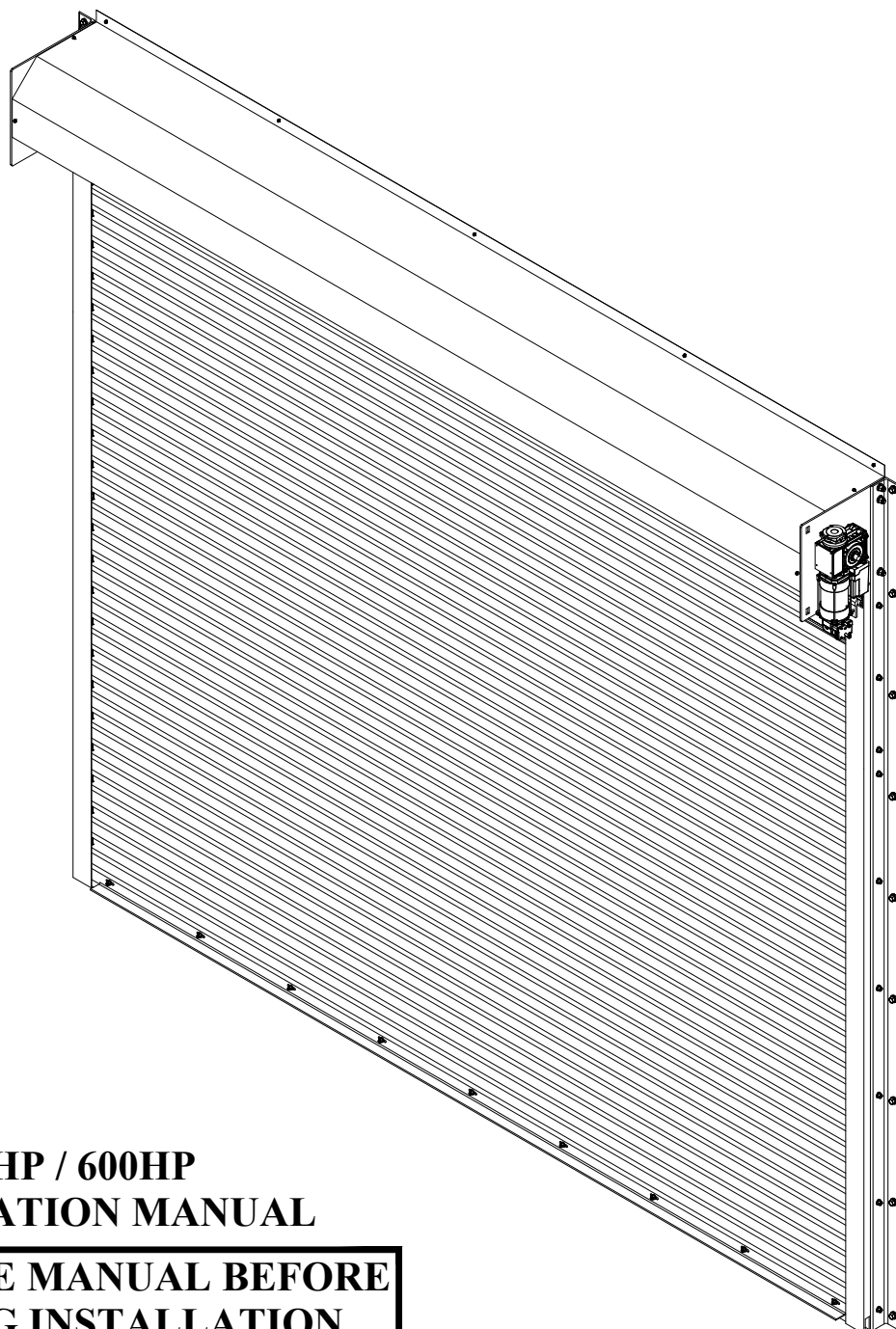




ASTAAMERICA®

BY JANUS INTERNATIONAL




**400HP / 600HP
INSTALLATION MANUAL**


**READ ENTIRE MANUAL BEFORE
BEGINNING INSTALLATION**


SAFETY INFORMATION


Overhead doors are large, heavy objects that move with the help of springs under high tension and/or electric motors. Since moving objects, springs under tension, and electric motors can cause injuries, your safety and the safety of others depend on you reading the information in this manual. If you have questions or do not understand the information presented, call your nearest service representative.

In this section, and those that follow, the words "Danger", "Warning", and "Caution" are used to emphasize important safety information. For example:

 **DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in injury or property damage.

 **WARNING!**

A high performance rolling steel door is a large heavy object that moves with the help of powerful electric motors. Electric motors can cause serious injuries or death. For your safety and the safety of others, follow these instructions.

 **CAUTION**

Use proper lifting equipment and correct lifting procedures to avoid damage or injury.

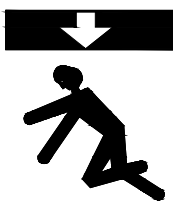



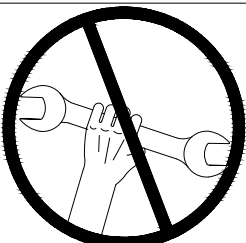

POTENTIAL HAZARD	EFFECT	PREVENTION
 <p>MOVING DOOR</p>	 WARNING Could result in death or serious injury	Keep people clear of opening while door is moving. DO NOT allow children to play with the door operator. DO NOT operate a door that jams or has a broken spring.
 <p>ELECTRICAL SHOCK</p>	 WARNING Could result in death or serious injury	Turn off power before removing operator cover. When replacing operator cover, make sure wires are not pinched between or near moving parts. Operator must be properly grounded.
 <p>HEAVY COMPONENTS</p>	 WARNING Could result in death or serious injury	Door must be fully opened when making adjustments. Repairs and adjustments must be made by a trained rolling door systems technician using proper tools and instructions.

TABLE OF CONTENTS

Warnings.....SAFETY

Overview and Parts

1. Exploded View of Major Components.....1
2. Miscellaneous Hardware.....2

Installation

1. Installing Wall Angles.....3
2. Assembly of Operators and Headplates.....4
3. Installing Barrel and Headplates to Guide Assembly.....5
4. Slinging: Important Safety Precautions.....6
5. Installing Curtain to Barrel.....6
6. Installing Inner and Outer Guides.....7
7. Installing Headstops.....7
8. Engaging the Operator.....7
9. Installation of the Hood(s).....8

Checklist

10. Checking for Correct Operation.....9

Appendix

A. Guide Mounting Details.....APPX-A
B. Guide Measurement Details.....APPX-B
C. Mounting Methods.....APPX-C
D. Troubleshooting.....APPX-D

