



- NOTES:
- THIS IS A UHV PART. A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING AND DRY NITROGEN BLOW DOWN IS NEEDED BEFORE WELDING. ELECTROPOLISHING IS NEEDED FOR TUBING & END PLATE AFTER CLEANING BEFORE WELDING.
 - KEEP THE PART CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.
 - DEVICE 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-9, MS-90 OR MS-18
 - Du PONT 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.
- FLANGE HOLES HAVE TO LINE UP WITHIN -5°
 - THE BELLOW & FLANGES ASSEMBLY SHALL BE LEAK TESTED FOR 14.7 PSI EXTERNAL PRESSURE APPLICATION. IT SHALL BE DESIGNED FOR 500,000 CYCLES LIFETIME.
 - ALL DIMENSIONS WITH \varnothing ARE MILLIMETERS
 - THE OPERATING STROKE IS 1.299 IN. (33mm)

REFERENCE SOURCE:

- STANDARD BELLOWS CO. 375 TURNPIKE AVE. WINDSOR LOCKS CONN. 06096 PHONE: (203) 623-2307
- MDC MANUFACTURING INC. 23842 CABOT BLVD. HAYWARD, CA 94545 PHONE: 1-800-443-8817

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
5		#11 GA. (.120) THK END PLATE	304 SST	1
4		5.0 O.D. x .12 THK WALL TUBING	304 SST	1
3	325-225-5-AA	35 mm STROKE BELLOW	AM 350	1
2	P/N 130018	4-1/2 O.D. NOM. NONROT. FLANGE (MDC)	304 SST	1
1	P/N 110030	8" O.D. NOM. NONROTAT. FLANGE (MDC)	304 SST	1

PARTS LIST		LOG NUMBER		THIS DRAWING IS THE PROPERTY OF	
A1443401		A1443401		ARGONNE NATIONAL LABORATORY	
DESIGNED BY	J.GOGOL	DATE	10/21/93	DATE	3/29/94
CHECKED BY	J.CHANG	DATE	3/29/94	DATE	4/1/94
DESIGNER	J.GOGOL	DATE	10/21/93	DATE	
RESPONSIBLE ENGINEER	J.CHANG	DATE	3/29/94	DATE	
APPROVED/RELEASED		DATE		DATE	

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES. TOLERANCES: DECIMALS ANGULAR. SURFACE ROUGHNESS: 125. REMOVE ALL BURRS AND BREAK SHARP EDGES (R&M). SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1. DIMENSIONS & TOLERANCES IN ACCORDANCE WITH LATEST ANSI Y14.5.

REV	DESCRIPTION	BY	CHKD	DATE
1	DIM. ADDED, ITEM 4 UPDATED.	J.G.		