



Acrovyn Frame System
Technical Manual



TABLE OF CONTENTS

- 1.0 Construction Specialties Acrovyn Hollow Metal Frames
- 2.0 Frame Details
 - 2.1 Knock Down Frame (KD)
 - 2.2 Knock Down (KD) Frame Assembly
 - 2.3 Knock Down Frame (KD) Drywall Frame
 - 2.4 Double Egress Frame
 - 2.5 Factory Corner Weld
 - 2.6 Hinge Reinforcement
 - 2.7 Strike Reinforcement
- 3.0 Frame Anchor Details
- 5.0 Fire Ratings / Selection Chart
- 6.0 Submittal Information
 - 6.1 Material Specs
 - 6.2 Opening Schedule
 - 6.3 Jamb Types
 - 6.4 Elevations
 - 6.5 Elevations (cont.)
- 7.0 Installation Instructions
 - 7.1 Drywall Pressure Fit
 - 7.2 Wood and Metal Studs
 - 7.3 Masonry
 - 7.4 Existing
 - 7.5 Acrovyn Installation
- 8.0 Specification
- 9.0 Recommended Storage
- 10.0 Care of Primed Steel
- 11.0 Certificate of Origin
- 12.0 LEED
- 13.0 Warranty
- 14.0 Frequently Asked Questions

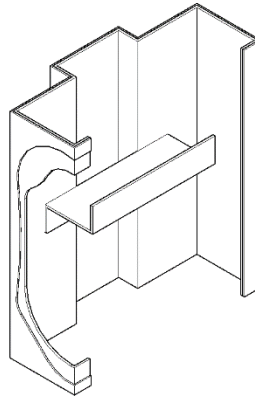
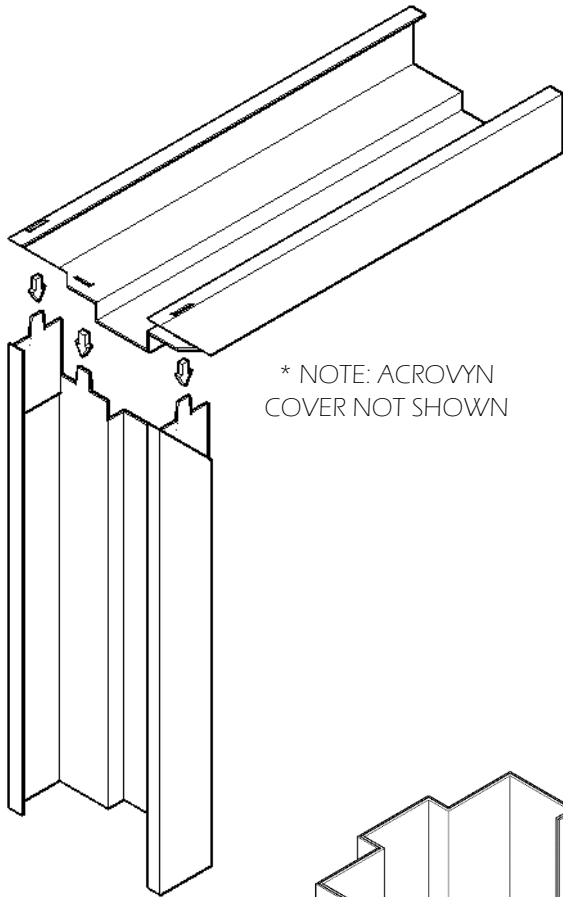
ACROVYN HOLLOW METAL FRAMES

- Construction Specialties custom frames are manufactured to the highest industry standards with many features exceeding the minimum requirements set forth in those standards.
- Steel fabrication is in accordance with HMMA 860, HMMA 861 and ANSI-250.8.
- The steel portion is available with standard face welded corners or knock down for field assembly.
- Frames are manufactured from cold-rolled steel.
- Fire ratings are available for most frame types up to and including 3 hour A-label in positive pressure in accordance with UBC 7-2 and UL 10C.
- Construction Specialties is constantly seeking ways to improve products. Changes in design and specifications are made from time to time in order to implement these improvements. Construction Specialties reserves the right to do so without notice and without obligation to incorporate such changes to any product previously manufactured.

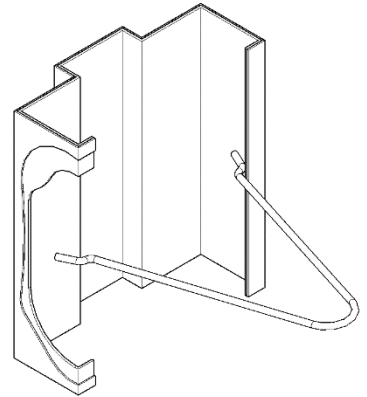
FRAME DETAILS

- 2.1 Knock Down Frame (KD)
- 2.2 Knock Down (KD) Frame Assembly
- 2.3 Knock Down Frame (KD) Drywall Frame
- 2.4 Double Egress Frame
- 2.5 Factory Corner Weld
- 2.6 Hinge Reinforcement
- 2.7 Strike Reinforcement

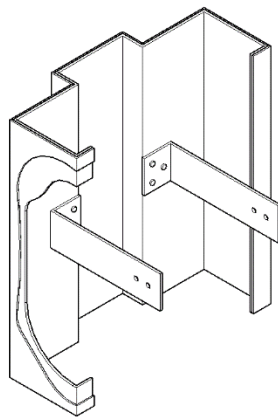
KNOCK DOWN FRAME



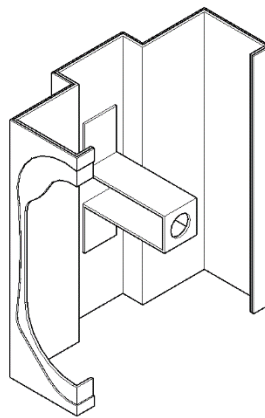
METAL STUD ANCHOR
(MSA)



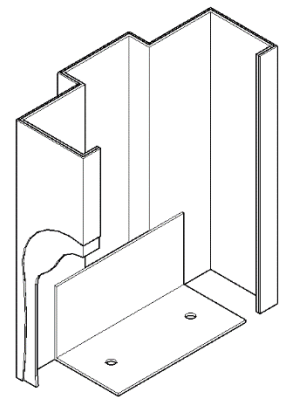
MASONRY WIRE ANCHOR
(MWA)



WOOD STUD ANCHOR
(WSA)



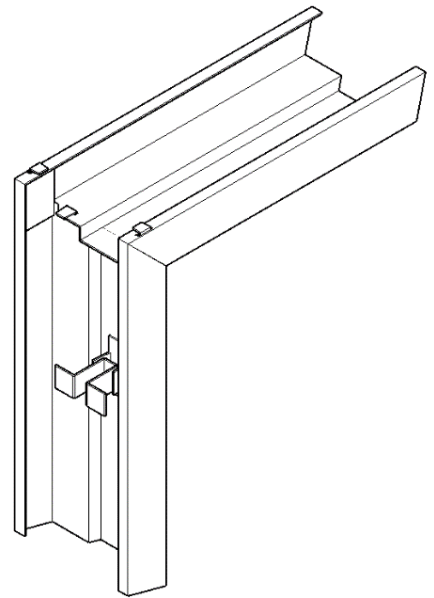
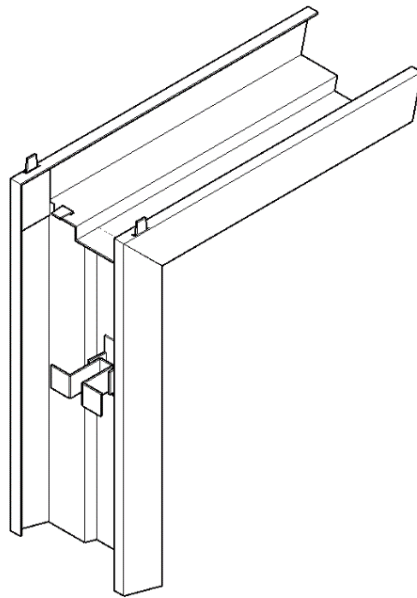
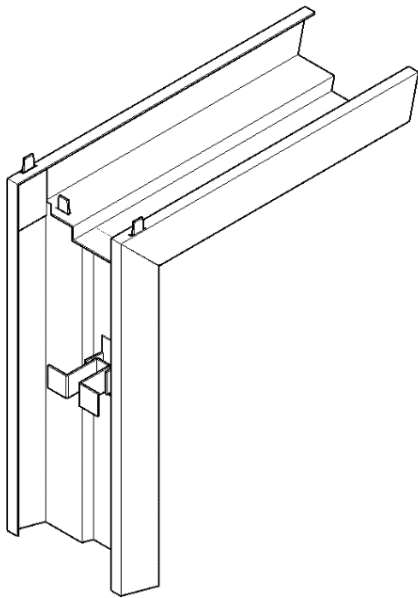
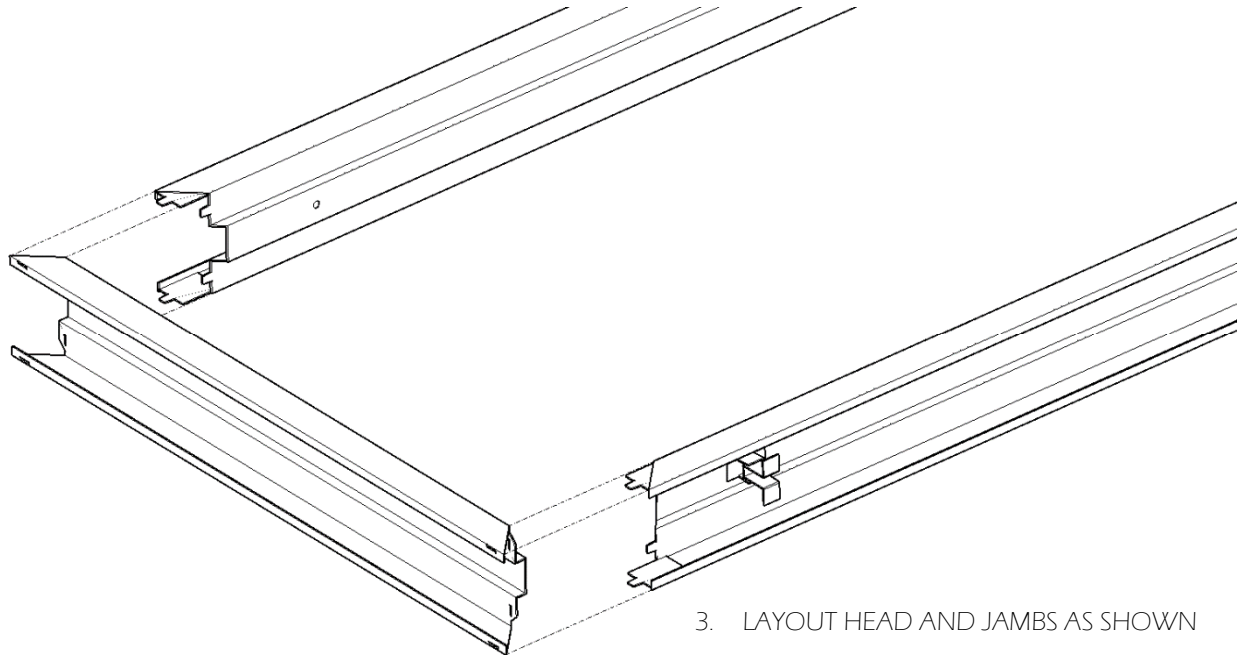
EXISTING WALL ANCHOR
(EWA)



