

Anchoring systems

F, FN, MU, FE, and DE Series Flush Frames



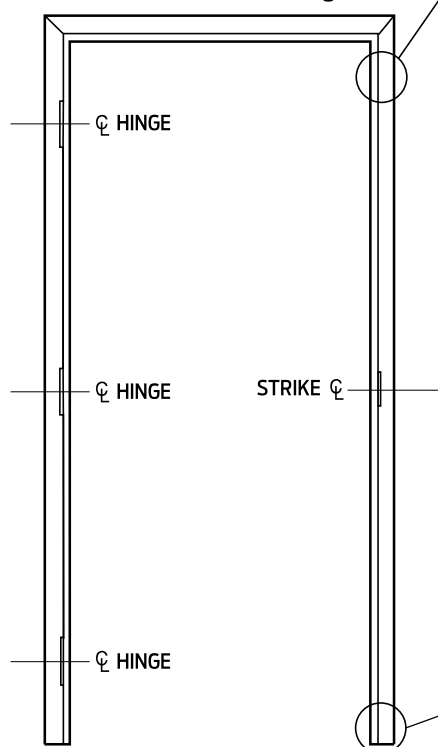
Anchoring and installation notes

- All Frames** in this category 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.
- Anchoring Applications:**
  - Masonry Wall:** Masonry wire anchors (3/16" [5 mm] diameter) provide maximum engagements in mortar joints, and allow for full internal grouting during installation. The anchor is to be spread wider than the jamb depth and twisted into position. Adjustable base anchors are attached directly to the floor and adjusted. The wall is built around the anchored frame.
  - Existing Masonry Walls:** Specifically designed (18 Ga.) jamb anchors are used to add support for bolting the frame into the rough opening of an existing wall.
  - Wood Stud Walls:** Lock-in (18 Ga.) jamb anchors are designed to be attached to the wood studs of a rough opening.
  - Steel Stud Walls:** Lock-in (18 Ga.) jamb anchors are designed to be attached to the webbing of the closed steel studs which are built around the frame.
  - Universal Stud Wall Anchors:** Universal lock-in (18 Ga.) jamb anchors are designed for use in either wood or steel stud wall applications. Maximum jamb depth is 9 1/2".
- Adjustable Base Anchors:**
  - Field attached (16 Ga.) base anchors provides direct attachment and adjustability for out of level base surface conditions.
  - If frame is NOT to be set directly on the floor (slab) adjust base anchor UPWARD as required.

- Special Frame Anchors:** Anchor details and availability of lock-in anchors will vary with the following frame profile changes:
  - Single Rabbet: all details will vary.
  - Double Rabbet: weld-in anchors required over 9 1/2" jamb depth.
  - FE and DE Series Double Egress Frames: Anchor details will vary due to frame and application conditions.
- Installation** shall conform to the published Steelcraft installation instructions, ANSI A250.11 *Recommended Erection Instructions for Steel Frames*, and HMMA 84.
- Installation Caution Notice:** Grouted Frames:
  - When temperature conditions necessitate an additive to be used in the plaster or mortar to prevent freezing, the contractor installing the frames must coat the inside of the frames in the field with a corrosion resistant coating per ANSI A250.11 *Recommended Erection Instructions for Steel Frames*.
  - 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.
- All Fire Rated frames** must be installed in accordance with NFPA Pamphlet 80 and the *Authority Having Jurisdiction*.