OVERVIEW AND PARTS

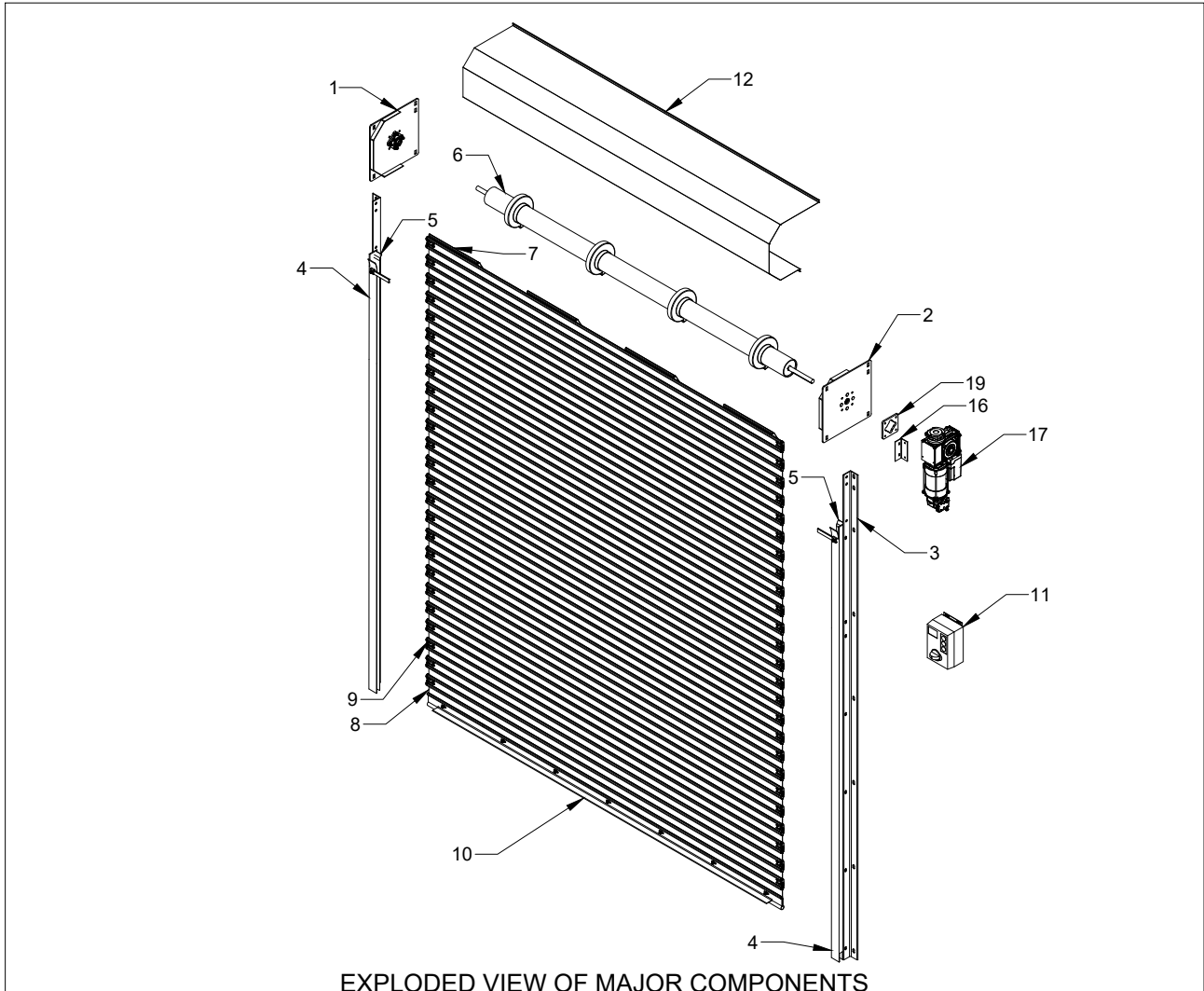


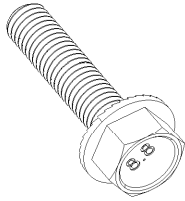
FIGURE 1

TABLE 1: PARTS LIST

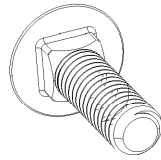
ITEM #	PARTS DESCRIPTION	ITEM #	PARTS DESCRIPTION	ITEM #	PARTS DESCRIPTION
1	HEADPLATE (LEFT SIDE)	9	ENDLOCK / WINDLOCK	17	ELECTRIC OPERATOR
2	HEADPLATE (RIGHT SIDE)	10	BOTTOM BAR	18	PHOTO EYES (OPTIONAL, NOT SHOWN)
3	WALL ANGLE	11	MOTOR CONTROLLER	19	MOTOR SPACER (AS NEEDED)
4	INNER ANGLE	12	HOOD		
5	OUTER ANGLE	13	HOOD SUPPORT (AS NEEDED, NOT SHOWN)		
6	BARREL ASSEMBLY	14	SLIDE BOLT LOCKS (OPTIONAL, NOT SHOWN)		
7	STARTER SLATS	15	INTERLOCK SWITCH (OPTIONAL, NOT SHOWN)		
8	CURTAIN	16	MOTOR BRACKET (AS NEEDED)		

OVERVIEW AND PARTS

1

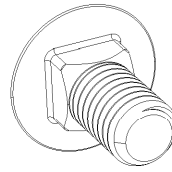


2



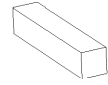
3/8"

3



1/2"

4

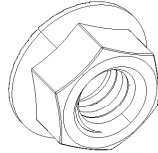


5



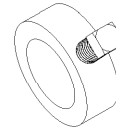
3/8"

6



1/2"

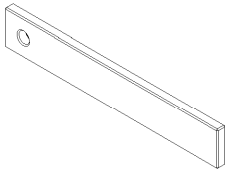
7



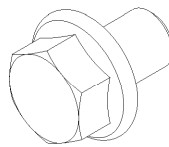
8



9



10



ITEM	DESCRIPTION	QTY.
1	M8 X 30MM HEX HEAD FLANGED BOLT (AS NEEDED)	4
2	3/8" X 1 1/4" CARRIAGE BOLT	X
3	1/2" X 1 1/4" CARRIAGE BOLT	X
4	DRIVE SHAFT KEY	1
5	3/8" FLANGE NUT	X
6	1/2" FLANGE NUT	X
7	SHAFT COLLAR	2
8	1/4" SELF DRILLING TEK SCREW	X
9	HEADSTOP	2
10	3/8"-16 X 1/2" HEX BOLT	2

NOTES:

1. X Quantity provided depends on size of door.
2. Not all hardware is listed here, fasteners not listed here are in APPX-C, and are dependant on jamb and size of door

INSTALLATION

1. Installing Wall Angles

- a. Use a plumb bob, laser level, or bubble level to establish a true plumb and square reference line $3\frac{3}{16}$ " (Figure 3) on the floor outside of the opening.
- b. Place the wall angle along the wall, aligning the outside face of the wall angle with the reference mark on the floor. Clamp the wall angle to the wall near the bottom, and near the top.
- c. Using the provided mounting hardware, secure the bottom portion of the wall angle (See Appendix C, Table 4 for fasteners).
- d. Verify wall angle is still plumb. Secure top hole.
- e. Verify and adjust if needed, then secure all other holes.
 - e.a. Use Figure 2 as a method of installing opposite wall angle.
 - e.b. Check that the top of the guides are plumb and square.
 - e.c. Double check that the back of the wall angles maintains $OW + 6\frac{3}{8}$ " inches apart (Figure 3), at the top, bottom, and middle.

