



技术要求
1. 换热器应符合GB/T150-2011的规定；壳程元件用S31603板应符合GB/T24511-2009的规定；管程S31603应符合GB/T150-2011 4.7.0.10-2017的规定；
2. 管板与管束的连接应符合GB/T150-2011 4.7.0.10-2017的规定；
3. 管束制造完毕后，应清除管束内壁油污，形成钝化膜，钝化液浓度应符合GB/T150-2011 4.7.0.10-2017的规定；
4. 水压试验用水应严格控制氯离子含量不超过25mg/L，且试验合格后，应立即用清水冲洗干净；
5. 管束与管板的连接应在焊接完成后进行100%PT检测，按GB/T 4713.5-2015中1.1条执行；
6. 设计使用条件下，管束与管板的连接应满足GB/T150-2011 4.7.0.10-2017的规定；
7. 在设计使用条件下，管束与管板的连接应满足GB/T150-2011 4.7.0.10-2017的规定；

序号	材料名称	规格	数量	材料	规格	数量
1	管束	Φ19X2 L=966	2	S31603	Φ19X2 L=966	2
2	管束	Φ19X2 L=404	30	S31603	Φ19X2 L=404	30
3	管束	Φ19X2 L=814	8	S31603	Φ19X2 L=814	8
4	管束	Φ19X2 L=556	8	S31603	Φ19X2 L=556	8
5	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
6	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
7	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
8	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
9	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
10	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
11	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
12	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
13	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
14	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
15	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
16	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
17	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
18	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
19	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
20	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
21	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
22	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
23	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1
24	管束	Φ19X2 L=1003	1	S31603	Φ19X2 L=1003	1

TECHNICAL SPECIFICATION				SPEC. FOR DESIGN MANUF. & ACPT.			
ITEM	DESCRIPTION	UNIT	VALUE	ITEM	DESCRIPTION	UNIT	VALUE
1	DESIGN PRESSURE	MPa (G)	0.2	1	DESIGN PRESSURE	MPa (G)	0.2
2	DESIGN TEMPERATURE	°C	380	2	DESIGN TEMPERATURE	°C	380
3	OPER. PRESSURE	MPa (G)	0.08	3	OPER. PRESSURE	MPa (G)	0.08
4	OPER. TEMPERATURE	°C	250/260	4	OPER. TEMPERATURE	°C	250/260
5	CONT. TYPE		壳程	5	CONT. TYPE		壳程
6	CONT. MATERIAL		壳程	6	CONT. MATERIAL		壳程
7	CONT. THICKNESS	mm	1.0 (1.0)	7	CONT. THICKNESS	mm	1.0 (1.0)
8	CONT. JOINT TYPE		壳程	8	CONT. JOINT TYPE		壳程
9	CONT. JOINT MATERIAL		壳程	9	CONT. JOINT MATERIAL		壳程
10	CONT. JOINT THICKNESS	mm	0.85	10	CONT. JOINT THICKNESS	mm	0.85
11	CONT. JOINT TYPE		壳程	11	CONT. JOINT TYPE		壳程
12	CONT. JOINT MATERIAL		壳程	12	CONT. JOINT MATERIAL		壳程
