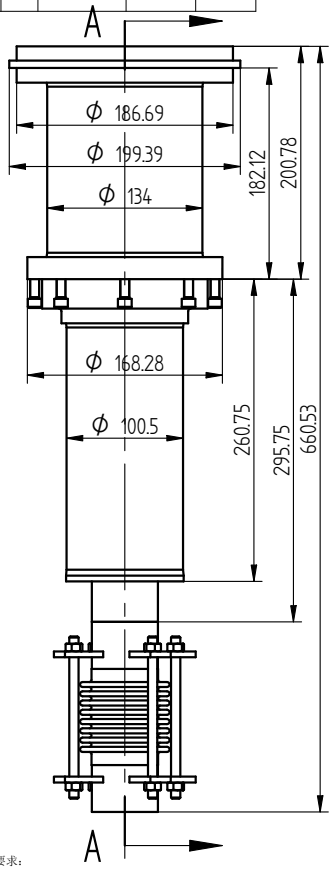
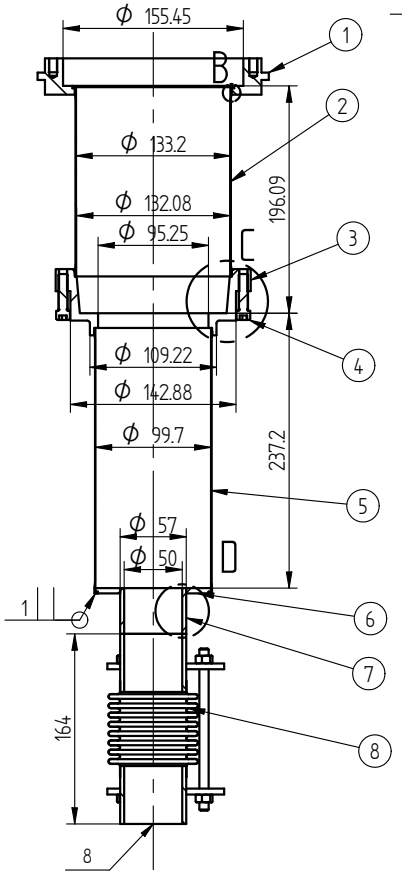
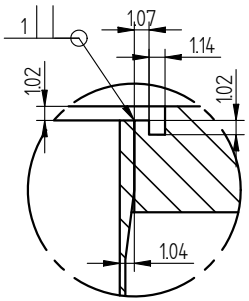
标记	处数	更改文件号	签 字	日 期

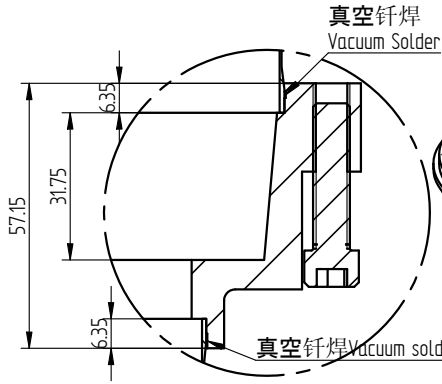




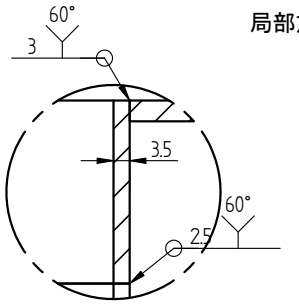
剖面 Section A-A



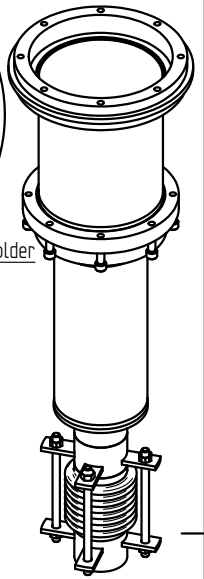
局部放大图 Scaled view B



局部放大图 Scaled view C



局部放大图 Scaled view D



技术要求：

1、 所有材料均需提供材料质量证明书 Properties certificate shall be provided for all material.

2、 所有锐边倒钝，去尖角、毛刺或飞边 Trip sharp edge and deburr.

3、 所有不锈钢材料的焊接均采用氩弧焊，焊丝牌号为 H0Cr21Ni10 St. steel parts shall be welded with argon-arc welding method and H0Cr21Ni10 solder.

4、 件 3 与件 2、5 采用真空钎焊 Vacuum soldering item 3 to item 2 and 5.

5、 所有元件在焊接和装配前需清洁处理，去除油脂、污物、灰尘等，并吹干或烘干且干燥保存，具体参见“MICE 冷质量和低温恒温器清洗及焊接程序”。 Comply to“Cleaning and Welding Prcedure for MICE Cold Mass and Cryostat” clean all parts before welding and keep dry.

