



**NOTES:**

1. THIS IS A ULTRA- HIGH VACUUM COMPONENT (UHV)
2. 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
3. FINISHING: WHEN MACHINING VACUUM PARTS USE OF ABRASIVE PAPER OR SANDING DISCS, BUFFING OR POLISHING COMPOUNDS, OR RESIN-BONDED GRINDING WHEELS IS PROHIBITED
4. CLEANING: THE COMPONENT MUST BE CLEANED SUCH THAT A UHV PRESSURE OF  $1 \times 10^{-9}$  TORR CAN BE ACHIEVED
5. HANDLING: THE COMPONENTS SHALL BE HANDLED WITH WHITE SILK GLOVES AND WRAPPED WITH ALUMINUM FOIL TYPE DRY ANNEAL AND UNDER CLEAN ROOM CONDITIONS
6. DIMENSIONS IN [ ] ARE MILLIMETERS AND FOR REF. ONLY

1	1.030 [26.16] WAS .905 [22.99]	M.J.M.J.C.	1/6/99
SYM	CHANGE DESCRIPTION	BY	CHKD DATE
REVISIONS			

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
<b>PARTS LIST</b>				
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES		LOG NUMBER <b>M1410003-01</b>	THIS DRAWING IS THE PROPERTY OF <b>ARGONNE NATIONAL LABORATORY</b>	
TOLERANCES DECIMALS . . . . . ANGULAR . . . . . .X - .1 [2.5] - 0°30' .XX - .01 [0.25] .XXX - .005 [0.13]		DRAWN BY <b>MUSCIA</b> CHECKED BY <b>J. CHANG</b> DESIGNER <b>SHU/MUSCIA</b> RESPONSIBLE ENGINEER <b>D. SHU</b>	DATE <b>2/11/98</b> DATE <b>3/19/98</b> DATE <b>2/11/98</b> DATE <b>3/20/98</b>	CHIEF DESIGN ENGINEER <b>D. SHU</b> GP LEADER <b>T.M. KUZAY</b> PROJECT MGR.  APPROVED/RELEASED DATE DATE DATE
SURFACE ROUGHNESS 125 ✓		TITLE <b>ADVANCED PHOTON SOURCE</b> <b>M1-40 APS 4-ID FRONT END</b> <b>1 ST FIXED MASK</b> <b>RECTANGULAR EXTENSION TUBE</b>		
REMOVE ALL BURRS AND BREAK SHARP EDGES .03 MAX.		SCALE 1:1		
SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1		SIZE <b>B</b>		
DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LATEST ANSI Y14.5		DRAWING NUMBER <b>M1-410003-01</b>		
DO NOT SCALE DRAWING		SHEET 14		
		MATERIAL <b>304 STAINLESS STEEL</b>		