13	CONT. JOINT THICKNESS	mm	0.85	13	CONT. JOINT THICKNESS	mm	0.85
14	CONT. JOINT TYPE		壳程	14	CONT. JOINT TYPE		壳程
15	CONT. JOINT MATERIAL		壳程	15	CONT. JOINT MATERIAL		壳程
16	CONT. JOINT THICKNESS	mm	0.85	16	CONT. JOINT THICKNESS	mm	0.85
17	CONT. JOINT TYPE		壳程	17	CONT. JOINT TYPE		壳程
18	CONT. JOINT MATERIAL		壳程	18	CONT. JOINT MATERIAL		壳程
19	CONT. JOINT THICKNESS	mm	0.85	19	CONT. JOINT THICKNESS	mm	0.85
20	CONT. JOINT TYPE		壳程	20	CONT. JOINT TYPE		壳程
21	CONT. JOINT MATERIAL		壳程	21	CONT. JOINT MATERIAL		壳程
22	CONT. JOINT THICKNESS	mm	0.85	22	CONT. JOINT THICKNESS	mm	0.85
23	CONT. JOINT TYPE		壳程	23	CONT. JOINT TYPE		壳程
24	CONT. JOINT MATERIAL		壳程	24	CONT. JOINT MATERIAL		壳程
25	CONT. JOINT THICKNESS	mm	0.85	25	CONT. JOINT THICKNESS	mm	0.85
26	CONT. JOINT TYPE		壳程	26	CONT. JOINT TYPE		壳程
27	CONT. JOINT MATERIAL		壳程	27	CONT. JOINT MATERIAL		壳程
28	CONT. JOINT THICKNESS	mm	0.85	28	CONT. JOINT THICKNESS	mm	0.85
29	CONT. JOINT TYPE		壳程	29	CONT. JOINT TYPE		壳程
30	CONT. JOINT MATERIAL		壳程	30	CONT. JOINT MATERIAL		壳程
31	CONT. JOINT THICKNESS	mm	0.85	31	CONT. JOINT THICKNESS	mm	0.85
32	CONT. JOINT TYPE		壳程	32	CONT. JOINT TYPE		壳程
33	CONT. JOINT MATERIAL		壳程	33	CONT. JOINT MATERIAL		壳程
34	CONT. JOINT THICKNESS	mm	0.85	34	CONT. JOINT THICKNESS	mm	0.85
35	CONT. JOINT TYPE		壳程	35	CONT. JOINT TYPE		壳程
36	CONT. JOINT MATERIAL		壳程	36	CONT. JOINT MATERIAL		壳程
37	CONT. JOINT THICKNESS	mm	0.85	37	CONT. JOINT THICKNESS	mm	0.85
38	CONT. JOINT TYPE		壳程	38	CONT. JOINT TYPE		壳程
39	CONT. JOINT MATERIAL		壳程	39	CONT. JOINT MATERIAL		壳程
40	CONT. JOINT THICKNESS	mm	0.85	40	CONT. JOINT THICKNESS	mm	0.85
41	CONT. JOINT TYPE		壳程	41	CONT. JOINT TYPE		壳程
42	CONT. JOINT MATERIAL		壳程	42	CONT. JOINT MATERIAL		壳程
43	CONT. JOINT THICKNESS	mm	0.85	43	CONT. JOINT THICKNESS	mm	0.85
44	CONT. JOINT TYPE		壳程	44	CONT. JOINT TYPE		壳程
45	CONT. JOINT MATERIAL		壳程	45	CONT. JOINT MATERIAL		壳程
46	CONT. JOINT THICKNESS	mm	0.85	46	CONT. JOINT THICKNESS	mm	0.85
47	CONT. JOINT TYPE		壳程	47	CONT. JOINT TYPE		壳程
48	CONT. JOINT MATERIAL		壳程	48	CONT. JOINT MATERIAL		壳程
49	CONT. JOINT THICKNESS	mm	0.85	49	CONT. JOINT THICKNESS	mm	0.85
50	CONT. JOINT TYPE		壳程	50	CONT. JOINT TYPE		壳程
51	CONT. JOINT MATERIAL		壳程	51	CONT. JOINT MATERIAL		壳程
52	CONT. JOINT THICKNESS	mm	0.85	52	CONT. JOINT THICKNESS	mm	0.85
53	CONT. JOINT TYPE		壳程	53	CONT. JOINT TYPE		壳程
54	CONT. JOINT MATERIAL		壳程	54	CONT. JOINT MATERIAL		壳程
55	CONT. JOINT THICKNESS	mm	0.85	55	CONT. JOINT THICKNESS	mm	0.85
56	CONT. JOINT TYPE		壳程	56	CONT. JOINT TYPE		壳程
