

NOTES:  
 1.) EACH KSCV KIT, WHEN PROPERLY INSTALLED, WILL HAVE AN UPLIFT CAPACITY OF 1,000 LBS.

**KSCV SEISMIC & WIND VERTICAL RESTRAINT**

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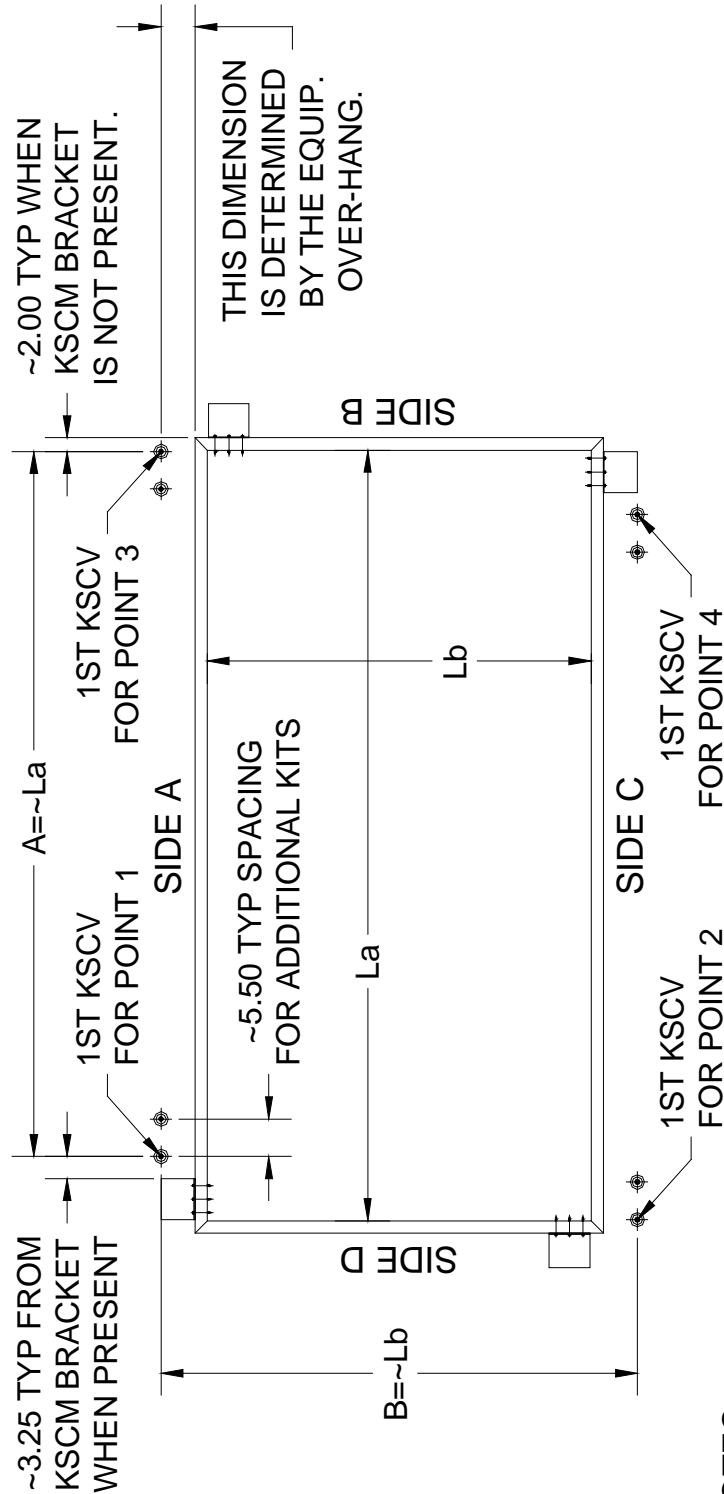
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Noise Control

