



NOTES:

- THIS IS A UHV ASSEMBLY. KEEP THE UHV PARTS CLEAN DURING ASSEMBLY AND WRAP UP FOR PACKING WITH ALUMINUM FOIL.
- THE ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2 x 10<sup>-10</sup> 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  
DuPONT 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% DEFLECTION IN THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.
- BEFORE ASSEMBLY OF SWAGELOK MALE CONNECTORS, USE SILVER THREAD LUBRICANT TO ALLOW CONNECTION TO BE DISASSEMBLED WITHOUT SPECIAL TOOLS.
- WATER PRESSURE TEST AT 300 PSI AFTER ASSEMBLING.

INSTRUCTIONS FOR INSTALLATION OF TUBING

- THE NUT OF SWAGELOK TUBE FITTING SHALL BE TIGHTENED 1-1/4 TURN FOR FULL PULL UP. THE SWAGELOK GAP INSPECTION GAGE SHALL BE USED TO CHECK FOR SUFFICIENT PULL-UP.

SOURCE

- 1 (SWAGELOK) DEARBORN VALVE & FITTING CO. 1540 N. OLD RAND ROAD P.O. BOX 847 WAUCONDA, IL. 60084-0847 (708)-526-6900
- 2 MDC VACUUM PRODUCTS CORP. 23872 CABOT BLVD. HAYWARD, CA. 94545-1651
- 3 ISI INSULATOR SEAL INC. 23874-B CABOT BLVD. HAYWARD, CA. 94545-1661 (510)-887-8664 (510)-887-7475
- 4 U-C COMPONENTS INC. 2330 OLD MIDDLEFIELD WAY, SUITE 16 MOUNTAIN VIEW CA. 94043 (415)-964-3827

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
11	P4105091407-500001-00	INTERFACE PLATE	SILVER	1
10	P4105091407-210005-01	COOLING TUBE	SST	1
9	#190030	SKT HD BOLT SET (FOR THRU HOLES)	SST-SILVER PLATED	1PKG
8	#191000	Ø.33 NOM. GASKET	OFHC COPPER	1PKG
7	#630000	BNC CONNECTOR		2
6	#9924003	POWER PUSH-ON	BeCu	1
5		CONNECTOR, MALE TUBE FITTING	SS-600-1-4	4
4		LOCK WASHER #8 HI-COLLAR HELICAL SPRING	SST	2
3	#C-6816-A	SOCKET HEAD CAP SCREW - VENTED #8-32 UNC-3A x 1.00 LG.	18-8 SST SILVER PLATED	2
2	P4105091407-520000-00	MONITOR HOUSING SUB-ASSEMBLY		1
1	P4105091407-510000-00	CHAMBER WELDMENT		1

  

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES		LOG NUMBER		THIS DRAWING IS THE PROPERTY OF	
DECIMALS	ANGULAR	A25726B0	ARGONNE NATIONAL LABORATORY		
1/16 - .03	± .0001	DRAWN BY	DATE	DATE	TITLE
1/32 - .01	± .0002	CO/UC/ERA	11/18/97	11/18/97	ADVANCED PHOTON SOURCE
1/64 - .005	± .0005	DESIGNED BY	DATE	DATE	
SURFACE FINISH	125	J. CHANG	2/18/97	2/20/97	B7 - 50 ID MASK
REMOVE ALL BERRS AND BREAK SHARP EDGES (R MAX)		DESIGNER	PROJECT LEAD		WITH BM BPM
SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1		CHANG/CO/UC/ERA	J. CHANG		ASSEMBLY
DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LATEST ANSI Y14.5		RESPONSIBLE ENGINEER	APPROVED/RELEASED		
		J. CHANG	2/18/97		
		MATERIAL			

  

BYM	CHANGE DESCRIPTION	BY	CHKD	DATE

  

SCALE	SHEET	DWG. NUMBER
1:1	2-2	P4105091407-500000-00

SHOWN WITHOUT FLANGE

DO NOT SCALE DRAWING