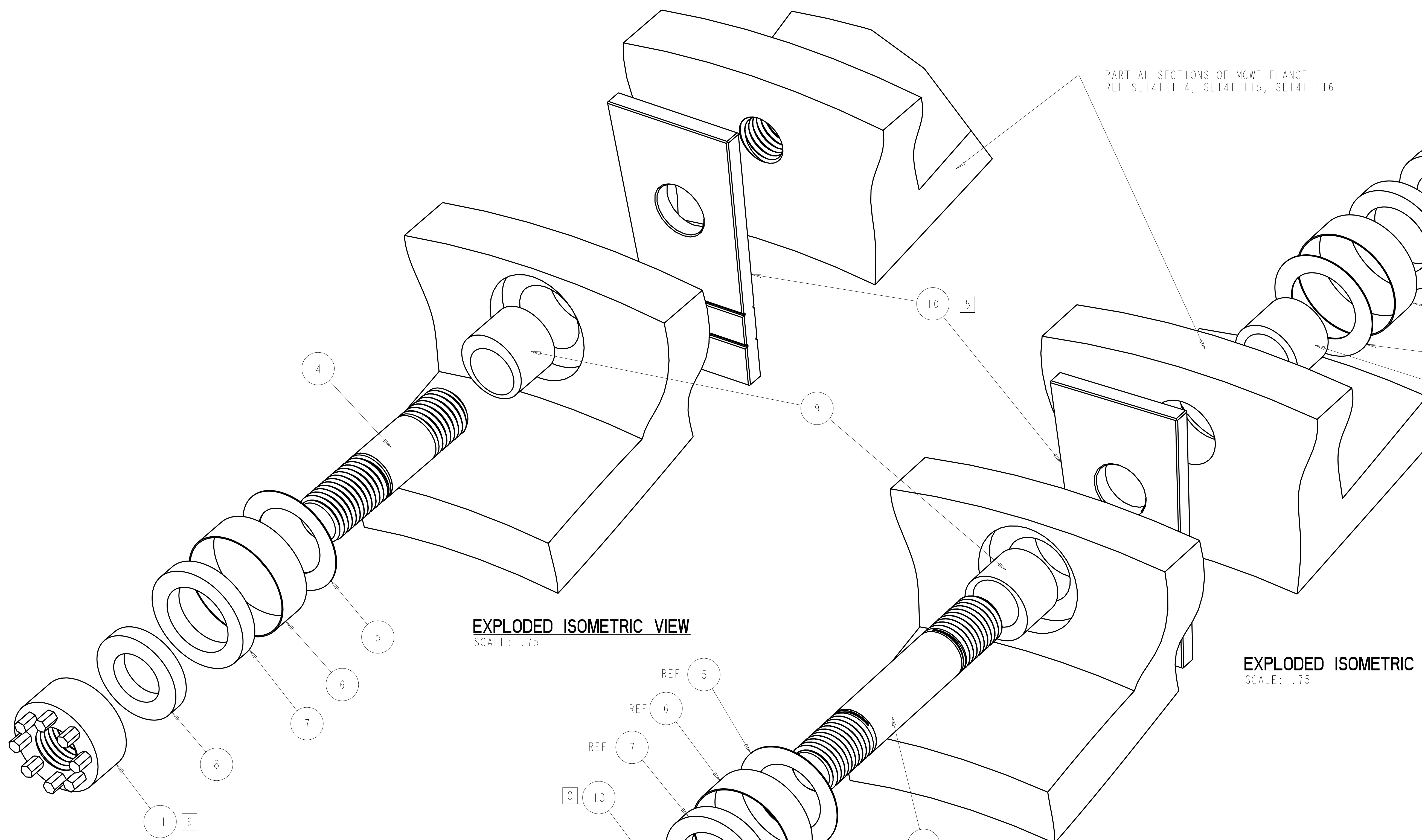