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**NOTES:**

- 1.) A MINIMUM OF FOUR (4) KSCV VERTICAL SEISMIC & WIND RESTRAINT KITS ARE PER CURB WHEN INDICATED BY A KINETICS SEISMIC OR WIND CERTIFICATION.
- 2.) ADDITIONAL KSCV VERTICAL RESTRAINT KITS MAY BE REQUIRED AS INDICATED BY A KINETICS SEISMIC OR WIND CERTIFICATION.
- 3.) ADDITIONAL KSCV KITS MUST BE ADDED IN SETS OF FOUR (4). EACH ADDITIONAL KIT MAY BE INSTALLED IMMEDIATELY ADJACENT TO THE PREVIOUS KIT AT EACH CORNER POINT. MAINTAIN 1.00 INCH CLEARANCE BETWEEN KSCV EQUIPMENT BRACKETS.

**KSCV SEISMIC & WIND VERTICAL RESTRAINT**

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## KSCV SEISMIC & WIND VERTICAL RESTRAINT INSTRUCTIONS:

- 1.) SHOWN AT THE RIGHT IS A COPY OF THE FIGURE THAT APPEARS IN THE TOP LEFT HAND QUADRANT OF THE "KINETICS SEISMIC CERTIFICATION" FOR THE PIECE OF EQUIPMENT TO BE MOUNTED. THE POINTS 1, 2, 3, AND 4 INDICATE THE APPROX. POSITIONS OF THE FIRST KSCV KITS. THEY ARE LOCATED OFF OF THE GEOMETRIC CENTER LINES FOR THE EQUIPMENT.
 

The diagram illustrates the placement of four attachment points (1, 2, 3, 4) for KSCV kits. A central circle represents the Geometric Center (CG). A vertical dashed line passes through the CG, with a horizontal dimension of  $B/2$  from the CG to the vertical line. A horizontal dashed line passes through the CG, with a vertical dimension of  $A/2$  from the CG to the horizontal line. The attachment points are located at the intersections of these dashed lines with the equipment's perimeter. Point 1 is at the top-left, point 2 at the bottom-left, point 3 at the top-right, and point 4 at the bottom-right. Horizontal dimensions  $E_x$  and vertical dimensions  $E_y$  are also indicated from the CG to the attachment points.
- 2.) TYPICALLY (A) IS THE LOCATING DIMENSION ALONG THE LENGTH OF THE EQUIPMENT, AND (B) IS THE LOCATING DIMENSION ACROSS THE WIDTH OF THE EQUIPMENT. THESE DIMENSIONS, AS APPLIED, TO THE KSCV RESTRAINTS ARE DEFINED IN S-88.071-20B. A WILL BE APPROX. EQUAL TO  $L_a$ , AND B WILL BE APPROX. EQUAL TO  $L_b$ . ACTUAL VARIATIONS OF 10% TO 15% MAY BE EASILY TOLERATED.
- 3.) THE C.G. LOCATION FOR THE EQUIPMENT IS LOCATED OFF OF THE GEOMETRIC CENTER OF THE EQUIPMENT BY ( $E_x$ ) ALONG THE LENGTH OF THE EQUIPMENT, AND ( $E_y$ ) ACROSS THE WIDTH OF THE EQUIPMENT.
- 4.) LOCATE THE POSITIONS OF THE REQUIRED KSCV BUILDING ATTACHMENT COMPONENTS RELATIVE TO THE CURB AND EXPECTED EQUIPMENT OVER-HANGS **BEFORE** THE INSULATION AND ROOF SYSTEM ARE INSTALLED. POSITIONS OF KSCV'S MAY BE MODIFIED TO AVOID STRUCTURAL SUPPORT STEEL.
- 5.) DRILL CLEARANCE HOLES THROUGH THE ROOF STRUCTURE FOR THE 0.25-20 UNC THREADED RODS. CLEARANCE HOLES MAY BE  $\varnothing 0.31$  TO  $\varnothing 0.50$  INCHES. THE LARGER CLEARANCE HOLES WILL ALLOW MORE LATITUDE FOR ADJUSTMENT AT FINAL ASSEMBLY.
- 6.) ESTIMATE THE THICKNESS OF THE INSULATION, ROOFING SYSTEM, AND BOOT OR FLASHING. IF NECESSARY, TRIM THE KSCV PIPE ASSEMBLY SO THAT THE PIPE CAP CLEARS THE BOOT OR FLASHING LEAVING ENOUGH ROOM TO SEAL THE JOINT.
- 7.) THREAD THE COUPLING NUT **NINE (9) TURNS** ONTO ONE END OF THE 0.25-20 UNC X 24 THREADED ROD. USE A THREAD LOCKING ADHESIVE, BY OTHERS, TO LOCK THE COUPLING NUT TO THE THREADED ROD. CONTINUED ON S-88.071-20C SHT 2.

