



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 LBNL SPECIFICATION M989.
- A MARK DESIGNATING THE INSTALLED (CUT-OFF) 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 1.5" ON EITHER SIDE OF THE CENTER-PLANE OF THE SUPPORT.
- CAP BOTH ENDS OF PIPE TO FACILITATE ACCEPTANCE TESTS.

REV	DWG	CHK	ZONE	DATE	CHANGES
A	ARH	SPV		10-23-02	INITIAL RELEASE
B	ARH	SPV		01/08/03	ADDED CENTER SUPPORT, D1 SUPPORT / D1 FLANGE DIMENSIONS; MINOR DRAWING DIMENSIONAL CHANGES; REMOVED 5" PIPE CAP FROM BELLOWS.
C	RLM	JPZ		6/9/03	ITEM 9: REPLACE 3.5" TUBE W/ 3" PIPE; R3 WAS R3.5; ADDED THREADED ROD LENGTH.
D	RLM	JPZ		12/8/03	INSTALLED LENGTH 96.28 WAS 95.73 FLEX HOSE LOCATION 3.3 WAS 9.7 2" TUBE SEGMENT WAS 2" PIPE SEGMENT NEW WELD RING (SEC B-B), NEW 2.5" TUBE AT ORL NEW TRANSITION AT ORL. REPLACE INSTALLED LENGTH 17.21 AT ORL WITH CUT-OFF LENGTH 13.63 (17.2 WAS 21.2)
E	RLM	JPZ		2/11/04	ADD DETAIL VIEW A AND CLARIFYING DIMS. REMOVE WELDBRACKET 25M962. VISUAL CHANGE IN THRUST PLATE ASSY 25M923.

UNLESS OTHERWISE SPECIFIED
 CS X.X ± 0.1 FRC ± 1/64
 FD X.XX ± 0.03 Angles ± 1.00°
 RF X.XXX ± 0.010 FINISH HV
 DO NOT SCALE PRINT
 FINISH ALL CLASS 1
 CHAMFER ENDS OF ALL SCREW THREADS 30°
 CUT ROUNDS, 1/8 THREAD RELIEF ON MACHINED THREADS
 BREAK EDGES, 1/16 MAX. ON MACHINED WORK
 REMOVE BURRS, WELD SPATTER & LOOSE SCALE
 IN ACCORDANCE WITH ASME B31.10-1997

ITEM	PART NO.	REQD	DESCRIPTION	MATERIAL
14	-	1	TUBE, PER ASTM A269	SS 304L
13	25M980	1	TRANSITION Ø3.5" TO Ø2.5"	SS 304L
12	-	1	1/4" PLATE	SS 304L
11	-	1	PIPE, PER ASTM A312	SS 304L
10	-	1	PIPE, PER ASTM A312	SS 304L
9	-	1	PIPE, PER ASTM A312	SS 304L
8	-	1	TUBE, PER ASTM A269	SS 304L
7	25M976	1	WELD RING ADAPTOR	SS 304L
6	-	1	BRAIDED FLEXHOSE, 2" ID X 4.25' LL	SS 300 SERIES
5	-	1	BRAIDED FLEXHOSE, 2" ID X 7" LL	SS 300 SERIES
4	-	1	BELLOWS, FINAL 5520-MB-390073	SS 300 SERIES
3	-	12	1/4-20 HEX NUT	18-8 SS
2	-	4	1/4-20 THREADED ROD	18-8 SS
1	25M923	1	30 THRUST PLATE ASSY	

ERNEST ORLANDO LAWRENCE
 BERKELEY NATIONAL LABORATORY
 UNIVERSITY OF CALIFORNIA - BERKELEY

LHC IR FEEDBOX
 CRYOGENICS

PIPE WELDMENT, XB DFBXD & DFBXH

ASSEMBLY

SCALE: 1.375/1.0
 SHEET 1 OF 1

DATE: 13-May-02
 DATE: 23-Oct-02
 DATE: 21-Oct-02

DESIGN ACCT. NO: ZSLCE2
 CATEGORY CODE: LH2003
 DWG. NO: 2512536