Series double egress



### About the product

The FE Series double egress frames are designed to meet requirements for heavy to extra heavy duty applications in both commercial and institutional buildings. They are installed at interior locations, and in virtually all types of buildings and wall constructions. These frames can be specified and supplied as KD (knock-down) for field assembly prior to installation or welded for installation as a complete unit. If clear opening width for cross corridor applications is critical, refer to the DE Series Frame.

### Installation

1. Installation shall conform to the published Steelcraft installation instructions, ANSI A250.11-2012 (formerly SDI 105) Recommended Erection Instructions for Steel Frames and HMM 840.
2. Fire Rated Assemblies must be in accordance with NFPA Pamphlet 80. The Authority Having Jurisdiction is the final authority in issues related to the installation and use of installed Fire Rated Doors. The Authority Having Jurisdiction is the final authority in issues related to the installation and use of installed Fire Rated Doors.

### Features and benefits

Steelcraft FE Series double egress frames offer the following unique features, which enhance long term functionality and durability:

1. **Die-mitered corner connections** Die-mitered corner connection at the head and jamb insure an attractive, tight and closed mitered connection. The miter includes 4 corner tabs designed with concealed connection eliminating the need for continuous profile welding.
2. **Patented universal hinge preparations** allow for easy field conversion from standard weight .134" (3.3 mm) thick hinges to heavy weight .180" (4.7 mm) hinges.
3. **Factory prepared** for field installed silencers.
4. **Factory applied baked-on rust inhibiting primer** in accordance with ANSI A250.10-2011.

### Specification compliance

1. Overall frame construction for the Steelcraft FE16 and FE14 Series double egress frames meet and exceed the requirements of ANSI A250.8-2014 (SDI 100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6. Locations are in accordance with ANSI/DHI A115 unless otherwise stated.

### Fire ratings

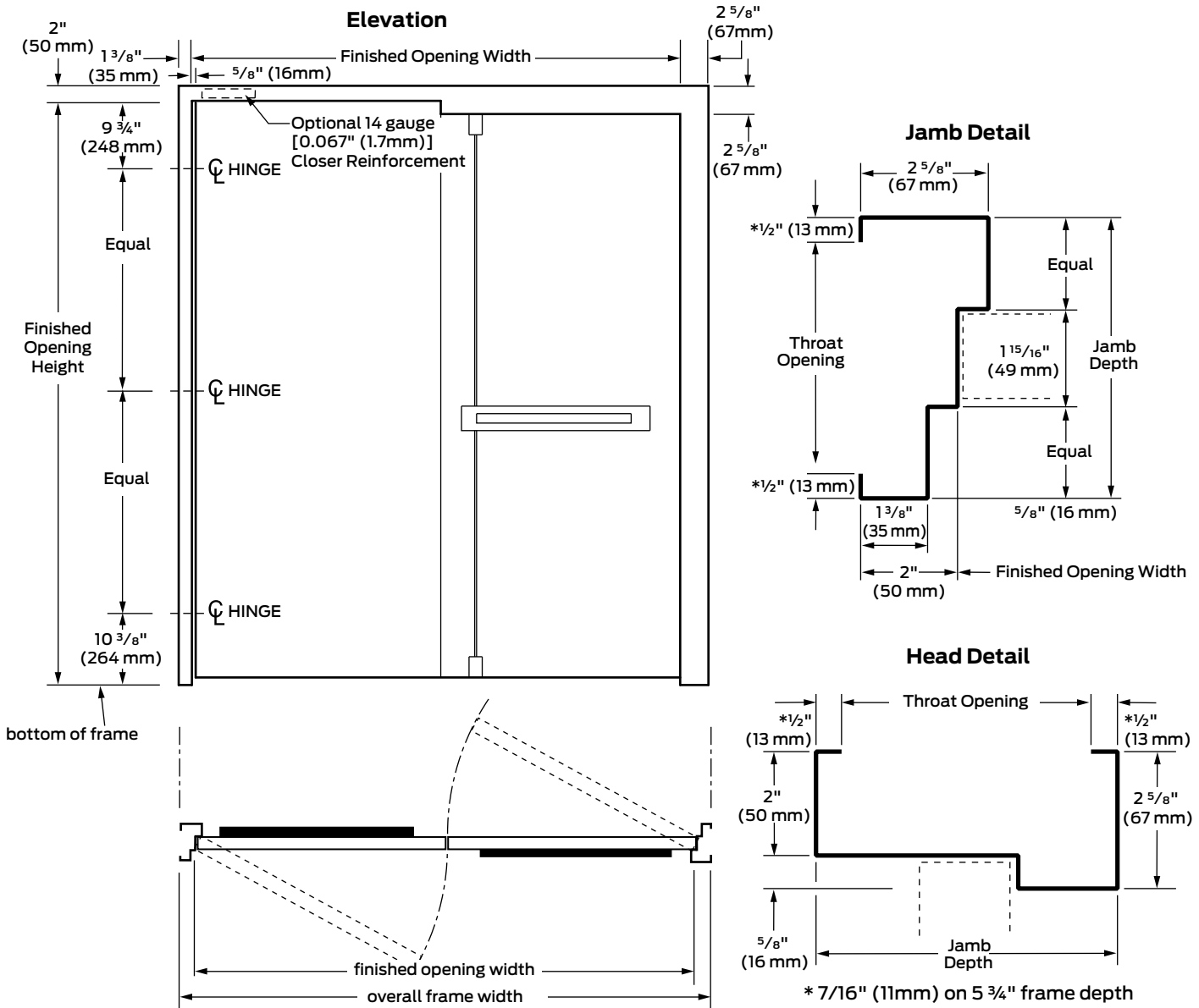
The FE Series double egress frames meet the broadest fire rating requirements. They are listed for installations requiring compliance to both neutral pressure testing (ASTM E152 and UL 10B) and positive pressure standards (UL 10C). Refer to the Fire Rated Section of this manual for particular listings.

