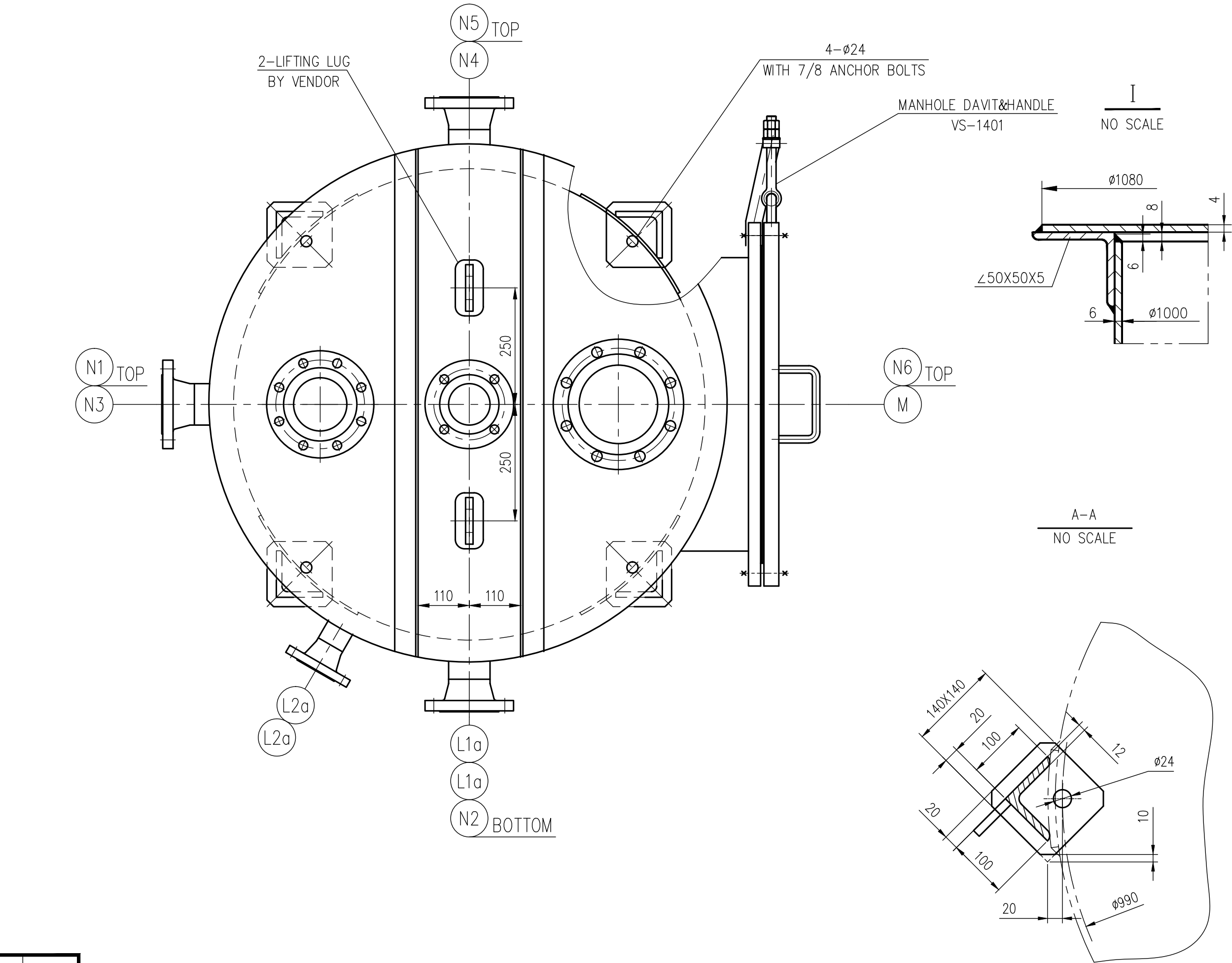
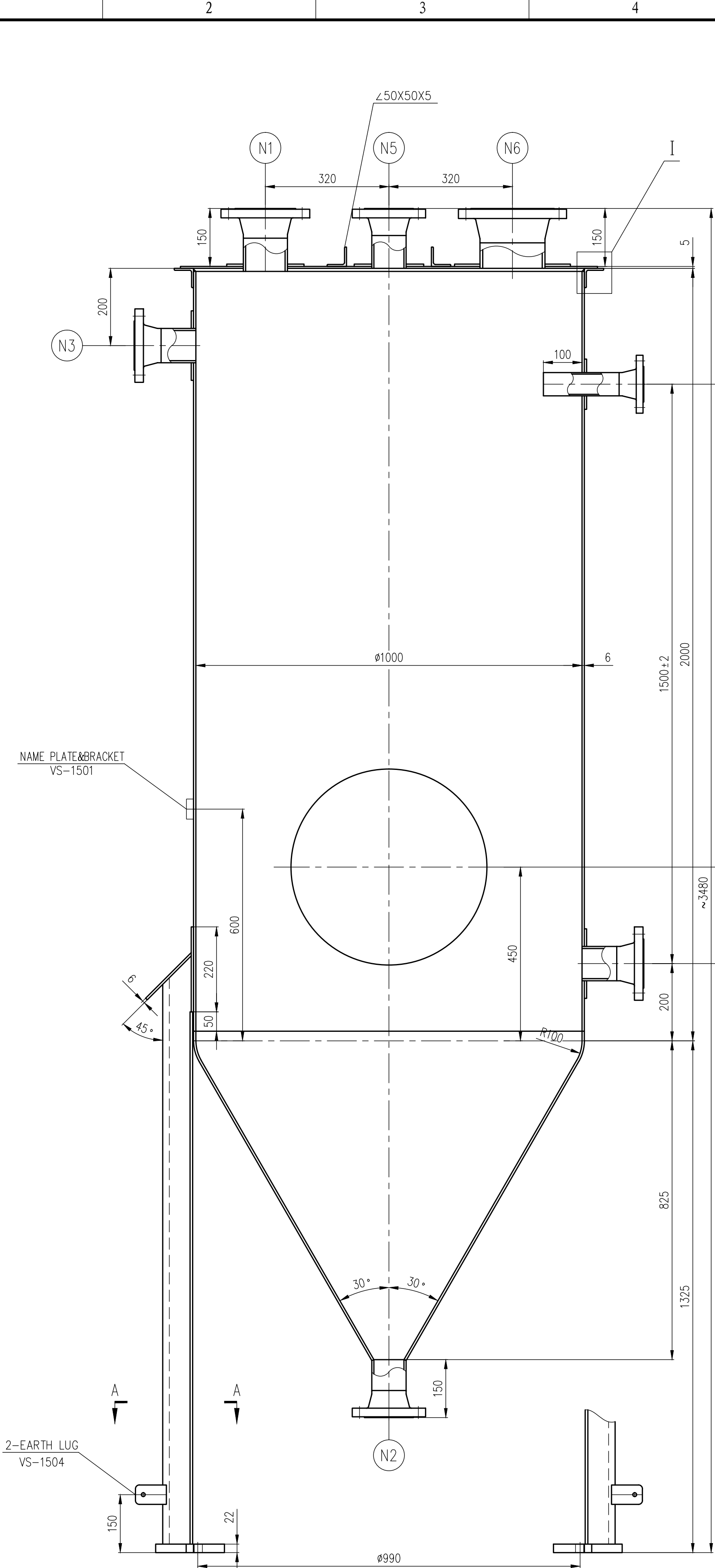




DESIGN DATA					
CODE & STD	ASME SEC. VIII.1 2023 ED.				
