

INSTALLATION INSTRUCTIONS

400 & 600 SERIES

USE ASTA DOOR CORPORATION PARTS ONLY - ALL OTHERS SHALL VOID WARRANTY

IMPORTANT REMARKS ALL ASTA PRODUCTS MUST BE INSTALLED BY A LICENSED, QUALIFIED PROFESSIONAL DOOR COMPANY TO QUALIFY FOR OUR WARRANTY. INSTALLATION WITHOUT PROPER TOOLS AND KNOWLEDGE CAN RESULT IN PERSONAL INJURY. THIS PAMPHLET IS DESIGNED TO ASSIST A PROFESSIONAL IN THE INSTALLATION OF ASTA 400 & 600 SERIES ROLLING STEEL SERVICE DOORS. SAFETY IS FOREMOST. INSTALLATION SHOULD BE EXECUTED BY LICENSED, QUALIFIED DOOR PROFESSIONALS. INSPECT ALL OF THE SHIPPED PARTS AND ACCOUNT FOR EVERYTHING BEFORE COMMENCING ANY WORK. FOR QUESTIONS AND TECHNICAL ASSISTANCE, CONTACT ASTA CUSTOMER SUPPORT AT (770) 974-2600.

WARNING

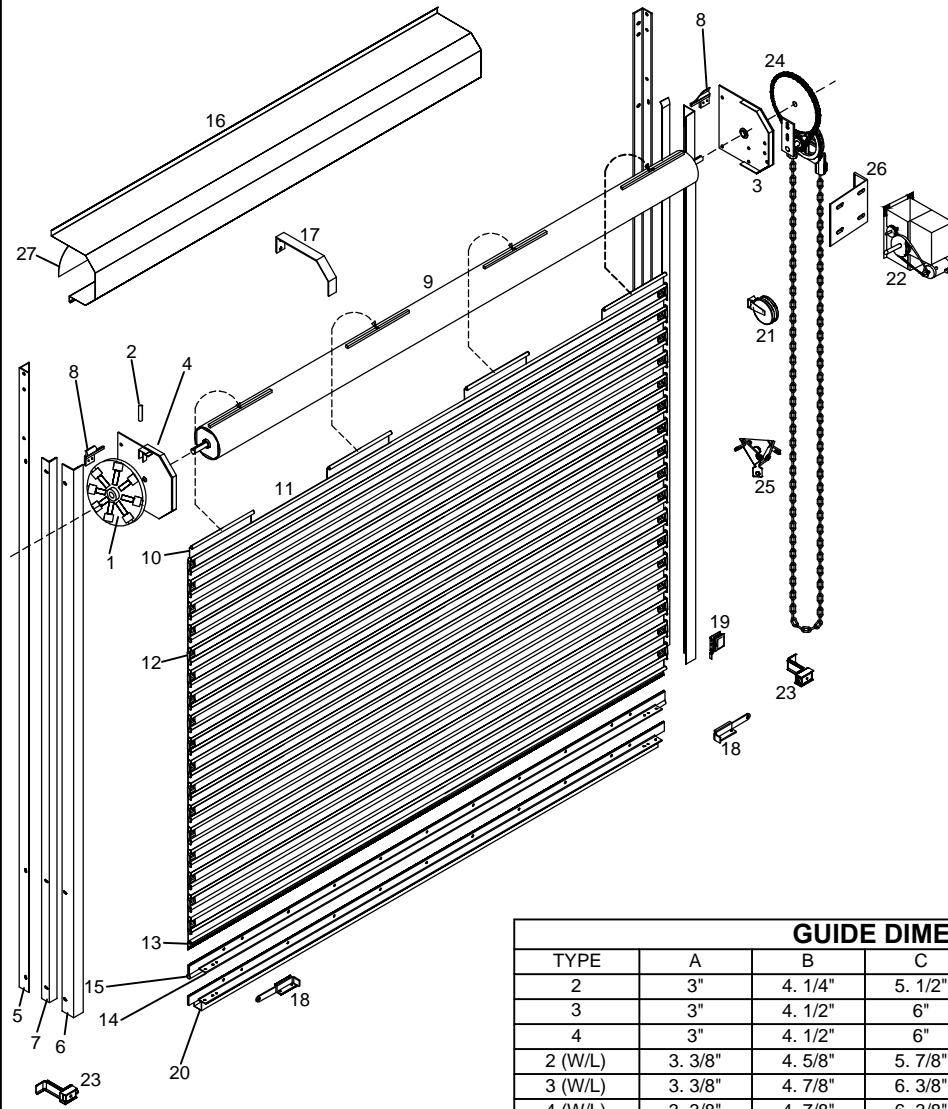
MOVING DOOR CAN CAUSE SERIOUS INJURY OR DEATH
 KEEP CLEAR OF OPENING WHILE DOOR IS MOVING.



