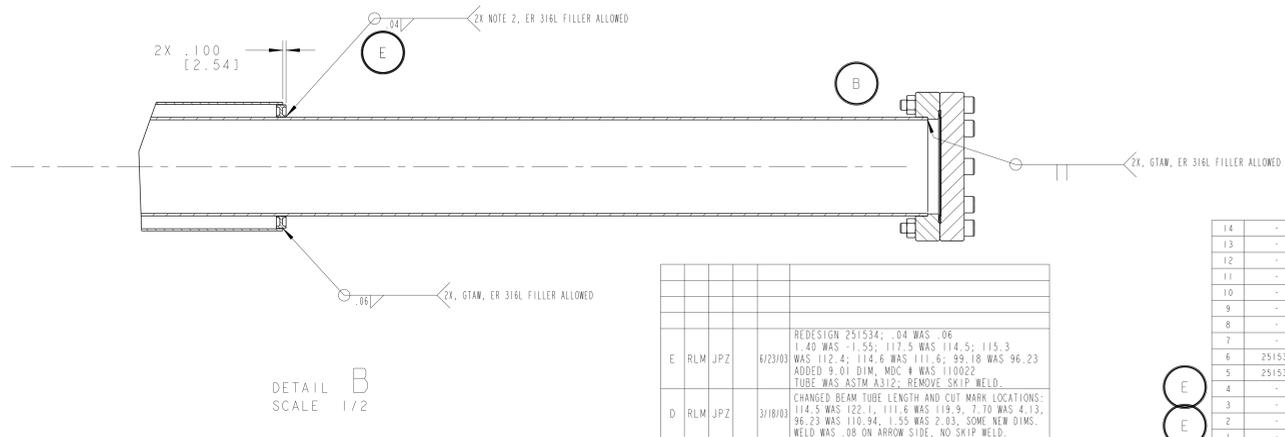
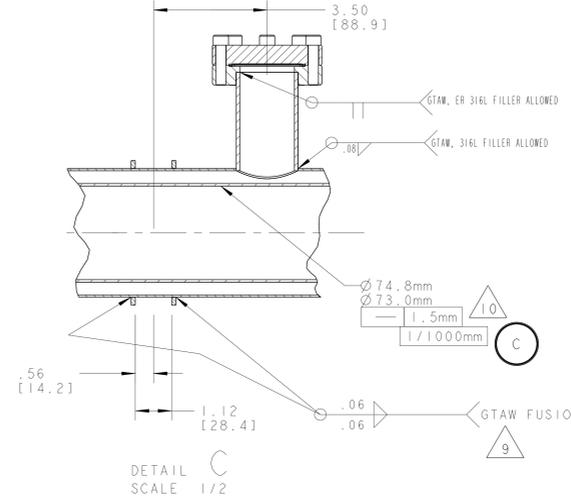
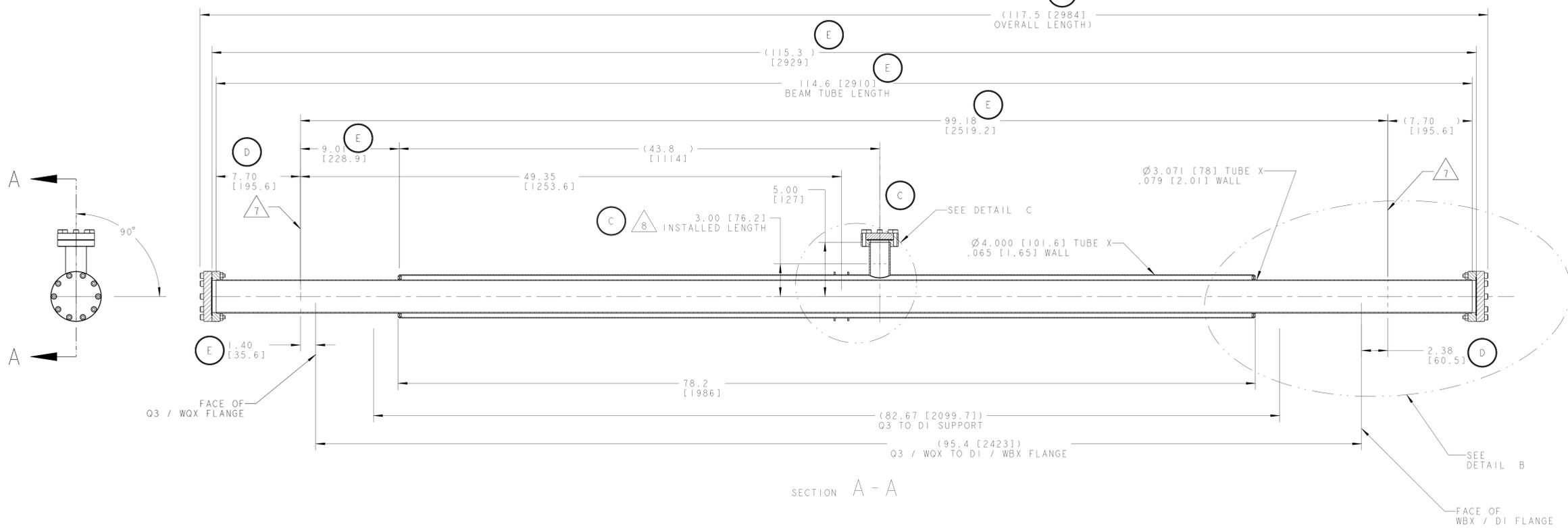
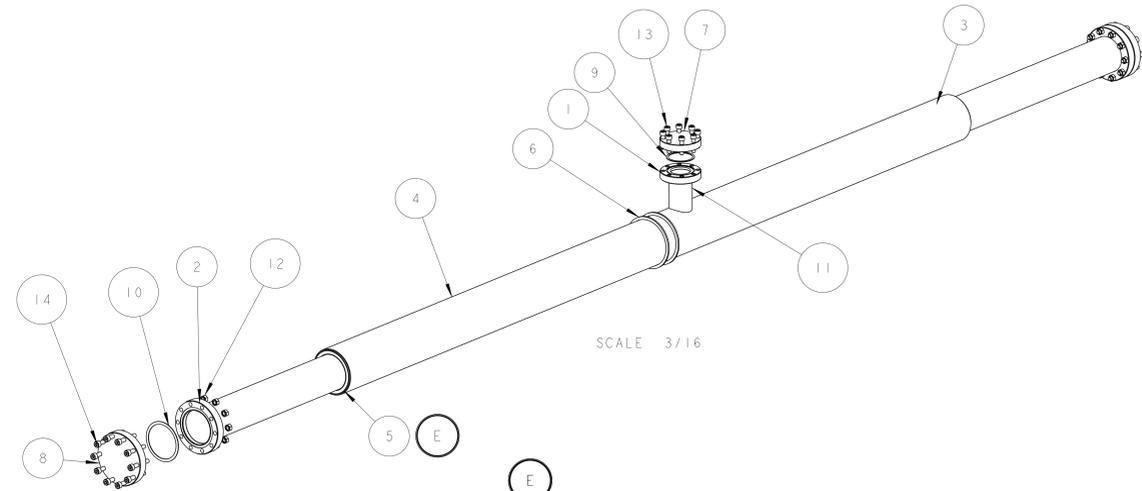
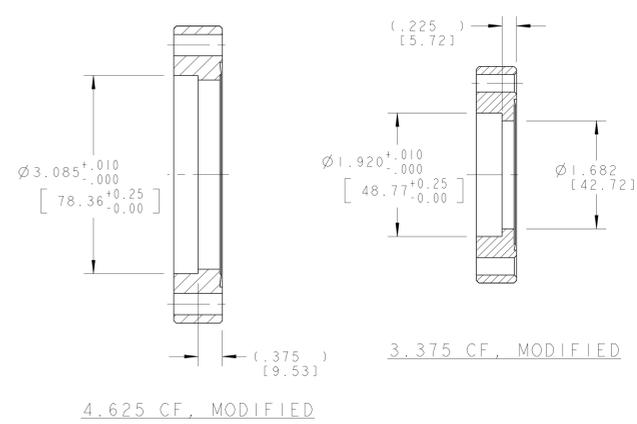


