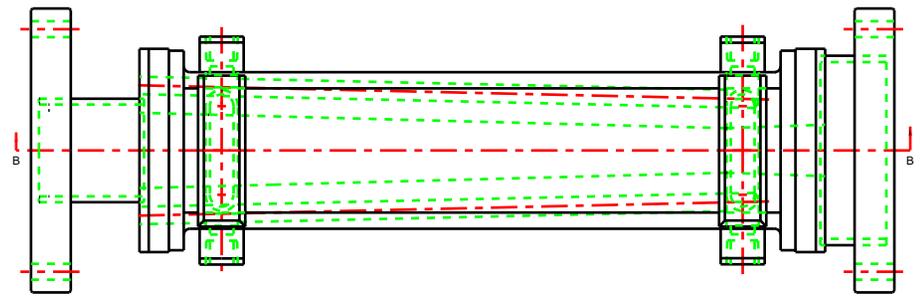
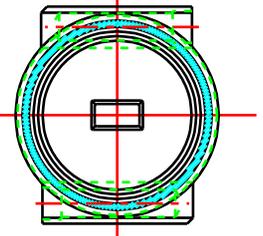
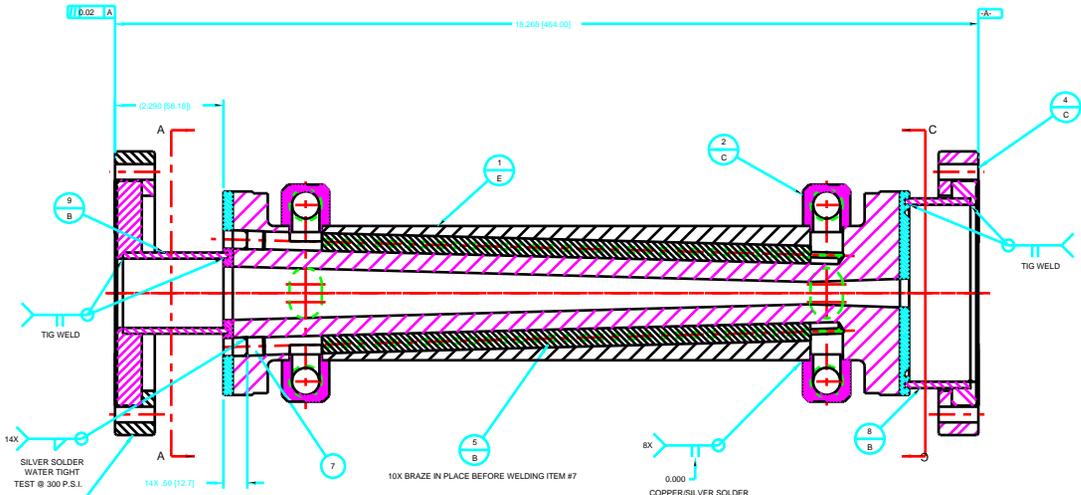
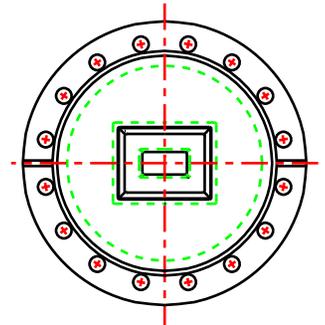


SECTION A - A



SECTION B - B



SECTION B - B

NOTES:

1. THIS IS AN ULTRA-HIGH WELDMENT ASSEMBLY (UHW). ELECTROPOLISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOLISHING, THE ASSEMBLY MUST GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING, AND DRY NITROGEN BLOW DOWN.
2. 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-8, MS-90 OR MS-18
DU PONT SEC 24-120B
CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.
3. 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.
4. ASSEMBLY SHALL ALSO BE WATER TESTED FOR LEAKS @ 300 P.S.I.
5. KEEP THE PART CLEAN, AND WRAP FOR UHW PACKING WITH ALUMINUM FOIL.
6. DIMENSIONS IN [] ARE MILLIMETERS

REV	DESCRIPTION OR DISPOSITION	DATE	BY	CHKD
0	M1 RECTANGULAR EXTENSION TUBE			
1	M1 4" O.D. EXTENSION TUBE			
2	M1 WATER INLET PLUG			
3	M1 LEFT END VACUUM FLANGE			
4	M1 COPPER MESH			
5	M1 RIGHT END VACUUM FLANGE			
6	M1 LEFT & RIGHT PIPE CONNECTION			
7	M1 UPPER & LOWER PIPE CONNECTION			
8	M1 MAIN BODY			

DESIGNED BY: M.J.M. CHECKED BY: M.J.M. DATE: 9/15/04 SURFACE FINISHES:	DRAWN BY: D. SHU DATE: 9/15/04 SURFACE FINISHES:	APPROVED BY: T.M. KUZAY DATE: 9/15/04 SURFACE FINISHES:	PROJECT: ADVANCED PHOTON SOURCE PART: M1 APS I.D. FRONT END MAIN BODY WELDMENT ASSEMBLY
---	--	---	---

1	DRAWING BROUGHT UP TO DATE	M.J.M.		
---	----------------------------	--------	--	--