

TECHNICAL DATA SERIES

S D I

110 - 09

**Standard Steel Doors
and Frames**
for
Modular Masonry Construction



Standards As Tough As Steel.™

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STEEL DOOR INSTITUTE

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Standard Steel Doors and Frames for Modular Masonry Construction

The Module

Definition:

The size of any individual part, taken as a unit of measure for regular proportion. A basic unit of measure adopted by the Building Industry as 4 inches.

Concept:

The use of a standard modular dimension common to building products such as masonry improves finished structure by the following:

- Increased accuracy, legibility, and simplicity of working drawings and contract documents.
- Added aesthetic flexibility induced by small unit standardization, allowing freedom of architectural design. Modular masonry construction meets the architectural need for blending and continuity of components. Non-modular units interrupt a geometric pattern, or flow, by virtue of the discontinuity of line. As a specific case, the use of a butted frame (Modular) is extremely important in stack bonded masonry unit construction. Any interruptions, such as cut units, unit lintels, wrap-arounds, etc, destroy the strong linear function of such details.
- Increased flexibility of finished structure through lower modification, addition, and renovation costs.
- Reduced overall material and labor costs by facilitating the use of standard practices and definable operating procedures.
- Interchangeability of materials is facilitated by the ability to substitute modular components.
- Estimating and takeoff simplified.
- Detailing and drawing coordination between trades and specialties simplified by small size standard grid.

Dimensions:

Concrete masonry units (CMU) have been standardized to an 8" high and 16" long module. Also available are "half blocks" standardized to a 4" high and 16" long module commonly used as a "starter course" shown on page 4. The availability of loose "TEE" or wire masonry anchors can be an advantage over "fixed" masonry anchors since they field adjust to masonry joints.

Modular bricks have been standardized to a 2 ²/₃" high and 8" long module, therefore 6 bricks correspond to the modular size of CMU. This relationship is clearly shown on pages 3 and 4.

Adjustments have been made in actual sizes to allow for common size mortar joints

Wrap Around Frame

6' 8" Door or 8' 0" Door

★ **Note:**

The masonry opening for an 8'0" modular dimension opening and door opening height requires 12 courses of block or 36 courses of brick.

Available in:

Modular Opening "X"	Standard Door Width
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Single Swing

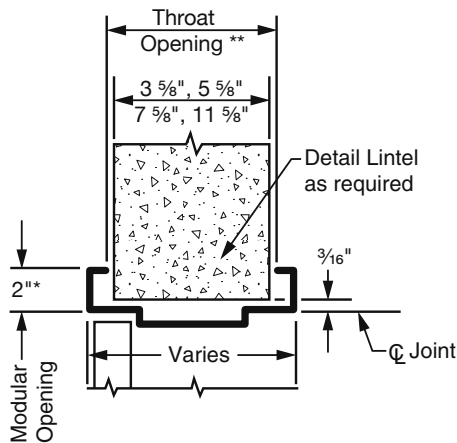
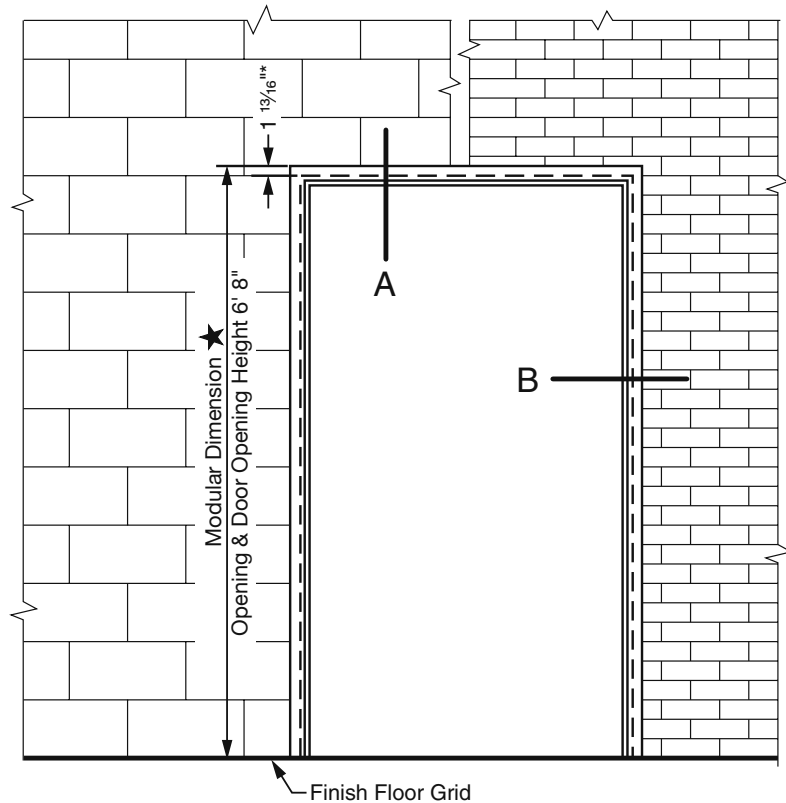
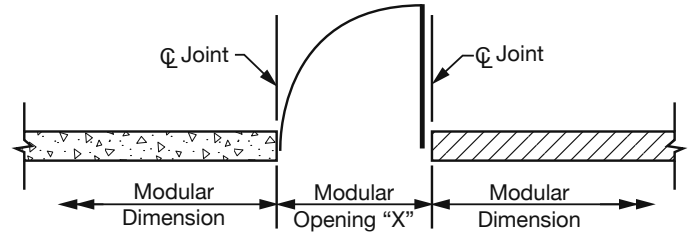
2'0"	2'0"
2'8"	2'8"
3'4"	3'4"
4'0"	4'0"