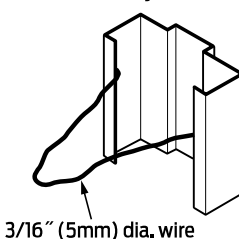
## Frame variations and options - Anchoring systems

Standard Lock-In Jamb Anchors are supplied on standard F Series frames having 2" faces

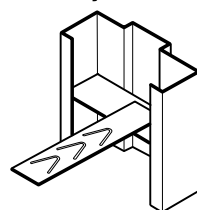


### Masonry wall applications

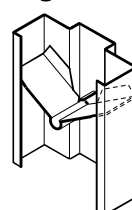
#### Wire Masonry Anchor



#### Masonry "T" Anchor

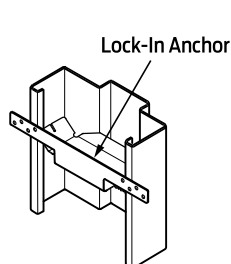


#### Existing Wall Anchor

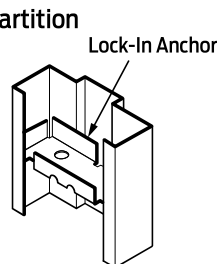


### Stud wall applications

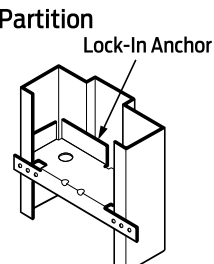
#### Universal Stud Anchor



#### Anchor for Steel Stud Partition



#### Anchor for Wood Stud Partition



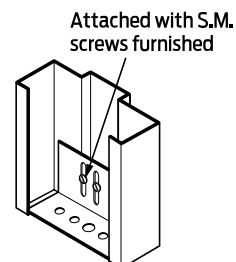
Adjustable Sill Anchors are provided as standard

### Anchor Quantities:

- 3 per jamb through 7'6" height
- 4 per jamb over 7'6" to 12'0" height
- 1 adjustable base anchor per jamb

### Anchor Locations:

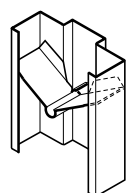
- Locate all anchors on hinge jamb as close to top of hinge reinforcement as possible.
- Locate anchors on strike jamb in the corresponding position as the hinge jamb.



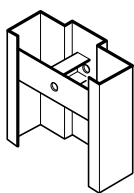
Maximum adjustment  
1-3/8" (35mm)  
below bottom of frame

Specialty Weld-In Jamb Anchors are supplied for custom frames and special wall applications when specified.

