

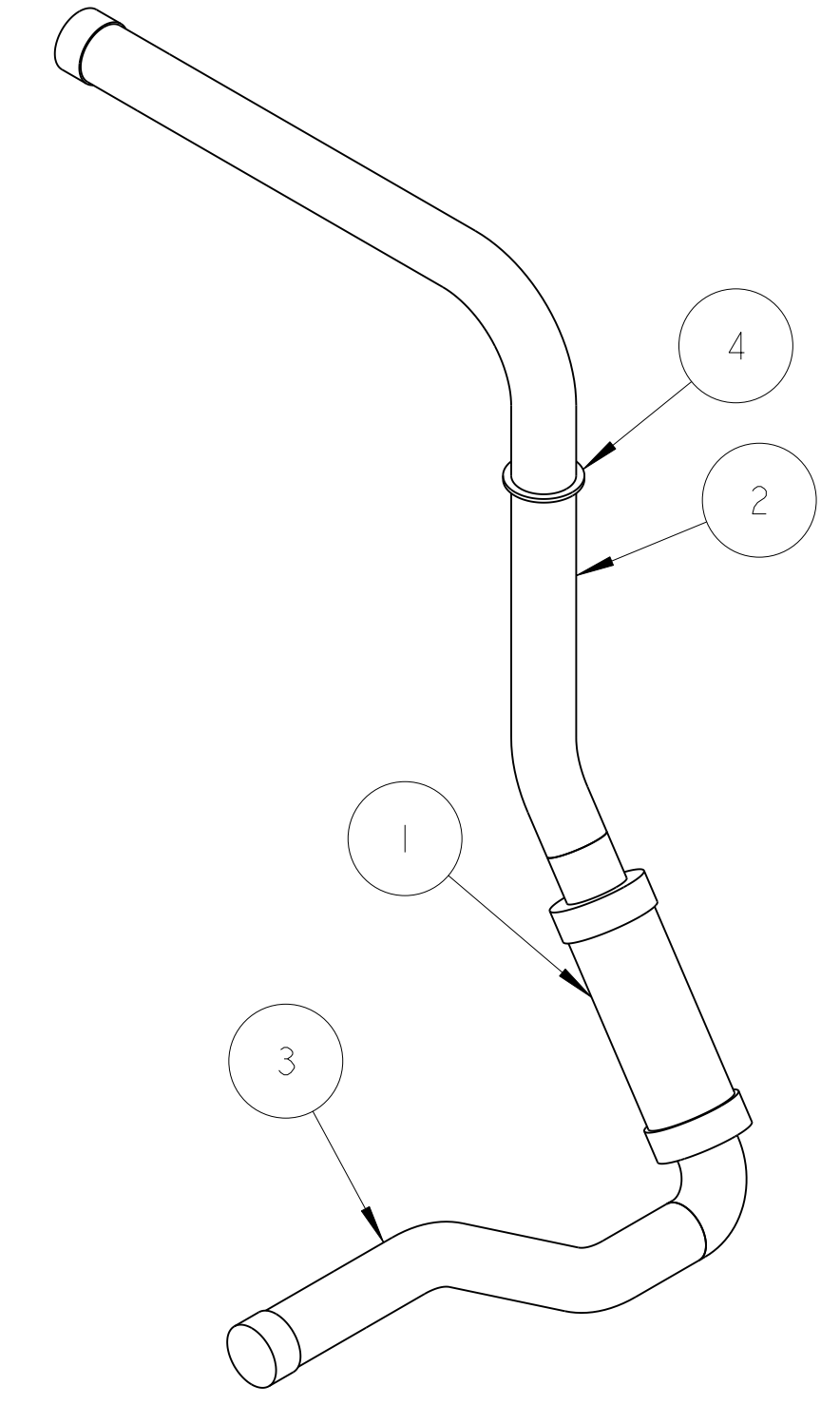
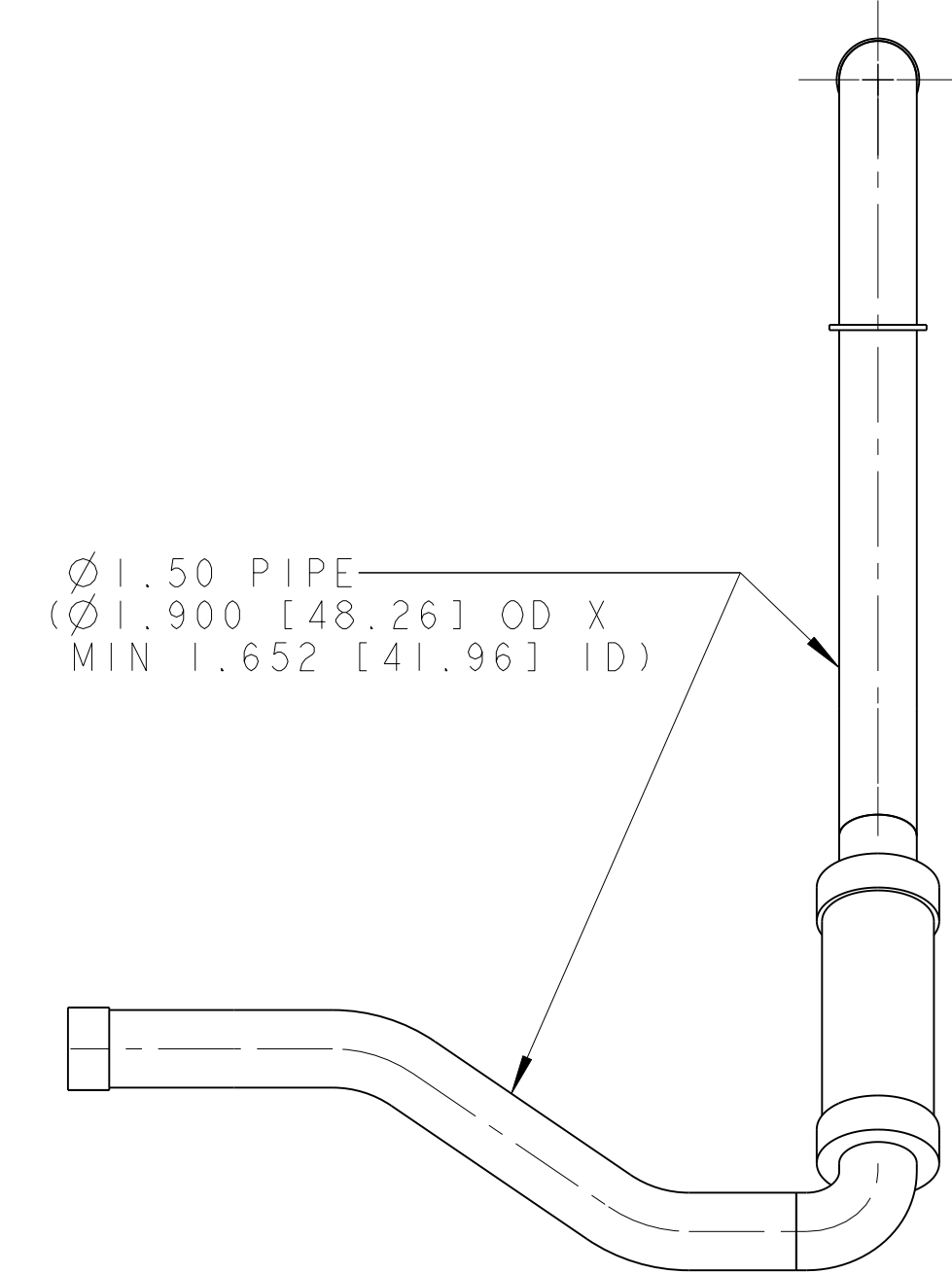
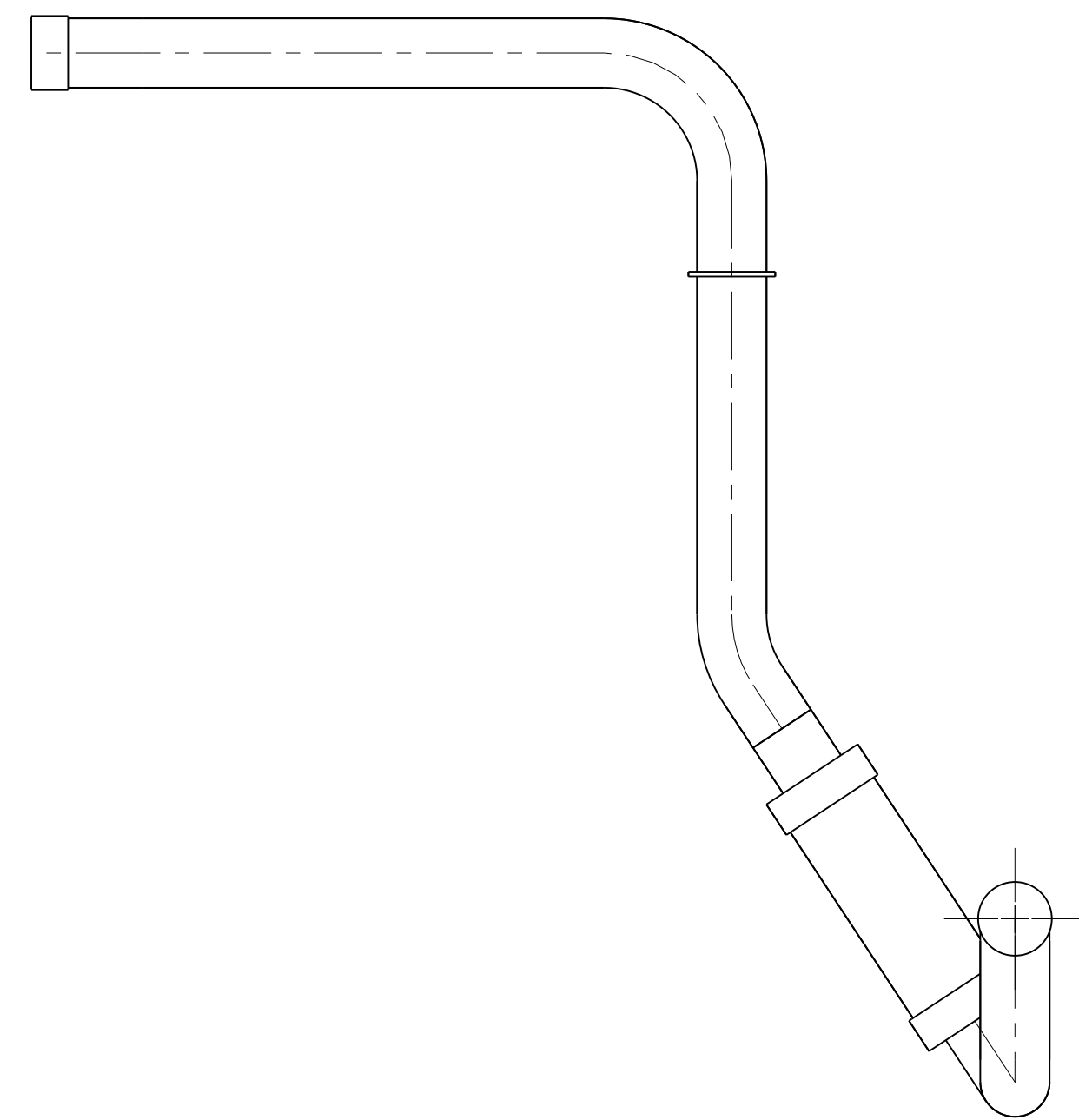
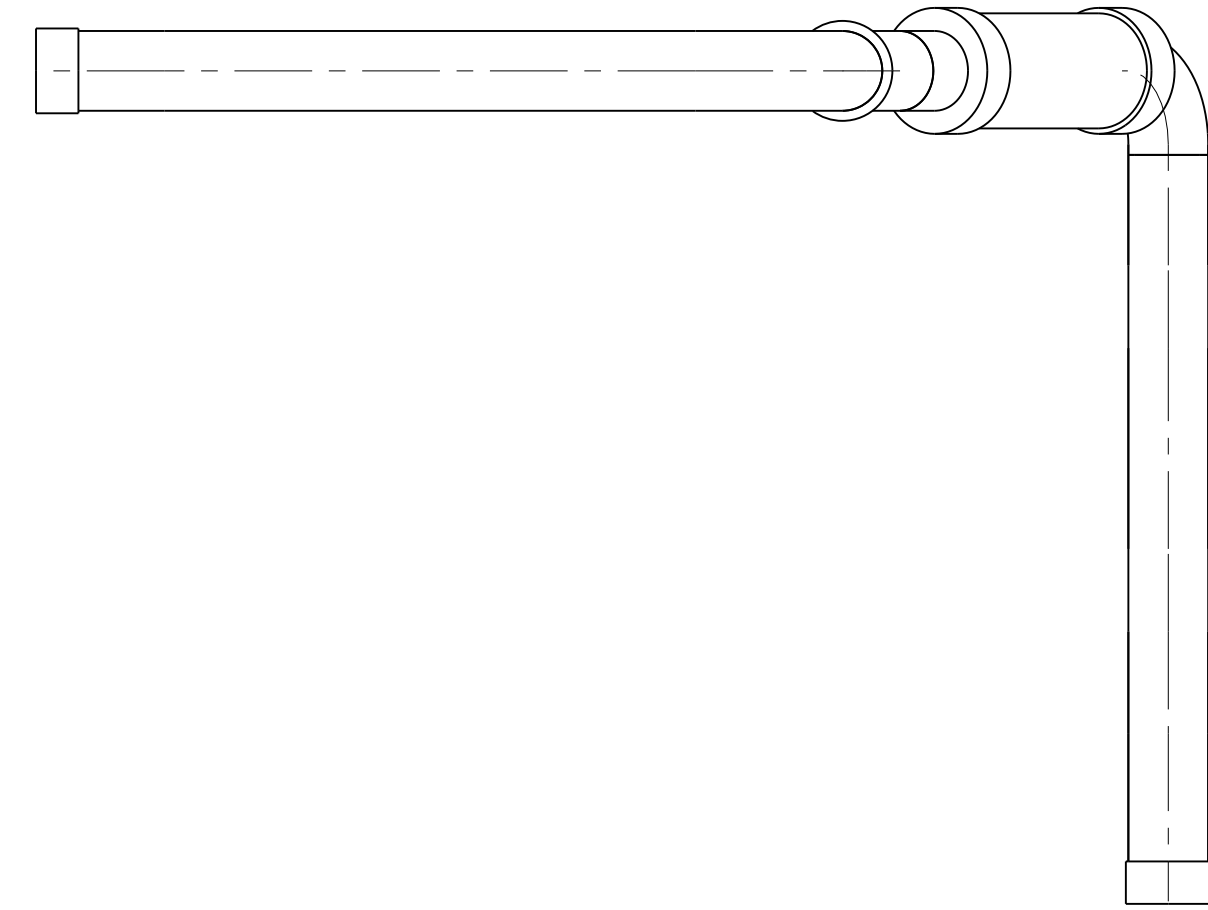
NAME: ARHARRIS OBJECT: 251570\_1 DATE: 25-Nov-02 14:26:52

DWG. NO. 2515704 SIZE REV. SH. A 1

