



M01	NB/T11025-2022	封头圆 dN50-12-D REINFORCING PAD	1	Q345R		25.4	标准图
	HG/T25121-2014-4	人形,RF 1/1W D-22221 450-40 MANHOLE	1	组合件 COMBINATION		375	标准图
C31 N05	HG/T20631-2009	缠绕垫 D 50-300 GASKET	2+4	2222			外购
	HG/T20634-2009	螺栓 M16 NUT STD	16+8	30CrMoA	0.05	1.2	外购
	HG/T20634-2009	螺栓 M16=95 STD	8+4	35CrMoA	0.14	1.68	外购
	HG/T20615-2009	法兰 BL 50-300 RF BLIND FLANGE	2	16MnII	3.64	7.28	标准图
	HG/T20615-2009	法兰 LWN50-300 RF S=16 H=220 FLANGE	2	16MnII	8.4	16.8	标准图
N03	HG/T20615-2009	法兰 LWN40-300 RF S=N.5 H=220 FLANGE	1	16MnII		6.5	标准图
N02, N04	HG/T20615-2009	法兰 LWN25-300 RF S=13.5 H=220 FLANGE	2	16MnII	4.2	8.4	标准图
N01	GB/T6479-2013	喷嘴φ89.8 2 L=142 NOZZLE PIPE	1	Q345D		2.3	
	ASME B16.5-2020	法兰 WNB0-300 RF S=8.2 FLANGE	1	16MnII		8.17	标准图
管口代号 ITEM	图号或标准号 DWG. NO. OR STD. NO.	名称 PARTS. NAME	数量 QTY.	材料 MAT'L	*SINGLE 重量 MASS(Kg)	L/TOTAL	备注 REMARKS
GK		管口零件 NOZZLE PARTS	1			453	
7	060-STD-EQ12.02	卧式容器保温支架 INSULATOR SUPPORTS FOR HORIZONTAL VESSELS	1	组合件		12	标准图
6		垫板 L=10 EARTH PLATE	2	S30408	0.5	1.0	
5	NB/T47065.1-2018	鞍座 B1-1000 F/S h=250 SADDLE	2	Q235B/Q345R	83	166	标准图
4		鞍座架 H=150 NAMEPLATE BRACKET	1	Q345R		1.0	
3	R25019-3	鞍座 NAMEPLATE	1	S30408			
2		鞍座 DN1000×14 SADDLE	1	Q345R		525	L=1500
1	GB/T25198-2023	垫板 EHA1000×14 (min12.3) HEAD	2	Q345R	128	256	
件号 PARTS. NO.	图号或标准号 DWG. NO. OR STD. NO.	名称 PARTS. NAME	数量 QTY.	材料 MAT'L	*SINGLE 重量 MASS (Kg)	L/TOTAL	备注 REMARKS