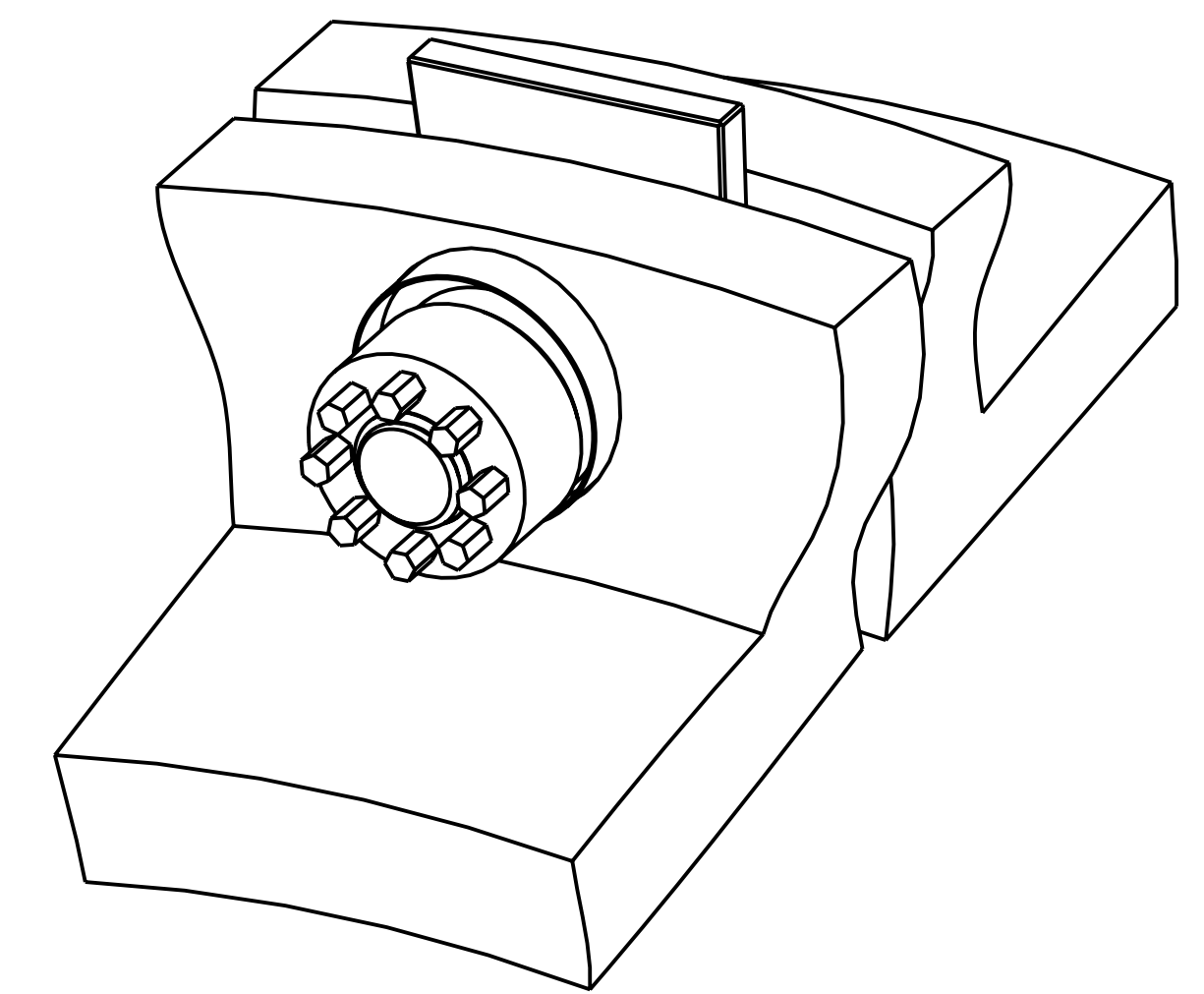