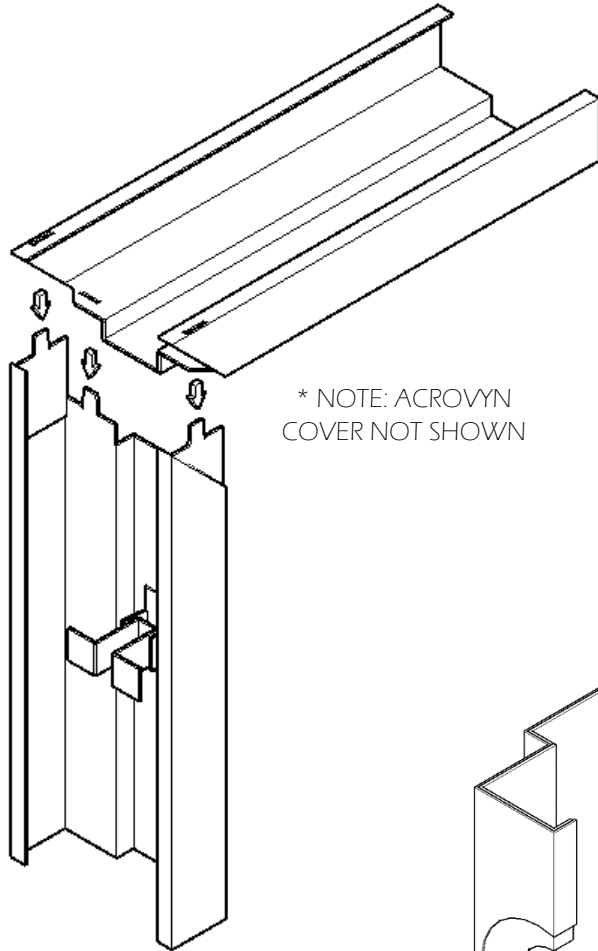
WELDED FLOOR CLIP
(WFC)

FOR FIELD ASSEMBLY, INTERNAL AND EXTERNAL ALIGNMENT TABS ARE BENT OVER. FRAME IS SQUARED AND PLUMBED IN THE OPENING PRIOR TO ATTACHING TO STUDS OR WALL. SEE CONSTRUCTION SPECIALTIES TECHNICAL PUBLICATIONS 2.2 AND 7.1 FOR ADDITIONAL INFORMATION.

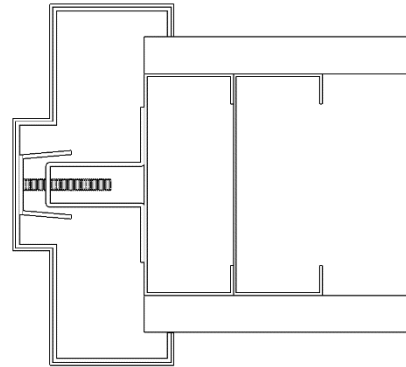
KNOCK DOWN FRAME ASSEMBLY



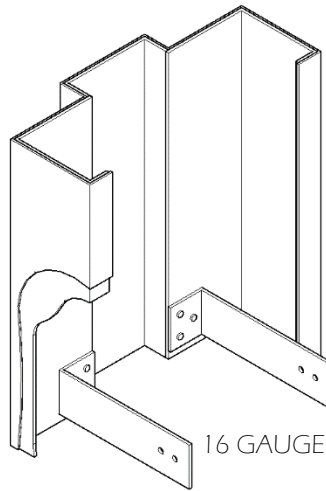
KNOCK DOWN DRYWALL FRAME



* NOTE: ACROVYN COVER NOT SHOWN

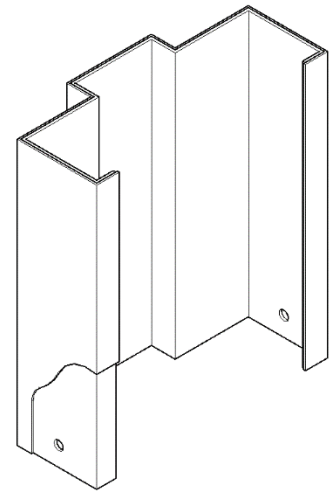


COMPRESSION ANCHOR



16 GAUGE

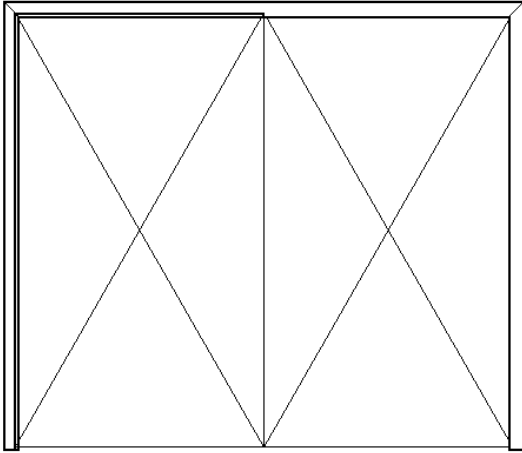
STANDARD BASE ANCHOR



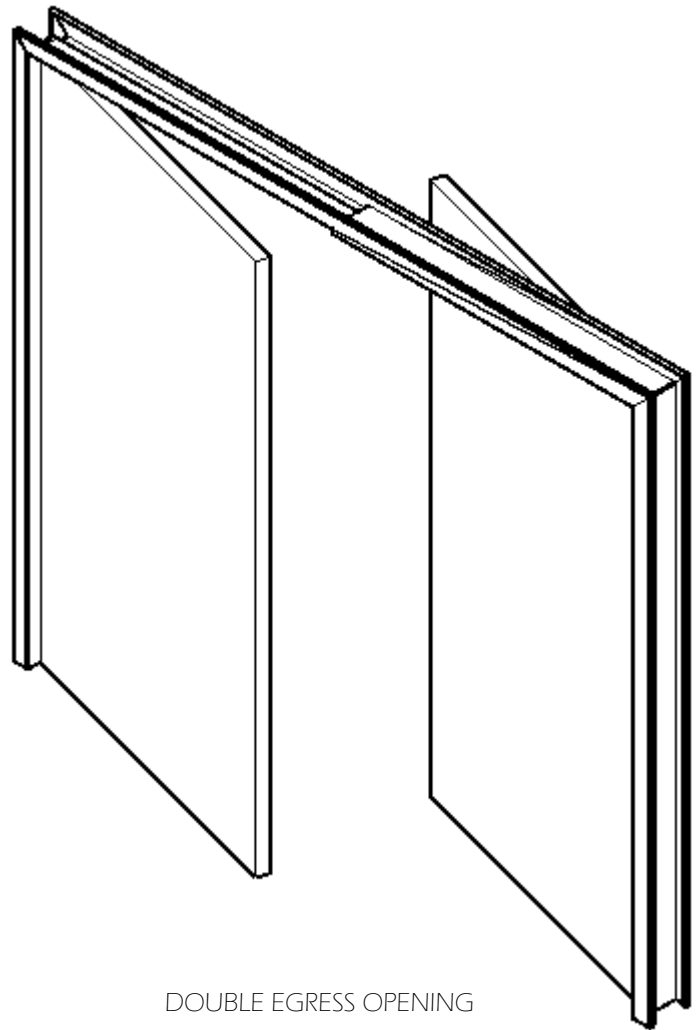
ALTERNATE HOLE AT BASE

FRAMES ARE SIZED TO FIT ROUGH OPENING. TYPICALLY A NEW ROUGH OPENING SHOULD BE 1" TO 1 ¼" WIDER ON EACH SIDE THAN THE ACTUAL DOOR OPENING WIDTH AND 1" TO 1 ½" TALLER THAN THE DOOR OPENING HEIGHT. AVAILABLE AS FIRE RATED UP TO 1 ½ HOUR. SEE CONSTRUCTION SPECIALTIES TECHNICAL PUBLICATION 5.0 ADDITIONAL INFORMATION.

