



**ABOUT THE PRODUCT:**

Steelcraft’s MU Series Multi-Use Flush Frames are designed for light to extra heavy duty applications in both commercial and institutional buildings. They can be installed in both interior and exterior locations, and in virtually all types of buildings and wall constructions. They have a jamb profile similar to the DW Frames, but are designed to be installed as part of the wall framing sequence. They can be specified and/or supplied as either KD (knock-down) for field assembly prior to installation, or welded for installation as a complete unit.

**INSTALLATION:**

1. Installation shall conform to the published Steelcraft installation instructions, ANSI A250.11-2001 (formerly SDI 105) *Recommended Erection Instructions for Steel Frames and HMMA 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.

**FRAME APPLICATIONS**

| Profile | Steel Thickness          | Wall Construction  | Typical Wall Anchors  |
|---------|--------------------------|--------------------|-----------------------|
| MU16    | 16 Gage [0.053" (1.3mm)] | Wood or Steel Stud | Lock-in Stud Anchor   |
|         |                          | Masonry            | Wire Masonry          |
|         |                          | Existing Masonry   | Bolted Through Soffit |
| MU14    | 14 Gage [0.067" (1.7mm)] | Wood or Steel Stud | Lock-in Stud Anchor   |
|         |                          | Masonry            | Wire Masonry          |
|         |                          | Existing Masonry   | Bolted Through Soffit |

**FEATURES AND BENEFITS:**

Steelcraft MU Multi-Use Series Flush Frames offer the following unique features which enhance long-term functionality and durability. Features can vary depending on the steel thickness of the frame.

1. **Die-mitered corner connections** of the MU Multi-Use Series Flush Frame corners lock together once the frame is installed. The tab/lock design:
  - a. prevents the head from rising
  - b. keeps the head and jamb members in alignment
  - c. keeps the miter tight
2. **Patented universal hinge preparations** allow for easy field conversion from standard weight .134" (3.3mm) thick hinges to heavy weight 0.180" (4.7mm) hinges.
3. **Adjustable base anchors** allow for installation adjustment when the floor is not level.
4. **Factory prepared** for field installed silencers.
5. **Factory applied baked-on rust inhibiting primer** in accordance with ANSI A250.10-1998 (R2004).