### Applications

FE Series double egress frames are typically installed in wall construction types as defined in the chart below:

#### Frame applications

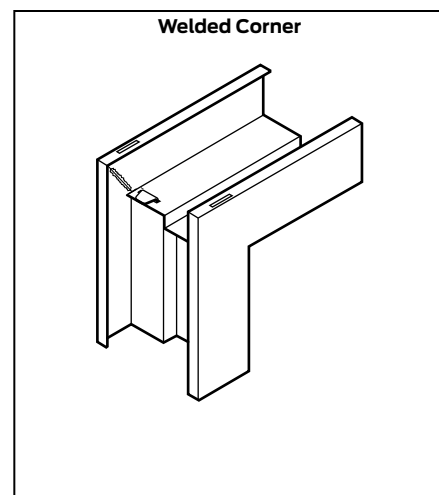
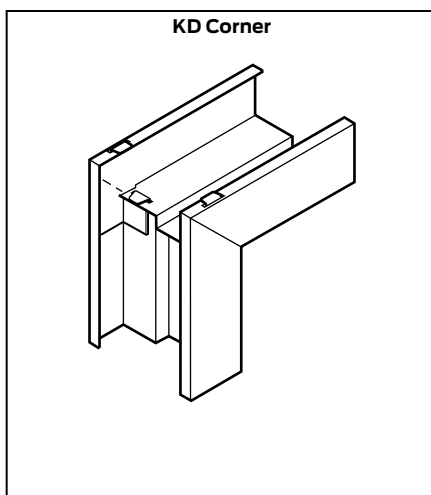
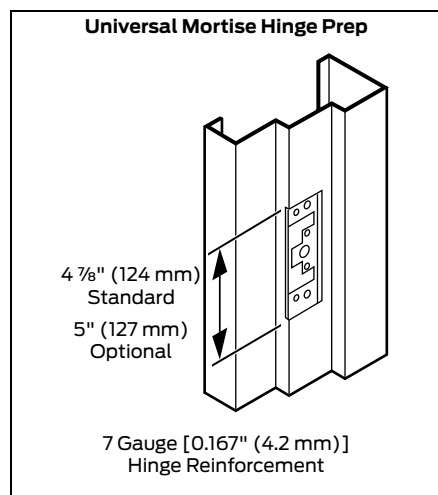
Profile	Steel thickness	Wall construction	Typical wall anchors
FE16	16 Gauge [0.053" (1.3 mm)]	Wood or steel stud	Weld-in stud anchor
FE16	16 Gauge [0.053" (1.3 mm)]	Masonry	Wire masonry
FE16	16 Gauge [0.053" (1.3 mm)]	Existing masonry	Bolted through door rabbet
FE14	14 Gauge [0.067" (1.7 mm)]	Wood or steel stud	Weld-in stud anchor
FE14	14 Gauge [0.067" (1.7 mm)]	Masonry	Wire masonry
FE14	14 Gauge [0.067" (1.7 mm)]	Existing masonry	Bolted through door rabbet