DOUBLE EGRESS FRAME



ELEVATION DOUBLE EGRESS OPENING

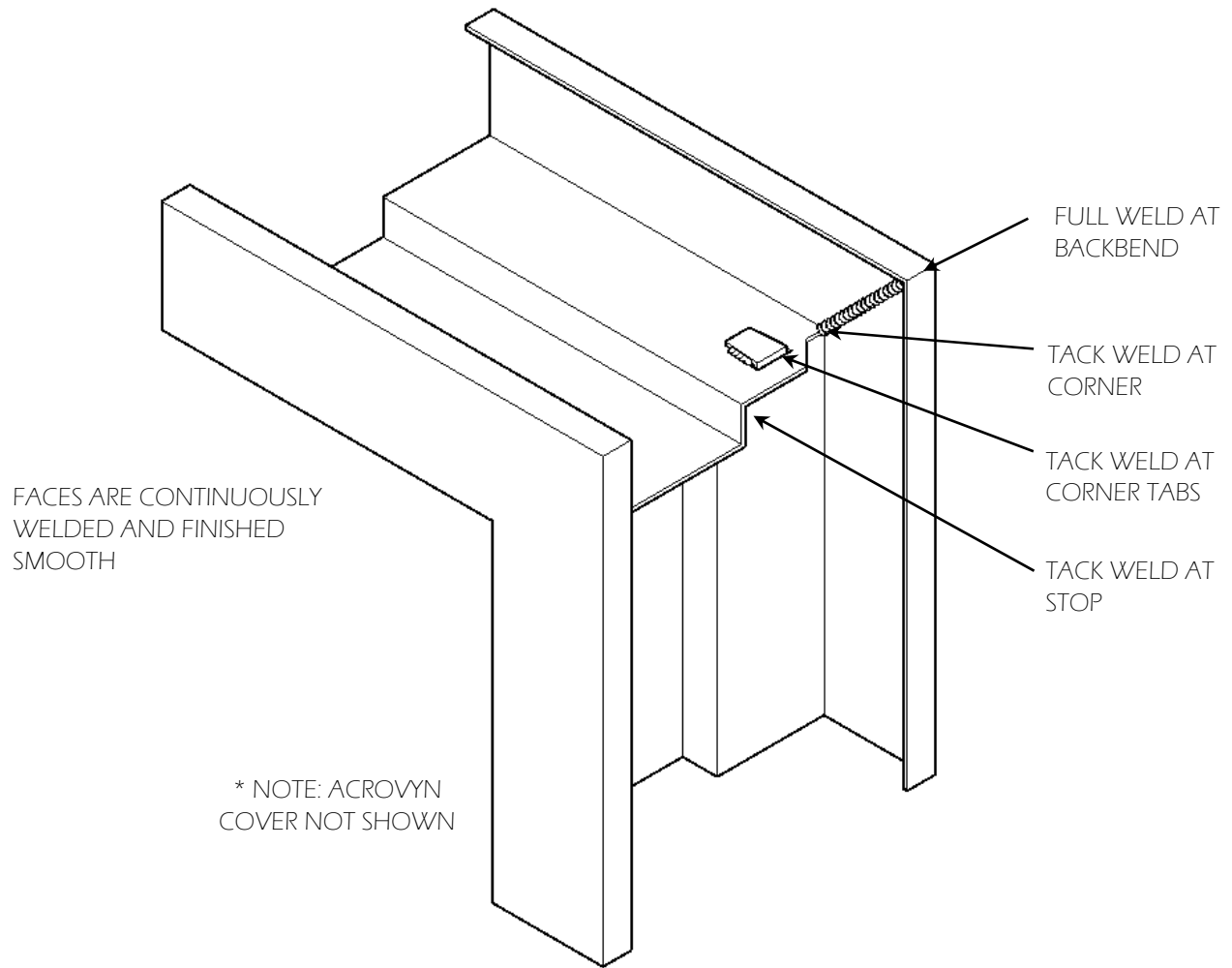


DOUBLE EGRESS OPENING

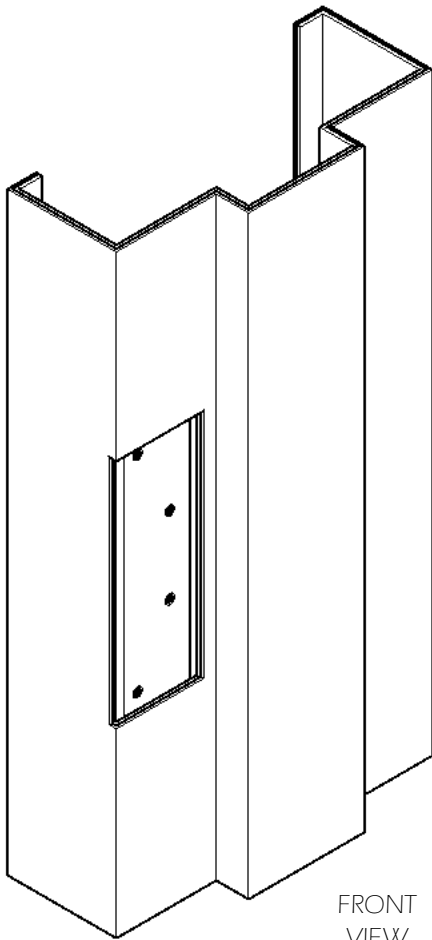
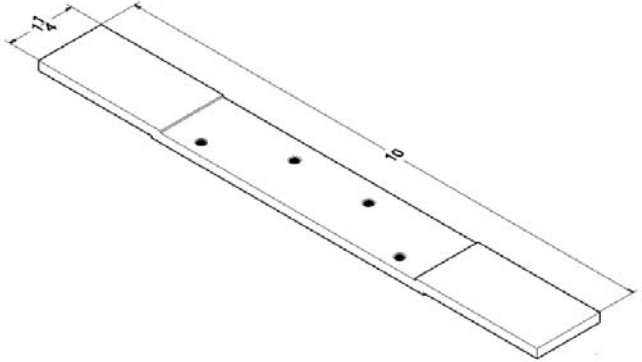
THE DOUBLE EGRESS PROFILE ALLOWS A PAIR OF DOORS HAVING THE SAME HANDING TO SWING IN OPPOSITE DIRECTIONS IN THE OPENING. IN ORDER FOR THE DOORS TO ALIGN PROPERLY IN THE CLOSED POSITION, THEY MUST HANG IN THE EXACT CENTER OF THE FRAME JAMB DEPTH.

DOUBLE EGRESS FRAMES ARE AVAILABLE FOR ANY WALL TYPE AND CAN BE FIRE RATED TO THREE HOURS. SEE CONSTRUCTION SPECIALTIES TECHNICAL PUBLICATION 5.0 FOR ADDITIONAL INFORMATION.

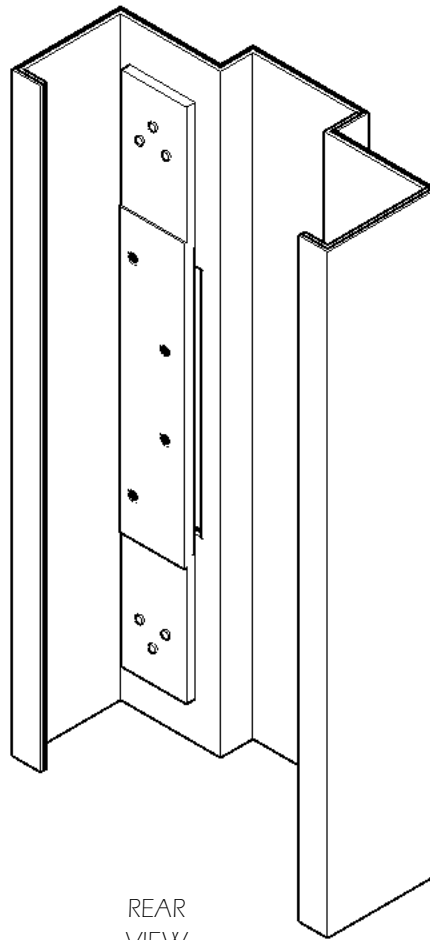
STANDARD FACTORY CORNER WELD



FRAME HINGE REINFORCEMENT



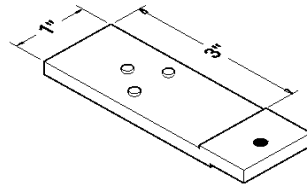
FRONT
VIEW



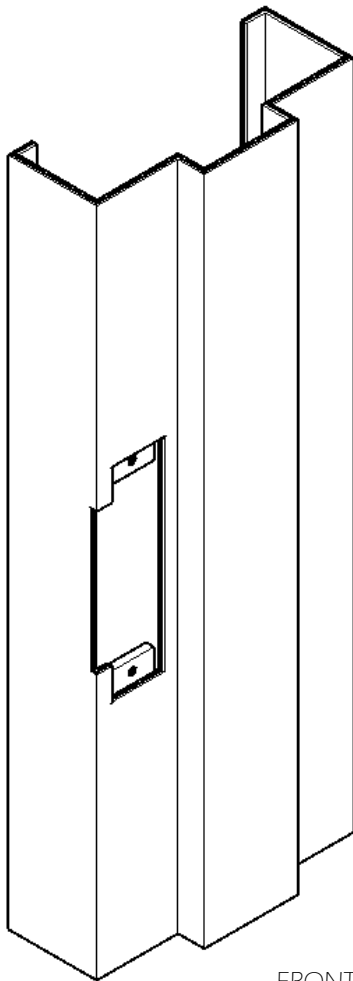
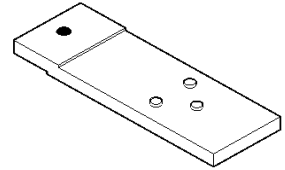
REAR
VIEW

REINFORCEMENTS ARE PROJECTION WELDED TO THE FRAME WITH A MINIMUM OF SIX WELDS PER BRACKET.
HEAVIER GAUGES, FULL WIDTH, FULL HEIGHT AND FULL WIDTH / HEIGHT ARE ALSO AVAILABLE.

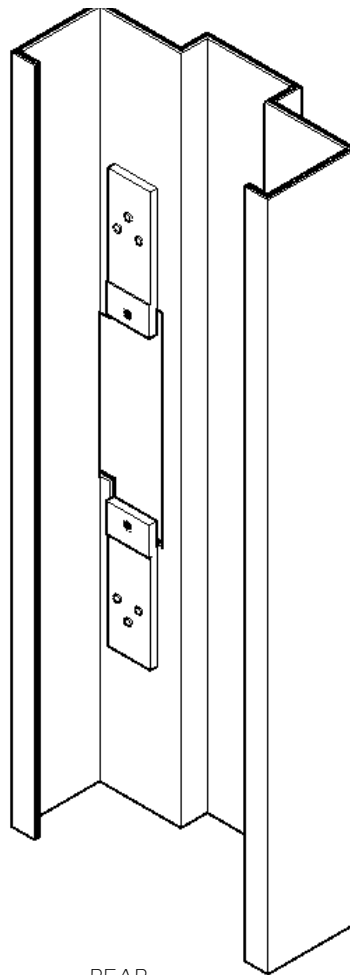
FRAME STRIKE REINFORCEMENT



11 GAUGE



FRONT
VIEW

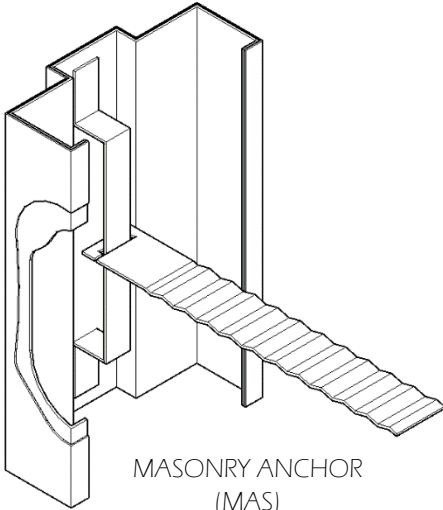


REAR
VIEW

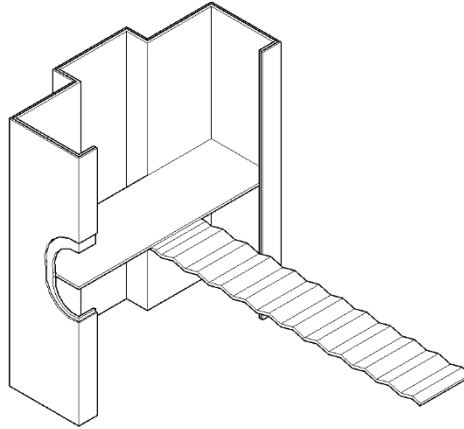
REINFORCEMENTS ARE PROJECTION WELDED TO THE FRAME WITH A MINIMUM OF THREE WELDS PER TAB.
HEAVIER GAUGES ARE ALSO AVAILABLE.

FRAME ANCHORS

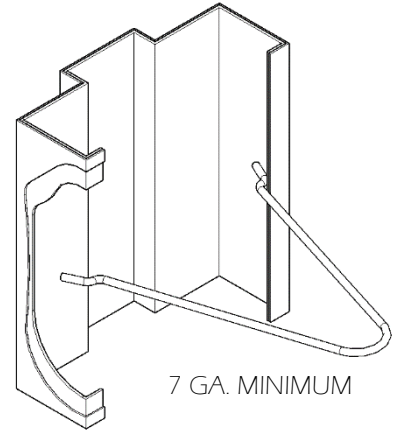
NOTE: ALL CLIPS AND ANCHORS ARE 16 GAUGE MINIMUM UNLESS NOTED OTHERWISE.



MASONRY ANCHOR
(MAS)

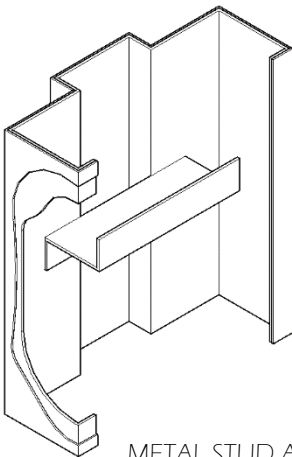


MASONRY T-ANCHOR
(MTA)

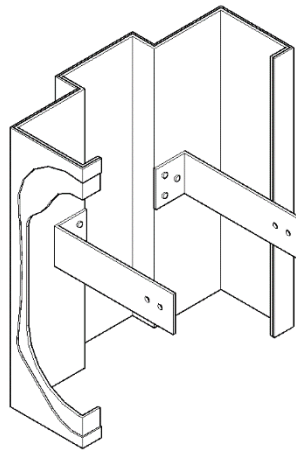


7 GA. MINIMUM

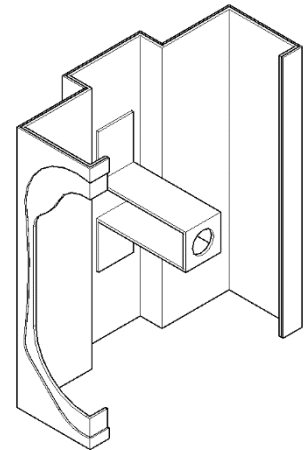
MASONRY WIRE ANCHOR
(MWA)



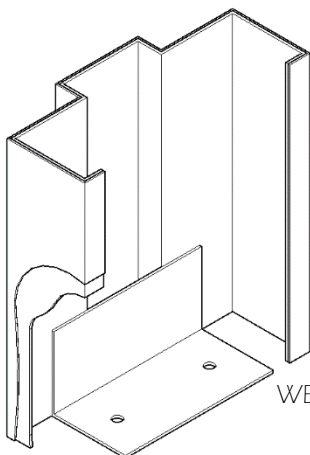
METAL STUD ANCHOR
(MSA)



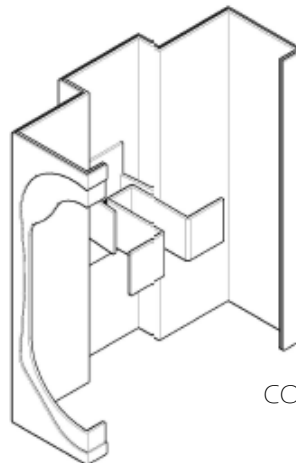
WOOD STUD ANCHOR
(WSA)



EXISTING WALL ANCHOR
(EMA)



WELDED FLOOR CLIP
(WFC)



COMPRESSION ANCHOR
(KDPA)

FIRE RATING / SELECTION CHART


ALL STEEL FRAMES RECEIVE UL LISTING MARK AND ACROVYN PROTECTION RECEIVES GUARDIAN FIRE TESTING LABORATORIES, INC. LABEL.