**SPECIFICATION COMPLIANCE:**

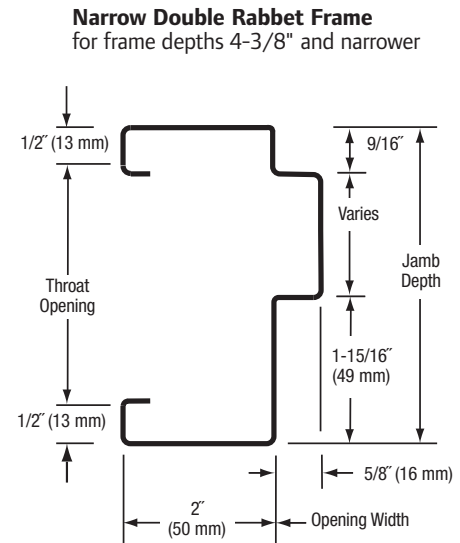
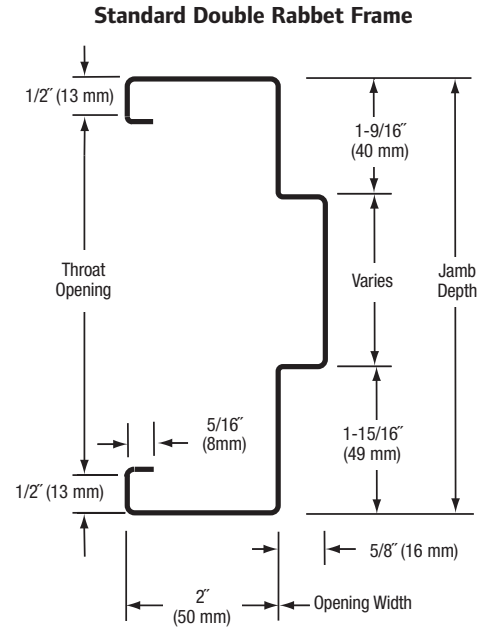
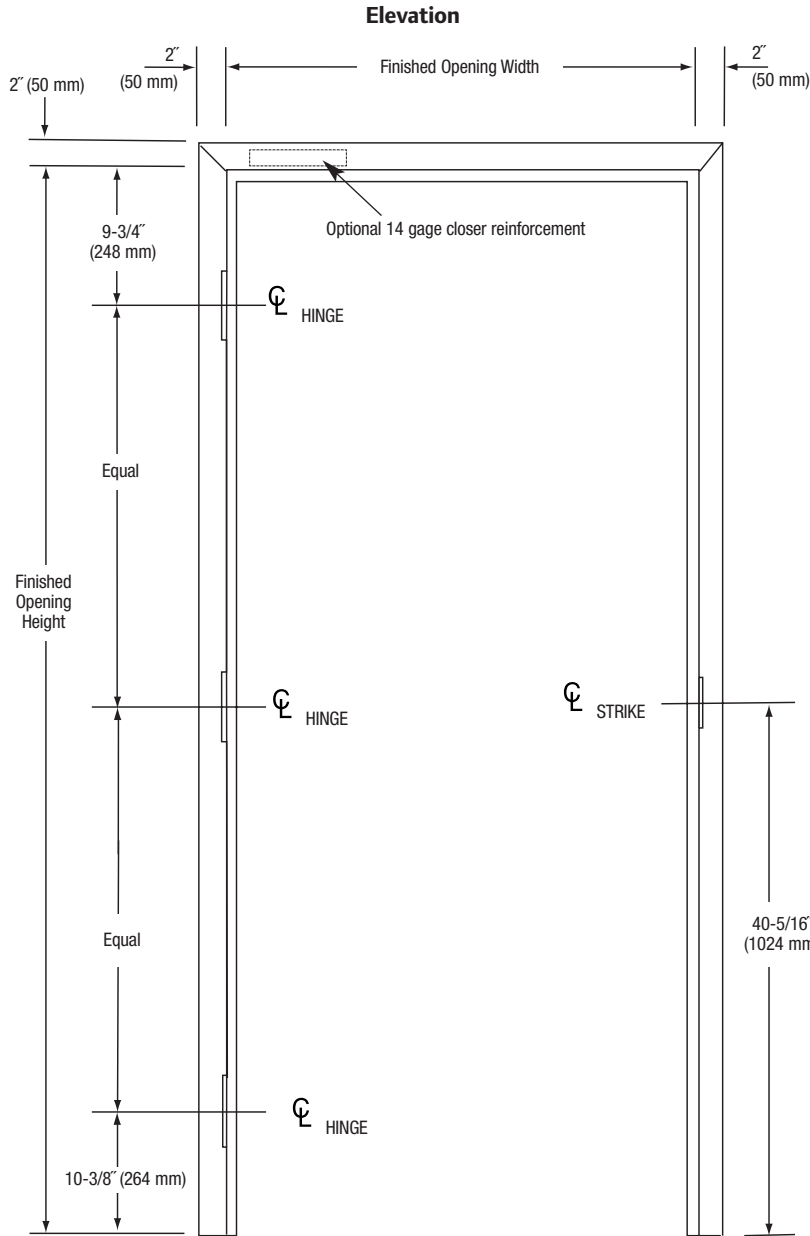
1. Overall frame construction for Steelcraft MU Multi-Use Flush Frame Series meet the requirements of ANSI A250.8-2003 (SDI 100).
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-2003. Locations are in accordance with ANSI/DHI A115 unless otherwise stated.

**FIRE RATINGS:**

MU Series Multi-Use Flush Frame 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 (UBC 7-2 and UL 10C). Refer to the **Fire Rated Section** of this manual for particular listings.

