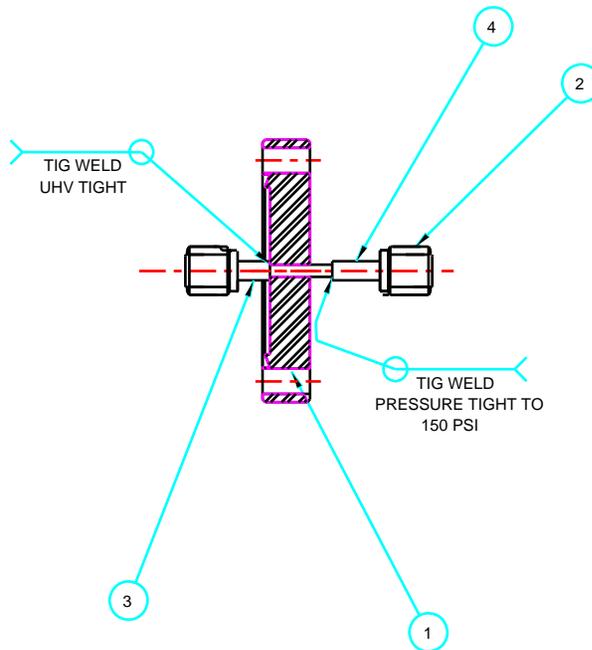


NOTES:

- WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
  - CIMCOOL 5 STAR 49
  - 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  $2 \times 10^{-10}$  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: 1-501-887-0626

2 DEARBORN VALVE & FITTING CO.  
(SWAGELOK, CAJON DISTRIBUTOR)  
1540 N. OLD RAND RD. P.O. BOX 847  
WAUCONDA, IL 60084  
708-526-6900  
FAX: 708-526-1221

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
4	SS-2-VCR-3	1/8 SOCKET WELD (CAJON VCR)	SST	1
3	316L-2-VCR-3-2TB7	1/8 LONG TUBE BUTT WELD (CAJON VCR)	SST	1
2	SS-2-VCR-1	FEMALE NUT (CAJON VCR)	SST	2
1	#110008	2.75 O.D. NONROTATABLE VACUUM FLANGE	SST	1

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES		LOG NUMBER <b>A2419200</b>		THIS DRAWING IS THE PROPERTY OF <b>ARGONNE NATIONAL LABORATORY</b>	
TOLERANCES		DRAWN BY <b>FUHRMANN</b>		DATE <b>4/15/96</b>	
DECIMALS		CHIEF DESIGN ENGINEER <b>D. SHU</b>		DATE <b>5/96</b>	
ANGULAR		GP LEADER <b>T. M. KUZAY</b>		DATE <b>5/96</b>	
SURFACE ROUGHNESS		DESIGNER <b>D. SHU/FUHRMANN</b>		DATE <b>5/96</b>	
REMOVE ALL BURRS AND BREAK SHARP EDGES .03 MAX. SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1		PROJECT MGR. <b>D. MILLS</b>		DATE <b>5/96</b>	
DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LATEST ANSI Y14.5		RESPONSIBLE ENGINEER <b>D. SHU</b>		DATE <b>5/96</b>	
MATERIAL <b>STAINLESS STEEL</b>		APPROVED/RELEASED		SCALE <b>1:1</b>	
SYMBOLS		DRAWING NUMBER <b>P4105091207-300004-00</b>		SIZE <b>C</b>	
DO NOT SCALE DRAWING		SHEET <b>1 of 1</b>		DRAWING NUMBER <b>P4105091207-300004-00</b>	

SYMBOL	CHANGE DESCRIPTION	BY	CHKD	DATE
REVISIONS				