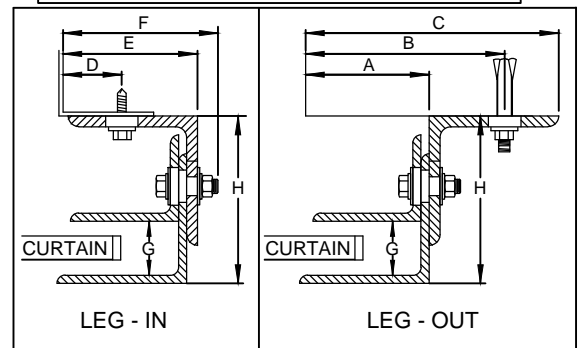
SAFETY INSTRUCTIONS

- DO NOT STAND OR WALK UNDER MOVING DOOR. KEEP DOOR IN FULL VIEW AND FREE OF OBSTRUCTION WHILE OPERATING.
- DO NOT ALLOW CHILDREN TO OPERATE THE DOOR OR AUTOMATIC OPERATOR.
- REPAIRS OR ADJUSTMENTS SHOULD BE MADE BY A TRAINED SERVICE PERSON USING PROPER TOOLS AND INSTRUCTIONS.
- TO AVOID INJURY, DO NOT PUT FINGERS BETWEEN DOOR AND GUIDES.
- READ OWNER'S MANUAL FOR YOUR DOOR AND OPERATOR FOR MORE INFORMATION.

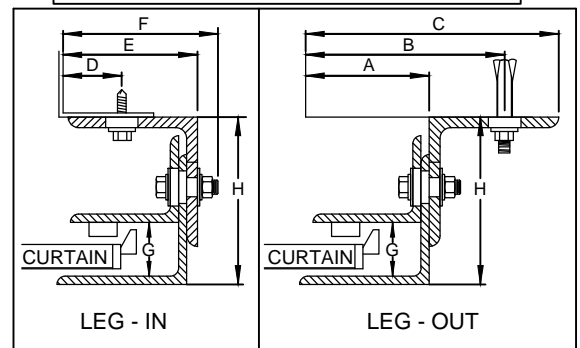
CAUTION: USE CORRECT LIFTING PROCEDURES AND EQUIPMENT DURING INSTALLATION OF THIS PRODUCT TO AVOID INJURY OR DAMAGE.



GUIDE DETAIL (NON-WINDLOCK)



GUIDE DETAIL (WINDLOCK)



* REFER TO STEP 2, PAGE 2 FOR DIFFERENT JAMB APPLICATIONS

GUIDE DIMENSION - FACE OF WALL

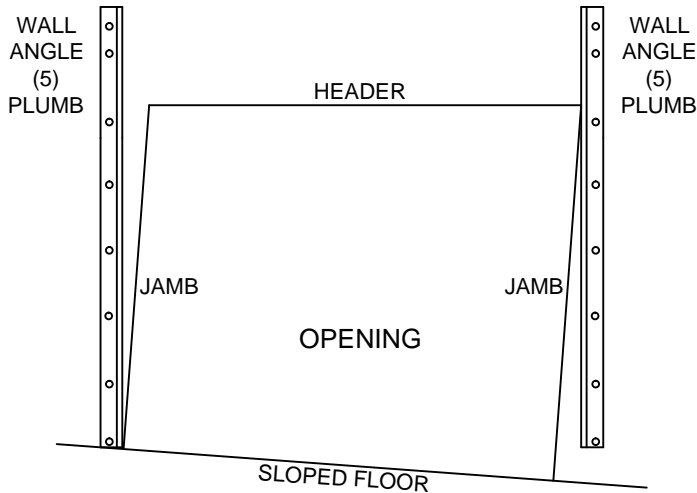
| TYPE | A | B | C | D | E | F | G | H |
|---------------|---------|---------|---------|-----------|----------|-----------|----------|---------|
| 2 | 3" | 4. 1/4" | 5. 1/2" | 1. 15/16" | 3. 3/16" | 3. 13/16" | 1. 1/8" | 3. 3/4" |
| 3 | 3" | 4. 1/2" | 6" | 1. 11/16" | 3. 3/16" | 3. 13/16" | 1. 1/8" | 4. 1/4" |
| 4 | 3" | 4. 1/2" | 6" | 1. 3/4" | 3. 1/4" | 3. 13/16" | 1. 1/8" | 4. 1/4" |
| 2 (W/L) | 3. 3/8" | 4. 5/8" | 5. 7/8" | 2. 5/16" | 3. 9/16" | 4. 3/16" | 1. 7/16" | 4" |
| 3 (W/L) | 3. 3/8" | 4. 7/8" | 6. 3/8" | 2. 1/16" | 3. 9/16" | 4. 3/16" | 1. 7/16" | 4. 1/2" |
| 4 (W/L) | 3. 3/8" | 4. 7/8" | 6. 3/8" | 2. 1/8" | 3. 5/8" | 4. 3/16" | 1. 7/16" | 4. 1/2" |
| 5M (W/L) | 3. 3/8" | 4. 7/8" | 6. 3/8" | 2. 1/16" | 3. 9/16" | 4. 3/16" | 1. 9/16" | 4. 5/8" |
| 5 & 5IM (W/L) | 3. 3/8" | 4. 7/8" | 6. 3/8" | 2. 1/8" | 3. 5/8" | 4. 3/8" | 1. 9/16" | 4. 5/8" |
| 6 (W/L) | 4. 1/4" | 6" | 7. 3/4" | 2. 7/8" | 4. 9/16" | 5. 1/4" | 1. 9/16" | 7. 1/4" |
| 6M (W/L) | 4. 1/4" | 6" | 7. 3/4" | 2. 7/8" | 4. 3/4" | 5. 5/8" | 1. 9/16" | 7. 1/4" |
| 7 (W/L) | 5" | 7. 1/2" | 10" | 3. 1/8" | 5. 5/8" | 6. 7/16" | 1. 9/16" | 7. 1/4" |
| 7M (W/L) | 5" | 7. 1/2" | 10" | 3. 1/8" | 5. 5/8" | 6. 7/16" | 1. 9/16" | 7. 1/4" |