57	CONT. JOINT MATERIAL		壳程	57	CONT. JOINT MATERIAL		壳程
58	CONT. JOINT THICKNESS	mm	0.85	58	CONT. JOINT THICKNESS	mm	0.85
59	CONT. JOINT TYPE		壳程	59	CONT. JOINT TYPE		壳程
60	CONT. JOINT MATERIAL		壳程	60	CONT. JOINT MATERIAL		壳程
61	CONT. JOINT THICKNESS	mm	0.85	61	CONT. JOINT THICKNESS	mm	0.85
62	CONT. JOINT TYPE		壳程	62	CONT. JOINT TYPE		壳程
63	CONT. JOINT MATERIAL		壳程	63	CONT. JOINT MATERIAL		壳程
64	CONT. JOINT THICKNESS	mm	0.85	64	CONT. JOINT THICKNESS	mm	0.85
65	CONT. JOINT TYPE		壳程	65	CONT. JOINT TYPE		壳程
66	CONT. JOINT MATERIAL		壳程	66	CONT. JOINT MATERIAL		壳程
67	CONT. JOINT THICKNESS	mm	0.85	67	CONT. JOINT THICKNESS	mm	0.85
68	CONT. JOINT TYPE		壳程	68	CONT. JOINT TYPE		壳程
69	CONT. JOINT MATERIAL		壳程	69	CONT. JOINT MATERIAL		壳程
70	CONT. JOINT THICKNESS	mm	0.85	70	CONT. JOINT THICKNESS	mm	0.85
71	CONT. JOINT TYPE		壳程	71	CONT. JOINT TYPE		壳程
72	CONT. JOINT MATERIAL		壳程	72	CONT. JOINT MATERIAL		壳程
73	CONT. JOINT THICKNESS	mm	0.85	73	CONT. JOINT THICKNESS	mm	0.85
74	CONT. JOINT TYPE		壳程	74	CONT. JOINT TYPE		壳程
75	CONT. JOINT MATERIAL		壳程	75	CONT. JOINT MATERIAL		壳程
76	CONT. JOINT THICKNESS	mm	0.85	76	CONT. JOINT THICKNESS	mm	0.85
77	CONT. JOINT TYPE		壳程	77	CONT. JOINT TYPE		壳程
78	CONT. JOINT MATERIAL		壳程	78	CONT. JOINT MATERIAL		壳程
79	CONT. JOINT THICKNESS	mm	0.85	79	CONT. JOINT THICKNESS	mm	0.85
80	CONT. JOINT TYPE		壳程	80	CONT. JOINT TYPE		壳程
81	CONT. JOINT MATERIAL		壳程	81	CONT. JOINT MATERIAL		壳程
82	CONT. JOINT THICKNESS	mm	0.85	82	CONT. JOINT THICKNESS	mm	0.85
83	CONT. JOINT TYPE		壳程	83	CONT. JOINT TYPE		壳程
84	CONT. JOINT MATERIAL		壳程	84	CONT. JOINT MATERIAL		壳程
85	CONT. JOINT THICKNESS	mm	0.85	85	CONT. JOINT THICKNESS	mm	0.85
86	CONT. JOINT TYPE		壳程	86	CONT. JOINT TYPE		壳程
87	CONT. JOINT MATERIAL		壳程	87	CONT. JOINT MATERIAL		壳程
88	CONT. JOINT THICKNESS	mm	0.85	88	CONT. JOINT THICKNESS	mm	0.85
89	CONT. JOINT TYPE		壳程	89	CONT. JOINT TYPE		壳程
90	CONT. JOINT MATERIAL		壳程	90	CONT. JOINT MATERIAL		壳程
91	CONT. JOINT THICKNESS	mm	0.85	91	CONT. JOINT THICKNESS	mm	0.85
92	CONT. JOINT TYPE		壳程	92	CONT. JOINT TYPE		壳程
93	CONT. JOINT MATERIAL		壳程	93	CONT. JOINT MATERIAL		壳程
94	CONT. JOINT THICKNESS	mm	0.85	94	CONT. JOINT THICKNESS	mm	0.85
95	CONT. JOINT TYPE		壳程	95	CONT. JOINT TYPE		壳程
96	CONT. JOINT MATERIAL		壳程	96	CONT. JOINT MATERIAL		壳程
97	CONT. JOINT THICKNESS	mm	0.85	97	CONT. JOINT THICKNESS	mm	0.85
98	CONT. JOINT TYPE		壳程	98	CONT. JOINT TYPE		壳程
99	CONT. JOINT MATERIAL		壳程	99	CONT. JOINT MATERIAL		壳程
100	CONT. JOINT THICKNESS	mm	0.85	100	CONT. JOINT THICKNESS	mm	0.85