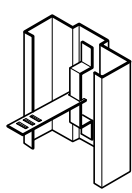
### Masonry wall application



Existing  
Wall Anchor

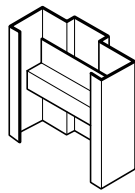


Weld-In Tube & Strap  
Anchor for Special

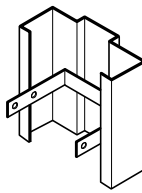


Weld-In Yoke  
Strap &

### Stud wall anchors

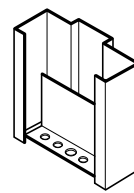


"Z" Steel Stud Weld-  
In Anchor for Special

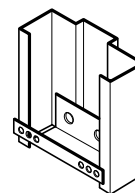


Weld-In Wood  
Stud Anchor

### Sill anchors



Weld-In  
Floor Anchor



Weld-In Wood  
Stud Base Anchor

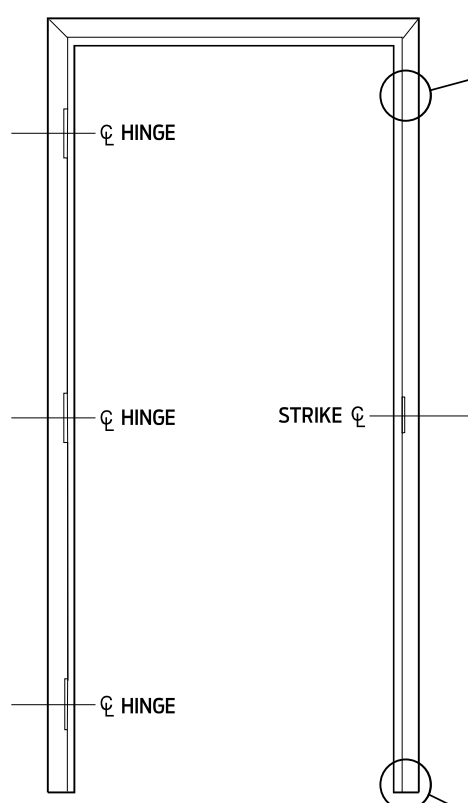
DW and K Series drywall frames



Anchoring and installation notes

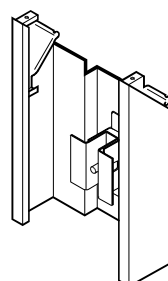
- Drywall Frames** are supplied standard with field adjustable compression anchors in each jamb and adjustable base anchors. DW Series Frames are designed especially for use in installations using wall baseboards.
- Anchoring Applications:**
  - Masonry Wall:** Not recommended.
  - Wood and Steel Stud Walls:** Adjustable compression anchors are factory located near the top of each jamb. These anchors can be easily adjusted with either a screw driver or power driver. Adjustable lock-in base anchors are provided for attachment directly to the wall floor (sill) runner.
  - Optional Security Anchor:** Security Stud Anchors are recommended in frames over 8´0" (2438 mm) high or in frames installed in areas where security is a priority. Locate the Security Stud Anchor immediately above or below the strike reinforcements, and on both faces (secure and entrance sides) of the jamb. Security Stud Anchors may be used in both the strike and hinge jambs. They are also recommended to be used in the head of frames for pairs of doors.
- Grouting of the DW and K Series Frames** is not recommended.
- Installation** shall conform to the published Steelcraft installation instructions, ANSI A250.11 *Recommended Erection Instructions for Steel Frames*, and HMMA 840.
- Installation Caution Notice:**
  - After the frame pieces have been installed over the wallboard, the frame is squared by adjusting the compression anchor screws located in the soffit of the jambs. Turning the screw in a clockwise direction will tighten the frame.
  - DO NOT over tighten the compression anchors.
  - Check to insure the opening is plumb.
- All Fire Rated frames must be installed in accordance with NFPA Pamphlet 80 and the *Authority Having Jurisdiction*.

## Frame variations and options - Anchoring systems



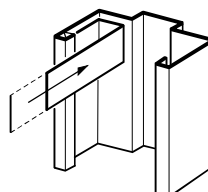
Standard Field Adjustable Compression Jamb Anchors are supplied as standard for DW & K Series frames having 2" faces

Stud Wall Applications (refer to page 93)



Jamb/Compression  
Anchor (refer to page 93)

Optional Security Applications (refer to page 93)



### Anchor Quantities:

- 1 compression anchor per jamb through 9" depth
- 2 compression anchors per jamb for 9" depth and greater
- 2 twist-in strap base anchors per jamb

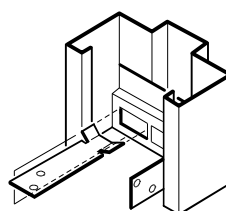
### Anchor Locations:

- Compression anchors are factory installed near the top of each jamb.
- The twist-in anchors are installed into the Base Anchor Attaching Strap that is factory installed at the bottom of each jamb.

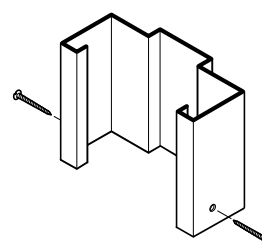
### Anchor Options:

- Security Jamb Anchor
  - See description on the previous page
  - See details on Page 93

Either Adjustable Sill Anchors or Counter Sunk Sill Anchor Holes are provided as standard



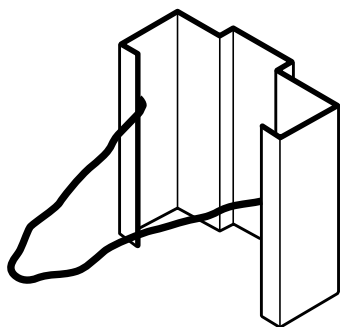
DW Series  
Adjustable Lock-in  
Base Anchor  
(refer to page 94)



