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HURRICANE RESISTANT DOORS

<u>Product Covered</u>: Wind resistant building assemblies and components tested to the following windstorm or severe weather performance standards:

- 1. ASTM E330/E1886/E1996
- 2. TAS201, TAS202, TAS203
- 3. ANSI A250.13

Products are compliant to the 2017 code version of the Florida Building Code.

Most doors may also be classified as fire doors tested in accordance with UL10B or UL10C. Doors may be fire rated up to and including three hours, except as noted where glass is installed in the door and may also be limited by gage, size, hardware, construction, etc.. All doors are impact resistant, passed large missile impact for missile level D or E as indicated, and are approved for use in the High Velocity Hurricane Zone (HVHZ) in Florida. Any ASSA ABLOY or component listed locking and/or exit device windstorm hardware complying with the following door matrix pages may be used in Florida, with the exception of the prescriptive 150 PSF doors with multi-point locking hardware. Corbin Russwin, Sargent, or Yale windstorm locking and/or exit device hardware complying with the following door matrix pages must be used in other states (only exception is written approval from the engineer of record allowing substitution of another manufacturer's hurricane resistant locking or exit hardware). For the counties in Texas bordering the Gulf of Mexico, see Ceco's Texas Department of Insurance (TDI) product evaluations for those prescriptive door, frame and hardware assemblies. TDI does not require product to be listed with the TDI before it can be used, as an engineer of record can use test results to verify that products comply with the building specifications adopted by the TDI.

<u>Door Opening Sizes:</u> All doors shall be 1 3/4" [44.5 mm] thick. The door opening width and height shall be as defined on the pages and illustrations that follow.

Construction: Each wind resistant building product shall be constructed as detailed in the illustrations that follow. Doors over 3'-0" in width that have an exit device must have a horizontal steel stiffener located at centerline of device, except for Trio-E & 150 PSF doors. When door height is over 7'-0", Design Pressure is over 60 PSF and door has a mortise lock (single) or has an ANSI strike with surface or flush bolts (inactive leaf of pair), a vertical lock edge steel stiffener must be installed during production of door (does not apply to Trio-E doors). Special vertical lock edge stiffener and special lock reinforcements are required for the prescriptive 150 PSF doors and 150 PSF doors with surface vertical rod. Special frame head reinforcements are required when surface vertical rods are applied to 150 PSF doors. 4'0" x 8'0" Trio-E doors with rim exit devices shall have special internal reinforcements installed during production of doors.

Trio-E singles with glass are limited to mortise lock with deadbolt function, concealed vertical rods, surface vertical rod, or rim panics. Trio-E pairs with glass are limited to concealed vertical rods, concealed two point rod locks, surface vertical rods or rim exits. Special frame head reinforcements are required when surface or concealed vertical rods are applied to Trio-E doors with glass.

<u>Metal Gauges:</u> Unless otherwise specifed the metal gauges shall have the minimum thickness as shown in the tables on pages 9-102 thru 9-107. Trio-E doors are not available with 14 gauge face sheets.

Glass Lights: Each wind-resistant building component door or panel with glass lights shall be constructed as shown on pages 9-118 thru 9-122. Glazing shall be installed per the installation instructions shown on pages 9-125 thru 9-127.

Viewer: 1" diameter cutout maximum. One or two viewers allowed per door.

Louvers: Each wind-resistant building component door or panel with louver shall be constructed as shown on page 9-124.

<u>Windstorm Classification Label:</u> Each wind-resistant building component shall bear a classification mark of either Underwriters Laboratories LLC or Intertek / Warnock Hersey.

9-101 04/07/20



HURRICANE RESISTANT DOORS

UNDERWRITERS LABORATORIES HURRICANE (WINDSTORM) PRODUCT CLASSIFICATION MATRICES, MISSILE LEVEL D (50 fps) FLORIDA PRODUCT APPROVAL #FL4553

Ç	Stiffness C	Class I					Impact 350 ft-lbs
Door Type	Swing	Max. Size	Min. Ga.	*Max. Design Load (psf)	Min. Latch Throw (in.)	Lock Side- Min. Latch Strength (lbf)	Hardware Type
Medallion Legion Ultra Regent Omega Fuego		3'0" x 7'0" Single	18	+/- 60	1/2" cylindrical 3/4" mortise	630	Cylindrical Lock, Mortise Lock (Deadbolt not required)
		3'0" x 7'0" Single	18	+/- 70	1/2" cylindrical, 1"deadlock 3/4" mortise, 1" deadbolt 1/2" act latch, 1"deadbolt (ICL)	735	Cylindrical Lock x deadlock, Mortise Lock w/deadbolt function Interconnected lock
Medallion Legion Ultra Regent Omega		3'0" x 8'0" Single	18	+/- 60	3/4" mortise, 1" deadbolt, 3/4" rim, 1/2" vertical rod exit	720	Mortise Lock w/deadbolt function, Rim exit Vertical Rod Exit
Medallion Legion Ultra Regent Omega Fuego		3'0" x 7'0" Single	18	+/- 60	1/2" cylindrical 3/4" mortise lock, 3/4" mortise/rim, 1/2" vertical rod exit	630	Cylindrical Lock, Mortise Lock (Deadbolt not required), Mortise exit, Rim Exit, Vertical Rod Exit
Medallion Legion Ultra Regent Omega Fuego		4'0" x 8'0" Single	16	+/- 70	3/4" mortise, 1" deadbolt, 3/4" rim, 1/2" vertical rod exit	1120	Mortise Lock w/deadbolt function, Rim Exit, Vertical Rod Exit
Medallion Legion Ultra Regent Omega		6'0" x 7'0" Pair	18	+/- 60	3/4" rim exit only	630	Rim Exit x Mullion
Regent Omega	Outswing	8'0" x 8'0" Pair Class I Continu		+/- 70	3/4" mortise, 1" deadbolt/ 1 1/4" surface bolt 3/4" rim, 1/2" vertical rod exit	1120	Mortise Lock w/deadbolt (active)/ Surface Bolts (inactive), Vertical Rod x Vertical Rod (Surface Bolts in Lieu of Vertical Rod Inactive), Rim Exit x Mullion

Doors with glass lights may limit design loads. See Index page 9—108 under "glazing" to locate glass kit information. Louvers are excluded from use with Trio—E and 150 PSF Doors.

Glass Lites are excluded from doors with 150 PSF.

Pairs with rim x rim and hardware mullion, frame depth may be limited by the hardware mullion.

Contact hardware mullion manufacturer for depth limitations.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

9-102 05/04/20



HURRICANE RESISTANT DOORS

UNDERWRITERS LABORATORIES HURRICANE (WINDSTORM) PRODUCT CLASSIFICATION MATRICES,
MISSILE LEVEL D (50 fps) FLORIDA PRODUCT APPROVAL #FL4553

Sti	Stiffness Class I Continued Impact 350 ft-lk											
Door Type	Swing	Max. Size	Min. Gage	l, a	Min. Latch throw (in.)	Lock Side- Min. Latch Strength (lbf)	Hardware Type					
Medallion, Legion, Ultra Regent, Omega	Outswing	8'0" x 8'0" Pair	16	+/- 70	1/2" Concealed Two Point Lock	688	Concealed Two Point Rod Lock x Concealed Two Point Rod Lock					
Fuego	Outswing	8'0" x 8'0" Pair	16	+/- 70	3/4" mortise, 1"deadbolt/mortise 1-1/4" Surface Bolt	1120	Mortise Lock w/deadbolt Function (active) / Surface Bolts (inactive)					
*Trio-E	Inswing/ Outswing	3'0" x 7'0" Single	18	+/- 100	1/2" cylindrical 3/4" mortise lock	1050	Cylindrical Lock, Mortise Lock w/deadbolt function					
*Trio-E	Outswing	3'0" x 7'0" Single	18	+/- 100	3/4" rim exit	1050	Rim Exit					
*Trio-E	Inswing/ Outswing		18	+/- 70	1/2" cylindrical 3/4" mortise lock	1120	Cylindrical Lock, Mortise Lock w/deadbolt function					
#,*Trio-E	Outswing	4'0" x 8'0" Single	18	+/- 70	3/4" rim exit 1/2" Vertical Rod Exit	1120	Rim Exit Vertical Rod Exit					
*Trio-E	Inswing/ Outswing	6'0" × 7'0" Pair	18	+/- 70	1/2" cylindrical 1" deadlock 3/4" mortise lock 1" Flush Bolt 1-1/4" Surface Bolt	735	Cylindrical Lock x Deadlock, Mortise Lock w/deadbolt function (active), ***Flush Bolts or Surface Bolts (inactive)					
#,*,^ Trio-E	Outswing	8'0" x 8'0" Pair	18	+/- 70	3/4" rim x 3/4" rim Exit, 3/4" Vertical Rod x 3/4" Vertical Rod Exit	1120	Rim Exit each leaf x Hardware Mullion, Vertical Rod Exit x Vertical Rod (Surface Bolts in Lieu of Vertical Rod Inactive)					
*Trio-E	Inswing/ Outswing		18	+/- 70	1/2" cylindrical 1" deadlock 3/4" mortise lock	1120	Cylindrical Lock x Deadlock, Mortise Lock w/deadbolt function (active), ***Flush Bolts or Surface Bolts (inactive)					
*,# Trio-E	Outswing	8'0" x 8'0" Pair	18	+/- 70	1/2" Concealed Two Point Lock	688	Concealed Two Point Rod Lock x Concealed Two Point Rod Lock					

Notes:

Doors with glass lights may limit design loads. See Index page 9—108 under "glazing" to locate glass kit information.

Trio—E singles with glass are limited to mortise lock with deadbolt function, concealed vertical rod, surface vertical rod, or rim panic. Trio—E pairs with glass are limited to concealed vertical rods, concealed two point rod locks, surface vertical rods or rim exits.

Special frame head reinforcements are required when surface or concealed vertical rods are applied to Trio—E doors with glass. 40 x 80 Trio—E doors with rim exit devices shall have special internal reinforcements installed during production of doors.

^ Pairs with rim x rim and hardware mullion, frame depth may be limited by the hardware mullion. Contact hardware mullion manufacturer for depth limitations.

9-103 05/04/20

^{*}Louvers are excluded from use with Trio-E Doors.

^{***} Rockwood 556WS flushbolt required — Special reinforcements and preparations are required during production of doors.



HURRICANE RESISTANT DOORS

UNDERWRITERS LABORATORIES HURRICANE (WINDSTORM) PRODUCT CLASSIFICATION MATRICES, MISSILE LEVEL D (50 fps) FLORIDA PRODUCT APPROVAL #FL4553

S	tiffness Cla	ıss II					Impact 350 ft-lbs
Door Type	Swing	Max. Size	Min. Ga.	*Max. Design Load (psf)	Min. Latch Throw (in.)	Lock Side- Min. Latch Strength (lbf)	Hardware Type
Imperial Versadoor	Inswing/ Outswing	3'0" x 7'0" Single	18	+/- 60	1/2" cylindrical 3/4" mortise	630	Cylindrical Lock, Mortise Lock (Deadbolt not required)
Imperial Versadoor	Inswing/ Outswing	3'0" x 7'0" Single	18	+/- 70	1/2" cylindrical, 1"deadlock 3/4" mortise, 1" deadbolt 1/2" act latch, 1"deadbolt (ICL)	735	Cylindrical Lock x deadlock, Mortise Lock w/deadbolt Function, Interconnected lock
Imperial Versadoor	Inswing/ Outswing	3'0" x 8'0" Single	18	+/- 60	3/4" mortise, 1" deadbolt	720	Mortise Lock w/deadbolt
Imperial Versadoor	Outswing	3'0" x 7'0" Single	18	+/- 60	1/2" cylindrical 3/4" mortise lock 3/4" mortise/rim, 1/2"vertical rod exit	630	Cylindrical Lock, Mortise Lock (Deadbolt not required), **Mortise Exit, **Rim Exit, **Vertical Rod Exit
Imperial Versadoor	Outswing	3'0" x 8'0" Single	18	+/- 60	3/4" mortise, 1" deadbolt, 3/4" rim, 1/2" vertical rod exit	720	Mortise Lock w/deadbolt Function, **Rim Exit, **Vertical Rod Exit
Imperial Versadoor	Inswing/ Outswing	4'0" x 8'0" Single	16	+/- 70	3/4" mortise, 1" deadbolt	1120	Mortise Lock w/deadbolt Function
Imperial Versadoor	Outswing	4'0" x 8'0" Single	16	+/- 70	3/4" mortise, 1" deadbolt, 3/4" rim, 1/2"vertical rod exit	1120	Mortise Lock w/deadbolt Function, **Rim Exit, **Vertical Rod Exit
Imperial Versadoor	Outswing	6'0" x 7'0" Pair	18	+/- 60	3/4" rim exit	630	rim exit x mullion
Imperial Versadoor	Outswing	Pair	16	+/- 70	3/4" mortise, 1" deadbolt / 1-1/4" Surface Bolt	1120	Mortise Lock w/deadbolt Function (active / Surface Bolts (inactive)
***Imperial Regent, Medallion	Inswing/ Outswing	Min. 2'8" x 6'8" Max. 4'0" x 8'0"	14 only	* +/- 150	3/4" mortise, 1" deadbolt	2400	CR/FE6600 or SA/FM7300 Multi-point Lock w/Deadbolt
***Imperial Regent, Medallion	Outswing	Min. 5'4 x 6'8" Max. 8'0" x 8'0"		* +/- 150	3/4" mortise, 1" deadbolt / 1-1/4" Surface Bolt ds. See Index page 9-108 unde	2400	CR/FE6600 or SA/FM7300 Multipoint Lock (active) with CR/988CR, SA/988 or YA/988Y Surface Bolts (Inactive)

Notes: Doors with glass lights may limit design loads. See Index page 9—108 under "glazing" to locate glass kit information. Louvers are excluded from use with Trio—E Doors.

Fire rated +/-150 PSF doors with multipoint locks will be Regent or Medallion.

- * Special construction required for Single or Pair with Multi-Point Lock +/-150 psf.
- * Glass lights and louvers are excluded from use with $\pm 10^{-1}$ psf.
- ** Exit device not available with Imperial and Versadoor polyurethane core doors over 3'0" wide.
- *** Imperial doors with ± 1.00 PSF and multipoint lock minimum sizes are 3'0" width and 7'0" height
- *** door leaf size.

9-104 08/27/20



HURRICANE RESISTANT DOORS

UNDERWRITERS LABORATORIES HURRICANE (WINDSTORM) PRODUCT CLASSIFICATION MATRICES
FLORIDA PRODUCT APPROVAL # 32083
MISSILE LEVEL E (80fps)

Door Type	Swing	Max. Size	Min. Ga.	Stiffness Class	Max. Design Load (psf)	Speed	Energy	Hardware Type	Min. Latch Throw	Latch Strength
Medallion Legion	Outswing Single	4'0" x 8'0"	14	1	+/- 150	80 FPS	895	Sargent HC4-8700 Series Vertical Rod	3/4" Vertical Rod Exit	1200
Medallion Legion	Outswing Pair	8'0" x 8'0"	14	I	+/- 150	80 FPS	895	Sargent Vertical Rod Exit HC4—8700 x Vertical Rod Exit HC4—8700	3/4" Vertical Rod Exit	1200
Medallion Legion	Outswing Pair	8'0" x 8'0"	14	I	+/- 150	80 FPS	895	Sargent Vertical Rod Exit HC4—8700 Active Leaf x Sargent 988 Surface Bolts Inactive Leaf	Rod Exit	1200

The below notes apply to the above matrix:

Only flush doors are allowed with ± -150 psf.

Special construction required for Single or Pair +/-150 psf.

Optional hardware mullions are Sargent HC980, 12—HC980, HCL980, or 12—HCL980.

4-1/2" x 4-1/2" x .134" min., thick steel or stainless steel hinges, or any FBC approved hinges may be used. Markar FM300, FM3500 continuous stainless steel, Pemko FMSLFHD, FMSLIHD continuous aluminum hinges may be used. Any FBC approved continuous hinge may be used.

Auxiliary Hardware: 1" diameter preparations for door position switches, door position switches that fit in a cutout measuring 1.25" x 4.875", and Securitron CEPT, EPT, EPTL, ICPT, and SEPT may be used. Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be used. Louvers are not allowed.

* The local building code official must approve this configuration of hardware for use in a means of egress. Products on this page are qualified for large and small missile impact. Large missile impact is 9 LB 2x4 at 80 Feet per second or 895 FT-LBS. (MISSILE LEVEL E) Product meets requirements of the high velocity hurricane zone. Hardware component substitution is allowed in Florida for the surface vertical rod, if the substituted exit device meets $\pm 10^{-1}$ PSF, minimum latch throw, latch strength, and 80 fps impact resistance.

9-104A 05/04/20



HURRICANE RESISTANT DOORS

WARNOCK HERSEY HURRICANE (WINDSTORM) PRODUCT CLASSIFICATION MATRICES, MISSILE LEVEL D (50 fps) FLORIDA PRODUCT APPROVAL #FL10723

Stiffne	ss Class I						Impact 350 ft-lbs
Door Type	Swing	Max. Size	Min. Ga.	*Max. Design Load (psf)	Min. Latch Throw (in.)	Lock Side- Min. Latch Strength (lbf)	Hardware Type
Medallion Legion, Ultra Regent Omega Fuego	Inswing/ Outswing	3'0" x 7'0" Single	18	+/- 60	1/2" cylindrical 3/4" mortise	630	Cylindrical Lock, Mortise Lock (Deadbolt not required)
Medallion Legion, Ultra Regent Omega Fuego	Inswing/ Outswing	3'0" x 7'0" Single	18	+/- 70	1/2" cylindrical, 1"deadlock 3/4" mortise, 1" deadbolt 1/2" act latch, 1"deadbolt (ICL)	735	Cylindrical Lock x deadlock, Mortise Lock w/deadbolt Function Interconnected lock
Medallion Legion, Ultra Regent Omega	Outswing	3'0" x 8'0" Single	18	+/- 60	3/4" mortise, 1" deadbolt n/a rim/vertical rod exit	720	Mortise Lock w/deadbolt Function, Rim exit Vertical Rod Exit
Medallion Legion, Ultra Regent Omega Fuego	Outswing	3'0" x 7'0" Single	18	+/- 60	1/2" cylindrical 3/4" mortise lock n/a mortise/rim/vertical rod exit	630	Cylindrical Lock, Mortise Lock (Deadbolt not required), Mortise exit, Rim Exit, Vertical Rod Exit
Medallion Legion, Ultra Regent Omega Fuego	Outswing	4'0" x 8'0" Single	16	+/- 70	3/4" mortise, 1" deadbolt n/a rim/vertical rod exit	1120	Mortise Lock w/deadbolt Function, Rim Exit, Vertical Rod Exit
Medallion Legion, Ultra Regent Omega	Outswing	6'0" x 7'0" PAIR	18	+/- 60	n/a rim exit	630	Rim Exit x Mullion
Medallion	Outswing	8'0" x 8'0" Pair	16	+/- 70	3/4" mortise, 1" deadbolt/ 1-1/4" surface bolt n/a rim exit, n/a Vertical Rod Exit	1120	Mortise Lock w/deadbolt (active)/ Surface Bolts (inactive), Rim Exit x Mullior Vertical Rod x Vertical Rod (Surface Bolts in Lieu of Vertical Rod Inactive)
Legion Ultra Regent Omega Fuego	Outswing	8'0" x 8'0" Pair	16	+/- 70	3/4" mortise, 1" deadbolt/ 1-1/4" Surface Bolt	1120	Mortise Lock w/deadbolt Function (active), Surface Bolts (inactive)

Notes: Doors with glass lights may limit design loads. See Index page 9-108 under "glazing" to locate glass kit information.

Louvers are excluded from use with Trio-E Doors.