ITEM	PART NO	RECD	DESCRIPTION	MATERIAL
4	-	1	SUPPORT FLANGE	SS 304L
3	-	1	PIPE, PER ASTM A312	SS 304L
2	-	1	PIPE, PER ASTM A312	SS 304L
1	-	1	BRAIDED FLEX HOSE, 2" ID X 6.1 LL	SS 300 SERIES

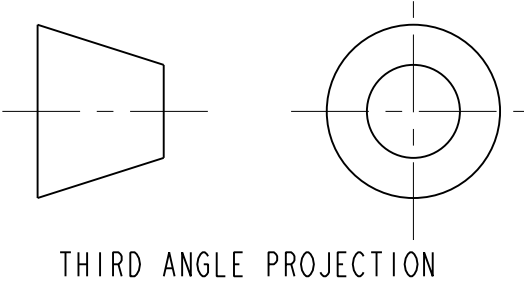
NOTES: (UNLESS OTHERWISE SPECIFIED)

- THIS IS A CRYOGENIC VACUUM COMPONENT.
- WELDING PROCEDURE: PER VENDOR SPECIFICATION WITH LBNL APPROVAL.
- CLEANING PROCEDURE: PER VENDOR SPECIFICATION WITH LBNL APPROVAL.
- PACKAGING AND STORAGE PROCEDURE OF THE COMPONENTS: PER VENDOR SPECIFICATION WITH LBNL APPROVAL.
- DIMENSIONS AND TOLERANCING PER ANSI Y14.5M-1982. UNITS ARE IN INCHES [mm] UNLESS OTHERWISE SPECIFIED.
- USE OF SULFUR OR SILICONE BEARING OILS, LUBRICANTS, OR COOLANTS ARE STRICTLY PROHIBITED.
