



NOTES:

- 1. THIS IS USED FOR AN ULTRA - HIGH VACUUM CHAMBER (UHV).
- 2. THIS IS A UHV PART, ELECTROPOLISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOLISHING, THE PART NEEDS TO GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING AND DRY NITROGEN BLOW DOWN.
- 3. KEEP THE PART CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.
- 4. DEVICE SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2×10^{-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.
 FINAL TEST WILL CONSIST OF SURROUNDING THE CHAMBER (BAGGING) WITH HELIUM. THE CHAMBER WILL BE REJECTED IF A 2% DEFL. IN THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.

5. ALL DIMENSIONS WITH [] ARE MILLIMETERS

1	HOLE & REV. NO'S REMOVED;	J.G.		
1	E-BEAM WAS TIG;	J.G.		
SYM	CHANGE DESCRIPTION	BY	CHKD	DATE
REVISIONS				

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
4	P4105090904- 220104	CONDUCTION PLATE & ROD	OFHC COPPER	1
3	P4102020103- 210008	20 INTERFACE SST TUBE	SST 304	1
2	P4102020103- 210008	20 4- 1/2" ROTATABLE FLANGE (MDC)	SST 304	1
1	P4105090904- 230101	CONDUCTION ROD	OFHC COPPER	1

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES

TOLERANCES:
 DECIMALS: .03
 XX - .01
 XXX - .005

ANGULAR:
 - .25

SURFACE ROUGHNESS: 125

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

DO NOT SCALE DRAWING

LOG NUMBER: A1441201

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DRAWN BY: J.GOGOL	DATE: 10/8/93	CHIEF DESIGN ENGINEER: D.SHU	DATE: 3/29/94
CHECKED BY: J.CHANG	DATE: 3/29/94	SP LEADER: T.M.KUZAY	DATE: 4/1/94
DESIGNER: J.GOGOL	DATE: 10/8/93	PROJECT MGR:	
RESPONSIBLE ENGINEER: J.CHANG	DATE: 3/29/94	APPROVED/RELEASED:	

TITLE: ADVANCED PHOTON SOURCE P4 ID W/M'S INTEGRAL SHUTTER SECOND MONO SHUTTER COOLING WELDMENT ASSEMBLY

MATERIAL: SEE PARTS LIST

SCALE: 1:1 SIZE: C SHEET: 1 of 1 DRAWING NUMBER: P4105090904-230100-01