CURRIES

ASSA ABLOY

Product Guide

An Introduction to Hollow Metal Terminology and CURRIES' Product

ASSA ABLOY, the global leader in door opening solutions

CURRIES Product Guide

ASSA ABLOY, the global leader
in in door opening solutions

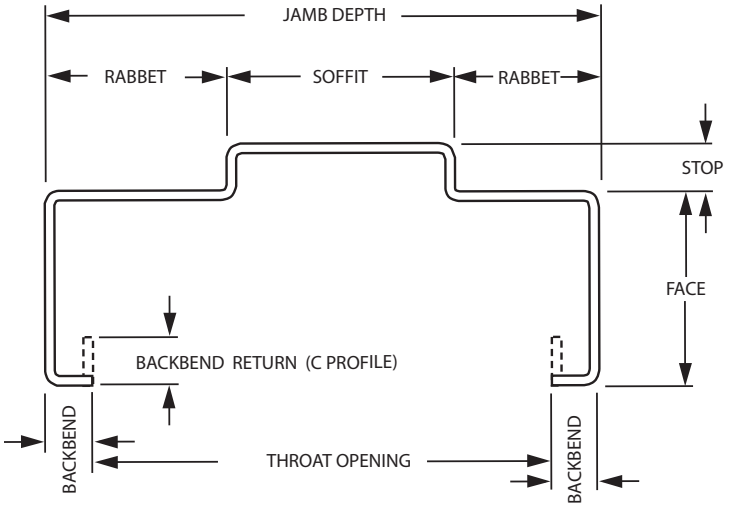
CURRIES Company of Mason City, Iowa is pleased to introduce you to Basic Hollow Metal Terminology. We have assembled this training manual for the experienced as well as the inexperienced individual. Included in this manual is terminology common to the industry and specialized terminology exclusive to CURRIES' doors and frames.

The line drawings depict frame sections and stick length materials associated with CCW numbers for identification and ordering purposes. Additional drawings for doors incorporate face types, lock preparations, and special conditions with the nomenclature used at CURRIES. Our goal is to familiarize the reader enough to comfortably understand CURRIES hollow metal products.

Hollow Metal Frames
Product Guide

ASSA ABLOY, the global leader
in in door opening solutions

January, 2008



Introduction

CURRIES standard and custom dimension hollow metal frames provide more design choices to our customers than other industry manufacturers. Frame profiles such as the M series, the C series, and the CM series will be explained in detail on the following pages. To better understand the CURRIES' frame product line, please review the following basic frame terminology. A single door **frame** consists of three basic components, a head, a hinge jamb, and a strike jamb. A double door frame would consist of a head, and two hinge jambs.

FRAME (3F)

Three components:

- ❑ Head(HDR)
- ❑ Hinge jamb(HJ)
- ❑ Strike jamb(SJ)

Frame Head

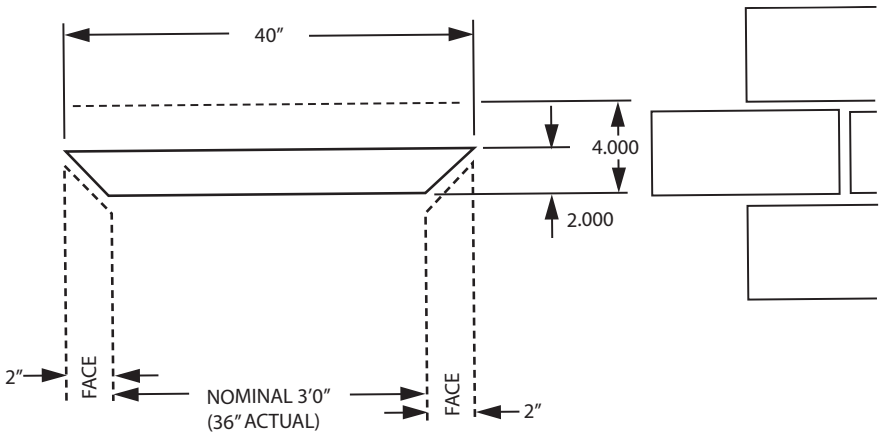
The **head** is the frame member that spans the door opening above the two jambs, providing the door opening width. A typical frame head will be mitered at both ends and have tabs, slots, and or coping to interlock with the vertical jamb members. The frame head length is the nominal door opening width (i.e., 3'0" is 36 inches, 6'0" is 72 inches). The actual overall length of the head will be nominal size plus the frame miter face dimension of both vertical jambs. For example, a typical 2 inch face frame, 3'0" head will have a 36" nominal opening plus 4 inches (2 inches for each vertical jamb member) so the overall head width measures 40 inches. See the drawing on top of page 2.

Hollow Metal Frames
Product Guide

January, 2008

CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions



Sometimes frame heads are required to have a 4 inch face. This is usually in a concrete block construction wall where the cement block will "course" out at the top of the frame with a 4 inch face head. For example, if only a 2 inch face head is used, the mason will have to cut the block to fill in above the frame opening below the lintel. Hollow metal frames are not intended to be structural support for block. A lintel must be in place above each door frame to support the wall construction. To simplify this block laying procedure, 4 inch face frame heads were designed.

NOTE: Many architects, for aesthetic purposes, will specify 4 inch face heads on an entire project.

Example of figuring overall head width:

3'0" Head =
36" + 2" + 2"= 40 inches

vertical jamb depth

Hardware Preparation

Frame heads are sometimes prepared for hardware. The most common frame head preparation is the surface mounted door closers. This plate reinforcement is installed inside the head face or soffit. The reinforcement provides additional metal thickness for drilling and tapping a hole for the mounting screws. Other hardware preparations that occur in frame heads are:

- Flush bolts (surface or mortise)
- Anchor hinges
- Concealed closers
- Vertical rod strikes
- Holders
- Pivots

Strike Jamb

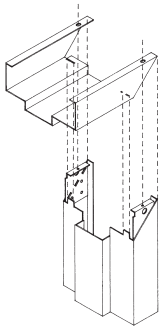
The **strike jamb** is the vertical frame member that connects with the head and provides a means of latching or locking the door shut. A strike plate is mortised into the jamb at the proper height to allow the latch bolt on the door lock to engage the frame and hold the door in a closed position.

A strike jamb is the nominal door opening height (i.e., 6'8" jamb is 80 inches and a 7'0" jamb is 84 inches in height on the door rabbet).
To determine the overall height of a typical 2 inch face jamb with a miter to connect to the head, take the nominal height plus 2 inches. For example, a 6'8" nominal height strike jamb is 80" plus 2 inches (jamb face) so the overall height is 82".

Example of figuring overall height:

6'8" Strike jamb =
80" + 2" = 82 inches

The mitered top corner of a strike jamb is tabbed, slotted, and or coped to interlock with a head member. This corner connection is called a knock down (K.D.) corner which allows the frame to be assembled in the field or assembled in a distributor shop and welded together.



A strike jamb is typically mortised to receive a single lock strike plate. Other hardware preparations may include deadlock strikes, reinforcements for blanks or surface mounted strikes.

NOTE: A blank jamb is used in the case of a push and pull type opening where neither a strike or reinforcement is required.

Hinge Jamb

The **hinge jamb** is also mitered at the top to interlock with the K.D. head. All three K.D. frame pieces must be of the same profile (i.e., overall jamb depth, rabbet dimensions, face dimensions). An exception is a 4 inch face head that is designed to fit a 2 inch face jamb and backbends.

CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

The hinge jamb is also mitered at the top to interlock with the K.D. head. All three K.D. frame pieces must be of the same profile (i.e., overall jamb depth, rabbet dimensions, face dimensions). An exception is a 4 inch face head that is designed to fit a 2 inch face jamb and backbends.

A typical hinge jamb that a door swings from, is mortised to receive templated hinges. The size and quantity of the hinge is information derived from the hardware schedule.

NOTE: On each job, the door openings are listed on the hardware schedule. This identifies the specific hardware used on every opening. By checking the hardware schedule against each door and frame on the job, it can be determined what hardware preparations are required such as:

- Surface mounted requiring reinforcing only

or

- Mortised factory prepared to receive hardware.

Hardware templates supplied by the hardware manufacturer will identify these precise preparations.

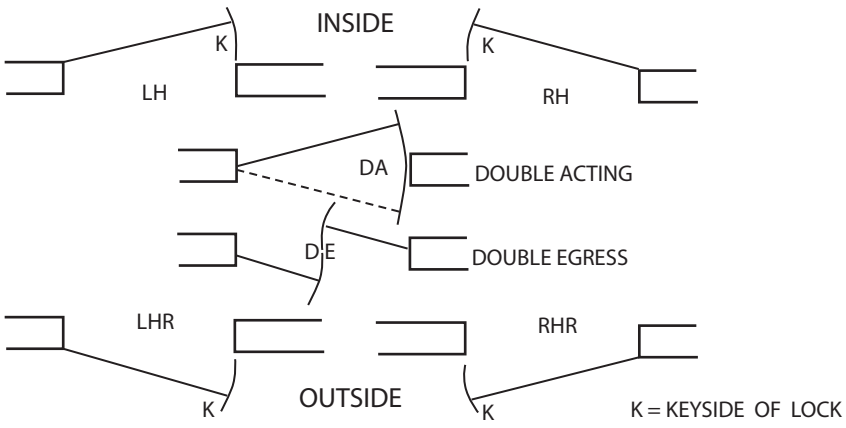
Type of information found on the hardware schedule:

- ❑ Size of hinge
- ❑ Quantity of hinge
- ❑ Type of hardware preparation

Other hinge jamb preparations to swing a door on include pivots, anchor hinges, continuous hinges, and floor closers.

Handing

All doors and frames (head, strike and hinge jamb) are handed. See the following door and frame handing drawing.

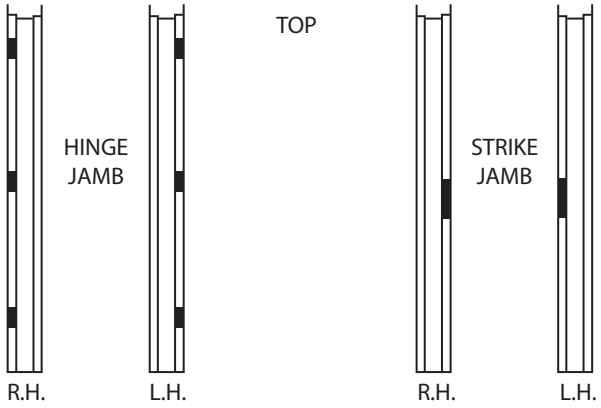


LH = Left Hand
RH = Right Hand
LHR = Left Hand Reverse
RHR = Right Hand Reverse
DA = Double Acting
DE = Double Egress

First, a head is handed only if it is prepared for hardware. The location of certain preparations in relation to the operation of the door

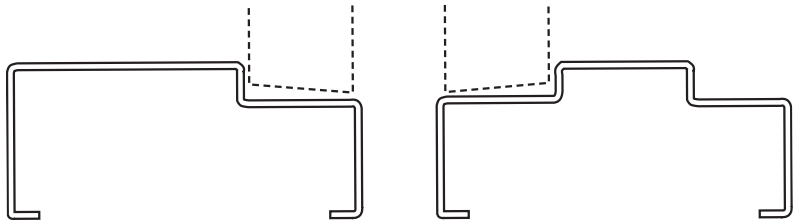
will determine the hand of the head. If a surface closer reinforcement is welded into a head, the closer is mounted on the hinge side of the frame. Hinge jambs and strike jambs are shown handed on the
following drawing.

DETERMINING THE HAND OF JAMBS



Rabbets

Frames have rabbets! Frame profiles range from single rabbet to the more common double rabbet frames. Frame rabbets may vary in size. K.D. frames for 1-3/4 inch thick doors have standard rabbet dimensions of 1-15/16 inch. 1-3/8 inch thick doors have 1-9/16 inch standard rabbet dimensions. The frames are



called **"unequal"** rabbet profile frames and are the most common. This allows the manufacturer to prepare for 1-3/4 inch or 1-3/8 inch doors on the same K.D. frame profile.

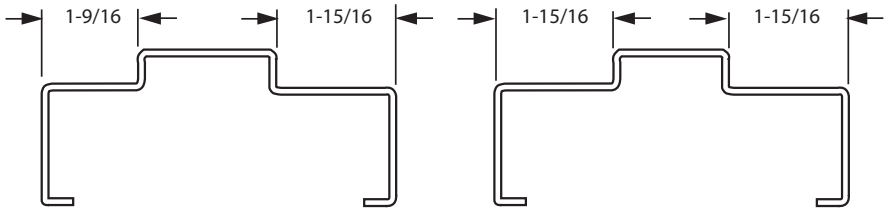
NOTE: An **"equal rabbet"** profile (a not so common K.D. configuration) has both rabbet dimensions of 1-15/16 inch or 1-9/16 inch. This allows two doors of the same size to be mounted in the same frame. See the drawing on the next page.