ACROVYN DOOR FRAME FIRE RATING / SELECTION CHART							
DOOR FRAME DESCRIPTION	RATING	SINGLE	PAIR	DOUBLE EGRESS	APPROVED THICKNESS	WALL	HOSPITAL STOP
(3) SIDED FRAME SINGLE AND PAIR	3 HR. CLASS A	4' x 10'	8' x 10'	N/A	16/14/12 GAUGE	NEW MASONRY	YES
						EXISTING MASONRY	
						PRE-SET STUD	
						METAL STUD	
(3) SIDED FRAME DOUBLE EGRESS	3 HR. CLASS A	N/A	N/A	8' x 10'	16/14/12 GAUGE	NEW MASONRY	NO
						EXISTING MASONRY	
						METAL STUD	
						WOOD STUD	
(3) SIDED FRAME SINGLE AND PAIR	90 MIN. CLASS B&D	4' x 10'	8' x 10'	N/A	16/14/12 GAUGE	NEW MASONRY	YES
						EXISTING MASONRY	
						PRE-SET STUD	
						METAL STUD	
(3) SIDED FRAME DOUBLE EGRESS	90 MIN. CLASS B&D	N/A	N/A	8' x 10'	16/14/12 GAUGE	NEW MASONRY	NO
						EXISTING MASONRY	
						METAL STUD	
						WOOD STUD	
(3) SIDED FRAME SINGLE AND PAIR	45 MIN. CLASS B&D	4' x 10'	8' x 10'	N/A	16/14/12 GAUGE	NEW MASONRY	YES
						EXISTING MASONRY	
						PRE-SET STUD	
						METAL STUD	
(3) SIDED FRAME DOUBLE EGRESS	45 MIN. CLASS B&D	N/A	N/A	8' x 10'	16/14/12 GAUGE	NEW MASONRY	NO
						EXISTING MASONRY	
						METAL STUD	
						WOOD STUD	

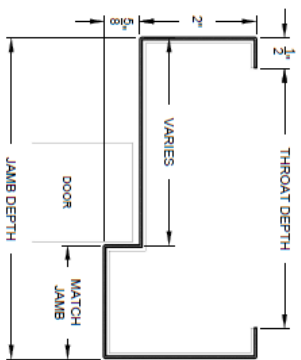
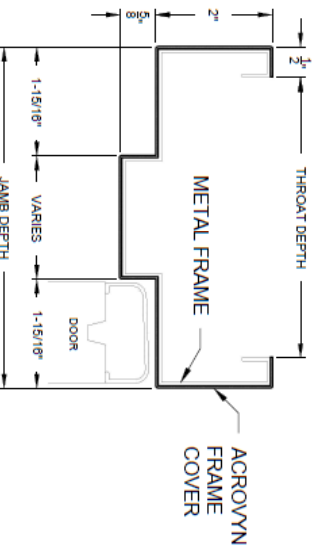
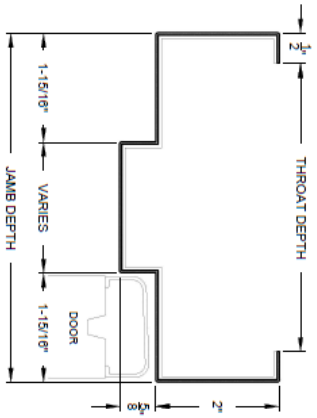
SUBMITTAL INFORMATION

- 6.1 Material Specs
- 6.2 Opening Schedule
- 6.3 Jamb Types
- 6.4 Elevations
- 6.5 Elevations (cont.)

MATERIAL SPECIFICATIONS

MATERIAL SPECIFICATIONS		
<input type="checkbox"/> STD. 16 GAUGE CRS FRAME	<input type="checkbox"/> ALT. GA. _____	
JAMB ANCHOR GAUGE _____	PER JAMB _____	
FLOOR ANCHOR GAUGE _____	<input type="checkbox"/> ADJUSTABLE	
<input type="checkbox"/> CHANNEL HEAD REINFORCEMENT _____	GAUGE @ FRAMES OVER _____ WIDE	
<input type="checkbox"/> STANDARD FACE WELD	<input type="checkbox"/> FULL PROFILE WELD	
<input type="checkbox"/> STD. 12 GAUGE CLOSER REINFORCEMENT	<input type="checkbox"/> ALT. GAUGE CLOSER REINFORCEMENT	
<input type="checkbox"/> STD. 7 GAUGE HINGE REINFORCEMENT	<input type="checkbox"/> ALT. GAUGE HINGE REINFORCEMENT	
<input type="checkbox"/> STD. 11 GAUGE STRIKE REINFORCEMENT	<input type="checkbox"/> ALT. GAUGE STRIKE REINFORCEMENT	
<input type="checkbox"/> HOSPITAL STOPS - 6" @ 45 Degree		
REFERENCE ONLY - HARDWARE REINFORCEMENT GAUGES		
HARDWARE ITEM	ANSI A250.8 MINIMUM REINFORCING GAUGES	C/S MINIMUM REINFORCING GAUGES
MORTISE HINGES (1 3/4" DOORS)	10	7
STRIKES	14	11
SURFACE APPLIED CLOSERS	14	12
SURFACE APPLIED HOLD OPEN ARMS	14	12
SURFACE EXIT DEVICES	14	12
FLOOR CHECKING HINGES	7	7
PIVOT HINGES	7	7
DRAWN BY: _____	DATE: _____	
	SHEET: _____ OF _____	

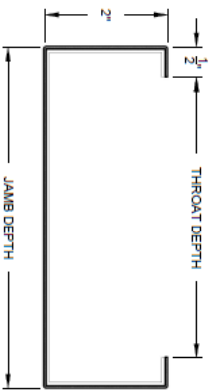
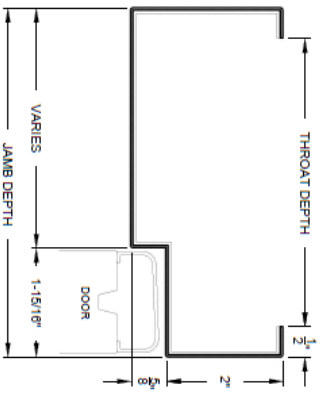
NOTE: ALL DIMENSIONS ARE NOMINAL



JAMB TYPE "A"

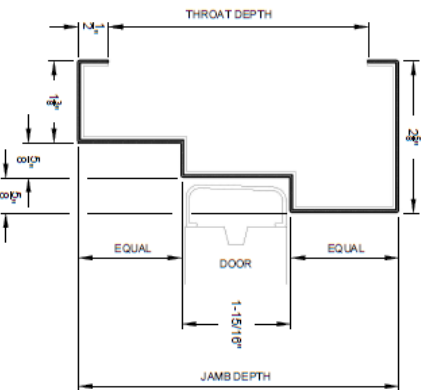
JAMB TYPE "G"

DOUBLE EGRESS HEAD
JAMB TYPE "DE"



JAMB TYPE "F"

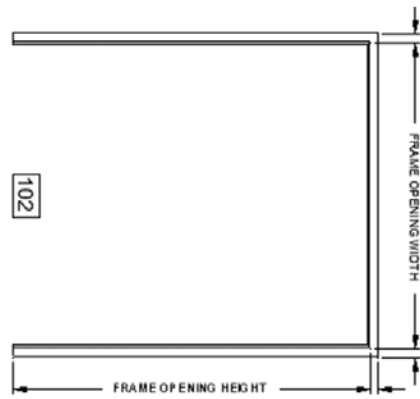
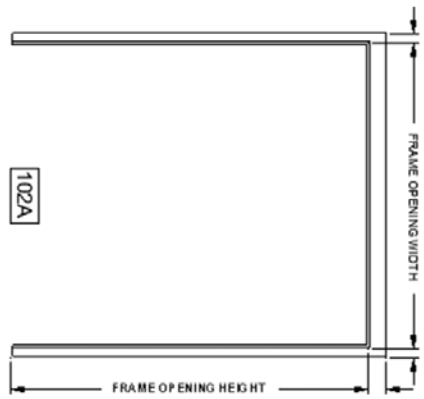
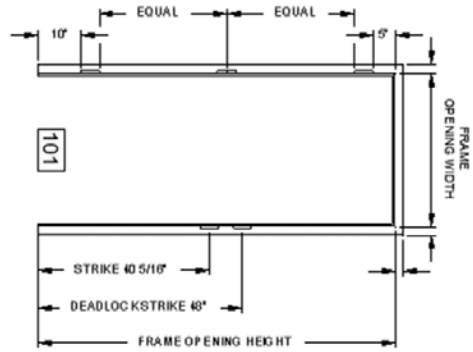
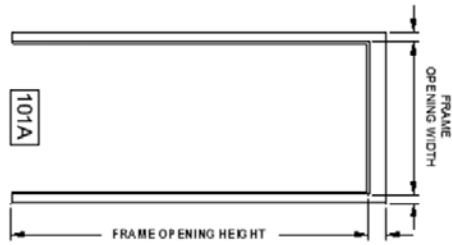
JAMB TYPE "J"



DOUBLE EGRESS JAMB
JAMB TYPE "DE"

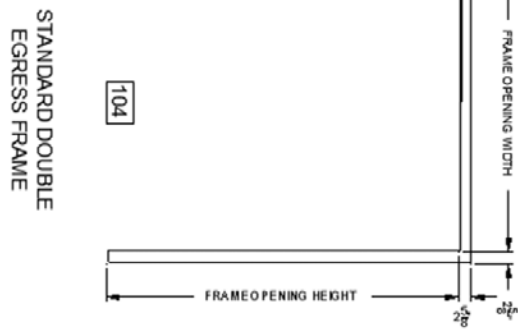
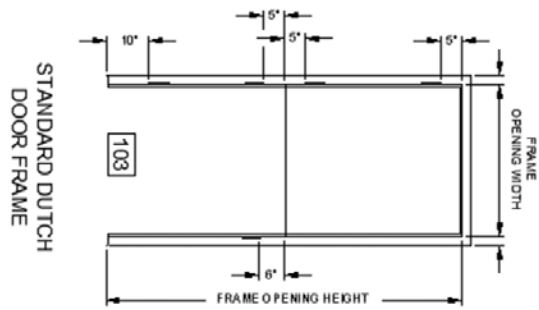
DESCRIPTION: STANDARD JAMB TYPES	Construction Specialties ACROVYN DOOR AND FRAME SYSTEM 6888 Route 425 Muncy, Pennsylvania 17756 570-546-5941	This document is the property of CONSTRUCTION SPECIALTIES, INC. and contains CONFIDENTIAL PROPRIETARY INFORMATION that is not to be used without approval in writing from CONSTRUCTION SPECIALTIES, INC.	DWG BY:
			DATE:
PROJECT:			DRAWING NO.:
			SHT. OF

ELEVATIONS



SHT. OF	DRAWING NO.:	DATE:	DWG BY:	APPD BY:	DESCRIPTION:	 Construction Specialties ACROVYN DOOR AND FRAME SYSTEM 9333 Route 405 Murry, Pennsylvania 17756 717-640-0941	This document is the property of CONSTRUCTION SPECIALTIES, INC. and contains CONFIDENTIAL PROPRIETARY INFORMATION that is not to be disclosed to third parties, and is not to be used without approval in writing from CONSTRUCTION SPECIALTIES, INC.
					STANDARD FRAME ELEVATIONS		

ELEVATIONS (cont.)



