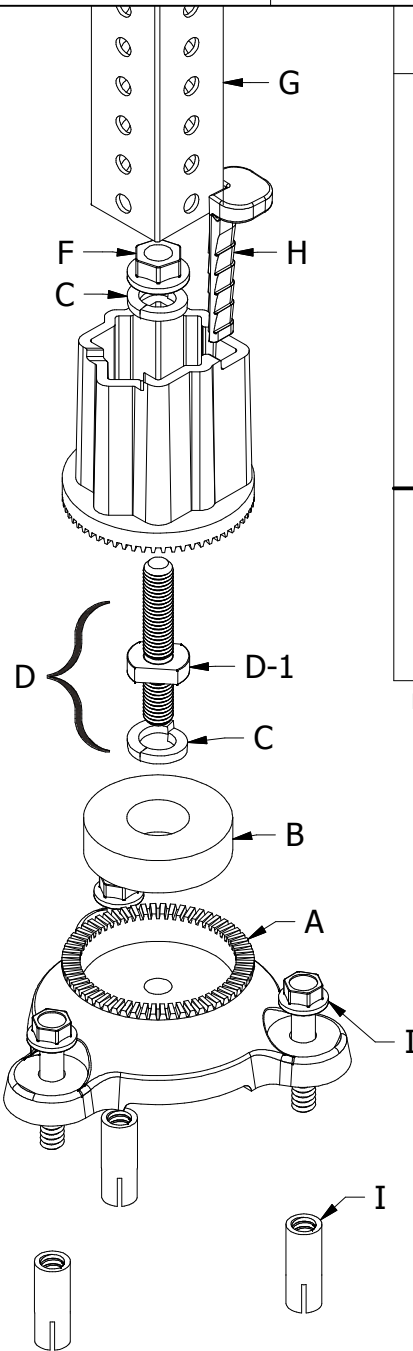


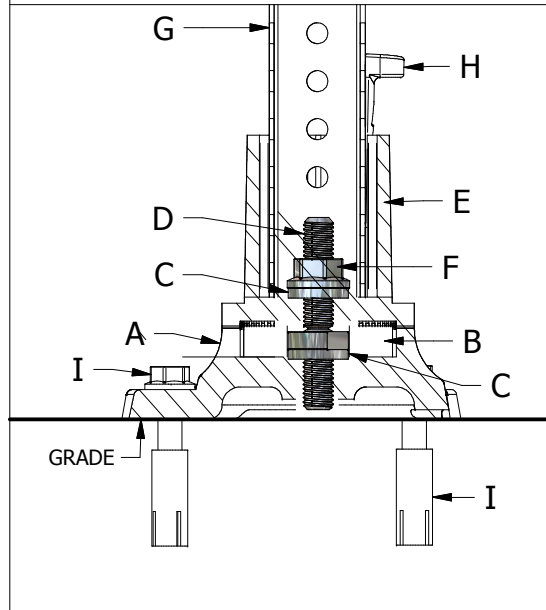
DRAWING #  
XKBSM425-20-CI

**KLEEN BREAK MODEL 425 FOR SURFACE MOUNT CONCRETE INSTALLATIONS**  
SQUARE POST SIGN SUPPORT INSTALLATION INSTRUCTIONS (RECEIVES 1-3/4" & 2" SQUARE POST)

DATE:  
4-17-10



INSTALLED CROSS SECTION VIEW



PARTS LIST

- A SURFACE MOUNT ANCHOR BASE
- B RUBBER BUSHING
- C LOCK WASHER
- D 5/8"-11 x 4" SHEAR BOLT
- D-1 SHOULDER
- E TOP HALF COUPLER
- F 5/8"-11 SERRATED FLANGE NUT
- G SIGN SUPPORT
- H SIGN SUPPORT LOCKING WEDGE
- I CONCRETE MOUNTING FASTENER (not included)

## INSTALLATION PROCEDURE

TOOLS NEEDED:

15/16" SOCKET, XKBW-1516 KLEEN BREAK WRENCH AND 16 OZ. HAMMER

**STEP 1** Using the surface mount anchor base (A) as a template, mark and drill three holes in the concrete, corresponding to the three holes in the anchor base (A). (1/2"Ø x 4" minimum concrete mounting fastener recommended)

**NOTE:** Orientation of the surface mount anchor base (A) does not need to be set at this step, the top half post receiving coupler (E) can be indexed for proper sign orientation during step 4.

**NOTE:** The stub height after impact will be less than 3", exceeding FHWA/NCHRP350 requirements.

**STEP 2** Thread short end of shear bolt (D), with lock washer (C) under shoulder (D-1), into threaded hole in surface mount anchor base (A). Tighten with XKBW-1516 Kleen Break Wrench or a 15/16" open end wrench until split ring lock washer (C) is fully compressed.

**NOTE:** Be sure that the shear point of shear bolt (D) is now above shoulder (D-1).

**STEP 3** Slide rubber bushing (B) over shear bolt (D) until seated firmly into round cavity in surface mount anchor base (A).

**STEP 4** Slide top half of coupler (E) over shear bolt (D) until it rests on the rubber bushing (B). Using lock washer (C), thread 5/8" flange nut (F) onto top of shear bolt (D) with a 15/16" deep well socket. Rotate top receiving half of coupler (E) to proper orientation of sign before tightening flange nut (F). Be sure serrated teeth are fully meshed. Total Kleen Break coupler assembly should be completely tight before proceeding to the next step.

**STEP 5** Insert sign support (G) into top half of coupler (E). Locking wedge should be positioned at a corner of the sign support (G). With a hammer, drive the sign support locking wedge (H) between sign support (G) and top half coupler (E) at pre-determined location until seated in corresponding depression of top half coupler (E).

**NOTE:** It is not necessary to drive the locking wedge (H) until it has bottomed out in the post receiving coupler (E). Due to the tolerance when hot dip galvanizing (thickness, runs, or drips) the locking wedge can be fully engaged at different depths.

**NOTE:** The sign support locking wedge (H) will keep the sign support (G) secure without need of additional fasteners or hardware.

### REINSTALLATION AFTER IMPACT

Remove sign support locking wedge (H) from top half coupler (E) with hammer. Remove both ends of broken shear bolt (D) from both coupler halves (A) & (E). Reassemble following steps 2 through 5 from the installation procedure.