

DURULITE INDUSTRIAL, STANDARD & SECURITY DOOR INSTALLATION INSTRUCTIONS

DWG # 2005 DRAWN BY: MLW REV DATE: 11-11-2019

PREPARATION

MEASURE WIDTH AND HEIGHT OF FRAMED OPENING AND COMPARE WITH OTHER DIMENSIONS.

FRAMED OPENING DIMENSIONS MUST MEET ORDER DIMENSIONS WITHIN THE FOLLOWING TOLERANCES:

SINGLE DOORS: HEIGHT: +1" -1/2"
WIDTH: +0" -1/2"

DOUBLE DOORS: HEIGHT: +1" -1/2"
WIDTH: +3/8" -1"

IF THE FRAMED OPENING DOES NOT MEET THE ORDER DIMENSIONS WITHIN THESE TOLERANCES CALL THE FACTORY AT 1-800-543-4455.

FOR PROPER INSTALLATION

FOR DOORS TO OPERATE PROPERLY FRAMED OPENINGS MUST BE SQUARE AND PLUMB. MAKE NECESSARY ADJUSTMENTS TO SQUARE AND PLUMB OPENING.

DRILL BIT SIZES (2) (5) (10)

FOR STEEL JAMBS:

USE: 7/32" DRILL BIT AND A 1/4-20 TAP.

FOR WOOD JAMBS & ROLL PIN INSTALL

USE: 3/16" DRILL BIT.

FOR SECURITY DOORS

USE: #7 DRILL BIT.

ON SECURITY DOORS USE A 1/4-20 TAP (PARTS (2) & (5) ONLY)

3/16" DRILL BIT IS REQUIRED FOR THE ROLL PIN INSTALLATION AND IS INCLUDED WITH YOUR HARDWARE PACKAGE

FASTENERS (2) (5)

FOR STEEL JAMB

USE: 1/4" X 1 7/8" TEK SCREW.

FOR WOOD JAMB

USE: 1/4" X 3" HARDWARE SCREW.

FOR SECURITY DOORS

USE: 1/4-20 X 7/8" SOCKET HEAD.

FOR: (10)

FOR STEEL JAMB

USE: 1/4-20 X 1 7/8" TEK SCREW.