SHT. OF	DRAWING NO.:	DATE:	DWG. BY:	APPD. BY:	DESCRIPTION: STANDARD FRAME ELEVATIONS	 Construction Specialties ACROVYN DOOR AND FRAME SYSTEM 9936 Route 405 Murry, Pennsylvania 17756 570-546-6041	This document is the property of CONSTRUCTION SPECIALTIES, INC. and contains CONFIDENTIAL PROPRIETARY INFORMATION that is not to be disclosed to third parties, and is not to be used without approval in writing from CONSTRUCTION SPECIALTIES, INC.
					PROJECT:		

INSTALLATION INSTRUCTIONS

7.1 Drywall Pressure Fit

7.2 Wood and Metal Studs

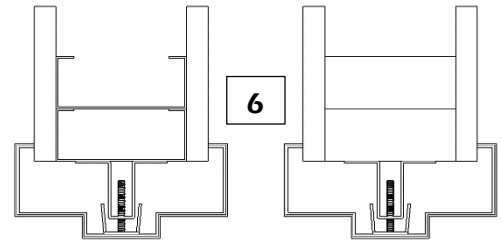
7.3 Masonry

7.4 Existing

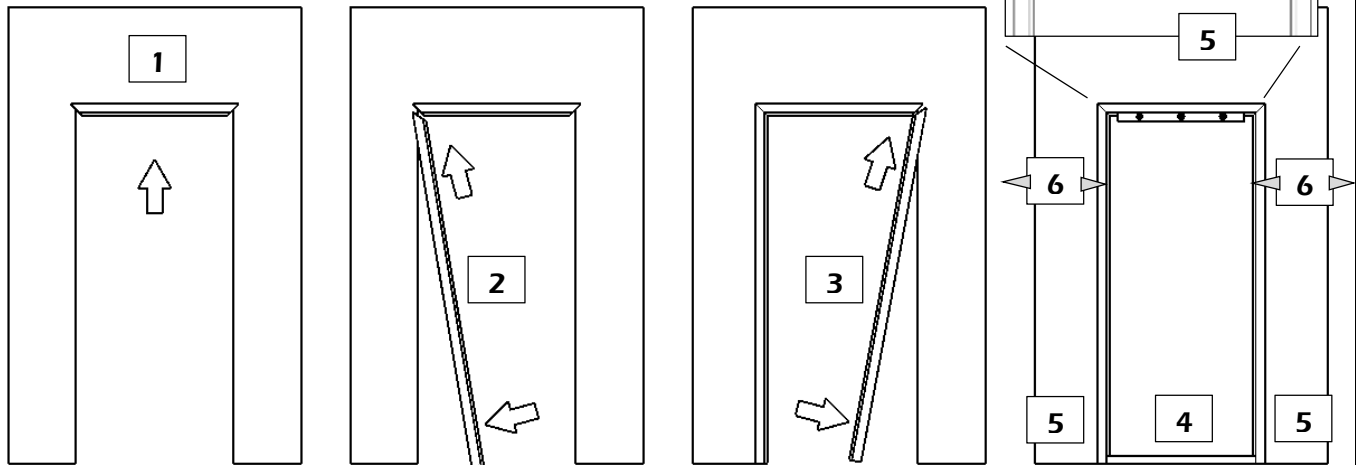
FRAME INSTALLATION – DRYWALL PRESSURE-FIT

PRESSURE-FIT FRAMES ARE DESIGNED FOR INSTALLATION IN EXISTING PREPARED OPENINGS AND ARE TO FIT TIGHTLY AROUND THE WALL WITH MINIMAL FRAME THROAT TO WALL CLEARANCE,

A NEW ROUGH OPENING SHOULD BE 1" TO 1 ¼" WIDER ON EACH SIDE THAN THE ACTUAL DOOR WIDTH AND 1" – 1 ½" TALLER THAN THE DOOR OPENING HEIGHT.

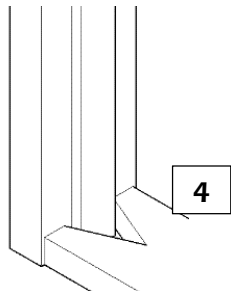


PRESSURE-FIT FRAMES ARE PROVIDED WITH COMPRESSION ANCHORS WHICH ARE LOCATED NEAR THE TOP OF EACH JAMB.

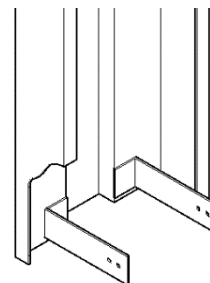


1. PLACE HEAD IN OPENING AND PUSH UPWARD AS FAR AS POSSIBLE.
2. INSTALL EITHER JAMB AND ENGAGE JAMB CLIPS INTO CORRESPONDING SLOTS IN HEAD.
3. INSTALL SECOND JAMB IN THE SAME MANNER AND POSITION IN THE OPENING.
4. PLACE A WOOD SPACER (CUT TO THE EXACT OPENING DIMENSION) AT FLOOR LEVEL.
5. LEVEL THE HEAD AND ATTACH THE BASE ANCHORS.
(NOTE: NOTCH THE DRYWALL AS REQUIRED AT BASE TO ACCOMMODATE THE ANCHORS.)
6. ADJUST THE COMPRESSION ANCHORS TO PLUMB THE FRAME IN THE OPENING.

WOOD SPREADER



5

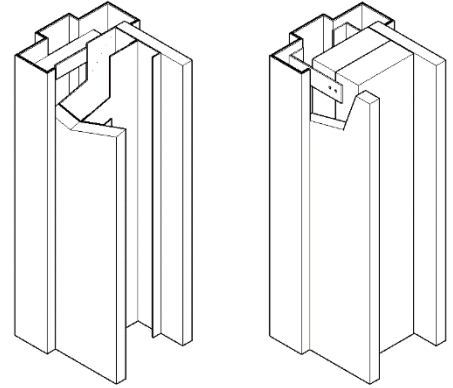


BASE ANCHORS

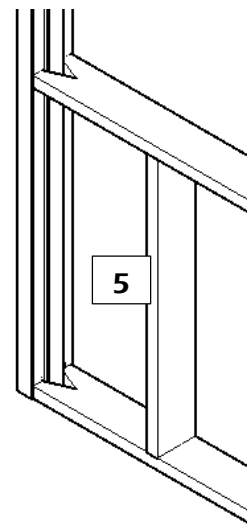
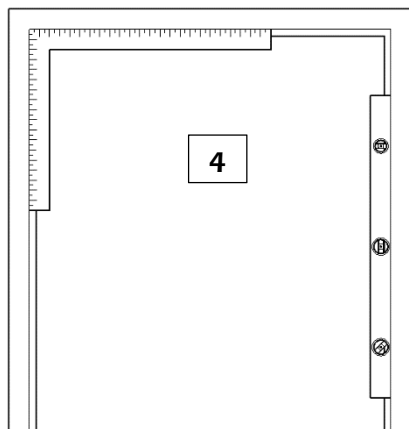
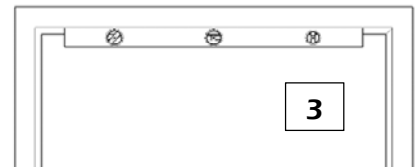
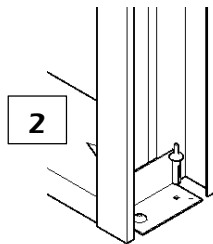
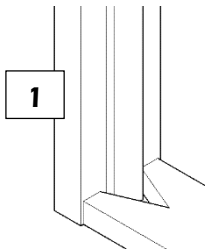
FRAME INSTALLATION – WOOD AND METAL STUDS

FRAMES FOR STUD WALLS ARE PROVIDED WITH EITHER WOOD STUD OR METAL STUD ANCHORS AND ATTACHED FLOOR ANCHORS.

ANCHORS ARE SPACED NO MORE THAN 30" APART WITH THE FIRST ANCHOR BEING LOCATED APPROXIMATELY 12" FROM THE BOTTOM OF THE FRAME.



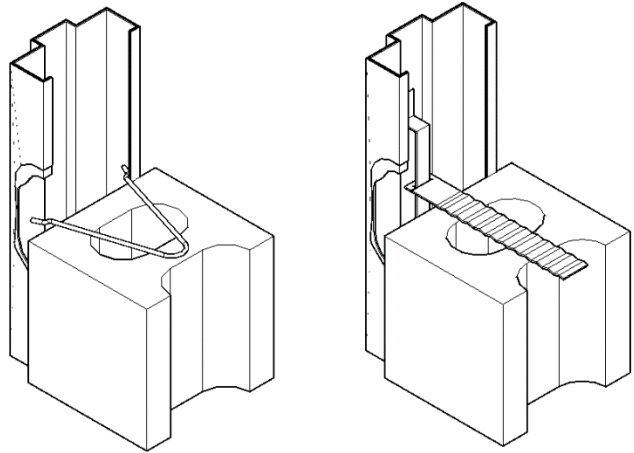
1. PLACE THE FRAME AT THE SPECIFIED LOCATION AND PLACE A WOOD SPREADER CUT TO THE EXACT OPENING WIDTH AT FLOOR LEVEL.
2. FASTEN THE BASE ANCHOR TO THE FLOOR USING A SUITABLE FASTENER. SUPPORT AND BRACE THE FRAME AS NEEDED.
3. LEVEL THE HEAD.
4. PLUMB THE JAMBS AND SQUARE THE CORNERS.
5. PLACE A HORIZONTAL WOOD SPREADER WITH A SUPPORT AT THE MIDPOINT OF THE OPENING.



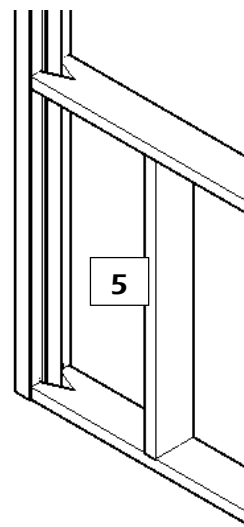
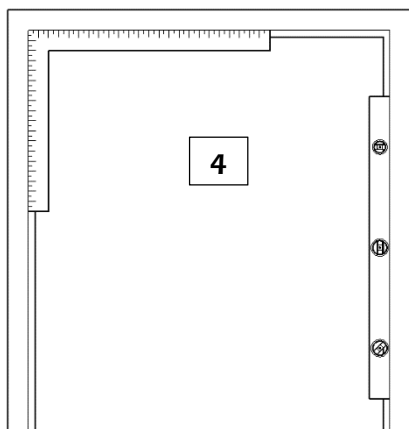
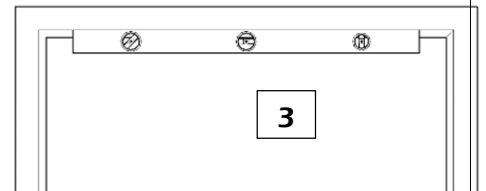
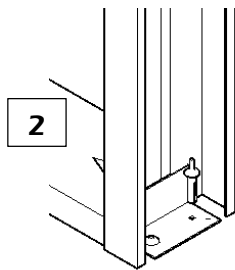
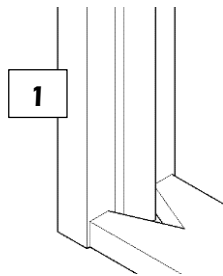
FRAME INSTALLATION – MASONRY WALL

FRAMES FOR MASONRY WALLS ARE PROVIDED WITH EITHER WIRE ANCHORS OR STRAP ANCHORS AND ATTACHED FLOOR ANCHORS.