Double Swing

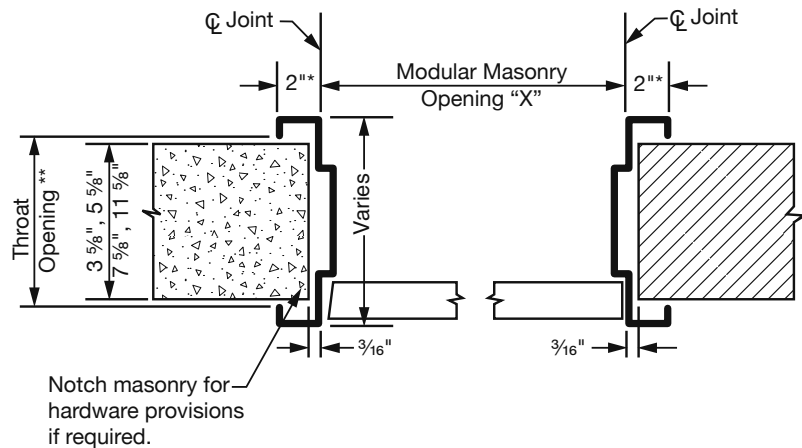
4'0"	4'0"
4'8"	4'8"
5'4"	5'4"
6'0"	6'0"
6'8"	6'8"
7'4"	7'4"
8'0"	8'0"