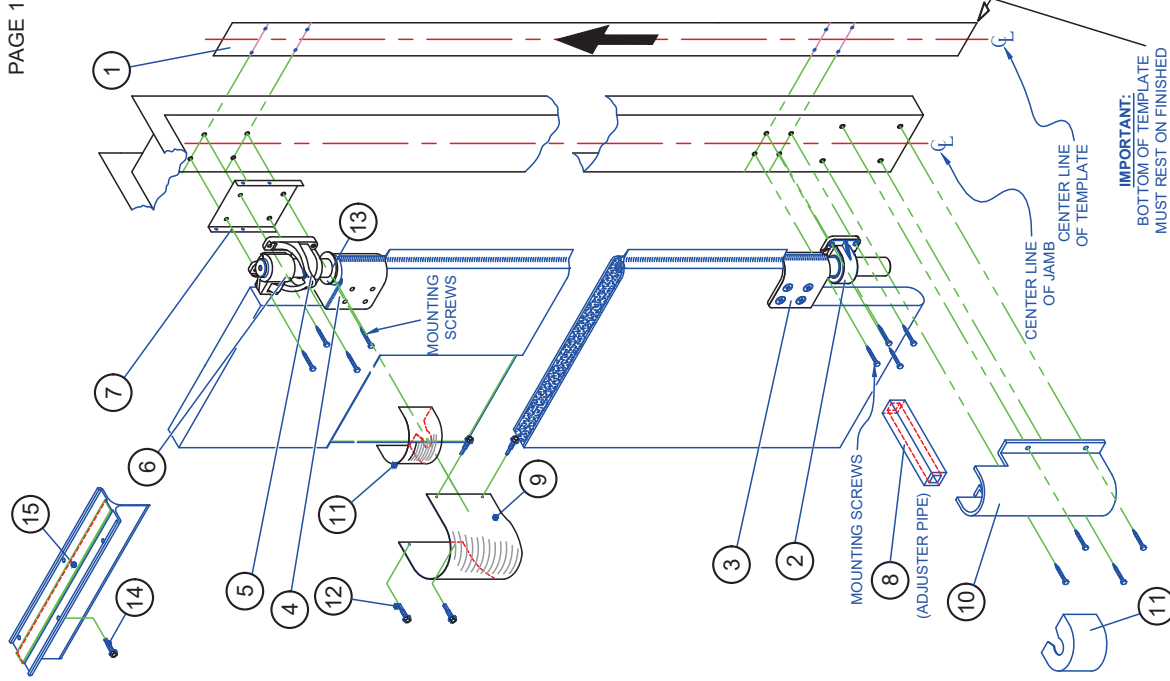
FOR WOOD JAMB

USE: 1/4" X 3" HARDWARE SCREW.

FOR SECURITY DOORS

USE: 1/4-20 X 1-1/2" TEK SCREW.

PAGE 1



STEP 1. MARKING AND DRILLING JAMB FOR HARDWARE.

NOTE: PROCEED ONLY AFTER COMPLETING THE "PREPARATION" SECTION AT LEFT.

USE A PLUMB TO ESTABLISH THE CENTERLINE OF JAMB. PLACE TEMPLATE (1) ON THE INSIDE FACE OF JAMB WITH BOTTOM OF TEMPLATE (1) TOUCHING FINISHED FLOOR OR SILL. LINE UP CENTERLINE ON TEMPLATE (1) WITH CENTERLINE OF JAMB. MARK HOLES THROUGH TEMPLATE (1) ONTO JAMB WITH CENTER PUNCH. **NOTE:** SEE "DIM A" FROM "HARDWARE LOCATION" SECTION, PAGE 2, FOR YOUR APPLICATION.

REMOVE TEMPLATE (1) FROM JAMB AND DRILL HOLES (SEE "DRILL BIT SIZES" AT LEFT).

STEP 2. ATTACHING HARDWARE AND HANGING DOOR.

ATTACH PILLOW BLOCK (2) TO JAMB. **NOTE: NOTCH SIDE UP.** WITH SINGLE FASTENER (DO NOT TIGHTEN FASTENER AT THIS TIME). PLACE UPPER V-CAM (5) AND ROLLER ASSEMBLY (6) OVER UPPER HINGE ADAPTER (4) SHAFT (SEE FIGURE 1).

TILT THE LOWER PILLOW BLOCK (2) TO APPROXIMATELY A 30° ANGLE (SEE FIGURE 2). THIS ALLOWS YOU TO INSERT THE LOWER HINGE ADAPTER INTO THE LOWER PILLOW BLOCK WITHOUT INTERFERENCE FROM THE HEADER. LIFT THE DOOR AND INSERT THE LOWER HINGE ADAPTER (4) SHAFT INTO THE LOWER PILLOW BLOCK (2).

STAND THE DOOR UPRIGHT. PLACE THE BACKER PLATE (3) BEHIND THE V-CAM ASSEMBLY (5) AND FASTEN TO JAMB USING APPROPRIATE FASTENERS (SEE "FASTENERS" AT LEFT) AND TIGHTEN. INSERT REMAINING FASTENERS INTO LOWER PILLOW BLOCK (2) AND TIGHTEN.

STEP 3. DOOR SWING AND HEIGHT ADJUSTMENT.

NOTE: IF YOUR OPENING HEIGHT IS **NOT** WITHIN TOLERANCE AS INDICATED UNDER THE "PREPARATION" SECTION AT LEFT CALL THE FACTORY AT 1-800-543-4455. OTHERWISE CONTINUE FROM HERE. PLACE THE ADJUSTER PIPE (8) (7/8" X 7/8" SQ PVC PIPE) UNDER THE DOOR FOR USE AS A SPACER. CENTER PANEL IN OPENING AND SET THE BEARING ON THE ROLLER ASSEMBLY (6) TO LOWEST POSITION IN V-CAM (5) (SEE FIGURE 3).