PARTS LIST

| | | | | | | | | |
|----|-----------|--------------------------|----|-----------|-------------------------------------|----|-----------|--------------------------------|
| 1 | VARIABLES | TENSION WHEEL ASSEMBLY | 11 | VARIABLES | SLAT (FLAT OR CURVED) | 21 | VARIABLES | TAKE-UP REEL (OPTIONAL) |
| 2 | VARIABLES | TENSION WHEEL PIN | 12 | VARIABLES | ENDLOCK / WINDLOCK | 22 | VARIABLES | ELECTRIC OPERATOR (OPTIONAL) |
| 3 | VARIABLES | HEADPLATE (DRIVE SIDE) | 13 | VARIABLES | BOTTOM SLAT | 23 | VARIABLES | PHOTO EYES (OPTIONAL) |
| 4 | VARIABLES | HEADPLATE (TENSION SIDE) | 14 | VARIABLES | BOTTOM BAR | 24 | VARIABLES | REDUCTION DRIVE HOIST |
| 5 | VARIABLES | WALL ANGLE | 15 | 450703 | ASTRAGAL BULB | 25 | 420405 | HAND CHAIN KEEPER |
| 6 | VARIABLES | INNER ANGLE | 16 | VARIABLES | HOOD | 26 | 440002 | MOTOR MOUNT BRACKET (OPTIONAL) |
| 7 | VARIABLES | OUTER ANGLE | 17 | VARIABLES | HOOD SUPPORT BRACKET (AS NEEDED) | 27 | 610623 | HOOD BAFFLE (OPTIONAL) |
| 8 | VARIABLES | REMOVABLE HEADSTOPS | 18 | 280106 | SLIDE BOLT LOCKS ASSEMBLY(OPTIONAL) | 28 | 400103 | GUIDE WEATHER SEAL (OPTIONAL) |
| 9 | VARIABLES | BARREL ASSEMBLY | 19 | VARIABLES | INTERLOCK SWITCH (OPTIONAL) | 29 | VARIABLES | KEYSTOCK |
| 10 | VARIABLES | STARTER SLAT | 20 | VARIABLES | SAFETY EDGE (OPTIONAL) | 30 | VARIABLES | BETWEEN JAMB ANGLE (OPTIONAL) |