NOTES: (UNLESS OTHERWISE SPECIFIED)

1. THIS IS A CRYOGENIC VACUUM COMPONENT.
2. CLEANING PROCEEDURE: PER APPLICABLE LBNL TRAVELER.
3. DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1982. UNITS ARE IN INCHES [mm] UNLESS OTHERWISE SPECIFIED.
4. USE OF SULFUR OR SILICONE BEARING OILS, LUBRICANTS, OR COOLANTS ARE STRICTLY PROHIBITED.
5. USE OF RESIN OR RUBBER BONDED ABRASIVES UNDER POWER IS STRICTLY PROHIBITED. USE VITREOUS BONDED ABRASIVES ONLY.
6. PERFORM ACCEPTANCE TESTS PER APPLICBLE LBNL TRAVELER.
7. MARK THE CUT LOCATION FOR FLANGES TO BE INSTALLED AT CERN BY AN INDELIBLE SCRIBE LINE.
8. MARK THE CUT LOCATION FOR INSTALLATION INTO THE DFBX BY AN INDELIBLE SCRIBE LINE.
9. GUIDE RING MAY BE SPLIT ON HORIZONTAL AXIS TO FACILITATE INSTALLATION.
10. DIMENSIONS IN mm AND PERTAIN TO TUBE INNER DIAMETER.



