



- 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. ALL SURFACES MUST BE MACHINED FOR CLEAN UP.
  4. TUNGSTEN ALLOY OF 95% TUNGSTEN OR MORE WITH REMAINDER NICKEL AND IRON.  
TO COMPLY WITH MIL. SPEC. T-21014D, CLASS 4
  5. FINISHING: WHEN MACHINING VACUUM PARTS, USE OF ABRASIVE PAPER OR SANDING DISCS, BUFFING OR POLISHING COMPOUNDS, OR RESIN-BONDED GRINDING WHEELS IS PROHIBITED.
  6. CLEANING: THE COMPONENT MUST BE CLEANED SUCH THAT A UHV PRESSURE OF  $1 \times 10^{-10}$  TORR CAN BE ACHIEVED.
  7. HANDLING: CLEAN COMPONENTS SHALL BE HANDLED WITH WHITE SILK GLOVES AND WRAPPED WITH ALUMINUM-FOIL-TYPE DRY ANNEAL A UNDER CLEAN ROOM CONDITIONS.
  8. BREAK ALL SHARP CORNERS .02.
  9. ALL DIMENSIONS IN [ ] ARE MILLIMETERS AND ARE FOR REFERENCE ONLY.

ITEM	DWG. & ELECTRONIC FILE No.	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
PARTS LIST				
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES				
TOLERANCES				
DECIMALS	ANGLES			
X - .015	- .25			
XXX - .005				
SURFACE ROUGHNESS				
REMOVE ALL BURRS AND BREAK SHARP EDGES TO 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				
ELECTRONIC FILE NUMBER: <b>A18162</b>				
ARGONNE NATIONAL LABORATORY				
THIS DRAWING IS THE PROPERTY OF ARGONNE NATIONAL LABORATORY				
DRAWN BY	DATE	CHIEF DESIGN ENGINEER	DATE	TITLE
RICK KRAKORA	4/93	D. SHU	8/9/93	ADVANCED PHOTON SOURCE
DRAWN BY	DATE	PROJECT LEADER	DATE	
T. SANCHEZ	7/26/93	T. KUZAY	8/9/93	S2 B.M. SAFETY SHUTTER
DESIGNER	DATE	PROJECT MGR	DATE	
RICK KRAKORA	4/93			TUNGSTEN BLOCK
RESPONSIBLE ENGINEER	DATE	APPROVED/RELEASED	DATE	BASE END
T. SANCHEZ	7/26/93			
MATERIAL: SEE NOTE 4				
SCALE: 1=1			SIZE: D	DRAWING NUMBER: P4102020105-230002-01
SHEET: 1 of 1				

PLOT SCALE: 1=1