



- NOTES:
- 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
 - ALL WELDING FOR VACUUM SEALS ARE TUNGSTEN INERT GAS (TIG) WELDS. VACUUM SIDE STRESS RELIEF AFTER WELDING.
 - 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.
 - 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 TESTING.
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.
 - KEEP THE ASSEMBLY CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.
 - DIMENSIONS IN [] ARE MILLIMETERS AND FOR REF. ONLY

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

2 TUBESALES
235 TUBEWAY
CAROL STREAM, IL 60188
708-696-0110
FAX: 708-665-8490

REV	DESCRIPTION	DATE	BY	CHKD	DATE	MATERIAL	QTY	
5	#480010					4" O.D. TUBING X .083 WALL	SST	1
4	#110026					6" O.D. NONROTATABLE VACUUM FLANGE	SST	1
3	#100038					14" O.D. ROTATABLE VACUUM FLANGE	SST	1
2						12" O.D. X .25 WALL TUBING	SST	1
1	#110038					14" O.D. NONROTATABLE VACUUM FLANGE	SST	1

ARGONNE NATIONAL LABORATORY

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5/10/96 D.SHU 7/96

FUHRMANN

C.BENSON

FUHRMANN

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STAINLESS STEEL 304 OR 304L

SCALE 1:2

DATE 1-1

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