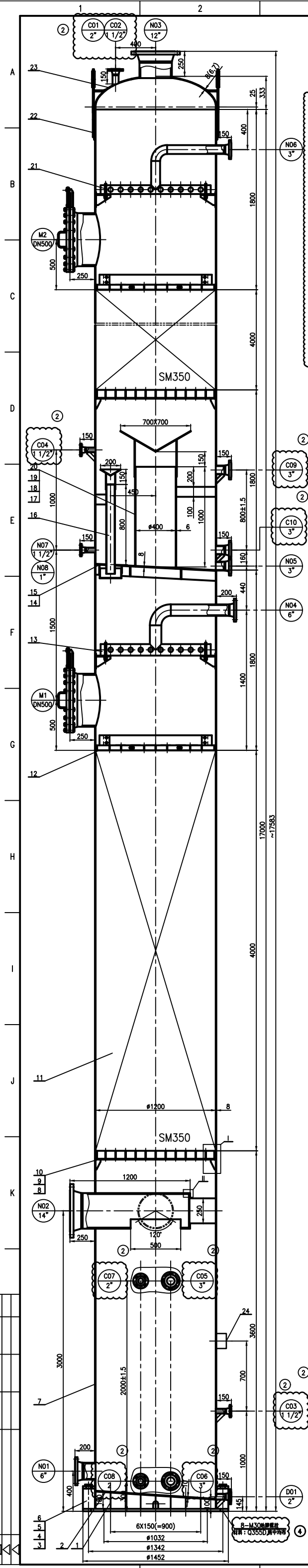

??.制造.??数据
DESIGN,MANUFACTURE AND INSPECTINON DATA SHEET

?准 ?拠 CODE & STD.	1. NB/T47041-2014<<塔式容器>> <<VERTICAL VESSELS SUPPORTED BY SKIRT>> 2. HG20652-1998<<塔??拠??定>> <<SPECIFICATION OF COLUMNS DESIGN>>				
名称 DESCRIPTION		容室内 CHAMBER	容器?? VESSEL CLASSIFICATION		–
最高工作?力 MAX.OPER.PRESS	kg/cm²	0.1~0.6	???定?告 RISK EVALUATING REPORT		不需要
??? DESIGN PRESSURE	kg/cm²	1	?计寿命 DESIGN LIFE/REQUIRENT TIMES		15年 15 YEARS
工作温度 OPERATION TEMPERATURE	℃	40~45	焊?规程 WELDING SPEC.		NB/T47015-2023
??温度 DESIGN TEMPERATURE	℃	100	?合件?注明外，?接管?型式按HG/T20583-2020中?定?角?(例?角尺寸及?缓厚度≥法??接管?度?度中?定;?合件?角焊缝按GB/T985.1,2-2008中?定。		
最低?金属温度 MIN.DESIGN METAL TEMP	℃	–	BESIDE OTHERWISE NOTED IN THE DWG, THE TYPES AND DIMESSIONS OF WELDED JIONT SHALL REFER TO HG/T20583-2020. THE HEIGHT OF FILLET SHALL BE EQUAL TO WHICHEVER IS THINNER BETWEEN THE TWO PLATES. THE WELDING OF FLANGE SHALL REFER TO IT'S OWN STANDARD OF FLANGE.OTHER CONSULT GB/T985.1,2-2008.		
介? CONTENT		甲醛液 Formaldehyde solution	母材牌号 TRADEMARK OF PARENT METAL		?接材料牌号 TRADEMARK OF WELDING METAL
最?毒性 TOXICITY		?度毒物 HIGHLY TOXIC	碳素钢 CARBON STEEL		J427
易燃易爆 EXPLOSIVE		易爆 EXPLOSIVE	不??不? LOW STAINLESS STEEL		A102
介?密度 FLUID DENSITY	kg/m³	–	不??不?碳素钢 CARBON STEEL AND STAINLESS STEEL		A302
??介?分? PROCESS MEDIUM		–	接?? JOINT CATEGORY	??方法 TEST METHOD	EXAM. RATE	STD. FOR/RE-QUAL
分? GROUP		第一??? The first group of media	A、B 筒体 SHELL	RT	100%	NB/T47013.2-2015 A67/A7
主要??件材料 MAIN MATERIAL		?料牌号 Refer to the material list	封? HEAD	RT	100%	NB/T47013.2-2015 A67/A7
腐?裕量 CORROSION ALLOW	mm	–	DN?10" D?	RT	100%	NB/T47013.2-2015 A67/A7
焊接接?系数 封? JOINT EFFICIENCY SHELL/HEAD		1.0/1.0	????接?	PT	100%	NB/T47013.5-2015 ??
容?? FULL CAPACITY	m³	~19.3	A,B,C,D,E?	PT	100%	NB/T47013.5-2015 ??
??开?力 OPENING PRESS. OF S.V.	kg/cm²	–	筒体直?度 STRAIGHTNESS OF SHELL	mm		–
爆破片爆破?力 BURST.PRESS.OF BURSTDISK	kg/cm²	–	支座安装垂直度 INSTAL.PERPENDICULAR OF BODY	mm		–
填?/料?/填料?型 PACKING TYPE/PACKING NUMBER		–	?? P.W.H.T			不要 NO
填料?件/填料高度 PACKING SIZE/PACKING HEIGHT	mm	–	全?探伤?例及?度 RADIOGRAPHIC EXAM.WITHOUT DWG			50
地震?度(加速度) SEISMIC INTENSITY		8(0.2g)	焊后热?理?求 HEATING TREATING AND TRANS.REQS			V
地震分? SEISMIC GROUPING		第三? NO.3	其?要求 OTHER REQUIREMENTS			NB/T 10558-2021
?地?型? SOIL CONDITION		?	材料 MATERIAL			SEE NOTE
地?粗?度 GROUND ROUGHNESS		A	厚度 THICKNESS	mm		–
基本??速?力 BSIND VELOCITY PRESS	N/m²	700	净重 NET MASS	kg		6500
雪?荷 SNOW LOAD	N/m²	0	其中??件?重 STAINLESS STEEL MASS	kg		–
附加?荷 ADDITIONAL LOAD	N/m²	–	充水?重 MASS FULL OF WATER	kg		~25800
水??HYDRO' TEST	kg/cm² 立式 VERTI 卧式 HOR.	1.3 2.8	操作?重 OPERATING MASS	kg		–
气??PNEU.TEST	kg/cm²	–	最大吊装?重 MAX.MASS LIFTING	kg		7900
气液?合??GAS & HYDRO' TEST	kg/cm²	–	管口、支座方位 NOZ.& SUPPORT ORIETATION			?本? AS PER THE DWG
气密性?? GAS LEAKAGE. TEST	kg/cm² 立式 VERTI 卧式 HOR.	1 1				
?漏 LEAKAGE CHECK	kg/cm²	–				