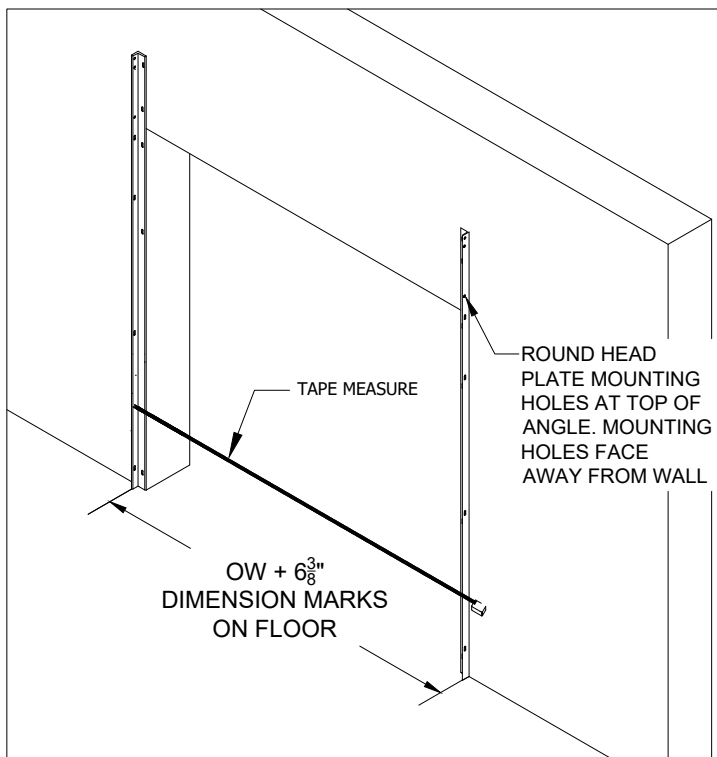


FIGURE 2

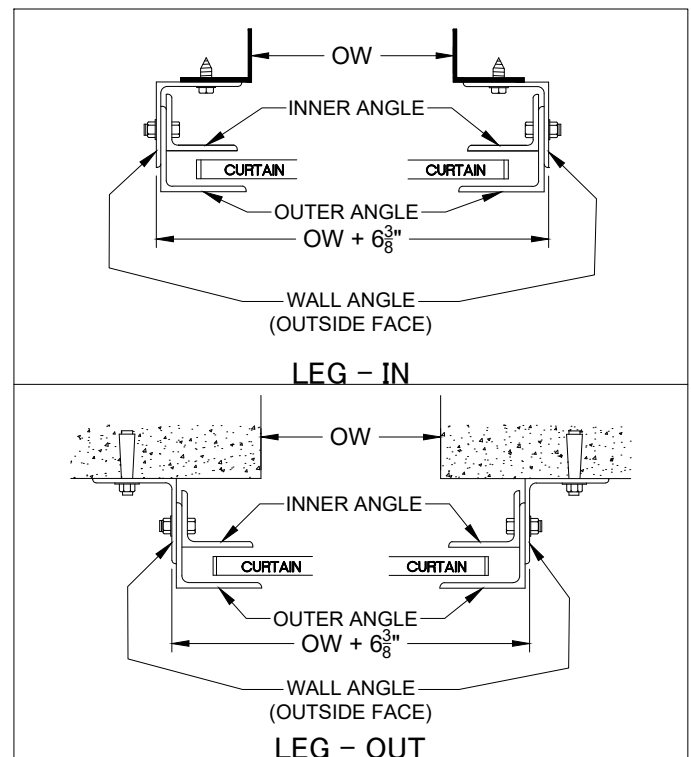


FIGURE 3

IF THE CURTAIN, BARREL, HEADPLATES, AND OPERATOR ARE ALREADY ASSEMBLED SKIP TO SECTION 8 (PAGE 7). OTHERWISE CONTINUE TO SECTION 2.

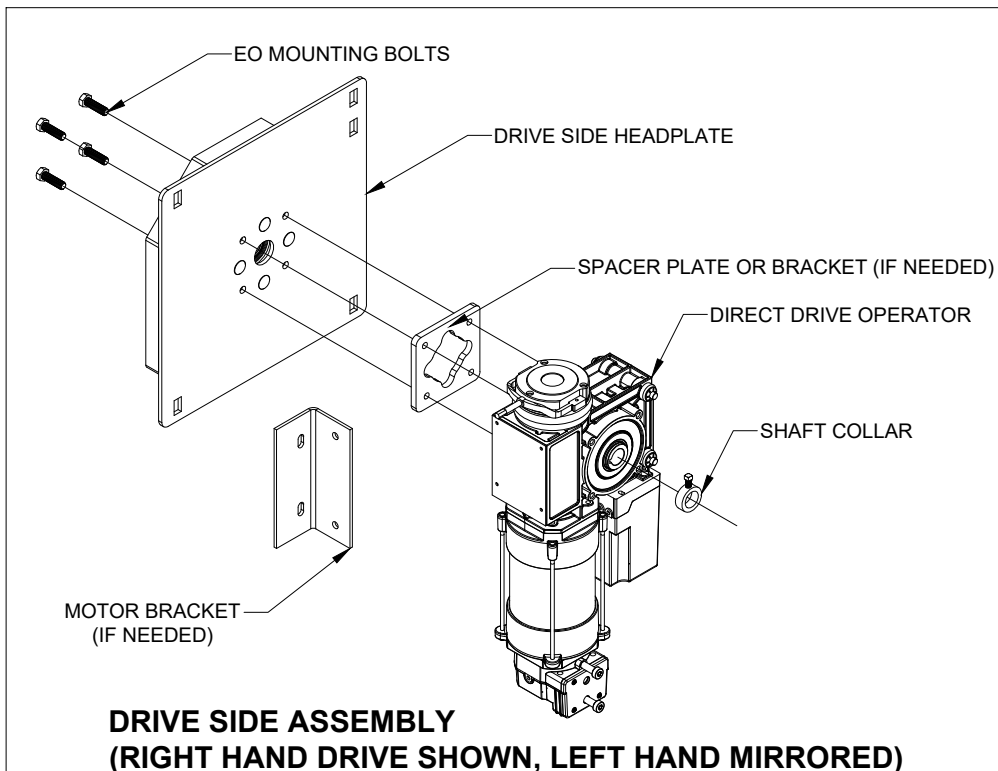


FIGURE 5

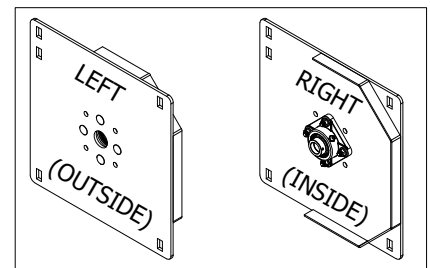


FIGURE 6

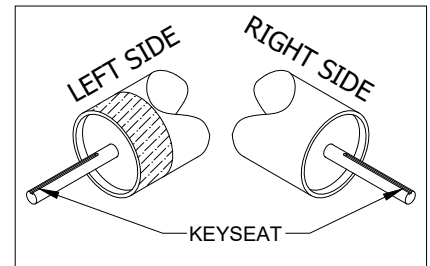


FIGURE 7

2. Assembly of operator and headplates onto barrel assembly

- a. Assemble motor onto correct side headplate as shown in Figure 5.
- b. Using figures 6 and 7 as a reference for Figure 8, place the barrel axles into the headplate bearings.
 - b.a. Install key in keyway on operator driven shaft, use chainhoist mechanism of operator if needed to align the keyway.
 - b.b. Space the headplates appropriately from the barrel, the outside of the headplate should measure $OW + 6"$.
 - b.c. With the headplates equal distance from the end of the barrel, tighten set screws on headplate bearings.
- c. Affix shaft collars onto the axles to prevent the headplates from moving away from the barrel.

