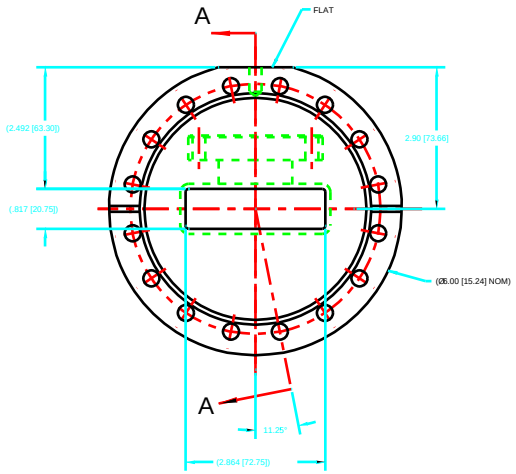
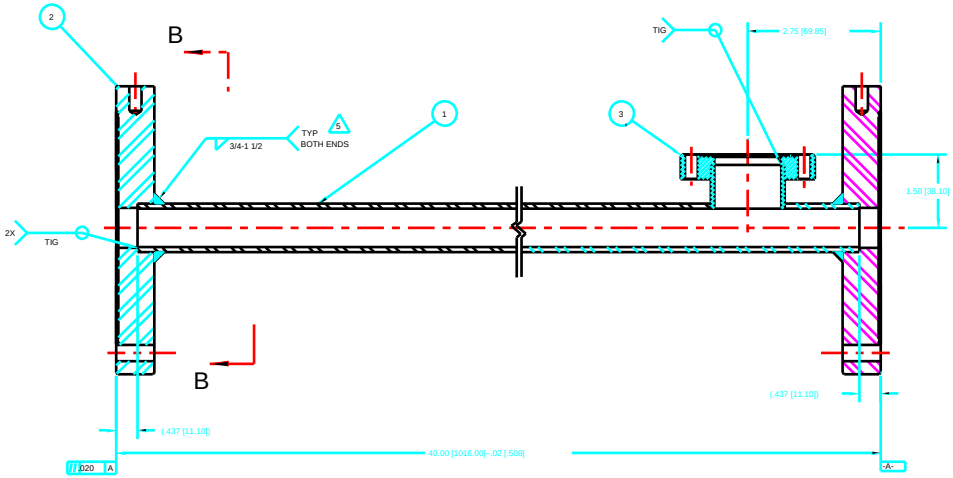
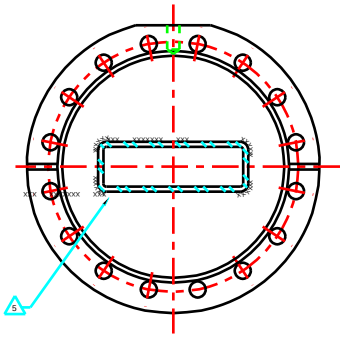




SECTION A-A



SECTION B-B

NOTES:

1. 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.

2. CHAMBER 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 CHAMBER (BAGGING) WITH HELIUM. THE CHAMBER WILL BE REJECTED IF A 2% DEFLECTION ON THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.

3. KEEP THE PART CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.

4. DIMENSIONS IN [ ] ARE MILLIMETERS

5. STRUCTURAL WELD

ITEM	LOG NUMBER	ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
2	A18054	2	P4102010102-220302-02	END FLANGE		2
1	A18055	1	P4102010102-220301-01	RECTANGULAR CHAMBER		1
3			Ø2 3/4 NON-ROTATABLE FLANGE		MDC #110014	1

LOG NUMBER LIST

PARTS LIST

REV	CHANGE DESCRIPTION	BY	CHKD	DATE
02	REVISED WELD & UPDATED B.O.M.	DPK		
01	UPDATED	R.K.	T.S.	8/23/93

REVISIONS

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

TOLERANCES

DECIMALS: .X ± .01 [.TBD]; .XX ± .01 [.25]; .XXX ± .005 [.127]

ANGULAR: ± .25°

SURFACE ROUGHNESS: 125

REMOVE ALL BURRS AND BREAK SHARP EDGES .015 MAX.

SURFACE TEXTURE TO BE IN ACCORDANCE WITH LA-TEST #005 B&B 3

DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LA-TEST #005 Y14.5

DO NOT SCALE DRAWING

LOG NUMBER: A18056

THIS DRAWING IS THE PROPERTY OF: ARGONNE NATIONAL LABORATORY

DRAWN BY: E.G.	DATE: 7/93	CHIEF DESIGN ENGINEER: D. SHU	DATE: 7/7/93
CHECKED BY: T. SANCHEZ	DATE: 7/7/93	DIV LEADER: T. KUZAY	DATE: 7/8/93
DESIGNER: SANCHEZ/E.G.	DATE: 7/93	PROJECT MGR	
RESPONSIBLE ENGINEER: T. SANCHEZ	DATE: 7/7/93	APPROVED/RELEASED	

MATERIAL: SEE PARTS LIST

TITLE: ADVANCED PHOTON SOURCE
K1 ID RATCHET WALL
COLLIMATOR CHAMBER
WELDMENT ASSEMBLY

SCALE: 1:1 SHEET 1 of 1

SIZE: E

DRAWING NUMBER: P4102010102-220300-02