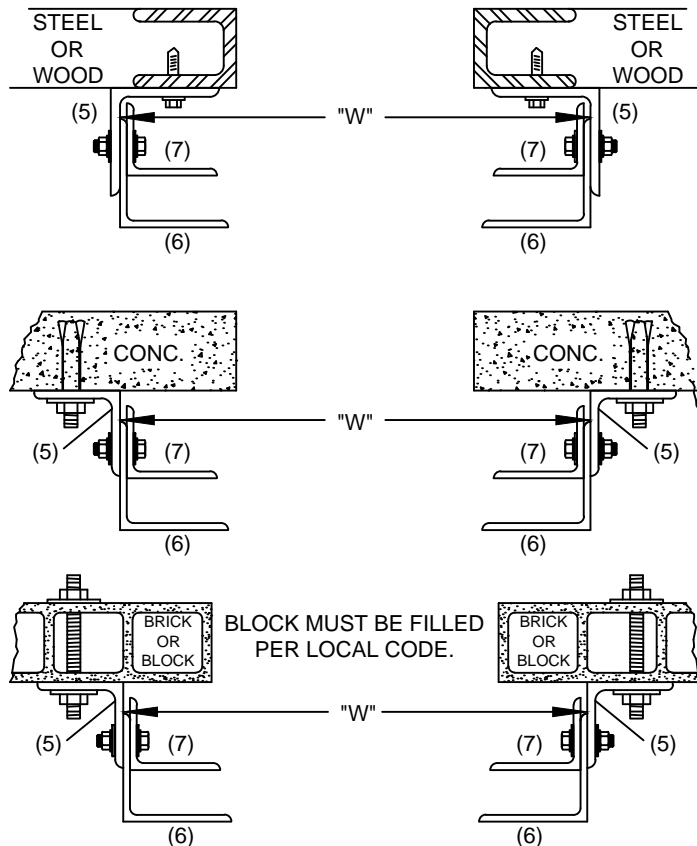
STEP #1 - PREPARATION

- 1.1 CHECK THE HEIGHT AND WIDTH OF THE DOOR OPENING.
- 1.2 CHECK IF THE DOOR JAMBS ARE PLUMB.
- 1.3 CHECK IF THE FLOOR AND HEADER ARE LEVEL.
- 1.4 CHECK THE DIMENSIONS FOR APPROPRIATE SIDE ROOM AND HEADROOM REQUIREMENTS.
- 1.5 THE WALL ANGLES IN STEP 2 MUST BE INSTALLED PLUMB AND LEVEL TO EACH OTHER EVEN IF JAMB IS NOT PLUMB AND FLOOR IS SLOPED.



STEP #2 - SET WALL ANGLES

- 2.1 EVENLY SPACE WALL ANGLES OUTSIDE OPENING SO THAT THE DISTANCE BETWEEN THEM IS AS SHOWN BELOW.



| GUIDE TYPE | "W" DIMENSION |
|-----------------------------------|------------------|
| TYPE 2, 3 & 4 NON-WINDLOCK GUIDES | BARREL + 1" |
| TYPE 2, 3, 4 & 5 WINDLOCK GUIDES | BARREL + 1. 3/4" |
| TYPE 6 & 7 WINDLOCK GUIDES | BARREL + 2" |

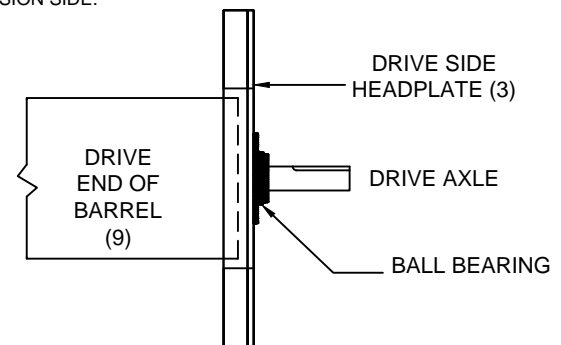
- 2.2 FASTEN THE WALL ANGLES TO JAMBS ACCORDING TO THE FOLLOWING TABLE

| JAMB | FASTENER (SUPPLIED BY OTHERS) |
|----------------|---|
| STEEL | DRILL .339 (R) DIA. HOLES FOR 3/8" SELF TAPS. DRILL 5/16" DIA. HOLES AND TAP 1/2"-13 FOR 1/2" BOLT OR WELDMENTS. |
| WOOD | LAG BOLTS 3/8" x 3. 1/2" |
| CONCRETE | EXPANSION BOLTS, 1/2" x 3" |
| BLOCK OR BRICK | THRU-BOLTS OR ALL THREAD 1/2" |

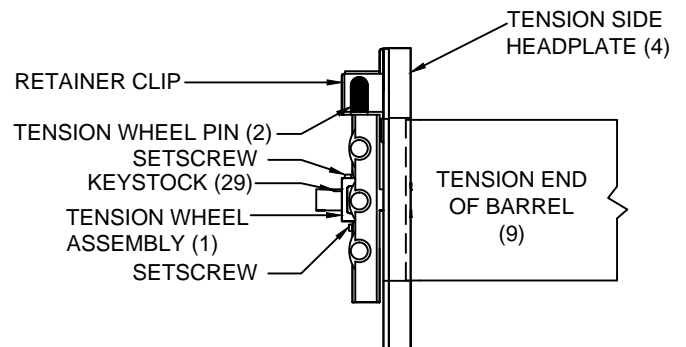
** FOR WINDLOAD CERTIFIED DOORS REFER TO SHOP DRAWINGS FOR ANCHOR TYPE AND FREQUENCY

STEP #3 - INSTALL HEADPLATE ONTO BARRELL ASSEMBLY

- 3.1 FIT DRIVE SIDE HEADPLATE ONTO DRIVE AXLE OF BARREL AS SHOWN BELOW. THE DRIVE END OF THE BARREL HAS NO AXLE BEARING AND NO COUNTERBALANCE SPRING. THE DRIVE SIDE HEADPLATE HAS A BALL BEARING ATTACHED. LEFT END OF BARREL IS PAINTED RED REGARDLESS OF WHETHER IT IS DRIVE SIDE OR THE SPRING TENSION SIDE.



