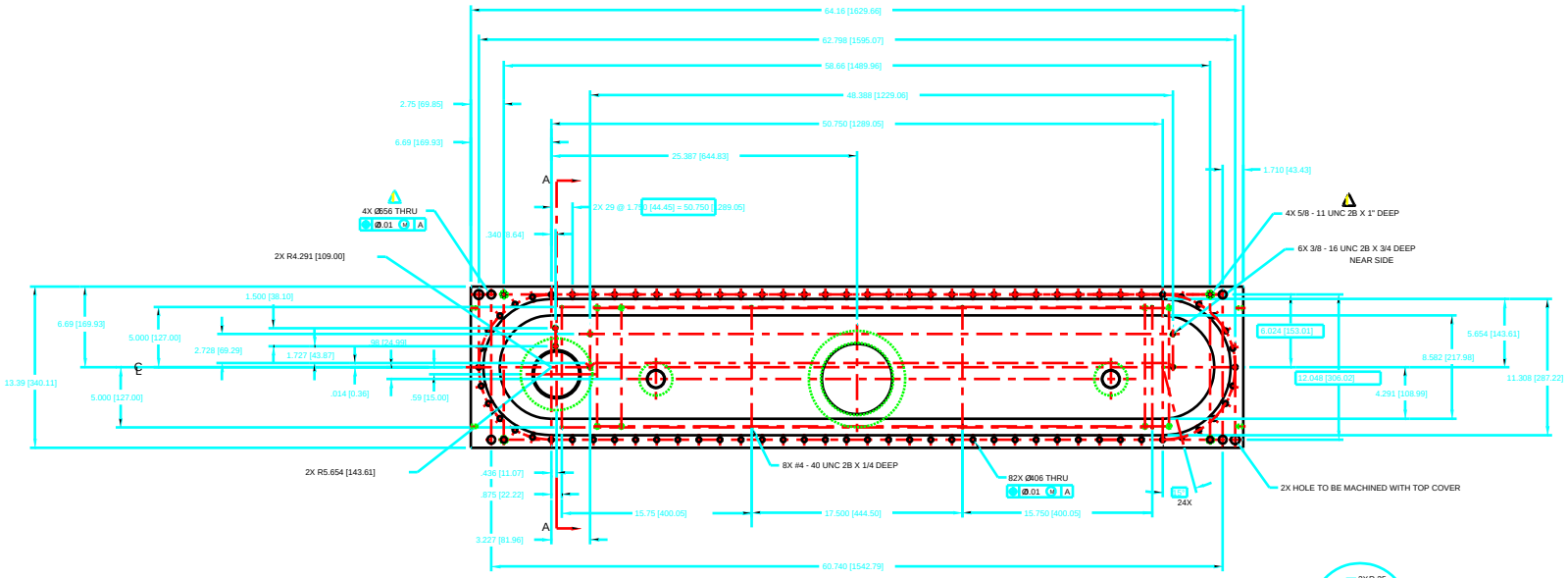

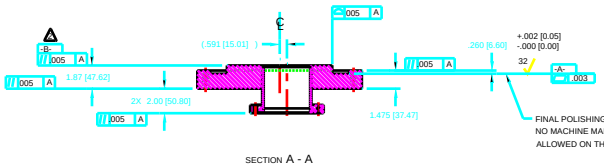

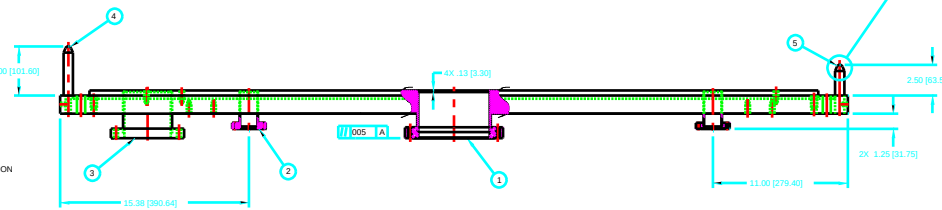

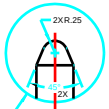

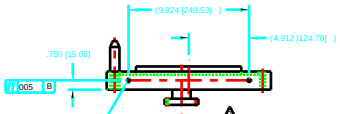

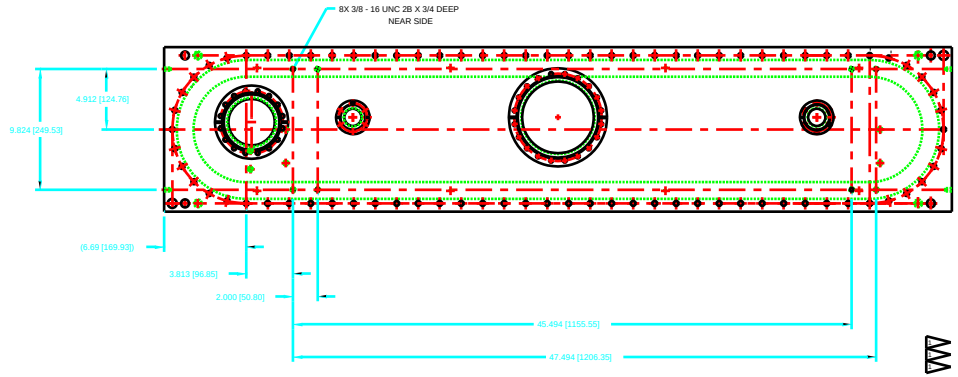

NOTES:

1. WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
   A) CIMCOOL 5 STAR 49
   B) TRIM SOL
2. ALL WELDING FOR VACUUM SEALS ARE TUNGSTEN INERT GAS (TIG) WELDS. VACUUM SIDE
3. THIS IS A UHV ASSEMBLY, ELECTROPOLISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOLISHING, THE ASSEMBLY MUST TO GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING AND DRY NITROGEN BLOW DOWN.
4. ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2 X 10 -10 STANDARD CC/SEC PER LEAK METER DIVISION, SUCH AS
   ALCATEL SAM-110TCL
   Du PONT CEC 24-120B
   VARIAN MS-9, MS-90 OR MS-18

   CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TRESTING.

   FINAL TEST WILL CONSIST OF SURROUNDING THE ASSEMBLY (BAGGING) WITH HELIUM. THE ASSEMBLY WILL BE REJECTED IF A 2% DEFLECTION ON THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.
5. KEEP THE ASSEMBLY CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.
6. DIMENSIONS IN [ ] ARE MILLIMETERS AND FOR REF. ONLY

REF. SOURCE

1. MDC VACUUM PRODUCTS CORP.