Pairs with rim x rim and hardware mullion, frame depth may be limited by the hardware mullion. Contact hardware mullion manufacturer for depth limitations.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm) 05/04/20

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HURRICANE RESISTANT DOORS

WARNOCK HERSEY HURRICANE (WINDSTORM) PRODUCT CLASSIFICATION MATRICES, MISSILE LEVEL D (50 fps) FLORIDA PRODUCT APPROVAL #FL10723

Sti	ffness Class	 s l		<u> </u>			Impact 350 ft-lbs
Door Type	Swing	Max. Size	Min. Ga.	*Max. Design Load (psf)	Min. Latch Throw (in.)	Lock Side- Min. Latch Strength (lbf)	Hardware Type
Medallion, Legion, Ultra, Regent, Omega	Outswing	8'0" x 8'0" Pair	16	+/-70	1/2" Concealed Two Point Lock	688	Concealed Two Point Rod Lock x Concealed Two Point Rod Lock
#,*Trio-E	Inswing/ Outswing	3'0" x 7'0" Single	18	+/-100	1/2" cylindrical 3/4" mortise	1050	Cylindrical Lock, Mortise Lock w/deadbolt function
*Trio-E	Outswing	3'0" x 7'0" Single	18	+/-100	3/4" Rim Exit	1050	Rim Exit
#,*Trio-E	Outswing	la	18	+/-70	1/2" cylindrical, 3/4" mortise lock	1120	Cylindrical lock, Mortise lock w/deadbolt function
#,*Trio-E	Outswing	4'0" x 8'0" Single	18	+/-70	3/4" Rim Exit n/a Vertical Rod Exit	1120	Rim Exit Vertical Rod Exit
#,*Trio-E	Inswing/ Outswing	6'0" x 7'0" Pair	18	+/- 70	1/2" cylindrical, 1" deadbolt 3/4" mortise lock	735	Cylindrical x Deadlock, Mortise Lock w/deadbolt function (active), **Flushbolts or Surface Bolts (inactive)
#,*,^ Trio-E	Outswing	8'0" x 8'0" Pair	18	+/- 70	3/4" Rim Exit x 3/4" Rim Exit 3/4" Vertical Rod Exit x 3/4" Vertical Rod Exit	1120	Rim Exit each leaf x Hardware Mullion, Vertical Rod Exit x Vertical Rod Exit (Surface Bolts in Lieu of Vertical Rod Inactive)
#,*Trio-E	Inswing/ Outswing	8'0" x 8'0" Pair	18	+/- 70	1/2" cylindrical 1" deadlock 3/4" mortise lock	1120	Cylindrical Lock x Deadlock, Mortise Lock w/Deadbolt function (active) **Flushbolts or Surface Bolts (inactive)
*Trio-E	Outswing	8'0" x 8'0" Pair	18	+/- 70	1/2" Concealed Two Point Lock	688	Concealed Two Point Rod lock x Concealed Two Point Rod Lock

Notes: Doors with glass lights may limit design loads. See Index page 9—108 under "glazing" to locate glass kit information. *Louvers are excluded from use with Trio—E Doors.

Special frame head reinforcements are required when surface or concealed vertical rods are applied to Trio—E doors with glass.

9-106 05/04/20

^{**} Rockwood 556WS flushbolt required — Special reinforcements and prep are required during production of doors.

[#] Trio—E singles with glass are limited to mortise lock with deadbolt function, concealed vertical rod, surface vertical rod or rim panic. Trio—E pairs with glass are limited to concealed vertical rods, concealed two point rod locks, surface vertical rods or rim exits.

⁴⁰ x 80 Trio—E doors with rim exit devices shall have special internal reinforcements installed during production of doors.

^ Pairs with rim x rim and hardware mullion, frame depth may be limited by the hardware mullion. Contact hardware mullion manufacturer for depth limitations.



HURRICANE RESISTANT DOORS

WARNOCK HERSEY HURRICANE (WINDSTORM) PRODUCT CLASSIFICATION MATRICES, MISSILE LEVEL D (50fps) FLORIDA PRODUCT APPROVAL #FL10723

	Stiffness	Impact 350 ft-lbs					
Door Type	Swing	Max. Size	Min. Ga.	*Max. Design Load (psf)	Min. Latch Throw (in.)	Lock Side- Min. Latch Strength (lbf)	Hardware Type
Imperial Versadoor Mercury	Inswing/ Outswing	3'0" x 7'0" Single	18	+/- 70	1/2" cylindrical, 1" deadbolt, 3/4" mortise, 1" deadbolt, 1/2" Act. Latchbolt, 1" deadbolt (ICL)	735	Cylindrical Lock x Deadbolt, Mortise Lock w/deadbolt, Interconnected lock
Imperial Versadoor Mercury	Outswing	3'0" x 7'0" Single	18	+/- 60	1/2" cylindrical, 3/4" mortise, n/a Mortise/Rim/Vertical Rod Exit	630	Cylindrical Lock, Mortise Lock (Latchbolt), ***Mortise/***Rim/ ***Vertical Rod Exit
Imperial Versadoor Mercury	Outswing	6'0" x 7'0" Pair	18	+/- 60	n/a Rim Exit	630	Rim Exit x Mullion

Louvers are excluded from use with Trio-E Doors.

***Exit device not available with Imperial, Versadoor and Mercury polyurethane core over 3'-0" wide. Pairs with rim x rim and hardware mullion, frame depth may be limited by the hardware mullion. Contact mullion manufacturer for depth limitations.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

^{*}Doors with glass lights may limit design loads. See Index page 9—108 under "glazing" to locate the glass kit information.



HURRICANE RESISTANT DOORS

FOR FUTURE USE

9-107A 11/15/19



HURRICANE RESISTANT DOORS

FOR FUTURE USE

9-107B 11/15/19



INDEX SECTION 9 - HURRICANE RESISTANT DOORS

Illustrations

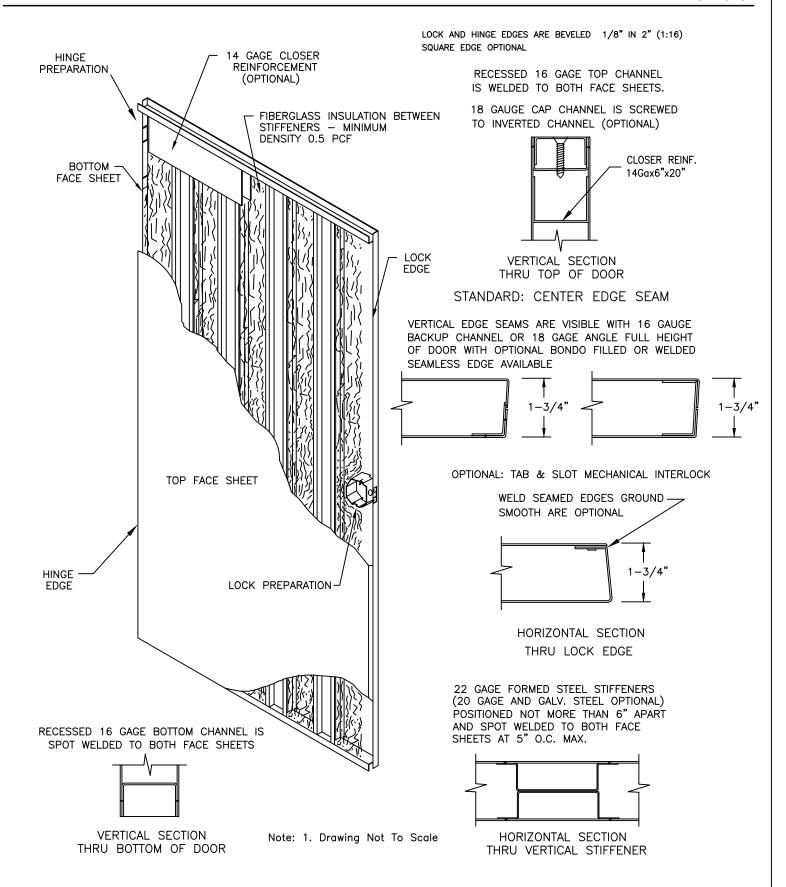
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HURRICANE RESISTANT DOORS - MEDALLION SERIES

MISSILE LEVEL D (50fps)



9-109 05/06/20

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)



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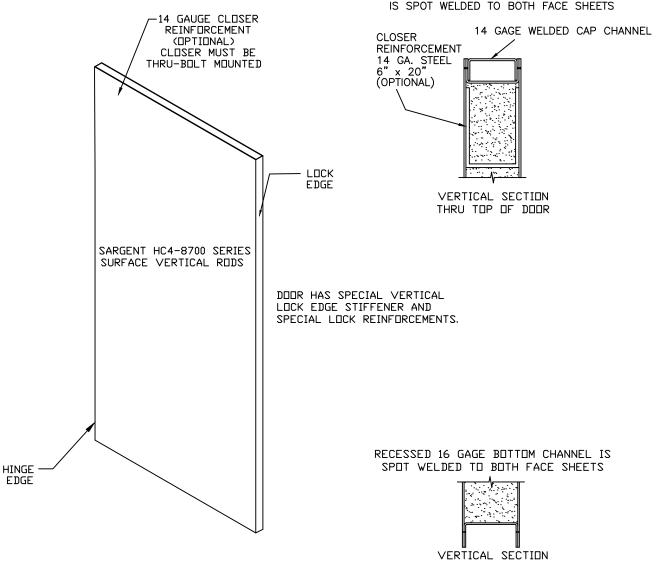
HURRICANE RESISTANT DOORS - UL 150 PSF MEDALLION SERIES MISSILE LEVEL E (80 fps)

MEDALLION STEEL STIFFENED CORE

+/-150 PSF HURRICANE DOOR

LOCK EDGE IS BEVELED 1/8' IN 2' (1:16) HINGE BACKSET IS 1/4'

RECESSED 16 GAGE TOP CHANNEL IS SPOT WELDED TO BOTH FACE SHEETS



FACE SHEET MATERIAL

14 GAGE C.R. STEEL

14 GAGE HOT-DIPPED GALVANNEALED (A60) STEEL

14 GAGE HOT-DIPPED GALVANIZED (G90) STEEL

•3 SIDED FRAME BOTTOM STRIKE MUST BE ATTACHED TO CONCRETE OR STRUCTURAL STEEL AND ALLOW BOTTOM BOLT TO PROPERLY ENGAGE STRIKE.

9-109A 06/11/20

THRU BOTTOM OF DOOR



POLYURETHANE FOAM CORE

VERTICAL STEEL REINFORCEMENT

TOP FACE SHEET

LOCK PREPARATION

Distributor Tech-Data

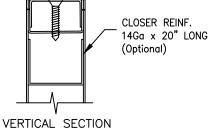
WARNOCK HERSEY HURRICANE RESISTANT DOORS - MERCURY SERIES

MISSILE LEVEL D (50 fps)

LOCK EDGE IS BEVELED 1/8" IN 2" (1:16) SQUARE EDGE OPTIONAL

> INVERTED (16 GA) TOP CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN

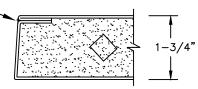
18 GAUGE CAP CHANNEL IS SCREWED TO INVERTED CHANNEL (OPTIONAL)



THRU TOP OF DOOR

VERTICAL EDGES ARE CECO'S STANDARD TAB & SLOT MECHANICAL INTERLOCK

WELD SEAMED EDGES GROUND SMOOTH ARE OPTIONAL



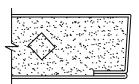
EMBOSSED SKINS OPTIONAL

HINGE

PREPARATION

BOTTOM FACE

SHEET



LOCK EDGE IS BEVELED 1/8" IN 2" (1:16)

INVERTED (16 GA.) BOTTOM CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN



VERTICAL SECTION
THRU BOTTOM OF DOOR

LOCK EDGE



HURRICANE RESISTANT DOORS - TRIO-E SERIES

MISSILE LEVEL D (50 fps)

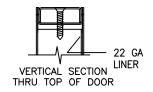
TRIO-E DOOR CONSTRUCTION DETAILS

14 GAGE CLOSER REINFORCEMENT HINGE (OPTIONAL) **PREPARATION** POLYURETHANE INSULATION BETWEEN STIFFENERS
DENSITY: 1.8-2.0 LBS/CUBIC FOOT BOTTOM FACE SHEET LOCK EDGE TOP FACE SHEET HINGE EDGE LOCK PREPARATION OPTIONAL CONTINUOUS BEAD OF STRUCTURAL ADHESIVE APPLIED TO BOTH FLANGES OF BOTTOM SKIN

LOCK EDGE IS BEVELED 1/8" IN 2"
HINGE EDGE IS PERPENDICULAR TO FACES
HINGE BACKSET IS 1/4" (VARIES PER CONDITION)

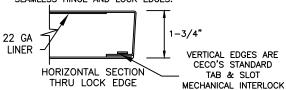
INVERTED (16 GAGE MIN., 14 GA. MAX.) TOP CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN

18 GAGE CAP CHANNEL IS SCREWED TO INVERTED CHANNEL (OPTIONAL).

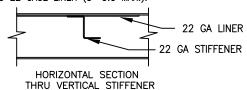


16 OR 18 GA. (WELDING OPTIONAL)

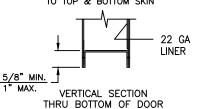
VERTICAL EDGES ARE WELDED THE FULL HEIGHT OF DOOR AND DRESSED SMOOTH TO OBTAIN COMPLETELY SEAMLESS HINGE AND LOCK EDGES.



STANDARD 22 GAGE (20 or 18 GAGE OPTIONAL) FORMED STEEL STIFFENERS, POSITIONED NOT MORE THAN 6" APART, AND WELDED TO 22 GAGE LINER (5" O.C MAX.).



INVERTED (18 GAGE MIN., 14 GA. MAX.) BOTTOM CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN



FACE SHEETS

18 GAGE CRCQ STEEL (STANDARD) 16 GAGE CRCQ STEEL (OPTIONAL) GALVANIZED (A40) STEEL (OPTIONAL)

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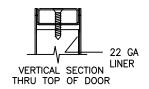
HURRICANE RESISTANT DOORS TRIO-E SERIES WITH GLASSLAM SAFETY PLUS II & PET FLAP MISSILE LEVEL D (50 fps)

Glazed Trio-E CONSTRUCTION DETAILS

LOCK EDGE IS BEVELED 1/8" IN 2"
HINGE EDGE IS PERPENDICULAR TO FACES
HINGE BACKSET IS 1/4" (VARIES PER CONDITION)

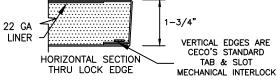
INVERTED (16 GAGE MIN., 14 GA. MAX.) TOP CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN

18 GAGE CAP CHANNEL IS SCREWED TO INVERTED CHANNEL (OPTIONAL).

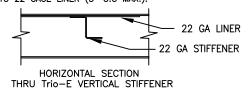


16 OR 18 GA. (WELDING OPTIONAL)

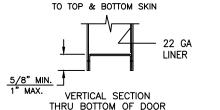
VERTICAL EDGES ARE WELDED THE FULL HEIGHT OF DOOR AND DRESSED SMOOTH TO OBTAIN COMPLETELY SEAMLESS HINGE AND LOCK EDGES.



STANDARD 22 GAGE (20 or 18 GAGE OPTIONAL) FORMED STEEL STIFFENERS, POSITIONED NOT MORE THAN 6" APART, AND WELDED TO 22 GAGE LINER (5" O.C MAX.).



INVERTED (18 GAGE MIN., 14 GA. MAX.) BOTTOM CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN



14 GAGE CLOSER REINFORCEMENT REQUIRED WITH RIM EXITS HINGE PREPARATION *POLYURETHANE INSULATION BETWEEN STIFFENERS BOTTOM -FACE SHEET DENSITY: 1.8-2.0 LBS/CUBIC FOOT **EDGE** STIFFENER LOCK EDGE TOP FACE OPTIONAL TOP FACE SHEET CONTINUOUS BEAD OF STRUCTURAL ADHESIVE APPLIED TO BOTH FLANGES OF BOTTOM SKIN FACE SHEETS 18 GAGE CRCQ STEEL (STANDARD) 16 GAGE CRCQ STEEL (OPTIONAL) GALVANIZED (A60) STEEL (OPTIONAL) D0323

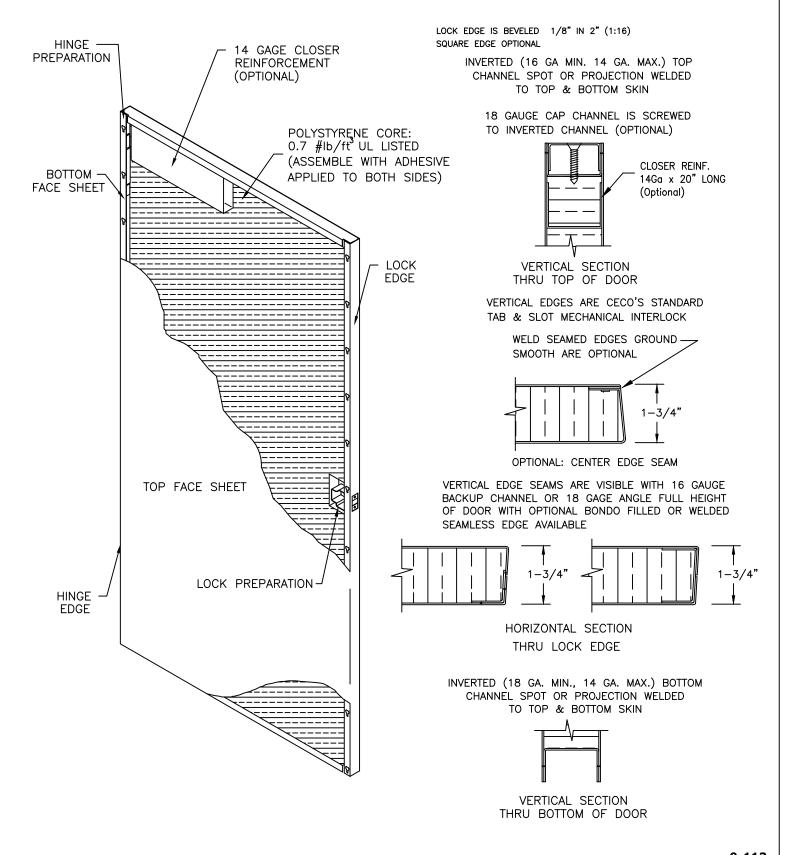
(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

9-112



HURRICANE RESISTANT DOORS - LEGION OR ULTRA SERIES

MISSILE LEVEL D (50 fps)



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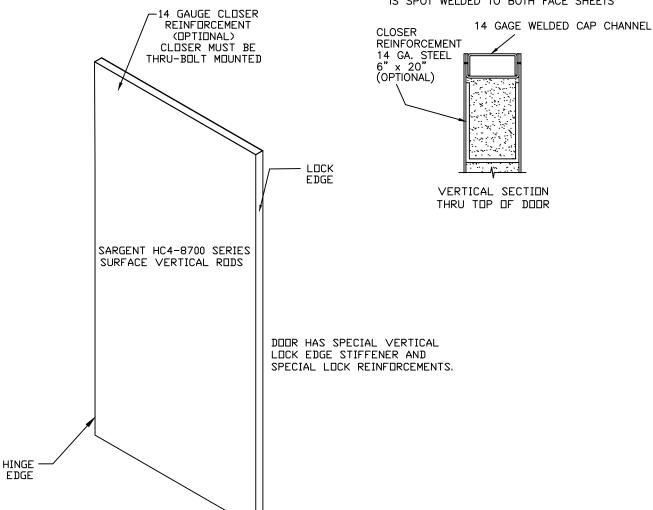
ASSA ABLOY HURRICANE RESISTANT DOORS - UL 150 PSF LEGION SERIES MISSILE LEVEL E (80 fps)

POLYSTYRENE FOAM CORE 0.7 #lb/ft³ UL LISTED (ASSEMBLE WITH ADHESIVE APPLIED TO BOTH SIDES)

+/-150 PSF HURRICANE DOOR

LOCK EDGE IS BEVELED 1/8" IN 2" (1:16) HINGE BACKSET IS 1/4"

RECESSED 16 GAGE TOP CHANNEL IS SPOT WELDED TO BOTH FACE SHEETS



RECESSED 16 GAGE BOTTOM CHANNEL IS SPOT WELDED TO BOTH FACE SHEETS

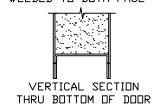
FACE SHEET MATERIAL

14 GAGE C.R. STEEL

14 GAGE HOT-DIPPED GALVANNEALED (A60) STEEL

14 GAGE HOT-DIPPED GALVANIZED (G90) STEEL

•3 SIDED FRAME BOTTOM STRIKE MUST BE ATTACHED TO CONCRETE OR STRUCTURAL STEEL AND ALLOW BOTTOM BOLT TO PROPERLY ENGAGE STRIKE.