- NOTES
- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2004.
 - INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
 - DIMENSIONS ARE IN INCHES
 - MAGNETIC PERMEABILITY NOT TO EXCEED 1.02 AS TESTED BY A SEVERN INDICATOR. AVAILABLE FROM:
SEVERN ENGINEERING
AUBURN, ALABAMA 36830
WWW.SEVERNENGINEERING.COM
 - SHIM SIZES DEPENDENT ON LOCATION AT ASSEMBLIES SE140-003, SE100-002, AND SE100-001. CUT AT CUT LINES AS REQUIRED.
 - FASTENER PRELOAD REQUIREMENT IS 72000 ±1000 LB USING ULTRASONIC INSPECTION
 - OPTIONAL SUPERNUT ON BOTH SIDES OF THRU BOLT CONFIGURATION USE F/N 11 IN PLACE OF F/N 12, F/N 8 IN PLACE OF F/N 13 & 14.
 - LUBRICATE MATING SURFACE OF F/N 13 & 14 WITH F/N 15, MOLYKOTE Z MOLY POWDER.



EXPLODED ISOMETRIC VIEW
SCALE: .75

EXPLODED ISOMETRIC VIEW
SCALE: .75



TYPICAL FLANGE ISOMETRIC VIEW
SCALE: .50

-2 MCWF FLANGE TAPPED STUD KIT
SCALE NOTED

-1 MCWF FLANGE THRU STUD KIT
SCALE NOTED

PARTIAL EXPLODED ISOMETRIC VIEW
SCALE: .75

-1 MCWF FLANGE THRU STUD KIT (OPTIONAL) [7] [2]
SCALE NOTED

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
2	METHODS ON SHEET 2, ECN# 5244	GM	07/07	MC		07/07	DW		07/07			
2	GRINDING NOTE AND ADDITIONAL INSULATING											
2	ADDED OPTIONAL THRU BOLT CONFIGURATION											
2	ADHESIVE, F/N 16, AND INS SHEET, F/N 17											
2	SUPERNUT, F/N 11, WASHER, F/N 8, SLEEVE, F/N 6											
2	DELETED 12 PT NUT & SHIM BUSHING, ADDED											
1	REVISED MATL AND NOTES PER ECN-5232	DW	3/7/07	MC								
0	ORIGINAL ISSUE	GM	02/07									

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
2	METHODS ON SHEET 2, ECN# 5244	GM	07/07	MC		07/07	DW		07/07			