Hollow Metal Frames
Product Guide

January, 2008

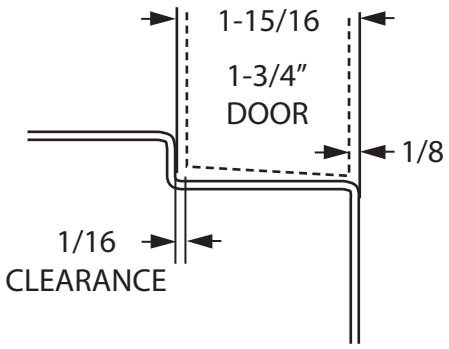
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions



UNEQUAL RABBET EQUAL RABBET

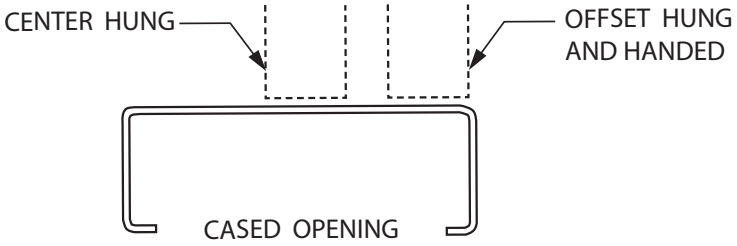
To ensure proper door operation with a standard templated hardware installed, **clearances** are designed into these frame dimensions.



These clearances are fixed dimensions so all mortise hardware preparations are located on the doors and frames. Hardware preparation standards are recommendations established by A.N.S.I. (American National Standards Institute) "standards" for specific types of hardware (i.e., hinge, cylindrical locks, mortise locks, etc.).

American National Standards Institute "standards"

NOTE: This allows manufacturers of hollow metal to mortise for hardware with a single preparation that will accept various hardware manufacturers templated hardware if that hard ware complies with A.N.S.I. standards.



Cased Opening and Double Egress

Cased opening and double egress are two other common frame profiles used in certain situations. **Cased opening** frames are constructed without an integral stop formed into the frame. These frames can be blank and are used to trim a wall opening, or they can be prepared for hardware designed specifically for cased opening type frames. Uses are:

- Double acting doors
- Bifold doors
- Sliding doors
- Hospital emergency stop doors

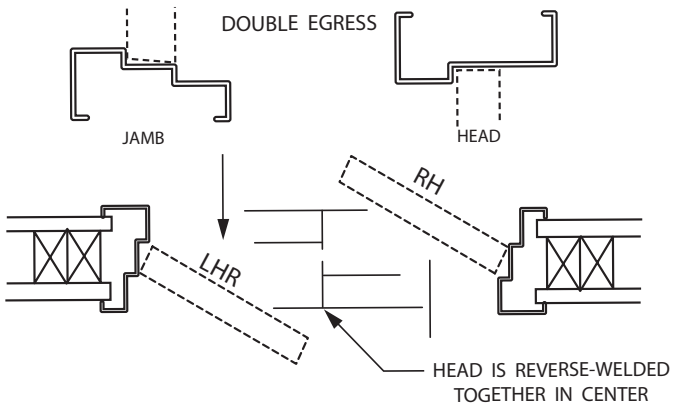
The use of double acting hinges, pivot sets, floor closers, etc. allow the doors to operate in these scenarios.

NOTE: The hardware specification determines whether doors can be center hung in the frame or offset hung to one side of the frame for a particular required swing.

Uses for Cased opening frames:

- ❑ Casement Trim
  or
- ❑ Emergency Door Stop Hardware

Double egress frame profile is stair-stepped on the hinge jambs, the head is single rabbet and reverse welded together in the center. Double egress openings allow for a means of exit in a corridor situation from either direction of traffic flow. The doors, in most instances, are center hung in the frame profile on hinges and each door (leaf) swings in opposite directions.



NOTE: The handing on double egress frames is usually RH/LHR for ease in exiting a corridor (most people walk on the right side of the hall). Unusual situations may occur that require the opposite handing (LH/RHR).

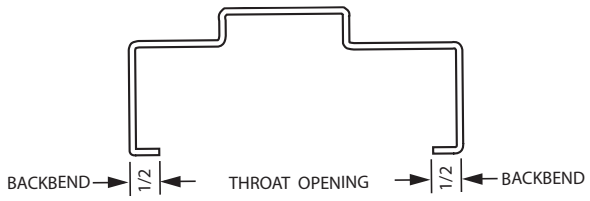
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

M-Series Masonry Frames

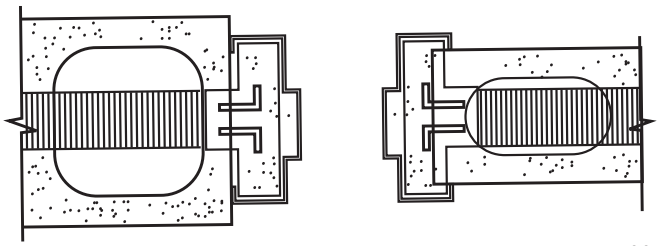
M series frames are identified by its 1/2" backbend. This backbend is standard throughout the industry. An exception is the 5-3/4 inch jamb depth profile that most often has a 7/16 inch backbend. For all CURRIES 5-3/4 inch M series frames, a 7/16 inch backbend is standard. This results in a 4-7/8 inch throat opening on all 5-3/4 inch M series frames.

NOTE: All other M series frame profiles have a throat opening of 1 inch less than the jamb depth dimension.

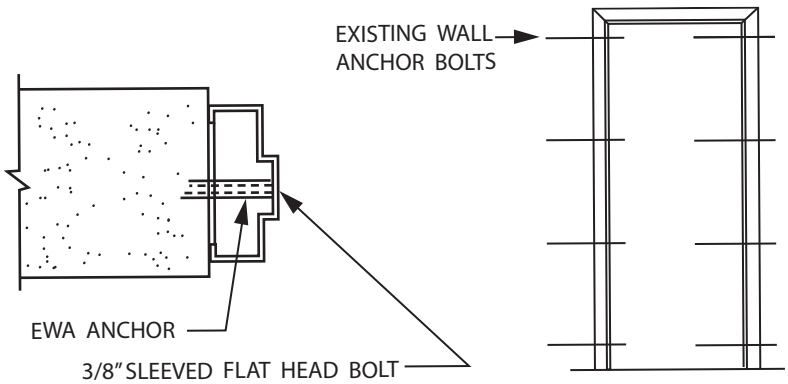


The exception to the M series 1/2" backbend is the 5-3/4" jamb depth.

The M series frame is designed to butt up to or wrap the masonry block walls. See the drawing below.



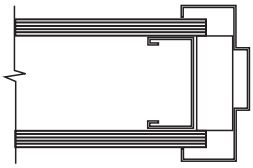
An existing wall construction (precast concrete) is another place for using the M series frame. This installation has the wall opening in existence and the frame butts to the wall and is bolted into place with anchor bolts.



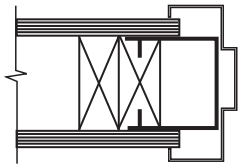
Some specifications require the use of M series frames in wood stud or metal stud type wall construction. Various types of stud combinations and wall coverings result in a wide range of wall thickness' used in today's construction. For instance, a typical 3-5/8 inch metal stud, with one layer of 5/8 inch sheetrock on each side, results in a wall thickness of 4-7/8 inches. This is the most popular wall size currently used and that is why the 5-3/4 inch frame with 7/16 inch backbend has a 4-7/8 inch throat opening.

Why does the 5-3/4" frame with 7/16" backbend have a 4-7/8" throat opening?

The wall construction combinations, as shown below, are detailed on the architectural plans and this determines the jamb depth of the frame for each opening.



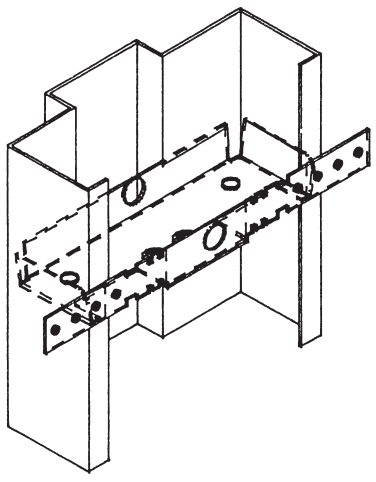
CHANNEL STEEL STUD
WITH 5/8" SHEETROCK



2 X 4 WOOD STUD
WITH 5/8" SHEETROCK

CURRIES K.D. M series offers flexibility to wrap any wall thickness, that may be specified, by making available a minimum jamb depth of 3 inches with a 2 inch throat up to 14 inch jamb depth with a 13 inch throat on 1/8 inch increments.

NOTE: Anchors for the M series frames are available for all of the common wall construction types. The multipurpose anchor (M.P.) is by far the most popular as it can be used in woodstud, metalstud, wiretruss, or existing wall frame installations.



Hollow Metal Frames

Product Guide

January, 2008

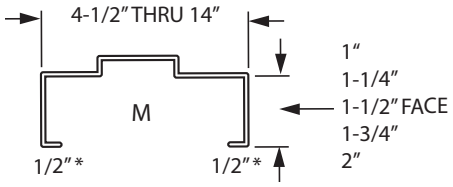
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

CURRIES offers a variety of K.D. M series frames face dimensions, they are:

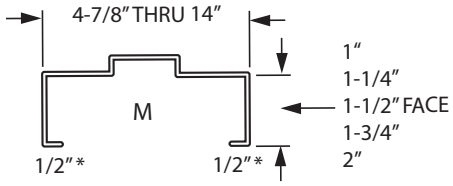
- 1"
- 1-1/4"
- 1-1/2"
- 1/34"
- 2"

NOTE: These narrow face frames are available in jamb depths ranging from 4-3/4 inch to 14 inches K.D.



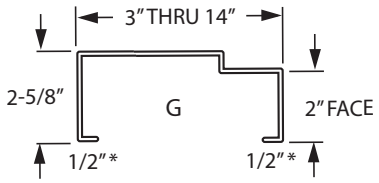
4" face heads available with 2" face jambs only.

Unequal rabbet
1-9/16" x 1-15/16"



4" face heads available with 2" face jambs only.

Equal rabbet
1-9/16" x 1-9/16"
or
1-15/16" x 1-15/16"



Single rabbet
1-9/16" or 1-15/16"

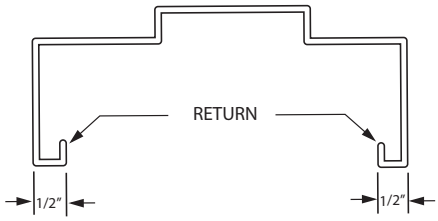
*** 1/2" backbend on all jamb depths, <u>except</u> 5-3/4" jamb depth which has a 7/16" backbend.**

NOTE: K.D. M series masonry frames are available in 18, 16, and 14 gauge steel. Cold rolled and galvanealed steel are the available steel types.

C-Series Drywall Frames

C series drywall profile frames are easily identified by an additional backbend return extending into and parallel to the throat opening. This frame profile is primarily used to wrap the wall and is installed after the walls have been built. The additional backbend return aids in slipping the frame over the wall during installation.

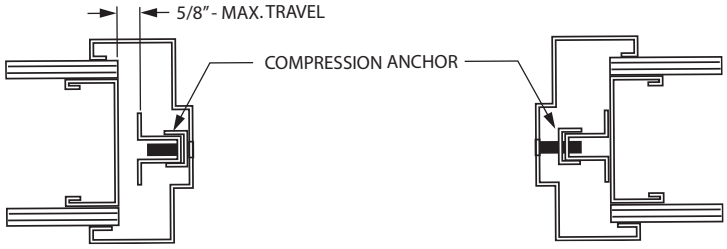
C-SERIES DRYWALL FRAMES



NOTE: Drywall frames are designed to fit snugly over the wall.

C series K.D. drywall frames can be installed in a matter of minutes. These frames have what is termed a "compression anchor system" allowing the frame to be pressure fit into the rough opening. Frame corners are mitered and coped to provide a rigid interlock between the head and the jamb members. The compression anchor is located near the top of each jamb. As the anchor screw is adjusted, the pressure bar contacts the wall and exerts a pressure from the jamb onto the head. This locks the head into place along with securing the top of the jambs in the wall opening.

Compression Anchor System



When the compression anchors are contacting the wall a preliminary squaring of the frame is done before the bottom base anchors are installed. CURRIES provides a dimpled hole on the frame face for installation of a screw through the face into the sill runner in the wall system. Final frame squaring adjustments are made by adjusting the frames squareness with the compression bars on each jamb. See the drawing at the top of the next page.

NOTE: An "optional" strap type base anchor is available in lieu of the punch and dimple base.