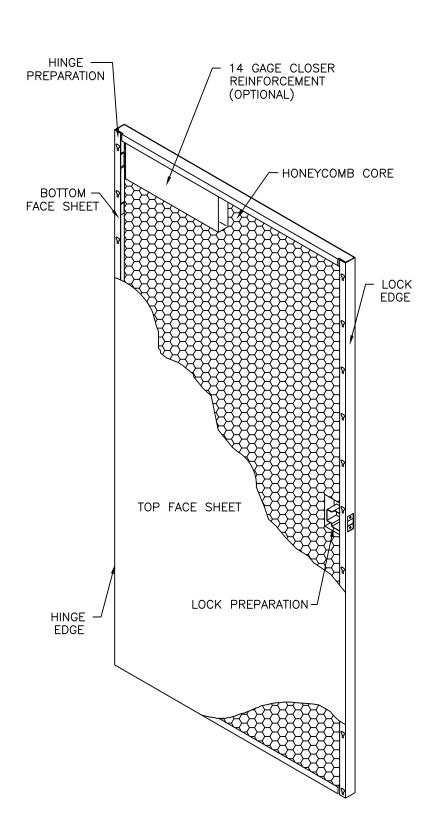
9-113A

(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)



HURRICANE RESISTANT DOORS - REGENT OR OMEGA SERIES

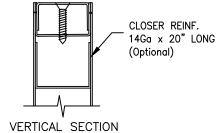
MISSILE LEVEL D (50fps)



LOCK EDGE IS BEVELED 1/8" IN 2" (1:16) SQUARE EDGE OPTIONAL

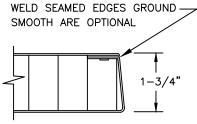
> INVERTED (16 GA MIN. 14 GA. MAX.) TOP CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN

18 GAUGE CAP CHANNEL IS SCREWED TO INVERTED CHANNEL (OPTIONAL)



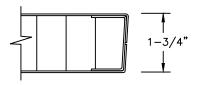
THRU TOP OF DOOR

VERTICAL EDGES ARE CECO'S STANDARD TAB & SLOT MECHANICAL INTERLOCK



OPTIONAL: CENTER EDGE SEAM

VERTICAL EDGE SEAMS ARE VISIBLE WITH 16 GAUGE BACKUP CHANNEL FULL HEIGHT OF DOOR WITH OPTIONAL BONDO FILLED OR WELDED SEAMLESS EDGE AVAILABLE



HORIZONTAL SECTION
THRU LOCK EDGE

INVERTED (18 GA. MIN., 14 GA. MAX.) BOTTOM CHANNEL SPOT OR PROJECTION WELDED TO TOP & BOTTOM SKIN



VERTICAL SECTION
THRU BOTTOM OF DOOR

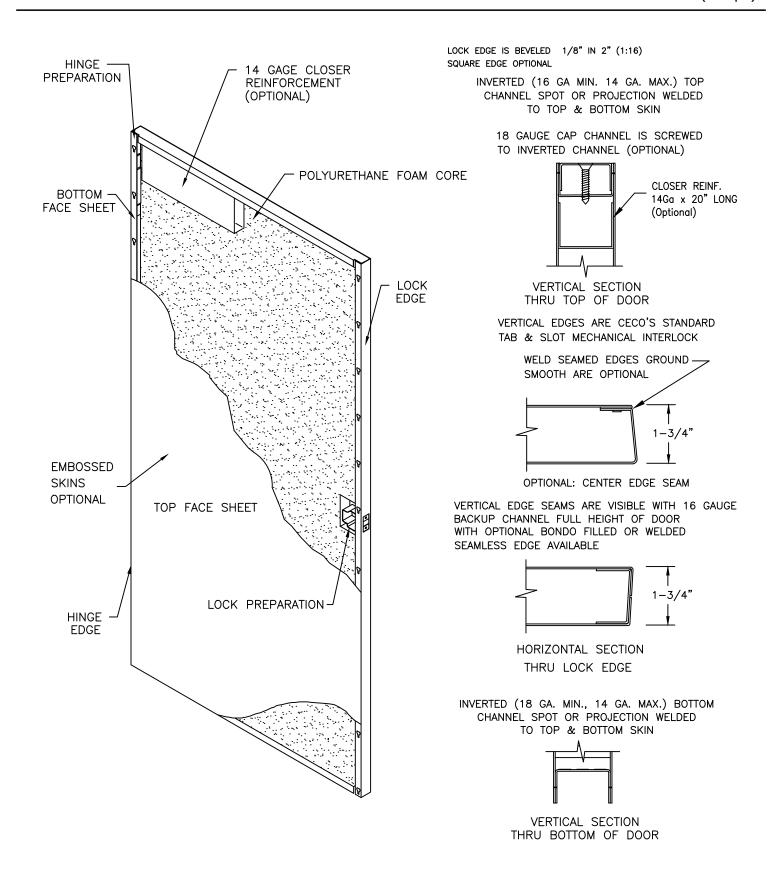
9-114 05/08/20

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)



HURRICANE RESISTANT DOORS - IMPERIAL OR VERSADOOR SERIES MISSILE LEVEL D (50 fps)

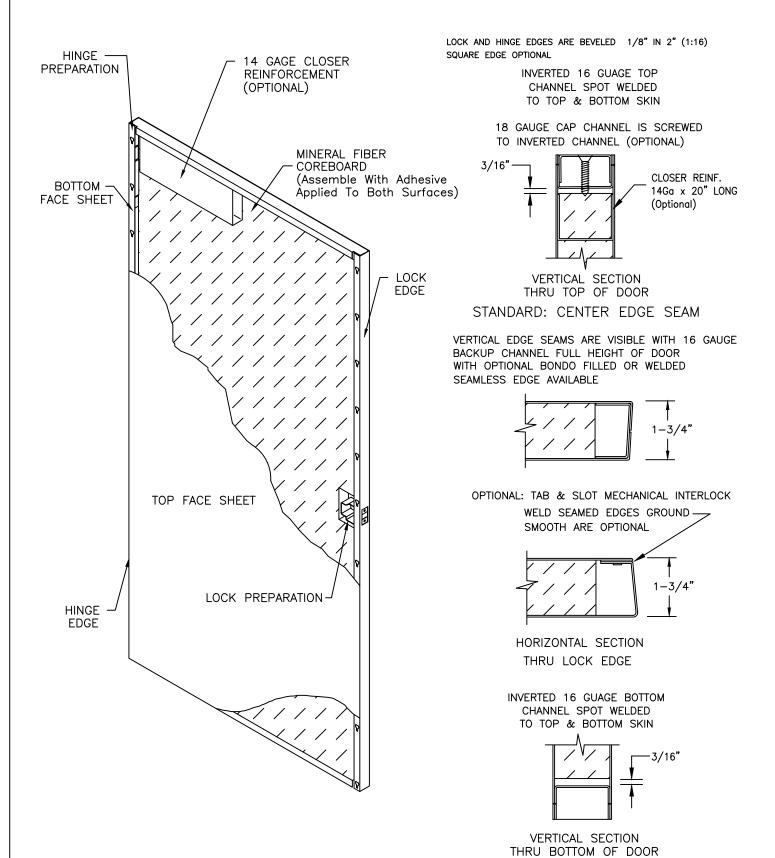




9-115 05/08/20



HURRICANE RESISTANT DOORS - FUEGO SERIES
MISSILE LEVEL D (50fps)



9-116 05/08/20

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)



ASSA ABLOY

Distributor Tech-Data

HURRICANE RESISTANT DOORS - 150 PSF IMPERIAL SERIES MISSILE LEVEL D (50 fps)

DOOR SIZE LIMITS:

(SINGLES) $3'-0'' \times 7'-0''$ MIN. $4'-0" \times 8'-0"$ MAX. (PAIRS EQUAL LEAF SIZE ONLY>

 $6'-0'' \times 7'-0''$ MIN.

8'-0" × 8'-0" MAX.

CORBIN RUSSWIN FE6600 & SARGENT FM7300 CONCEALED VERTICAL RODS, TOP & BOTTOM BOLTS, & MORTISE LOCK BODY CASETTE MUST BE FACTORY INSTALLED IN DOOR.

BOTTOM FACE SHEET

ALL OTHER HARDWARE COMPONENTS ARE SHIPPED DIRECTLY FROM SARGENT OR CORBIN RUSSWIN & MUST BE INSTALLED BY A FACTORY TRAINED INSTALLER.

IMPORTANT: DO NOT REMOVE ANY HARDWARE BLOCKING OR FILLER PLATES IN DOOR & THE FRAME UNTIL THE MORTISE LOCK IS READY TO BE INSTALLED.

> HINGE **FDGF**

MULTI-POINT LOCK PREPARATION
SINGLE DOOR OR ACTIVE LEAF OF
PAIR. INACTIVE LEAF OF PAIR HAS
STRIKE PREP. SURFACE BOLTS MUST
BE THRU-BOLT MOUNTED ONLY.
THREAT SIDE MOUNTED 1/8" FLAT
PLATE ASTRAGAL REQUIRED WITH

TOP FACE SHEET

14 GAUGE CLOSER

REINFORCEMENT

(OPTIONAL) CLOSER MUST BE

THRU-BOLT MOUNTED

*POLYURETHANE FOAM CORE

LDCK

EDGE

PAIRS.

*NOTE: FIRE RATED DOORS WILL HAVE HONEYCOMB CORE.

FACE SHEET MATERIAL

14 GAGE C.R. STEEL

14 GAGE HOT-DIPPED GALVANNEALED (A60) STEEL

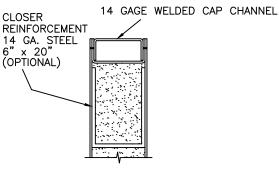
14 GAGE HOT-DIPPED GALVANIZED (G90) STEEL

- ●3/8″ DOOR UNDERCUT
- •3/8" MAX. BETWEEN BOTTOM OF DOOR & TOP OF STRIKE
- ●WHEN USING 3 SIDED FRAME BOTTOM STRIKE MUST BE ATTACHED TO CONCRETE OR STRUCTURAL STEEL AND ALLOW BOTTOM BOLT TO PROPERLY ENGAGE STRIKE.

PRESCRIPTIVE ASSEMBLY +/-150 PSF HURRICANE DOOR

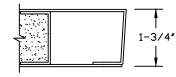
LOCK EDGE IS BEVELED 1/8" IN 2" (1:16) HINGE BACKSET IS 1/4"

RECESSED 16 GAGE TOP CHANNEL IS SPOT WELDED TO BOTH FACE SHEETS



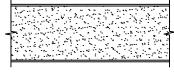
VERTICAL SECTION THRU TOP OF DOOR

VERTICAL EDGES ARE CONTINUOUSLY WELDED AND DRESSED SMOOTH TO OBTAIN COMPLETELY SEAMLESS HINGE & LOCK EDGES



HORIZONTAL SECTION THRU LOCK EDGE

*THE INTERIOR OF THE DOOR IS FILLED WITH POLYURETHANE FOAM WHICH PROVIDES COMPLETE SURFACE SUPPORT



HORIZONTAL SECTION

RECESSED 16 GAGE BOTTOM CHANNEL IS SPOT WELDED TO BOTH FACE SHEETS



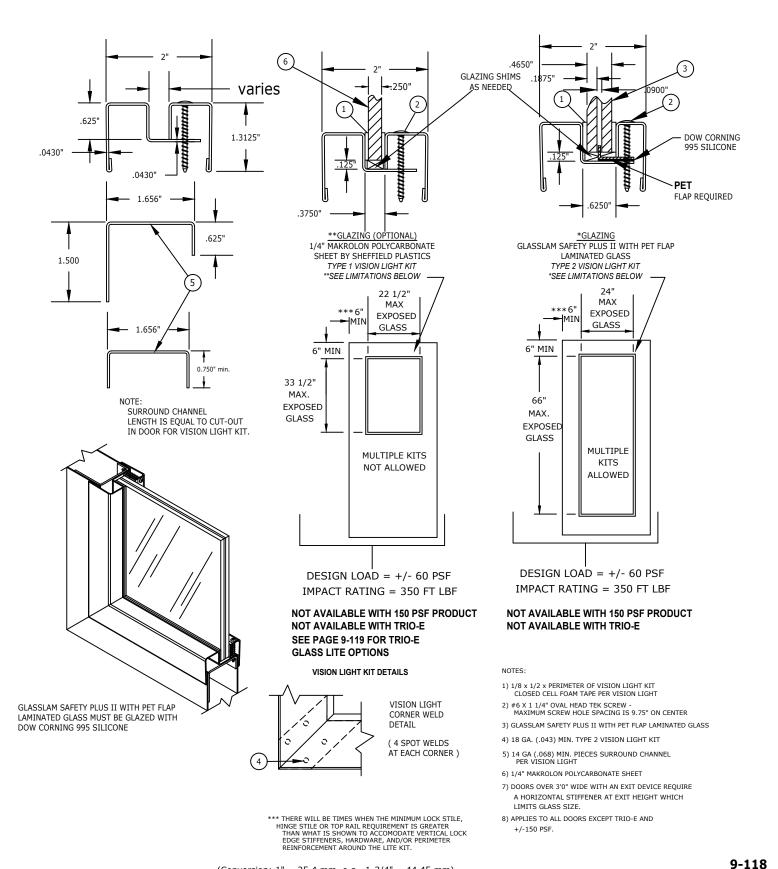
9-117 05/08/20

(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)



05/08/20

HURRICANE RESISTANT DOOR OR PANEL - APPLIED GLASS KIT MISSILE LEVEL D (50 fps)

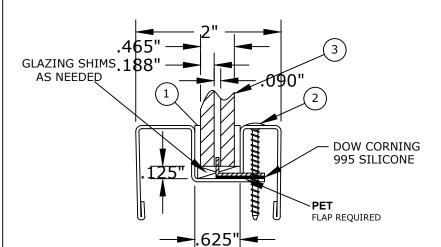


(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)

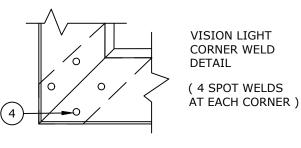


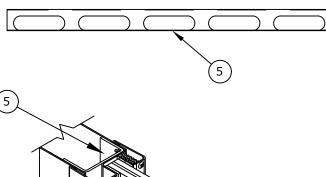
HURRICANE RESISTANT DOORS - TRIO-E GLASS KIT DETAILS

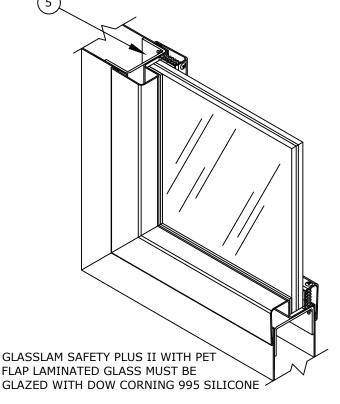
MISSILE LEVEL D (50 fps)



VISION LIGHT KIT DETAILS

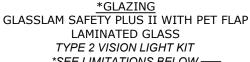


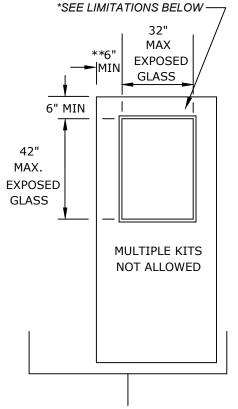




NOTES:

- 1) $1/8 \times 1/2 \times PERIMETER OF VISION LIGHT KIT CLOSED CELL FOAM TAPE PER VISION LIGHT$
- 2) #6 X 1 1/4" OVAL HEAD TEK SCREW -MAXIMUM SCREW HOLE SPACING IS 8.250" ON CENTER AND 3.5" MAX. FROM ENDS
- 3) GLASSLAM SAFETY PLUS II WITH PET FLAP LAMINATED GLASS
- 4) 18 GA. (.043) MIN. TYPE 2 VISION LIGHT KIT
- 5) 20 GA (.032) MIN. GAGE SURROUND CHANNEL
- 6) THIS PAGE DOES NOT APPLY TO ANY OTHER DOOR SERIES.





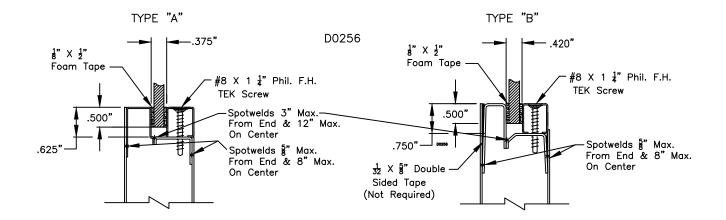
DESIGN LOAD = +/- 70 PSF IMPACT RATING = 350 FT LBF TRIO-E DOORS ONLY

** THERE WILL BE TIMES WHEN THE MINIMUM LOCK STILE, HINGE STILE OR TOP RAIL REQUIREMENT WILL BE GREATER THAN THAN WHAT IS SHOWN TO ACCOMODATE VERTICAL LOCK EDGE STIFFENERS, HARDWARE, AND/OR PERIMETER REINFORCEMENT AROUND THE LITE KIT.



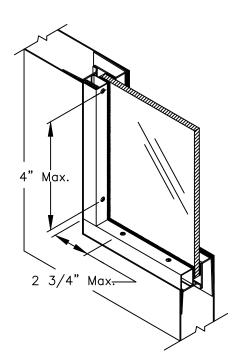
HURRICANE RESISTANT DOOR OR PANEL - FLUSH GLASS KIT

MISSILE LEVEL D (50 fps)

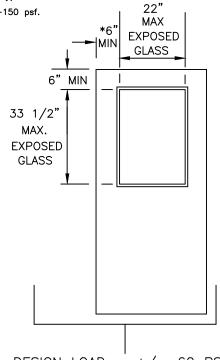


NOTES:

- 1) Glass is 1/4" Makrolon Polycarbonate sheet by Sheffield Plastics..
- 2) Multiple kits not allowed
- Kit design is not available with polyurethane (Trio-E, Imperial, Versadoor & Mercury) core doors
- 4) Kit design is not available with +/-150 psf.



*THERE WILL BE TIMES WHEN THE MINIMUM LOCK STILE REQUIREMENT IS GREATER THAN 6" TO ACCOMODATE VERTICAL LOCK EDGE STIFFENERS, HARDWARE, AND/OR PERIMETER REINFORCEMENT AROUND THE LITE KIT.



DESIGN LOAD = +/- 60 PSF IMPACT RATING = 350 FT LBF NOT AVAILABLE WITH TRIO-E NOT AVAILABLE WITH 150PSF PRODUCT

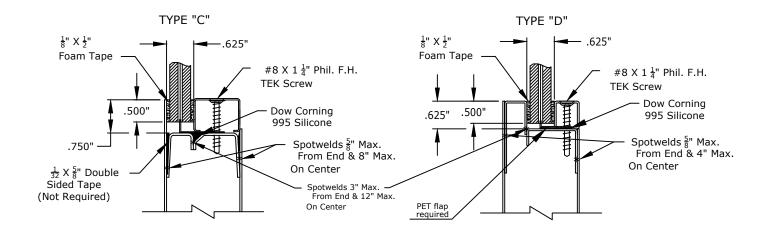
9-120 05/08/20

(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)



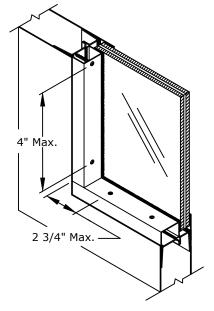
HURRICANE RESISTANT DOOR OR PANEL - ALTERNATE FLUSH GLASS KIT

MISSILE LEVEL D (50 fps)

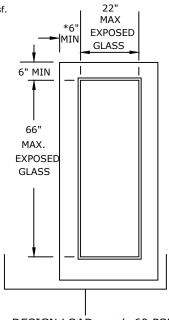


NOTES:

- 1) Glass is Glasslam Safety Plus II with PET flap
- 2) Multiple kits allowed
- 3) Kit design not available with polyurethane (Trio-E, Imperial, Versadoor & Mercury) core doors.
- Doors over 3'0" wide with an exit device require a horizontal stiffener at exit height which limits glass size.
- 5) Kit design not available with +/-150psf.