K Series  
Base Anchor  
(refer to page 94)

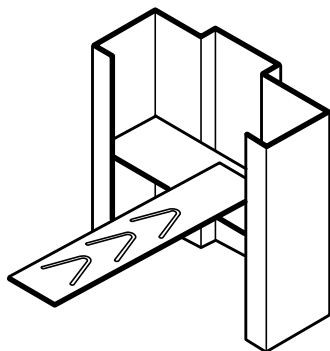
Frame variations and options - Anchoring systems

Wire masonry



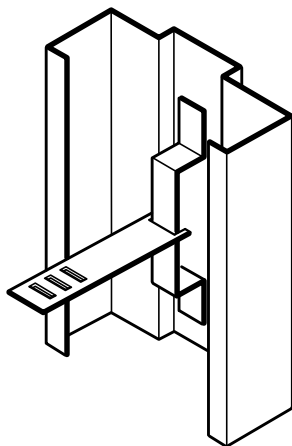
Material	3/16" (5 mm) dia. wire
Supplied	Shipped loose for field installation
Applicable Frame Series	F, FN, MU, FE, and DE
Profile variations	SR Single Rabbet DR Double Rabbet (equal & unequal) CO Cased Open NOTE profile must have back bends
Frame depths	3" through 14 3/4"
Face variations	Fits all face variations
Frame attachment	Lock-in
Application	Ship loose to jobsite, field installed
Wall construction	Masonry block or brick
Fire label applications	UL/WH 3 hour max.
Base anchor	See page 86 for base anchor details.

Masonry T



Material	18 Ga. Galvannealed Steel
Supplied	Shipped loose for field installation
Applicable Frame Series	F, FN, MU, FE, DE, PW for new masonry
Profile variations	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must havebackbends
Frame depths	All frame depths Ordered specifically to fit frame depths
Face variations	Fits all face variations
Frame attachment	Lock-in
Application	Ship loose to jobsite, field installed
Wall construction	Masonry block or brick
Fire label applications	UL/WH 3 hour max.
Base anchor	See page 86 for base anchor details.

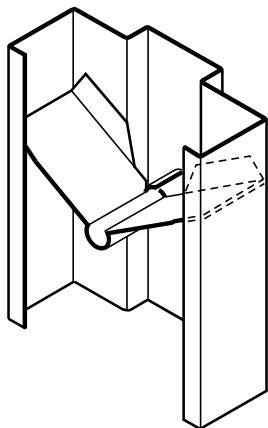
Yoke & strap masonry



Material	18 Ga. Galvannealed Steel
Supplied	Factory welded in prior to shipment
Applicable Frame Series	F, FN, MU, FE, DE
Profile variations	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open
Frame depths	All frame depths For frame depths over 12 3/4" 2 anchors welded at each anchor location
Face variations	Fits all face variations Ordered specifically to fit face
Frame attachment	Arrives to jobsite welded into frame
Application	Factory welded
Wall construction	Masonry block or brick
Fire label applications	UL/WH 3 hour max.
Base anchor	See page 86 for base anchor details.

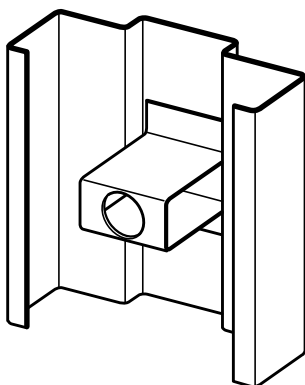
## Frame variations and options - Anchoring systems