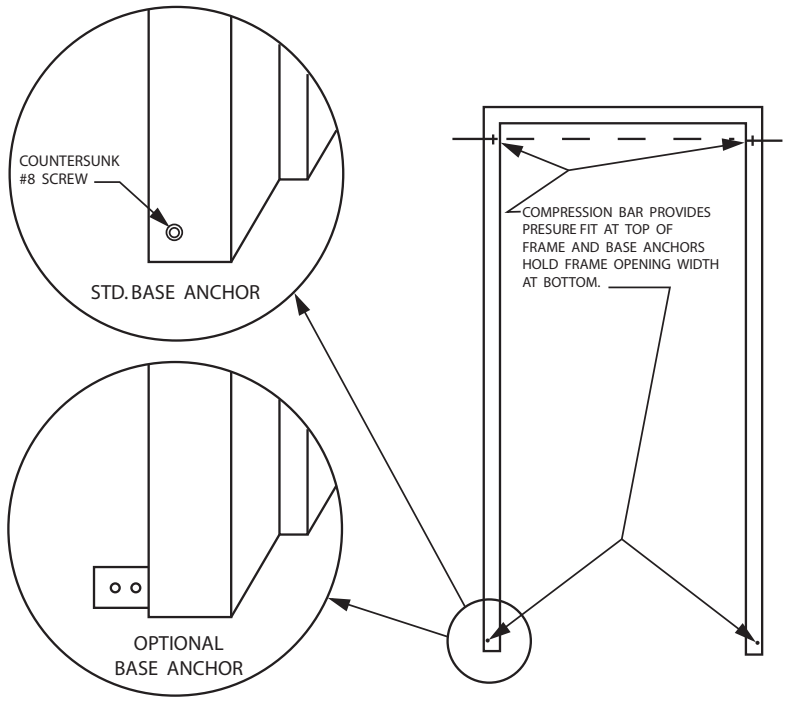
Hollow Metal Frames

Product Guide

January, 2008

CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions



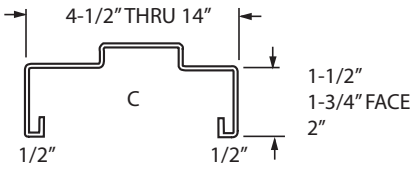
Reference Manuals:

- ❏ CURRIES Installation & Trouble Shooting
- ❏ Architects Technical Data

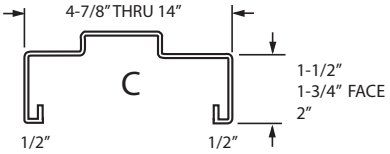
The wall rough opening dimension is critical for the proper installation of drywall C series frames. For detailed rough opening dimensions and installation instructions please refer to the CURRIES Installation and Trouble Shooting Manual or the Architects Technical Data Manual.

CURRIES K.D. C series frames are available in a wide range of jamb depths and profiles. Jamb depths are available in 1/8 inch increments from 3 inches through 14 inches with face dimension variables of 1-1/2", 1-3/4", and 2" standards. Four (4) inch face heads are available for 2 inch face jambs profiles.

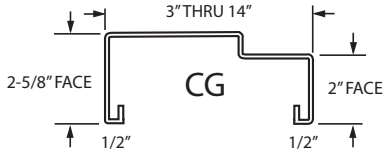
NOTE: C series frames are available in 14, 16, and 18 gauge cold rolled or galvanealed steel.



Unequal rabbet
1-9/16" x 1-15/16"



Equal rabbet
1-9/16" x 1-9/16"
or
1-15/16" x 1-15/16"



Single rabbet
1-9/16" or 1-15/16"

CM - Series Drywall/Masonry Frame Profile

CURRIES CM series frames are manufactured within the same K.D. parameters as the C series frames. CM frames do not have compression anchors or base anchors in the jambs, instead a foot clip is welded in the bottom of each jamb. These frames are installed in the same manner as a masonry M series frame (as the wall is being built).

NOTE: CURRIES recommends the use of the CM profile frames with a welded frame corner construction.

Sheetrock installers find it easier to install the drywall because of the additional backbend return in the frame throat of the CM series frame. This installation process provides a cleaner line appearance between the edge of the frame and the sheetrock on the finished product.

CM series frame eases the installation of drywall.

CCW — CURRIES Custom Weld

CCW is CURRIES' terminology for "stick" type frame material manufactured in 10'6" lengths. These "stick" lengths can be modified by the distributor to assemble sidelights, windows, and etc.

NOTE: An advantage is the cut and notch program for CCW. CURRIES will cut to the exact length, notch and fit individual stick lengths for frame elevations.

C.C.W. Identification
Product Guide

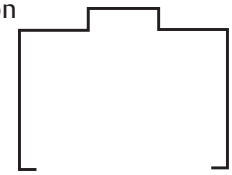
January, 2008

CURRIES
ASSA ABLOY

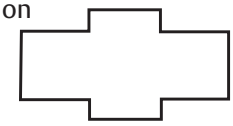
ASSA ABLOY, the global leader
in in door opening solutions

C.C.W. 21, 2" face
Open section
Blank

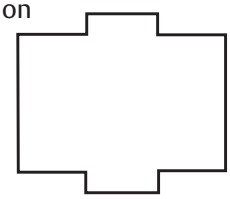
C.C.W. 23, 4" face
C.C.W. 115, 6" face
C.C.W. 117, 8" face - 10' max.
Open Section
Blank



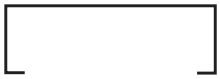
C.C.W. 16, 2" face
Closed Section
Blank

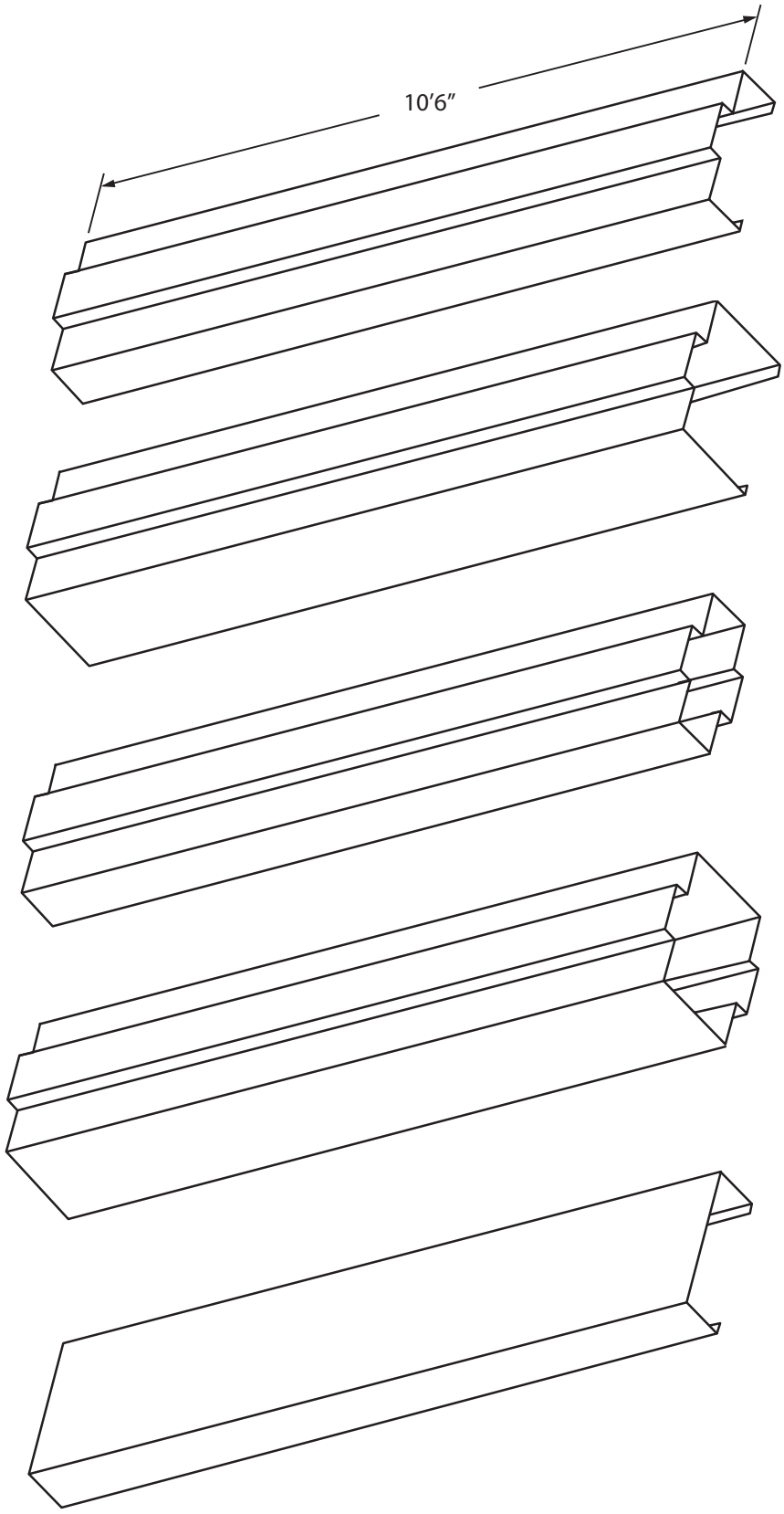


C.C.W. 17, 4" face
C.C.W. 18, 6" face
C.C.W. 50, 8" face - 10' max.
Closed Section
Blank



C.C.W. 40, 2" face
C.C.W. 20, 4" face
Cased Opening
Blank

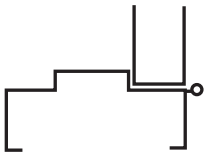


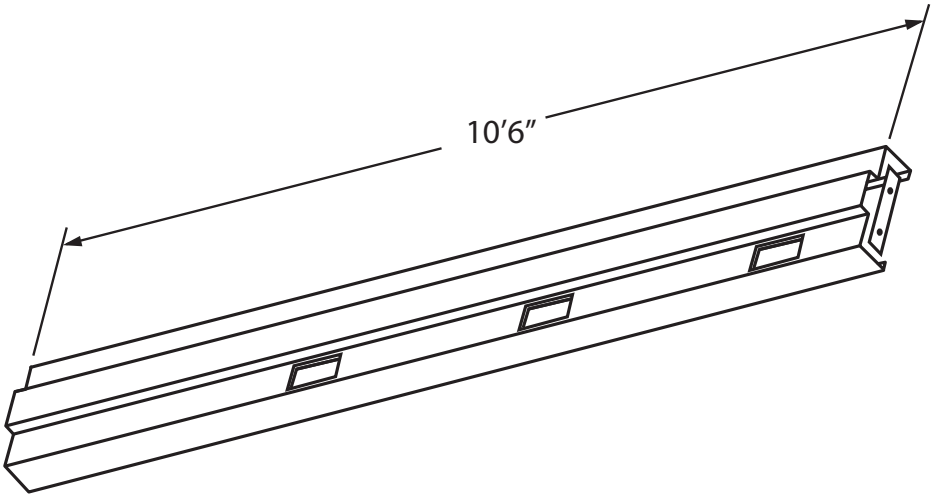


C.C.W. Identification
Product Guide

C.C.W. 24, 6'8" location
3 hinges
C.C.W. 25, 7'0" location
3 hinges
C.C.W. 39, 7'2" location
3 hinges

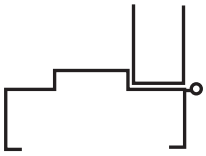
Open Section
Hinge Rail

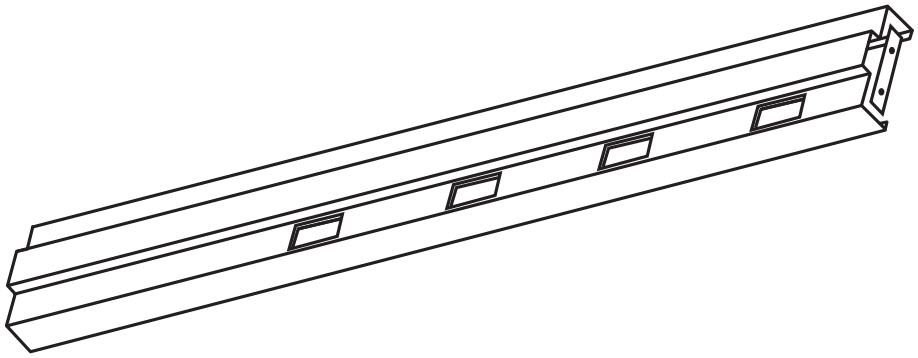




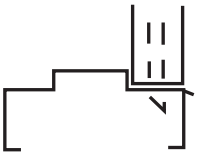
C.C.W. 62, 7'10" location
4 hinges
C.C.W. 63, 8'0" location
4 hinges
C.C.W. 119, 9'0" location
4 hinges
C.C.W. 120, 10'0" location
4 hinges

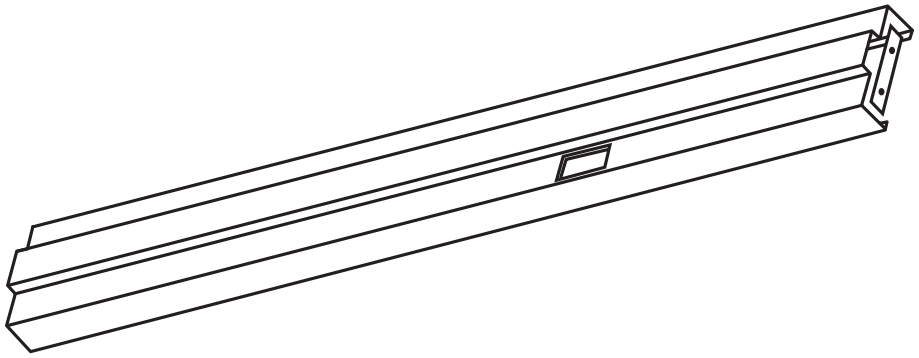
Open Section
Hinge Rail





Open Section
Strike Rail





All strike locations 40" ℄, if punch C.C.W. 26 silencers required— door height must be known.

NOTE: Foot clips welded in bottom.