## KSCV SEISMIC & WIND VERTICAL RESTRAINT

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## KSCV SEISMIC & WIND VERTICAL RESTRAINT INSTRUCTIONS CONT'D:

- 8.) PLACE ON THE 0.25-20 UNC X 24 THREADED ROD A STANDARD 0.25 WASHER, AND THE 0.25 FENDER WASHER. THE FENDER WASHER MUST BEAR AGAINST THE KSCV PIPE ASSEMBLY, PER S-88.071 -20A.
  - 9.) FEED THE 0.25-20 UNC X 24 THREADED ROD THROUGH THE KSCV PIPE ASSEMBLY SO THAT THE FENDER WASHER BEARS AGAINST THE PIPE CAP IN THE KSCV PIPE ASSEMBLY, SEE S-88.071-20A.
  - 10.) SEAL THE JOINT BETWEEN THE KSCV PIPE ASSEMBLY AND THE THREADED ROD WITH A GOOD RTV TYPE CAULKING COMPOUND, BY OTHERS. CAULKING MATERIAL SHOULD BE USED BETWEEN THE COUPLING NUT AND STANDARD WASHER, BETWEEN THE STANDARD WASHER AND FENDER WASHER, AND BETWEEN THE FENDER WASHER AND PIPE CAP ON THE KSCV PIPE ASSEMBLY.
  - 11.) FEED THE THREADED ROD THROUGH THE CLEARANCE HOLE IN THE ROOF STRUCTURE UNTIL THE KSCV PIPE ASSEMBLY SITS FLUSH ON THE ROOF STRUCTURE. CORRUGATED ROOF STRUCTURES MAY NEED TO BE BRIDGED AS SHOWN IN S-88.071-20D.
  - 12.) FEED THE KSCV RESTRAINT CHANNEL ONTO THE TREADED ROD, AND SECURE USING A 0.25 WASHER AND TWO 0.25-20 UNC NUTS AS SHOWN IN S-88.071-20D. THE KSCV ROOF BRACKET MAY BRIDGE ANY CORRUGATIONS IN THE ROOF STRUCTURE, OR IT MAY SIT IN A TROUGH, OR ON A CREST OF ANY CORRUGATIONS IN THE ROOF STRUCTURE.
  - 13.) SEAL THE JOINT BETWEEN THE KSCV PIPE ASSEMBLY AND THE ROOF STRUCTURE WITH A GOOD RTV CAULKING MATERIAL, BY OTHERS. ALSO SEAL ANY PENETRATIONS IN THE ROOF STRUCTURE THAT WERE MADE BY FASTENERS USED TO ATTACH SHEET METAL BRIDGING MATERIAL WITH THE SAME RTV CAULKING MATERIAL, BY OTHERS.
  - 14.) AFTER THE EQUIPMENT HAS BEEN PLACED, THREAD THE 0.25-20 UNC X 12 THREAD ROD INTO THE TOP OF THE COUPLING NUT UNTIL IT BOTTOMS OUT. THE THREADED ROD MAY NOW BE USED TO HELP LOCATE THE KSCV EQUIPMENT BRACKET TO THE EQUIPMENT.
  - 15.) LOCATE AND ATTACH THE KSCV EQUIPMENT BRACKET TO THE SIDE OF THE EQUIPMENT IN A MANNER SIMILAR TO THE EXAMPLES SHOWN IN S-88.071-20E. **DO NOT BLOCK EQUIPMENT ACCESS AND MAINTENANCE DOORS WITH THE KSCV EQUIPMENT BRACKET.**
- CONTINUED ON S-88.071-20C SHT3.