* May Vary

** Throat opening = block width - 0" + 1/8"



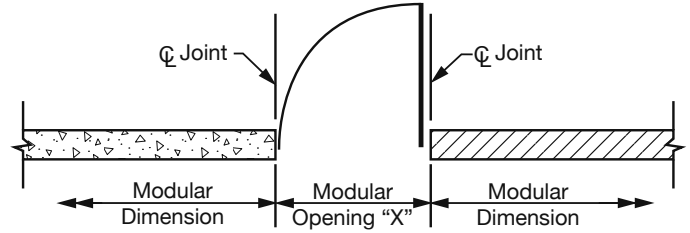
SECTION - A



SECTION - B

Wrap Around Frame

7' 0" Door



Available in:
 Modular Opening for "X" Standard Door Width

Single Swing

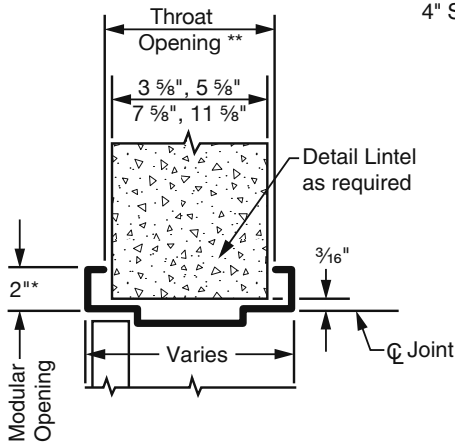
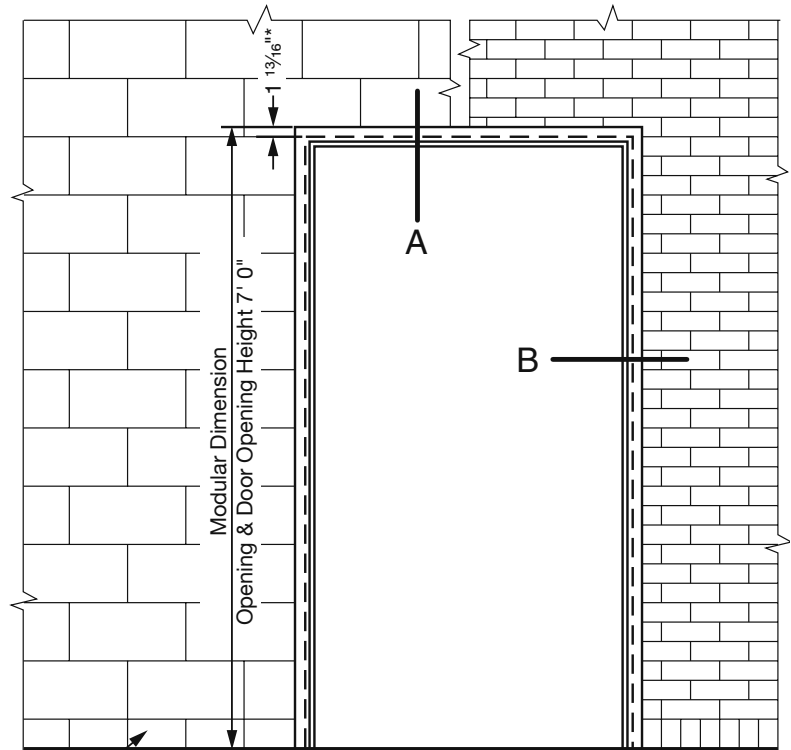
2' 0"	2' 0"
2' 8"	2' 8"
3' 4"	3' 4"
4' 0"	4' 0"

Double Swing

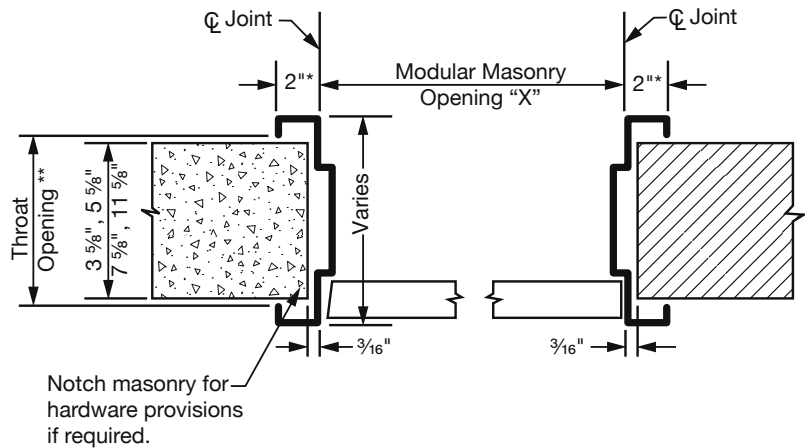
4' 0"	4' 0"
4' 8"	4' 8"
5' 4"	5' 4"
6' 0"	6' 0"
6' 8"	6' 8"
7' 4"	7' 4"
8' 0"	8' 0"