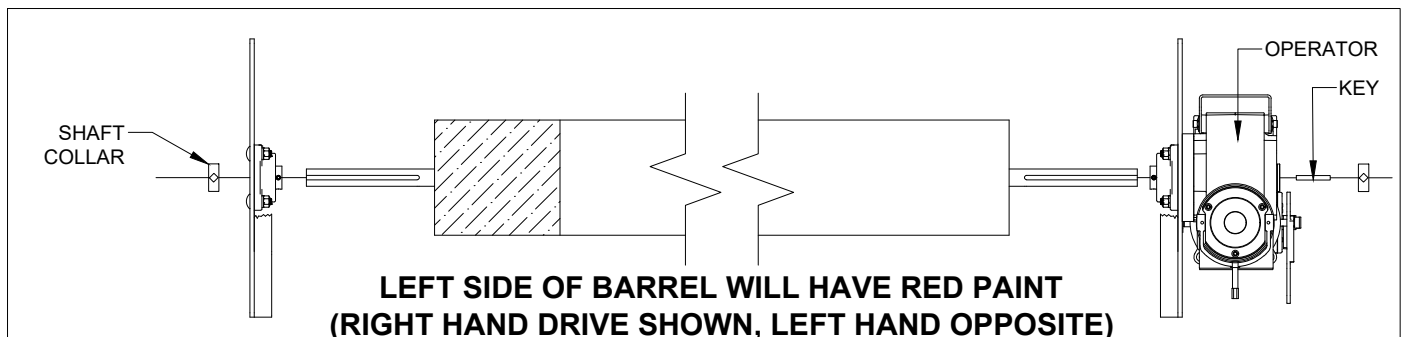


FIGURE 8

WARNING

USE PROPER LIFTING EQUIPMENT AND CORRECT LIFTING PROCEDURES. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

3. Installing Barrel and Headplates to Guide Assembly

- a. Carefully secure barrel to hoisting equipment and raise into position at top of wall angles.
- b. Attach headplate to the **INSIDE** of wall angles as shown in Figure 9.
- c. **VERIFY THAT BARREL IS DEAD LEVEL BEFORE TIGHTENING HEADPLATE BOLTS!**
 - c.a. You may place a level on the barrel or use an auto leveling device.
 - c.b. Move headplate up or down as needed.
- d. Tighten headplate bolts.
- e. Verify that barrel is unrestricted and free to rotate before proceeding.
 - e.a. Use chain hoist on operator to rotate barrel.
 - e.b. Listen for squeaking, rubbing or creaking.

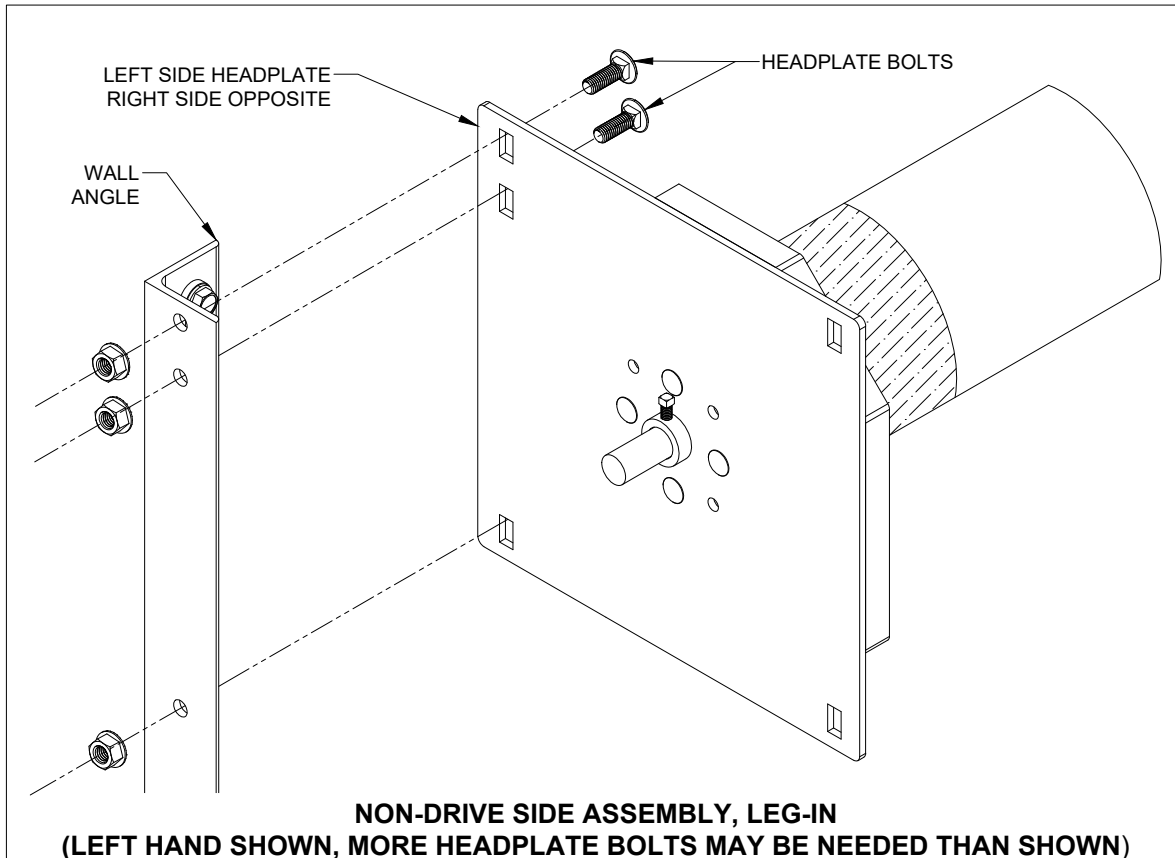


FIGURE 9

WARNING

USE PROPER LIFTING EQUIPMENT AND CORRECT LIFTING PROCEDURES. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

4. SLINGING: IMPORTANT SAFETY PRECAUTIONS

- Use only straight-eye choker style slings with a minimum 5,000 lb weight rating.
- Use slings of the same length that keep the factory rolled curtain as close to the barrel assembly as possible.
- Close and secure sling ends with a clevis or chain shackle of adequate size that features a **SCREW-IN STYLE PIN** **ONLY. DO NOT USE A CLIP RETAINED SHACKLE OR CLEVIS PIN**

5. Installing Curtain to Barrel

- Using hoisting equipment, suspend the curtain assembly below the barrel on two or more slings.
- Center the factory-rolled curtain assembly between guides as shown in Figure 10.
- Use locking pliers to temporarily fasten two or more starter slats to slings.
- Roll curtain, slings, and barrel as one unit in order to pull the starter slats and curtain over the top of the barrel. **FLIP UNSECURED STARTER SLATS UP TO AVOID CRUSHING.**
- Lock the drive system. Attach starter slats to barrel using Asta America supplied button head screws and remove locking pliers.
- Transfer the entire curtain assembly onto the barrel. Center each slat on the barrel, maintaining even distance between ends and headplates.