## Butterfly existing wall



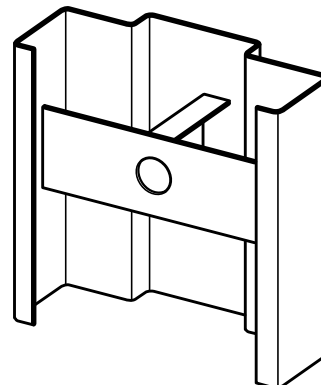
<b>Material</b>	18 Ga. Galvannealed Steel
<b>Supplied</b>	Shipped loose for field installation
<b>Applicable Frame Series</b>	F
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
<b>Frame depths</b>	4 3/4" through 9 1/8" Adjustable Fits all depths up to 9 1/8" Single Rabbet up to 3 3/4"
<b>Face variations</b>	2" face only.
<b>Frame attachment</b>	Lock-in or factory welded
<b>Application</b>	Ship loose to jobsite, field installed. When specified welded, arrives to jobsite welded into frame.
<b>Wall construction</b>	Masonry block, brick, existing or pre-cast
<b>Fire label applications</b>	UL/WH 3 hour max.
<b>Base anchor</b>	Additional butterfly anchor used as the base anchor

## Hat spacer existing wall



<b>Material</b>	16 Ga. Galvannealed Steel
<b>Supplied</b>	Welded in prior to shipment
<b>Applicable Frame Series</b>	F, FN, MU, FE, DE
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
<b>Frame depths</b>	All frame depths For frame depths over 9 1/4" 2 anchors welded at each anchor location
<b>Face variations</b>	Fits all face variations
<b>Frame attachment</b>	Factory welded
<b>Application</b>	Arrives at jobsite welded into frame
<b>Wall construction</b>	Masonry block, brick, existing or pre-cast
<b>Fire label applications</b>	UL/WH 3 hour max.
<b>Base anchor</b>	Additional Hat Spacer anchor used as the base anchor

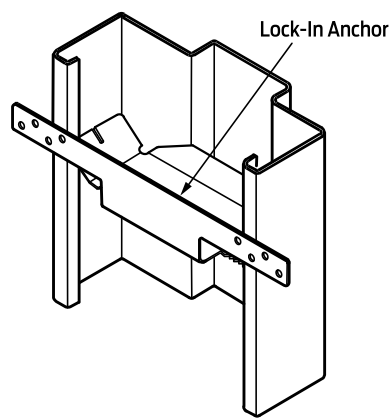
## Tube &amp; strap existing wall



<b>Material</b>	16 Ga. Galvannealed Steel
<b>Supplied</b>	Welded in prior to shipment
<b>Applicable Frame Series</b>	F, FN, MU, FE, DE, PW for existing masonry
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
<b>Frame depths</b>	All frame depths For frame depths over 9 1/4" 2 anchors welded at each anchor location
<b>Face variations</b>	Fits all face variations
<b>Frame attachment</b>	Factory welded
<b>Application</b>	Arrives at jobsite welded into frame
<b>Wall construction</b>	Masonry block, brick, existing or pre-cast
<b>Fire label applications</b>	UL/WH 3 hour max.
<b>Base anchor</b>	Additional Tube & Strap anchor used as the base anchor

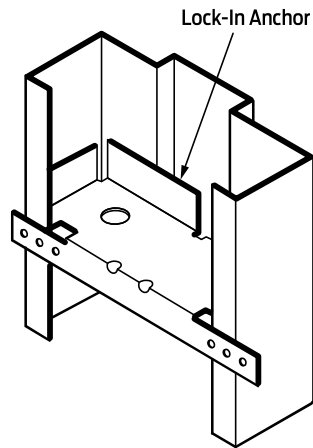
Frame variations and options - Anchoring systems

Universal stud



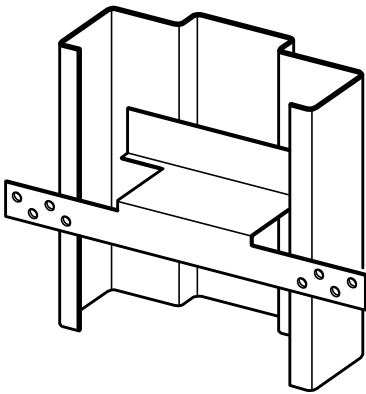
Material	18 Ga. Galvannealed Steel
Supplied	Shipped loose for field installation
Applicable Frame Series	F, MU
Profile variations	DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
Frame depths	4 3⁄4", through 9 1⁄2" Ordered specifically to fit frame depths
Face variations	2" only
Frame attachment	Lock-in
Application	Ship loose to jobsite, field installed
Wall construction	Wood stud or steel stud walls
Fire label applications	UL/WH 3 hour max.
Base anchor	Additional wood stud anchor used as the base anchor

