

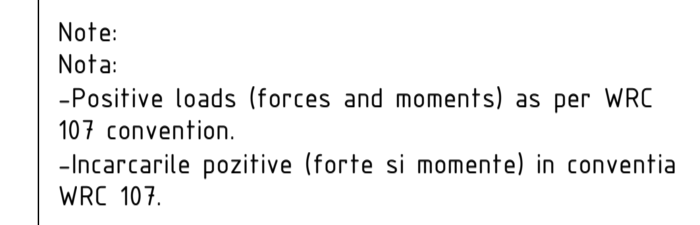
NOZZLE TABLE / TABELUL RACORDURILOR											
NOZZLE SYMBOL	QTY. BUC.	SERVICE FUNCTIA TEHNOLGICA	SIZE DN	RATING PN	FLANGE / FLANSA			NOZZLE NECK/RACORD		REINFORCING PAD	REMARKS OBSERVATII
					TYPE/TIP	STD.	FACING ETANSARE	O.D. x Thk.	Sch		
N1	1	INLET INTRARE	6"	600#	WN	ASME B16.5	RF	Ø168.3 x 18.26	-	-	NOTE 2 NOTA 2
N2	1	DRAIN SCURGERE	1"	600#	WN	ASME B16.5	RF	Ø33.4 x 9.09	XXS	-	
N3	1	LEVEL NIVEL	2"	600#	WN	ASME B16.5	RF	Ø60.3 x 11.07	XXS	-	
N4	1	LEVEL NIVEL	2"	600#	WN	ASME B16.5	RF	Ø60.3 x 11.07	XXS	-	

TECHNICAL REQUIREMENTS/CONDITII TEHNICE	
APPLICABLE CODES AND STANDARDS CODURI SI STANDARDE APLICABILE	ASME CODE SECT. VIII DIV.1 2019 ED. +PED 2014/68/EU
EARTHQUAKE DESIGN CODE COD DE PROIECTARE SEISMICA	G Loading
WIND DESIGN CODE COD DE PROIECTARE ACTIUNEA VANTULUI	ENV 1991-2-4; 2005/ EUROCODE 1
FABRICATION, INSPECTION AND TESTING EXECUTIE, INSPECTIE SI PROBE	EN 13445-1,4,5
CALCULATION SHEET BREVIAIR DE CALCUL	23-002 23 000 CS
TESTING GROUP AS PER GRUPA DE INCERCARI CONF.	1a
WELDING JOINT EFFICIENCY EFICIENTA IMBINARII SUDATE	E
NON-DESTRUCTIVE EXAMINATION CONTROL NEDISTRUCTIV CONFORM SR EN 13445-5	SEE NDE PLAN VEZI PLANUL DE CONTROL NEDISTRUCTIV
POST WELD HEAT TREATMENT TRATAMENT TERMIC DUPA SUDARE	NO NU
SAFETY DEVICES DISPOZITIV DE SIGURANTA	NO NU
REQUIRED ITEMS POZITII DE MONTAJ NECESARE	1

VESSEL TECHNICAL CHARACTERISTICS/CARACTERISTICI TEHNICE VAS		
EQUIPMENT HAZARD CATEGORY (AS PER: CATEGORIA DE RISC A RECIPIENTULUI (CONFORM: Dir. 2014/68/EU (PED)		IV
CONFORMITY ASSESSMENT PROCEDURE (AS PER: MODUL(E) DE EVALUARE A CONFORMITATI (CONFORM: Dir. 2014/68/EU (PED)		G
OPERATING PRESSURE PRESIUNEA DE LUCRU	MPa(bar)	5.3 (53)
MAX. ALLOWABLE WORKING PRESSURE (DESIGN PRESS.) PRESIUNEA MAX. ADMISIBILA DE LUCRU (DE CALCUL)	MPa(bar)	6.0 (60)
HYDROSTATIC TEST (AT TOP) INCERCAREA DE PRESIUNE HIDROSTATICA (LA VARF)	MPa(bar)	8.6 (86)
HOLDING TIME DURATA	min.	36
UNIT SEAL TEST PRESSURE (BY AIR OR INERT GAS) OR INCERCAREA DE ETANSARE (CU AER SAU SAU GAZ INERT) SAU ▲	NECESSITY NECESITATE	YES DA
PRESIUNEA/STINGHIRE LA TEMP. MAXIMA ADMISIBILA	MPa(bar)/min.	6.0 (60) / 30
ALLOWABLE TEMPERATURE TEMPERATURA ADMISIBILA	°C	100
	MINIMUM MINIMA	-45