THERE WILL BE TIMES WHEN THE MINIMUM LOCK STILE REQUIREMENT IS GREATER THAN 6" TO ACCOMODATE VERTICAL LOCK EDGE STIFFENERS, HARDWARE, AND/OR PERIMETER REINFORCEMENT AROUND THE LITE KIT.



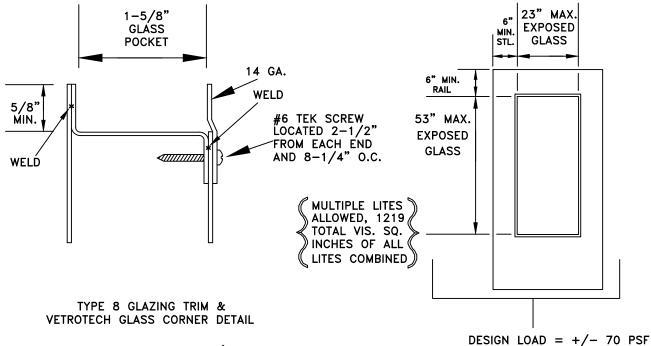
DESIGN LOAD = +/- 60 PSF
IMPACT RATING = 350 FT LBF
NOT AVAILABLE WITH TRIO-E
NOT AVAILABLE WITH 150 PSF PRODUCT

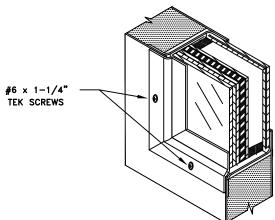
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ASSA ABLOY

HURRICANE RESISTANT DOORS - UL FIRE RATED IMPACT GLASS AND KIT,
MISSILE LEVEL D (50fps)





NOTES:

 CECO DOES NOT HAVE TO PROVIDE OR INSTALL THE VETROTECH FIRE AND IMPACT GLASS, BUT THE GLASS SHOWN MUST BE USED TO SATISFY LABELING GUIDELINES.

IMPACT RATING = 350 FT LBF

- 2. 1/16 x 1/2 x PERIMETER OF VISION LIGHT KIT CLOSED CELL FOAM TAPE
- 3. THIRD PARTY FIRE RATING CERTIFICATION BY U.L.
- 4. THIRD PARTY WINDSTORM CERTIFICATION BY U.L.

1-1/2" VETROTECH KERALITE FR-ULTRA IGU HI LAMINATED GLASS MUST BE GLAZED WITH DOW CORNING 995 SILICONE OR GE STRUCTURAL SILICONE AROUND THE OPENING.

ALSO USE A CAP BEAD OF DOW CORNING 995 OR GE STRUCTURAL SILICONE AT THE TOP OF BEAD & TRIM.

DOOR TYPE	CONFIGURATION	MAX SIZE	MIN GAUGE	(U.L.) HOURLY FIRE RATING DOORS CAN ONLY BE USED IN 3 SIDED FRAMES	FLORIDA BUILDING CODE REF. NUMBER
	OUTSWING SINGLE	40 x 80	16	3/4, 1, 1/1/2	
MEDALLION LEGION FUEGO	INSWING SINGLE	30 x 70	18	3/4, 1, 1/1/2	FL12537 - GLASS TRIM FL11537 - DOORS (U.L.)
10200	OUTSWING PAIR	80 x 80	16	3/4, 1, 1/1/2	

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FOR FUTURE USE

FOR

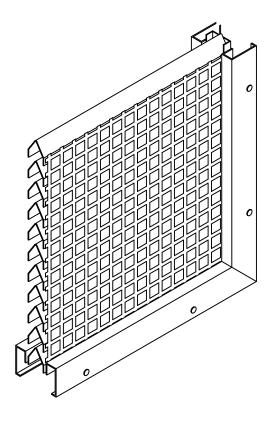
FUTURE

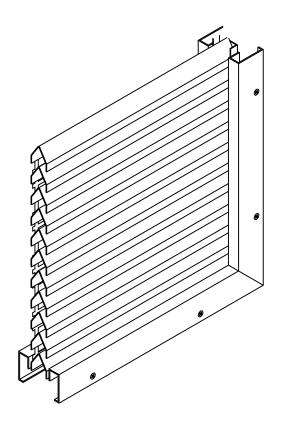
USE

9-123 11/19/19

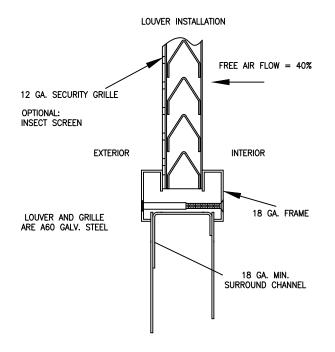


HURRICANE RESISTANT DOOR OR PANEL - LOUVER, MISSILE LEVEL D (50 fps)





AVAILABLE ON OUTSWING DOORS ONLY

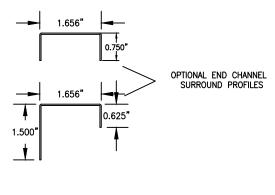


- NOTES:

 1. NOT AVAILABLE WITH 150 PSF PRODUCT OR TRIO-E DOORS
- 2. DESIGN PRESSURE +/- 70 PSF MAX., IMPACT MISSLE LEVEL-D 350 FT/LBS 3. WLV60 LOUVER WITH SECURITY GRILLE SHOWN.
 4. ANY WINDSTORM COMPONENT LISTED LOUVER MAY BE USED IN FLORIDA.

- 5. MAXIMUM LOUVER SIZE IS 34" X 78".

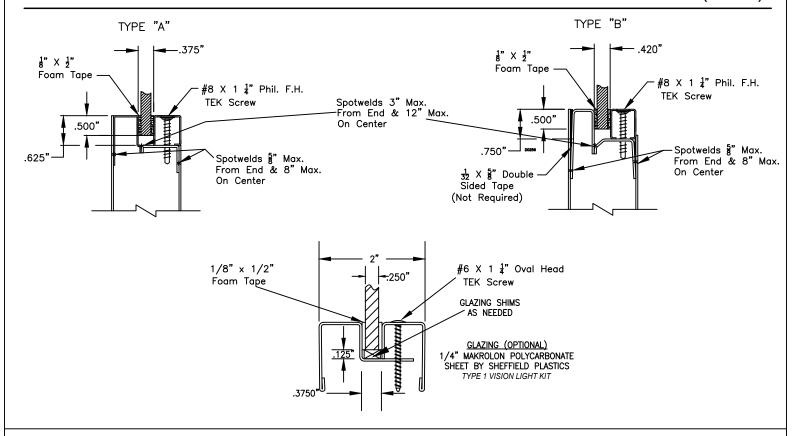
- MAXIMOM EUOVER SIZE IS 34 x 78.
 MINIMUM STILES AND RAILS.
 MULTIPLE LOUVERS ALLOWED PER DOOR
 DOORS OVER 3'-0" WIDE WITH AN EXIT DEVICE REQUIRE A HORIZONTAL STIFFENER AT EXIT HEIGHT, WHICH LIMITS LOUVER SIZE.
 LOUVER DESIGN SHOWN IS NOT AVAILABLE FOR FIRE RATED OPENINGS.



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HURRICANE RESISTANT DOORS -POLYCARBONATE GLAZING INSTRUCTIONS, MISSILE LEVEL D (50 FPS)

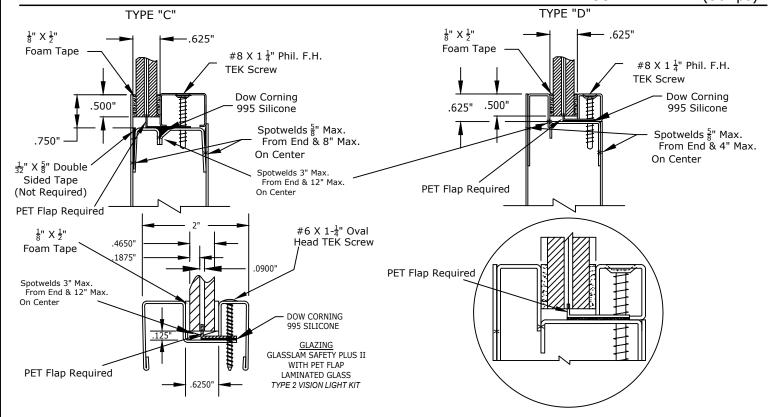


- 1) BEFORE REMOVING THE REMOVABLE STOPS, CHECK TO BE SURE THERE ARE SCREWS IN EVERY HOLE. IF A SCREW IS MISSING AND THE MATERIAL BELOW HASN'T BEEN DRILLED, THEN PRE-DRILL HOLES WITH CORRECT BIT FOR THE SCREW SIZE. DO NOT REMOVE STOPS.
- 2) USING PENCIL, MARK ALIGNMENT MARKS ON THE REMOVABLE STOPS (AND THE DOOR IF TYPE I KIT).
- 3) UNSCREW THE TEK SCREWS FROM THE REMOVABLE STOPS AND REMOVE THE REMOVABLE STOPS. KEEP THE SCREWS.
- 4) APPLY 1/8" X 1/2" CLOSED CELL FOAM GLAZING TAPE TO THE FIXED STOP.
- 5) IF THERE IS PLASTIC RELEASE ON THE FOAM GLAZING TAPE, PULL THE PLASTIC RELEASE BACK ABOUT 2" FROM EACH END OF THE FOAM TAPE. PULL THE PLASTIC RELEASE ABOVE THE FIXED STOP SO IT CAN BE GRASPED AFTER PLACING THE POLYCARBONATE ON THE UNEXPOSED FOAM TAPE.
- 6) IF THERE IS PAPER RELEASE ON THE FOAM GLAZING TAPE, REMOVE THE PAPER RELEASE BEFORE GLAZING. SPRAY THE EXPOSED FOAM TAPE WITH A MILD SOAP SOLUTION IMMEDIATELY BEFORE PLACING THE POLYCARBONATE ON THE EXPOSED FOAM TAPE.
- 7) PLACE GLAZING SHIMS, AS NEEDED, THEN SET THE POLYCARBONATE ON THE FOAM GLAZING TAPE.
- 8) ADJUST THE POLYCARBONATE, AS NECESSARY, TO CENTER THE POLYCARBONATE IN THE CUTOUT.
- 9) IF THE RELEASE IS PLASTIC, GRASP THE FREE END OF THE PLASTIC RELEASE, WHILE HOLDING THE POLYCARBONATE TO KEEP IT FROM MOVING. THEN SLOWLY PULL THE PLASTIC RELEASE OFF OF THE FOAM TAPE THAT WAS APPLIED TO THE FIXED STOP.
- 10) APPLY 1/8" X 1/2" CLOSED CELL FOAM TAPE TO THE REMOVABLE STOP.
- 11) IF THERE IS A PLASTIC RELEASE ON THE FOAM GLAZING TAPE, PULL THE RELEASE BACK ABOUT 2" FROM EACH END OF THE FOAM TAPE. PULL THE PLASTIC RELEASE ABOVE THE REMOVABLE STOP SO IT CAN BE GRASPED AFTER PLACING THE REMOVABLE STOP ON THE POLYCARBONATE.
- 12) IF THERE IS PAPER RELEASE ON THE FOAM GLAZING TAPE, REMOVE THE PAPER. SPRAY THE EXPOSED FOAM TAPE WITH A MILD SOAP SOLUTION IMMEDIATELY BEFORE PLACING THE REMOVABLE STOPS AGAINST THE POLYCARBONATE.
- 13) USING THE ALIGNMENT MARKS, POSITION THE REMOVABLE STOPS AGAINST THE POLYCARBONATE.
- 14) INSTALL AND TIGHTEN THE TEK SCREWS IN THE REMOVABLE STOPS. BE CAREFUL NOT TO OVER TIGHTEN.
- 15) IF THE RELEASE IS PLASTIC, GRASP THE FREE END OF THE PLASTIC RELEASE, AND SLOWLY PULL THE PLASTIC RELEASE OFF THE FOAM TAPE THAT WAS APPLIED TO THE REMOVABLE STOP.
- 16) USING DOW CORNING 995 SILICONE OR OTHER HIGH QUALITY SILICONE, APPLY A CAP BEAD OVER THE CLOSED CELL FOAM TAPE ON THE EXTERIOR SIDE OF THE DOOR VISION LIGHT KIT.

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HURRICANE RESISTANT DOORS - GLASSLAM GLAZING INSTRUCTIONS,
MISSILE LEVEL D (50 fps)



- 1) BEFORE REMOVING THE REMOVABLE STOPS, CHECK TO BE SURE THERE ARE SCREWS IN EVERY HOLE. IF A SCREW IS MISSING AND THE MATERIAL BELOW HASN'T BEEN DRILLED, THEN PRE-DRILL HOLES WITH CORRECT BIT FOR SCREW SIZE. DO NOT REMOVE STOPS.
- 2) USING A PENCIL, MARK ALIGNMENT MARKS ON THE REMOVABLE STOPS (AND THE DOOR IF TYPE 2 KIT).
- 3) UNSCREW THE TEK SCREWS FROM THE REMOVABLE STOPS AND REMOVE THE REMOVABLE STOPS. KEEP THE SCREWS.
- 4) APPLY 1/8" X 1/2" CLOSED CELL FOAM GLAZING TAPE TO THE FIXED STOP.
- 5) IF THERE IS PLASTIC RELEASE ON THE FOAM GLAZING TAPE, PULL THE PLASTIC RELEASE BACK ABOUT 2" FROM EACH END OF THE FOAM TAPE. PULL THE PLASTIC RELEASE ABOVE THE FIXED STOP SO IT CAN BE GRASPED AFTER PLACING THE GLASSLAM ON THE UNEXPOSED FOAM TAPE.
- 6) IF THERE IS PAPER RELEASE ON THE FOAM GLAZING TAPE, REMOVE THE PAPER RELEASE BEFORE GLAZING. SPRAY THE EXPOSED FOAM TAPE WITH A MILD SOAP SOLUTION IMMEDIATELY BEFORE PLACING THE GLASSLAM ON THE EXPOSED FOAM TAPE.
- 7) PLACE GLAZING SHIMS, AS NEEDED, THEN SET THE GLASSLAM ON THE FOAM GLAZING TAPE.
- 8) ADJUST THE GLASSLAM, AS NECESSARY, TO CENTER THE ASSEMBLY IN THE CUTOUT.
- 9) IF THE RELEASE IS PLASTIC, GRASP THE FREE END OF THE PLASTIC RELEASE, WHILE HOLDING THE GLASSLAM TO KEEP IT FROM MOVING. THEN SLOWLY PULL THE PLASTIC RELEASE OFF OF THE FOAM TAPE THAT WAS APPLIED TO THE FIXED STOP.
- 10) TRIM THE PET FLAP SO IT DOES NOT EXTEND BEYOND THE REMOVABLE GLASS STOP.
- 11) TAKE A PUTTY KNIFE AND INSERT IT BETWEEN THE PET FLAP AND THE EDGE OF THE CUTOUT IN THE DOOR. USING THE PUTTY KNIFE PULL THE PET FLAP AWAY FROM THE CUTOUT IN THE DOOR.
- 12) WHILE HOLDING THE PET FLAP BACK AWAY FROM THE CUTOUT WITH THE PUTTY KNIFE, USE A CAULKING GUN TO APPLY DOW CORNING 995 SILICONE BETWEEN THE PET FLAP AND THE STEEL IN THE CUTOUT OF THE DOOR.

IMPORTANT: ENSURE THAT THE DOW CORNING 995 SILICONE FULLY WETS OUT OR COVERS THE PET FLAP <u>AND</u> COMES IN CONTACT WITH THE STEEL AROUND THE CUTOUT IN THE DOOR.

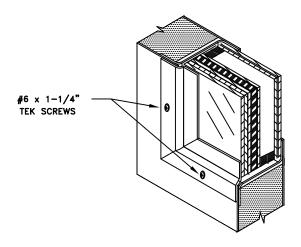
- 13) SLOWLY MOVE THE PUTTY KNIFE AROUND THE DOOR AHEAD OF THE CAULKING GUN AND APPLY THE 995 SILICONE AROUND THE ENTIRE CUTOUT IN THE DOOR.
- 14) APPLY $1/8" \times 1/2"$ CLOSED CELL FOAM GLAZING TAPE TO THE REMOVABLE STOP.
- 15) IF THERE IS A PLASTIC RELEASE, ON THE FOAM GLAZING TAPE, PULL THE PLASTIC RELEASE BACK ABOUT 2" FROM EACH END OF THE FOAM TAPE. PULL THE PLASTIC RELEASE ABOVE THE REMOVABLE STOP SO IT CAN BE GRASPED AFTER PLACING THE REMOVABLE STOP ON THE GLASSLAM.
- 16) IF THERE IS PAPER RELEASE ON THE FOAM GLAZING TAPE, REMOVE THE PAPER. SPRAY THE EXPOSED FOAM TAPE WITH A MILD SOAP SOLUTION IMMEDIATELY BEFORE PLACING THE REMOVABLE STOPS AGAINST THE GLASSLAM.
- 17) USING THE ALIGNMENT MARKS, POSITION THE REMOVABLE STOPS AGAINST THE GLASSLAM.
- 18) INSTALL AND TIGHTEN THE TEK SCREWS IN THE REMOVABLE STOPS. BE CAREFUL NOT TO OVER TIGHTEN.
- 19) IF THE RELEASE IS PLASTIC, GRASP THE FREE END OF THE PLASTIC RELEASE, AND SLOWLY PULL THE PLASTIC RELEASE OFF THE FOAM TAPE THAT WAS APPLIED TO THE REMOVABLE STOP.
- 20) USING THE DOW CORNING 995 SILICONE OR OTHER HIGH QUALITY SILICONE, APPLY A CAP BEAD OVER THE CLOSED CELL FOAM TAPE ON THE EXTERIOR SIDE OF THE DOOR VISION LITE KIT.

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HURRICANE RESISTANT DOORS -VETROTECH GLAZING INSTRUCTIONS, MISSILE LEVEL D (50 fps)

TYPE 8 GLAZING TRIM & VETROTECH GLASS CORNER DETAIL



GLASS	GLASS THICKNESS	IMPACT RESISTANT PRODUCT
VETROTECH KERALITE FR-ULTRA IGU HI	1-1/2" NOMINAL	DUPONT BUTACITE PVB DUPONT SENTRY GLASS PUS (SGP)

- 1) BEFORE REMOVING THE REMOVABLE STOPS, CHECK TO BE SURE THERE ARE SCREWS IN EVERY HOLE. IF A SCREW IS MISSING AND MATERIAL UNDERNEATH HASN'T BEEN DRILLED, THEN PRE-DRILL HOLES WITH A #36 BIT. DO NOT REMOVE STOPS.
- 2) USING A PENCIL, MARK ALIGNMENT MARKS ON THE REMOVABLE STOPS AND THE DOOR.
- 3) UNSCREW THE $\#6\ X\ 1-1/4"$ OVAL HEAD TEK SCREWS FROM THE REMOVABLE STOPS AND REMOVE THE REMOVABLE STOPS. KEEP THE SCREWS.
- 4) WIPE THE FIXED STOP CLEAN AND THEN APPLY 1/16" X 1/2" CLOSED CELL FOAM TAPE TO THE FIXED STOP.
- 5) WIPE THE REMOVABLE STOP CLEAN AND THEN APPLY 1/16" X 1/2" CLOSED CELL FOAM TAPE TO THE REMOVABLE STOP.
- 6) USE 1/8" THICK MAX. GLAZING SHIMS AT THE SILL. GLAZING SHIMS SHOULD BE THE FULL THICKNESS OF THE GLASS.
- 7) RUN A GENEROUS TOE BEAD OF DOW CORNING 995 OR GE STRUCTURAL SILICONE AROUND THE OPENING.
- 8) REMOVE THE RELEASE TAPE FROM THE CLOSED CELL FOAM TAPE ON THE FIXED STOP.
- 9) PLACE GLASS DOWN ON GLAZING BLOCKS AND PRESS UP AGAINST CLOSED CELL FOAM TAPE.
- 10) RUN A HEEL BEAD AROUND THE PERIMETER TO THE GLASS.
- 11) USING THE ALIGNMENT MARKS, POSITION THE REMOVABLE STOPS AGAINST THE GLASS. LIGHTLY GRIND THE END OF EACH STOP FOR ADDITIONAL CLEARANCE.
- 12) INSTALL AND TIGHTEN THE $\#6\ X\ 1-1/4"$ OVAL HEAD TEK SCREWS IN THE REMOVABLE STOPS. BE CAREFUL NOT TO OVER TIGHTEN.
- 13) USING THE DOW CORNING 995 OR GE SGG 4000 APPLY A CAP BED OVER THE CLOSED CELL FOAM TAPE.