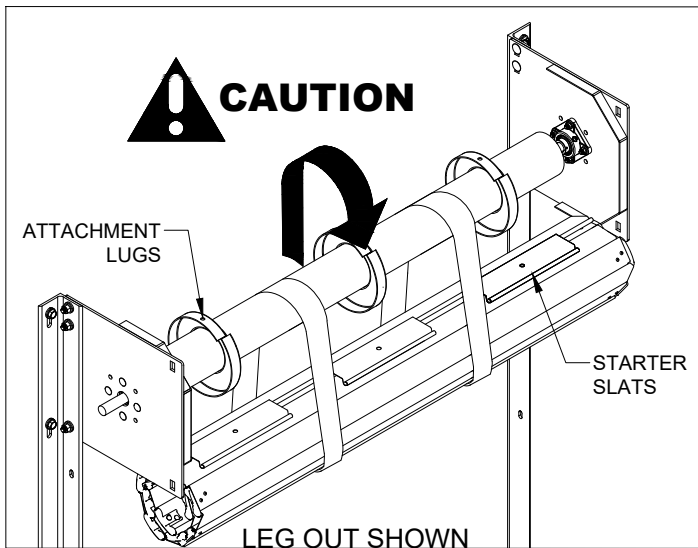


FIGURE 10

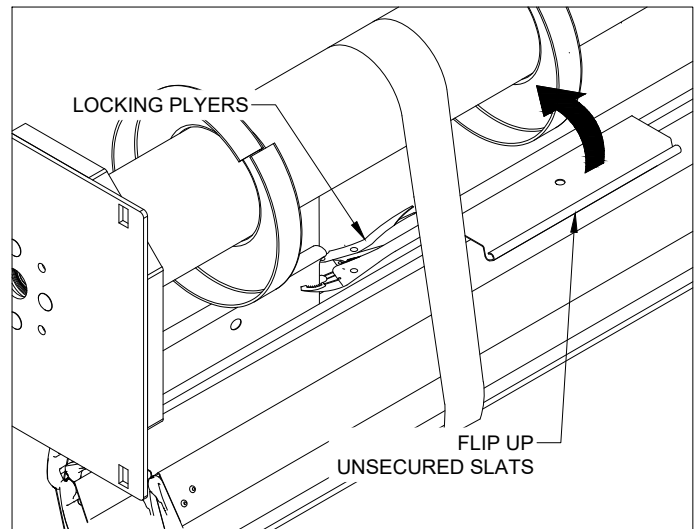


FIGURE 11

It may be necessary to use the hoisting equipment to lift the weight of the curtain enough to allow rotation of the barrel to bring the attachment barrel lugs into position with segmented starter slats.

When ALL starter slats are attached to the barrel lugs, you may lower the hoisting equipment and proceed with the next step.



WARNING

USE PROPER LIFTING EQUIPMENT AND CORRECT LIFTING PROCEDURES. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

6. Installing Inner and Outer Guides

- a. Determine optimum or comfortable height of chain lock, and install.
 - a.a. Ensure that the chain has at least 1.5 feet of length below the lock
- b. Ensure the door curtain is completely rolled up onto barrel and use the chain lock to prevent curtain from moving.
 - b.a. The bottom of the bottom bar must be above, or level with the bottom of the headplate
- c. Install inner and outer angles as shown in Figure 12.
 - c.a. Use one washer underneath the nut as shown in Figure 12.
- d. Verify guide dimensions from Appendix B.
- e. Unlock chain and use chain hoist of operator to lower curtain into guides.
- f. Stop and lock the operator when the top of bottom bar is several inches below the bottom of where the headstops would be installed.

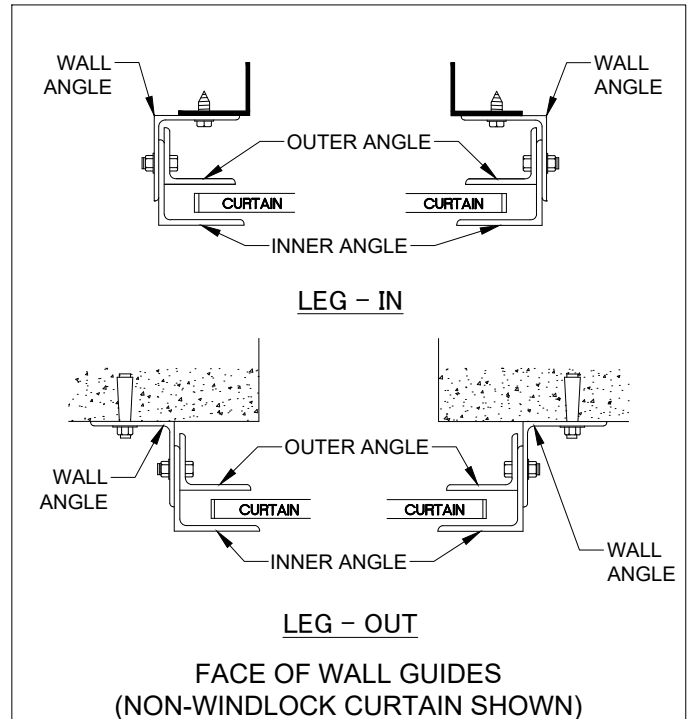


FIGURE 12

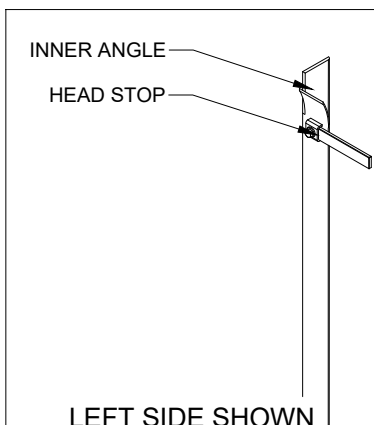


FIGURE 13

7. Installing Headstops

- a. Install the head stops to the inner angles. See Figure 13.
- b. Lower curtain using chain hoist until it has reached the floor.
- c. Tighten guide assembly fasteners securely, ensuring that the inner angle guides are flush, providing a smooth path for the curtain.

8. Engaging the Operator

- a. Using the operator's manual, set up the motor for operation.
- b. Once complete, test the door several times by opening and closing fully.
 - b.a. See Appendix D to check for any symptoms of improper installation.