二、主要材料
TABLE OF MATERIALS

元件名称 PARTS	材料 MATERIAL	状? SHAPE	?准号 STANDARD NO.	供?状? DELIVERY COND.	附加要求 ADDITIONAL REQUIREMENTS
筒体、封? SHELL, HEAD	S30408	板材 PLATE	GB/T713.7-2023	固溶 SOLID SOLUTION	
管?? FLANGE	S30408 III	?件 FORGING	NB/T47010-2017	固溶 SOLID SOLUTION	
接管 PIPE	S30408	管材 PIPE	GB/T14976-2012	固溶 SOLID SOLUTION	冷拔 COLD DRAWING

三、管口表
NOZZLE SHEET

接管符号 MARK	公称尺寸 NORMINAL SIZE	?接尺寸?准 NOZZLES CONN_STD.	型式-密封面 TYPE/FACE	用途 SERVICE	管?尺寸 JUT LENGTH	伸出?度 LENGTH OF NOZZLE
N01	Class150 6"	ASME B16.5	WN-RF	Liquid outlet	ø168X6	200
N02	Class150 14"	ASME B16.5	WN-RF	Vapor inlet	ø356X8	250
N03	Class150 12"	ASME B16.5	WN-RF	Vapor outlet	ø324X8	250
N04	Class150 6"	ASME B16.5	WN-RF	Recycle inlet	ø168X6	200
N05	Class150 3"	ASME B16.5	WN-RF	Liquid outlet	ø89X4	150
N06	Class150 3"	ASME B16.5	WN-RF	Recycle inlet	ø89X4	150
N07	Class150 1 1/2"	ASME B16.5	WN-RF	Water inlet	ø48X4	150
N08	Class150 1"	ASME B16.5	WN-RF	Recycle inlet	ø34X4	150
D01	Class150 2"	ASME B16.5	WN-RF	Drain	ø60X4	150
C01	Class150 2"	ASME B16.5	WN-RF	PI	ø60X4	150
C02	Class150 1 1/2"	ASME B16.5	WN-RF	TI	ø48X4	150
C03	Class150 1 1/2"	ASME B16.5	WN-RF	TI	ø48X4	150
C04	Class150 1 1/2"	ASME B16.5	WN-RF	TI	ø48X4	150
C05,06	Class150 3"	ASME B16.5	WN-RF	LG	ø89X4	150
C07,08	Class150 2"	ASME B16.5	WN-RF	LT	ø60X4	150
C09,10	Class150 3"	ASME B16.5	WN-RF	LT	ø89X4	150
M1	PN25 DN500	HG/T21599-2014	WN-RF	Manhole	ø530X8	250
M2	PN25 DN500	HG/T21599-2014	WN-RF	Manhole	ø530X8	250