ANCHORS ARE SPACED NO MORE THAN 30" APART WITH THE FIRST ANCHOR BEING LOCATED APPROXIMATELY 12" FROM THE BOTTOM OF THE FRAME.



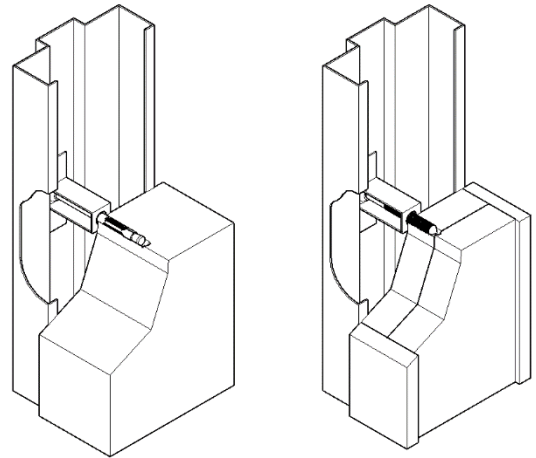
1. PLACE THE FRAME AT THE SPECIFIED LOCATION AND PLACE A WOOD SPREADER CUT TO THE EXACT OPENING WIDTH AT FLOOR LEVEL.
2. FASTEN THE BASE ANCHOR TO THE FLOOR USING A SUITABLE FASTENER. SUPPORT AND BRACE THE FRAME AS NEEDED.
3. LEVEL THE HEAD.
4. PLUMB THE JAMBS AND SQUARE THE CORNERS.
5. PLACE A HORIZONTAL WOOD SPREADER WITH A SUPPORT AT THE MIDPOINT OF THE OPENING.



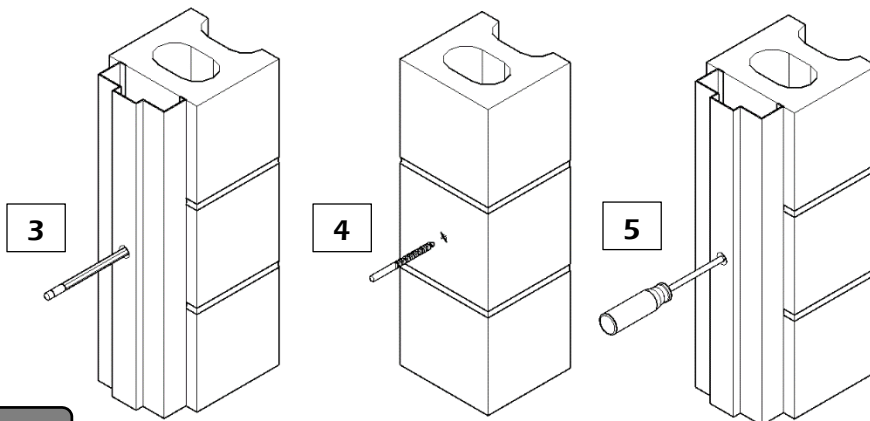
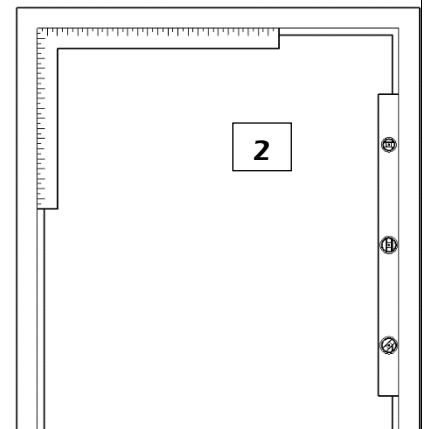
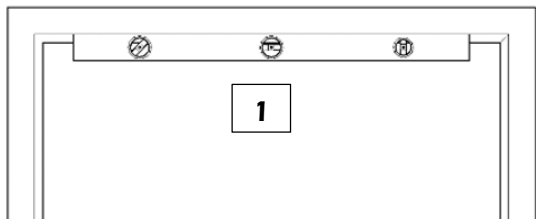
FRAME INSTALLATION – EXISTING WALL

FRAMES FOR EXISTING WALLS ARE PROVIDED PRE-MACHINED WITH DIMPLED SPACER HOLES TO RECEIVE 3/8" MASONRY ANCHORS OR THREADED SCREWS DEPENDING UPON THE APPLICATION.

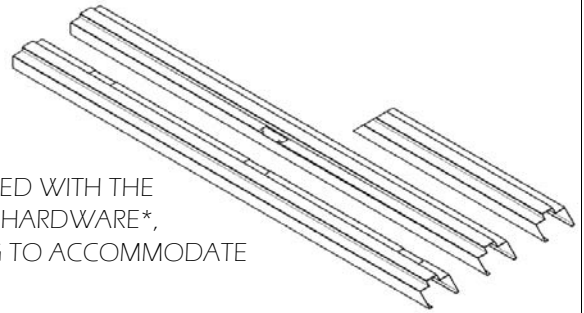
ANCHORS ARE SPACED NO MORE THAN 30" APART WITH THE FIRST ANCHOR BEING LOCATED APPROXIMATELY 12" FROM THE BOTTOM OF THE FRAME.



1. PLACE FRAME IN THE OPENING AND LEVEL THE HEAD BY SHIMMING THE BOTTOM OF THE FRAME AS REQUIRED.
2. PLUMB THE JAMBS AND SQUARE THE HEAD.
3. MARK THE EXISTING WALL THROUGH THE SPACER HOLES IN THE FRAME.
4. REMOVE THE FRAME FROM THE OPENING AND DRILL THE HOLES AS REQUIRED FOR THE APPROPRIATE FASTENERS.
5. REPLACE THE FRAME AND ATTACH TO THE WALL USING THE APPROPRIATE FASTENERS.



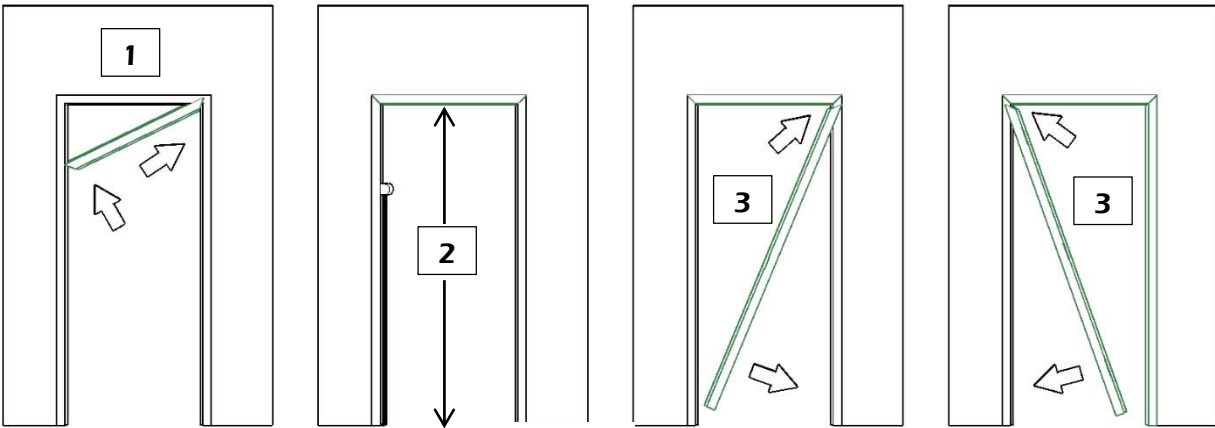
ACROVYN INSTALLATION



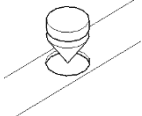
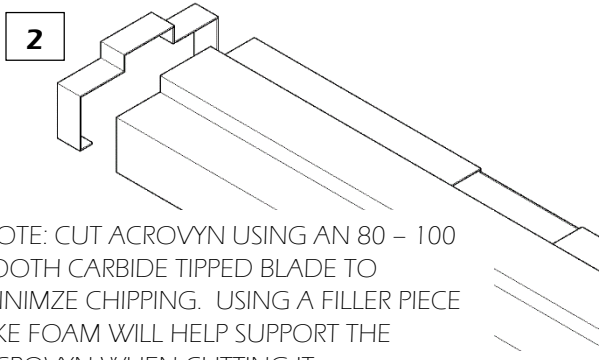
NOTE: ALL ACROVYN COVERS WILL ARRIVE AT THE JOBSITE, MARKED WITH THE APPROPRIATE OPENING REFERENCE, PREPPED FOR THE SPECIFIED HARDWARE*, MITERED AND SUPPLIED SLIGHTLY OVERSIZE FOR FIELD TRIMMING TO ACCOMMODATE THE FLOOR FINISH.

1. INSTALL THE ACROVYN HEADER PIECE BY FEEDING EITHER END INTO THE JAMB/HEAD TRANSITION AND SNAPPING IT OVER THE STEEL FRAME BACK BENDS.
2. MEASURE THE DISTANCE FROM THE FINISHED FLOOR TO THE TOP OF THE OPENING AND CUT THE JAMB SECTIONS TO SIZE.
3. INSTALL EACH ACROVYN JAMB SECTION BY FEEDING THE MITERED END INTO THE JAMB/HEAD TRANSITION AND SNAPPING IT OVER THE STEEL FRAME BACK BENDS.

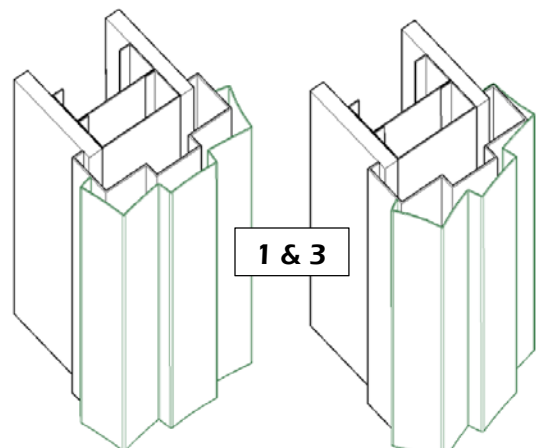
NOTE: SOME CIRCUMSTANCES MAY REQUIRE THE USE OF APPROVED PRESSURE SENSITIVE TAPE WHEN INSTALLING THE ACROVYN.



* HOLES FOR SILENCERS MUST BE DRILLED IN THE FIELD AND SHOULD BE 1/32" LARGER THAN THE DIA. OF THE SPECIFIED SILENCER.

NOTE: CUT ACROVYN USING AN 80 - 100 TOOTH CARBIDE TIPPED BLADE TO MINIMIZE CHIPPING. USING A FILLER PIECE LIKE FOAM WILL HELP SUPPORT THE ACROVYN WHEN CUTTING IT.



NOTE: THE ACROVYN CAN BE INSTALLED ONTO THE FRAME BY HOOKING ONE EDGE OVER THE STEEL BACK BEND AND FLEXING IT OVER THE REST OF THE FRAME OR ARCHING THE WHOLE PIECE TO ENCASE THE FRAME.