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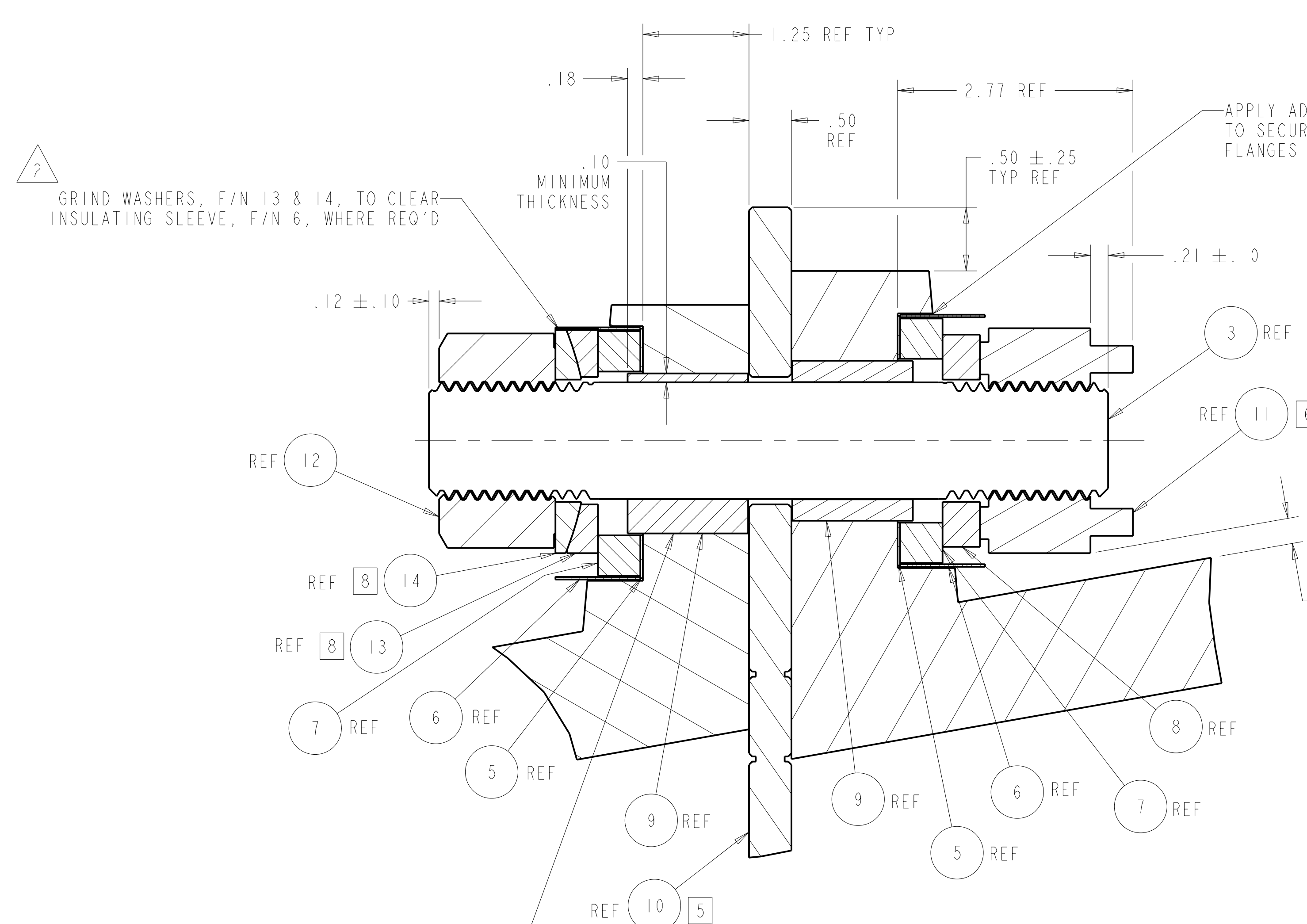
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REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE
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THRU BOLT SECTION
SCALE 1.00