ASME U-STAMP	NO	SPECIAL SERVICES		☐ H2 SERVICE	
OPER. PRESSURE MPa(g)	ATM			☐ WET H2S SERVICE	
DESIGN PRESSURE MPa(g)	FULL LIQUID LEVEL			☐ AMMONIA SERVICE	
OPER. TEMP. °C	25-30	NDE	WELDING JOINT CATEGORY	INSPECTION METHOD/RATIO	
DESIGN TEMP. °C	85		A	RT-SPOT	
MDMT °C	/		B	SHELL/HEAD/NOZZLE(DN>250) NOZZLE DN<=250	
MAWP MPa(g)	/		C	MT	
MEDIUM	SCRUBBING WATER(NOTE 3)		D	MT	
MEDIUM DENSITY kg/m³	1000				
LETHAL SERVICE	☐ YES ☒ NO	PRESSURE TEST	HYDRO. TEST PRESSURE MPa(g)	VERTICAL	FULL WATER
CORROSION ALLOWANCE mm	0			HORIZONTAL	/
JOINT EFFICIENCY	0.85		PNEUMATIC TEST PRESSURE MPa(g)	/	
WIND LOAD	NOTE 1	LEAKAGE TEST	AIR-TIGHT TEST PRESSURE MPa	HELIUM LEAK TEST PRESSURE MPa	OTHER LEAK TEST MEDIUM/PRESSURE MPa
SEISMIC LOAD	NOTE 2		/	-	-
TOTAL VOLUME	1.8				
FILLING COEFFICIENT	/	FABRICATION WEIGHT kg		950	
INSULATION MATERIAL	/	INSTALL WEIGHT kg		/	
INSULATION THK. mm	/	OPERATING WEIGHT kg		/	
FIRE PROOFING THK. mm	/	WEIGHT OF FULL WATER kg		2550	
REQ. FOR PWHT	/	DESIGN SERVICE LIFE YEAR		20	

SPECIFICATION					
1. SAPKT-EQ-SPE-0004 Rev.0 <SPECIFICATION FOR PRESSURE VESSEL>.					
2. SAPKT-QC-BED-0002 Rev.0 <SPECIFICATION FOR GENERAL WELDING AND NDE REQUIREMENT FOR PRESSURIZED EQUIPMENT>.					
3. APPENDIX 10.1.8 <SPECIFICATION FOR VESSELS, TANKS AND TOWERS>.					
4. SAPKT-EQ-SPE-0045 Rev.0 <ENGINEERING SPECIFICATION OF MECHANICAL EQUIPMENT>.					
5. SAPKT-EM-SPE-0050 Rev.0 <ENGINEERING SPECIFICATION OF MECHANICAL EQUIPMENT>.					
6. T24B25-MC07-01 <SPECIFICATION FOR PAINTING>.					
1. THE BOLT SIZE ARE 1-1/8" AND OVER, THREADS PER INCH 8UN SHALL BE USED, THE BOLT SIZE ARE1' AND LESS,THREADS PER INCH UNC SHALL BE USED.					
2. UNLESS OTHER CASE, NOZZLE REINFORCEMENT PAD SHALL BE CONSIDERED.					
3. UNLESS OTHERWISE SPECIFIED, THE NOZZLE GASKET SURFACE SHALL BE FLAT SMOOTH SURFACE AND SERRATION SPECIFIED IN ASME STANDARD IS NOT TO PROVIDE.					
4. ANY GASKETS WHICH CONTAIN ASBESTOS SHALL NOT BE USED.					
5. THE HARDNESS TESTING OF THE PLATE AND WELD SEAM SHALL COMPLY WITH THE REQUIREMENTS OF B.3 IN SAPKT-EQ-SPE-0004 REV.0 SPECIFICATION FOR PRESSURE VESSEL.					
6. THE FACE OF THE FLANGES SHALL BE WELDED TO THE NECK WITH A J" PREPARATION GROOVE WELD THE DEPTH OF THE GROOVE SHALL NOT BE LESS THAN THICKNESS OF THE NOZZLE NECK TO WHICH THE FLANGE IS ATTACHED.THE FACES OF THE SLIP-ON FLANGES ARE TO BE MACHINED AFTER WELDING TO THE NOZZLE NECK.					
7. DURING HYDROSTATIC TEST, THE CHLORIDE ION CONTENT IN THE WATER SHALL BE STRICTLY CONTROLLED TO NOT EXCEED 25mg/L. AFTER THE TEST IS COMPLETED, THE WATER STAINS SHALL BE IMMEDIATELY REMOVED.					