TIGHTEN THE TOP CAP SCREW IN THE ROLLER ASSEMBLY (6) (SEE FIGURE 3).

LIFT DOOR UP TO EXPOSE THE BOTTOM CAP SCREW AND TIGHTEN.

REMOVE SPACER AND ALLOW DOOR TO REST IN OPENING. BE SURE THAT THE PANEL/PANELS ARE CENTERED IN OPENING BEFORE CONTINUING. IF PANEL/PANELS ARE NOT CENTERED YOU MUST LOOSEN THE CAP SCREWS AND READJUST PANEL(S). AFTER SETTING PANELS IN THEIR CORRECT POSITION AND CHECKING SWING YOU MUST PIN THE ROLLER ASSEMBLY TO PREVENT THE DOORS FROM SLIPPING OUT OF ALIGNMENT. PLEASE REFER TO "ROLL PIN INSTALLATION" & WARNING ON PAGE 2.

STEP 4. HINGE GUARD AND SEAL

TAKE ONE OF THE SOLID RISER CUPS (11) AND SNAP IT ONTO THE UPPER HINGE ADAPTER (4) BELOW THE RETAINING RING (3). IF THE RING IS PRESSED ALL THE WAY TO THE BASE OF THE UPPER HINGE ADAPTER, SLIDE IT UP WITH A FLAT HEADED SCREW DRIVER. NEXT, PLACE THE PVC HINGE SEAL (9) OVER THE BACKER PLATE AND ATTACH INTO THE HOLES WITH #10 TEK SCREWS.

SET LOWER HINGE GUARD (10) INTO PLACE. ON FLOOR AGAINST JAMB. CENTERED OVER LOWER PILLOW BLOCK (2). MARK HOLES. REMOVE LOWER HINGE GUARD (10) AND DRILL (SEE "DRILL BIT SIZE" AT LEFT).

ATTACH LOWER HINGE GUARD (10) WITH FASTENERS AND SNAP SOLID RISER ONTO LOWER HINGE ADAPTER (4) SHAFT, JUST ABOVE THE LOWER PILLOW BLOCK (2).

STEP 5. TOP SEAL INSTALLATION

THE TOP SEAL (15) IS CUT TO LENGTH AT THE FACTORY (SOME TRIMMING MAY STILL BE REQUIRED). REMOVE THE PAPER FROM THE DOUBLE FACED TAPE ON THE BACK SIDE OF THE TOP SEAL. PLACE THE TOP SEAL IN THE CENTER OF THE HEADER WITH THE TAPED SIDE UP. SEE FIGURE 4. TOP SEAL MUST FIT BETWEEN THE HINGE SEAL AND OPPOSITE JAMB ON SINGLE DOORS. ONCE THE TOP SEAL IS PLACED IN THE DESIRED POSITION, INSERT THE 24 X 1 1/4" TEK SCREWS (13) AND TIGHTEN SECURELY. YOU MAY WISH TO DRILL PILOT HOLES. USE TOP SEAL AS A TEMPLATE. CUT THE FLEXIBLE PORTION OF THE TOP SEAL IN BETWEEN THE PANELS FOR PAIRS.

FIGURE "4"

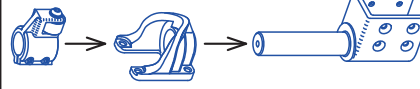
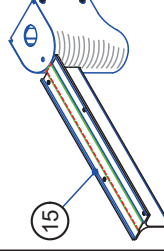


FIGURE "1"



FIGURE "2"



FIGURE "3"

DURULITE INDUSTRIAL, STANDARD & SECURITY DOOR INSTALLATION INSTRUCTIONS (Continued)

PAGE 2

NOTE: DIMENSIONS LISTED PERTAIN ONLY TO STANDARD FINISHED OPENING HEIGHTS. PLEASE VERIFY YOUR FINISHED OPENING HEIGHT WITH THE FACTORY PRIOR TO DRILLING. CONTACT THE FACTORY AT 1-800-543-4455.

