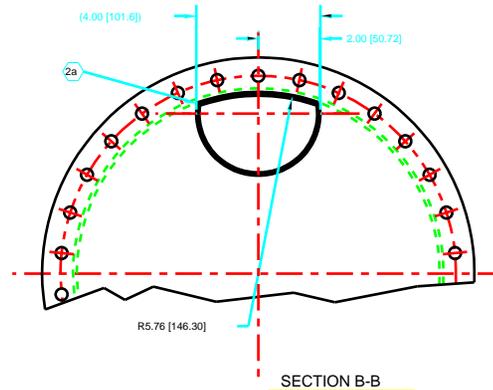


SECTION A-A



SECTION B-B

- NOTES:
1. 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
 2. ALL WELDING FOR VACUUM SEALS ARE TUNGSTEN INERT GAS (TIG) WELDS, VACUUM SIDE. STRESS RELIEF AFTER WELDING.
2a EXTERNAL FULL PENETRATION WELD ACCEPTABLE.
 3. THIS IS A UHV ASSEMBLY, 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.
 4. ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2×10^{-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 TESTING. Δ
FINAL TEST WILL CONSIST OF SURROUNDING THE ASSEMBLY (BAGGING) WITH HELIUM. THE ASSEMBLY WILL BE REJECTED IF A 2% DEFLECTION ON THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.
 5. KEEP THE ASSEMBLY CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.
 6. DIMENSIONS IN [] ARE MILLIMETERS AND FOR REF. ONLY

MDC VACUUM PRODUCTS CORP.
23842 CABOT BLVD.
HAYWARD, CA. 94545-1651
1-800-443-8817
FAX: 1-501-687-0626

REV	DESCRIPTION	DATE	BY	CHKD	DATE	BY	CHKD	MATERIAL	QTY	
5								11.75" O.D. X .50 PLATE	SST	1
4								4.00 O.D. X .125 WALL X 2.66 LG	SST	1
3	#110026							6" O.D. NONROTATABLE VACUUM FLANGE	SST	1
2								12" O.D. X .25 WALL TUBING	SST	1
1	#110038							14" O.D. ROTATABLE VACUUM FLANGE	SST	1

PARTS LIST		MATERIAL		QTY	
5	11.75" O.D. X .50 PLATE	SST		1	
4	4.00 O.D. X .125 WALL X 2.66 LG	SST		1	
3	#110026	6" O.D. NONROTATABLE VACUUM FLANGE	SST	1	
2		12" O.D. X .25 WALL TUBING	SST	1	
1	#110038	14" O.D. ROTATABLE VACUUM FLANGE	SST	1	

APPROVED FOR FABRICATION		DATE		BY		CHKD		DATE		BY		CHKD	
A2419100		3/11/96		D.SHU		5/96		5/96		D.SHU		5/96	
FUHRMANN		3/11/96		D.SHU		5/96		5/96		D.SHU		5/96	
BENSON/STURM		4/20/96		T.M.KUZAY		5/96		5/96		D.MILLS		5/96	
D.SHU/FUHRMANN		9/96		D.MILLS		5/96		5/96		D.MILLS		5/96	
D.SHU		5/96											

SCALE	HALF	DATE	REV	DESCRIPTION
SCALE	HALF	DATE	REV	DESCRIPTION
SCALE	HALF	DATE	REV	DESCRIPTION

ARGONNE NATIONAL LABORATORY		ADVANCED PHOTON SOURCE	
Y7-30 MONOCHROMATIC BEAM MIRROR ASSEMBLY FOR 3-ID BEAMLINE LEFT END CHAMBER		P4105091207-300003-00	