C.C.W. Identification

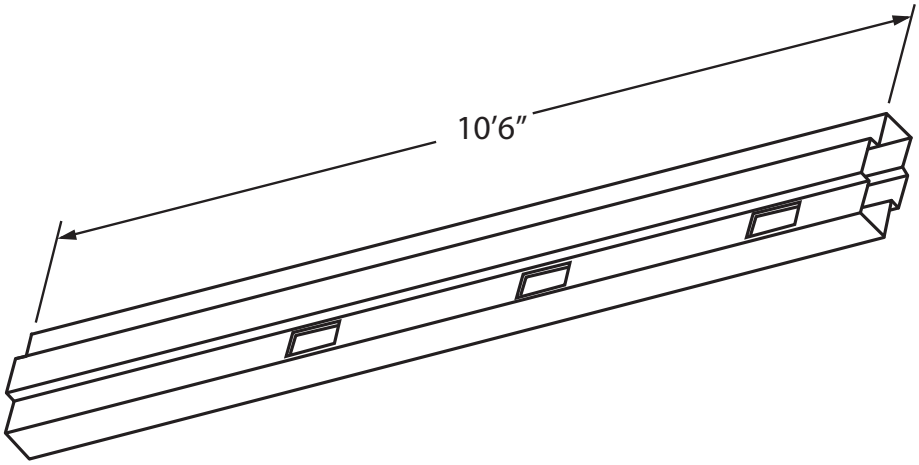
Product Guide

January, 2008

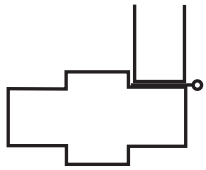
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

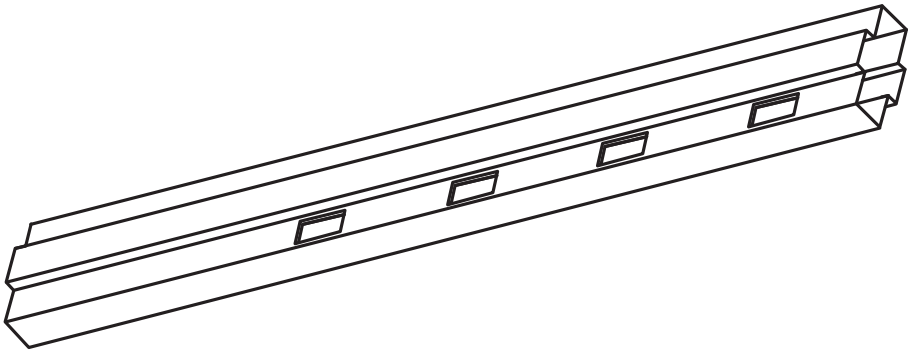
C.C.W. 42, 6'8" location
3 hinges
C.C.W. 43, 7'0" location
3 hinges
C.C.W. 44, 7'2" location
3 hinges



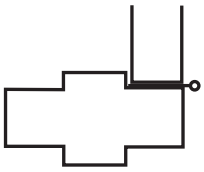
Mullion
Closed Section
Hinge Rail



C.C.W. 81, 7'10" location
4 hinges
C.C.W. 82, 8'0" location
4 hinges
C.C.W. 133, 9'0" location
4 hinges
C.C.W. 134, 10'0" location
4 hinges

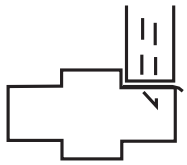


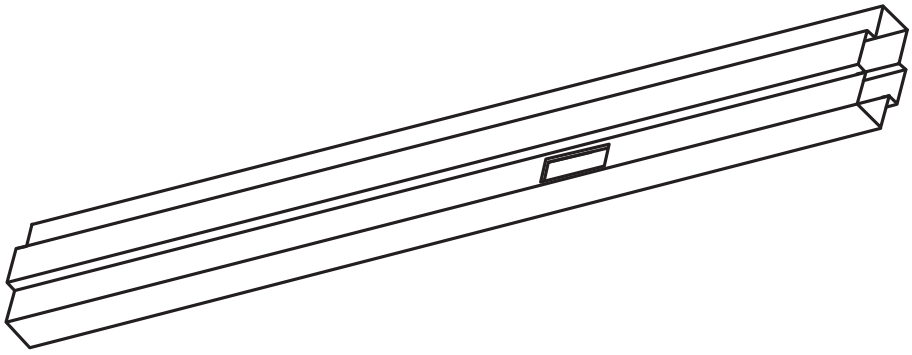
Mullion
Closed Section
Hinge Rail



C.C.W. 41

Mullion
Closed Section
Strike Rail





All strike locations 40" ℄, if punch C.C.W. 26 silencers required— door height must be known.

NOTE: Mullion stirrup anchors included — shipped loose.

C.C.W. Identification
Product Guide

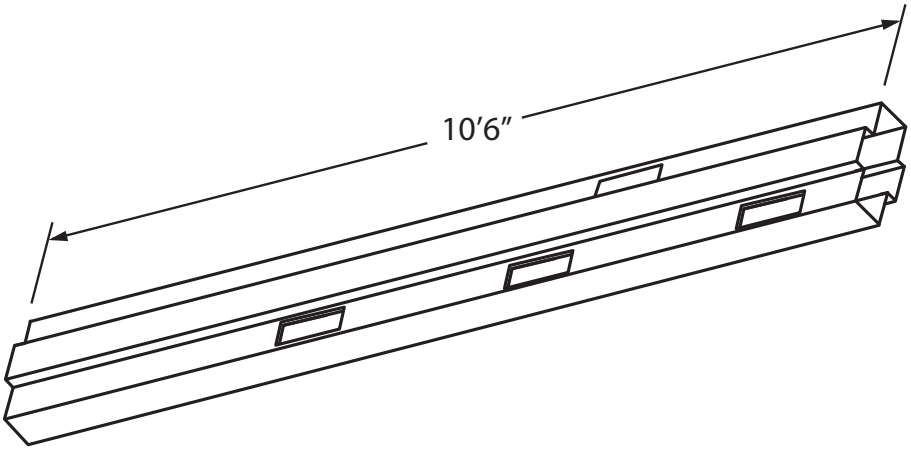
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

January, 2008

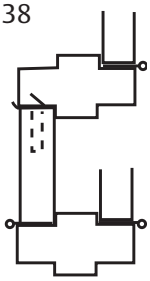
C.C.W. Numbers:

45	46	47	83
84	85	86	87
88	89	90	135
136	137	138	

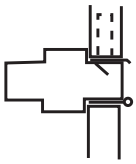


Mullion
Closed Section
Combination Rail

All standard
doors heights

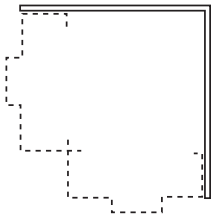


Double hinge,
double strike or
hinge and
strike combinations

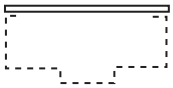


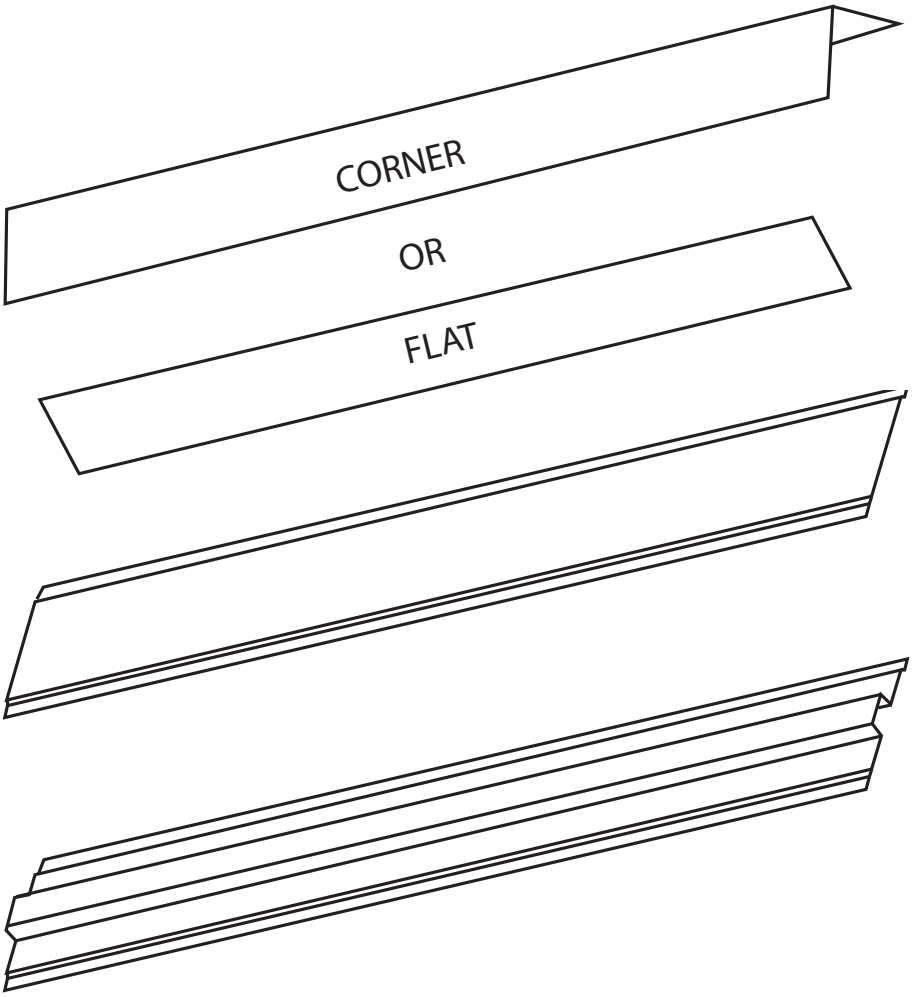
NOTE: Mullion stirrup anchor included — shipped loose, with mullions having hardware preparations.

C.C.W. 19

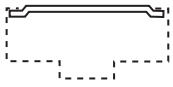


Cover Plate

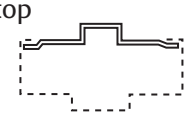




C.C.W. 27
Filler Plate without Stop



C.C.W. 22
Filler Plate with Stop



C.C.W. Identification
Product Guide

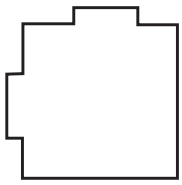
January, 2008

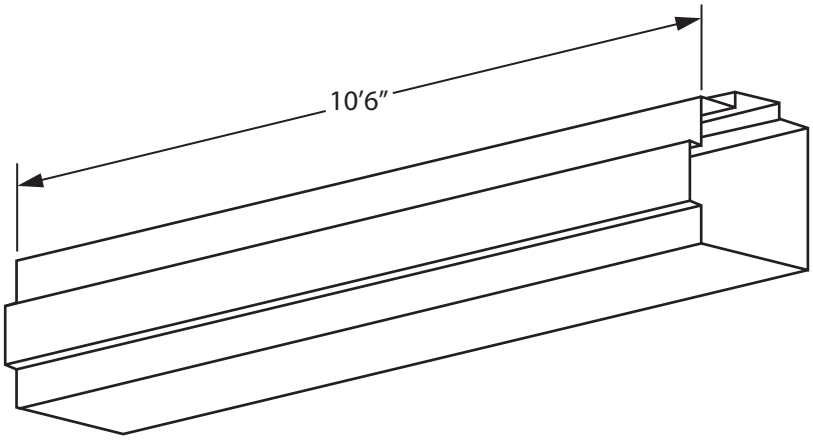
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