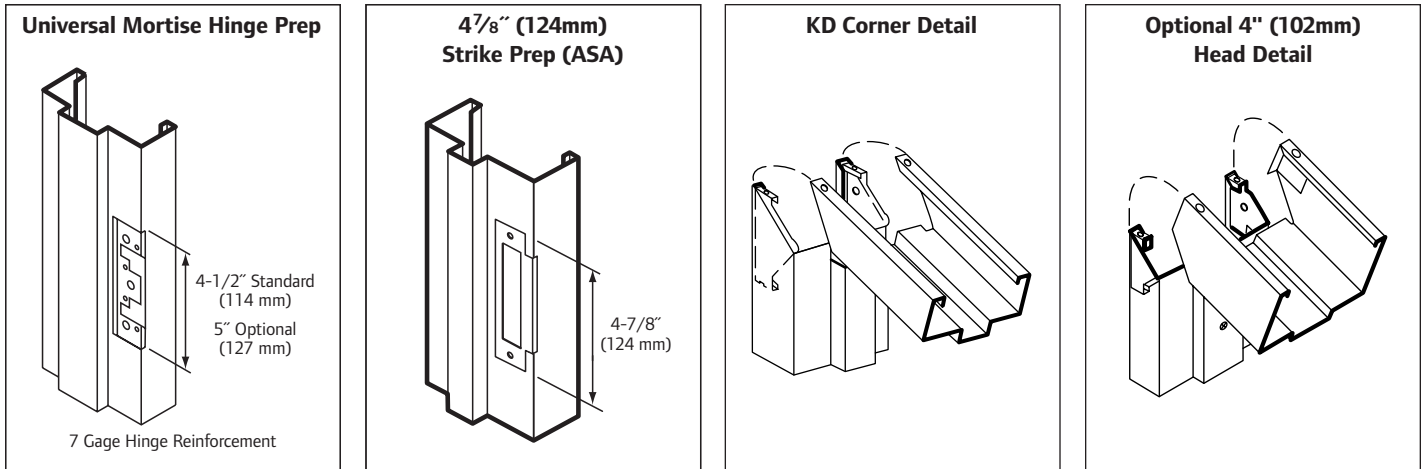
**APPLICATIONS:**

Steelcraft MU Multi-Use Flush Frame Series are typically installed in wall construction types as defined in the chart below:



### FRAME SIZING OPTIONS

| SERIES | MAXIMUM OPENING SIZE               |                                    | JAMB DEPTH AVAILABILITY (profile) |                   |                   |                    | STANDARD PROFILE DIMENSIONS (Variations Available) |                |                | CORNERS                                  |
|--------|------------------------------------|------------------------------------|-----------------------------------|-------------------|-------------------|--------------------|--|----------------|----------------|--|
|        | Single                             | Pair                               | NARROW DOUBLE RABBET              |                   | DOUBLE RABBET     |                    | FACE   | STOP           | RETURNS        |  |
|        |                                    |                                    | Minimum                           | Maximum           | Minimum           | Maximum            |  |                |                |  |
| MU16   | 4'-0" x 9'-0"<br>(1219mm x 2743mm) | 8'-0" x 9'-0"<br>(2439mm x 2743mm) | 3-1/4"<br>(83mm)                  | 4-3/8"<br>(111mm) | 4-1/2"<br>(114mm) | 14-3/4"<br>(375mm) | 2"<br>(51mm)                                       | 5/8"<br>(16mm) | 1/2"<br>(13mm) | DIE MITERED with interlocking Soffit tab |
| MU14   | 4'-0" x 9'-0"<br>(1219mm x 2743mm) | 8'-0" x 9'-0"<br>(2439mm x 2743mm) |                                   |                   |                   |                    |  |                |                |  |



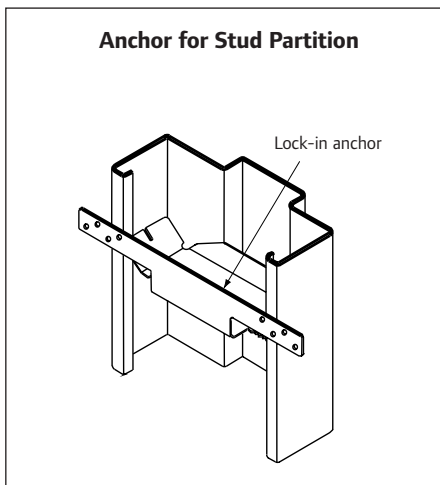
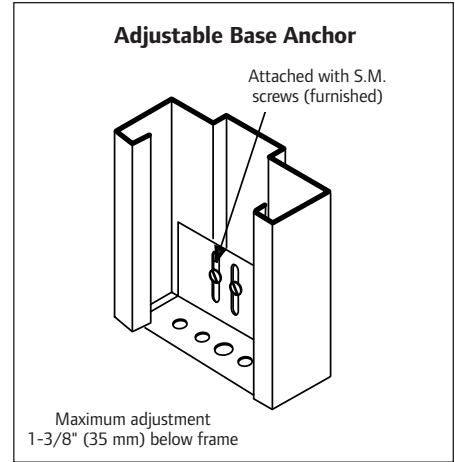
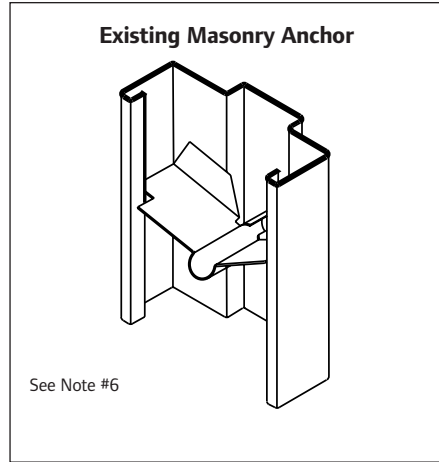
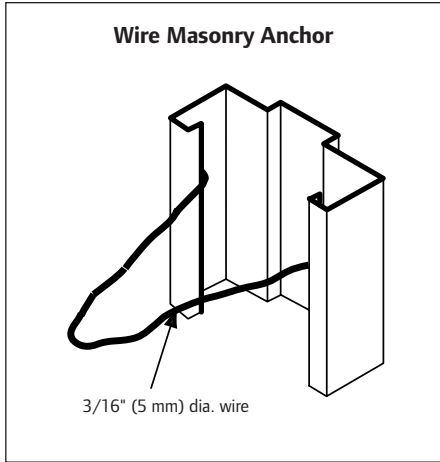
**GENERAL NOTES:**