## KSCV SEISMIC & WIND VERTICAL RESTRAINT

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**KSCV SEISMIC & WIND VERTICAL RESTRAINT INSTRUCTIONS CONT'D:**

- 16.) WITH THE 0.25-20 UNC X 12 THREADED ROD IN THE APPROPRIATE HOLE IN THE KSCV EQUIPMENT BRACKET INSTALL THE STANDARD 0.25 WASHER AND TWO (2) 0.25-20 UNC NUTS AS SHOWN IN S-88.071-20E. SLIGHT MISALIGNMENTS MAY BE ACCOMODATED BY BENDING THE TWO THREADED RODS UNTIL CONTACT IS MADE WITH THE HOLE IN THE TOP OF THE KSCV PIPE ASSEMBLY.
- 17.) SEAL ANY PENETRATIONS IN THE EQUIPMENT MADE DURING THE ATTACHMENT OF THE KSCV EQUIPMENT BRACKET WITH CAULKING COMPOUND, BY OTHERS.
- 18.) RE-SEAL THE JOINT BETWEEN THE THREADED ROD AND THE TOP OF THE KSCV PIPE ASSEMBLY WITH RTV CAULKING COMPOUND.
- 19.) IF NECESSARY, RE-SEAL THE JOINT BETWEEN THE KSCV PIPE ASSEMBLY AND THE BOOT OR FLASHING.

