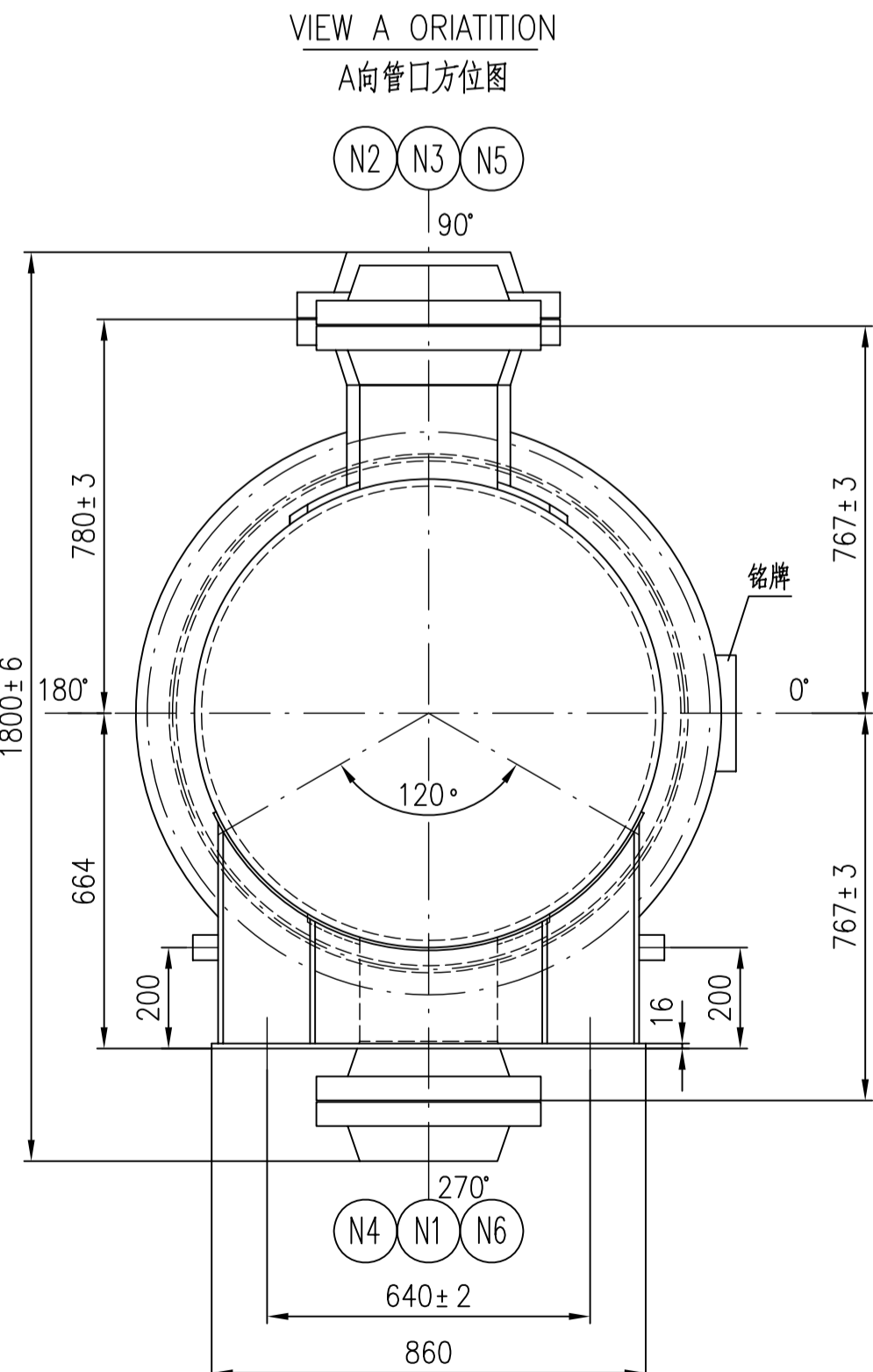



**AS BUILT**



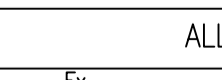
DETAIL I  
详图 I



Technical drawing of a mechanical assembly showing a cross-section of a shaft with a diameter of 82 mm. The drawing includes a hatched section representing a component and a dimension line indicating the diameter.

Technical drawing of a mechanical part showing a cross-section. The part has a 75° angle and dimensions 2, 2, and 1.5. A hatched area is shown on the right side.

Technical drawing of a mechanical part with dimensions:  $37.5^\circ \pm 5^\circ$ ,  $15^\circ \pm 2^\circ$ ,  $2 \pm 1$ , 10,  $2 \pm 1$ , R5.