- USE OF RESIN OR RUBBER BONDED ABRASIVES UNDER POWER IS STRICTLY PROHIBITED. USE VITREOUS BONDED ABRASIVES ONLY.
- VENDOR SUGGESTED CHANGES TO WELD PREPS; SUBJECT TO LBNL APPROVAL.
- FITTINGS MAY BE USED IN PLACE OF BENDS; SUBJECT TO LBNL APPROVAL.
- VENDOR SUGGESTED CHANGES TO TOLERANCES TO FACILITATE FABRICATION OR ASSEMBLY; SUBJECT TO LBNL APPROVAL.
- REMOVE ALL THE BURRS AND REAM THE ENDS FOR CIRCULARITY AND CLEAN ENDS.
- TUBE END SURFACE MUST BE PERPENDICULAR TO THE TUBE AXIS WITHIN +/- .010.
- PERFORM ACCEPTANCE TESTS PER SECTION 3.2 OF LBNL SPECIFICATION M856.
- A MARK DESIGNATING THE INSTALLED LENGTH WILL BE UTILIZED DURING FINAL INSTALLATION OF THE FEEDBOX ASSEMBLY. MARK, SCRIBE OR ETCH THIS LOCATION IN A PERMANENT MANNER, SUBJECT TO LBNL APPROVAL, TO AN ACCURACY OF ±0.063".
- PROVIDE A MINIMUM LENGTH OF 4.0" OF STRAIGHT, SMOOTH PIPE ON THE INDICATED SIDE OF THE INSTALLED LENGTH MARK FOR PIPE WELDING DURING FINAL INSTALLATION OF THE FEEDBOX ASSEMBLY.
- PIPE MUST BE STRAIGHT AND SMOOTH (NO BUMPS) FOR 0.5" ON EITHER SIDE OF THE CENTER-PLANE OF THE SUPPORT.
