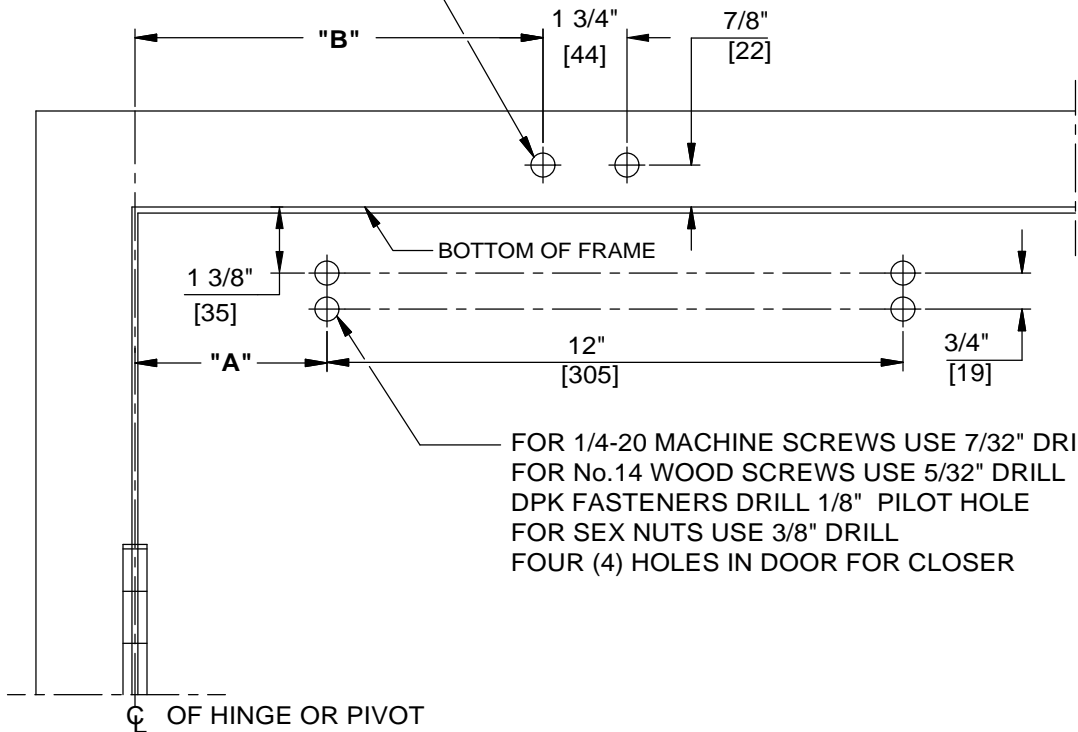


NOTES:

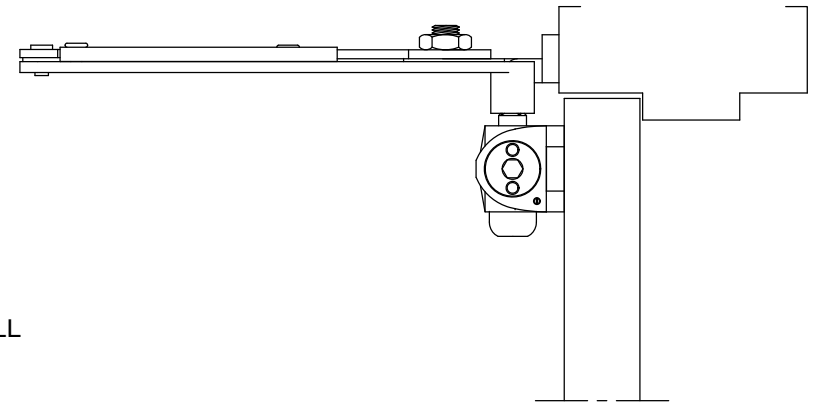
1. DO NOT SCALE DRAWING.
2. DIMENSIONS ARE IN INCHES/(MM).
3. RIGHT HAND DOOR SHOWN.
4. CAUTION: SEX NUTS ARE REQUIRED FOR ATTACHMENT OF COMPONENTS TO UNREINFORCED DOORS AND TO WOOD OR PLASTIC FACED COMPOSITE TYPE FIRE DOORS, UNLESS AN ALTERNATIVE METHOD IS IDENTIFIED IN THE INDIVIDUAL DOOR MANUFACTURER'S LISTINGS.
5. MAX. OPENING IS 180°.
6. OPTIONAL DPK FASTENERS (DPK86) FOR STEEL DOOR & FRAME ONLY.

ANGLE OF OPENING	DIM. "A" CLOSER	DIM. "B" ARM SHOE
TO 100°	$\frac{7-1/2}{(191)}$	$\frac{13}{(330)}$
100° TO 120°	$\frac{6-1/2}{(165)}$	$\frac{12}{(305)}$
OVER 120°	$\frac{4}{(102)}$	$\frac{9-1/2}{(241)}$

FOR 1/4-20 MACHINE SCREWS USE 7/32" DRILL
 FOR No.14 WOOD SCREWS USE 5/32" DRILL
 DPK FASTENERS DRILL 1/8" PILOT HOLE
 TWO (2) HOLES IN FRAME FOR ARM SHOE



FOR 1/4-20 MACHINE SCREWS USE 7/32" DRILL
 FOR No.14 WOOD SCREWS USE 5/32" DRILL
 DPK FASTENERS DRILL 1/8" PILOT HOLE
 FOR SEX NUTS USE 3/8" DRILL
 FOUR (4) HOLES IN DOOR FOR CLOSER



DOOR CLOSER MODELS: 8616 FH
 REGULAR INSTALLATION (PULL SIDE MOUNT)