**Finished opening width (Door Opening Dimension)** is the dimension from frame door rabbet to the opposite rabbet. **Note:** For FE and DE Series double egress frames is 1/8" (3.2 mm) undersized from the standard nominal opening width. Example: 6'0" (1829 mm) head = 71 7/8" net width in lieu of the standard 72".

Frame sizing options							
Series	Maximum opening size	Jamb depth availability (profile)		Standard profile dimensions (variations available)			Corners
		3 step jambs x 2 step heads		Face	Stop	Returns	Standard
	Minimum	Maximum					
FE16	8'0" x 10'0" (2439 mm x 3048 mm)	4 ¾" (121 mm) Non-label 5 ¾" (146 mm) Labeled	14" (356 mm)	1 ⅜" (35 mm) on narrow side. 2 ⅝" (67 mm) on wide side.	⅝" (16 mm)	½"* (13 mm)	DIE MITERED with four (4) concealed tabs interlocking head and jambs
FE14	8'0" x 10'0" (2439 mm x 3048 mm)	4 ¾" (121 mm) Non-label 5 ¾" (146 mm) Labeled	14" (356 mm)	1 ⅜" (35 mm) on narrow side. 2 ⅝" (67 mm) on wide side.	⅝" (16 mm)	½"* (13 mm)	DIE MITERED with four (4) concealed tabs interlocking head and jambs

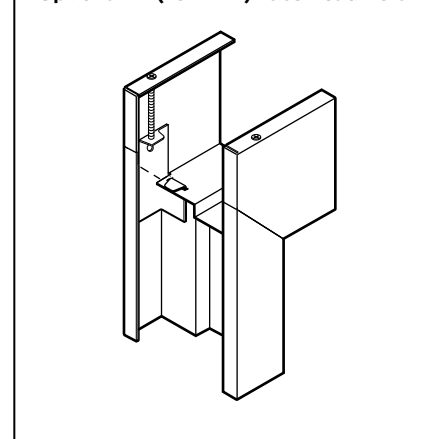
\*Except 5 3/4" (146 mm) depth, which is 7/16" (11 mm)



### General notes

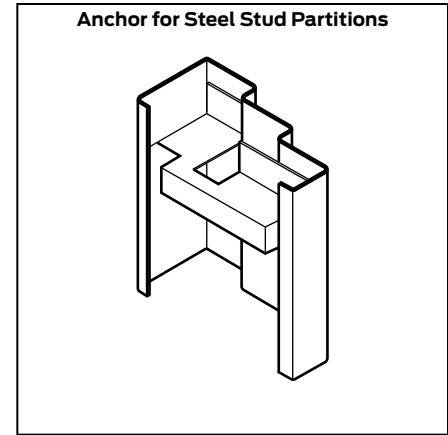
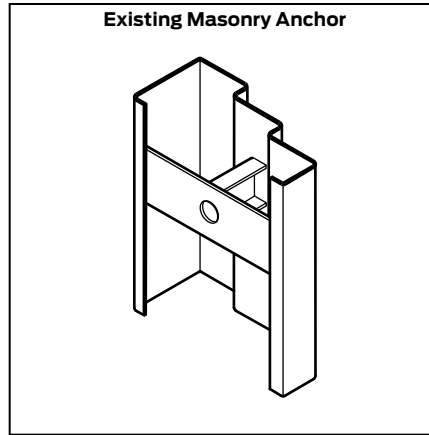
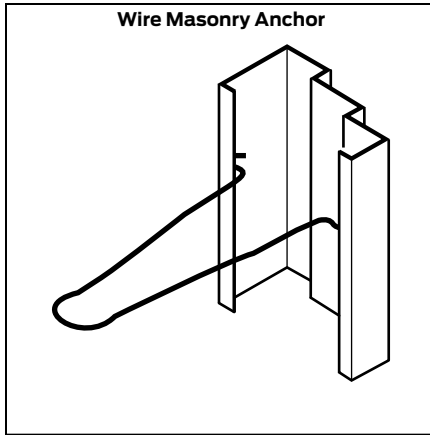
1. Variations in jamb depths available in 1/8" (3 mm) increments.
2. All FE Series frames are supplied standard with masonry and wire and weld-in base anchors. Anchors are designed for maximum wall/frame engagement and installation flexibility. Weld-in stud anchors are an optional add.
3. FE Series frames are to be installed as part of the wall framing sequence.
4. Depending on environmental and usage conditions, the steel can be either cold rolled or galvanized. Galvanized steel is recommended for all exterior applications.
5. Tabs in Rabbeted area should be bent outward, not inward, during assembly (as shown).
6. FE Series with 4" heads are used mainly in masonry applications when 2" face heads do not match block coursing.
7. For reinforcement requirements for automatic operators, see "[High frequency hinge reinforcement F and FE Series](#)" on page 73.