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HURRICANE RESISTANT FRAMES

<u>Product Covered</u>: Wind resistant building assemblies and components tested to the following windstorm or severe weather performance standards:

- 1. ASTM E330/E1886/E1996
- 2. TAS201, TAS202, TAS203
- 3. ANSI A250.13 Products are compliant to the 2017 code version of the Florida Building Code.

Most frames may also be eligible to be listed as fire door frames tested in accordance with UL10B or UL10C. Frames may be eligible to be fire rated up to and including three hours, except as noted where glass is installed in a frame or where special reinforcements are installed. All frames are impact resistant, passed large missile impact for missile level D or E, and are approved for use in the High Velocity Hurricane Zone (HVHZ) in Florida. For the counties in Texas bordering the Gulf of Mexico, see Ceco's Texas Department of Insurance (TDI) product evaluations for those prescriptive door and frame assemblies. TDI does not require product to be listed with the TDI before it can be used, as an engineer of record can use test results to verify that products comply with the building specifications adopted by the TDI.

Frame Sizes: Listed sizes are defined in the pages that follow.

<u>Construction</u>: Each wind resistant building product shall be constructed as detailed in the pages that follow. Special head reinforcing channel and special hardware reinforcements required to be installed during manufacturing for the prescriptive 150 PSF frame and 150 PSF frame with surface vertical rods.

Trio-E singles with glass are limited to mortise lock with deadbolt function, concealed vertical rod, surface vertical rod or rim panic. Trio-E pairs with glass are limited to concelaed vertical rods, concealed two point rod locks, surface vertical rods or rim exits. Special frame head reinforcements are required during manufacturing, when surface or concealed vertical rods are applied to Trio-E doors with glass. All Trio-E singles over 3'0" wide with rim panic hardware require special strike reinforcements to be installed during manufacturing.

Metal Gauges: The frame metal gauges shall have the minimum thickness as shown in the tables that follow.

<u>Windstorm Classification Label:</u> Each wind-resistant building component shall bear a classification mark of either Underwriters Laboratories LLC or Intertek/Warnock Hersey.

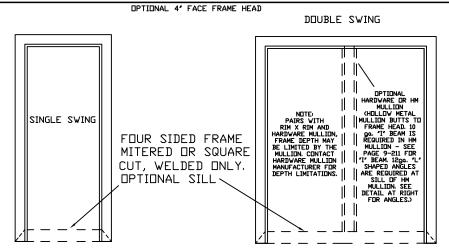
Water Infiltration: Single outswing and standard outswing pairs of frames, in masonry, block, welded to building structure, or drywall. Tested to ASTM E331 in accordance with Florida TAS 202, single swing doors achieved ±50 psf design pressure and pairs achieved ±60 psf design pressure. Maximum door opening size 4'0" x 8'0" single and 8'0" x 8'0" pair. Rim exit required for pairs with hardware mullion. Any approved locking/exit hardware (for single doors) may be used in a pair with hollow metal mullion (10 gauge "I" beam reinforcement required in hollow metal mullion). See pages 9-215 and 9-216 for Weatherstrip installation instructions, for location and installation of seals, rain drip, and threshold. Weatherstrip, seals, rain drip, and threshold are not provided by CECO DOOR.

<u>Frame Installation Instructions:</u> See following pages; Ceco's public website frame installation instructions and stormpro anchor submittal sheets, and ANSI A250.11

9-201 03/26/20



ASSA ABLOY HURRICANE RESISTANT FRAMES - FIRE RATED AND NON - FIRE RATED, MISSILE LEVEL D (50 fps)

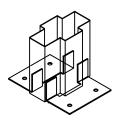


(2) FOOT CLIPS REQUIRED AS SHOWN BELOW IN HOLLOW METAL VERTICAL IMPOST MULLION.

MASONRY SILL: USE 3/8' EXPANSION SHELL ANCHOR BOLTS WITH 2-1/2' MIN. EMBEDMENT AND 4' MIN. EDGE DISTANCE.

SOUTHERN PINE SILL: USE 3/8' LAG SCREWS WITH 3' MIN. EMBEDMENT AND 1-3/4' EDGE DISTANCE.

BOLTS OR SCREWS BY OTHERS.



(4) SIDED FRAME MITERED OR SQUARE CUT, WELD ONLY. (OPTIONAL SILL)

PRODUCT	MIN./MAX. DEPTH	GUAGE	CORNER CONDITION	MAX. SIZE	DESIGN LOAD IMPACT RATING	FLORIDA BUILDING CODE NUMBER
FLUSH DOOR NON-FIRE RATED OF FIRE RATED DOOR W/GLASS NON- FIRE RATED	4" to 14"	16ga. MIN. 12ga. WELDED	KD or WELDED	4'0" × 8'0" (SINGLE) 8'0" × 8'0" (DOUBLE)	+/- 70 350 FT-LBF +/- 60 350 FT-LBF DDDR W/GLASS	FL4553 (U.L. LISTING) FL10723 (WH LISTING)
FIRE RATED DOOR WITH GLASS	5-3/4" to 14"	16ga. (DNLY)	KD or WELDED	4'0" × 8'0" 8'0" × 8'0" (DUTSWING) 3'0" × 7'0" (INSWING)	+/- 70 350 FT-LBF	FL11537 (U.L. LISTING)

ALL DOOR SERIES - SINGLES & PAIRS (EXCEPT FOR TRIO-E OVER 6070 PAIRS)						TRID-E SIZES DVER 6070 PAIRS		
ANCHOR TYPE LOCATION				LOCATION				
FLUSH DIDIR NON-FIRE RATED OF FIRE RATED DIDIR W/GLASS NON-FIRE RATED	*ED ANCHURS (WOOD BUCK) 3/8" × 6" LAG BOLT	Q JAMB 12" MAX. FROM EACH END & 19" MAX. □.C. (2) ANCHORS REQD. 16" CENTERLINE FROM C/L Q HEAD □F FHD WHEN FACE IS 4" □R CAN BE GROUTED WITH 2000 PSI CONCRETE Q JAMB 12" MAX. FROM EACH END & 19" MAX. □.C.			@ HEAD	12" MAX. FROM EACH END & 19" MAX. D.C. (4) TOTAL REQ'D-9" MAX. FROM CENTERLINE OF HEAD, 9" MAX. FROM EACH HINGE JAMB 12" MAX. FROM EACH END & 19" MAX. D.C.		
	3/8' x 6' EXPANSION BOLT	E HEAD	(2) ANCHORS REQD. 16' CENTERLINE FROM C/L OF FHD WHEN FACE IS 4' OR CAN BE GROUTED WITH 2000 PSI CONCRETE	1	@ HEAD	(4) TOTAL REQ'D-9' MAX. FROM CENTERLINE OF HEAD, 9' MAX. FROM EACH HINGE JAMB		
	WIRE MASONRY or MASONRY TEE (GROUTED)	e HEVD	16'-24' DN CENTER € GROUT JOINTS DOUBLE SWING FRAMES WITH 4' FACE HEAD. (2) EO ANCHORS REQ'D., 16' FROM C/L HEAD.	П	@ HEAD /EO-PIPE \	16'-24' DN CENTER @ GROUT JOINTS (4) TOTAL REQ'D-9' MAX. FROM CENTERLINE OF HEAD, 3/8'× 6' 9' MAX. FROM EACH HINGE JAMB EXP. BOLT		
	*WELDED WOOD STUD OR WELDED METAL STUD (NO FLOOR ANCHORS)	e HEAD	6', 6' % EQUAL - 21@ MAAMEON CENTER (2) ANCHORS REQD. 16' CENTERLINE FROM C/L OF FHD WHEN FACE IS 4'	1	@ HEAD	6', 6' & EQUAL - 21' MAX. ON CENTER (4) TOTAL REQ'D-6' MAX. FROM CENTERLINE OF HEAD, 6' MAX. FROM EACH HINGE JAMB		
	FRAME POURED IN PLACE WITH CONCRETE WALL		N/A			N/A		
	WELDED TO STEEL BUCK	@ JAMBS @ HEAD & SILL	(4) ANCHORS @ 24" MAX. SPACING (2) ANCHORS, 1 @ 9" EACH SIDE OF CENTERLINE OF HEAD AND OPTIONAL SILL	Н	@ JAMBS @ HEAD @ SILL	(4) ANCHORS @ 24" MAX. SPACING (2) ANCHORS, 1 @ 9" EACH SIDE OF CENTERLINE OF HEAD & OPTIONAL SILL		

MEDALLION, LEGION, & FUEGO - SINGLES AND PAIRS					
	*ED ANCHORS	€ JAMB ¥12' MAX. FROM EACH END & 24' MAX. D.C.			
FIRE		€ HEAD K2> ANCHORS REQUIRED, LOCATED 9' FROM CENTER LINE OF HEAD. OF PAIRS			
RATED DOOR WITH	WIRE MASONRY or MASONRY TEE	P JAMB ¥9" MAX. FR⊡M EACH END & 24" MAX. □.C.			
OR WELDED METAL	*WELDED WOOD STUD	@ JAMB 12' MAX. FR□M EACH END & 19' MAX. □.C.			
	OR WELDED METAL STUD	€ HEAD (2) STEEL STUD ANCHORS EA. SIDE OF VERTICAL IMPOST HOLLOW METAL MULLION (1) WOOD STUD ANCHOR EACH SIDE OF VERTICAL IMPOST HOLLOW METAL MULLION			
		e JAMB 12° MAX. FROM EACH END & 19° MAX. D.C.			
	OR WELDED METAL STUD (NO FLOOR ANCHORS)	€ HEAD PAIRS WITHOUTK4) ANCHORS REQUIRED, 2 LOCATED EACH SIDE OF CENTER LINE OF HEAD AT 9' AND 12' HOLLOW METAL MULLION			

9-202

*SEE ANCHOR ILLUSTRATION PAGES 9-212 & 9-213.

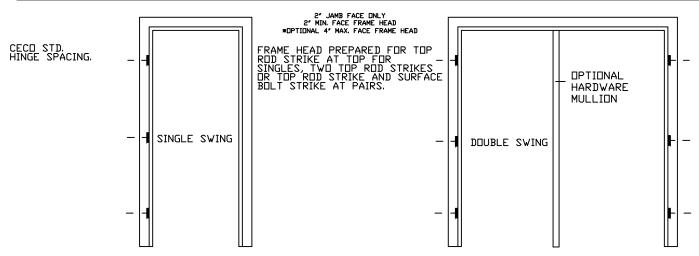
(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)



ASSA ABLOY

Distributor Tech-Data

HURRICANE RESISTANT FRAMES - UL +/-150 PSF WITH VERTICAL ROD MISSILE LEVEL E (80 fps)



4'0"x8'0" MAX. DPENING SIZE

± 150 PSF MAX. DESIGN PRESSURE

4" MIN. / 14" MAX. DEPTH

KD CORNER 16 GA. MIN. / 14 GA. MAX.

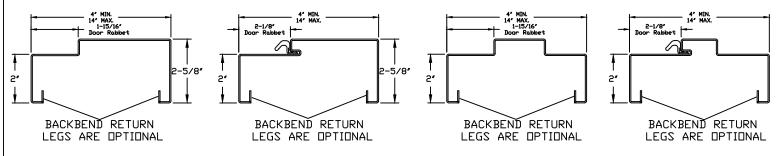
WELDED CORNER 16 GA. MIN. / 12 GA. MAX.

FOUR SIDED DOOR FRAME WITH WELDED

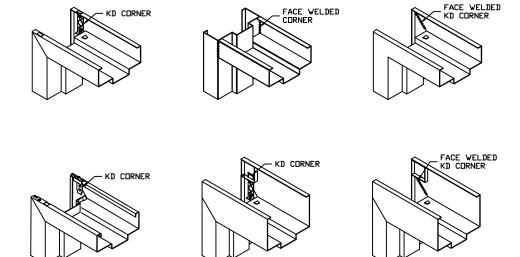
CORNERS ALSO PERMITTED

8'0"x8'0" MAX. DPENING SIZE
± 150 PSF MAX. DESIGN PRESSURE
4" MIN. / 14" MAX. DEPTH
KD CORNER 16 GA. MIN. / 14 GA. MAX.
WELDED CORNER 16 GA. MIN. / 12 GA. MAX.
FOUR SIDED DOOR FRAME WITH WELDED
CORNERS ALSO PERMITTED





FRAME CONSTRUCTION OPTIONS



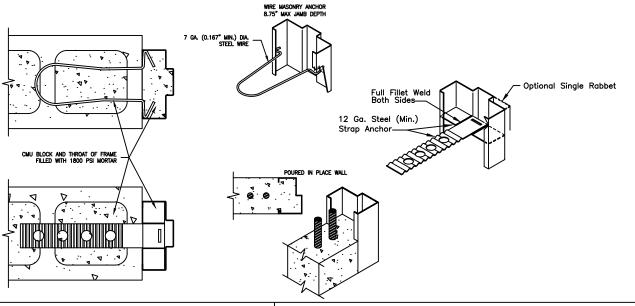
SEE PAGE 9-202B FOR ANCHOR OPTIONS

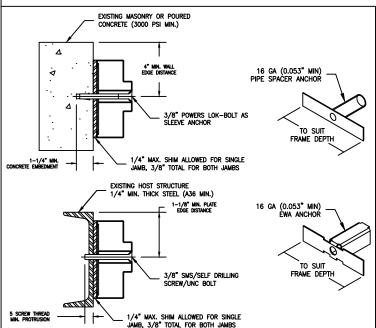
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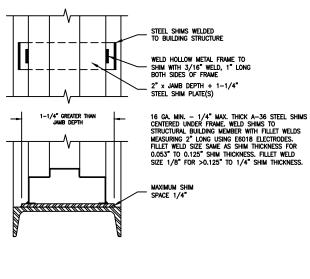
HURRICANE RESISTANT FRAMES

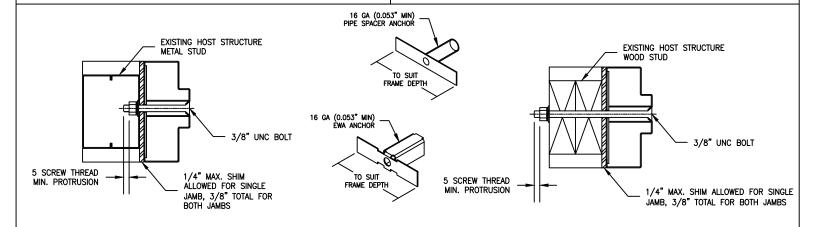
HURRICANE (WINDSTORM) +/-150 PSF WITH VERTICAL ROD MISSILE LEVEL E (80 fps) FLORIDA PRODUCT APPROVAL # 32083





ANCHORING BY WELDING TO BUILDING STRUCTURE





9-202B

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

05/01/20



ASSA ABLOY

HURRICANE RESISTANT ANCHOR LOCATIONS

FLORIDA PRODUCT APPROVAL # 32083 MISSILE LEVEL E (80FPS) +/-150 PSF WITH VERTICAL ROD

LOCATIONS ARE TO BE USED WITH FRAMES ON PAGE 9-202A.

Paired Opening Head and/or Sill Anchor Locations

Opening Size	Anchor Type	Anchor Spacing	
Up to and including 6'0" x 7'0"	Existing Wall Anchors: Powers 🖁 Lok-Bolt AS Sleeve Anchor or 🖁 SMS/Self Drilling Screw/UNC Bolt	Minimum 4 anchors. On both sides of the door meeting edge centerline at 8" and 15" from door meeting edge centerline.	
Greater than 6'0" x 7'0" and up to and including 7'0" x 7'0"	Existing Wall Anchors: Powers §" Lok-Bolt AS Sleeve Anchor or §" SMS/Self Drilling Screw/UNC Bolt	Minimum 6 anchors. On both sides of the door meeting edge centerline at 8", 15", and 22" from door meeting edge centerline.	
Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Existing Wall Anchors: Powers §" Lok-Bolt AS Sleeve Anchor or §" SMS/Self Drilling Screw/UNC Bolt	Minimum 6 anchors. On both sides of the door meeting edge centerline at 8", 15", and 24" from door meeting edge centerline.	
Up to and including 8'0" x 8'0"	Minimum 3 weld locations and must weld both for the frame at each location. One at the door me centerline and on both sides 6" from the door me edge centerline.		

For unequal width pairs, head/sill anchor quantity/spacing for each side of the door meeting edge centerline shall be determined as though the leaf size was part of an equal width pair.

Paired Opening Jamb Anchor Locations

Opening Size	Anchor Type	Anchor Spacing	
Up to and including 6'0" x 7'0"	Existing Wall Anchors: Powers 🖁 Lok-Bolt AS Sleeve Anchor or 🖁 SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 24" max. on center.	
Greater than 6'0" x 7'0" and up to and including 7'0" x 7'0"	Existing Wall Anchors: Powers 🖁 Lok-Bolt AS Sleeve Anchor or 🖁 SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 21" max. on center.	
Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Existing Wall Anchors: Powers 🖁 Lok-Bolt AS Sleeve Anchor or 🖁 SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 18" max. on center.	
Up to and including 8'0" x 8'0"	Welded to Building Structure	Must weld on both faces of the frame at each location. 12" max. from sill, 10" max. from head rabbet, and 24" max. on center.	
Up to and including 8'0" x 8'0"	12 Ga. Masonry "T" Anchor	8" max. from sill, 6" max. from head rabbet, and 24" max. on center.	
Up to and including 7'0" x 7'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 16" max. on center.	
Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 14" max. on center.	

Jamb Anchor Locations

Opening Size	Anchor Type	Anchor Spacing
Up to and including 3'0" x 7'0"	Existing Wall Anchors: Powers § Lok-Bolt AS Sleeve Anchor or § SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 21" max. on center.
Greater than 3'0" x 7'0" and up to and including 4'0" x 8'0"	Existing Wall Anchors: Powers § Lok-Bolt AS Sleeve Anchor or § SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 18" max. on center.
Up to and including 4'0" x 8'0"	Welded to Building Structure	Must weld on both faces of the frame at each location. 12" max. from sill, 10" max. from head rabbet, and 24" max. on center.
Up to and including 4'0" x 8'0"	12 Ga. Masonry "T" Anchor	8" max. from sill, 6" max. from head rabbet, and 24" max. on center.
Up to and including 3'0" x 7'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 18" max. on center.
Greater than 3'0" x 7'0" and up to and including 4'0" x 8'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 12" max. on center.

ANCHORING BY WELDING TO BUILDING STRUCTURE

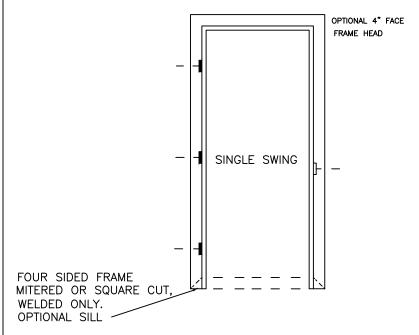
18 ga. min. -1/4" max. thick A-36 steel shims centered under frame. Weld perimeter of 5/8" x 2" x 5/8" ends of shims to structural building member with fillet welds sized as follows using E6018 electrodes. Fillet weld size same as shim thickness for 0.053" to 0.125" shim thickness.

Weld size 1/8" for 0.125" to 1/4" shim thickness.

FRAMES ARE NOT REQUIRED TO BE GROUTED WHEN WELDED TO BUILDING STRUCTURE.