9. Installation of the Hood(s)

- a. If the provided hood is a single piece with supports, then skip to instruction 10.c. If it has one piece and NO supports, skip to instruction 10.d. If hood was provided in two or more pieces, then overlap the pieces so that the combined hood length is equal to the measured distance between the headplates as shown. Be sure to measure INTERIOR headplate widths on both the front and back side, checking for discrepancies.

Overlap spacing for hoods with 3 or more sections may be found with the following formula:

$$\begin{aligned} & [(\text{"Length of each section"} \times \text{"# of sections"}) - \text{"Headplate to Headplate"}] / (\text{"# of Sections"} - 1) \\ & \text{OR} \\ & (\text{"Total Hood Length Provided"} - \text{"Length of Hood Needed"}) / \text{"# of Joints"} \end{aligned}$$

This number will be the length of overlapping material at each joint.

- b. Fasten overlapped area together with two rows of TEK screws on each flat section as shown below (C).
- c. If hood support brackets are supplied, install evenly across the span of the door, with the topsides flush with the headplate hood band. Use hardware as established in Table 3 (Page 6). Spacing distance can be found by dividing headplate-to-headplate distance by number of supports. This number should be below 8'.
- d. Raise hood with mechanical hoist or forklift and fasten to headplates (A) and header (B). If using multiple sections, place a screw into the header within each overlap section (E).
- e. Fasten hood to bracket at location "D". SUPPORTS MAY LINE UP WITH SECTION JOINTS / TEK SCREWS, DEPENDING ON THE SIZE OF THE DOOR. If a hood-joining screw makes contact with the bracket, use the hood screws to secure.

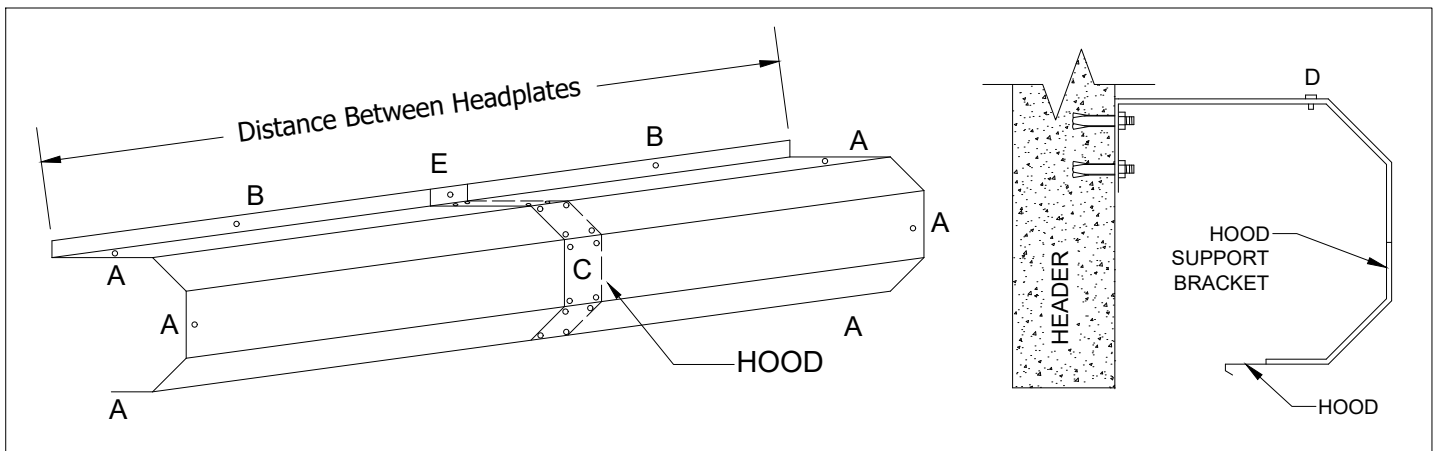


FIGURE 13

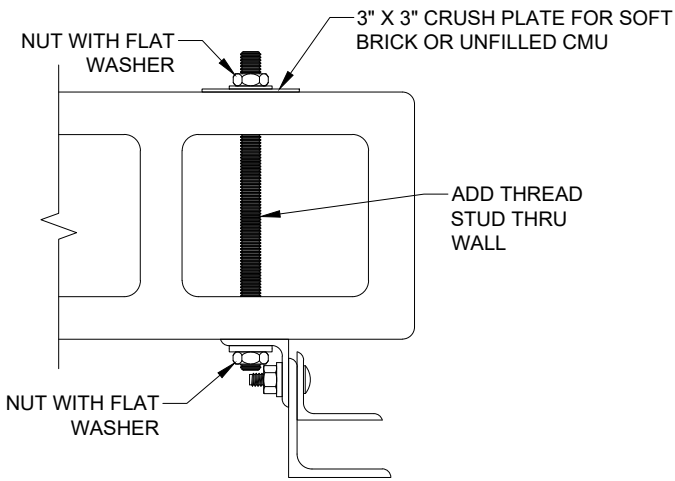
CHECKLIST

Proceed through the list, checking for correct operation and potential error.

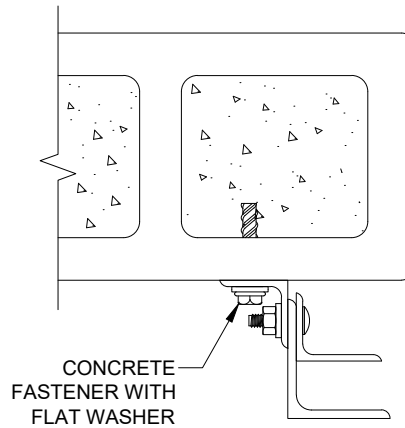
If any components do not function properly, refer back to the relevant step or the Troubleshooting guide (Appendix-D).

- a. Clear the doorway and closing path of the door.....
- b. Lower and raise the door several times.....
- c. Inspect curtain to certify that the windlocks are centered and do not rub on the headplates.....
- d. Operator limits adjusted to for reliable operation and complete range of travel with no binding or dragging.....
- e. All fasteners are correctly installed and secured tightly.....
- f. Attach the product safety labels as directed on labels.....
- g. Apply sensing edge warning label if applicable.....
- h. The bottom bar must rest near the floor when in the closed position.....
- i. The bottom bar must rest on the headstops when in the fully open position.....
- j. The bottom bar must be level in both the open and closed position.....

