



NOTES:

- WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
 - CIMCOOL 5 STAR 49
 - TRIM SOL
- THIS IS A UHV ASSEMBLY, ELECTROPOLISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOLISHING, THE PART MUST GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING AND DRY NITROGEN BLOW DOWN.
- WELDMENT ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2X 10⁻¹⁰ STANDARD CC/SEC PER LEAK METER DIVISION, SUCH AS:
 - ALCATEL ASM-110TCL
 - VARIAN NCR 925 OR 936
 - VEECO MS-9, MS-90 OR MS-18
 - Du PONT CEC 24-120B
 CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.

REF SOURCE

MDC VACUUM PRODUCT CO.
 23842 CABOT BLVD.
 HAYWARD, CA. 94545-1651
 1-800-443-8817
 FAX: 1-510-887-0626

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

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
3	110031	8" O.D. NONROTATABLE VACUUM FLANGE	SST	1
2		6" O.D. X .083 WALL X 10.315 LG. TUBING	SST	1
1	100031	8" O.D. ROTATABLE VACUUM FLANGE	SST	1

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

DECIMALS ANGLES
 .X .03 (.7620) .25 °
 .XX .01 (0.25)
 .XXX .005 (0.127)

SURFACE ROUGHNESS 125 ✓
 REMOVE ALL BUMPS AND BREAK SHARP EDGES .03 MAX.
 SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1
 DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5

DO NOT SCALE DRAWING

LOG NUMBER: A2187300

THIS DRAWING IS THE PROPERTY OF ARGONNE NATIONAL LABORATORY

ADVANCED PHOTON SOURCE
 Y2 LONG COOLED HORIZONTALLY DEFLECTING X-RAY MIRROR NIPPLE WELDMENT

DRAWN BY: MUSCIA	DATE: 1/3/95	CHIEF DESIGN ENGINEER: D. SHU	DATE: 3/5/95
CHECKED BY: W. YUN	DATE: 3/3/95	GP LEADER: T.M. KUZAY	DATE: 3/6/95
DESIGNER: SHU/MUSCIA		PROJECT MGR:	
RESPONSIBLE ENGINEER: D. SHU	DATE: 3/5/95	APPROVE/RELEASED:	

MATERIAL: SEE PARTS LIST

SCALE: HALF SIZE SHEET 1 of 1 C

DRAWING NUMBER: P4105091202-300500-00

SYM	CHANGE DESCRIPTION	BY	CHKD	DATE