技?要求 TECHNICAL REQUIREMENTS

1、塔体直?度公差?17.0mm,塔体安装垂直度公差?17.0mm.
THE STRAIGHTNESS ALLOWANCE OF TOWER SHALL BE 8.8mm. THE INSTALLATION VERTICAL ALLOWANCE OF TOWER SHALL BE15.5mm.

2、裙座(支座)螺栓孔中心?直径以及相??孔和任意?孔?弦??限偏差?2mm.
THE SKIRT(SUPPORT) DIAMETER OF THE CENTER CIRCLE OF BOLT HOLES AND THE LENGTH OF CHORD BETWEEN TWO ADJACENT BOLTS,THE ALLOWANCE SHALL BE 2mm. AND THE ALLOWANCE FOR THE CHORD LENGTH BETWEEN TWO ARBITRARY BOLT HOLES ON CENTER CIRCLE IS THE SAME.

3、支承?板?平整,安装后的平面度公差2.4mm.
THE GRATING SUPPORT SURFACE SHALL BE FLAT. THE ALLOWANCE OF FLATNESS AFTER INSTALLATION SHALL BE 2.4mm.

4、?淋装置的平面度公差?3mm,?高?限偏差3mm,其中心?同?度公差?3mm.
FLATNESS ALLOWANCE OF SPRAY DEVICE SHALL BE 3mm. ELEVATION ALLOWANCE SHALL BE 3mm. AND COAXALITY ALLOWANCE SHALL BE 3mm.

5、塔体在同一断面上的最大直径与最小直径之差≤12mm.
THE DIFFERENCE BETWEEN THE MAXIMUM DIAMETER AND THE MINIMUM DIAMETER OF THE SAME TRANSECT SHALL BE≤12mm.

6、接管(人孔,??等)与筒体?接?,?与塔体内壁面平?.
END SURFACE OF THE WELD JOINT BETWEEN NOZZLE (MANHOLE, SIGHT GLASS, ETC.) AND TOWER SHELL SHALL BE IN THESAME PLANE.

7、塔体内表面???磨平,??,?渣?清除干?.
THE INNER WELD OF TOWER SHOULD BE POLISHED TO MAKE IT FLUSH WITH MOTHER MATERIAL. CLEAN OUT WELD SCARS AND WELD DREGS.

8、??用不??材料及?接接??按GB/T 4334-2020《金属和合金的腐? 奥氏体及?浆体-奥氏体(双相)不??晶?腐???方法》中的A法?行晶?腐?敏感性??.
Stainless steel materials and welded joints used in equipment shall undergo intergranular corrosion sensitivity testing in accordance with Method A of GB/T 4334-2020 "Corrosion of Metals and Alloys – Test Methods for intergranular Corrosion of Austenitic and Ferritic, Austenitic (Dual phase) Stainless Steel".

9、本???制??品?接?板。
This equipment should prepare product welding test plates.

④ 10、保温和?漆按附件(22150-00000-MC05)、(22150-00000-MC08)。
INSULATION AND PAINTING AS PER ATTACHMENT (22150-00000-MC05)、(22150-00000-MC08)