- 3.2 FIT TENSION SIDE HEADPLATE ONTO SPRING AXLE AS SHOWN BELOW. THE SPRING END OF THE BARREL HAS A BEARING AND A COUNTERBALANCE SPRING. THE SPRING SIDE HEADPLATE HAS NO BEARING.
- 3.3 FIT TENSION WHEEL ONTO SPRING AXLE AND INSERT KEYSTOCK. DO NOT INSERT LOCKING PIN OR TIGHTEN SETSCREW AT THIS TIME.



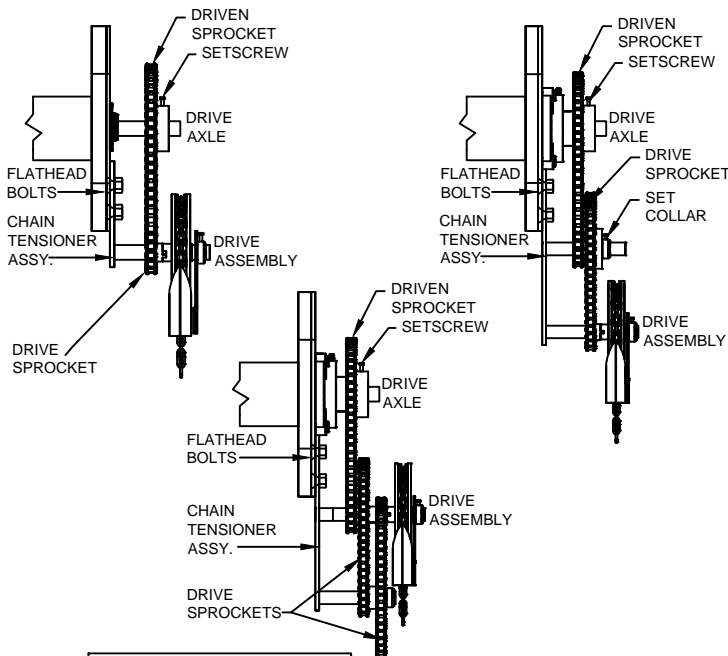
CAUTION: KEYSTOCK MUST BE COMPLETELY INSERTED INTO THE TENSION WHEEL OR DAMAGE AND INJURY COULD OCCUR.

STEP #4 - INSTALL DRIVE ASSEMBLY

- 4.1 FIT DRIVEN SPROCKET ONTO DRIVE AXLE. DO NOT INSERT KEY INTO KEYWAY OR TIGHTEN SETSCREW AT THIS TIME.
- 4.2 FASTEN DRIVE ASSEMBLY TO DRIVE SIDE HEADPLATE WITH TWO 1/2" FLAT HEAD BOLTS, FLATWASHERS AND NUTS. DO NOT TIGHTEN BOLTS AT THIS TIME.
- 4.3 SLIDE HEADPLATE UP AGAINST BARREL SPACER AND ALIGN DRIVEN SPROCKET WITH DRIVE SPROCKET.
- 4.4 INSTALL ROLLER CHAIN ONTO DRIVE AND DRIVEN SPROCKETS AND SECURE MASTER LINK.
- 4.5 INSERT KEY COMPLETELY INTO DRIVEN SPROCKET KEYWAY.

SINGLE REDUCTION

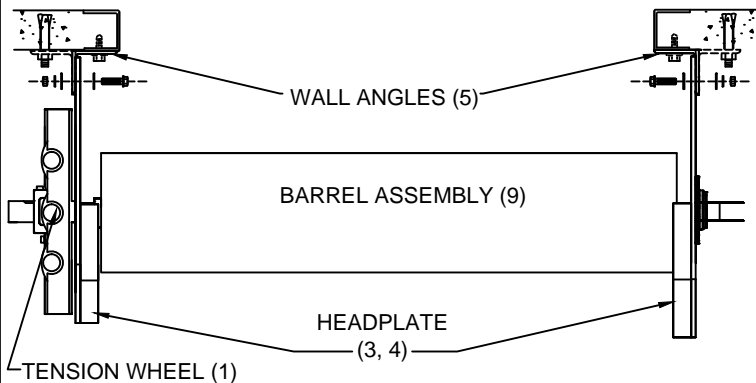
DOUBLE REDUCTION



TRIPLE REDUCTION

STEP #5 - MOUNTING BARREL ASSEMBLY

- 5.1 RAISE COMPLETE BARREL ASSEMBLY WITH A MECHANICAL HOIST OR A FORKLIFT AND FASTEN HEADPLATES TO **INSIDE** OF WALL ANGLES AS SHOWN WITH THE 1/2" BOLTS, LOCK WASHERS, FLAT WASHERS AND NUTS PROVIDED. USE FLAT HEAD BOLTS WHERE COUNTERSUNK HOLES ARE FOUND.



