



- NOTES:
- THIS IS USED FOR AN ULTRA - HIGH VACUUM CHAMBER (UHV).
  - THIS IS A UHV PART. ELECTROPOLISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOLISHING, THE PART NEEDS TO GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING AND DRY NITROGEN BLOW DOWN.
  - 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<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  
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.
5. ALL DIMENSIONS WITH ARE MILLIMETERS

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
8	P4102020103-210008	P3-20 COPPER MESH	COPPER, 75% Ø	1
7	P4105090906-250107	P6 INNER TUBE	OFHC COPPER	1
6	P4102020103-210006	P3-20 PORT SUPPORT	OFHC COPPER	1
5	P4102020103-210005	P3-20 ENTRANCE PORT	OFHC COPPER	1
4	P4102020103-210004	P3-20 EXIT PORT	OFHC COPPER	1
3	P4102020103-210003	P3-20 4-1/2" ROTATABLE FLANGE (MDC)	S.S. 304	1
2	P4102020103-210002	P3-20 INTERFACE SST TUBE	S.S. 304	1
1	P4105090909-220101	P9-20 COOLING BLOCK & TUBE	OFHC COPPER	1

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

LOG NUMBER: **A2072200**

ARGONNE NATIONAL LABORATORY

ADVANCED PHOTON SOURCE  
P9-20 INTEGRAL SHUTTER (B)  
COOLING ASSEMBLY

DESIGNED BY <b>J. GOGOL</b>	DATE <b>9/20/94</b>	CHECKED BY <b>J. CHANG</b>	DATE <b>3/24/95</b>
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SCALE: 1:1  
SHEET: 1.3

REV	CHANGE DESCRIPTION	BY	CHKD	DATE