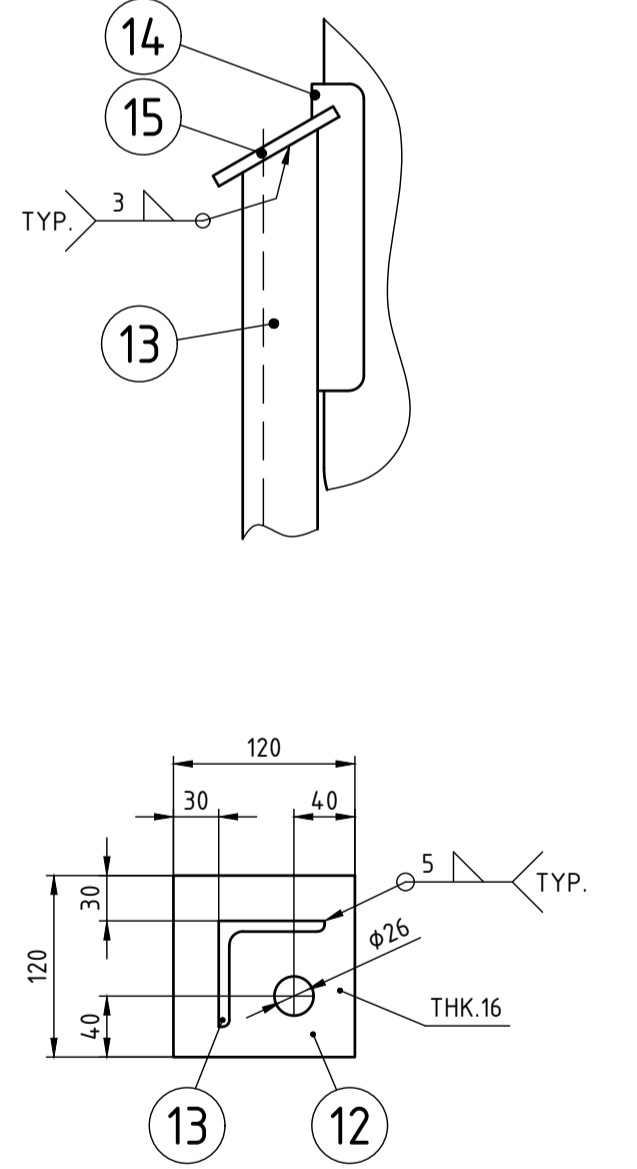
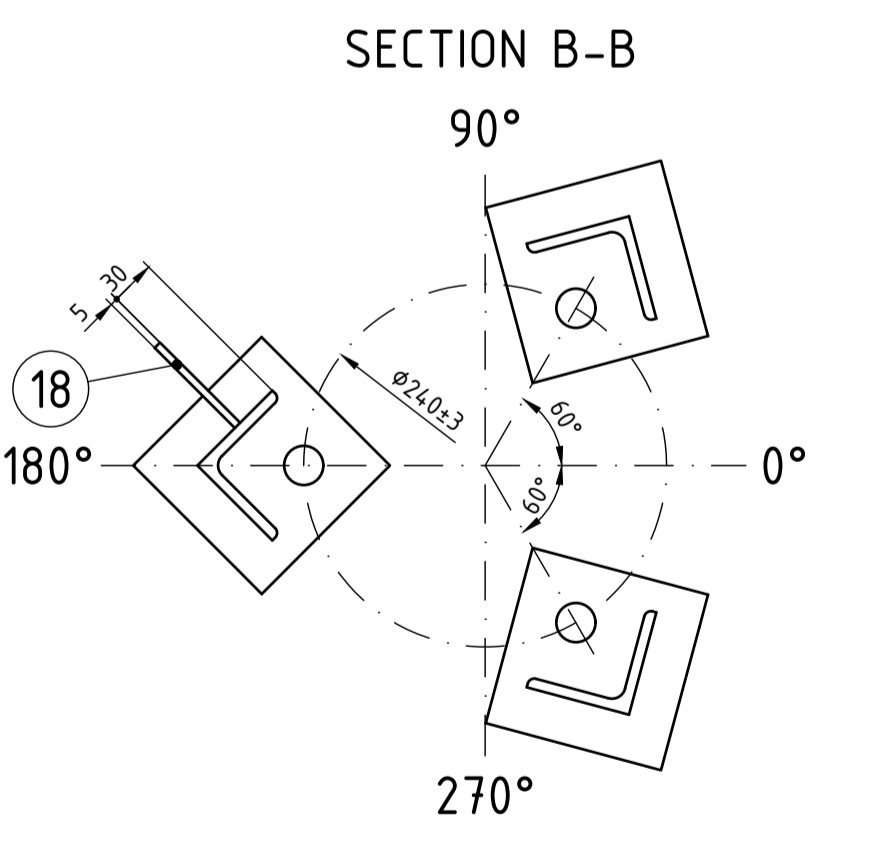
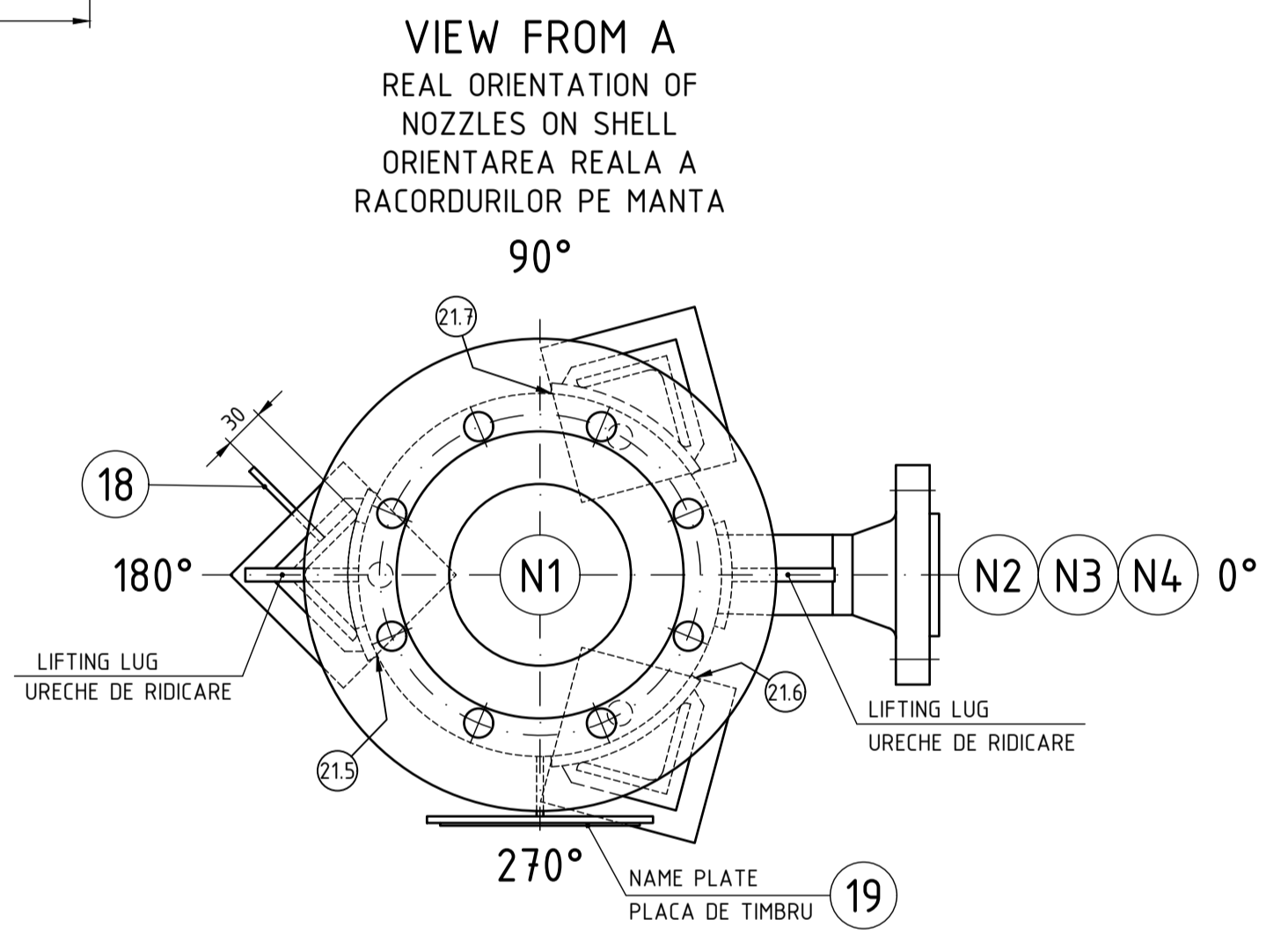
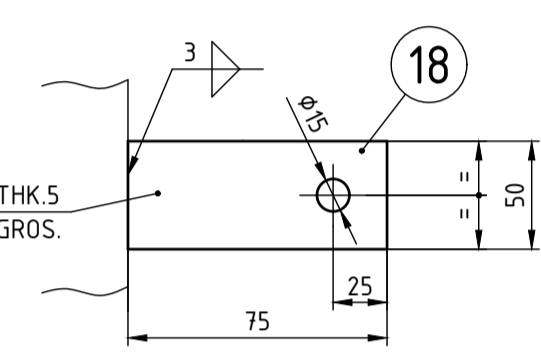
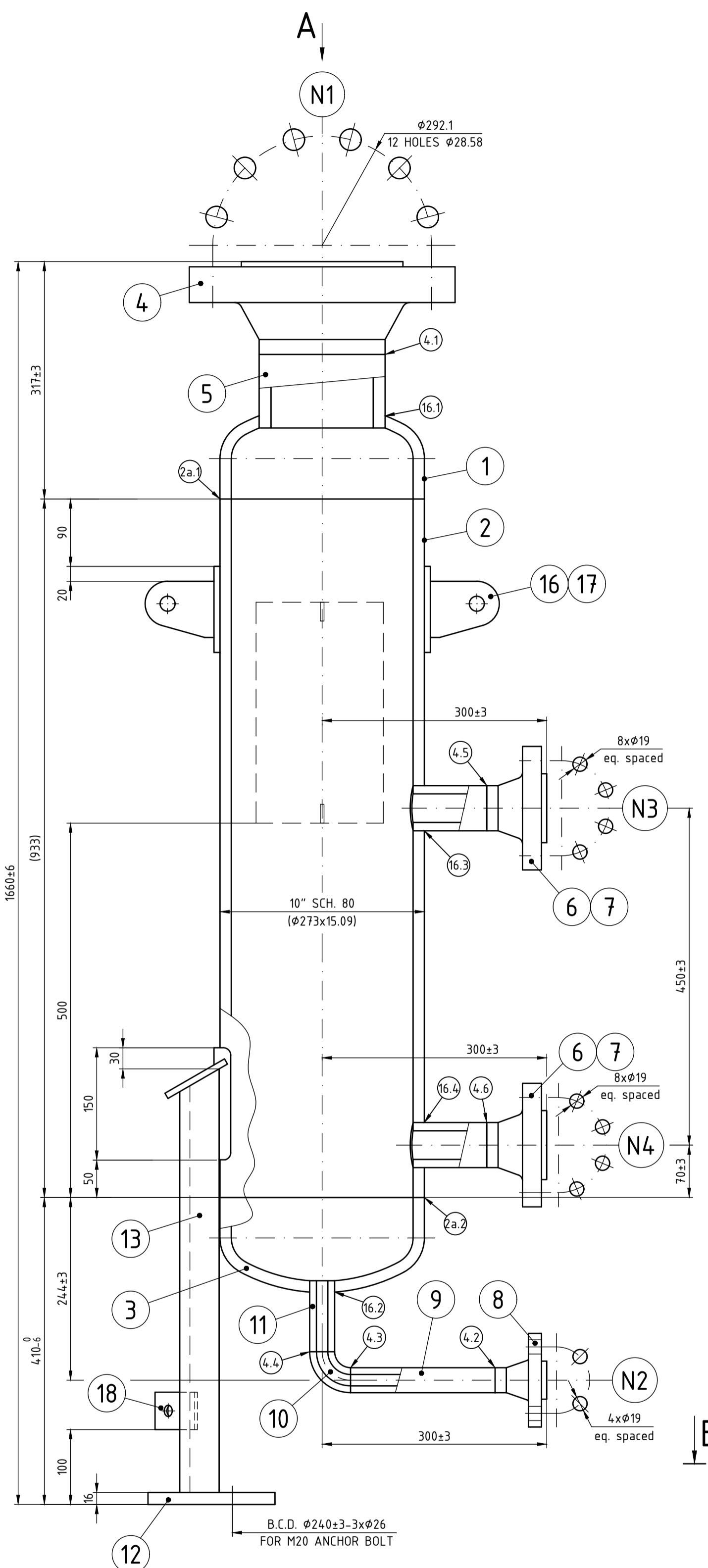
Loads for Foundation on one leg (top & bottom) Incarcari pentru fundatia pe picior (deasupra si la baza)			
	ERECTION INSTALARE	OPERATING OPERARE	HYD. TEST HIDRO. TEST
WEIGHT-Q - (kg) GREUTATE-Q - (kg)	270	300	324
VERTICAL LOAD (weight+wind) - (N) INCARCAREA VERTICALA (greutate+vant)	2760	2926	1925
VERTICAL LOAD (weight+earthquake) - (N) INCARCAREA VERTICALA (greutate+seism)	7977	8645	1868
SHEARING LOAD-T - (N) (wind/earthquake) FORȚA TAIEȚOARE-T - (N) (vant/seism)	186	186	21
	1192	1335	-
MOMENT - (N+m) (wind/earthquake)	105	105	12
	674	755	-