SPECIFICATION

Section 08110 (08 11 13)
Impact Resistant Acrovyn Frames

1 PART 1– GENERAL

1.1 SCOPE

- A. All labor, material, equipment, and related services necessary to furnish and install impact resistant Acrovyn® Frame Systems as shown on the drawings or specified herein.

1.2 RELATED SECTIONS

- A. Related Sections include the following:
 - 1. Division 6 Section 06100 (06 10 00) Rough Carpentry
 - 2. Division 6 Section 06400 (06 40 00) Architectural Woodwork
 - 3. Division 8 Section 08110 (08 11 13) Metal Doors and Frames
 - 4. Division 8 Section 08710 (08 71 00) Finish Hardware
 - 5. Division 8 Section 08800 (08 06 80) Glazing for glass view panels
 - 6. Division 10 Section 10200 (08 91 26) Louvers in flush wood doors

1.3 REFERENCE STANDARDS

- A. ASTM E152 – Methods of Fire Tests and Door Assemblies
- B. ASTM A1008 Standard Specification for Cold Rolled Steel
- C. UL10-C Standard for Positive Pressure Fire Tests of Door Assemblies
- D. NFPA 252 Standard methods of fire tests of door assemblies
- E. NFPA 80 Fire Doors and Windows
- F. NFPA 101 Life Safety Code, National Fire Protection Association
- G. MBDC C2C, McDonough Braungart Design Chemistry Cradle to Cradle
- H. NWWDA TM-7 Cycle Slam Test

1.4 Work Not Included

The following work is specified elsewhere and not included in this Section:

- A. Installation of frames and frame protectors
- B. Furnishing and installation of door hardware or rough hardware of any kind
- C. Glass and glazing
- D. Furnishing and installation of weather-stripping, thresholds and gasketing
- E. Structural steel framing or bracing
- F. Installation into doors or frames of items furnished by others
- G. Field painting
- H. Protection at the building site of items furnished under this Section

I. Field assembly of spliced frames and frame protectors

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 30 00
- B. Product Data: For each type of frame, submit manufacturer's data sheets including details of frame profiles, elevations and anchorage requirements.
- C. Shop Drawings: (Indicate Quantity) copies of all necessary shop drawings shall be submitted to the Architect for his approval. These drawings shall fully describe and locate all items being furnished and shall include details of principal construction features. Approved shop drawings shall constitute final contract requirements, and no work shall be fabricated until shop drawings for that work have been approved by the Architect.
- D. Submit complete schedule indicating frame location, opening size, hardware sets, swing of each door; elevation of each type of door and construction details not covered in product data and other pertinent information. Indicate frame dimensions and locations of mortises and holes for hardware.
- E. Certification: Submit certification that frames comply with UL 10C Positive Pressure Fire Tests of Door Assemblies.
- F. Manufacturer's lifetime warranty.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain impact-resistant Acrovyn Frame Systems through one source from a single manufacturer.
- B. Quality Standard: Frames shall meet performance attributes for the following performance duty level: Extra Heavy Duty

1.6 DELIVERY, STORAGE, HANDLING AND SITE CONDITIONS

- A. It shall be the responsibility of the General Contractor to see that any metal frame scratches caused in shipping or handling are promptly cleaned and touched up with rust-inhibitive primer, and that materials are properly stored in a dry location, and covered to protect them from damage.
- B. Deliver, store, protect and handle products under guidelines of Steel Door Institute (SDI) and manufacturer's care and handling instructions.
- C. Knocked-down steel frames to be packaged flat with no more than 25 units per pallet. Welded steel frames to be packaged upright and quantity per skid to be limited by size of units. Acrovyn frame protection shall be packaged separately in corrugated units.
- D. Mark both steel frame and Acrovyn protection with opening number used on shop drawings.
- E. Accept frames on site in manufacturer's standard packaging. Inspect for damage.
- F. Do not store Acrovyn Frame System frame protectors in hot areas or in direct sunlight, even if covered.
- G. Do not subject frame protectors to extreme conditions or changes in heat, dryness or humidity.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver, store, or install frame protectors until building is enclosed, wet work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.

- B. HVAC systems should be operating and balanced prior to arrival of frame protectors. Acclimate all frame protectors to room temperature 24 hours prior to installation. The frame protectors should not be installed if ambient room temperature is below 65° F.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace frames that are deemed defective in materials or workmanship. Conditions are subject to the terms set forth in the manufacturer's warranty.
1. Frames: Provide manufacturer's limited lifetime warranty against defects in workmanship or material under normal use and service.
 2. Frame Protectors: Provide manufacturer's limited lifetime warranty guarantee against defects in workmanship or material under normal use and service.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Subject to compliance with all requirements, provide one of the following:
1. To establish a standard of quality, design and function required, drawings and specifications are based on Construction Specialties, Inc. Acrovyn® Frame Systems (800) 972-7214 – no substitutions.

2.2 MATERIALS – Acrovyn Frame System Frame Protectors

- A. Integrated Frame Protection
- B. Finish
1. Acrovyn "Chameleon" wood grain or Acrovyn solid color impact resistant, PVC-free. Finish to be: _____ [Insert finish name and #]
 2. Face material base color must be integral throughout to eliminate discoloration caused by scratching.
 3. Face Veneer Wear Index - Abrasion Resistance Testing - ASTM D4060-90: 28,000 cycles to prove out resistant to scuffing and scratching.
 4. C2C Certified
 5. PBT and PVC-free

2.3 MATERIALS – Interior Hollow Metal Frames

- A. Design and Construction
1. Frames for interior openings shall be commercial grade cold rolled steel conforming to ASTM Designation A1008. Metal thickness shall not be less than 16 gauge in thickness.
 2. All frames shall be custom made, either welded or knocked down units with integral trim, of the sizes and shapes shown on approved shop drawings.
 3. All finished work shall be strong and rigid, neat in appearance, square, true and free of defects, warp or buckle. Molded members shall be clean cut, straight and of uniform profile throughout their lengths.
 4. Jamb depths, trim, profile and backbends shall be as scheduled by the Architect and shown on approved shop drawings.
 5. Corner joints shall have all contact edges closed tight, with trim faces mitered and continuously welded, and stops butted.

6. Minimum depth of stops shall be 5/8". Hospital cutoff stops, where scheduled, shall be capped at 45° at heights shown on approved shop drawings, and all jamb joints below cutoff stops shall be welded and ground smooth making them unnoticeable.
7. When shipping limitations dictate, frames for large openings shall be fabricated in sections designed for splicing in the field by installer.
8. Frames for multiple or special openings shall have mullion and/or rail members which are closed tubular shapes. All joints between faces of abutting members shall be securely welded and finished smooth. (Call factory for details 908-849-4065)
9. Hardware reinforcements:
 - a. Frames shall be mortised, reinforced, drilled and tapped at the factory for fully templated mortised hardware only, in accord with approved hardware schedule and templates provided by the hardware contractor.
 - b. Hardware contractor shall furnish hollow metal door and frame manufacturer with physical hardware samples as requested. Where surface-mounted hardware is to be applied, frames shall have reinforcing plates only; all drilling and tapping shall be done by installer.
10. Minimum thickness of hardware reinforcing plates shall be as follows:
 - a. Hinge and pivot reinforcement: 7 gauge
 - b. Strike reinforcement: 11 gauge
 - c. Flush bolt reinforcements: 11 gauge
 - d. Closer reinforcement: 12 gauge
 - e. Reinforcements for:
 - A.10.e.1. Surface-mounted hardware: 12 gauge
 - A.10.e.2. Hold-open arms: 12 gauge
 - A.10.e.3. Surface panic devices: 12 gauge
11. Floor anchors:
 - a. Floor anchors shall be securely welded inside each jamb, with two holes provided at each jamb for floor anchorage.
 - b. Where scheduled or specified, adjustable floor anchors, providing not less than 2" height adjustment, shall be provided.
 - c. Minimum thickness of floor anchors shall be 16 gauge.
12. Jamb anchors:
 - a. Frames for installation in masonry walls shall be provided with adjustable stirrup and strap type jamb anchors.
 - b. Anchors shall be not less than .053 thick. Stirrup straps shall be not less than 2"x10" in size corrugated.
 - c. The number of anchors provided on each jamb shall be as follows:
 - A.12.c.1. Frames up to 7'6" height: 3 anchors
 - A.12.c.2. Frames 7'6" to 8'0" height: 4 anchors
 - A.12.c.3. Frames over 8'0" height: 1 anchor for each 2'
13. Frames for installation in stud partitions:
 - a. Shall be provided with steel anchors of suitable design, not less than .053 thick, securely welded inside each jamb as follows:
 - A.13.a.1. Frames up to 7'6" height 3 anchors
 - A.13.a.2. Frames 7'6" to 8'0" height 4 anchors
 - A.13.a.3. Frames over 8'0" height 5 anchors
 - A.13.a.4. plus one additional for each 2' fraction thereof over 8'1"

14. Frames to be anchored to previously placed concrete, masonry or structural steel shall be provided with anchors of suitable design as shown on approved shop drawings. Fasteners for such anchors shall be provided by others.
15. Dust cover boxes (or mortar guards) not thinner than .016 steel shall be provided at all hardware mortises on frames to be set in masonry or plaster partitions.
16. All frames shall be provided with a steel spreader temporarily attached to the feet of both jambs to serve as a brace during shipping and handling.
17. Applied glazing stops shall be of cold rolled steel, not less than .042 thick, butted at corner joints and secured to the frame with countersunk cadmium or zinc plated screws.
18. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth. Frames shall then be chemically treated to insure maximum paint adhesion and shall be coated on all accessible surfaces with a rust inhibitive primer which is fully cured before shipment.

2.4 Fire-rated Doors and Frames, GENERAL

1. All fire labeled frames shall be manufactured in strict accordance with the specifications and procedures of Underwriters Laboratories (UL)
2. If any door or frame specified by the Architect to be fire-rated cannot qualify for appropriate labeling because of its design, hardware, or any other reason, the Architect shall be so advised before fabricating work on that item is started.

2.5 FABRICATION, GENERAL – Frame System Protectors

1. FRAME Protectors shall be pre-fit to the frames at the factory to reduce fitment and onsite labor costs.
2. Coordinate measurements of hardware mortises in metal frames. Contractor or door distributor to verify dimensions and alignment before factory machining.
3. Factory prep frame protectors for hardware that is not surface applied. Comply with final hardware schedules, door frame shop drawings, and hardware templates.

2.6 ACCESSORIES

1. Silencers: Resilient rubber, fitted into drilled holes; 3 on strike side of single door, 3 on center mullion of pairs and 2 on head of pairs without center mullions.
2. Temporary frame spreaders: Provided for all factory assembled frames.

2 PART 3 – INSTALLATION

3.1 EXAMINATION

Note to Architect: In the section of the specification where installation of the work is specified, it should be required that:

1. Prior to installation, all frames must be checked and corrected for rack, twist, and out-of-square. Frames must be set true and plumb and remain in alignment until permanently built into the wall.

2. Proper door clearance must be maintained in accordance with NFPA 80, Section 6.3.1.7. Where necessary, metal hinge shims are acceptable to maintain clearances. Hardware must be applied in accordance with hardware manufacturer's templates and instructions.

It is important to recognize that work of this kind is not the responsibility of the hollow metal manufacturer

3. Inspect all frames upon receipt at the jobsite or storage facility. Abrasions or scratches on the steel that were received during shipping and handling are to be sanded, cleaned and repainted with a rust inhibiting primer.
4. Examine door frames and verify that they comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
5. Adjust frames to plumb condition before door installation. Tolerances for warp, squareness and pre-fitting dimensions shall be in accordance with SDI 117-09 Manufacturing Tolerances for Steel Doors and Frames.
6. Do not install doors in frame openings that are not plumb or are out of tolerance for size or alignment.
7. Proceed with installation only after unsatisfactory conditions have been corrected.