设计、制造与检验主要数据表 THE MAIN DATA SHEET OF DESIGN, MANUFACTURE AND INSPECTION						
规范、标准 CODE & STANDARD	(设计执行标准及依据) TSG Z16-2016《压力容器安全技术监察规程》 SUPERVISORY REGULATION ON SAFETY TECHNOLOGY FOR STATIONARY PRESSURE VESSEL (材料执行标准及依据) GB/T20894-2020 TECHNICAL STANDARD OF FABRICATION FOR STEEL CHEMICAL VESSELS			(产品编号) QB/T50-6-2024 PRESSURE VESSELS (材料号) NB/T47042-2014 HORIZONTAL VESSELS ON SADDLE SUPPORTS		
	参数 PARAMETER			压力容器类 PRESS. VESSEL CLASS	Ⅱ/D	
工作压力 WORKING PRESS.	kg/cm²	20	焊接类别 WELDING SPEC.	NB/T47015-2023		
设计压力 DESIGN PRESS.	kg/cm²	22		Q345R, 16Mn	J507, H10Mn2, ER50-6	
筒体设计应力 CYL. DRG. STRESS	kg/cm²		焊接材料 WELDING MATERIAL	CS AND SS	A312	
工作压力 WORKING TEMP.	°C			Q235B	J427	
设计温度 DESIGN TEMP.	°C	250	焊接接头形式 WELDING STRUCTURE	除注例外按HG/T20583-2020规定执行并符合JB/T47058-2020		
介质(组分) FLUID (COMPONENT)		蒸汽、凝液 STEAM, CONDENSATE	焊缝厚度 THICK. OF FILLET WELD	除注例外按JB/T47058-2020规定执行并符合JB/T47058-2020		
介质(组别) FLUID (CATEGORY)	kg/m³	5.63 (V)/286.79 (W) 5.63 G/GAS / 286.79 F/LIQUID	法兰与接管连接 WELDING METHOD, FLANGE AND FLANGE	按JB/T47058-2020规定执行并符合JB/T47058-2020		
介质特性 FLUID PERFORMANCE		--/--	产品检测试验 PRODUCT DETECTION TEST COUPONS			
安全系数取值 SAFETY FACTOR	kg/cm²	工艺系统考虑 PROCESS SYSTEM CONSIDERATION	热处理 P.W.H.T.			
设计使用寿命 DESIGN WORKING LIFE(YEARS)		10	其它 OTHERS			
主要承压元件材料 MAIN MATERIAL	NAME	Q345R, 16MnII	其它 OTHERS			
标准 STANDARD	GB/T7213-2-2023, NB/T47008-2017			NB/T10558-2021, 22150-00000-MC08		
公差等级 CORD. ALLOW.	mm	3.0	油漆、运输 PAINTING, TRANSPORTATION	按图样或合同要求		
焊缝余量 JOINT EFF.		1.0	管口、光面等 NOZ./FACE CORRELATION	按图样或合同要求		
耐压试验法 (压力/分钟) TYPE OF PROOF PRESS. TEST	kg/cm²	31.7(HYDRO.-H)	无损检测 NON-DESTROY TEST	射线探伤 RT-II	AB	NB/T47012-2015
泄漏测试法 (压力/分钟) TYPE OF LEAK TEST	kg/cm²			RT-II	AB	NB/T47012-2015
容积 CAPACITY	m³	1.44		MT-I	AB	NB/T47013-2015
填充率 FILL.FACT.						
保温材料/厚度 INSULATING MATERIAL/THICKNESS	mm	硅酸铝毡/20 ALUMINUM SILICATE FIBER/20	安装环境 INSTALL ENVIRONMENT	环境温度 ENVIRONMENTAL TEMP.	21 °C	400 Pa
防腐涂层/厚度 ANTI-CORROSION COAT/THICKNESS	mm			防腐等级 CORROSION RESISTANCE	III	接地 GROUNDING

补充技术要求:

Supplementary technical requirements:

- 1、除注明外,所有尺寸单位为“mm”,法兰螺栓孔应沿设备中心线或平行线均布。
All dimensions are in mm, unless otherwise specified. The flange bolt holes shall be evenly distributed across the centre line of the equipment or its parallel line.
- 2、设备用Q345R钢板应符合GB/T7173.2-2023《承压设备用钢板和钢带》的规定。
16Mn钢件应符合NB/T47008-2017《承压设备用低合金钢锻件》中II级规定进行制造、检验和验收。
The equipment used Q345R steel plates shall conform to the provisions of GB/T7173.2-2023 "Steel plate, sheet and strip for pressure equipments".
16Mn forgings shall be manufactured, inspected and accepted in accordance with the provisions of grade II in NB/T47008-2017 "Carbon and alloy steel forgings for pressure equipment".
- 3、Q345R钢板应符合GB/T6479-2013的规定,外径不小于76且 $\delta \geq 6.5\text{mm}$ 时应进行-20℃夏比(V型缺口,纵向)低温冲击试验,冲击吸收能量KV2(三个试样的平均值)应不小于4.1J,允差其中一个试样小于4.1J,但不得小于2.9J。
Q345R steel pipe shall conform to the provisions of GB/T6479-2013, and when the outer diameter is not less than 76 and $\delta \geq 6.5\text{mm}$, Charpy (V-notch, longitudinal) low temperature impact test at -20℃ shall be carried out, and the impact absorption energy KV2 (the average of three test pieces) shall not be less than 4.1J, allowing one of the test pieces to be less than 4.1J, but not less than 2.9J.
- 4、受压元件之间所有对接焊缝、角焊缝均需采用全焊透结构,焊接接头不得有表面裂纹、未熔合、未焊透、表面气孔、裂纹、未填满和飞溅物等缺陷;焊缝与母材应当圆滑过渡;角焊缝的外形应当用圆形面过渡;且焊缝表面不得有咬边。
All butt welds and fillet welds between pressurized elements shall be of full penetration type, and the welded joints shall be free of surface cracks, lack of fusion, incomplete penetration, surface porosity, arc pits, lack of filler and spatter, etc., and the welds shall transition smoothly to the parent metal; the fillet welds shall have a concave smooth transition; and the weld surface shall be free of undercut.
- 5、DN<250mm的接管与筒体法兰对接接头采用100%MT检测,符合NB/T47013.4-2015中Ⅱ级为合格。
Take 100% MT inspection for the connection of the branch pipe with a diameter of DN less than 250mm and the high-neck flange butt joint, which meets the requirements of NB/T47013.4-2015 for the first grade as qualified.
- 6、M0接管与壳体的焊接接头应符合NB/T47013.3-2023进行100%超声检测,合格级别不低于Ⅰ级。
The welded joints of M0 takeover and the shell shall be subject to 100% ultrasonic testing in accordance with NB/T47013.3-2023, and the qualification level shall not be lower than Grade I.