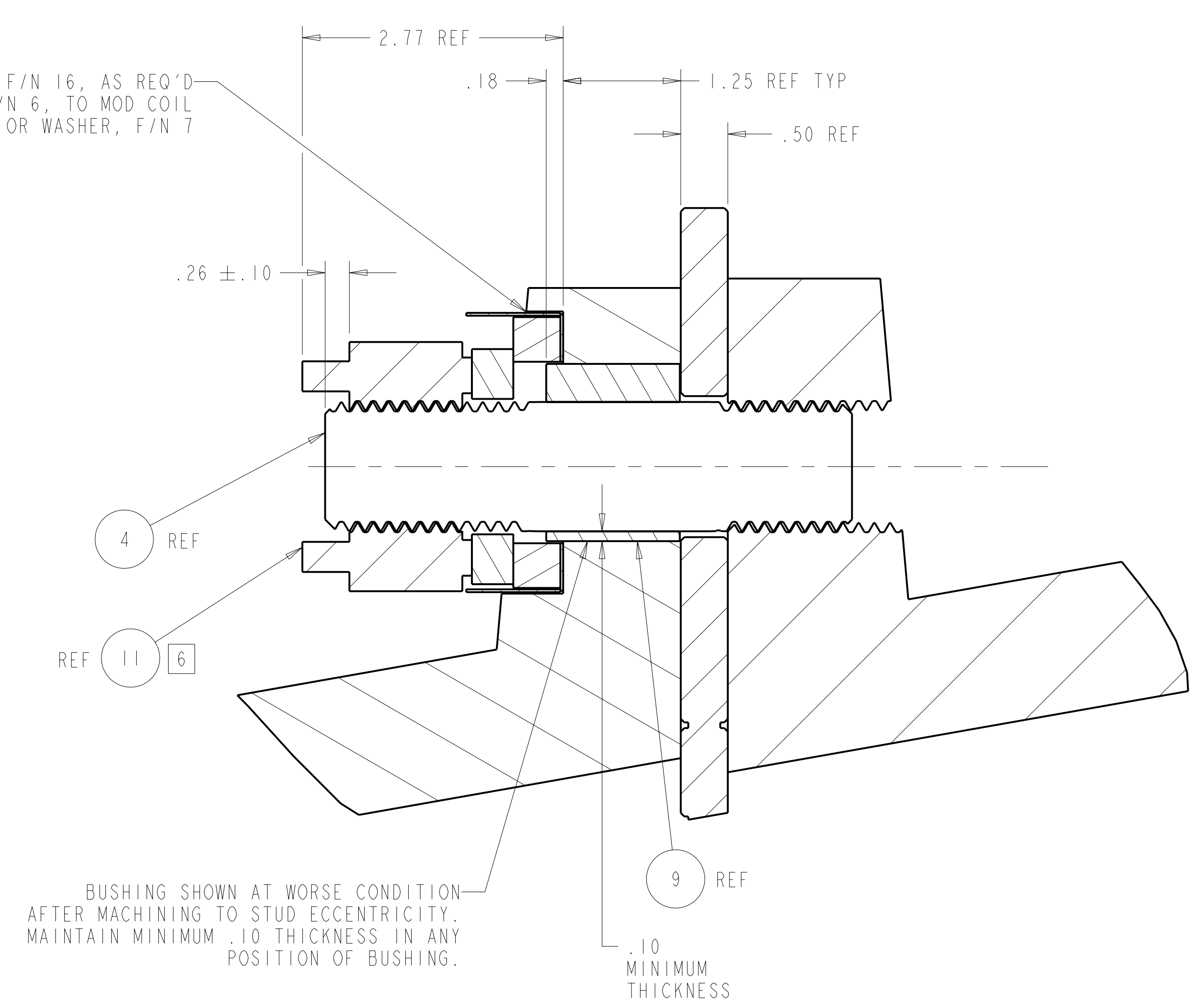
BUSHING SHOWN AT WORSE CONDITION AFTER MACHINING TO STUD ECCENTRICITY. MAINTAIN MINIMUM .10 THICKNESS IN ANY POSITION OF BUSHING.