MAXIMUM ALLOWABLE NOZZLE LOADS INCARCARI MAXIME ADMISIBILE IN RACORDURI						
NOZZLE RACORD	FORCES (N) FORȚE (N)			MOMENTS (N+m) MOMENTE (N+m)		
	P	V _c	V _t	M _c	M _t	M _r
N1	-6000	3500	-3500	-3000	-3000	4500

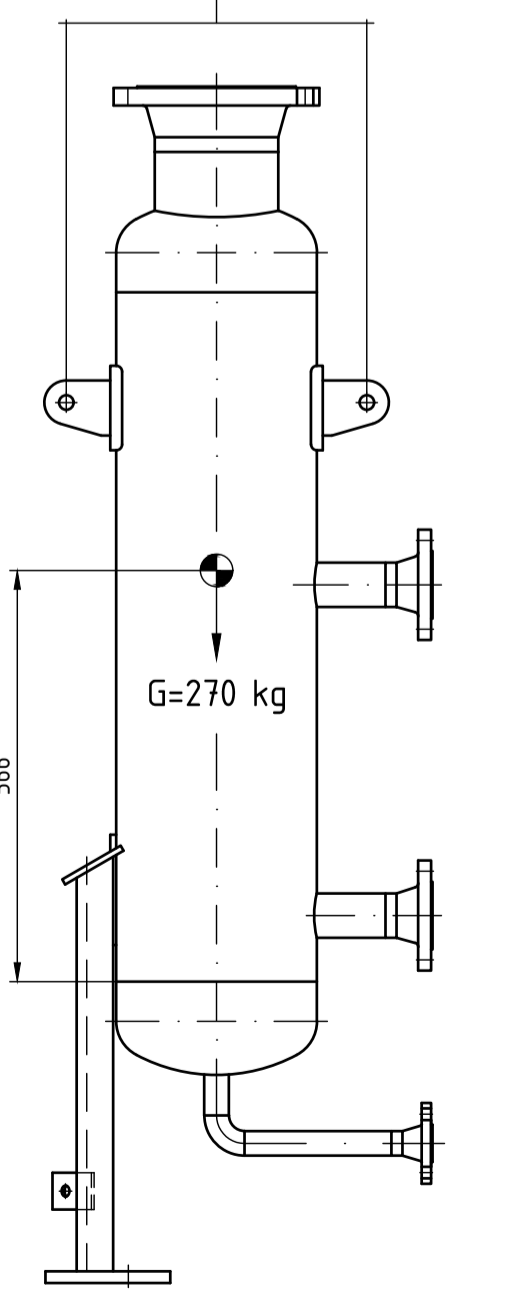


NOTES:
1. MATERIALS FOR PRESSURE PARTS SHALL COMPLY WITH THE REQUIREMENTS OF THE MATERIALS TECHNICAL REQUIREMENTS SHEET NO.: 23-002 23 000 FCTM.
2. RAISED FACE: SERRATED SPIRAL FINISH MACHINED WITH A CUTTING TOOL HAVING A RADIUS OF 1.6^{±0.4} mm AND A PITCH OF 0.6 mm. THE RESULTANT SURFACE FINISH SHALL HAVE Ra=3.2 μm.
3. MAX. ALLOW. OUT-OF-ROUNDNESS FOR SHELL OF COMPLETED VESSEL (D_{MAX}-D_{MIN}) SHALL NOT EXCEED 1% OF NOMINAL DIAMETER.
4. THE INSPECTION METHODS, NORMS, VOLUME OF CONTROL AND ACCEPTANCE CRITERIA ARE SPECIFIED IN NONDESTRUCTIVE EXAMINATION PLAN.
5. THE BOLT HOLES IN FLANGES AND FORGED NOZZLES SHALL STRADDLE THE LONGITUDINAL AXIS OF THE VESSEL (C. L.) OR AXES PARALLEL TO 0°-180°, 90°-270° AXES.

NOTE:
1. MATERIALELE REPERELOR SUPUSE PRESIUNII VOR CORESPUNDE CONDITIILOR PREVAZUTE IN FISA DE CONDITII TEHNICE DE MATERIALE, NR.: 23-002 23 000 FCTM.
2. SUPRAFATA DE ETANSARE PRELUCRATA PRIN STRUNJIRE FRONTALA CU UN CUTIT CU RAZA DE 1.6^{±0.4} mm SI AVANS DE 0.6 mm. RUGOZITATEA REZULTATA VA FI Ra=3.2 μm.
3. OVALITATEA MAX. ADMISA PENTRU MANTAUA VASULUI IN STARE FINALA (D_{MAX}-D_{MIN}) NU TREBUIE SA DEPASEASCA 1% DIN DIAMETRUL NOMINAL.
4. IN PLANUL DE CONTROL NEDISTRUCTIV, SUNT SPECIFICATE METODELE DE CONTROL, NORMELE, VOLUMUL CONTROLULUI SI CRITERIILE DE ACCEPTARE.
5. GAURILE PENTRU SURUBURI DIN FLANSE SI RACORDURI FORJATE VOR FI AMPLASATE SIMETRIC FATA DE AXA LONGITUDINALA A VASULUI SAU FATA DE AXE PARALELE CU AXELE 0°-180°, 90°-270°.