C.C.W. 51
C.C.W. 52

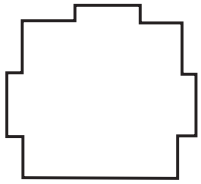
2 Way Corner

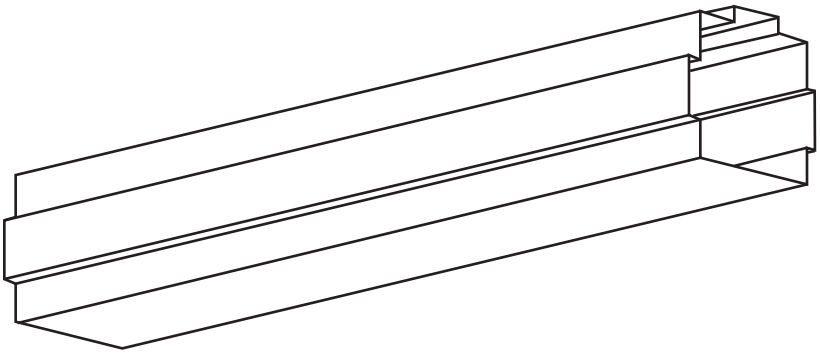




C.C.W. 53
C.C.W. 54

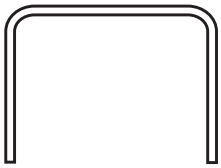
3 Way Corner

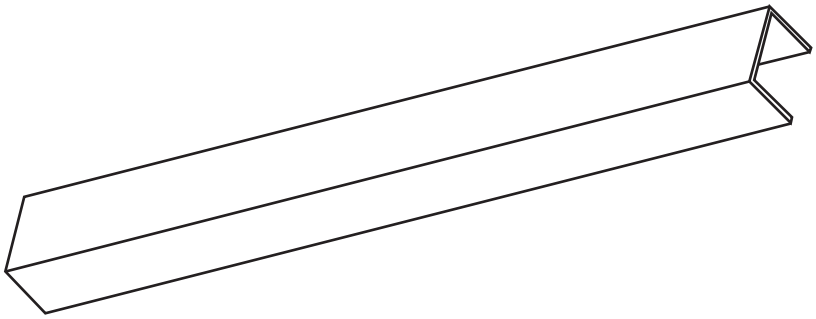




C.C.W. — Various
See Price Manual

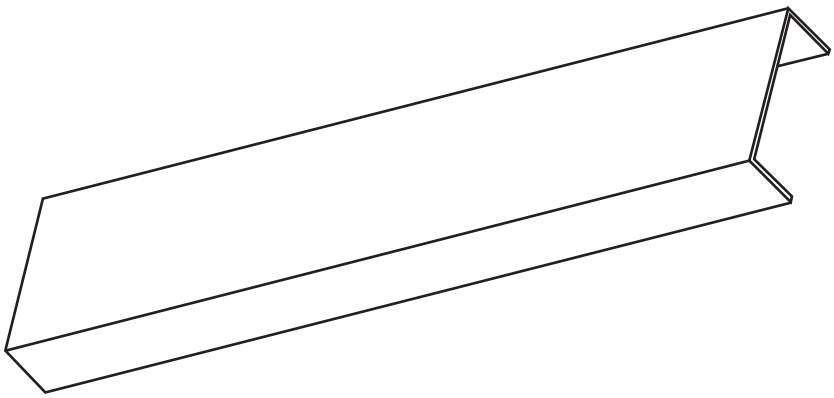
Glass Stop



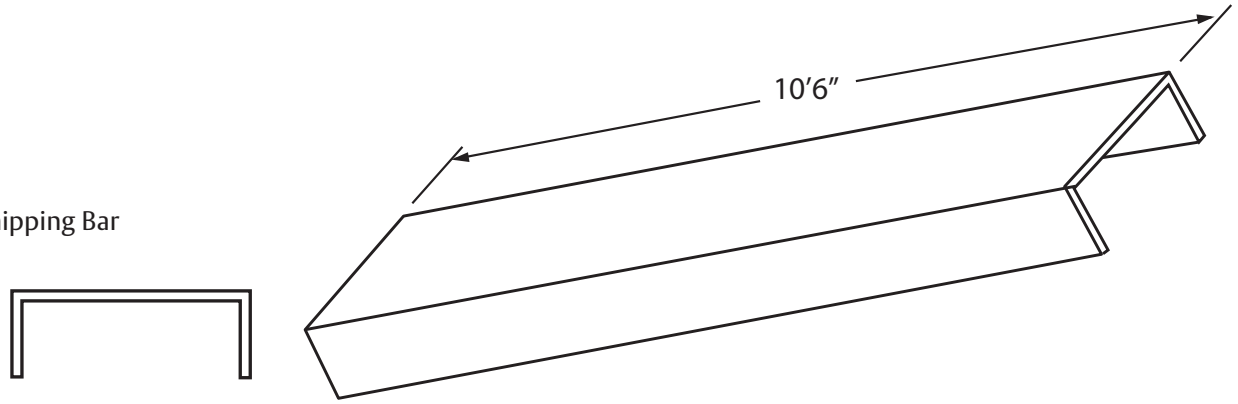


C.C.W. — Various
See Price Manual

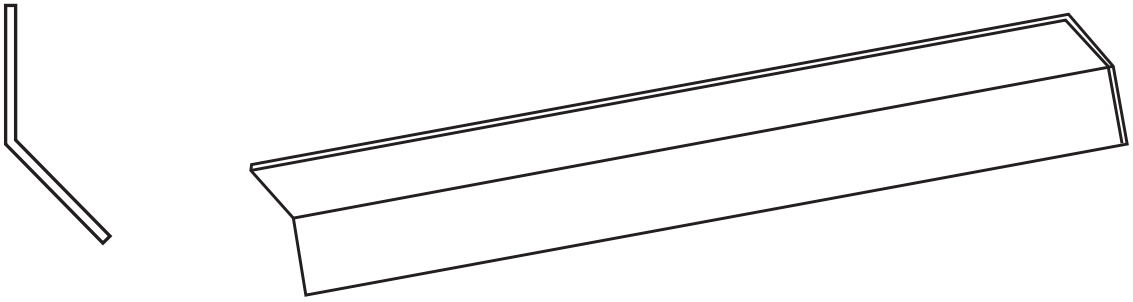
Soffit Stop



C.C.W. 111
Spreader Shipping Bar



C.C.W. 112
Drip Cap



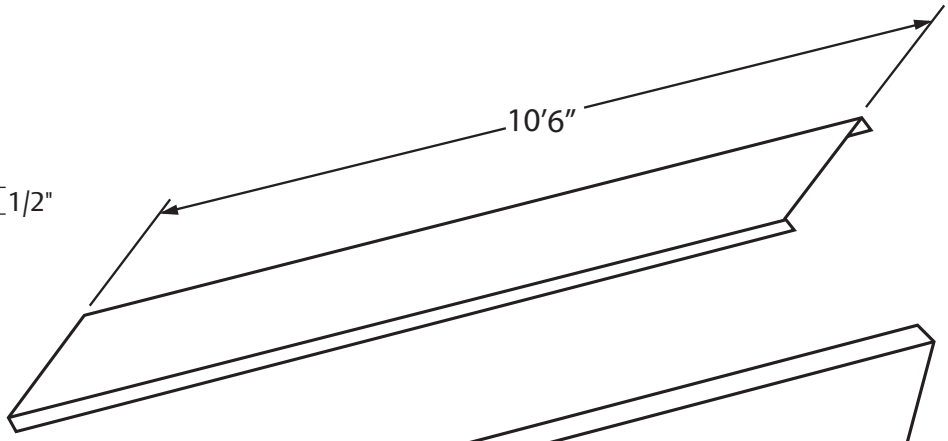
C.C.W. Identification
Product Guide

January, 2008

CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

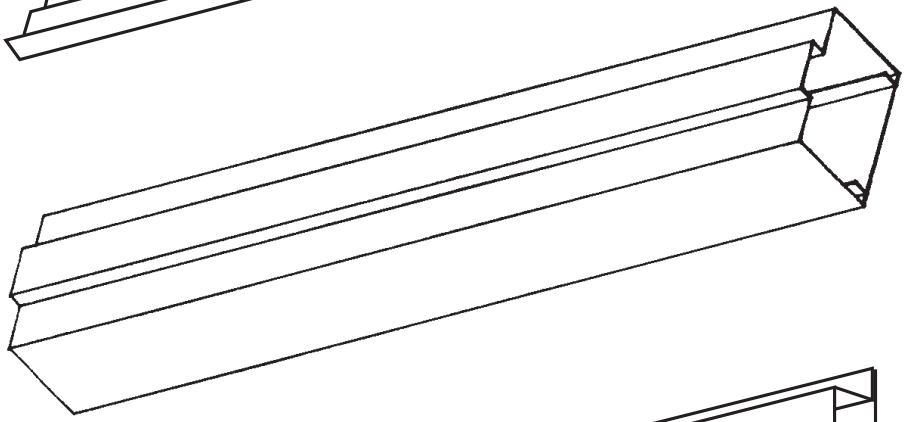
C.C.W. 29
Head Cap

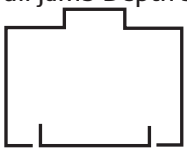


C.C.W. 91
Channel Head Reinforcement

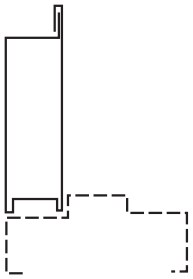
C.C.W. 92
Full Width Head Reinforcement

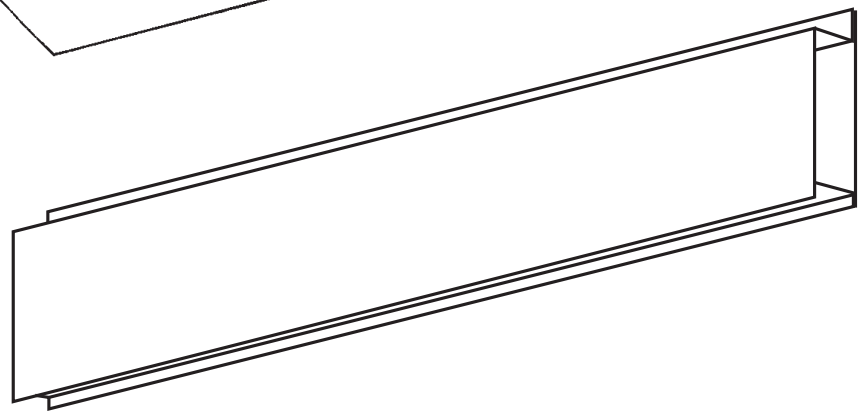
C.C.W. 28, 4" face
Full Jamb Depth
C.C.W. 139, 6" face
Full Jamb Depth
C.C.W. 140, 8" face - 10' max.
Full Jamb Depth
C.C.W. 55, 6-13/16" face
Full Jamb Depth Sills



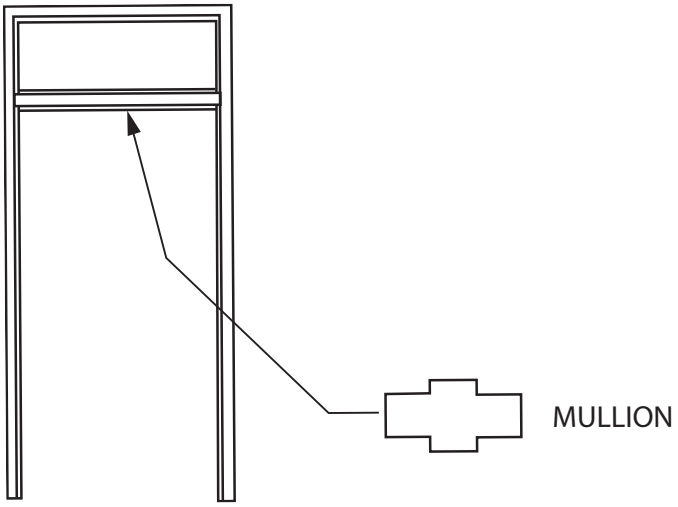


C.C.W. 48
C.C.W. 49
Recessed Sill

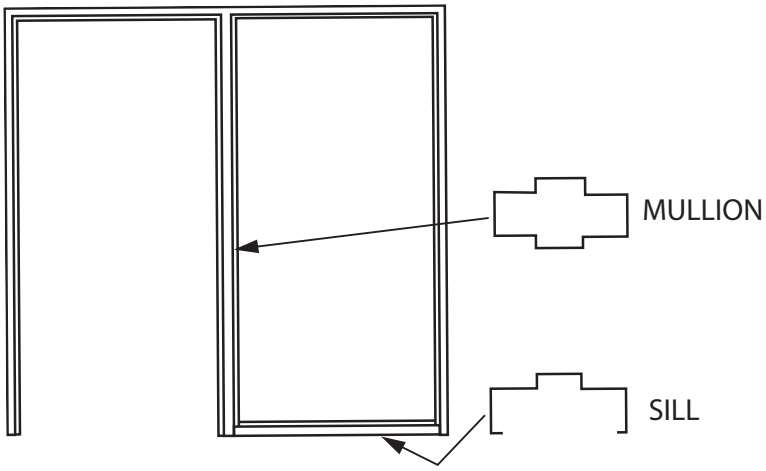




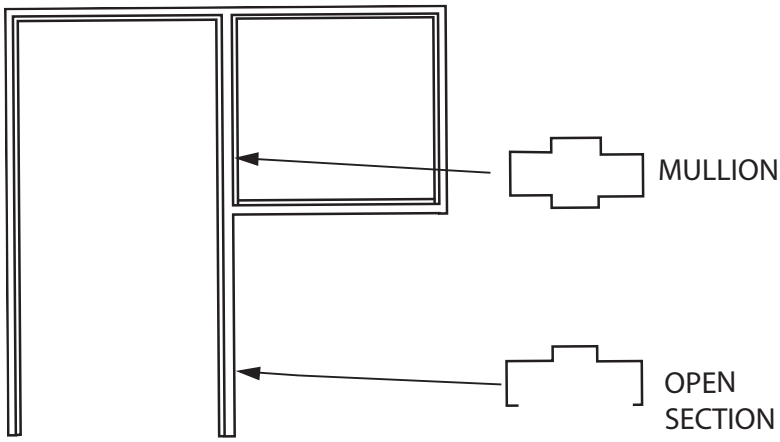
Transom Frame
3 sided frame with mullion (3FM)



Sidelite Frame (SL)



Half Sidelite Frame(SL)



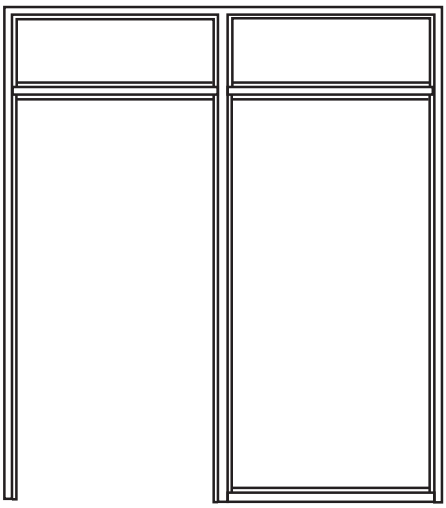
C.C.W. Identification
Product Guide

January, 2008

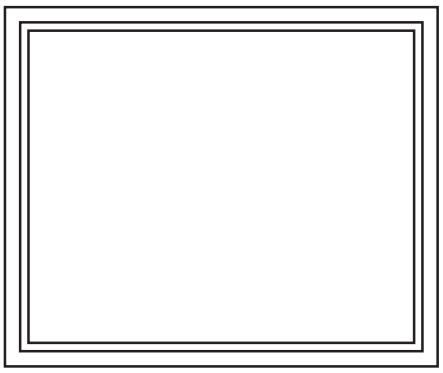
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