注:1、设计使用年限不等于实际使用寿命,压力容器使用单位应根据装置的操作条件和TSG 21-2016《固定式压力容器安全技术监察规程》第9章的要求,对该设备进行定期的不定期检验,并编制实际使用寿命和设备设计寿命报告。

Note: 1. The design service life is not equivalent to the actual service life. The user of the pressure vessel shall carry out regular and irregular inspection of the equipment according to the operation condition of the device and the requirements of Chapter 8 of TSG 21-2016 Supervision Regulation on Safety Technology for Stationary Pressure Vessels, and confirm the conformity of the actual life and the design life.

管口表 LIST OF NOZZLE										
序号 ITEM	公称尺寸 NPS	公称压力 CLASS(PN)	连接标准 COND.STD.	连接法兰形式 TYPE	连接管头 FACING	用途或名称 SERVICE STEAM INLET	管子规格 NOZZLE SIZE	管口重量和力矩 POU/INLET(LB.FT)	备注 REMARK	
N01	3	300	ASME B16.5-2020	WN	RF	蒸汽入口 STEAM INLET	Ø88.9×8.2	720		
N02	1	300	HG/T20615-2009	LWN	RF	蒸汽出口 STEAM OULET	Ø54×13.5	720		
N03	1.5	300	HG/T20615-2009	LWN	RF	蒸汽出口 STEAM OULET	Ø70×14.5	720		
N04	1	300	HG/T20615-2009	LWN	RF	凝液出口 CONDENSATE OULET	Ø54×13.5	720		
N05	2	300	HG/T20615-2009	LWN	RF	蒸汽出口 STEAM OULET	Ø84×16	720		
C31	2	300	HG/T20615-2009	LWN	RF	蒸汽出口 STEAM OULET	Ø84×16	720		
M01	18	PN40	HG/T21521-2014	WN	RF	主蒸汽孔 MAIN HOLE	Ø480×14	SEE DRAW		
设备自重 (供货质量) NET MASS (Kg) 14.15										
空质量 EMPTY MASS (Kg)										
操作质量 OPERATING MASS (Kg)										
盛水质量 MASS OF FULL WATER (Kg) 2855										
最大可拆质量 MAX. REMOV. PART MASS (Kg)										
标记 数量 更改文件号 签字 日期 MARK QTY CHANGE FILE NO. SIGN DATE										
 浙江诚泰化工机械有限公司 ZHEJIANG CHENGTAI CHEMICAL MACHINERY CO.,LTD						图号 DWG. NO.		R25019-00		
设计 DESIGN 校核 CHECK 审核 APPR 标准 标准 APPR 工艺 工艺 APPR 批准 批准 APPR						项目 SECTION 2.0MPa 蒸汽分汽缸 2.0MPa STEAM DISTRIBUTION CYLINDER 总装图 ASSEMBLY DWG		图号 ITEM NO. 版次 REV. 比例 SCALE 1:1 重量 重量 1.8 磅力 磅力		
						每块重量 每块重量 3500/块重量 3500/块重量 PET PETRO OXO NUSANTARA 3500/块重量 3500/块重量		V-2405		