ALLOWABLE EXTERNAL LOADING OF NOZZLES 接管许用外载荷										
	NOMINAL DIAMETER		FLANGE		FORCES (kN)			MOMENTS (kN.m)		
	NPS	mm	Fl	G	Fx	Fy	Fz	Mx	My	Mz
	10	250	300	10.910	13.360	13.360	16.820	11.895	11.895	
	12	300	300	10.665	13.065	13.065	18.830	13.315	13.315	

21	U-16-12-14-00	INSULATION SUPPORT 保温支撑圈		SA-36	1		165		
20	ASME B18.2.1	STUD BOLTS 头螺栓	M24x256	SA-193 Gr.B7	26	0.6	15.6	NOT TO GALVANIZED 勿镀锌	
19	U-16-12-16-00	ANCHORING BOSS 接地端子		S31608	2	0.8	1.6		
18	U-16-12-15-00	FIXED SADDLE 固定鞍座		PARTS 组合件	1		37		
17	U-16-12-13-00	NAME PLATE 铭牌		SA-36	1		2		
16	U-16-12-12-00	SLIDING SADDLE 滑动鞍座		PARTS 组合件	1		37		
15	U-16-12-11	BACKING DEVICE 衬圈		NORMALIZED	1		116		
14	ASME B18.2.1	STUD BOLTS 头螺栓	M20x256	SA-193 Gr.B7	28	0.6	16.8	NOT TO GALVANIZED 勿镀锌	
13	ASME B18.2.2	NUTS 螺母	M20	SA-194 Gr.2H	56	0.075	4.2	NOT TO GALVANIZED 勿镀锌	
ITEM NO.	DWG NO. OR CODE	DESCRIPTION	MATERIAL	QTY.	UNIT	TOTAL	REMARKS		
序号	图号或代号	名称及规格	材料	数量	重量 (kg)	总计	备注		