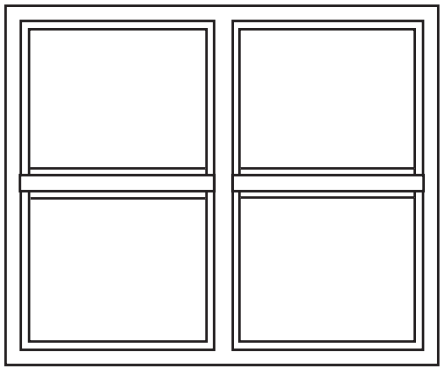
Transom Sidelite Frame
(SL)



Borrow Lite Frame (BL)



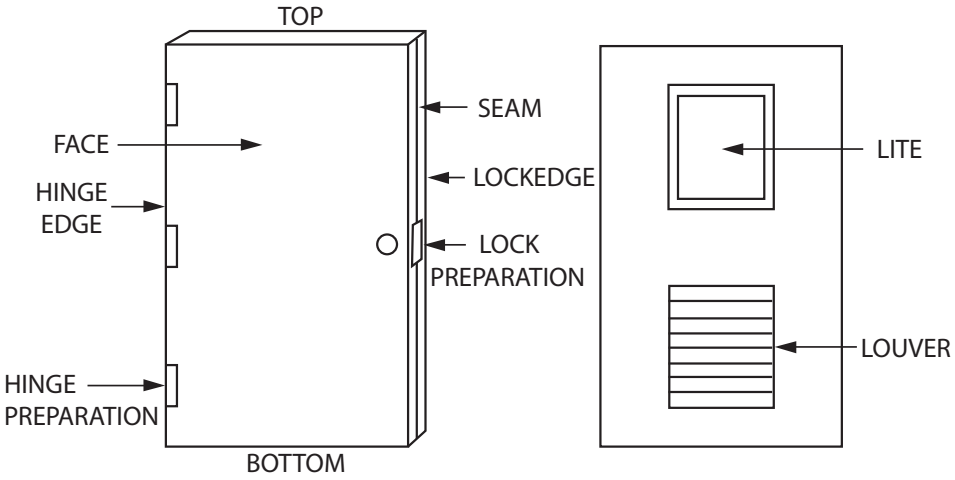
Borrow Lite Frame (BL)



Hardware Preparation

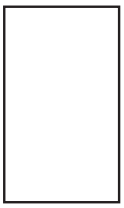
Swinging steel doors are generally referred to as hollow metal doors. Swinging can be defined as being hinged from one side of the door allowing the door to open and close.

Hollow metal doors are constructed of two sheets of metal formed for the the appropriate door size and stiffened in the middle of the door by a core material (i.e., steel stiffeners, polystyrene core, or composite core board). The doors are assembled with various components for the top, bottom and edges of the door. Basic door terminology is shown below.



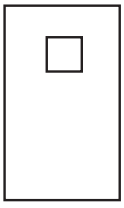
FACE TYPES

"F"



F - Flush doors are constructed with blank faces. No provisions are made for lites or louvers.

"FV"



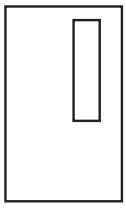
FV - Vision lite doors are prepared for a 10" x 10" visible* glass size lite kit installed in the door. CURRIES' preparation includes the lite kit but not the glass or glazing. Sizes other than 10" x 10" are available. Standard location is centered 65" above the floor line.

***Visible glass is defined as the clear (see through) glass exposed from the window preparation.**

CURRIES
ASSA ABLOY

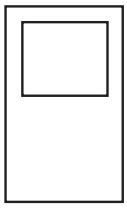
ASSA ABLOY, the global leader
in in door opening solutions

"FNV"



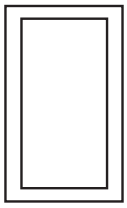
FNV - Narrow vision lite doors are prepared for long narrow lites of varying visible glass sizes and are located on the lock edge side of the door, approximately 6" in from the lock edge. CURRIES offers 10 standard size narrow lites.

"HG"



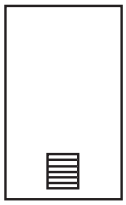
HG - Half glass lite doors are prepared for a lite that covers approximately the top half of the door. Standard sizes will vary with door size. Standard location is approximately 7-3/4" down from the top of the door to visible glass size and 6" in from the edge of the door to the visible glass size.

"FG"



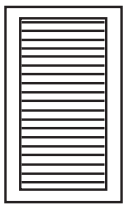
FG - Full glass lite doors are prepared to receive a glass lite covering the majority of the door face. Standard location is approximately 7-3/4" down from the top of the door, 6" in from the door edges, and 12" above the finish floor line on the bottom of the door.

"FL"



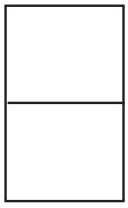
FL - Louvers are defined as an opening in the door face with a series of slats, blades, or piercings to allow passage of air. FL doors have a single louver located in the bottom of the door. CURRIES' standard louver is a fixed blade type that is rim mounted on the door face. Locations and sizes vary.

"FGL"



FGL - Full glass size louver. This is a door with a full louver similar to the full glass size.

"FD"



FD - Flush dutch doors are actually two separate doors. One occupies the bottom half of the frame opening and the other occupies the top half of the frame opening. Each operate independently and the bottom door can be furnished with a shelf.

Many face type combinations are available, for example:

- **FVL** 10 x 10 lite with a louver.
- **HGL** Half glass lite with a louver.
- **FDL** Dutch door with a louver.

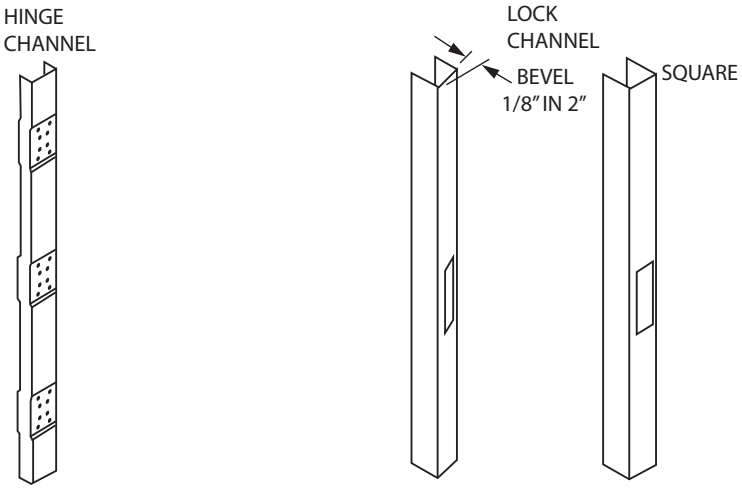
NOTE: Refer to CURRIES' Door Type Chart or Architects Technical Data Manual to view all of the available face type combinations.

Vertical Door Edge

The **hinge edge** of a CURRIES door is square and measures 1-3/4" for 1-3/4" thick door and 1-3/8" for a 1-3/8" door. CURRIES hinge edge has a continuous channel reinforcement the full height of the door. The channel is 14 gauge steel or on a special order, 12 gauge steel.

Hinge edge
- ❏ Square
- ❏ 1-3/4" for 1-3/4" thick door
- ❏ 1-3/8" for 1-3/8" thick door
- ❏ Continuous channel — full height of the door

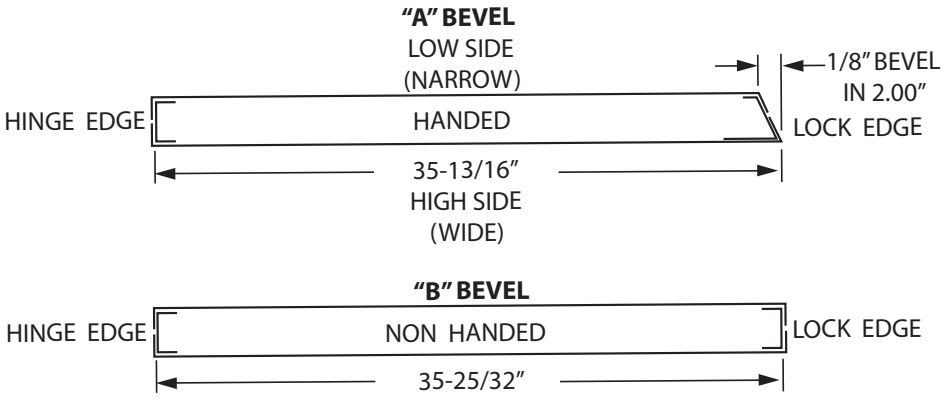
NOTE: The channel itself is offset to receive the proper hinge size and number of hinges required (at the proper locations) on the door.



The **lock edge** of a CURRIES door is reinforced with a 14 gauge channel the full height of the door. A standard handed door lock channel is beveled 1/8" in 2" on the door edge. A standard non handed door lock channel is square on the lock edge. The non handed door lock edge is square to allow the use of it to be either right hand or left hand depending upon how the hinges are mounted on the hinge side.

Lock edge
- ❏ Square — non handed door ("B" bevel)
- ❏ Beveled 1/8" in 2" — handed door ("A bevel")
- ❏ Continuous channel — full height of the door

NOTE: The non handed door is slightly narrower in width than the handed door.



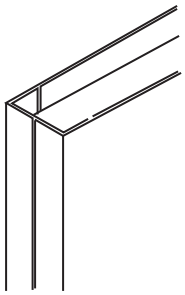
Hollow Metal Doors
Product Guide

January, 2008

CURRIES
ASSA ABLOY

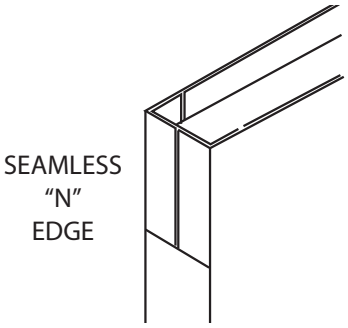
ASSA ABLOY, the global leader
in in door opening solutions

CURRIES has available three types of **edge seams.** The standard edge seam is the **"S"** edge which is an exposed seam or gap between the two sheets of steel that form the door faces. This seam occurs on the center of the door edges.

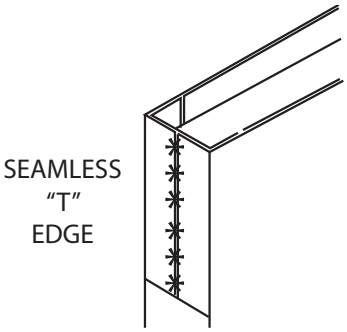


3 Types of Edge Seams
- ❑ "S"
- ❑ "N"
- ❑ "T"

The **"N"** edge is a seamless door with additional welds, ground smooth then filled to conceal the seam.



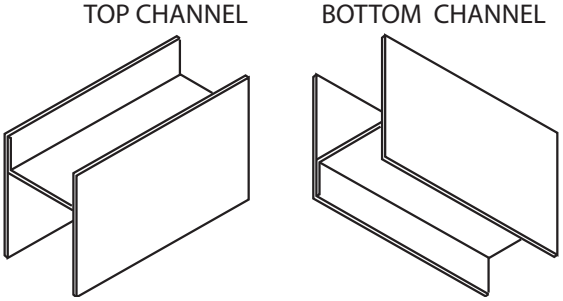
The **"T"** edge has the seam continuously welded the full height of the door, ground smooth and filled to conceal the weld.



Inverted Channels

Tops and bottoms of doors have **inverted channels** welded to the two face sheets. This gives the door a "closed" top and bottom channel construction that meets the designation of many specifications.

NOTE: Closed flush requires that a top cap be installed into this channel.



Actual Door Sizes

Doors are sized to fit nominal frame openings. For example: A 3'0"7'0" frame opening requires a nominal 3'0"7'0" doors.

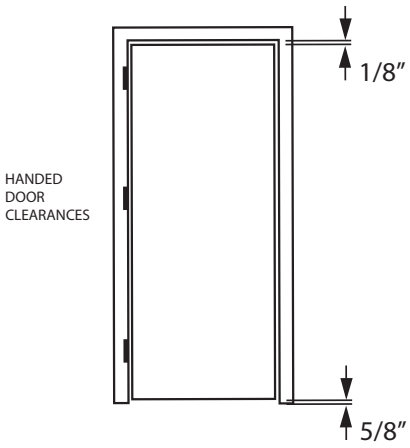
NOTE: Sizes are always listed in feet and inches for width and height.

The actual **net** door size for a handed 3070 door will be 35-13/16" wide x 83-1/4" high. The undersize requirements are built into the door to provide proper operation of the door. The non handed 3'0" wide door measures 35-25/32" wide. Extra clearance is required because of the square lock edge.

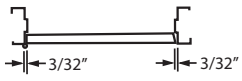
CURRIES' standard door undercut is 5/8" for 1-3/4" thick doors and 3/4" for 1-3/8" thick doors.