* May Vary

** Throat opening = block width - 0" + 1/8"



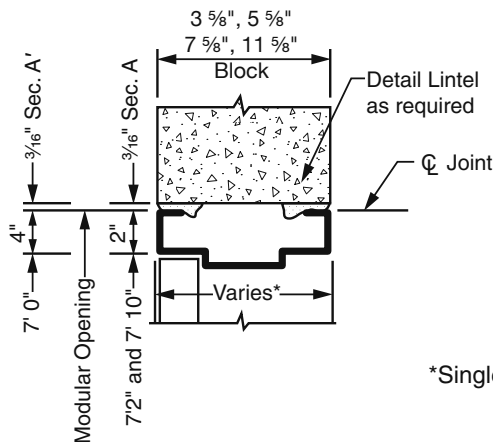
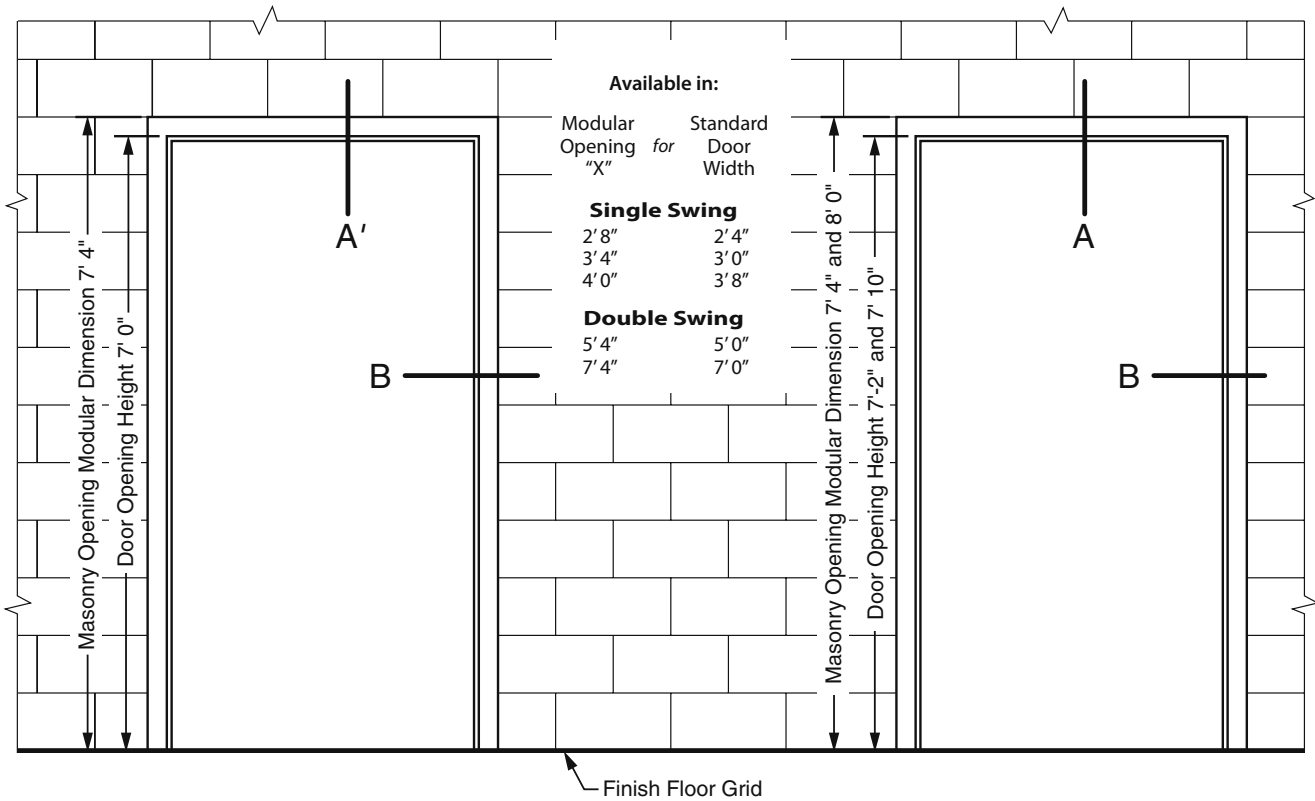
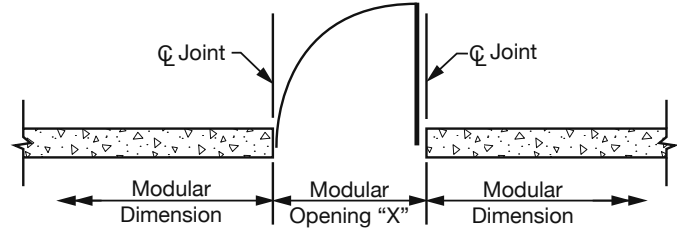
SECTION - A