26		接地板 S=10 Earth lug	2	S30408	0.4	0.8	
25	HG/T21574-2018	尾部吊耳 APA-2-15 Tailing lug	1	Q345R		8.3	
24		?牌 NPL	1	?合件		1.5	
23	GB/T25198-2023	封? EHA1200X8(6.7) Ellispe head	1	S30408		103	
22	HG/T21574-2018	吊耳 SP-4-10 Lifting lug	2	Q345R/S30408	17.6	35.2	
21	24SY-042-003-04	回流分布管(二) Reflux pipe	1	?合件 Subassembly		250	N06
20		筋板 30X5 Rib	3	S30408	0.5	1.5	
19		?体 ø700 δ=3 Cone	1	S30408		12	
18		支承板 100X6 Support plate	3	S30408	1.9	5.7	均布
17		升气管 DN400X6 L=1000 Riser	1	S30408		61	
16		溢流管 ø89X4 Overflow pipe	4	?合件 Subassembly	15	60	
15		筋板 100X8 Rib	4	S30408	7.5	30	
14		底板 S=8 Plate	1	S30408		72	
13	24SY-042-003-03	回流分布管(一) Reflux pipe	1	?合件 Subassembly		100	N04
12	24SY-042-003-02	填料?盖 Packing gland	2	S30408	30	60	
11		填料 SM350 Packing	2	S30408	/	/	H=4000
10	24SY-042-003-01	填料格? Packing grid	2	S30408	45	90	
9		支持圈ø1192/ø1072 S=8 Support ring	2	S30408	13.4	26.8	
8		支承板 S=6 Support plate	24	S30408	0.2	4.8	?圈12件均布
7		筒体 DN1200X8 Shell	1	S30408		4087	L=16976
6		?板 S=16 Washer	8	Q345R	1.0	8	
5		盖板 S=24 Cover plate	8	Q345R	3.8	30.4	
4		筋板 S=16 Rib	16	Q345R	3.0	48	
3		基??板 S=24 Base ring	1	Q345R		155	
2		底板 S=10 Plate	1	S30408		90	
1		筋板 S=10 Stiffener	7	Q345R	15	105	

序号 ITEM NO.	?号或?准号 DRAW NO. OR STANDARD NO.	名称 DESCRIPTION	数量 QTY.	材料 MATERIAL	?? 重量(Kg) WET	??	?注 REMARK
M01~02	HG/T21599-2014	人孔 WN RF II(HLD-222)500-25 Manhole	2	?合件	294	588	
D01 C01 C07~08	ASME B16.5	筋板 25X5 Rib	14	S30408	0.15	2.1	
		法? 2" Class150 WN RF Flange	4	S30408 III	2.72	10.88	
		接管 ø60X4 Pipe	4	S30408	0.52	2.08	L=95
N08	ASME B16.5	法? 1" Class150 WN RF Flange	1	S30408 III		1.14	
		接管 ø34X4 Pipe	1	S30408		0.30	L=100
N07 C02~04	ASME B16.5	法? 1 1/2" Class150 WN RF Flange	4	S30408 III	1.81	7.24	
		接管 ø48X4 Pipe	4	S30408	0.42	1.68	L=95
N05 C05~06 C09~10	ASME B16.5	法? 3" Class150 WN RF Flange	5	S30408 III	5.22	26.1	
		接管 ø89X4 Pipe	5	S30408	0.42	2.1	L=88
N03	ASME B16.5	法? 12" Class150 WN RF Flange	1	S30408 III		39.95	
		接管 ø324X8 Pipe	1	S30408		9.6	L=152
N02		支?板 S=8 Support plate	1	S30408		4.2	
		堵板 S=8 Seal plate	1	S30408		6.6	
	ASME B16.5	法? 14" Class150 WN RF Flange	1	S30408 III		51.76	
		接管 ø356X8 Pipe	1	S30408		73.5	L=1073
N01	ASME B16.5	法? 6" Class150 WN RF Flange	1	S30408 III		11.8	
		接管 ø168X6 Pipe	1	S30408		2.7	L=125

管口符号 Nozzle symbol | ?号或?准号 DRAW NO. OR STANDARD NO. | 名称 DESCRIPTION | 数量 QTY. | 材料 MATERIAL | ? | ? | ?注 REMARK | 重量(Kg) WET

标记 MARK NUMBER	处数	分区 SUBAREA	更改文件号 REDOCUMENT	签名 NAME	日期 DATE

无锡苏阳化工装备有限公司
WUXI SUYANG CHEMICAL EQUIPMENT CO., LTD

工程名称：苏?/年?产?装置
PROJECT:

设计 DRAWN BY
校核 CHECKED BY
审核 AUDITED BY
批准 APPROVED BY
项目负责人 P.M.

2#吸收塔
2#ABSORPTION COLUMN
装配?
ASSEMBLY DRAWING

设备位号 ITEM: T-1102
设计阶段 STAGE: ???? Detail Design
图号 DRW NO.: 24SY-042-003-00
版次 REV: 4
日期 DATE: 2025.6.14
比例 SCALE: 1:15
图幅 DIMENSION: A1
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?? DATE					
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?? MODIFY					
?? EXPLANATION					
?? MARK					