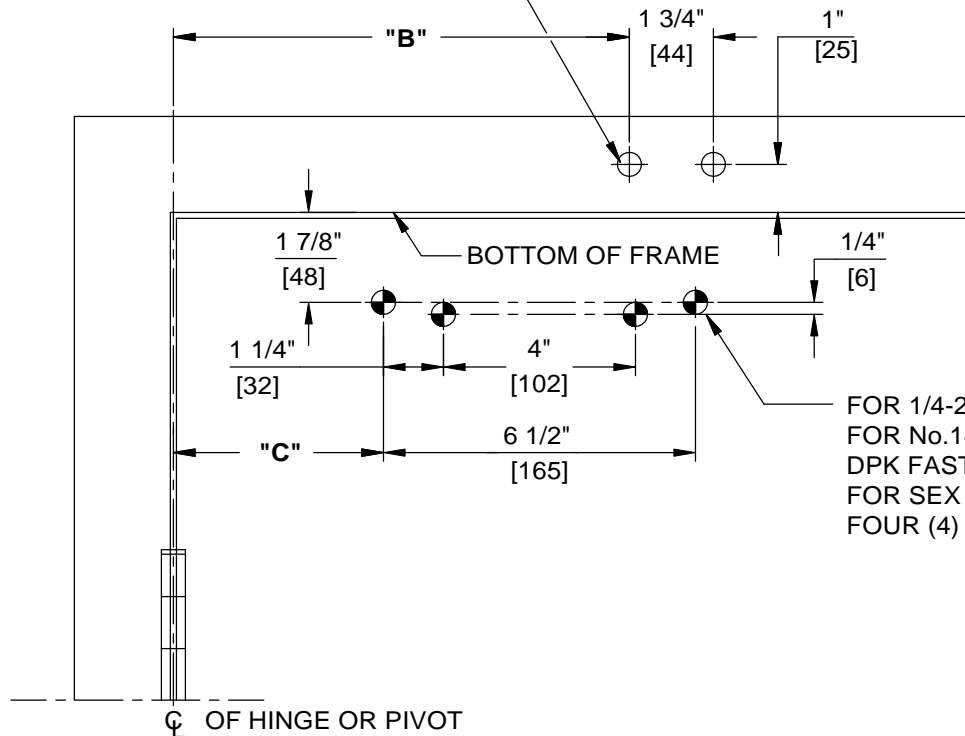
DORMA Architectural Hardware
 Reamstown, PA 17567

NOTES:

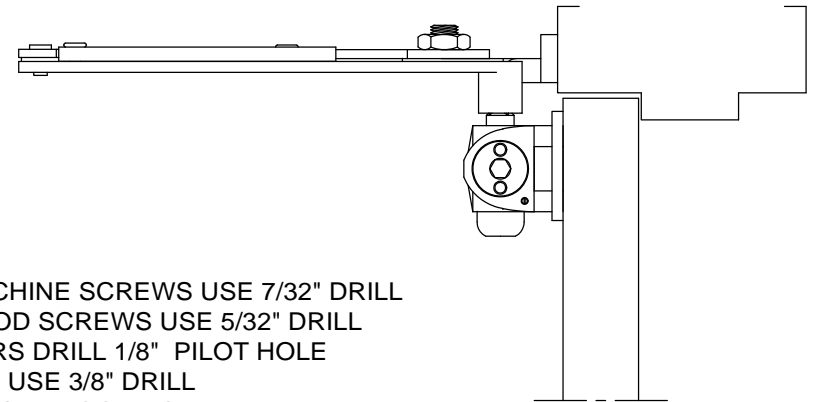
1. DO NOT SCALE DRAWING.
2. DIMENSIONS ARE IN INCHES/(MM).
3. RIGHT HAND DOOR SHOWN.
4. CAUTION: SEX NUTS ARE REQUIRED FOR ATTACHMENT OF COMPONENTS TO UNREINFORCED DOORS AND TO WOOD OR PLASTIC FACED COMPOSITE TYPE FIRE DOORS, UNLESS AN ALTERNATIVE METHOD IS IDENTIFIED IN THE INDIVIDUAL DOOR MANUFACTURER'S LISTINGS.
5. MAX. OPENING IS 180°.
6. OPTIONAL DPK FASTENERS (DPK86) FOR STEEL DOOR & FRAME ONLY.

ANGLE OF OPENING	DIM. "B" ARM SHOE	DIM. "C" PLATE
0° TO 100°	$\frac{13}{(330)}$	$\frac{7-7/8}{(200)}$
100° TO 120°	$\frac{12}{(305)}$	$\frac{6-7/8}{(175)}$
OVER 120°	$\frac{9-1/2}{(241)}$	$\frac{4-3/8}{(111)}$

FOR 1/4-20 MACHINE SCREWS USE 7/32" DRILL
 FOR No.14 WOOD SCREWS USE 5/32" DRILL
 DPK FASTENERS DRILL 1/8" PILOT HOLE
 TWO (2) HOLES IN DOOR FOR ARM SHOE



FOR 1/4-20 MACHINE SCREWS USE 7/32" DRILL
 FOR No.14 WOOD SCREWS USE 5/32" DRILL
 DPK FASTENERS DRILL 1/8" PILOT HOLE
 FOR SEX NUTS USE 3/8" DRILL
 FOUR (4) HOLES IN DOOR FOR PLATE



DOOR CLOSER MODELS: 8616 FH
 REGULAR INSTALLATION (PULL SIDE MOUNT)
 WITH PLATES BP86, BP86FC



DORMA Architectural Hardware
 Reamstown, PA 17567