DESIGN DATA TABLE											
技术数据表											
CERTIFICATION MARK 认证标志				U-STAMP U-钢印		THIRD PARTY INSPECTION 第三方检验					
NATIONAL BOARD REGISTRATION REQ'D NB注册				YES / NO		VESSEL CATEGORY P.R.C 容器类别				YES	
DESIGN PARAMETER 设计参数						DESIGN, FABRICATION & INSPECTION STANDARD 设计,制造,检验标准					
HEAT EXCHANGER TYPE 换热器型式				BES 浮头式 换热器		1. ASME CODE SECTION VIII DIV.1 2015 EDITION. TEMA, NINTH EDITION, CLASS"R"					
OPERATING NAME 操作名称				SHELL SIDE 壳程		TUBE SIDE 管程		1.ASME 锅炉压力容器规范, 第八卷第1分册, 2015版 并参照TEMA"R" 级,第九版.			
OPERATING PRESSURE 操作压力 MPa(gpsg)				0.62(90)		0.52(75)					
DESIGN PRESSURE 设计压力 MPa(gpsg)				1.17(170)		1.17(170)					
MAWP 最大工作压力 MPa(gpsg)				1.17 AT 260°C (170 AT 500°F)		1.17AT 260°C (170 AT 500°F)					
MALEWP 最大工作压力 MPa(gpsg)											
OPERATING TEMP (IN/OUT) 操作温度(进/出) °C(°F)				88/118 (190/6/245)		176/310 (349/265)		FABRICATION AND INSPECTION REQUIREMENTS FILLER METALS HAVE CHEMICAL COMPOSITIONS, MECHANICAL PROPERTIES MATCHED WITH THOSE OF THE BASE METALS, FOR DETAIL OF WELDING MATERIAL TYPE,SEE WPS.			
DESIGN TEMPERATURE 设计温度 °C(°F)				260(500)		260(500)		制造与检验标准			
MDMT 最低设计金属温度 °C(°F)				-5°C AT 1.17MPaG (23°F AT 170psig)		-5°C AT 1.17MPaG (23°F AT 170psig)		填充金属的化学成分,机械性能和韧性 with 母材相匹配, 焊接材料型号详见焊接工艺指导书,			
MEDIUM /介				CONDENSATE		CONDENSATE		WELDED JOINTS' CATEGORY 焊接接头种类			
MECHAN CHARACTERISTIC 介质特性				NON-LETHAL 非致死性介质		NON-LETHAL 非致死性介质		SHELL 壳体		TEST RATIO 试验比	
MIN PRESSURE PAID WARDEN 主要受压元件				SA-516 Gr70		SA-516 Gr70		A HEAD 封头		FULL RT1	
CORRO ALLOWANCE 腐蚀裕量 mm(inch)				3(0.118)		3(0.118)		B,C 筒体		FULL RT1	
JOINT EFFICIENCY 焊接接头系数				1.0		1.0		D 管嘴		FULL MT	
CORRO ALLOWANCE 腐蚀裕量 mm(inch)				3(0.118)		3(0.118)		SHELL 壳体		FULL RT1	
INSULATION THK. 保温厚度 mm				125		125		A HEAD 封头		FULL RT1	
INSULATION MATERIAL 保温材料				Mineral wool slats		Mineral wool slats		B,C 筒体		FULL UW-51	
SURFACE AREA 换热面积 m <sup>2</sup>				327				D 管嘴		FULL MT	
TUBE: No. x Ø x L 换热管数量规格 x 长度				962xØ 19.0x2.0x6000				SHELL SIDE 壳程		TEST TYPE 试验种类	
JOINT TYPE OF TUBE SHEET 管板与管板连接方式				STRENGTHENED AND LIGHT EXPANDED 强度加强+贴胀				TEST 试验		HYDROSTATIC TESTING PRESSURE (H) 水压试验压力 (表压) MPa(gpsg)	
EQUIPMENT NET WEIGHT 设备净重 kg				11800				HYDROSTATIC TESTING PRESSURE (H) 水压试验压力 (表压) MPa(gpsg)		1.52(220)	
OPERATION WEIGHT 操作重量 kg				15108				POST WELD HEAT TREATMENT 焊后热处理		NO YES	
HYDROSTATIC TEST WEIGHT 水压试验重量 kg				16210				CAPACITY 设备容积 m <sup>3</sup>		1.78 2.63	
TUBEROWLE WEIGHT 管束重量 kg				7500				IMPACT TEST 冲击试验		EXEMPT ACCORDING TO UCS-66	
WIND SPEED 风速 Km/h(mi/h)				161(100)				EARTHQUAKE ZONE 地震区域		2B	
NOZZLE SCHEDULE 管口表											
MARK		SERVICE		NPS. QTY.		FLANGE TYPE&CONNECTION 法兰类型及密封形式		PROU FROM 壳程口		MATCH FLANGE 配法兰	
代号		用途		公称尺寸 数量		CLASS TYPE 压力等级 型式		FACE 密封面		MATERIAL 材质	
N1		SHELL SIDE INLET		DN250(10") 1		300LB WN RF		767		SA-105 Sch40	
N2		TUBE SIDE INLET		DN250(10") 1		300LB WN RF		767		SA-105 Sch40	
N3		SHELL SIDE OUTLET		DN300(12") 1		300LB WN RF		780		SA-105 SchSTD	
N4		TUBE SIDE OUTLET		DN250(10") 1		300LB WN RF		767		SA-105 Sch40	
V1		VENT		DN25(1") 1							
R1		DRAIN		DN25(1") 1							
12		U-16-12-10-00		SHELL COVER 外头盖				PARTS 组合件		1 370	
11		U-16-12-9-00		FLOATING HEAD COVER 浮头盖				PARTS 组合件		1 253	
10		U-16-12-8-00		FLOATING HEAD GASKETS δ=4.5				PARTS 组合件		1 253	
9		ASME B18.2.1		STUD BOLTS 头盖螺栓		M24x220		SA-193 Gr.B7		32 1.46 46.7	
8		U-16-12-7-00		REAR HEAD END GASKETS 头盖密封垫		δ=4.5		PARTS 组合件		1 253	
7		U-16-12-6-00		BUNDLE 管束				PARTS 组合件		1 7400	
6		ASME B18.2.2		SHELL 壳体				PARTS 组合件		1 2400	
5		U-16-12-5-00		NUTS 螺母		M24		SA-194 Gr.2H		120 0.125 15	
4		U-16-12-4		FIXED BOLTS 管束头螺栓		M24x256		SA-193 Gr.B7		4 0.89 4.9	
3		U-16-12-3-00		CHANNEL GASKETS 管束密封垫		δ=4.5		PARTS 组合件		1 253	
2		U-16-12-2-00		CHANNEL GASKETS 管束密封垫		δ=4.5		PARTS 组合件		1 253	
1		U-16-12-1-00		CHANNEL 管束				PARTS 组合件		1 830	
ITEM NO. 序号		DWG NO. OR CODE 图号或标准		DESCRIPTION 名称及规格				MATERIAL 材料		QTY. 数量	
								UNIT WEIGHT 重量		TOTAL WEIGHT 总重量 (Kg)	
0		IFA- Issued For Construction		2016.07.20		Xunji		Wangce		Zhoush	
Rev.		Revision Description		Date		Originate By		Review By		Approve By	
Project		项目名称		巴斯德型NASHPA项目							
Client		业主		HBP		Client project NO.业主项目编号					
EPPC Contractor 工程总包方											
上海蓝燕石化设备有限公司 Shanghai Lan Yan Petrochemical Equipment Co., Ltd											
Prepared 设计		商 新		2016.7.20		图 名 DWG NAME		Project 项目		OED2016-13	
Review 审核		王 斌		2016.7.20		CONDENSATE HEAT EXCHANGER		Scale 比例		1:10	
Approved 批准		王 斌		2016.7.20		冷凝热交换器		DWG NO: 图 号		U-16-12-00	
Job No. 工号		BU16-12				(E-2202)					
Draw 制图		⊕				BES900-1.17-328-6/19-2		Construction 建造		Page 1 of 1 第 1 页 共 1 页	
										0	