8. AFTER THE HYDROSTATIC TEST HAS BEEN SUCCESSFULLY PASSED, THE INNER SURFACE OF THE STAINLESS STEEL SHALL UNDERGO ACID PICKLING AND PASSIVATION TREATMENT. THE PASSIVATION FILM FORMED SHALL BE INSPECTED USING THE BLUE DOT METHOD, AND THE ABSENCE OF BLUE DOTS SHALL BE DEEMED AS ACCEPTABLE.					
9. THICKNESS INDICATED ON DRAWING ARE PROPOSED VALUE, VENDOR SHALL CHECK AND GUARANTEE THEM ON STRENGTH.					
10. ALL WELDS SHALL BE CONTINUOUS EXCEPT AS NOTED.					
NOTE:					
1. WIND CONDITION: ASCE 7-2016(EXPOSURE CATEGORY:C,RISK CATEGORY:III).					
DESIGN WIND SPEED:120km/Hr;					
2. SEISMIC CONDITION: ASCE 7-2016(CLASS E,IMPORTANT FACTOR 1.25,SS=0.198g,S1=0.1323g)					
3. MEDIUM COMPOSITION: PRIMARILY WATER, SMALL AMOUNTS OF NaHCO3, NaCl and NH4Cl.					

NOZZLE LIST									
MARK	SIZE NPS	SCH. OR THK.	CLASS	FLANGE STD	TYPE	FACE TYPE	SERVICE	NOZ. PROJ. FROM C.L	REMARK
N1	4"	Sch40S	150#	ASME B16.5-2020	WN	RF	WASH WATER INLET	SEE DWG.	
N2	3"	Sch40S	150#	ASME B16.5-2020	WN	RF	WASH WATER OUTLET	SEE DWG.	
N3	3"	Sch40S	150#	ASME B16.5-2020	WN	RF	OVERFLOW NOZZLE	660	
N4	2"	Sch40S	150#	ASME B16.5-2020	WN	RF	WATER REFILL NOZZLE	660	
N5	3"	Sch40S	150#	ASME B16.5-2020	WN	RF	VENT	SEE DWG.	
N6	6"	Sch40S	150#	ASME B16.5-2020	WN	RF	WASH WATER INLET	SEE DWG.	
L1ob	3"	Sch40S	150#	ASME B16.5-2020	WN	RF	REMOTE LIQUID LEVEL GAUGE NOZZLE	660	
L1.2	2"	Sch40S	150#	ASME B16.5-2020	WN	RF	LOCAL LEVEL GAUGE NOZZLE	660	
M1	24"	Thk.6	150#	ASME B16.5-2020	SO	RF	MANHOLE	/	

MATERIAL LIST			
SHELL/HEAD	A240 TYPE 316L	SADDLE or LEGS/PAD	A283 Gr.C/A240 TYPE 316L
NOZZLE FLANGE	A182 Gr.F316L	STIFFENING RING	/
NOZZLE NECK	PIPE	A312 TP316L	NAMEPLATE/BACKET A240 TYPE 304/A240 TYPE 316L
	FORGED	/	INSULATION/FIREPROOFING SUPPORT -/-
	PLATE	A240 TYPE 316L	ANCHOR LUGS /
NOZZLE GASKET	RPTFE	ANCHOR BOLTS	/
STUDS/NUTS(INTERNAL)	-/-	LIFTING LUG	A283 Gr.C
STUDS/NUTS(EXTERNAL)	A307 Gr.B/A563 Gr.A	EARTH LUG	A240 TYPE 304
Δ			
Δ			
Δ	IFD	25-03-2025	KSL
REV.	DESCRIPTION	DATE	DESIGN
			DRAW
			CHECK
			REVIEW
			APPROVE
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TCC中国天辰工程有限公司 CHINA TIANCHEN ENGINEERING CORPORATION		PROJECT	PKT 300KTA Soda Ash Project
512-V-08AB Scrubbing Water Recovery Tank		UNIT	Filtration Section
		PHASE	Detail Design
SCALE 1:8	SHEET 1	TOT. 1	DWG NO. T24B25-512-FE8D-0800