6、 焊接完成后必须对焊缝进行外观检查，焊缝表面不得有裂缝、气孔、夹渣及咬边等焊接缺陷。按 JB4730 无损检测要求，对接焊缝进行射线无损检测，II 级为合格，其他焊缝进行渗透检测，I 级为合格，参见“MICE 冷质量和低温恒温器清洗及焊接程序”。 Visually check welding seams, they shall be defect free. X ray inspect all seamwelding and shall be graded II; and comply JB4730 procedure. Conduct dye penetration test on other welding and shall be graded I. Refer to “Cleaning and Welding Prcedure for MICE Cold Mass and Cryostat”

7、 管材、波纹管组焊前进行压力检验，管材检验压力 2.3MPa，检验介质干燥氮气，具体要求参见 GB150。波纹管构件检验压力 1.15MPa，检验介质干燥氮气。Comply to GB150 dry He gas with pressure 2.3Mpa test pipe and 1.15Mpa test bellow before welding.

8、 组焊后，进行压力检验，试验压力 0.5Pa，试验介质干燥氮气，具体要求参见 GB150。 Comply to GB150, dry He gas with pressure 0.5Mpa check after welding.

9、 管道、波纹管及焊缝、接头需经氦质谱仪常温和低温检漏，漏率<1×10^{-10}Pa·m^3/s，参见“MICE 冷质量和低温恒温器真空检漏程序”。 Refer to “Vacuum Leak Check Procedure for MICE Cold Mass and Cryostat”, leak check pipe, bellow and welding seams under room and cryogenic temeprature, leakage shall be less than <1×10-10Pa•m3/s.

10、 制冷机套筒组件检验完毕后，进行清洁处理，并用干燥氮气吹干且干燥保存。After inspection, clean and dry with dry He gas and keep dry.

11、 未注尺寸公差按 GB/T 1804-2000 m 级，未注形位公差按 GB/T 1184-1996 k 级制造。See title box for un-marked tolerances.

序号	代号	名称	数量	材料	单重	总重	备注
8	MMSF-0301-1050-06	制冷机波纹管 CRYOCOOLER SLEEVE BELLOWS	1				
7	MMSF-0301-1050-05	制冷机套筒接管 CONNECTING TUBE OF CRYCOOLER SLEEVE	1	304		.184	
6	MMSF-0301-1050-04	制冷机底法兰 BOTTOM FLANGE OF CRYCOOLER SLEEVE	1	304		.183	
5	MMSF-0301-1050-03	制冷机下筒体 CRYOCOOLER LOWER SLEEVE	1	304		.246	
4		英制内六角5-16x1.25 ASK ABOUT	8	H62		.161	
3		制冷机一级冷头连接法兰 ASK ABOUT	1	TU2		.000	美国提供
2	MMSF-0301-1050-02	制冷机上筒体 CRYOCOOLER UPPER SLEEVE	1	304		.249	
1	MMSF-0301-1050-01	制冷机套筒顶法兰 TOP FLANGE OF CRYOCOOLER VACUUM SLEEVES	1	304		2.504	

设 计			SSRF上海光源			
绘 图						
校 核					制冷机及冷却管路组件	
审 核			计算机文件名	MMSF-0301-1050-00A0.dft		
会 签			制图软件	Solid Edge	制冷机套筒	
			数 量	重 量	比 例	图 幅
审 定			3	0	1:4	A3
批 准			共 1 张		第 张	

MMSF-0301-1050-00 版本 A

REV	AUTHOR	APPROVER	DATE	CHANGE DESCRIPTION
A				INITIAL REVISION

UNLESS OTHERWISE SPECIFIED
TOLERANCE: 0± .25 .00±.125 .000±.050
FRACTIONS: ± -/--
ANGLES: ± -.-°/MM
MACH. SURFS.: 125 BY BETTER
REF: ASME Y14.5M-1994, THREADS ARE CLASS 2
BREAK EDGES .016 MAX. ON MACHINED WORK
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE

PROJECT NAME: MICE

DO NOT SCALE PRINT
SCALE: 1:1
CATEGORY CODE: MU 1025
FRIST ANGLE PROJECTION

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA

MUON IONIZATION COOLING EXPERIMENT (MICE)
MICE/MUCOOL SUPERCONDUCTING COUPLING MAGNET
CRYOCOOLER VACUUM SLEEVE ASSEMBLY

SHEET 1 OF 1 | SIZE: 5 | DWG NO: 27H787 | REV A