HOOKING ARRANGEMENT FOR HANDLING AND INSTALLATION
SCHEMA DE PRINDERE PENTRU MANIPULARE SI MONTAJ



Symbol	S1	S2	b	c	WPS	PQR	Symbol	S1	S2	S3	a	b	c	WPS	PQR	Symbol	S1	S2	a	WPS	PQR	Symbol	S1	a	WPS	PQR
Za.1.2a	215	09	15	09	2	2	4.1	15.88	15.88	18.26	8	2	2	16.1	15.09	18.26	21.1	21.2	15.09	8	5	21.3	21.4	12	5	
4.2	4.4	9.09	9.09	2	2	2	16.2	15.09	9.09	2	2	2	16.3	16.4	15.09	11.07	2	2								
4.5	4.6	11.07	11.07	2	2	2																				

POS.	DENOMINATION	REFERENCE	PCS.	MATERIAL	REMARKS	NET WT. kg/pc.
19	SUPPORT AND NAME PLATE SUPPORT SI PLACA DE TIMBRU	23-002 23 019	1	SA-516 Gr.60 SUPPORT		2.865
18	EARTHING LUG PRIZA LEGARE LA PAMANT	-	1	SA-516 Gr.60		0.150
17	REINFORCING PAD INTARIRE	23-002 23 017	2	SA-516 Gr.60		0.400
16	LIFTING LUG URECHE DE RIDICARE	23-002 23 016	2	SA-516 Gr.60		1.200
15	UPPER PLATE TABLA	-	3	SA-516 Gr.60		0.250
14	REINFORCING PAD INTARIRE	23-002 23 014	3	SA-516 Gr.60	#8x130x150	1.200
13	LEG L70x70x7 PICIOR	23-002 23 013	3	S355J2	L=565 mm	4.200
12	BASE PLATE TALPA	-	3	SA-516 Gr.60	#16x120x120	2.000
11	PIPE Ø33.4x9.09 TEAVA	-	1	SA-333 Gr.6	L=95 mm	0.400
10	ELBOW 1" Sch.XXS (9.09) 90° LR COT	ASME B16.9	1	SA-420 WPL6-S		0.900
9	PIPE 1" SCH. XXS (Ø33.4x9.09) TEAVA	-	1	SA-333 Gr.6	L=193 mm	1.000
8	WN FLANGE 1"-600# SCH. XXS RF FLANSA	ASME B16.5	1	SA-350 LF2 Cl.1	NECK THK. 9.09	2.000
7	PIPE 2" SCH. XXS (Ø60.3x11.07) TEAVA	23-002 23 007	2	SA-333 Gr.6		1.400
6	WN FLANGE 2"-600# SCH. XXS RF FLANSA	ASME B16.5	2	SA-350 LF2 Cl.1		4.700
5	PIPE Ø168.3x18.26 TEAVA	-	1	SA-333 Gr.6	L=98 mm	5.300
4	WN FLANGE 6"-600# RF FLANSA	ASME B16.5	1	SA-350 LF2 Cl.1	NECK THK. 15.88	38.000
3	CAP O.D. 273x15.09 FUND	ASME B16.9	1	SA-420 WPL6-S	MIN. THK. 13.5mm	40.600
2	PIPE 10" SCH. 80 (Ø273x15.09) TEAVA	-	1	SA-333 Gr.6	L=933 mm	90.000
1	CAP 10" SCH. 80 (Ø273x15.09) FUND	ASME B16.9	1	SA-420 WPL6-S	MIN. THK. 13.5mm	40.600

REV.	Denumirea modificarii	Data	Desenat / Designed	Verificat / Verified
3				
2	As built	27.03.2023	Aldea Dan	Anghel Dan
1	Approved for construction	23.02.2023	Aldea Dan	Anghel Dan
0	Issued for approval	08.02.2023	Aldea Dan	Anghel Dan

Beneficiar / Owner: PETROTEL LUKOIL SA
Furnizor / Supplier: PROCESS ENGINEERING SRL
Instalatie / Unit: HIDROFINANRE BENZINA (HB)
Scara / Scale: 1/5
Denumire vas / Vessel name: COLLECTOR / COLECTOR
Poz. de montaj / Tag no.: 03-FK2