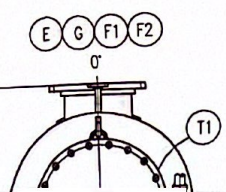
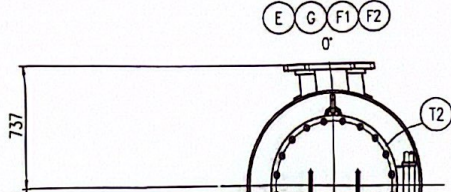


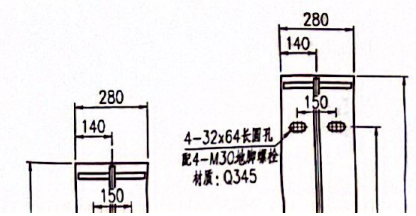
A向
1:1



B向
1:1



管束底版平面布置图
1:1



设计数据与制造技术条件表

DESIGN DATA AND MANUFACTURE SPECIFICATIONS

		壳程 SHELL SIDE	管程 TUBE SIDE	设计、制造、检验、验收规范 CODE FOR DESIGN, MANUF, INSP AND ACC.	ASME SECT. VIII DIV.1, 2023 ED		
					TEMA CLASS'R' 10th EDITION		
设计压力 DESIGN PRESSURE	MPa	1.26/F.V.	0.7/F.V.		/		
最高允许工作压力 MAWP	MPa	1.26	0.7				
操作压力(进/出) OPERATION PRESSURE.(IN/OUT)	MPa	1.05	0.36	U 钢印 U STAMP	YES		
设计温度 DESIGN TEMP.	°C	204	250	CE 标志 CE MARKING	NO		
操作温度(进/出) OPERATION TEMP.(IN/OUT)	°C	183/186	225/200	换热管规格 SIZE OF HEAT EXCHANGER	mm	φ25.4x2	
最低设计金属温度 MDMT.	°C	-10	-10	换热器型式 TYPE OF HEAT EXCHANGER		BKU	
平均金属温度 AVER.METAL TEMP.	°C	/	/	换热管与管板连接方式 TUBE TOTUBESHEET JOINT		焊接+贴胀 Welding+adhesive expansion	
物料名称 FLUID		水/蒸汽 WATER/STEAM	H ₂ SO ₄	换热管外径/壁厚/管长 TUBE O.D./THICKNESS/LENGTH		25.4/2/6126	
介质特性 FLUID PROPERTY		非致死 Non-Lethal	非致死 Non-Lethal	焊接规程 WELDING PROC.SPEC.		除图中注明外按照 WPS AS PER WPS	
介质密度(IN/OUT) FLUID DENSITY(Liq/Vap)	Kg/m ³	0.876	1.647	主要受压元件材料 MAIN MATERIALS	壳体/封头 SHELL/HEAD	SA-516 Gr.70N	
容积 CAPACITY	m ³	41.6	9.3		管箱/封头 CHANNEL/HEAD	SA-240 310S	
程数 NU. OF PASSES		1	2		设备法兰 BODY FLANGE	SA-266 Gr.2N	
腐蚀裕量 CORR. ALLOWANCE	mm	3.2	1.3		管板 TUBESHEET	SA-266 Gr.2N/SA-240 310S	
焊缝系数(筒体/封头) JOINTS EFF. (SHELL/HEAD)		1	1		换热管 TUBES	SA-249 TP310S	
水压试验压力 HYDRO. TEST PRESSURE	MPa	1.638	0.919	风载荷 WIND LOAD	KN/m ²	0.35	
泄漏试验种类 TYPE OF LEAK TEST		氮检漏	No	地震载荷 SEISMIC LOAD		7(0.15g)	
泄漏试验压力 LEAK TEST PRESSURE	MPa	/	/	换热面积 HEATING SURFACE	m ²	997	
材料定量光谱分析 PMI		No	No	保温材料/厚度 MATERIAL/THICKNESS OF INSULATION		HOT/100	
低温冲击试验 LOW TEMPERATURE IMPACT TEST		No	No	无图零件切割表面粗糙度 ROUGHNESS OF CUT SURF. WITHOUT DR		50	
热处理要求 HEAT TREATMENT (S.R.)		No	No	重量 WEIGHT	空重 EMPTY	kg	39579
焊接类别 N.D.T.OF WELD	A类 CATEGORY A	Full-RT	Full-RT		操作 OPERATING	kg	75000
	B类 CATEGORY B	Full-RT	Full-RT		充满水 FULL OF WATER	kg	90500
	C类 CATEGORY C	Full-MT	Full-PT A, B nozzle Full-RT		最大运输重量 SHIPPING WEIGHT	kg	39579
	D类 CATEGORY D	Full-MT	Full-PT		保温层质量 INSULATION:S.S	kg	/