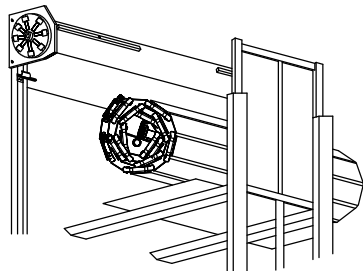
- 5.2 SPACE BARREL ASSEMBLY EQUALLY BETWEEN HEADPLATES.
 5.3 ALIGN DRIVE AND DRIVEN SPROCKETS.
 5.4 ADJUST CHAIN HOIST TENSIONER ASSEMBLY TO MINIMIZE SLACK IN ROLLER CHAIN. FASTEN SECURELY.
 5.5 TIGHTEN DRIVEN SPROCKET SETSCREW.
 5.6 ADJUST POSITION OF TENSION WHEEL ON SPRING AXLE TO WITHIN 1/4" OF HEADPLATE AND TIGHTEN SETSCREW. DO NOT INSERT PIN TENSION WHEEL AT THIS TIME.

STEP #6 - MOUNTING CURTAIN ASSEMBLY

- 6.1 RAISE CURTAIN ASSEMBLY WITH MECHANICAL HOIST OR FORKLIFT AND HANG IT ONTO BARREL WITH INSTALLATION BELTS.

NOTE:

- USE PADDING ON LIFTING MECHANISM TO AVOID DAMAGING CURTAIN.



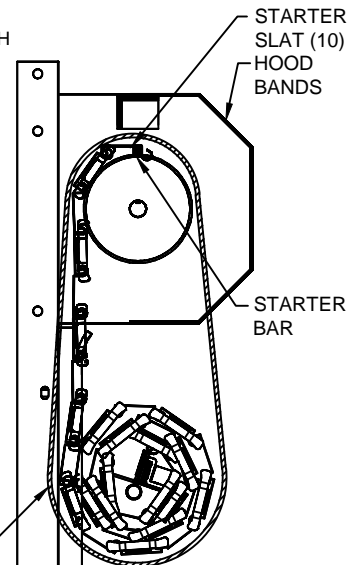
- 6.2 HOOK STARTER SLATS ONTO ATTACHMENT BARS AND FASTEN WITH 5/16" - 18 x 1/2" BOLTS AND FLAT WASHERS AS SHOWN IN FIGURE TO THE RIGHT.
 6.3 PULL HAND CHAIN TO ROLL CURTAIN ONTO BARREL WHILE ASSISTING TENSION WHEEL TO ROTATE FREELY.



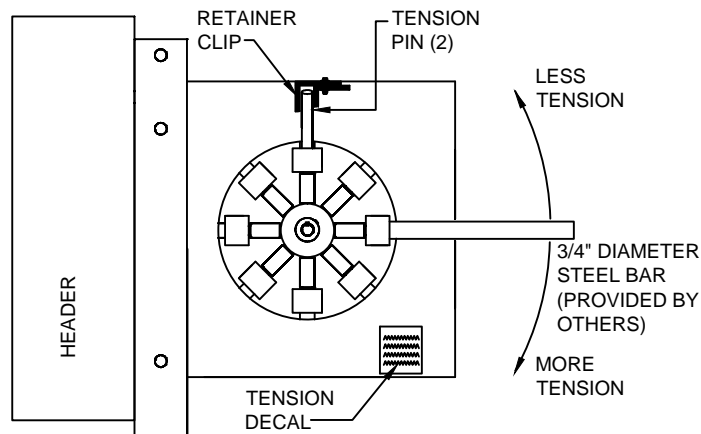
CAUTION: SECURE HAND CHAIN TO KEEPER SO CURTAIN WILL NOT UNCOIL DURING TENSIONING PROCEDURE. KEEP CURTAIN CLOSE TO WALL AND AWAY FROM HOOD BANDS.

KEEP INSTALLATION BELTS IN PLACE UNTIL PROPER TENSION HAS BEEN APPLIED.

INSTALLATION BELTS



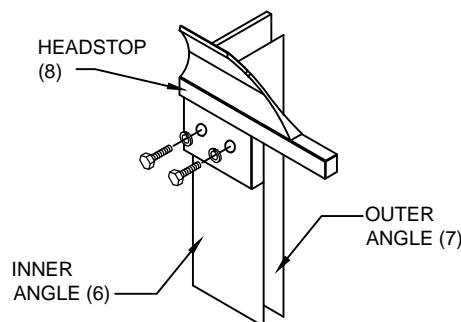
- 6.4 APPLY APPROPRIATE TURNS OF TENSION TO THE TENSION WHEEL BY ALTERNATELY PULLING DOWN ON THE STEEL BAR, AND INSERTING THE PIN, AS SHOWN BELOW. (SEE TENSION DECAL ON TENSION SIDE OF HEADPLATE FOR PRE-TURN REQUIREMENTS.)
 6.5 ONCE PROPER BALANCE IS ACHIEVED, INSTALL REMOVABLE RETAINER CLIP TO CAPTURE TENSION PIN WITH FASTENERS PROVIDED.