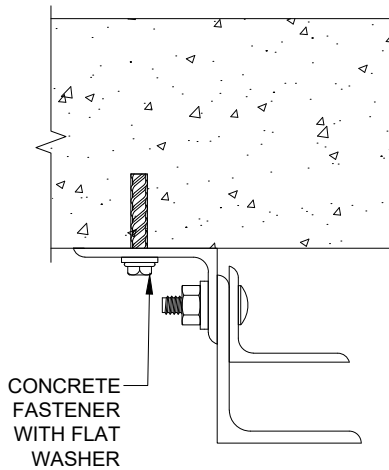
APPENDIX A: GUIDE MOUNTING DETAIL



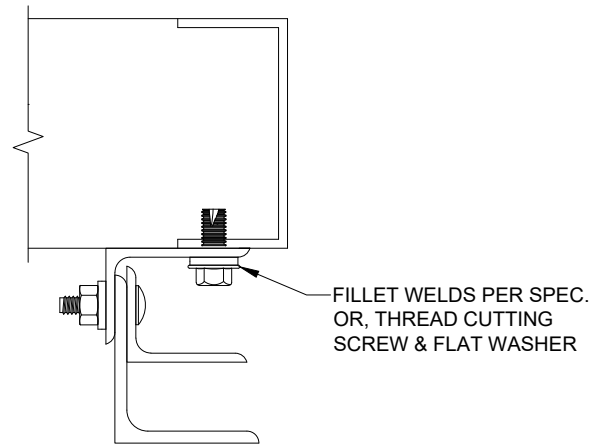
LEG OUT, LEFT SIDE, MOUNTED TO UNFILLED CMU



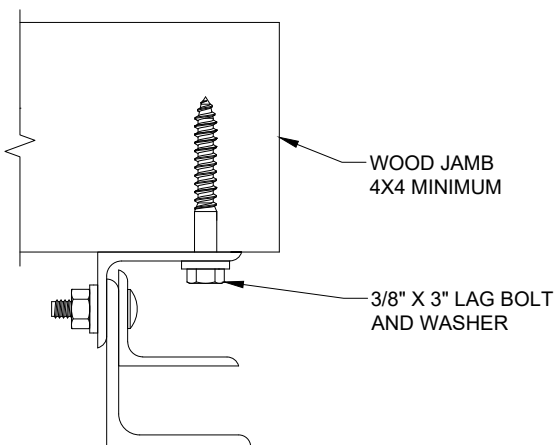
LEG OUT, LEFT SIDE, MOUNTED TO FILLED CMU



LEG OUT, LEFT SIDE, MOUNTED TO CONCRETE



LEG IN, LEFT SIDE, MOUNTED TO STEEL



LEG IN, LEFT SIDE, MOUNTED TO WOOD

ALL DETAILS DEPICT LEFT SIDE, ABOVE-VIEW ORIENTATION. RIGHT HAND OPPOSITE.

APPENDIX B: GUIDE MEASUREMENT DETAIL

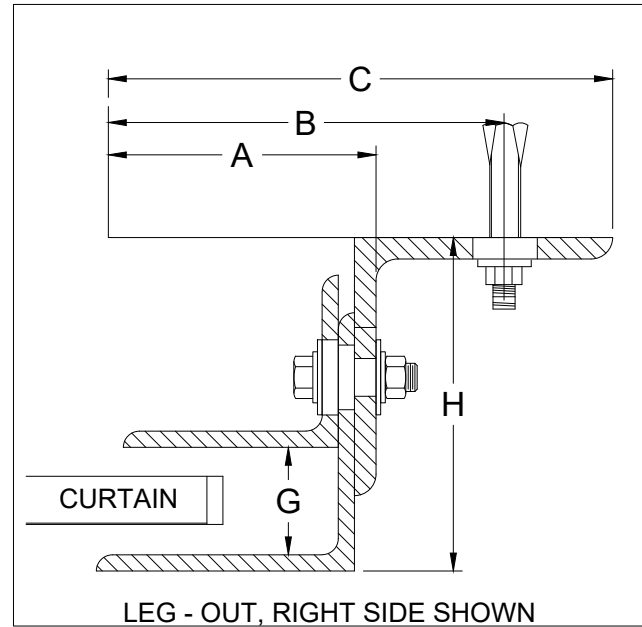
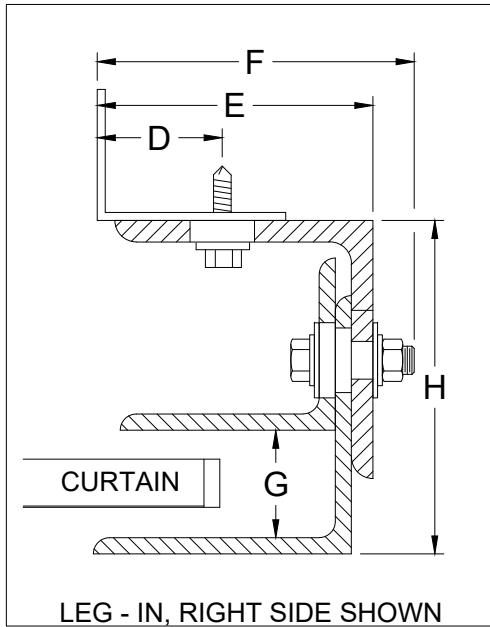


TABLE 3: GUIDE DIMENSIONS - FACE OF WALL

TYPE	SIZING	A	B	C	D	E	F	G	H
2HP	HEIGHT < 14FT	3 ³ / ₁₆ "	4 ¹ / ₄ "	5 ¹ / ₂ "	1 ¹⁵ / ₁₆ "	3 ³ / ₁₆ "	3 ⁷ / ₈ "	1 ¹ / ₈ "	3 ⁷ / ₈ "
3HP	HEIGHT ≥ 14FT	3 ³ / ₁₆ "	4 ¹ / ₂ "	6"	1 ¹¹ / ₁₆ "	3 ³ / ₁₆ "	3 ⁷ / ₈ "	1 ³ / ₁₆ "	4 ⁵ / ₁₆ "

APPENDIX C: MOUNTING METHODS

This section provides essential details related to specific hardware required in each possible mounting application. Make note of your guide style and the material it is mounted to and follow these notes accordingly. See Figure 3 (Page 3) and the Parts Overview (Page 1 & Page 2) to differentiate Left and Right side Wall Angles, Inner/Outer Angles.

NOTE: Use only fasteners provided and approved by Asta America. Reference Table 3 to determine correct jamb fastener type and hole size for your application.

TABLE 4: MOUNTING HARDWARE			
JAMB	FASTENER	DRILL SIZE	NOTES
STEEL	$\frac{3}{8}$ "-16 X $\frac{1}{4}$ " TYPE 23 THD CUT SCREW	$\frac{11}{32}$ "	$\frac{3}{16}$ " THICK STEEL JAMBS MINIMUM
	$\frac{3}{8}$ "-16 X $\frac{1}{4}$ " HEX BOLT AND NUT	$\frac{7}{16}$ "	
CONCRETE OR FILLED BLOCK	$\frac{3}{8}$ " X 4" DEWALT SCREW-BOLT+	$\frac{3}{8}$ " ANSI B212.15	CLEAR HOLES OF CONCRETE DUST BEFORE INSTALLING FASTENER
UNFILLED BLOCK OR SOFT BRICK	$\frac{3}{8}$ " THREADED ROD & NUTS	$\frac{7}{16}$ "	INSTALL CRUSH PLATES ON OPPOSITE SIDE OF WALL
WOOD	$\frac{3}{8}$ " X 3" LAG BOLT	$\frac{3}{16}$ "	4" X 4" JAMB MINIMUM

NOTE: It is the manufacturers intent that E-type guides be disassembled prior to installation for attachment by machine screws or lag bolts. E-Type guides that are to be welded may be assembled if preferred.