1. Variations in jamb depths available in 1/8" (3mm) increments.
2. All MU Series frames are supplied standard with masonry wire or lock-in jamb anchors and adjustable base anchors. Anchors are designed for maximum wall/frame engagement and installation flexibility.
3. MU 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.

**FRAME OPTIONS**

| SERIES | FRAME PROFILE  |  | CORNER CONNECTIONS   |  |  |  | 4" (102mm) HEADS   |
|--------|--|--|--|--|--|--|--|
|        |  |  | KD (Knock-Down)  |  | SUA (Set-Up & Weld)  |  |  |
|        | NARROW DOUBLE RABBET   | DOUBLE RABBET  | SINGLE RABBET  | DOUBLE RABBET  | SINGLE RABBET  | DOUBLE RABBET  |  |
| MU16   | Typically for walls less than 3-3/4" (95mm) thick. Minimum wall thickness = 2" (51mm). | Typically for walls 3-3/4" (95mm) thickness or greater | Factory Die-Mitered, Soffit Tab included. Corner clip assembly screws required | Factory Die-Mitered, Soffit Tab included. Corner clip assembly screws required | Available when specified, and in accordance with ANSI A250.8-2003 (SDI 100). | Available when specified, and in accordance with ANSI A250.8-2003 (SDI 100). | Die-mitered for use with 2" (51mm) face jambs. Corner Clip assembly screws required. |
| MU14   |  |  |  |  |  |  |  |

N/A = Not Available



### Anchoring and Installation Notes:

- MU16-Series Multi-Use Flush Frames** are supplied standard with masonry wire, or lock-in jamb anchors and adjustable base anchors. Anchors are designed for maximum wall/frame engagement, and installation flexibility.
- For anchoring applications, refer to section 2.4 of this manual.**
- 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.
- Installation shall conform to the published Steelcraft installation instructions, SDI 105 *Recommended Installation Instructions for Steel Frames*.
- All fire rated frames must be installed in accordance with NFPA Pamphlet 80 and the *Authority Having Jurisdiction*.
- When using Standard Exiting Wall Anchors the anchor must be field modified (notched) to provide clearance for the backbend return.

## FRAMING APPLICATIONS

| SERIES | Steel Type                    | Building Type                | Opening         | Usage Frequency <sup>1</sup> | KD <sup>4</sup> Corner | SUA <sup>5</sup> Corner | Applications                          |
|--------|-------------------------------|------------------------------|-----------------|------------------------------|------------------------|-------------------------|---------------------------------------|
| MU16   | Non-Galvannealed <sup>2</sup> | Institutional and Commercial | Interior        | Heavy to Extra Heavy Duty    | ✓                      | ✓                       | Typical Building Conditions           |
|        | Galvannealed <sup>3</sup>     |                              | Mainly Exterior |                              |                        |                         | High Humidity and/or Weather Exposure |
| MU14   | Non-Galvannealed <sup>2</sup> | Institutional and Commercial | Interior        | Extra Heavy to Maximum Duty  | ✓                      | ✓                       | Typical Building Conditions           |
|        | Galvannealed <sup>3</sup>     |                              | Mainly Exterior |                              |                        |                         | High Humidity and/or Weather Exposure |

<sup>1</sup> Usage frequency is based on ANSI A250.8-2003

<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