Wood stud



Material	18 Ga. Galvannealed Steel
Supplied	Shipped loose for field installation
Applicable Frame Series	F
Profile variations	DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
Frame depths	4 3⁄4", 5 3⁄4", 6 3⁄4", 7 3⁄4", 8 3⁄4" - non-adjustable
Face variations	2" only
Frame attachment	Lock-in
Application	Ship loose to jobsite, field installed
Wall construction	Wood stud walls
Fire label applications	UL/WH 3 hour max.
Base anchor	Additional wood stud anchor used as the base anchor

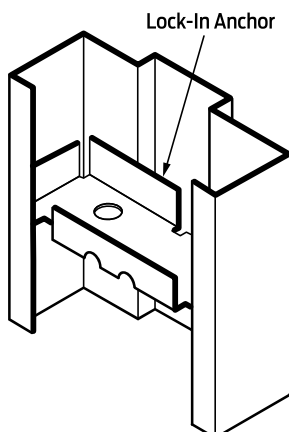
Wood stud



Material	16 Ga. Galvannealed Steel
Supplied	Welded in prior to shipment
Applicable Frame Series	F, FN, MU, FE, DE
Profile variations	DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a return
Frame depths	All frame depths
Face variations	Fits all face variations Ordered specifically to fit face
Frame attachment	Must be welded to frame
Application	Arrives at jobsite welded into frame
Wall construction	Wood stud walls
Fire label applications	UL/WH 3 hour max.
Base anchor	Additional wood stud anchor used as the base anchor

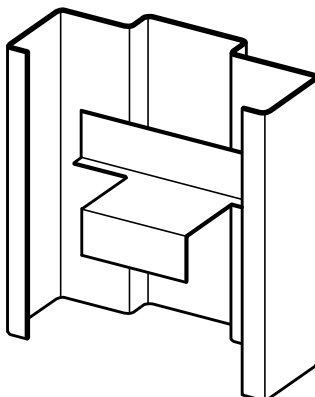
## Frame variations and options - Anchoring systems

### Closed steel stud



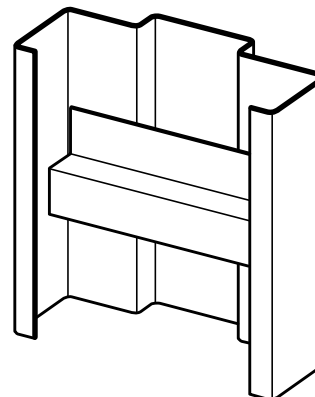
<b>Material</b>	18 Ga. Galvannealed Steel
<b>Supplied</b>	Shipped loose for field installation
<b>Applicable Frame Series</b>	F
<b>Profile variations</b>	DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a return
<b>Frame depths</b>	4 3/4", 5 3/4", 6 3/4", 7 3/4", 8 3/4" - non-adjustable
<b>Face variations</b>	2" only
<b>Frame attachment</b>	Lock-in
<b>Application</b>	Ship loose to jobsite, field installed
<b>Wall construction</b>	Closed steel stud walls
<b>Fire label applications</b>	UL/WH 3 hour max.
<b>Base anchor</b>	See page 86 for base anchor details.

### Flush steel stud



<b>Material</b>	16 Ga. Galvannealed Steel
<b>Supplied</b>	Welded in prior to shipment
<b>Applicable Frame Series</b>	F, FN, MU, FE, DE
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a return
<b>Frame depths</b>	All frame depths
<b>Face variations</b>	Fits all face variations Ordered specifically to fit face
<b>Frame attachment</b>	Must be welded to frame
<b>Application</b>	Arrives at jobsite welded into frame
<b>Wall construction</b>	Closed steel stud walls
<b>Fire label applications</b>	UL/WH 3 hour max.
<b>Base anchor</b>	See page 86 for base anchor details.