CAUTION: TEST DOOR AND ADJUST TENSION AS NEEDED FOR PROPER CURTAIN BALANCE. APPLY MORE OR LESS TENSION IN 1/8" TURN INCREMENTS

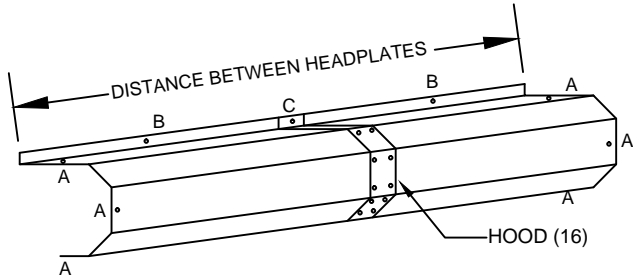
STEP #7 - ATTACH HEADSTOPS

- 7.1 LOWER CURTAIN INTO GUIDE CHANNELS UNTIL THE BOTTOM BAR IS APPROXIMATELY 6" BELOW WHERE THE HEADSTOPS ATTACH TO THE INNER ANGLE AND RE-SECURE HAND CHAIN.
 7.2 ATTACH HEADSTOPS TO INNER GUIDE ANGLE USING TWO 5/16" x 5/8" HEX BOLTS AND 5/16" LOCK WASHERS.

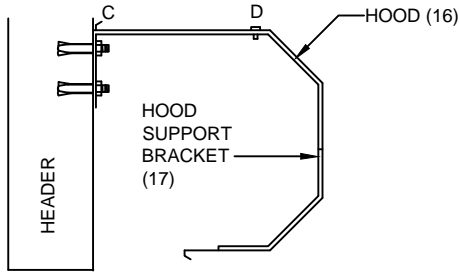


STEP #8 - INSTALL HOOD

- 8.1 IF THE PROVIDED HOOD IS A SINGLE PIECE, THEN SKIP TO INSTRUCTION 8.4.
 8.2 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.

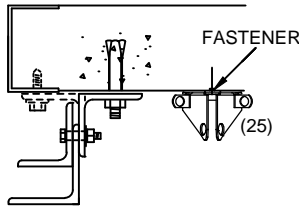


- 8.3 FASTEN OVERLAPPED AREA TOGETHER WITH TWO ROWS OF TEK SCREWS ON EACH FLAT SECTION.
 8.4 ONCE ASSEMBLED, RAISE HOOD WITH MECHANICAL HOIST OR FORKLIFT AND FASTEN TO HEADPLATES AND HEADER
 8.5 FASTEN HOOD TO HEADPLATES AT LOCATION "A" WITH 1/4" SELF TAPPING SCREWS.
 8.6 FASTEN HOOD TO HEADER AT "B".
 8.7 HOODS OVER 16' LONG REQUIRE ANOTHER FASTENER AT LOCATION "C".
 8.8 WHEN HOOD SUPPORT BRACKETS ARE SUPPLIED, INSTALL AT LOCATIONS "B" OR "C" AS NEEDED. FASTEN HOOD TO BRACKET AT LOCATION "D". HOOD SUPPORT BRACKETS ARE PROVIDED TO ACHIEVE MAXIMUM SPAN BETWEEN SUPPORTS OF 8'.



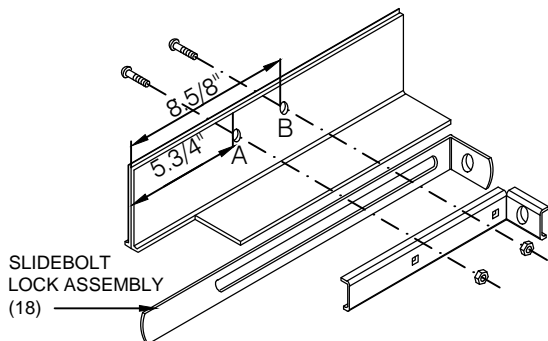
STEP #9 - HAND CHAIN & CHAIN KEEPER

- 9.1 ADJUST HAND CHAIN LENGTH SO THAT IT HANGS BETWEEN 1' AND 2' OFF THE GROUND.
 9.2 FASTEN HAND CHAIN LATCH APPROXIMATELY 4' OFF THE GROUND.



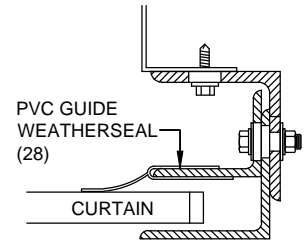
STEP #10 - SLIDE BOLT LOCK (OPTIONAL)

- 10.1 REMOVE BOLTS AT LOCATIONS "A" AND "B" FOR FACTORY-PREPARED DOORS.
 10.2 IF NOT FACTORY PREPARED, REMOVE EXISTING BOLTS AND DRILL 5/16" HOLES AT SPECIFIED LOCATIONS.
 10.3 ALIGN SLIDE LOCK AND STEEL COVER WITH HOLES.
 10.4 FASTEN THE SLIDE LOCK MECHANISM WITH THE SUPPLIED HARDENED STEEL CARRIAGE BOLTS.
 10.5 FOR EXTRA SECURITY, WELDING THE COVER TO THE BOTTOM ANGLE IS RECOMMENDED