HURRICANE RESISTANT FRAMES +/- 100 PSF SINGLE, MISSILE LEVEL D (50 fps)



VARIES

2 MIN

1.9375'
Door Rabbet

2 MIN

2 MIN

2 MIN

2 MIN

2 MIN

4 MAX

2 MIN

4 MAX

2 MIN

4 MAX

2 MIN

2 MIN

4 MAX

2 MIN

4 MAX

2 MIN

4 MAX

4 MAX

KERF PROFILE

3070 MAX.
4" MIN./14" MAX. DEPTH
16 GA. MIN.
KD OR WELDED (12 GA. WELDED)
DESIGN LOAD = +/-100 PSF
IMPACT RATING = 350 FT-LBF

ANCHORS & METHOD	OF ATTACHMENT		
ANCHOR TYPE	LOCATION		
*WELDED EO ANCHORS (*WELDED SLIP-IN BUTTERFLY UP TO 3070 MAX.) WOOD BUCK 3/8" X 6" LAG SCREW	12" MAX. FROM EACH END & 19" O.C.		
*WELDED EO ANCHORS (*WELDED SLIP-IN BUTTERFLY UP TO 3070 MAX.) MASONRY OR STEEL BUCK 3/8" X 6" EXPANSION SHELL-MASONRY 3/8" GRADE 2 MIN. TAP-IN BOLT-STEEL	12" MAX. FROM EACH END & 19" O.C.		
MASONRY "T" — GROUTED	16" - 24" O.C. © GROUT JOINTS		
WIRE MASONRY - GROUTED	16" — 24" O.C. © GROUT JOINTS		
*WELDED WOOD STUD OR WELDED METAL STUD (NO FLOOR ANCHORS)	6", 6" & EQUAL — 21" MAX. FOR INTERMEDIATE SPACES		
FRAME POURED IN PLACE WITH CONCRETE WALL	N/A		
WELDED TO STEEL BUCK	JAMBS: 4 ANCHORS 24" MAX. SPACING HEAD & SILL: 2 ANCHORS, 1 @ 9" EACH SIDE OF CENTERLINE OF HEAD & OPTIONAL SILL		

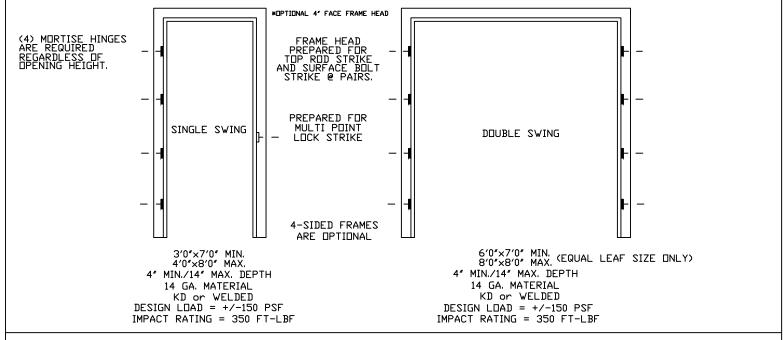
*SEE ANCHOR ILLUSTRATION PAGES 9-212 & 9-213

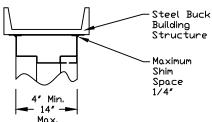
(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)

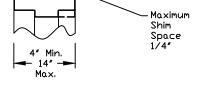
9-203 05/11/20

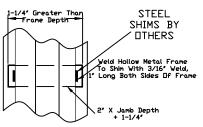


HURRICANE RESISTANT FRAMES - UL +/-150 PSF WITH MULTI-POINT LOCK ASSMEBLIES MISSILE LEVEL D (50 fps)









ANCHORING BY WELDING TO BUILDING STRUCTURE

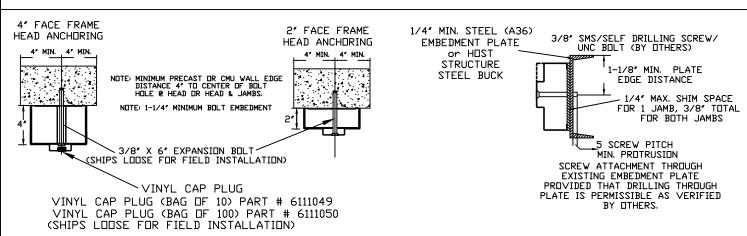
18 ga. min. –1/4" max. thick A-36 steel shims centered under frame. Weld perimeter of $5/8" \times 2" \times 5/8"$ ends of shims to structural building member with fillet welds sized as follows using E6018 electrodes. Fillet weld size same as shim thickness for 0.053" to 0.125" shim thickness. Weld size 1/8" for 0.125" to 1/4" shim thickness.

Frame Head (And Optional Frame Sill) Anchor Locations

L	Opening Size	Anchor Type	Anchor Spacing
	All Approved Opening Sizes	Welded to the Building Structure	Minimum of 2 weld locations & must weld on both faces of the frame head & sill at each Location; Dne location at 9' each side of centerline of head & optional sill.

Jamb Anchor Locations		
Opening Size	Anchor Type	Anchor Spacing
All Approved Opening Sizes	Welded to the Building Structure	(4) Anchors @ 24" Max. spacing

FRAMES ARE NOT REQUIRED TO BE GROUTED WHEN WELDED TO BUILDING STRUCTURE.



SEE PAGE 9-205 FOR OTHER ANCHOR OPTIONS

9-204

* A FRAME HEAD REINFORCING CHANNEL (BY CECO) IS REQUIRED IN SINGLE AND PAIRS

05/06/20



HURRICANE RESISTANT FRAMES +/-150 PSF WITH MULTI-POINT LOCK ASSEMBLIES, MISSILE LEVEL D (50 fps)

HEAD (AND OPTIONAL SILL) ANCHOR LOCATIONS

	Opening Size	Anchor Type	Anchor Spacing
l ing	6'0" x 7'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/ UNC Bolt	Minimum of 6 anchors. On both sides of the centerline of the head & sill: One each located at 8" and 15" from the centerline of the head & sill. 2 anchors required 6" from each door jamb rabbet.
Paired Opening	Greater than 6'0" x 7'0" and up to and including 7'0" x 7'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/ UNC Bolt	Minimum of 8 anchors. On both sides of the centerline of the head & sill: One each located at 8", 15", and 22" from the centerline of the head & sill. 2 anchors required 6" from each door jamb rabbet.
	Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/ UNC Bolt	Minimum of 8 anchors. On both sides of the centerline of the head & sill: One each located at 8", 15" and 24" from the centerline of the head & sill. 2 anchors required 6" from each door jamb rabbet.
Single Opening	3'0" x 7'0" up to and including 4'0" x 8'0"	Existing Wall Anchors Powers 3/8" Lock-Bolt AS Sleeve Expansion Bolt or 3/8" SMS/Self Drilling Screw/UNC Bolt	Minimum of 2 anchors required. Locations are 6" from each door jamb rabbet.

ANCHORS MAY BE INSTALLED THROUGH EXISTING EMBEDMENT PLATES, PROVIDED THAT DRILLING THROUGH EXISTING EMBEDMENT PLATES IS PERMISSIBLE AS VERIFIED BY OTHERS. ANY EXISTING EMBEDMENT PLATES SHALL BE DESIGNED AND VERIFIED BY OTHERS.

FRAMES ARE NOT REQUIRED TO BE GROUTED WHEN USING EXISTING WALL JAMB ANCHORS.

JAMB ANCHOR LOCATIONS

Existing Opening & Screw Fastened Jamb Anchor Locations

	Opening Size	Anchor Type	Anchor Spacing
	6'0" x 7'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/ UNC Bolt	Maximum of 8" from the sill, maximum of 4" from the head rabbet, and 24" maximum on center.
Paired Opening	Greater than 6'0" x 7'0" up to and including 7'0" x 7'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/ UNC Bolt	Maximum of 8" from the sill, maximum of 4" from the head rabbet, and 21" maximum on center.
	Greater than 7'0" x 7'0" up to and including 8'0" x 8'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/ UNC Bolt	Maximum of 8" from the sill, maximum of 4" from the head rabbet, and 18" maximum on center.
e iing	3'0" x 7'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/UNC Bolt	Maximum of 8" from the sill, maximum of 4" from the head rabbet, and 21" maximum on center.
Single Opening	Greater than 3'0" x 7'0" and up to and including 4'0" x 8'0"	Existing Wall Anchors Powers 3/8" Lok-Bolt AS Sleeve Anchor or 3/8" SMS/ Self Drilling Screw/ UNC Bolt	Maximum of 8" from the sill, maximum of 4" from the head rabbet, and 18" maximum on center.

Masonry "T" Jamb Anchor Locations

	Opening Size	Anchor Type	Anchor Spacing
Paired	6'0" x 7'0" up to and including	12 Ga. Masonry	Max. of 8" from the sill, max. 6" from the head rabbet, and 24" on center max.
Opening	8'0" x 8'0"	"T" Anchors	
Single	3'0" x 7'0" up to and including	12 Ga. Masonry	Max. of 8" from the sill, max. 6" from the head rabbet, and 24" on center max.
Opening	4'0" x 8'0"	"T" Anchors	

Wire Masonry Jamb Anchor Locations

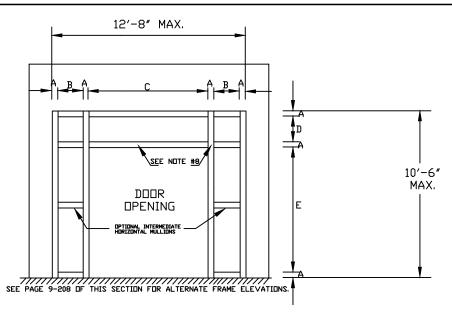
	Opening Size	Anchor Type	Anchor Spacing		
Paired Opening	6'0" x 7'0" up to and including 7'0" x 7'0"	Wire Masonry Anchors	Max. of 12" from the sill, max. 10" from the head rabbet, and 16" on center max.		
Pair Ope	Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Wire Masonry Anchors	Max. of 12" from the sill, max. 10" from the head rabbet, and 14" on center max.		
le ning	3'0" x 7'0"	Wire Masonry Anchors	Max. of 12" from the sill, max. 10" from the head rabbet, and 18" on center max.		
Single Opening	Greater than 3'0" x 7'0" and up to and including 4'0" x 8'0"	Wire Masonry Anchor	Max. of 12" from the sill, max. 10" from the head rabbet, and 12" on center max.		

(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)

9-205 05/11/20



HURRICANE RESISTANT FRAMES NON-FIRE RATED SIDELITE, TRANSOM, OR TRANSOM SIDELITE FRAMES, MISSILE LEVEL D (50 fps)



- 1. DESIGN PRESSURE = +/- 60 PSF, IMPACT RATING = 350 FT-LBF 2. ALL FRAME PERIMETERS & HEADS OF FASTENERS SEALED WITH SILICONE.
- WELDED CONSTRUCTION ONLY
- ANCHORS = SEE CHART BELOW
- 5. FRAME DEPTH = 4" MIN. / 14" MAX., 16 GA. MIN.
- 6. DOOR OPENING = 3'-0" X 8'-0" SINGLE MAX., 6'0" X 8'0" PAIRS MAX.
- 7. STOP HEIGHT = 5/8" MIN. 8. FULL HEIGHT VERTICAL & 6" HORIZONTAL MULLIONS MUST BE 8. FULL HEIGHT VERTICAL & 6' HURIZUNTAL MULLIUNS MUST BE REINFÜRCED WITH (2) 10-GAUGE X 3/4" X FRAME DEPTH "C" CHANNELS INSTALLED BACK TO BACK TO FORM SIMULATED "I" BEAM. SEE DETAIL "A-A" AND PAGE 9-211.

 9. PAIRS WITH RIM X RIM AND HARDWARE MULLION, FRAME DEPTH MAY BE LIMITED BY THE HARDWARE MULLION. CONTACT HARDWARE MULLION MANUFACTURER FOR DEPTH LIMITATIONS.
- 10. REFERENCE PAGE 9-217 FOR GLASSLAM SAFETY PLUS II WITH PET FLAP LAMINATED GLASS INSTALLATION INSTRUCTIONS. 11. +/-150 PSF DOORS MAY NOT BE INSTALLED IN THESE FRAMES.

GLAZING MATERIAL	DIM. "B" MAX.	DIM. "C" MAX.	DIM. "D" MAX.	DIM. "E" MAX.	FRAME DIM. MIN.	FACES "A"
*GLASSLAM SAFETY PLUS II WITH PET FLAP LAMINATED GLASS	36″	72"	36″	94″	2"	4"

**BEDDING IS CLOSED CELL FOAM TAPE 1/8' X 1/2' AND DOW CORNING 995 STRUCTURAL SILICONE.

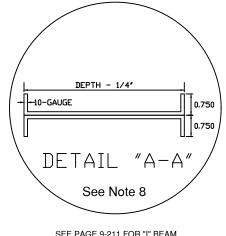
1 3/4' STEEL STIFFENED, HONEYCOMB, POLYURETHANE, MINERAL CORE OR POLYSTYRENE CORE
PANELS (18 GG Min - 14 GG MGX) MAY BE USED IN LIEU OF GLASSLAM. PANELS ARE WELDED TO
FRAME WITH WELDS LOCATED ON THE SIDES 3' MAX. FROM EACH END & 3' MAX. D.C. & ON THE
TOP & BOTTOM 3' MAX. FROM EACH END & AT 12' MAX. D.C. THE WELDS ARE MIN. 1/4' WELDS X
1/2' LONG. PANELS ARE SEALED WITH SILICONE.
PANELS MUST BE INSTALLED IN EXTERIOR COUTSIDE) RABBET. WELDS ARE LOCATED WHERE PANEL
ABUTS FRAME SOFFIT. SILICONE CAULK AROUND EXTERIOR SEAM. PANELS MAY HAVE VISION LITE
KITS OR LOUVERS INSTALLED WITH THE SAME RESTRICTIONS & REQUIREMENTS AS DOORS.

ANCHORS & METHOD OF ATTACHMENT			
ANCHOR TYPE	LOCATION		
WELDED ED ANCHORS OR ****WELDED	@ JAMB	12" MAX. FROM SILL, 8" FROM HEAD & 20" D.C.	
SLIP-IN BUTTERFLY WOOD BUCK 3/8" X 6" LAG SCREW	@ HEAD	**2" FROM EACH VERTICAL MEMBER & 14" O.C.	
	6 SITT	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN	
WELDED EO ANCHORS OR ****WELDED	@ JAMB	12" MAX. FROM SILL, 8" FROM HEAD & 20" O.C.	
SLIP-IN BUTTERFLY, MASDNRY DR STEEL BUCK 3/8" X 6" EXP. SHELL	@ HEAD	**2" FROM EACH VERTICAL MEMBER & 14" D.C.	
3/8" GRADE 2 MIN. TAP-IN BOLT - STEEL	6 SITT	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN	
WIRE MASONRY OR MASONRY "T"- GROUTED, WELDED TO STEEL HEADER	@ JAMB	8" MAX. FROM EACH END & 16" O.C.	
WELDED ED ANCHOR DR	@ HEAD	***WELDED TO STEEL CHANNEL HEADER	
****WELDED SLIP-IN BUTTERFLY - 3/8" X 6" BOLTS	e SILL	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN	
	@ JAMB	***5" MAX. FROM SILL & 27.5" MAX. D.C.	
WELDED TO STEEL BUCK	@ HEAD	***WELDED TO STEEL CHANNEL HEADER	
	6 ZITT	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN	
****WELDED WOOD STUD OR WELDED METAL STUD	@ JAMB	5" MAX. FROM SILL & 27.5" MAX. D.C.	
AT HEAD AND JAMBS. WELDED ED ANCHORS DR **** WELDED SLIP-IN BUTTLERFLY AT SILL.	@ HEAD	**2" MAX. FROM EACH VERTICAL MEMBER & 14" D.C.	
(ND FLOOR ANCHORS)	6 SITT	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN	

**FOR 6' & UP HEAD MEMBERS. FOR HEADS LESS THAN 6', LOCATE ANCHORS 2' MAX. FROM EACH VERTICAL MEMBER & @ MIDPOINT OF SPAN.

****1/4" THICK MAX. SHIM PLATES (2" TALL X 7" LONG OR TO SUIT JAMB DEPTH) WELDED TO STEEL CHANNEL WITH 2" LONG FILLET WELDS & FRAMES WELDED TO SHIM PLATES. SHIM PLATES TO BE 1-1/4" GREATER THAN JAMB DEPTH. HEADER WELDS LOCATED 3" FROM EACH JAMB & 3" FROM EACH SIDE OF VERTICAL MULLIONS & 0 MIDPOINT OF SPAN OF HEAD ABOVE DOORS. WELD FRAME TO SHIMS WITH MIN. 18" X 1" LONG FLARE BEVEL WELDS, BOTH SIDES OF FRAME. SHIM PLATES ARE PROVIDED BY OTHERS. AFTER WELDING FRAME TO SHIMS, CAULK GAPS BETWEEN FRAME AND STRUCTURAL STEEL CHANNEL WHERE SHIM PLATES ARE VOID. SEE PAGE 9-214 FOR SHIM PLATE DETAILS.

****SEE ANCHOR ILLUSTRATION PAGES 9-212 & 9-213.



CONSTRUCTION DETAILS

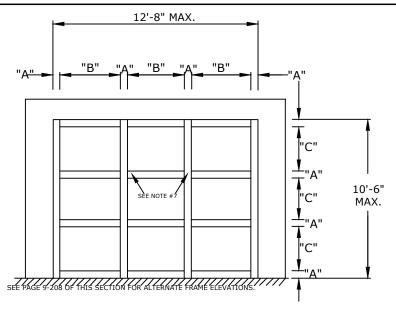
9-206

(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)



ASSA ABLOY

HURRICANE RESISTANT FRAMES - NON-FIRE RATED WINDOW FRAMES,
MISSILE LEVEL D (50 FPS)



- 1. DESIGN PRESSURE = +/- 60 PSF IMPACT RATING = 350 FT-LBF
- 2. ALL FRAME PERIMETERS & HEADS OF FASTENERS SEALED WITH SILICONE.
- 3. WELDED CONSTRUCTION ONLY
- 4. ANCHORS = SEE CHART BELOW
- 5. FRAME DEPTH = 4" MIN. / 14" MAX., 16 GA. MIN.
- 6. STOP HEIGHT = 5/8" MIN.
- 7. FULL HEIGHT VERTICAL & 6' HORIZONTAL MULLIONS MUST BE REINFORCED WITH (2) 10-GAUGE x 3/4" x FRAME DEPTH "C" CHANNELS INSTALLED BACK TO BACK TO FORM SIMULATED "I" BEAM. SEE DETAIL "A-A" AND PAGE 9-211.
- 8. REFERENCE PAGE 9-217 FOR GLASSLAM SAFETY PLUS II LAMINATED GLASS INSTALLATION INSTRUCTIONS.

GLAZING	FRAME DIM.		DIM. "B"	DIM. "C"	MAX. EXPOSED GLAZED AREA		
MATERIAL	MIN.	MAX.	MAX.	MAX.	(in ²)		
*GLASSLAM SAFETY PLUS II WITH PET FLAP LAMINATED GLASS	2"	4"	72"	94"	3384		

*BEDDING IS CLOSED CELL FOAM TAPE 1/8" X 1/2" AND DOW CORNING 995 STRUCTURAL SILICONE. 1 3/4" STEEL STIFFENED, HONEYCOMB, POLYURETHANE, MINERAL CORE OR POLYSTYRENE CORE PANELS (18 Ga Min - 14 Ga Max) MAY BE USED IN 1EU OF GLASSLAM, PANELS ARE WELDED TO FRAME WITH WELDS LOCATED ON THE SIDES 3" MAX. FROM EACH END 8.3" MAX. O.C. & ON THE TOP 8 BOTTOM 3" MAX. FROM EACH END 8.4" LOSE OF THE WELDS ARE MIN. 1/4" WEID SX 1/2" IONG: PANELS ARE FSEID WITH SILICONE

WELDS X 1/2" LONG. PANELS ARE SEALED WITH SILICONE.

PANELS MUST BE INSTALLED IN EXTERIOR (OUTSIDE) RABBET. WELDS ARE LOCATED WHERE PANEL ABUTS FRAME SOFFIT.

SILICONE CAULK AROUND EXTERIOR SEAM.

PANELS MAY HAVE VISION LITE KITS OR LOUVERS INSTALLED WITH THE SAME RESTRICTIONS & RQUIREMENTS AS DOORS.