### Optional 4" (102 mm) Face Head Detail



Frame options				
Series	Frame profile	Corner connections		4" (102 mm) Heads
		KD (Knock-down)	SUA (Set-up & weld)	
<b>FE16</b>	Typically for walls less than 3 3/4" (95 mm) thickness or greater	KD assembly, slots, and tabs, must be assembled by distributor prior to installation.	Available from Steelcraft when specified in accordance with ANSI A250.8-2014 (SDI 100)	Die-mitered for use with 2" (51 mm) face double rabbet jambs. Available when specified for KD or SUA applications. For KD assembly, must be assembled by distributor prior to installation.
<b>FE14</b>	Typically for walls less than 3 3/4" (95 mm) thickness or greater	KD assembly, slots, and tabs, must be assembled by distributor prior to installation.	Available from Steelcraft when specified in accordance with ANSI A250.8-2014 (SDI 100)	Die-mitered for use with 2" (51 mm) face double rabbet jambs. Available when specified for KD or SUA applications. For KD assembly, must be assembled by distributor prior to installation.

N/A - Not Available



### Anchoring and installation notes

1. **FE Series double egress frames** are supplied standard with masonry wire and fixed base anchors. Anchors are designed for maximum wall/frame engagement, and installation flexibility. Optional weld-in jamb anchors are available as an add.
2. **For anchoring applications, refer to the Frames: Anchoring systems section of this manual.**
3. **Installation caution notice: Grouted frames:**
  - When temperature conditions necessitate an additive to be used in the mortar to prevent freezing, the contractor installing the frames must coat the inside of frames in the field with a corrosion resistant coating per SDI 105.
  - When frames are to be grouted full, silencers must be field installed prior to grouting.
  - Steel frames, including fire rated frames, do not require grouting. Grouting is not recommended for frames in drywall.
4. **Special frame anchorage:** Frame anchor details shown on this sheet are applicable to Formatube Egress frames with 2" (50 mm) faces. Anchor details will vary with frame profile changes.
5. Installation shall conform to the published Steelcraft installation instructions, SDI 105 Recommended Installation Instructions for Steel Frames.
6. All fire rated frames must be installed in accordance with NFPA Pamphlet 80 and the Authority Having Jurisdiction.

Framing applications						
Series	Steel type	Building type	Usage frequency <sup>1</sup>	KD Corner <sup>4</sup>	SUA Corner <sup>5</sup>	Applications
FE16	Non-Galvannealed <sup>2</sup>	Institutional and Commercial	Heavy to extra heavy duty	✓	✓	Typical building conditions
	Galvannealed <sup>3</sup>					High humidity and/or weather exposure
FE14	Non-Galvannealed <sup>2</sup>	Institutional and Commercial	Extra heavy to maximum duty	✓	✓	Typical building conditions
	Galvannealed <sup>3</sup>					High humidity and/or weather exposure

<sup>1</sup> Usage frequency is based on ANSI A250.8-2014 (SDI 100)

<sup>2</sup> Commercial quality carbon steel

<sup>3</sup> Reinforcements for galvannealed frames are also galvannealed

<sup>4</sup> Knock-Down for field assembly prior to installation

<sup>5</sup> Set-up and Welded for installation as a pre-welded unit