ROLL PIN INSTALLATION (See WARNING Below)

DRILL HERE



WARNING
FAILURE TO INSTALL ROLL PIN AS INDICATED IN THESE INSTRUCTIONS WILL VOID ANY AND ALL WARRANTIES ATTACHED TO THIS PRODUCT!!!

IMPORTANT:

MAKE SURE PANELS CLOSE AND SWING CORRECTLY BEFORE PROCEEDING. DOOR SWING CAN NOT BE ADJUSTED AFTER PINNING.

STEPS:

1. LOCATE THE CONICAL DRILL MARK ON THE ROLLER ASSEMBLY (SEE FIGURE "5-A").
2. DRILL A 3/16" Ø HOLE COMPLETELY THROUGH THE CENTER OF ROLLER ASSEMBLY AND HINGE SHAFT (SEE FIGURE "5-B").
3. GENTLY TAP ROLL PIN INTO DRILL HOLE UNTIL FLUSH WITH ROLLER ASSEMBLY (SEE FIGURE "5-B").

FIGURE "5-A"

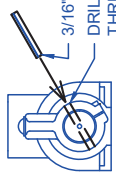


FIGURE "5-B"

SPRING ASSIST INSTALLATION

IMPORTANT:

MAKE SURE THAT "ROLLER ASSEMBLY" IS PROPERLY MOUNTED AND PINNED BEFORE PROCEEDING.

CAUTION:

SPRING COILS MUST NOT TOUCH EACH OTHER WHEN DOOR IS IN THE OPEN POSITION. OVERTIGHTENING THE SPRING WILL CAUSE SEVERE DAMAGE TO THE ROLLER ASSEMBLY.

STEPS: (Refer to FIGURE "6")

1. INSERT THREADED SHAFT (P/N 5544) INTO LOWER HINGE SHAFT UNTIL JAMB NUT BOTTOMS OUT; THEN TAKE HALF TURN ON JAMB NUT WITH OPEN-END WRENCH.
2. SLIDE THIN WASHER (P/N 5542) OVER THREADED SHAFT. SLIDE SPRING (P/N 5539) OVER SHAFT. THREAD ADJUSTMENT WASHER (P/N 5545) ONTO THREADED SHAFT JUST ENOUGH TO GET IT STARTED.
3. TIGHTEN THE THREADED ADJUSTMENT WASHER (P/N 5545) ON THE THREADED SHAFT (P/N 5544) UNTIL THE DESIRED CLOSING ACTION IS OBTAINED.
4. PLACING OPEN-END HAND WRENCHES ON THE ADJUSTMENT WASHER (P/N 5545) AND ON THE JAMB NUT, TURN ONE AGAINST THE OTHER TO LOCK ADJUSTMENT WASHER IN PLACE.

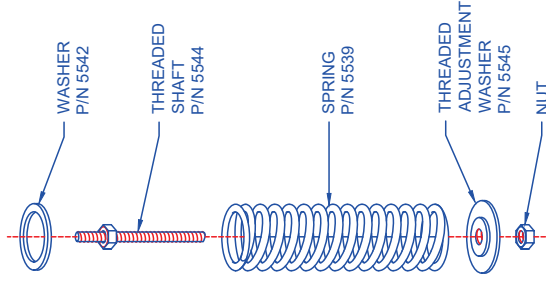


FIGURE "6"

HARDWARE LOCATIONS

OPENING HEIGHT	ACTUAL DOOR HEIGHT	DIM "A"
78"	75"	72.375"
80"	77"	74.375"
84"	81"	78.75"
90"	87"	84.75"
96"	93"	90.75"
102"	99"	96.75"
108"	105"	102.75"
114"	111"	108.75"
120"	117"	114.75"

(Durulite 90° x 90° ONLY, No Weldplates)

IMPORTANT:

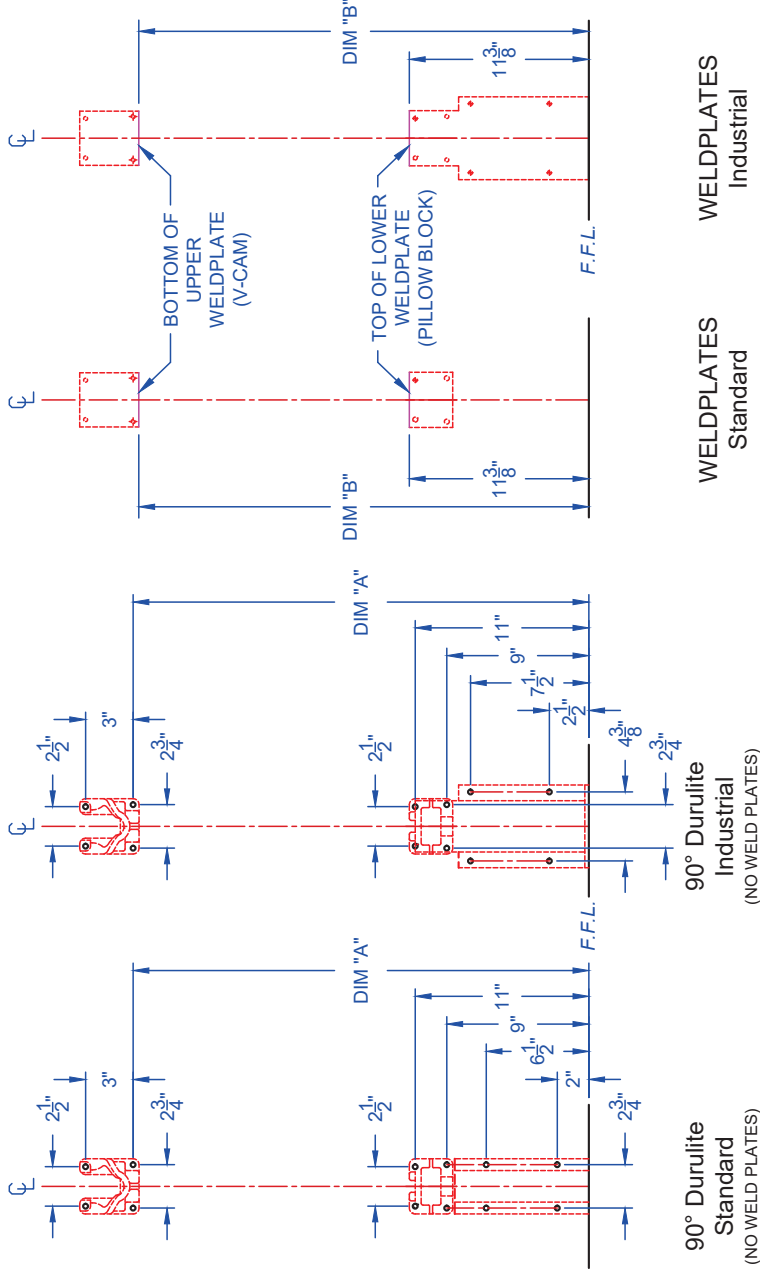
ALL DIMENSIONS SHOWN ARE MEASURED UP FROM THE FINISHED FLOOR LINE.

WARNING:

FASTENERS MUST BE INSTALLED WITH NO MORE THAN 100 IN- LBS OF TORQUE.
FASTENER HEADS MUST SIT FLUSH AND SQUARE TO ALL HARDWARE COMPONENTS.

WELD PLATE LOCATIONS

OPENING HEIGHT	ACTUAL DOOR HEIGHT	DIM "B"
78"	75"	72.375"
80"	77"	74.375"
84"	81"	78.375"
90"	87"	84.375"
96"	93"	90.375"
102"	99"	96.375"
108"	105"	102.375"
114"	111"	108.375"
120"	117"	114.375"



90° Durulite
Standard
(NO WELD PLATES)

90° Durulite
Industrial
(NO WELD PLATES)

WELDPLATES
Standard

WELDPLATES
Industrial