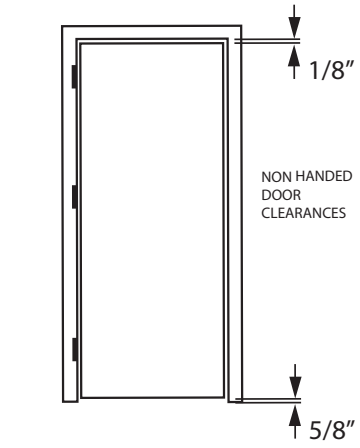
The top of the door is undersized 1/8" to allow for clearance between the door and the frame. The bottom of a standard door is undercut 5/8" to allow for threshold or carpet clearances. The CURRIES standard bottom undercut is 5/8" for 1-3/4" thick doors and 3/4" for 1-3/8" thick doors.

NOTE: Variations on bottom undercut will occur as hardware and jobsite conditions dictate.

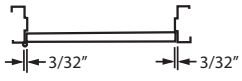


Single - beveled lock edge "A"

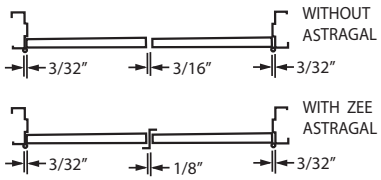




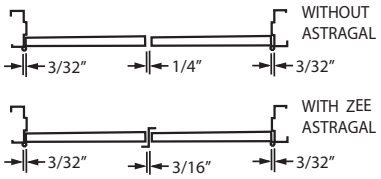
Single - square lock edge "B"



Pair Handed - beveled edge "A"



Pair Handed - square edge "B"



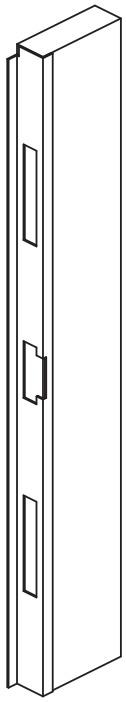
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

Astragals

Note the astragal of the pairs of doors (drawing on page 27). An astragal is a metal plate attached to one leaf of a pair of doors that overlaps onto the opposite door to cover the gap between the meeting edges of the pair. It also provides protection against weather, light, vandalism, and retards the passage of smoke and flame.

NOTE: CURRIES' "Z" (Zee) astragal as detailed, is commonly used on the inactive leaf of a pair of doors. However, the Z astragal does not provide security for the latchbolt on outswinging installation.



"Z" (Zee) Astragal

Inactive Leaf & Active Leaf

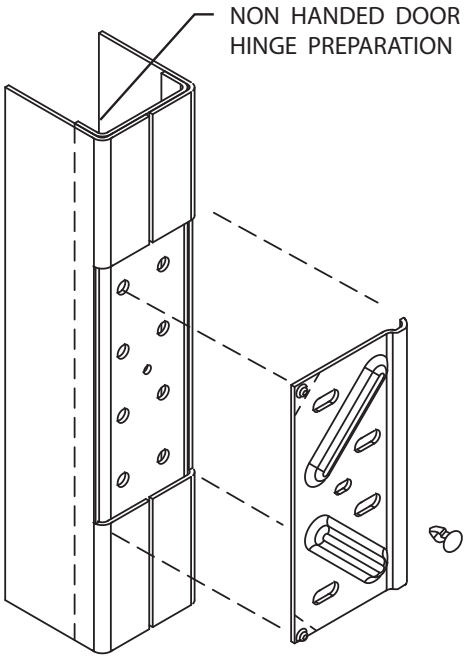
The **inactive leaf** is the door leaf in a pair of doors that is normally held closed by a top and bottom bolt. The **active leaf** of a pair of doors is the door that the locking or latching mechanism has been installed on. The active leaf then latches into the inactive leaf.

Hardware Preparations on the Door

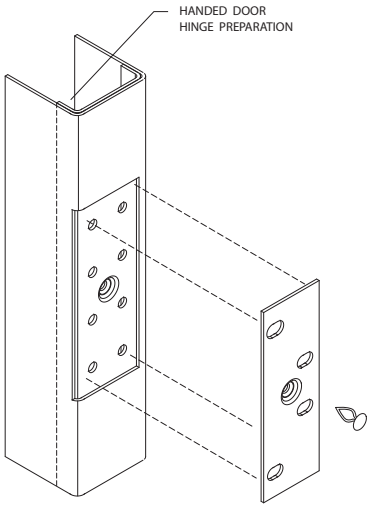
CURRIES' continuous hinge channel is offset for the appropriate hinge thickness and size of the required templated hinge mortise. To accommodate the manufacture of handed and non handed door design, eight screw holes are extruded in the hinge offset in the channel. For the non handed door, eight holes are tapped and for the handed door, four holes are tapped.

NOTE: The non handed door is then furnished with a hinge filler shim that is placed under the hinge when the hinge is mounted in place. This shim permits the use of standard weight hinges.

Removing the knockouts on the shim allows the use of heavy weight hinges.



The handed door is mortised similarly, but the hinge mortise is not cut through both skins. Instead, a 1/4" backset edge is left in the mortise to fill in the gap and provide a hinge pocket. Using the shim, the offset provides a pocket depth for standard weight hinges. Remove the shim and pocket depth is for heavy weight hinge.



Remember to check the hardware schedule against each door on the job.

Hinge size and thickness is determined from the hardware schedule.
On the hardware schedule, each door opening is listed which identifies the usage of specific hardware. This information is available on every opening on a job. By checking the hardware schedule against each door on the job, it can be determined what hardware preparations are required, such as:

- Surface mounted requiring reinforcing only or mortised
- Factory prepared to receive hardware.

The items with specific mortise requirements will be identified by the hardware templates supplied by the hardware manufacturer.

NOTE: Pivots, anchor hinges, and floor closers are other types of hardware used to swing doors.

The most common hinge preparation is the 4-1/2" hinge x .134" deep for standard weight 4-1/2" x 4-1/2" template hinges. 1-1/2" pair hinge (3) is most common for doors up to and including 7'6" high, and 2 pair (4) for doors over 7'6" and up to 10' high.

NOTE: Hinge type, size and thickness will vary with door size and usage. This information must be verified from the hardware schedule.

Surface hinges and continuous hinges usually require special reinforcement.

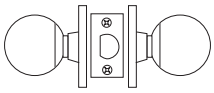
Most surface hinges and continuous hinges do not require factory mortise on the door edges, but usually require special reinforcement built internally into the door. Special door size requirements may also be required and this information is also listed on the hardware templates.

CURRIES
ASSA ABLOY

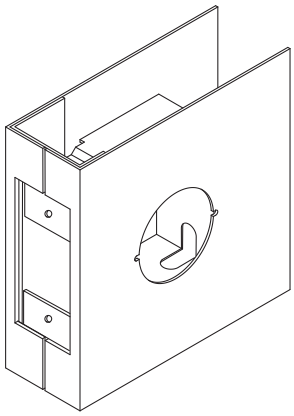
ASSA ABLOY, the global leader
in in door opening solutions

Locks, Latches and Panic Devices

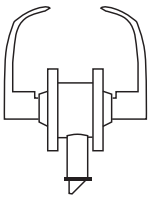
A variety of mechanisms are used to achieve the latching of the door into the frame. The most popular is the **cylindrical lockset** which requires a government standard 161 preparation (ANSI A115.2) mortised into the door face and lock edge. This is CURRIES' standard G2 preparation code.



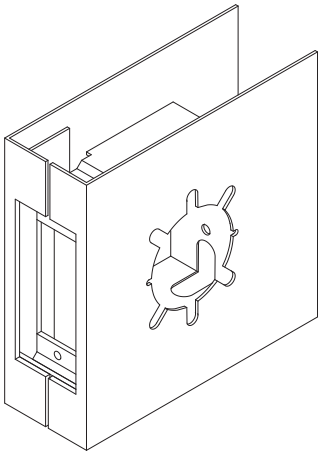
GOV'T 161
G2
CYLINDRICAL LOCK



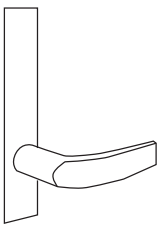
Lever handle locks requiring thru bolted trim holes can be factory prepared for ANSI A115.18 universal preparation using G2B code.



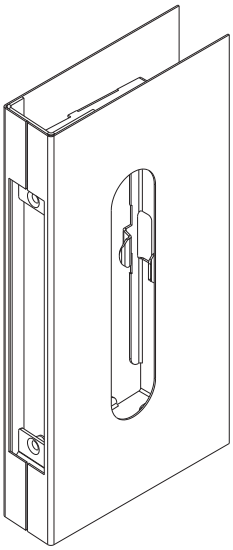
G2B
THRU-BOLT
CYLINDRICAL LOCK



Another common latch is the mortise device government 86 standard mortise preparation (ANSI A115.1). This is CURRIES' standard G3 preparation code.



GOV'T 86
G3
MORTISE LOCK



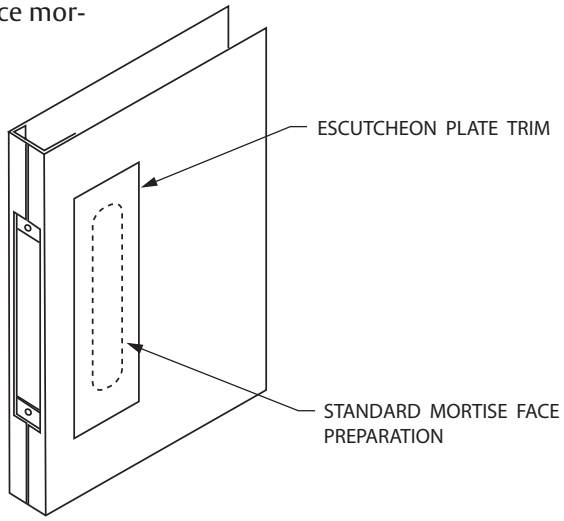
The G2 and G3 standard types of latching devices provide the majority of todays' latch requirements.

Many different "functions" of the latch/lock can occur within these types of locks. The hardware template for a specific device determines the function of the latch/lock, for example:

- Key one side only
- Key both sides
- Thumb turn on one side.

Escutcheon Trim

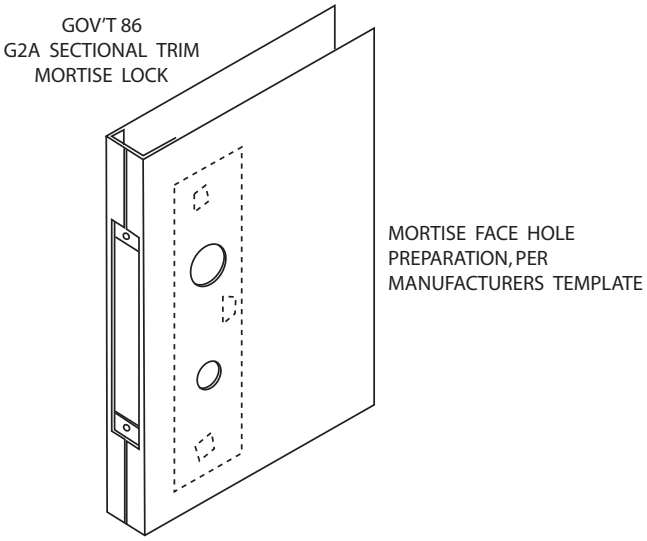
For mortise locks, two types of trim are available for mounting the lock on the face of the door. **Escutcheon trim** is a plate that covers the face mortise on the door. Specific functions of the lock are prepared on this plate. Therefore, a standard face mortise is used as detailed on the G3 drawing.



Sectional Trim

Sectional trim is a rose or ring which supports the cylinder, handle, thumb turn, etc. on the face of the door. Specific trim holes must be prepared for each lock requirement. CURRIES' code for mortise locks with sectional trim is G3A.

NOTE: The mortise lock and function information (i.e., handing or swing of the door) information must be specified.



CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

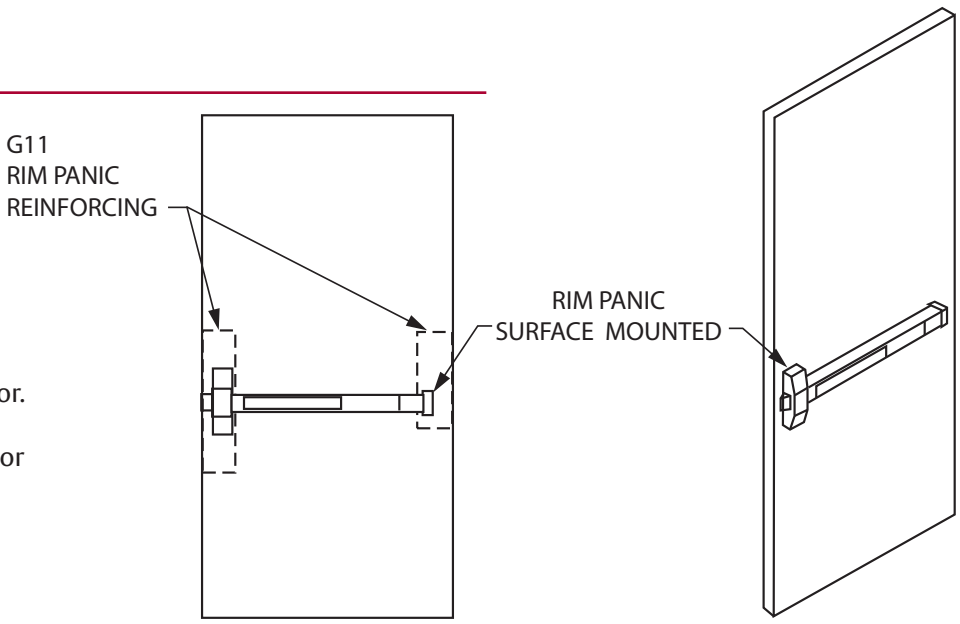
The manufacturers' template information locates specific preparations on the face of the door for each lock function.