ANCHORS & METHOD OF ATTACHMENT							
ANCHOR TYPE	LOCATION						
WELDED EO ANCHOR	@ JAMB	12" MAX. FROM SILL, 8" FROM HEAD & 20" O.C.					
OR ****WELDED SLIP-IN BUTTERFLY WOOD BUCK	@ HEAD	**2" FROM EACH VERTICAL MEMBER & 14" O.C.					
3/8" X 6" LAG SCREW	@ SILL	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN					
WELDED EO ANCHOR	@ JAMB	12" MAX. FROM SILL, 8" FROM HEAD & 20" O.C.					
OR ****WELDED SLIP-IN BUTTERFLY MASONRY OR STEEL BUCK	@ HEAD	**2" FROM EACH VERTICAL MEMBER & 14" O.C.					
3/8" X 6" EXPANSION SHELLS 3/8" GRADE 2 MIN. TAP-IN BOLT -STEEL	@ SILL	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN					
WIRE MASONRY OR MASONRY "T"- GROUTED, WELDED TO STEEL HEADER	@ JAMB	8" MAX. FROM EACH END & 16" O.C.					
WELDED EO ANCHOR	@ HEAD	***WELDED TO STEEL CHANNEL HEADER					
*****WELDED SLIP-IN BUTTERFLY 3/8" X 6" BOLTS	@ SILL	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN					
	@ JAMB	***5" MAX. FROM SILL & 27.5" MAX. O.C.					
WELDED TO STEEL BUCK	@ HEAD	***WELDED TO STEEL CHANNEL HEADER					
	@ SILL	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN					
****WELDED WOOD STUD OR WELDED METAL STUD AT HEAD AND JAMBS. WELDED EO ANCHORS OR	@ JAMB	5" MAX. FROM SILL & 27.5" MAX. O.C.					
**** WELDED SLIP-IN BUTTLERFLY AT SILL.	@ HEAD	**2" MAX. FROM EACH VERTICAL MEMBER & 14" O.C.					
(NO FLOOR ANCHORS)	@ SILL	2" FROM EACH VERTICAL MEMBER & @ MIDSPAN					

^{**}FOR 6' & UP HEAD MEMBERS. FOR HEADS LESS THAN 6', LOCATE ANCHORS 2" MAX. FROM EACH VERTICAL MEMBER & @ MIDPOINT OF SPAN.

***1/4" THICK MAX. SHIM PLATES (2" TALL X 7" LONG OR TO SUIT JAMB DEPTH) WELDED TO STEEL CHANNEL WITH 2" LONG FILLET WELDS & FRAMES WELDED TO SHIM PLATES. SHIM PLATES TO BE 1-1/4" GREATER THAN JAMB DEPTH. HEADER WELDS LOCATED 3" FROM EACH JAMB & 3" FROM EACH SIDE OF VERTICAL MULLIONS & @ MIDPOINT OF SPAN OF HEAD ABOVE DOORS. WELD FRAME TO SHIMS WITH MIN. $\frac{3}{15}$ X 1" LONG FLARE BEVEL WELDS, BOTH SIDES OF FRAME. SHIM PLATES ARE PROVIDED BY OTHERS. AFTER WELDING FRAME TO SHIMS, CAULK GAPS BETWEEN FRAME AND STRUCTURAL STEEL CHANNEL WHERE SHIM PLATES ARE VOID. SEE PAGE 9-214 FOR SHIM DETAILS.

DETAIL "A-A"

See Note 7

SEE PAGE 9-211 FOR "I" BEAM CONSTRUCTION DETAILS.

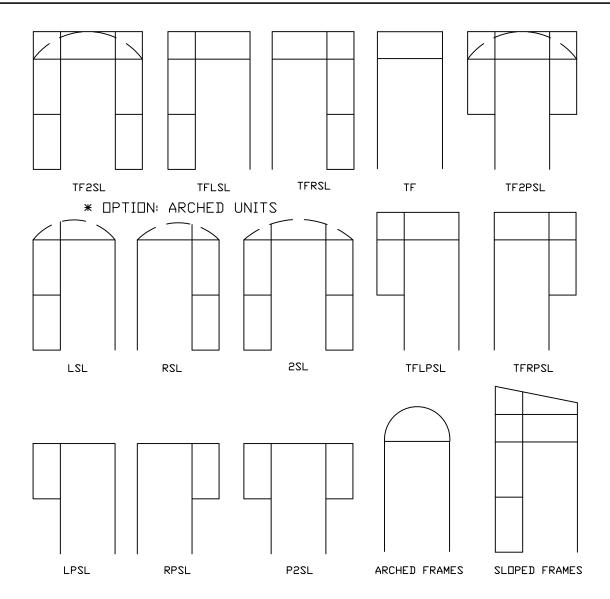
(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)

9-207 11/11/20

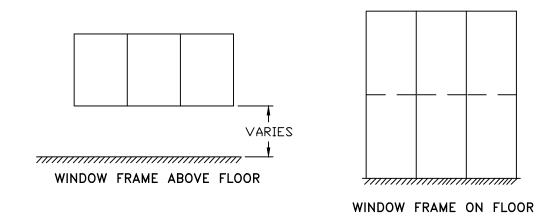
^{****}SEE ANCHOR ILLUSTRATION PAGES 9-212 & 9-213.



HURRICANE RESISTANT FRAMES - ALTERNATE FRAMES,
MISSILE LEVEL D (50 fps)



NOTE: 150 PSF DOORS MAY NOT BE INSTALLED IN THE ABOVE FRAMES.

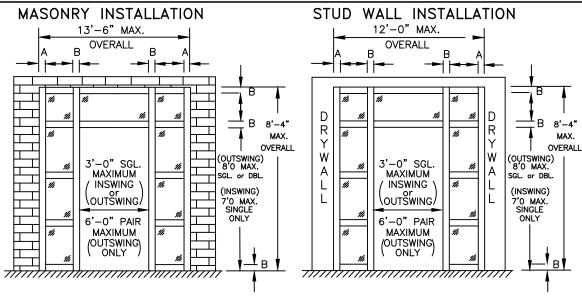


9-208 05/11/20

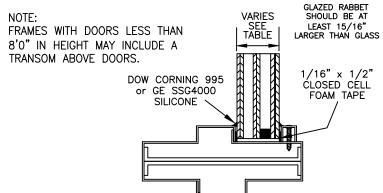


ASSA ABLOY

HURRICANE RESISTANT FRAMES - WH FIRE RATED IMPACT GLASS SIDELIGHT AND TRANSOM, MISSILE LEVEL D (50 fps)



- 1. 16 GA. STEEL FRAMES ONLY
- 2. WELDED CONSTRUCTION ONLY
- 3. MINIMUM DEPTH = 5-3/4", MAX. DEPTH 14"
- 4. MINIMUM SOFFIT WIDTH 1"
- 5. GLAZING MATERIAL MUST BE VETROTECH CONTRAFLAM 90 IGU HI, CONTRAFLAM 60 IGU HI, or SWISSFLAM 45 IGU HI (see chart for thicknesses)
- ONLY DOW CORNING 995 or GE SSG4000 SEALANT MAY BE USED AS GLAZING COMPOUND FOR INSTALLING GLASS.
- 7. ANCHORS TYPES APPROVED
 - A. MASONARY TEE, WIRE MASONRY ANCHORS, EO's, or STRAP ANCHORS.
 - B. (WELDED ONLY) FOR STUD CONSTRUCTION
 - C. ANCHORS REQUIRED IN HEAD AND SILLS
 - D. FRAME MAY BE WELDED TO STEEL SHIMS AND STEEL SHIMS WELDED TO BUILDING STRUCTURE.
- 8. DESIGN PRESSURE = \pm 70 PSF IMPACT RATING = 350 FT-LBF
- 9. FULL HEIGHT VERT. & 6' HORIZ. MULLIONS MUST BE REINFORCED WITH (2) 10-GAUGE "C" CHANNELS INSTALLED BACK TO BACK TO FORM SIMULATED "I" BEAM.
- 10. FIRE & HURRICANE RATING AGENCY WH
- 11. PAIRS WITH RIM X RIM AND HARDWARE MULLION, FRAME DEPTH MAY BE LIMITED BY THE HARDWARE MULLION. CONTACT THE HARDWARE MULLION MANUFACTURER FOR DEPTH LIMITATIONS.
- 12. REFERENCE PAGE 9-218 FOR VETROTECH INSTALLATION INSTRUCTIONS.
- 13. ALL FRAME PERIMETERS & HEADS OF FASTENERS MUST BE SEALED WITH SILICONE.



ANCHOR TYPE		LOCATION					
****EO ANCHORS	@ JAM	B *12" MAX. FROM EACH END & 22" MAX. O.C.					
(WOOD BUCK or MASONRY)	O HEA	D **2" FROM EA. VERT. MEMBER & 14" MAX. O.C.					
3/8" x 6" LAG/EXP. BOLT	@ SILL	***2" FROM EA. VERT. MEMBER & 16" MAX. O.C.					
WIRE MASONRY or	@ JAM	B *9" MAX. FROM EACH END & 24" MAX. O.C.					
MASONRY TEE	@ HEA	N/A					
MASONRI IEE	@ SILL	N/A					
	@ JAM	B *12" MAX. FROM EACH END & 22" MAX. O.C.					
****WELDED WOOD STUD	@ HEA	(2) STEEL STUD ANCHORS EA. SIDE OF MULL					
OR WELDED METAL STUD	W IILA	(1) WOOD STUD ANCHOR EA. SIDE OF MULL					
	@ SILL	N/A					
	@ JAM	B 9" MAX. EACH END & 24" MAX. ON CENTER					
WELD TO BUILDING STRUCTURE	Ø HEAD & SILL	3" MAX. FROM EACH END & 30" MAX. ON CENTER, AND 4" EACH SIDE FROM CENTER LINE					
	G. SILL	OF VERTICAL MULLION.					

- *ADDITIONAL ANCHOR REQD. ON TRANSOM PAIR JAMBS, 2" ABOVE & BELOW MULL. **ANCHORS REQD. IN HEAD OF TRANSOMS
 ***TWO ANCHORS REQD. @ BASE OF MULLIONS ADJACENT TO DOORS (SIDELITES)
 ****SEE ANCHOR ILLUSTRATION PAGES 9-212 AND 9-213.
- *****BUTTERFLY STYLE ANCHORS NOT AVAILABLE

FRAME DESCRIPTION	STOP HEIGHT	VETROTECH APPROVED GLASS	OPENING TYPE	MAX. WIDTH EXPOSED VETROTECH	MAX. HEIGHT EXPOSED VETROTECH	FIRE RATING	DIM. "A"	DIM. "B"	FLORIDA BUILDING CODE #
SIDELIGHT OR TRANSOM	5/8"	SGG SWISSFLAM 45 IGU HI	SIDELITE	34-3/4"	92-3/4"	3/4 HR.			
	MIN.	(1-3/8" THICK)	TRANSOM	70-3/4"	28-3/4"				
	5/8"	SGG CONTRAFLAM	SIDELITE	34-3/4"	92-3/4"	1 HR.		2" MIN.	
	MIN.	60 IGU HI (1-9/16" THICK)	TRANSOM	70-3/4"	28-3/4"	I HK.	2"	TO 4" MAX.	FL12537
	5/8"	SGG CONTRAFLAM	SIDELITE	34-3/4"	88-9/16"	41 115		4 MAX.	
	MIN.	90 IGU HI (1-7/8" THICK)	TRANSOM	70-3/4"	28-3/4"	1½ HR.			

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05/11/20

(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)



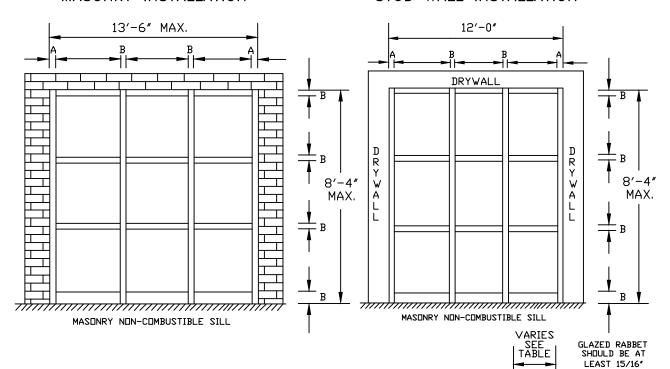
ASSA ABLOY

Distributor Tech-Data

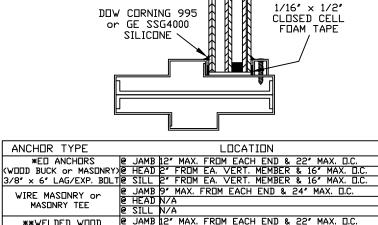
¬HURRICANE RESISTANT FRAMES - WH FIRE RATED IMPACT GLASS WINDOW FRAMES, MISSILE LEVEL D (50 fps)

MASONRY INSTALLATION

STUD WALL INSTALLATION



- 16 GA. STEEL FRAMES ONLY
- WELDED CONSTRUCTION ONLY
- 3. MINIMUM DEPTH = 5-3/4", MAX. 14"
- 4. MINIMUM SOFFIT WIDTH 1"
- 5. GLAZING MATERIAL MUST BE VETROTECH CONTRAFLAM IGU 90 HI, CONTRAFLAM 60 IGU HI, or SWISSFLAM 45 IGU HI (see chart for thicknesses)
- DNLY DDW CORNING 995 or GE SSG4000 SEALANT MAY BE USED AS GLAZING COMPOUND FOR INSTALLING GLASS.
- 7. ANCHORS TYPES APPROVED
 - A. MASONARY TEE, WMA, EO's, or STRAP ANCHORS.
 - B. (WELDED ONLY) FOR STUD CONSTRUCTION
 - C. ANCHORS REQD. IN HEAD AND SILLS
 - D. FRAME MAY BE WELDED TO STEEL SHIMS AND STEEL SHIMS WELDED TO BUILDING STRUCTURE.
- DESIGN PRESSURE = +/- 70 PSF IMPACT RATING = 350 FT-LBF
- 9. FULL HEIGHT VERTICAL MULLIONS OVER 3' MUST BE REINFORCED WITH (2) 10-GAUGE "C" CHANNELS INSTALLED BACK TO BACK TO FORM SIMULATED "I" BEAM.
- 10. BORROWED LIGHT MAY REST ON KNEE WALL.
- 11. FIRE & HURRICANE RATING AGENCY WH
- 12. REFERENCE PAGE 9-218 FOR VETROTECH INSTALLATION INSTRUCTIONS.
- 13. ALL FRAME PERIMETERS & HEADS OF FASTENERS MUST BE SEALED WITH SILICONE.



LARGER THAN GLASS

		, w
**WELDED WOOD		12" MAX. FROM EACH END & 22" MAX. O.C.
STUD OR WELDED METAL STUD	@ HEAD	(2) STEEL STUD ANCHORS EA, SIDE OF MULL (1) WOOD STUD ANCHOR EA, SIDE OF MULL
	6 SITF	N/A
		9" MAX. EACH END & 24" MAX. ON CENTER
WELD TO BUILDING STRUCTURE	@ HEAD	3° MAX. FROM EACH END & 30° MAX. ON CENTER, AND 4° MAX. EACH SIDE OF CENTER
	& SILL	LINE OF VERTICAL MULLION.

**SEE ANCHOR ILLUSTRATION PAGES 9-212 AND 9-213. *BUTTERFLY STYLE ANCHORS NOT AVAILABLE

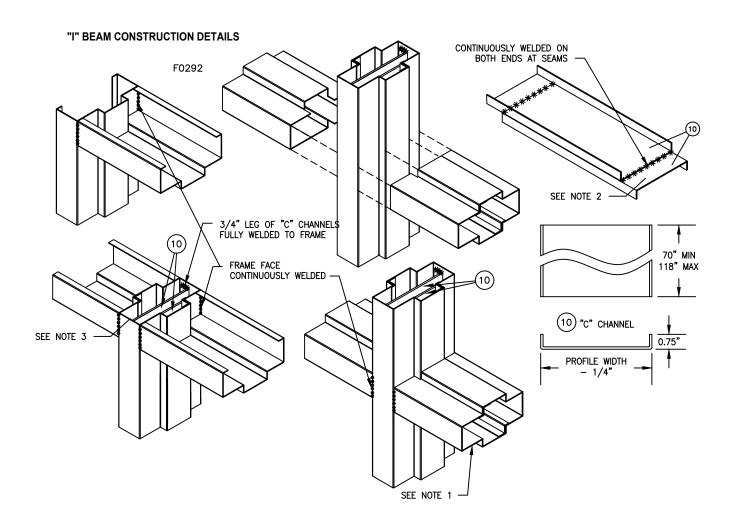
FRAME DESCRIPTION	STOP HEIGHT	VETROTECH APPROVED GLASS	OPENING TYPE	MAX. WIDTH EXPOSED GLASS	MAX. HEIGHT EXPOSED GLASS	FIRE RATING	DIM. "A"	DIM. "B"	FLORIDA BUILDING CODE #
BORROWED LIGHT	5/8″	SGG SWISSFLAM 45 IGU HI (1-3/8" THICK)	BORROWED LIGHT	34-3/4"	92-3/4″	3/4 HR.	2"	O# 14T11	
	5/8″	SGG CONTRAFLAM 60 IGU HI (1-9/16" THICK)	BORROWED LIGHT	34-3/4"	92-3/4"	1 HR.		2" MIN. TO 4" MAX.	FL12537
	5/8″	SGG CONTRAFLAM 90 IGU HI (1-7/8" THICK)	BORROWED LIGHT	34-3/4"	88-9/16"	1½ HR.		7 MMX.	

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(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)



HURRICANE RESISTANT - "I" BEAM CONSTRUCTION DETAILS,
MISSILE LEVEL D (50 fps)



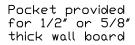
NOTE:

- 1. MULLIONS MUST RUN THROUGH HEADS (EXCEPT IN THREE PIECE DOOR FRAMES) OR SILLS AND BE REINFORCED WITH 10 GAUGE "C" CHANNELS (ITEM 10) IF EQUAL TO OR GREATER THAN 6' IN LENGTH.
- 10 GA. "C" CHANNELS MUST BE INSTALLED BEFORE WELDING TOGETHER. OFFSET 3/4" ON EACH END.
- 3. EQUALLY SPACED AT EACH END OF MULLION.

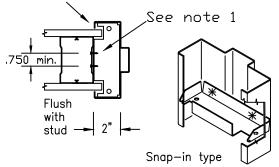
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HURRICANE RESISTANT - STUD WALL FRAME ANCHORS,
MISSILE LEVEL D (50 fps)



Frame must wrap/cap over code compliant wall material and cannot be butted to end of wall.

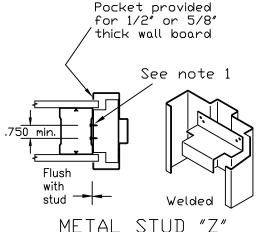


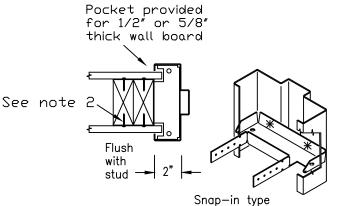
See note 1 -5/8"

Velded

*WELDED SLIP-IN METAL STUD ANCHOR

METAL STUD "Z" ANCHOR

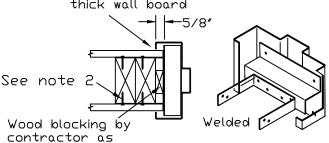




METAL STUD "Z" ANCHOR

*WELDED SNAP-IN WOOD STUD ANCHOR

Pocket provided for 1/2" or 5/8" thick wall board (Used also for METAL STUD Walls)



When used with metal studs connect to steel stud with $\#8\times1-\frac{1}{2}''$ grade 5 sheet metal screws. (4) screws required per anchor. Min. edge distance = 0.328''

wood Stud "Z" Strap anchor Note 1 - #14x1" grade 5 sheet metal screw. 2 screws req'd per anchor. Note 2 - #8x1-½" grade 5 wood

(Used also for METAL STUD Walls) When used with metal studs connect to steel stud with #8x1-½" grade 5 sheet metal screws. (4) screws required per anchor.

screw (min. 1" embedment & min. edge distance - 0.524"). (4) screws req'd per anchor.