技术要求

GENERAL REQUIREMENTS

焊条型号 FILLER ROD TYPE	WPS
管板面与壳体轴线垂直度 PERPENDICULARITY OF TUBE SHEET & SHELL AXIS	垂直度允差为1.0mm ALLOWABLE PERPENDICULARITY:1.0mm
管口及铭牌方位 ORIENTATION OF NOZZLE & NAMEPLATE	按本图 According to this chart

接管表 Nozzle Schedule



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After forming the elliptical head, thickness testing shall be carried out, which shall not be less than the minimum thickness requirement the head indicated on the drawing. MT or PT testing shall be conducted for all transition sections of the formed head before welding after forming and before hydrostatic testing after heat treatment to determine whether there are defects

5.7 管板和公称厚度大于75mm的锻件需100%UT检测

Tubesheet and forging with wall thickness 75 mm and greater shall be 100% ultrasonically tested

6. 压力试验/TEST

6.1 在水压试验前, 所有临时附件必须拆除。

All temporary attachments shall be removed before hydrostatic testing.

6.2 水压试验时需同时记录试验压力和温度, 这些具体的报告要发给业主确认和批准

The hydrostatic test shall be witnessed and record with using 2 pen recorder (temperature and pressure). These record charts shall be submitted to seller for review/approval

6.3 水压试验垫片需与操作垫片一样

Gaskets used for testing shall be same as service gasket

6.4 水压试验前, 应按照MECS规范432-007对壳程冲入氦气检验换热管与管板的连接接头, 泄漏率不得超过 1×10^{-7} std.cm³ /s.

Before Hydrotest, HRS Boilers shall be subjected to helium leak testing per MECS, Inc. Specification 432-007. the acceptable rate of leak shall be 1×10^{-7} std.cm³ /s.

6.5 接管补强圈应进行空气和肥皂水试验, 试验压力为先通入1bar(G)空气, 时间5分钟, 然后再减少到0.2bar(G), 用肥皂溶液检漏。

Air and soapy water tests shall be performed on nozzle reinforcement pads by applying 1 bar(g) air for 5 minutes, subsequently reduce to 0.2 bar(g) before applying soap solution.

6.6 水压试验按规范MECS 412-003进行, 奥氏体不锈钢容器试验用水氯离子含量小于25ppm

Hydrostatic testing shall be performed in accordance with MECS, Inc. Specification 412-003. the test water shall contain less than 25 ppm chloride of austentic stainless.

6.7 水压试验之后, 容器应完全排水, 容器内表面应干燥。

Immediately following hydrostatic test, vessel shall be drained completely and internal surface including all pockets shall be dried.

6.8 水压试验后, 不锈钢部分应进行酸洗钝化处理, 所形成的钝化膜采用蓝点法检查, 无蓝点为合格。

Pickling and passivation treatment shall be performed after hydrostatic test for the internal side and parts of stainless steel parts and passivation film shall be checked by "blue point method", no blue is acceptable.