Panic Device

Panic device preparations can be full surface mounted or mortise panic mounted. Panic devices are either single point or multiple point latching.

The standard **rim panic device** has a single latch point to the frame and is face mounted on the door.

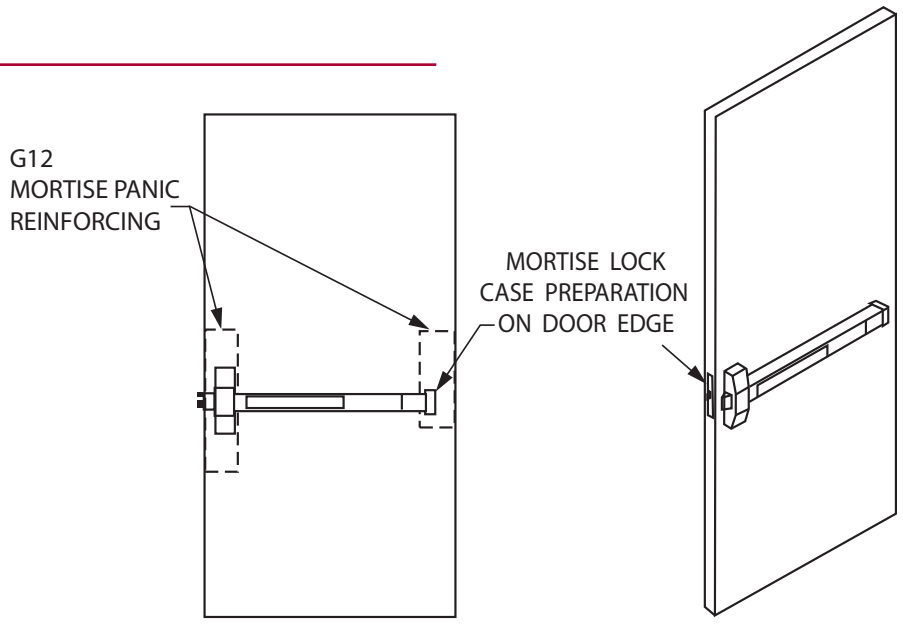
NOTE: Reinforcing is built into the door for rim panic mounting.



Mortise Panic Device

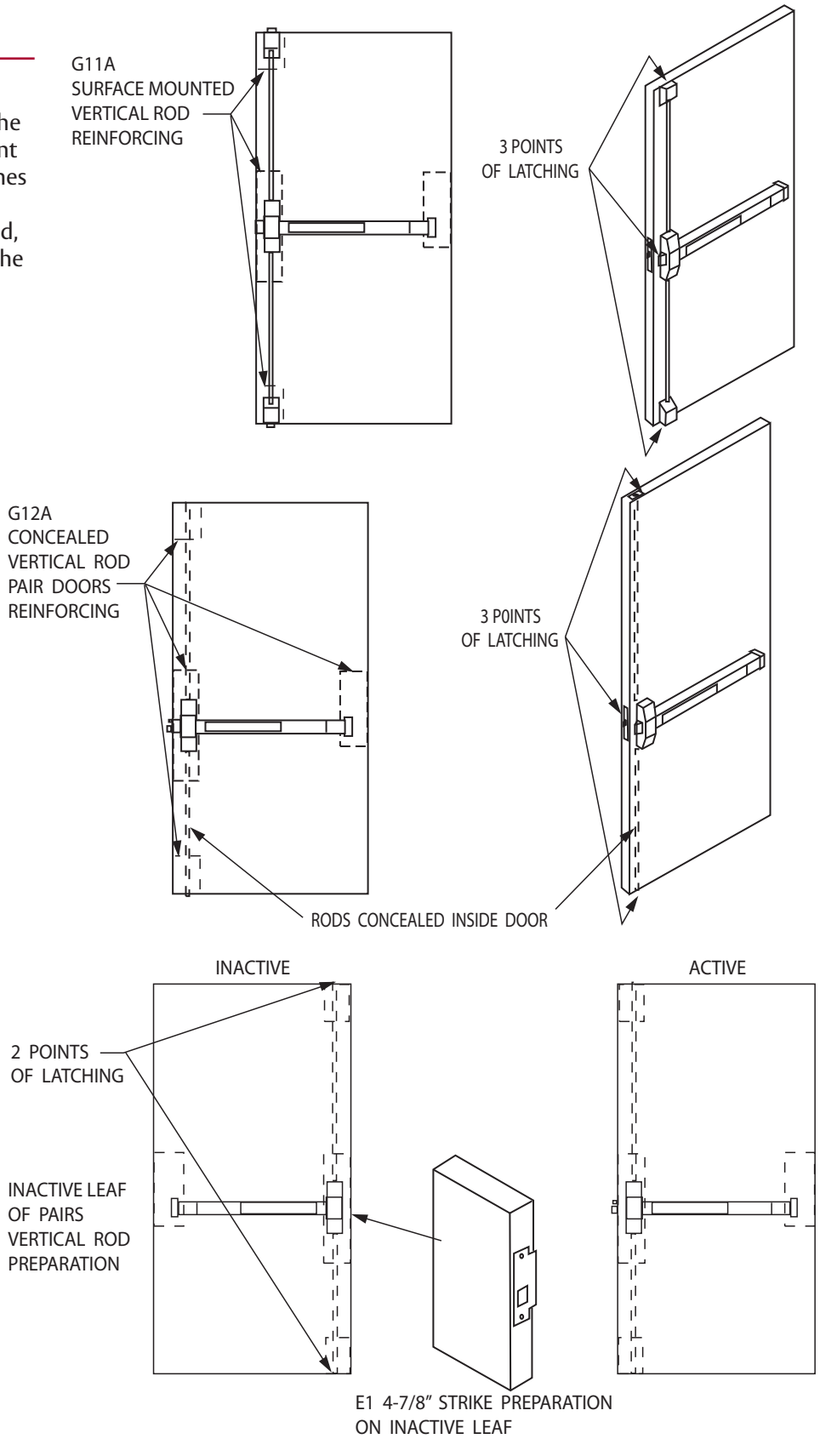
Mortise panic devices combine a mortise lock (a single point latching with the frame) with a panic bar.

NOTE: Doors must be mortised to receive the mortise panic lock case and properly reinforced for mounting the panic bar to the door face.



Vertical Rod Panic Devices

Vertical rod panic devices provide additional means of latching into the frame and the floor. A typical 3 point latch vertical rod panic device latches into the frame or inactive leaf of a pair of doors at the lock, frame head, and floor. A 2 point latch engages the frame, head, and floor.



January, 2008

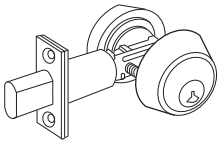
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

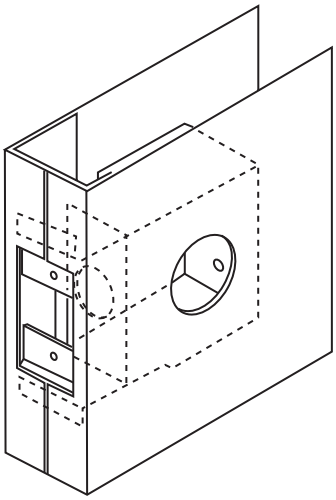
NOTE: Verify with the hardware schedule templates the specific applicatons of the vertical rod panic devices on pairs of doors. Double check bolt latch length, threshold height if any, and required floor clearance because special undercuts on the bottom of the door are usually required. For example, if the bottom bolt has a 1/2" throw and no threshold is used, and the floor strike is mounted in the floor, a standard CURRIES' door with 5/8" bottom undercut will not work. A special (smaller) undercut is required. This information must be determined, noted on the door order, and manufactured to fit the opening.

Auxiliary Locks and Deadlocks

The most common preparation is the ANSI 115.13 **tubular deadlock**, or CURRIES' G16 code preparation.

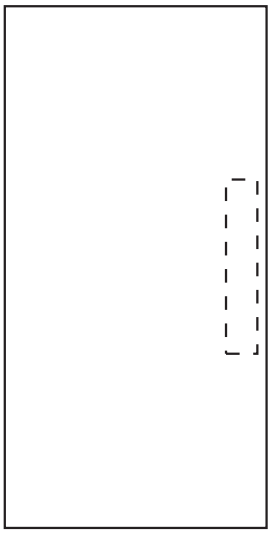


ANSI 115-13
G16



Push and Pulls

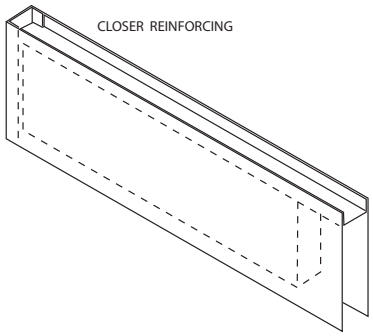
A reinforcement on the lock edge of the door for **push and pull** plate mounting indicates a CURRIES' G18 code.



Closers and Holders Surface Mounted

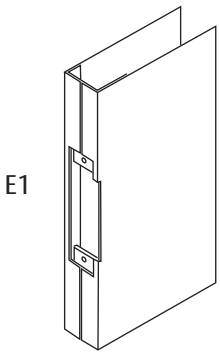
Reinforcing is provided at the hinge edge top of the doors for mounting door closers or holder. Manufacturers of closers and holders have various mounting locations and instructions. CURRIES' reinforcements, which meets most requirements, are 12 gauge channel 5-1/4" high x 18-1/4" long .

NOTE: Each application should be verified with the hardware manufacturer's templated mounting instruction information.

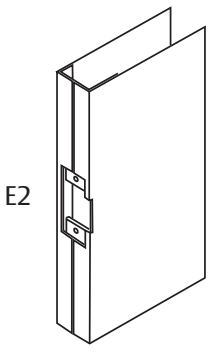


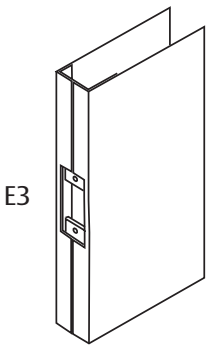
Strike Preparations

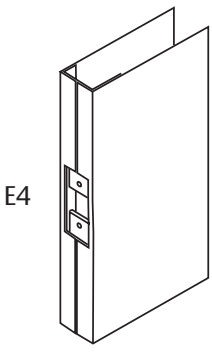
To receive the strike plate, the inactive leaves of a pair of doors with latches or deadlocks must be mortised. The most common is the ANSI **4-7/8" lipped strike**, CURRIES Code E1.



Other strike preparations include the **2-3/4" T strike** E2 code and **deadlock strikes** E3 and E4.







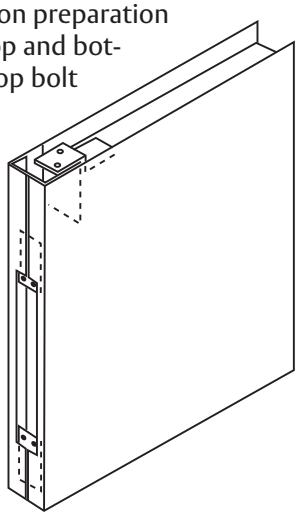
CURRIES
ASSA ABLOY

ASSA ABLOY, the global leader
in in door opening solutions

Flush Bolts

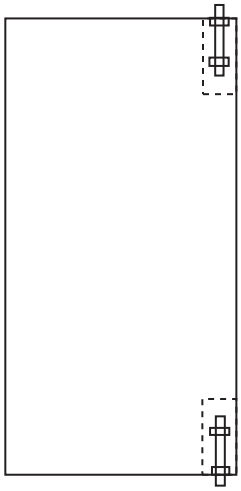
The ANSI 115.4 **flush bolt**, CURRIES code H1 is another common preparation on the inactive leaf of a pair of doors. This is mortised in the top and bottom edge of the door to securely hold the inactive door. The top bolt length and location will vary with the height of the door.

NOTE: Standard top bolt location is 12"; it is also available 24" and 36" down from the top.



Surface Bolts

Surface bolts are an alternate method of securing the inactive leaf of a pair of doors, CURRIES code SB.



NOTE: Reinforcing channels are mounted top and bottom for surface application on the face of the door for these manual "slide" bolts.

And finally . . . .

Additional hollow metal product information can be acquired by obtaining technical publications printed by the Steel Door Institute (S.D.I.), the National Association of Architectural Metal Manufacturers (N.A.A.M.M.), and the Hollow Metal Manufacturers Association (H.M.M.A.). These publications cover a variety of topics relative to hollow metal from nomenclature, usage, installation, and to standard specifications of individual products. Some of these publications are available from CURRIES.

CURRIES

ASSA ABLOY

CURRIES • 1502 12th Street NW • Mason City • IA 50401
Phone: 641-423-1334 • Fax: 641-424-8305
Website: www.curries.com

ASSA ABLOY, the global leader
in door opening solutions

SDI Certified Product

NAAMM National Association of Architectural Metal Manufacturers

Habitat for Humanity®