Min. edge distance = 0.328"

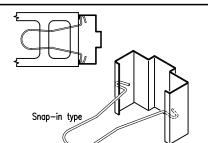
*Note: Factory does not offer welded slip-in type anchors.

(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)

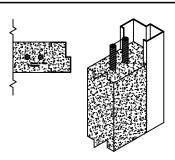
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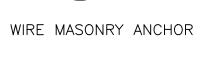
HURRICANE RESISTANT - MASONRY & STEEL WALL FRAME ANCHORS, MISSILE LEVEL D (50 fps)

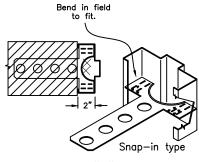


(FRAME MUST BE GROUTED WITH 3,000 PSI MORTAR)

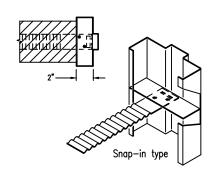


POURED IN PLACE WALL (ANCHORS ARE NOT REQUIRED)



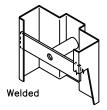


MASONRY "T" ANCHOR 3-3/4", 4-1/4", 4-3/4", 5-1/4", AND 5-3/4" DEPTHS (FRAME MUST BE GROUTED WITH 3,000 PSI MORTAR)

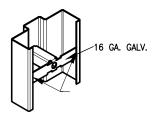


MASONRY "T" ANCHOR FOR ALL OTHER DEPTHS (FRAME MUST BE GROUTED WITH 3,000 PSI MORTAR)

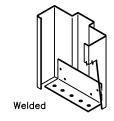




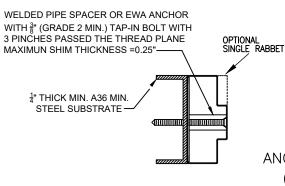
EXISTING OPENING ANCHOR (FRAME NOT REQUIRED TO BE GROUTED)



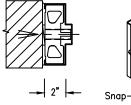
EXISTING OPENING - WEWA (FRAME NOT REQUIRED TO BE GROUTED)



STANDARD FLOOR ANCHOR FOR USE WITH CMU/MASONRY WALLS ONLY



Steel Wall



Snap-in type

*WELDED SLIP-IN EXISTING OPENING ANCHOR 3'-0" X 7'0" DOOR OPENING MAX. (FRAME NOT REQUIRED TO BE GROUTED)

*NOTE: FACTORY DOES NOT OFFER WELDED SLIP-IN EXISTING OPENING ANCHORS.

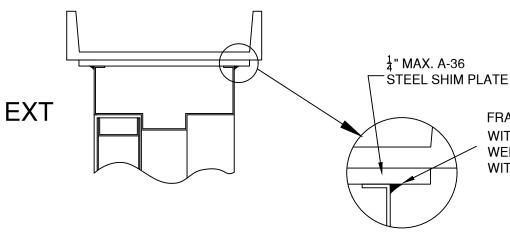
(Conversion: 1'' = 25.4 mm, e.g., 1-3/4'' = 44.45 mm)

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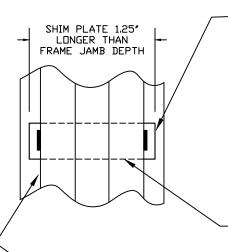


HURRICANE RESISTANT FRAMES - SHIM PLATE DETAILS,
MISSILE LEVEL D (50 fps)

SEE PAGES 9-206 & 9-207 FOR LOCATION OF STEEL SHIM PLATES



FRAME WELDED TO SHIM WITH $\frac{3}{16}$ " x 1" LONG FLARE BEVEL WELD BOTH SIDES OF FRAME WITH E6018 ELECTRODES



4" MAX. THICK A-36 STEEL
SHIMS WELDED TO
STRUCTURAL BUILDING
MEMBER WITH FILLET WELDS
MEASURING 2" LONG AND
SIZED TO THE SAME
THICKNESS AS THE SHIM
PLATE USING E6018
ELECTRODES

WELD HOLLOW METAL FRAME TO SHIM WITH $\frac{3}{16}$ " x 1" LONG FLARE BEVEL WELDS, BOTH SIDES OF FRAME USING E6018 ELECTRODES

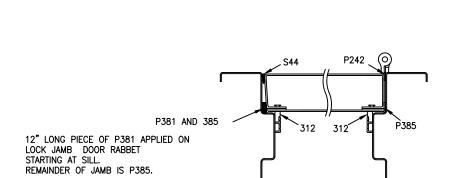
1/4" MAX. THICK, 2" WIDE A-36 STEEL SHIM PLATE(S), LENGTH 1.25" GREATER THAN FRAME JAMB DEPTH

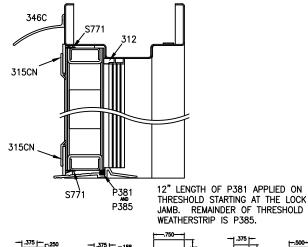
AFTER WELDING FRAME TO SHIMS, CAULK GAPS BETWEEN FRAME AND STRUCTURAL STEEL MEMBER WHERE SHIM PLATES ARE VOID.

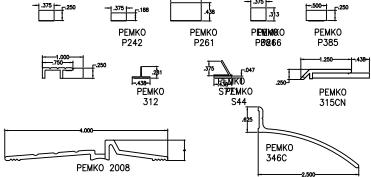
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WEATHERSTRIP FOR WATER INFILTRATION SINGLE DOORS







WEATHER STRIP FOR WATER INFILTRATION SINGLE DOORS PER TAS 202 DESIGN PRESSURE ±50 PSF MAX.

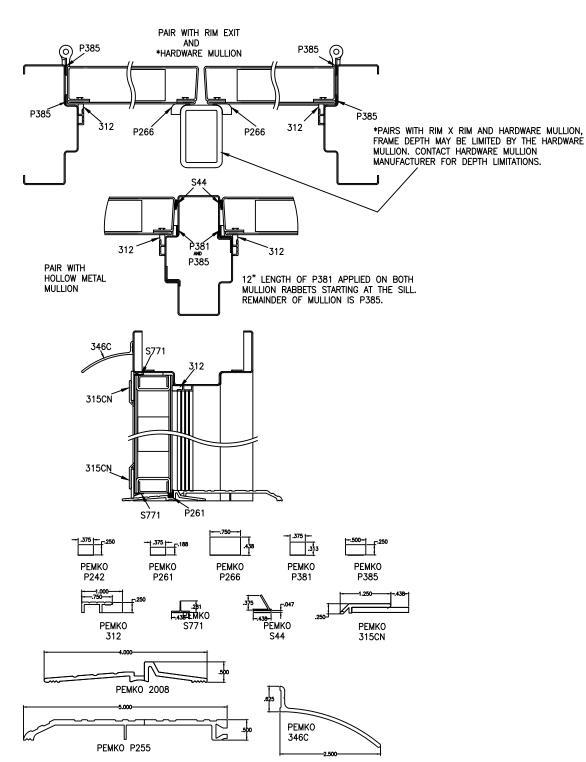
WEATHERSTRIP, RAINDRIP AND THRESHOLD NOT PROVIDED BY CECO.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

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WEATHERSTRIP FOR WATER INFILTRATION PAIRS OF DOORS,
MISSILE LEVEL D (50 fps)



WEATHER STRIP FOR WATER INFILTRATION
PAIRS OF DOORS PER TAS 202, DESIGN PRESSURE ±60 PSF MAX.

WEATHERSTRIP, RAINDRIP AND THRESHOLD NOT PROVIDED BY CECO.

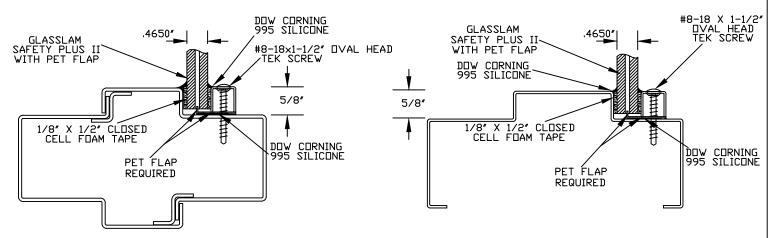
(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

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HURRICANE RESISTANT FRAMES - GLASSLAM GLAZING INSTRUCTIONS. MISSILE LEVEL D (50 fps)

GLASS MAY BE INSTALLED ON EITHER SIDE OF THE FIXED FRAME STOP.



- 1.) BEFORE REMOVING THE REMOVABLE STOPS, USING A PENCIL, MARK
- ALIGNMENT MARKS ON THE STOPS AND THE FRAME.
- 2.) UNSCREW THE #8 X 1-1/2" DVAL HEAD TEK SCREWS FROM THE REMOVABLE STOPS AND REMOVE THE STOPS.
- 3.) WIPE THE FIXED STOP CLEAN AND THEN APPLY THE CLOSED CELL FOAM TAPE TO THE FIXED STOP. 4.) IF THERE IS PLASTIC RELEASE ON THE FOAM GLAZING TAPE, PULL THE PLASTIC RELEASE BACK ABOUT 2'' FROM EACH END OF THE FOAM TAPE. PULL THE PLASTIC RELEASE ABOVE THE FIXED STOP SO IT CAN BE GRASPED AFTER PLACING THE GLASSLAM ON THE UNEXPOSED FOAM TAPE.
- STEP 5-MAY REQUIRE THE ASSISTANCE OF ANOTHER PERSON TO HELP HOLD THE GLASSLAM IN PLACE. 5.) IF THERE IS PAPER RELEASE ON THE FOAM GLAZING TAPE, REMOVE THE PAPER RELEASE BEFORE GLAZING, SPRAY THE EXPOSED FOAM TAPE WITH A MILD SOAP SOLUTION IMMEDIATELY BEFORE PLACING THE GLASSLAM ON THE EXPOSED FOAM TAPE.
- 6.) PLACE GLAZING SHIMS, AS NEEDED, THEN SET THE GLASSLAM ON THE FOAM GLAZING TAPE. 7.) ADJUST HE GLASSLAM ASSEMBLY, AS NECESSARY, TO CENTER THE ASSEMLY IN THE OPENING.
- 8.) IF THE RELEASE IS PLASTIC, GRASP THE FREE END OF THE PLASTIC RELEASE, WHILE HOLDING THE GLASSLAM TO KEEP IT FROM MOVING. THEN SLOWLY PULL THE RELEASE OFF THE FOAM TAPE THAT WAS APPLIED TO THE FIXED STOP. PRESS THE GLASSLAM AGAINST THE FOAM TAPE.
- 9.) INSERT A PUTTY KNIFE BETWEEN THE PET FLAP AND THE FRAME RABBET. USING THE PUTTY KNIFE PULL THE PET FLAP UP AND OFF THE FRAME RABBET.
- 10.) WHILE HOLDING THE PET FLAP BACK AWAY FROM THE FRAME RABBET WITH THE PUTTY KNIFE, USE A CAULKING GUN TO APPLY DOW CORNING 995 SILICONE BETWEEN THE PET FLAP AND THE FRAME RABBET.

IMPORTANT: ENSURE THAT THE DOW CORNING 995 SILICONE FULLY WETS OUT OR COVERS THE PET FLAP AND COMES IN CONTACT WITH THE FRAME RABBET.

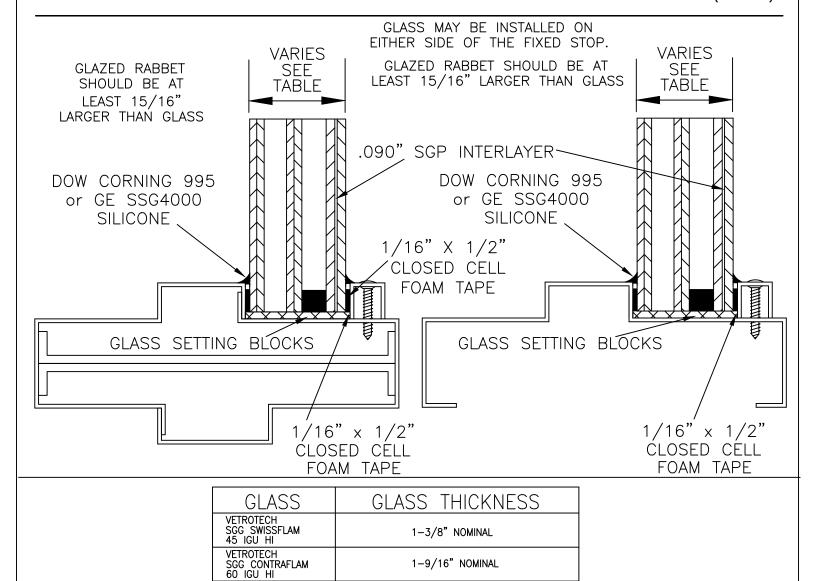
- 11.) SLOWLY MOVE THE PUTTY KNIFE AROUND THE FRAME AHEAD OF THE CAULKING GUN AND APPLY THE SILICONE AROUND THE ENTIRE OPENING BETWEEN THE PET FLAP AND THE FRAME RABBET.
- 12.) APPLY 1/8" X 1/2" CLOSED CELL FOAM TAPE TO THE REMOVABLE STOP.
- 13.) IF THERE IS PLASTIC RELEASE ON THE FOAM GLAZING TAPE, PULL THE PLASTIC RELEASE BACK ABOUT 2" FROM EACH END OF THE FOAM TAPE. PULL THE PLASTIC RELEASE ABOVE THE REMOVABLE STOP SO IT CAN BE GRASPED AFTER PLACING THE REMOVABLE STOPS AGAINST THE GLASSLAM.

 14.) IF THERE IS PAPER RELEASE ON THE FOAM GLAZING TAPE, REMOVE THE PAPER. SPRAY THE EXPOSED
- FOAM TAPE WITH MILD SOAP SOLUTION IMMEDIATELY BEFORE PLACING THE REMOVABLE STOPS AGAINST THE GLASSLAM.
- 15.) USING THE ALIGNMENT MARKS, POSITION THE REMOVABLE GLASS STOPS AGAINST THE GLASS, IF STOPS ARE TOO TIGHT LIGHTLY GRIND THE END OF STOP FOR ADDITIONAL CLEARANCE.
- 16.) INSTALL AND TIGHTEN THE #8 X 1-1/2" OVAL HEAD TEK SCREWS IN THE REMOVABLE STOPS. BE
- CAREFUL NOT TO OVER TIGHTEN. 17.) IF THE RELEASE IS PLASTIC GRASP THE FREE END OF THE PLASTIC RELEASE TAPE AND SLOWLY PULL THE PLASTIC RELEASE OFF THE FOAM TAPE.
- 18.) TRIM THE PET FLAP AS NEEDED.
- 19. JUSING THE DOW CORNING 995 SILICONE OR OTHER HIGH QUALITY SILICONE, APPLY A SMALL CAP BEAD OVER THE CLOSED CELL FOAM TAPE.

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HURRICANE RESISTANT FRAME - VETROTECH GLAZING INSTRUCTIONS,
MISSILE LEVEL D (50 FPS)



1) BEFORE REMOVING THE REMOVABLE STOPS, USING A PENCIL MARK ALIGNMENT MARKS ON THE REMOVABLE STOPS AND THE FRAME.

1-7/8" NOMINAL

- 2) UNSCREW THE $\#8\ X\ 1-1/2"$ OVAL HEAD TEK SCREWS FROM THE REMOVABLE STOPS AND REMOVE THE STOPS. KEEP THE SCREWS.
- 3) WIPE THE FIXED STOP CLEAN AND THEN APPLY CLOSED CELL FOAM TAPE TO THE FIXED STOP.
- 4) WIPE THE REMOVABLE STOP CLEAN AND THEN APPLY CLOSED CELL FOAM TAPE TO THE REMOVABLE STOP.
- 5) USE 1/8" THICK MAX. GLAZING SHIMS AT THE SILL. GLAZING SHIMS SHOULD BE THE FULL THICKNESS OF THE GLASS.
- 6) PLACE 1/8" THICK GLAZING SHIMS AS NEEDED.
- 7) RUN A GENEROUS TOE BEAD OF DOW CORNING 995 OR GE STRUCTURAL SILICONE AROUND THE OPENING.
- 8) REMOVE THE RELEASE TAPE FROM THE CLOSED CELL FOAM TAPE ON THE FIXED STOP.

VETROTECH SGG CONTRAFLAM 90 IGU HI

- 9) PLACE GLASS DOWN ON SILL AND SETTING BLOCKS AND PRESS UP AGAINST CLOSED CELL FOAM TAPE.
- 10) RUN A HEEL BEAD AROUND THE PERIMETER TO THE GLASS.
- 11 USING THE ALIGNMENT MARKS, POSITION THE REMOVABLE GLASS STOPS AGAINST THE GLASS. LIGHTLY GRIND THE END OF EACH STOP FOR ADDITIONAL CLEARANCE, IF STOPS ARE TOO TIGHT.
- 12) INSTALL AND TIGHTEN THE #8 X 1-1/2" OVAL HEAD TEK SCREWS IN THE REMOVABLE STOPS. BE CAREFUL NOT TO OVER TIGHTEN.
- 13) USING THE DOW CORNING 995 OR GE SGG 4000 SILICONE OR OTHER HIGH QUALITY SIILICONE, APPLY A CAP BED OVER THE CLOSED CELL FOAM TAPE.

(Conversion: 1" = 25.4 mm, e.g., 1-3/4" = 44.45 mm)

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GENERAL NOTES

General Notes:

- 1. The products described herein have been designed and tested in accordance with the Florida Building Code sixth edition (2017), for use within and outside the high velocity hurricane zone as noted, per TAS 201 / 202 / 203 standards. Large missile impact is qualified for missile level D or E as indicated. Only Missile level E products as noted may be used on essential facilities when installed within wind zone 3, wind zone 4 or the HVHZ.
- 2. No 33-1/3% increase in allowable stress has been used in the design of these products. Wind load duration factor Cd=1.6 has been used for wood anchor design.
- 3. Positive and negative design pressures calculated for use with these products shall be determined per separate engineering in accordance with the governing code. Design pressure requirements as determined in accordance with ASCE 7-10 and of the Florida Building Code shall be less than or equal to the positive or negative design pressure capacity values listed herein for any assembly as shown.
- 4. Design pressures noted herein are based on maximum tested pressures divided by a 1.5 safety factor.
- 5. The products detailed herein are generic and do not provide information for a specific site. For site conditions different from the conditions detailed herein, a licensed engineer or registered architect shall prepare site specific documents for use in conjunction with these documents.
- 6. The adequacy of the existing structure to withstand superimposed loads is outside the scope of these certifications and shall be verified by others. Optional wood bucks (by others) shall be anchored properly to transfer loads to the existing structure.
- 7. All aluminum shall be 6063-T6 alloy and tempered unless otherwise noted.
- 8. All cold rolled steel, shall be A568/A568M and all stainless steel shall be ASTM A480/A480M, unless otherwise noted.
- 9. Hardware shall be installed per manufacturers' instructions.
- 10. All bolts and washers (excluding installation anchors) shall be zinc coated steel, galvanized or stainless steel with a minimum tensile strength of 60 K.S.I., U.O.N.
- 11. Plastic components used within the HVHZ must meet all applicable fire/smoke/uv performance requirements as set forth in the above-noted building code and shall be submitted to the authority having jurisdiction for review as required.
- 12. All dissimilar materials shall be painted, plated, or otherwise protected from corrosion. All wood shall be protected from exposure and from contact with dissimilar materials.
- 13. Except as expressly provided herein, no additional certifications or affirmations are intended.
- 14. Alterations, additions, highlighting, or other markings to these documents are not permitted and invalidate this certification.

ADDITIONAL FRAME INFORMATION:

- 1. Building walls must be designed to support and sustain loads developed by the door and frame assembly and transfer loads to the building structure.
- 2. Rough opening material, by others, must be installed properly to transfer loads to the building structure.
- 3. Anchoring or loading conditions not shown in these details are not part of this approval.
- 4. Anchor embedment to base material shall be beyond wall dressing or stucco.
- 5. Wood density, G = 0.55.
- 6. Anchors shall be listed and spaced as shown in the table for each group of products.
- 7. Substitution of components must be in compliance with the current Florida Building Code, for projects in Florida.

ADDITIONAL DOOR INFORMATION:

1. Doors with polyurethane cores and exit devices are limited to 3'-0" max. width. This does not include Trio-E.

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