   23842 CABOT BLVD.
   HAYWARD, CA. 94545-1651
   1-800-443-8817
   FAX: 1-501-887-0626

5		Ø375 X 5" LG. DOWEL PIN		SST	1
4		Ø375 X 6" LG. DOWEL PIN		SST	1
3	110026	6" O.D. NONROTATABLE VACUUM FLANGE		SST	1
2	110014	2 3/4" O.D. NONROTATABLE VACUUM FLANGE		SST	2
1	110031	8" O.D. NONROTATABLE VACUUM FLANGE		SST	1
ITEM	DRAWING NUMBER	NATIONAL STOCK NO. OR DESCRIPTION		MATERIAL + SPEC	QTY

PARTS LIST

2	.4X Ø2502 [6.355] HOLES ADDED		
	GEOMETRIC TOLERANCING ADDED	M.J.M	
1	4X 5/8 - 11 UNC 2B X 1" DEEP		
	WAS		
	4X 1/2 - 13 UNC 2B X 1" DEEP		
	4X Ø.656 THRU HOLES ADDED	M.J.M	
REV	DESCRIPTION	BY	DATE

ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]
UNLESS OTHERWISE SPECIFIED
TOLERANCES: .X ±.06 [.0625] 1 PL
.XX ±.03 [.031]
.XXX ±.005 [.0127]
SURFACE ROUGHNESS: 125
DO NOT SCALE DRAWING
DIMENSIONS ARE FOR REFERENCE ONLY
DRAWING IS THE PROPERTY OF ARGONNE NATIONAL LABORATORY

DRAWING NO. A2185902

DRAWN BY MUSCIA	12/15/94	D. SHU	2/7/95
CHECKED BY W. YUN	2/8/95	T.M. KUZAY	2/7/95
ENGINEER SHU/MUSCIA	2/7/95	E. GLUSKIN	2/8/95
D. SHU	2/7/95		

ARGONNE NATIONAL LABORATORY
ADVANCED PHOTON SOURCE
Y2 LONG COOLED HORIZONTALLY DEFLECTING X-RAY MIRROR CHAMBER BASE (REF. S07997)

304 STAINLESS STEEL

SCALE 1/4 SHEET 1 OF 1 SIZE E

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