### Recessed steel stud

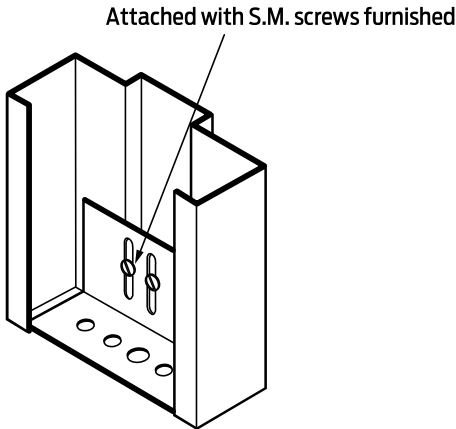


<b>Material</b>	16 Ga. Galvannealed Steel
<b>Supplied</b>	Welded in prior to shipment
<b>Applicable Frame Series</b>	F, FN, MU, FE, DE
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a return
<b>Frame depths</b>	All frame depths
<b>Face variations</b>	Fits all face variations Ordered specifically to fit face
<b>Frame attachment</b>	Must be welded to frame
<b>Application</b>	Arrives at jobsite welded into frame
<b>Wall construction</b>	Closed steel stud walls
<b>Fire label applications</b>	UL/WH 3 hour max.
<b>Base anchor</b>	See page 86 for base anchor details.



Frame variations and options - Anchoring systems

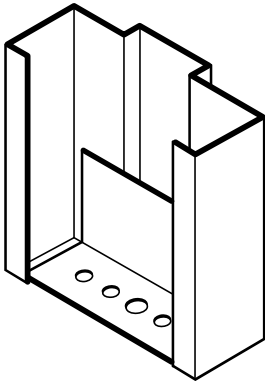
Field adjustable base



Maximum adjustment 1-3/8" (35mm)  
below bottom of frame

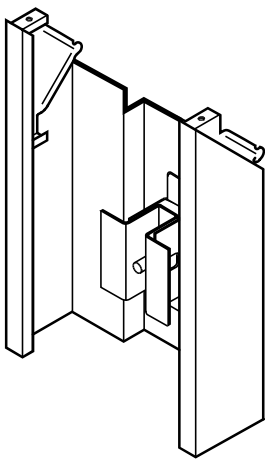
Material	16 Ga. Galvannealed Steel
Supplied	Shipped loose for field installation
Applicable Frame Series	F, MU
Profile variations	DR: Double Rabbet (equal & unequal)
Frame depths	All frame depths Ordered to specifically fit frame depths
Face variations	Fits all face variations
Frame attachment	Retaining clip is factory welded into each jamb. Adjustable anchor is field attached and adjusted during installation.
Application	Anchor angle ship loose to jobsite, field attached and adjusted. Adjustable base anchors are manufactured to fit the frame profile, depth and profile variations which must be specified when ordering this anchor.
Wall construction	Masonry block or brick, steel stud
Fire label applications	UL/WH 3 hour max.

Fixed base



Material	16 Ga. Galvannealed Steel
Supplied	Welded in prior to shipment
Applicable Frame Series	F, FN, MU, FE, DE
Profile variations	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open
Frame depths	All frame depths Ordered to specifically fit frame depths
Face variations	Fits all face variations
Frame attachment	Must be welded to frame
Application	Arrives at jobsite welded into frame
Wall construction	Masonry block or brick, steel stud
Fire label applications	UL/WH 3 hour max.