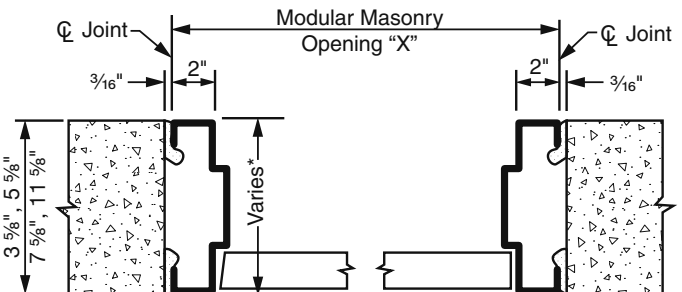
SECTION - B

Butt Type Frame

7' 2" and 7' 10" Doors or 7' 0" Door (X) 4" Header



SECTION - A



SECTION - B

*Single Rabbeted Frame Acceptable

AVAILABLE PUBLICATIONS

Specifications

- ANSI/SDI A250.6** Recommended Practice for Hardware Reinforcings on Standard Steel Doors and Frames
- ANSI/SDI A250.8** SDI 100 Specifications for Standard Steel Doors & Frames
- SDI-108** Recommended Selection & Usage Guide for Standard Steel Doors
- SDI-118** Basic Fire Door, Fire Door Frame, Transom/Sidelight Frame, and Window Frame Requirements
- SDI-128** Guidelines for Acoustical Performance of Standard Steel Doors & Frames
- SDI-129** Hinge & Strike Spacing

Test Procedures

- ANSI/SDI A250.3** Test Procedure & Acceptance Criteria for Factory Applied Finish Coatings for Steel Doors & Frames
- ANSI/SDI A250.4** Test Procedure & Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors
- ANSI/SDI A250.10** Test Procedure & Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors & Frames
- ANSI/SDI A250.13** Testing and Rating of Severe Windstorm Resistant Components for Swinging Door Assemblies for Protection of Building Envelopes (Not applicable for FEMA 320/361 or ICC-500 Shelters)
- SDI-113** Standard Practice for Determining the Steady State Thermal Transmittance of Steel Door & Frame Assemblies
- SDI-131** Accelerated Physical Endurance Test Procedure for Steel Doors, Frames and Frame Anchors

Construction Details

- ANSI/SDI A250.11** Recommended Erection Instructions for Steel Frames
- SDI-110** Standard Steel Doors & Frames for Modular Masonry Construction
- SDI-111** Recommended Details for Standard Details Steel Doors, Frames, Accessories and Related Components
- SDI-122** Installation Troubleshooting Guide for Standard Steel Doors & Frames

Miscellaneous Documents

- SDI-112** Zinc-Coated (Galvanized/Galvannealed) Standard Steel Doors & Frames
- SDI-117** Manufacturing Tolerances for Standard Steel Doors & Frames
- SDI-124** Maintenance of Standard Steel Doors & Frames
- SDI-127** Industry Alert Series (A-L)
- SDI-130** Electrified Hinge Preparations
- SDI-134** Nomenclature for Standard Steel Doors & Steel Frames

AUDIO-VISUAL PROGRAMS ALSO AVAILABLE

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