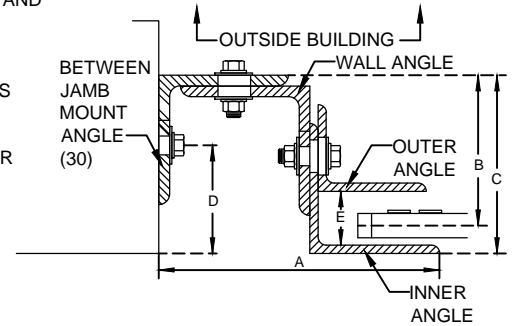
STEP #11 - GUIDE WEATHERSEAL (OPTIONAL)

- 11.1 ATTACH PVC GUIDE WEATHERSEAL TO THE OUTER ANGLE PER DIAGRAM.
 11.2 IF GUIDE WEATHERSEAL IS ORDERED FROM FACTORY, THE BOTTOM BAR WILL BE NOTCHED TO ACCOMMODATE WEATHERSEAL ON THE EXTERIOR (OUTER ANGLE).
 11.3 IF PVC GUIDE WEATHERSEAL IS ADDED TO THE DOOR AT A LATER TIME, THE BOTTOM BAR WILL NEED TO BE NOTCHED AN ADDITIONAL 1" PER SIDE TO ACCOMMODATE THE GUIDE WEATHERSEAL.

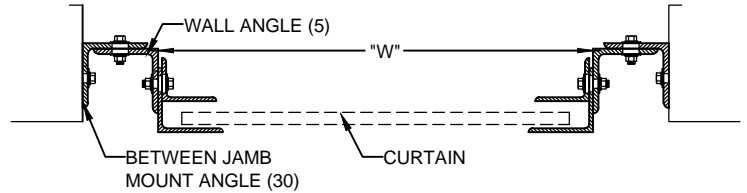


STEP #12 - BETWEEN JAMB MOUNT (OPTIONAL)

- 12.1 CHECK THE HEIGHT AND WIDTH OF THE OPENING.
 12.2 CHECK IF THE JAMBS ARE PLUMB.
 12.3 CHECK IF THE FLOOR AND HEADER ARE LEVEL.



- 12.4 THE BETWEEN JAMB ANGLES MUST BE INSTALLED PLUMB AND LEVEL TO EACH OTHER EVEN IF JAMB IS NOT PLUMB AND FLOOR IS SLOPED.
 12.5 EVENLY SPACE WALL ANGLES INSIDE OPENINGS SO THAT THE DISTANCE BETWEEN THEM IS SHOWN BELOW.



GUIDE DIMENSION - BETWEEN JAMBS

| TYPE | A | B | C | D | E |
|---------------|---------|---------|---------|---------|----------|
| 2 | 6" | 3. 1/4" | 4" | 2. 1/2" | 1. 1/8" |
| 3 | 6. 3/4" | 3. 3/4" | 4. 1/2" | 3" | 1. 1/8" |
| 4 | 6. 3/4" | 3. 3/4" | 4. 1/2" | 3" | 1. 1/8" |
| 2 (W/L) | 6. 1/2" | 3. 1/2" | 4. 1/4" | 2. 3/4" | 1. 7/16" |
| 3 (W/L) | 6. 3/4" | 4" | 4. 3/4" | 3. 1/4" | 1. 7/16" |
| 4 (W/L) | 6. 3/4" | 4" | 4. 3/4" | 3. 1/4" | 1. 7/16" |
| 5M (W/L) | 6. 3/4" | 4. 1/8" | 4. 7/8" | 3. 3/8" | 1. 9/16" |
| 5 & 5IM (W/L) | 6. 3/4" | 4. 1/8" | 4. 7/8" | 3. 3/8" | 1. 9/16" |
| 6 (W/L) | 9. 1/2" | 6. 7/8" | 7. 5/8" | 5. 7/8" | 1. 9/16" |
| 6M (W/L) | 9. 1/2" | 7" | 7. 3/4" | 6" | 1. 9/16" |
| 7 (W/L) | 11" | 7. 1/4" | 8" | 5. 1/2" | 1. 9/16" |
| 7M (W/L) | 11" | 7. 1/4" | 8" | 5. 1/2" | 1. 9/16" |

BETWEEN JAMB OPENING DEDUCTIONS = THEORETICAL "NEW" OPENING

| GUIDE TYPE | 2 | 12" |
|------------|----------|----------|
| | 3 | 13. 1/2" |
| | 4 | 13. 1/2" |
| | 2 (W/L) | 13" |
| | 3 (W/L) | 13. 1/2" |
| | 4 (W/L) | 13. 1/2" |
| | 5M (W/L) | 13. 1/2" |
| | 5 (W/L) | 13. 1/2" |
| | 6 (W/L) | 19" |
| | 7 (W/L) | 22" |