APPLY ADHESIVE, F/N 16, AS REQ'D TO SECURE SLEEVE, F/N 6, TO MOD COIL FLANGES OR WASHER, F/N 7

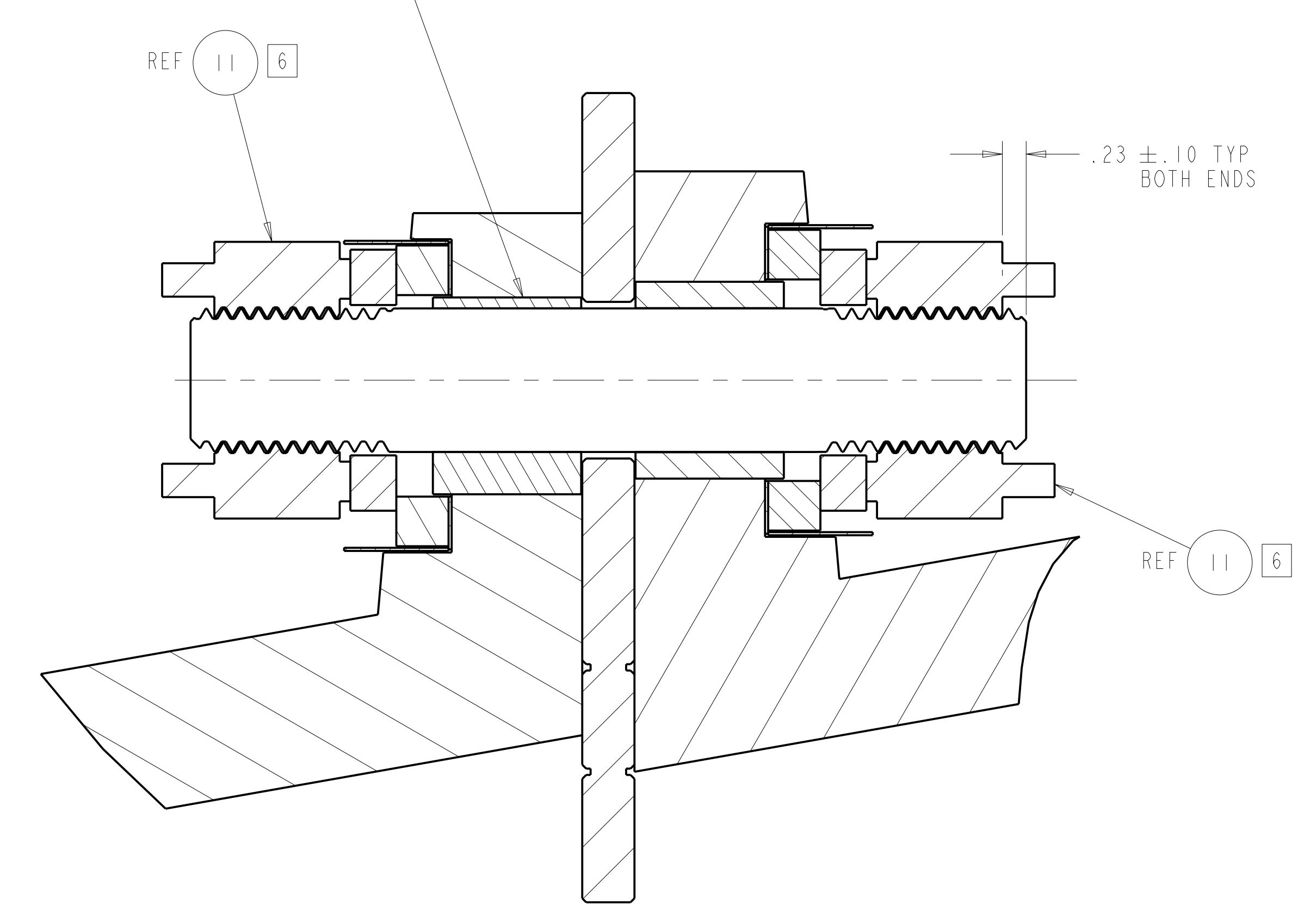
ALTERNATE METHOD TO USING INSULATING SLEEVE, F/N 6: WRAP AND OVERLAP HARDWARE INSIDE SPOTFACE OPENING WITH INSULATING SHEET, F/N 17, AND BOND WITH ADHESIVE, F/N 16

APPLY ADHESIVE, F/N 16, AS REQ'D TO SECURE SLEEVE, F/N 6, TO MOD COIL FLANGES OR WASHER, F/N 7

.06 MIN GAP BETWEEN ANY HARDWARE ITEM AND CASTING OTHERWISE APPLY INSULATING SHEET, F/N 17, USING ADHESIVE, F/N 16



TAPPED BOLT SECTION
SCALE 1.00



THRU BOLT SECTION (OPTIONAL) 7 2
SCALE 1.00

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee									
UT-BATTELLE									
PROJECT NAME NATIONAL COMPACT STELLARATOR EXPERIMENT									
ITEM NAME MCWF FLANGE STUD KITS									
VERSION NO. 17	PLANT ORNL	BLDG 5700	FL 3	SHT OF 2	TYPE 2	CLASS A	REV U		
RELEASE LEVEL Fabrication		SE140-190					REV 2		

06-10-13S