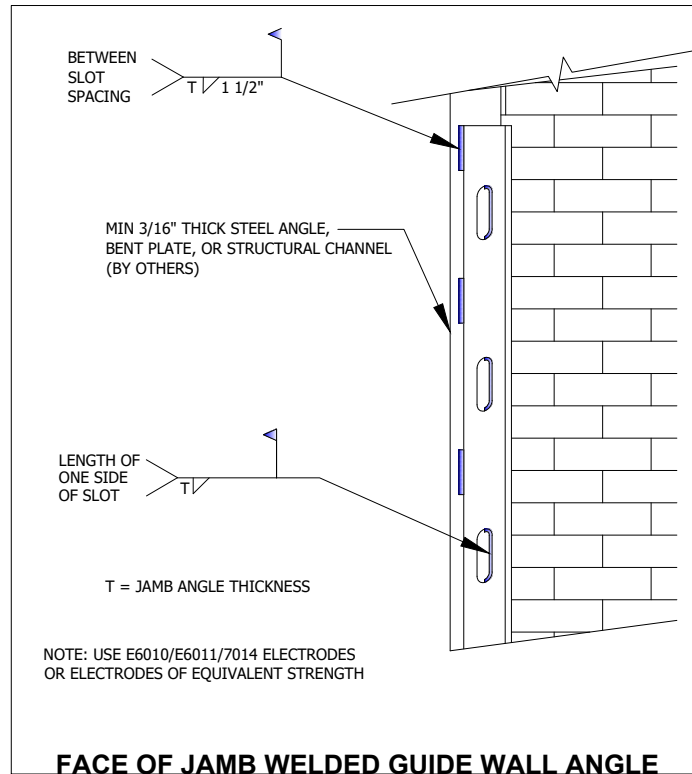


FIGURE 14

APPENDIX C: MOUNTING METHODS

Welding wall angles to steel jambs:

- a. Create weldments only within the specifications shown in Figure 14 (APPX-C).
- b. Guide angles are designed to be set upon the floor unless one angle requires the use of shims at the floor level to create guide elevations as shown in Figure 16.
 - b.a. Create level elevation marks at left and right jamb faces using a level reference device or survey instrument as shown in Figure 16.
 - b.b. Measure the distance from each level reference mark to the floor to determine if the floor is level.
 - b.c. Shim underneath the angles as needed to ensure equal height.
 - b.d. Wall angles may extend above steel jambs onto masonry (see figure 15).
 - b.d.a. In this case, attach with masonry anchors of size and type recommended by Table 4 (APPX-C).
 - b.d.b. Shim with washers as required to maintain a flush mounting surface for the wall angle.
- c. Verify that the low side of the wall angle is shimmed to the correct height before permanent attachment to the jamb.

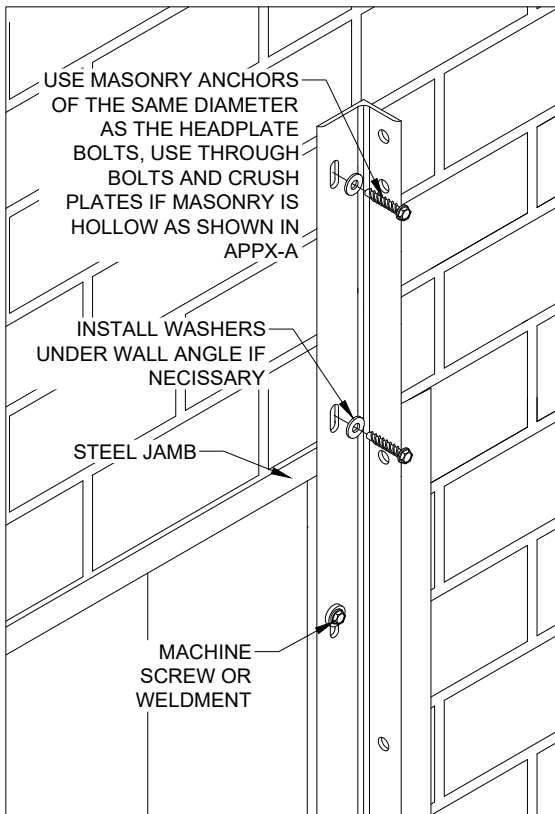


FIGURE 15

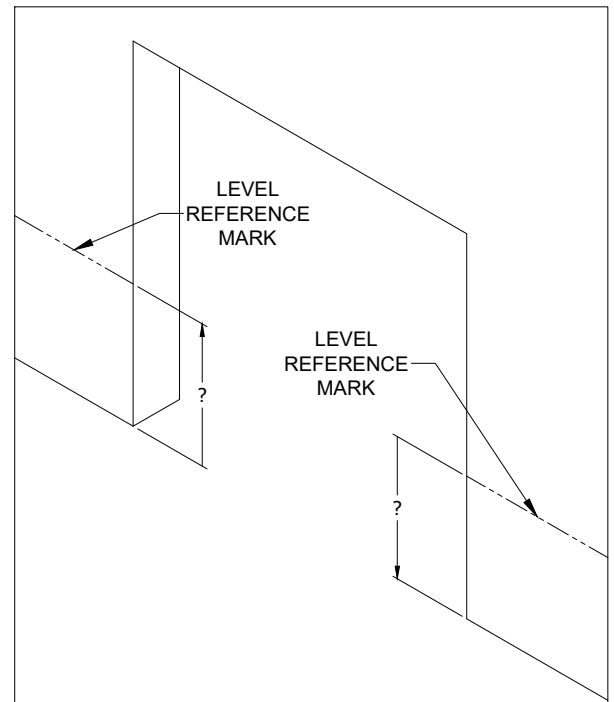


FIGURE 16

APPENDIX D: TROUBLESHOOTING

TROUBLESHOOTING

ISSUE	SOLUTION
MISSING/DAMAGED PARTS OR FURTHER ASSISTANCE	Contact ASTA AMERICA AT 770-947-2600
DIFFICULT TO OPEN OR CLOSE	Check guides for any obstructions, if none see "curtain rubs on headplates or guides"
CURTAIN RUBS ON HEADPLATES OR GUIDES	Verify "W" dimension (reference step 1), verify stop and bottom distances of the guides. Center each slat on the barrel.
HEADSTOPS SCRAPE CURTAIN	Headstops can be bent out slightly if scraping occurs. Contact ASTA America if touch up paint is needed
CURTAIN ROLLS TO ONE SIDE "CONING"	Check that the barrel is level. If not level, raise low side headplate. Center the barrel between headplates and starting at the top, center each slat between the headplates by prying between the headplate and the endlock/windlock on the slat to move it towards the center.
DOOR DOES NOT OPEN OR CLOSE WHEN OPERATED	Verify keystock is seated in the keyway and set screws are tightened
HOOD SAGGING EXCESSIBLY	if using multiple hood sections, ensure they are connected as described in step 6. check hood support spacing. identify the low spot and move the closest support to the halfway point between where it is and where the low spot is
ELECTRIC OPERATOR NOT WORKING	for issues with electric operators, please contact asta america.

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