- CAP BOTH ENDS OF PIPE AFTER ACCEPTANCE TESTS PER SECTION 3.2 OF LBNL SPECIFICATION M856.

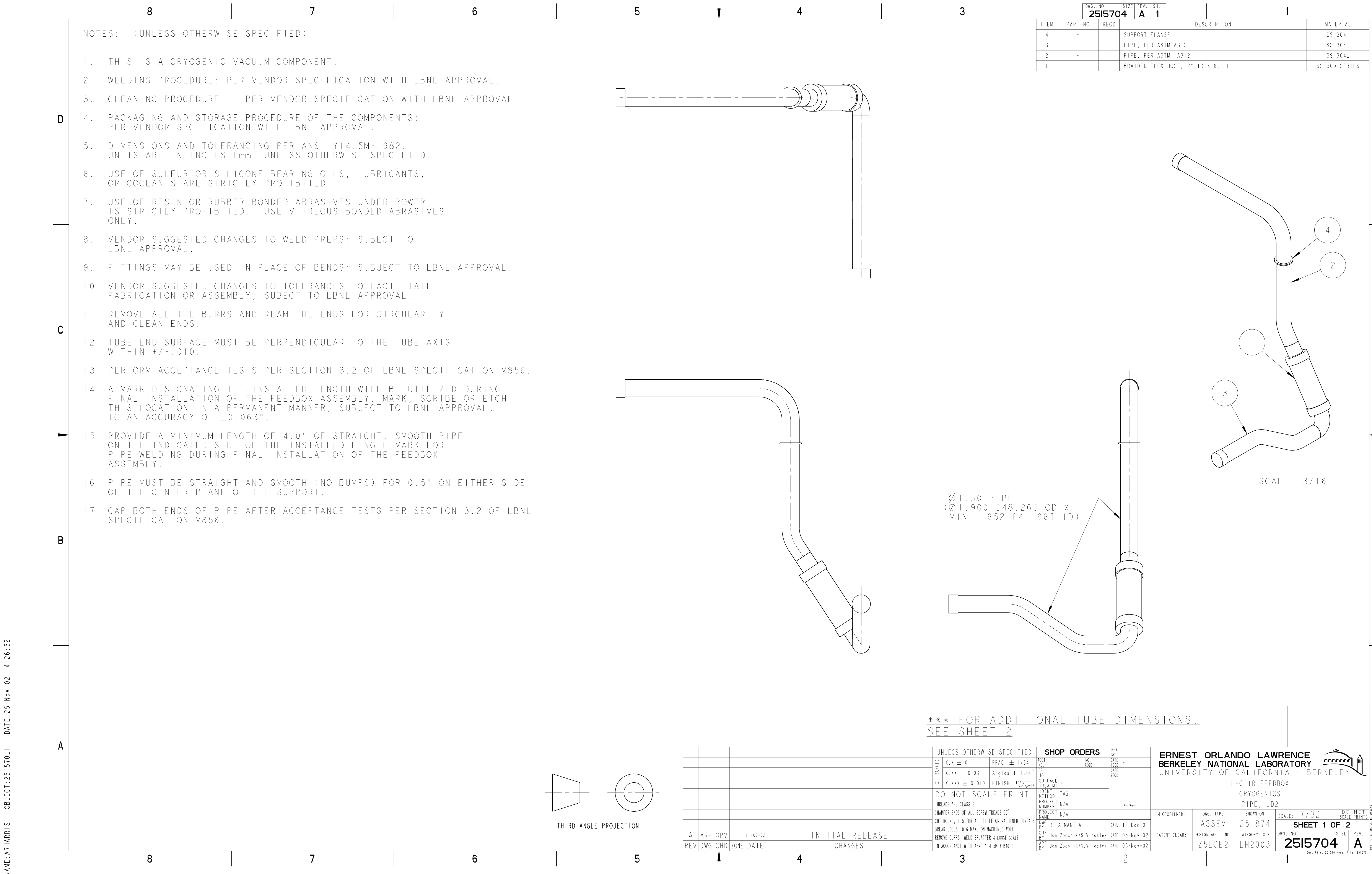


SCALE 3/16

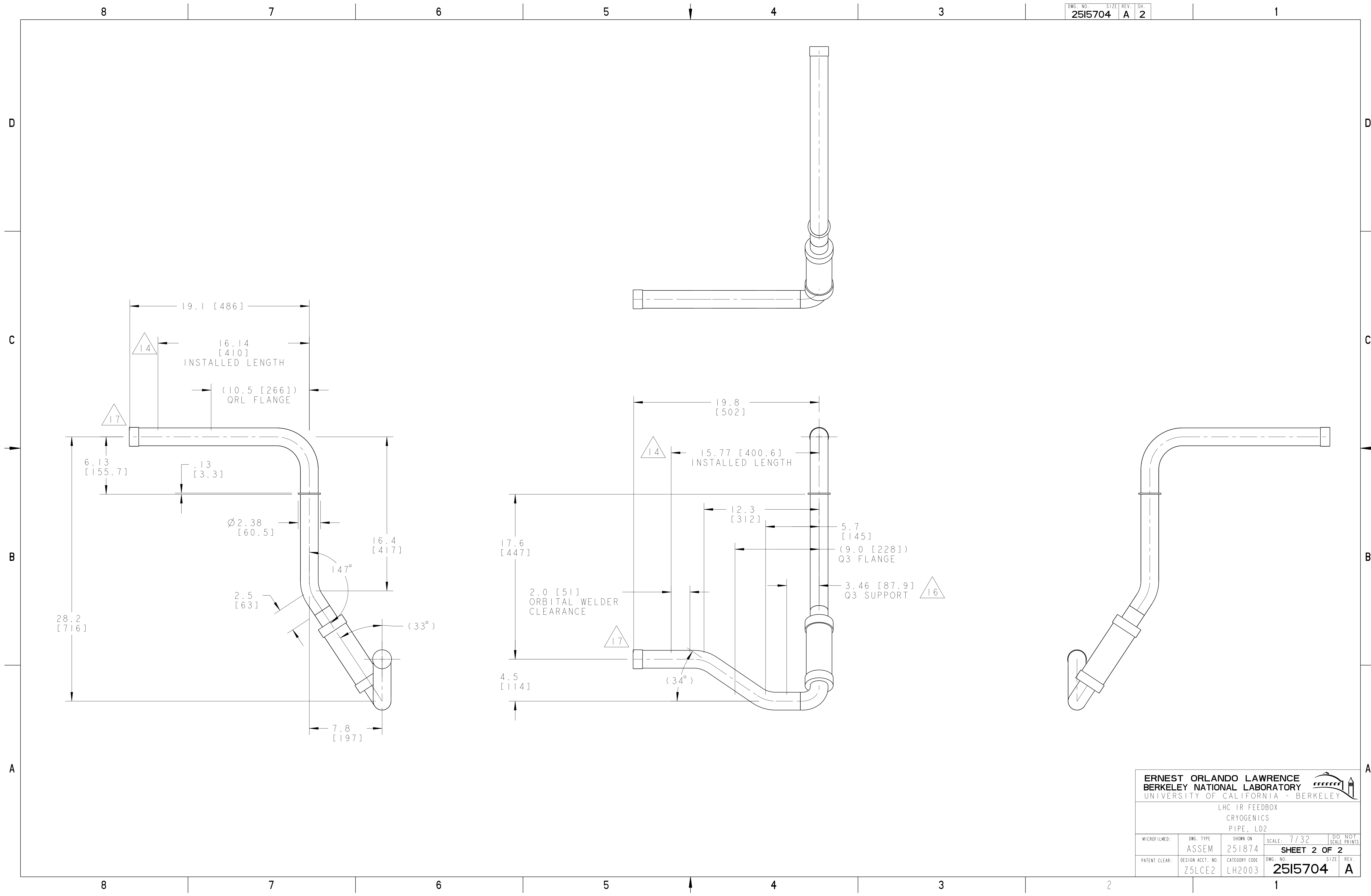
\*\*\* FOR ADDITIONAL TUBE DIMENSIONS, SEE SHEET 2



<table border="1"> <tr> <th>REV</th> <th>DWG</th> <th>CHK</th> <th>ZONE</th> <th>DATE</th> <th>CHANGES</th> </tr> <tr> <td>A</td> <td>ARH</td> <td>SPV</td> <td></td> <td>11-06-02</td> <td>INITIAL RELEASE</td> </tr> </table>				REV	DWG	CHK	ZONE	DATE	CHANGES	A	ARH	SPV		11-06-02	INITIAL RELEASE	<p>UNLESS OTHERWISE SPECIFIED</p> <p>TOLERANCES X.X ± 0.1 X.XX ± 0.03 X.XXX ± 0.010</p> <p>FINISH <math>\sqrt{Ra}</math></p> <p>DO NOT SCALE PRINT</p> <p>THREADS ARE CLASS 2</p> <p>CHAMFER ENDS OF ALL SCREW THREADS 30°</p> <p>CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS</p> <p>BREAK EDGES .016 MAX. ON MACHINED WORK</p> <p>REMOVE BURRS, WELD SPLATTER &amp; LOOSE SCALE</p> <p>IN ACCORDANCE WITH ASME Y14.5M &amp; B46.1</p>				<p>SHOP ORDERS</p> <p>ACCT NO. [ ] NO. RECD [ ]</p> <p>DEL DATE [ ]</p> <p>SURFACE TREATMT [ ]</p> <p>TIDENT METHOD TAG [ ]</p> <p>PROJECT NUMBER N/A</p> <p>PROJECT NAME N/A</p> <p>DWG BY R LA MANTIA DATE 12-Dec-01</p> <p>CHK BY Jon Zbosnik/S.Virostek DATE 05-Nov-02</p> <p>APR BY Jon Zbosnik/S.Virostek DATE 05-Nov-02</p>				<p>ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY</p> <p>LHC IR FEEDBOX CRYOGENICS PIPE, LD2</p> <p>MICROFILMED: [ ] DWG. TYPE ASSEM SHOWN ON 251874 SCALE: 7/32 DO NOT SCALE PRINTS</p> <p>PATENT CLEAR: [ ] DESIGN ACCT. NO. Z5LCE2 CATEGORY CODE LH2003 DWG. NO. 2515704 SIZE REV. A</p>			
REV	DWG	CHK	ZONE	DATE	CHANGES																						
A	ARH	SPV		11-06-02	INITIAL RELEASE																						



NAME: ARHARRIS OBJECT: 251570-2 DATE: 25-Nov-02 14:26:53



<b>ERNEST ORLANDO LAWRENCE</b> <b>BERKELEY NATIONAL LABORATORY</b> UNIVERSITY OF CALIFORNIA - BERKELEY				
LHC IR FEEDBOX CRYGENICS PIPE, LD2				
MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 7/32	DO NOT SCALE PRINTS
	ASSEM	251874	<b>SHEET 2 OF 2</b>	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE	DWG. NO.	SIZE REV.
	Z5LC2	LH2003	<b>2515704</b>	<b>A</b>