**KSCV SEISMIC & WIND VERTICAL RESTRAINT**

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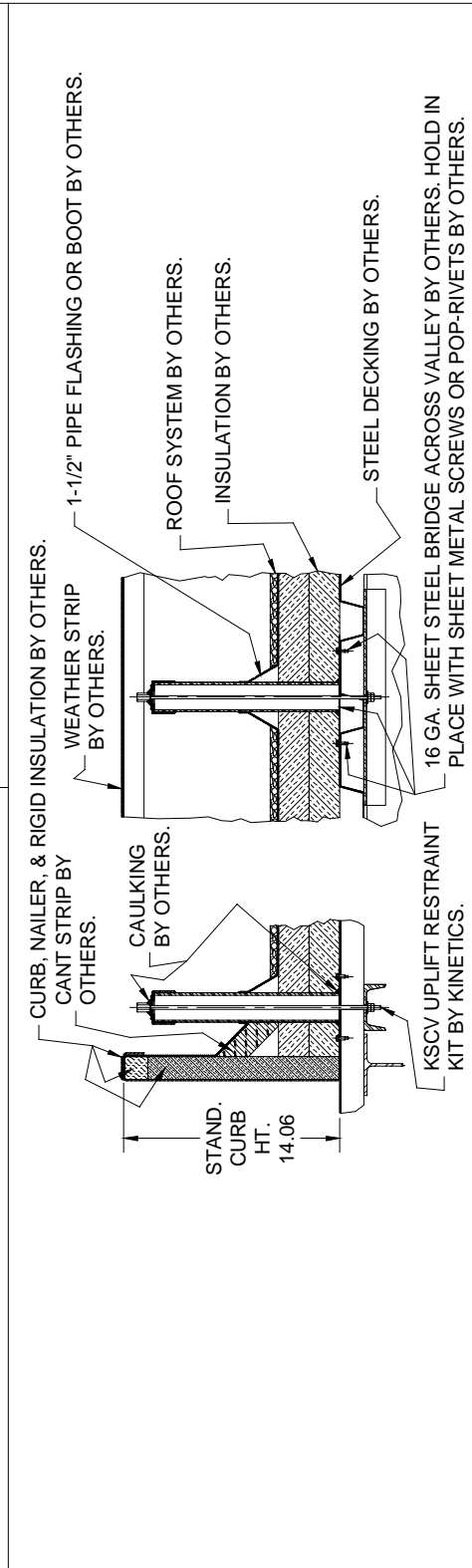
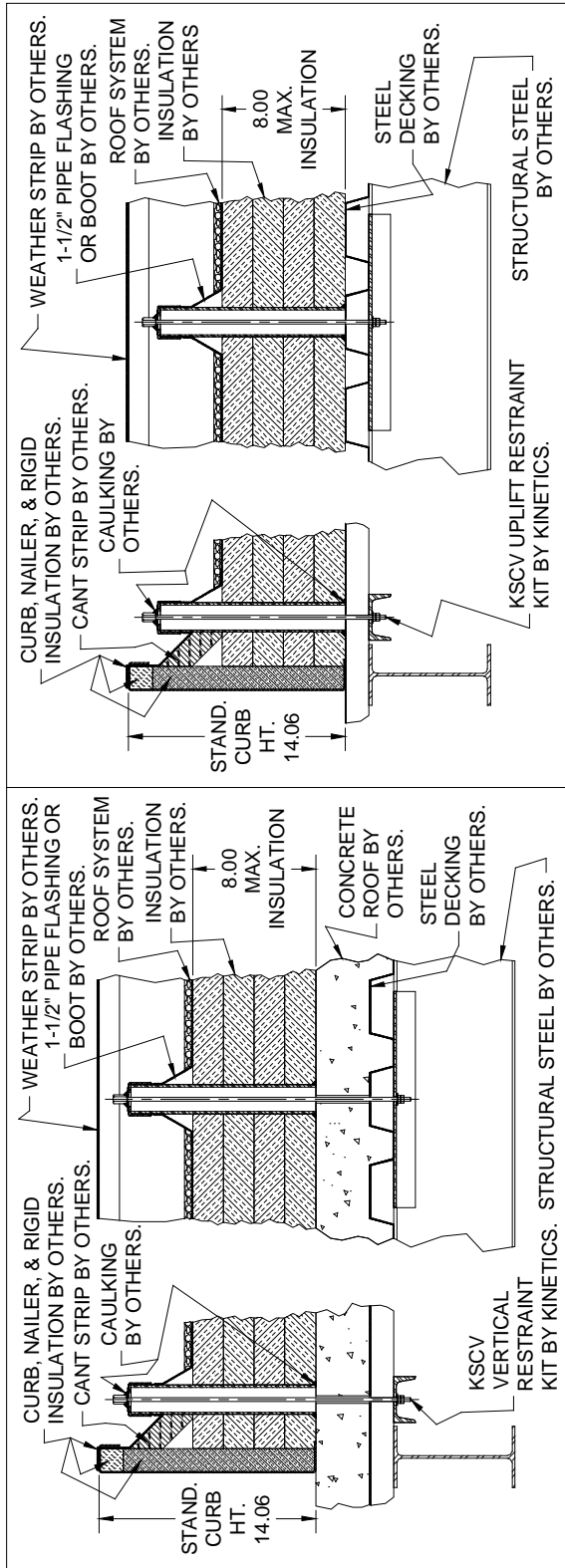
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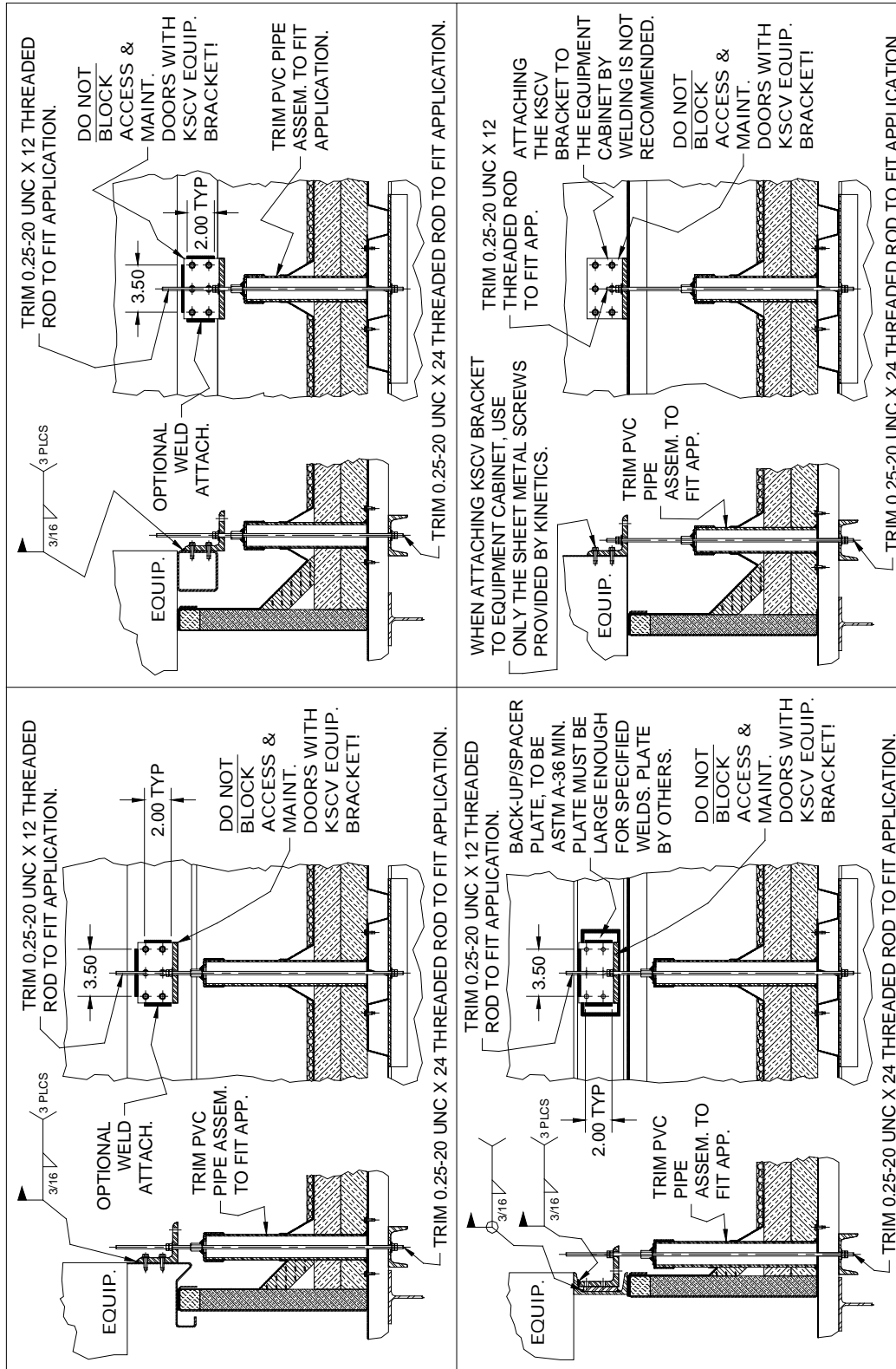
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WHEN ATTACHING KSCV BRACKET TO EQUIPMENT CABINET, USE ONLY THE SHEET METAL SCREWS PROVIDED BY KINETICS.

BACK-UP/SPACER PLATE, TO BE ASTM A-36 MIN. PLATE MUST BE LARGE ENOUGH FOR SPECIFIED WELDS. PLATE BY OTHERS.

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