2.1 INSTALLATION

1. Install doors to comply with manufacturer's written instructions, referenced quality standard and as indicated.
 - 1.1. Install fire rated doors in corresponding fire-rated frames according to NFPA-80 and ITS/WH requirements.
2. Factory fitted doors: Align in frames for uniform clearance at each edge.
3. In the field trimming of frame protectors:
 - 3.1. Trim frame protectors as directed in the installation instructions.
4. Hardware installation: See Division 8 Section "Door Hardware".

4.3 CLEANING

1. Clean Acrovyn System Frame System frame protectors with a rag in concert with water or household cleaners such as Simple Green, Fantastik®, Formula 409®, or equivalent. Following use of the cleaner, the cleaned surface should be "rinse wiped" with clean water and wiped dry to remove any remaining residue.

END OF SECTION 08110 (08 11 13)

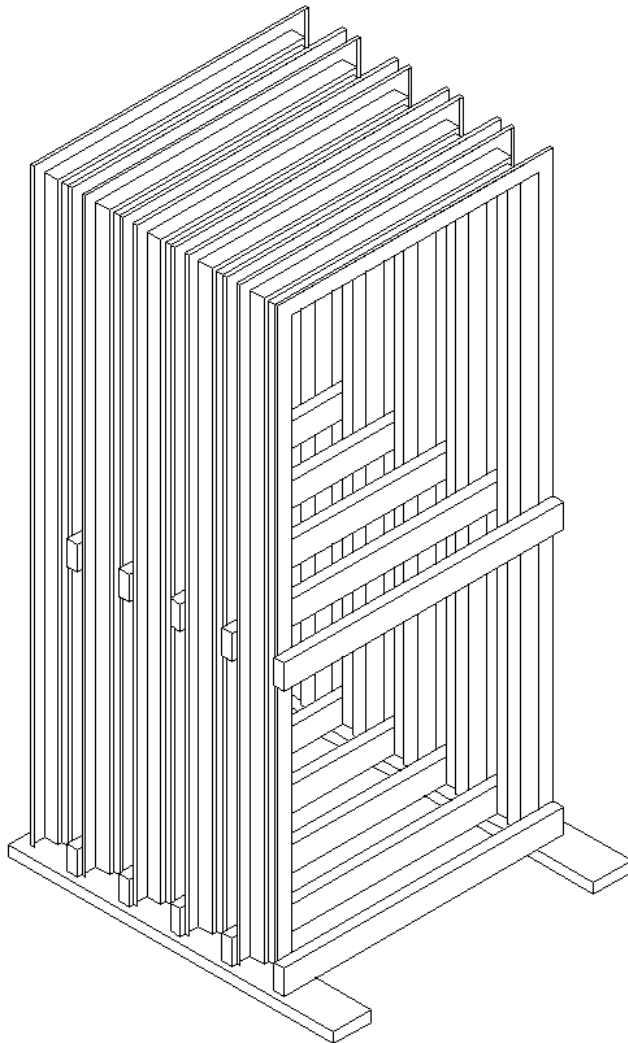
RECOMMENDED STORAGE

REMOVE ALL WRAPS OR COVERS UPON RECEIPT AT THE JOBSITE OR STORAGE FACILITY. ANY SCRATCHES OR ABRASIONS RECEIVED DURING SHIPPING AND HANDLING ARE TO BE PROMPTLY CLEANED AND REPAINED WITH A RUST PROHIBITING PRIMER.

ALL MATERIAL MUST BE STORED ON PLANKS OR DUNNAGE IN A DRY LOCATION. FRAMES SHALL BE STORED IN A VERTICAL POSITION AND SPACED BY BLOCKING AS SHOWN IN FIGURE 1.

IF MATERIAL IS COVERED DURING STORAGE, AMPLE AIR CIRCULATION MUST BE PROVIDED BETWEEN UNITS.

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DETERIORATION OF THE SHOP PRIMER, RESULTING IN CORROSION OF THE STEEL.



CARE OF PRIME PAINTED STEEL

GENERAL:

Construction Specialties frames are designed to meet the requirements of ANSI A250.8. Products receive a factory applied primer. The primer has been tested and certified to meet the passing criteria set forth in ANSI A250.10 Test Procedure and Acceptance Criteria for Prime Painted Steel Doors and Frames.

SURFACE PREPARATION:

In order to ensure proper prime paint adhesion all MPI steel doors and frames are pretreated prior to the application of the prime paint. All exposed surfaces are thoroughly cleaned and phosphatized during the critical pretreatment process.

PRIMERS:

After proper surface preparation, Construction Specialties frames shall be finished with one coat of factory baked-on, rust inhibitive primer. The high grade baked-on prime paint furnished on Construction Specialties frames provides high quality protection against corrosion and abrasion. The primer is applied to all visible/exposed surfaces of the products in accordance with ANSI A250.10 Test Procedure and Acceptance Criteria for Prime Painted Steel Doors and Frames.

Construction Specialties primer test results are as follows:

- Salt Spray 120 Hours
- Humidity 240 Hours
- Impact Passed
- Adhesion Passed

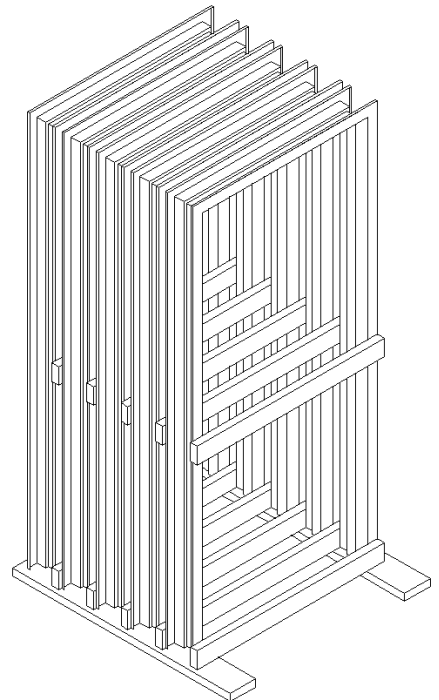
STORAGE:

The maintenance of proper storage and handling procedures is essential in ensuring that factory primed surfaces are ready to receive finish paint.

Upon receipt at the jobsite or storage facility, all doors and frames must be thoroughly inspected. Abrasions or scratches received during shipping and handling are to be sanded, cleaned and repainted with a rust inhibitive primer.

Material must be stored on planks or dunnage in a dry location. Frames shall be stored in a vertical position and spaced by blocking as shown in the diagrams. If material is covered during storage, ample air circulation must be provided between units.

Failure to follow the instructions and procedures herein may create conditions that will permit deterioration of the shop primer, resulting in corrosion of the steel.





CERTIFICATE OF ORIGIN

AMERICAN MADE

CERTIFICATE OF ORIGIN and ARRA STATEMENT

This is to certify that the steel used in manufacturing Construction Specialties Inc. door frames is acquired from mills located in the United States of America.

All frames are designed and manufactured at a partnering facility located in Corbin, KY., United States of America.

Products manufactured are in compliance with Section 1605 of the American Recovery and Reinvestment Act of 2009 as it relates to goods produced in the United States.



LEED

LEED INFORMATION IS CURRENTLY
BEING COMPILED AND WILL BE
ADDED UPON COMPLETION.

WARRANTY

Acrovyn Door Frames

Construction Specialties, Inc. Limited Lifetime Warranty

Congratulations on your choice of C/S Acrovyn Doors Frames. Every detail of a C/S Frame reveals careful construction and our commitment to superior quality. That is why C/S is offering a Limited Lifetime warranty against defects in material or workmanship. For the purpose of this warranty the C/S shall mean Construction Specialties, Inc.

C/S warrants only to its distributors, other direct buyers for resale and other direct buyers for commercial and industrial use that it will, at its option and sole discretion, furnish, F.O.B. Muncy, Pennsylvania, a replacement for repair or refund the purchase price to such buyer of any goods of its manufacture or part or portion thereof proved to its satisfaction to be defective in workmanship or material under normal use and service within one year (365 days) from the date of delivery to such distributor or such direct buyer, provided notice of such defect is given to seller within such one year (365 days) period. Our obligation will also terminate at any time anyone other than our company performs any work or repair, service or replacement on the item without our prior written consent. This warranty excludes products that are abused, misused, improperly installed or installed in a location other than that for which specified.

There is no implied warranty of merchantability or implied warranty of fitness for a particular purpose or any other warranty, express or implied, and C/S will not be responsible for any damages whatsoever, or for any labor, transportation or other costs or expenses relating to such replacement or such repair, including any indirect, incidental or consequential damages.



3 Werner Way, Lebanon, NJ 08833 US, 800-972-7217
895 Lakefront Promenade, Mississauga, ON L5E 2C2 Canada, 905-274-3611
www.c-sgroup.com
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FREQUENTLY ASKED QUESTIONS

1. *What does the miter joint look like?*

The transition between the header and the jamb will be mitered at our manufacturing facility to insure the best possible joint. NOTE: The quality of the fit is highly dependent on the squareness of the frame itself.



2. *I would like to see a sample of the Acrovyn Frame System. How do I go about this?*

Please contact your local Construction Specialties Representative. If you are unsure who this is please call us at 800-972-7214.

3. *What colors are available for the frame protectors?*

The same wide selection of colors as our impact-resistant Acrovyn Doors. See our current catalog for the most up to date color selection.

4. *Are the frame protectors available for use on fire rated frames?*

Yes, on frames up to a 3 hour rating.

5. *How are the frame protectors adhered to the frame?*

Acrovyn frame protectors snap on to the frame and are held on by tension.

6. *Can Acrovyn Frame Systems be used in Psychiatric facilities?*

Yes. However we suggest applying a pressure sensitive tape to the entire frame backband perimeter to deter tampering. The tape can be supplied with the frame protectors on request.

7. *Who can purchase the Acrovyn Frame System?*

Qualified door and hardware dealers and distributors.

FREQUENTLY ASKED QUESTIONS (cont.)

8. *Can I obtain a partial height frame protector (and front to back)?*

Yes, however we recommend that the frame protectors be adhered using an adhesive rather pressure sensitive tape. The protectors will extend across the entire frame profile (front of profile to rear of profile).

9. *If I desire a frame profile that is not listed in the catalog can you supply the frame and frame protectors for it?*

We cannot supply atypical frame profiles however we can supply the frame protectors. All that is required is a detail drawing or template.

10. *Is the Acrovyn Frame System available for existing openings?*

At this time this product is available for new construction only or new (rebuilt) openings in existing buildings.

11. *Can the Acrovyn frame protectors be undercut in the field?*

The installer is responsible for trimming frame protectors to compensate for new or uneven flooring or out of square frames. We've found it's best to have the Acrovyn supported underneath while cutting with a chop saw as this will support the Acrovyn and insure a straight cut.

12. *If a frame protector is damaged, what steps will need to be taken to insure that replacement protector pieces are going to fit exactly the same as the originals?*

Our Planning department has detailed digital build sheets of every opening. This includes detailed information about sizes and hardware locations. To replicate a frame protector piece, all we need is the opening number marked on the inside of every protector.

13. *Do the frame protectors comply with the NYC flame and smoke code?*

Yes. The protector is exempt because it is a profile product that is less than 10% of the wall.

14. *Do the frames have to be painted if frame protectors are being installed?*

No, the frames are coated with a corrosion resistant primer before they leave the factory.