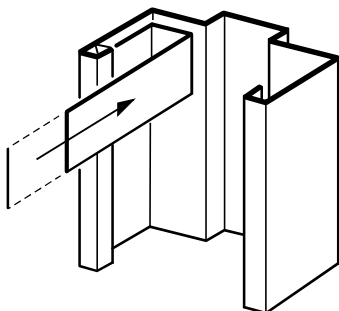
Compression jamb



Material	16 Ga. Galvannealed Steel
Supplied	Factory welded in prior to shipment
Applicable Frame Series	DW, K
Profile variations	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
Frame depths	All DW & K frame depths For frame depths over 9", 2 anchors welded at each anchor location
Face variations	2" face only
Frame attachment	Must be welded to frame
Application	Arrives at jobsite welded into frame
Wall construction	Wood or steel stud walls
Fire label applications	UL/WH 1 1/2 hour max.
Base anchor	See page 88 for sill anchor details

## Frame variations and options - Anchoring systems

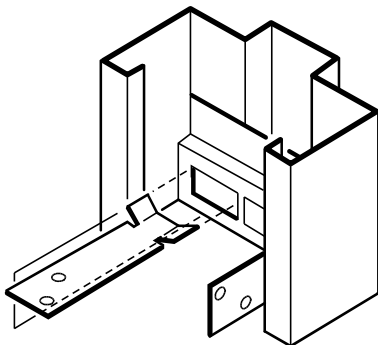
### Security anchor (optional) for DW and K Series



Security anchor is field installed in the strike jamb directly above or below the strike preparation.

<b>Material</b>	24 Ga. Galvannealed Steel
<b>Supplied</b>	Shipped loose for field installation
<b>Applicable Frame Series</b>	DW, K
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
<b>Frame depths</b>	All frame depths
<b>Face variations</b>	2" face only
<b>Frame attachment</b>	Lock-in
<b>Application</b>	Ship loose to jobsite, field installed
<b>Wall construction</b>	Wood or steel stud walls
<b>Fire label applications</b>	UL/WH 1 ½ hour max.

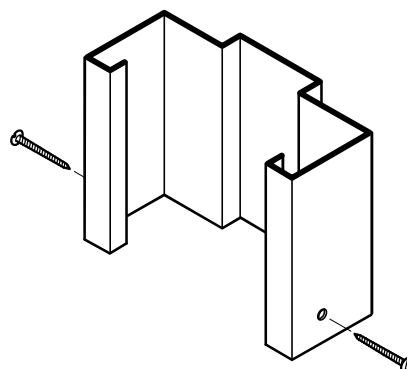
### Adjustable base for DW Series



<b>Material</b>	16 Ga. Galvannealed Steel
<b>Supplied</b>	Shipped loose for field installation
<b>Applicable Frame Series</b>	DW
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
<b>Frame depths</b>	All frame depths
<b>Face variations</b>	2" face only
<b>Frame attachment</b>	Retaining clip is factory welded into each jamb. Adjustable anchor is field attached and adjusted during installation.
<b>Application</b>	Anchor angle ship loose to jobsite, field attached and adjusted.
<b>Wall construction</b>	Wood or steel stud walls
<b>Fire label applications</b>	UL/WH 1 ½ hour max.

### Base for K Series

Factory prepared holes: screws by others



<b>Material</b>	#8 Phillips Flat Head Sheet Metal Screws (2 per jamb). Supplied by others.
<b>Supplied</b>	Base of each jamb is factory prepared with a countersunk hole to accept a #8 Phillips Flat Head Screw. Supplied by others.
<b>Applicable Frame Series</b>	K
<b>Profile variations</b>	SR: Single Rabbet DR: Double Rabbet (equal & unequal) CO: Cased Open NOTE: profile must have a backbend
<b>Frame depths</b>	All frame depths
<b>Face variations</b>	Fits all face variations Ordered specifically to fit face
<b>Frame attachment</b>	Counter sunk holes pierced onto the face at the factory
<b>Application</b>	Field attached
<b>Wall construction</b>	Wood or steel stud walls
<b>Fire label applications</b>	UL/WH 1 ½ hour max.