REV	DATE	BY	CHK	ZONE	DESCRIPTION
E	6/23/03	RLM	JPZ		REDESIGN 251534; .04 WAS .06 1.40 WAS 1.55; 117.5 WAS 114.5; 115.3 WAS 112.4; 114.6 WAS 111.6; 99.18 WAS 96.23 ADDED 9.01 DIM. MOC # WAS 110022 TUBE WAS ASTM A312; REMOVE SKIP WELD.
D	3/18/03	RLM	JPZ		CHANGED BEAM TUBE LENGTH AND CUT MARK LOCATIONS: 114.5 WAS 122.1, 111.6 WAS 119.9, 7.70 WAS 4.13, 96.23 WAS 110.94, 1.55 WAS 2.83, SOME NEW DIMS. WELD WAS .08 ON ARROW SIDE, NO SKIP WELD.
C	1-22-03	RLM	JPZ		MOVED NIPPLE TO NEW LOCATION CHANGE NIPPLE SIZE FROM 1.25 TO 1.50 SCH 10 CHANGED GENERAL NOTES, NEW DIM TO SCRIBE LINE. ADDED END CAPS, FLANGES, GASKETS AND FASTENERS. ADDED SOME OVERALL DIMENSIONS. ADDED DIMENSION FOR BORE TUBE. REVISED DIM NOTES 13 & 14. ADDED Q3 TO DI SUPPORT / FLANGE DIMS, DELETED WELD / ORBITAL WELD CALLOUTS, ADDED 3.75 DIM, DELETED BOM ITEM 3, ADDED BOM ITEMS 1 & 2, ADDED NOTE 14 & 16 CALLOUTS TO DWG VIEW, MINOR DRAWING DIMENSIONAL CHANGES
B	12-11-02	ARH	SPV		
A	9-16-01	ARH	DPO		INITIAL RELEASE

ITEM	PART NO.	RECD	DESCRIPTION	MATERIAL
14	20		SHCS, MB, 50LG, MMASTER #91292A154	ST 18-8
13	8		SHCS 5/16-24 UNF, 1.25LG, MMASTER #92196A343	SS 18-8
12	20		NUT, MB, MMASTER #91828A410	ST 18-8
11	1		NIPPLE, 1.50" PIPE, SCH 10	SS 304L
10	2		GASKET, COPPER, MOC #191011	Cu
9	1		GASKET, COPPER, MOC #191007	Cu
8	2		4.625" CONFLAT, MOC #110022	-
7	1		3.375" CONFLAT, BLANK, MOC #110015	-
6	251536	2	GUIDE RING	SS 304L
5	251534	2	JACKET WELD CAP	SS 316L
4	1		TUBE, PER ASTM A269	SS 304L
3	1		BEAM TUBE, BNL SPEC LHC-MAG-N-1016	-
2	2		4.625" CONFLAT, MOC #110024, MODIFIED	-
1	1		3.375" CONFLAT, MOC # 130016, MODIFIED	-

UNLESS OTHERWISE SPECIFIED
 CS X.X ± 0.1 FRACTION ± 1/64
 IN X.XX ± 0.03 ANGLES ± 1.00°
 SURFACE FINISH: 320
 DO NOT SCALE PRINT
 TOLERANCES: 1/2
 BREAK ENDS: 1:5 THREAD BELIEF ON MACHINED THREADS
 CHAMFER ENDS OF ALL SCREW THREADS 30°
 BREAK ENDS: 1:5 MAX. ON MACHINED WORK
 REMOVE BURRS, WELD SPATTER & LOOSE SCALE
 IN ACCORDANCE WITH ADP 114 SM 1 EN 1

SHOP ORDERS
 DATE: 19-04-02
 DATE: 04-02-02
 DATE: 04-02-02

ERNEST ORLANDO LAWRENCE
 UNIVERSITY OF CALIFORNIA - BERKELEY
 LHC IR FEEDBOX
 CRYOGENICS
 V PIPE & JACKET ASSEMBLY, IP 2 & 8
 SCALE: 1/4
 SHEET 1 OF 1
 2518556