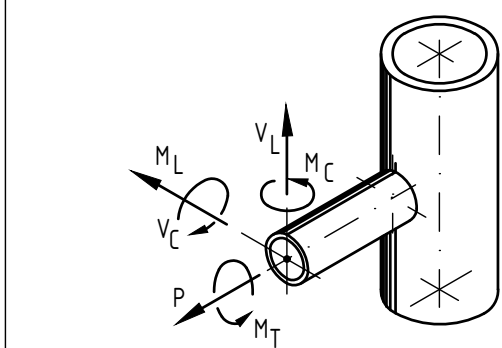


NOZZLE TABLE / TABELUL RACORDURILOR										
NOZZLE SYMBOL	QTY. BUC.	SERVICE FUNCTIA TEHNOLOGICA	SIZE DN	RATING PN	FLANGE / FLANSA		NOZZLE NECK/RACORD	REINF. PAD	REMARKS OBSERVATII	
					TYPE/TIP	STD.	FACING ETANSARE	O.D. x Thk.	Sch	O.D. x Thk.
N1	1	INLET INTRARE	6"	150#	WN	ASME B16.5	RF	ø168.3 x 9.53	STD.	-
N2	1	DRAIN SCURGERE	1"	150#	WN	ASME B16.5	RF	ø33.4 x 9.09	XXS	-
N3	1	LEVEL NIVEL	2"	150#	WN	ASME B16.5	RF	ø60.3 x 8.74	160	-
N4	1	LEVEL NIVEL	2"	150#	WN	ASME B16.5	RF	ø60.3 x 8.74	160	-

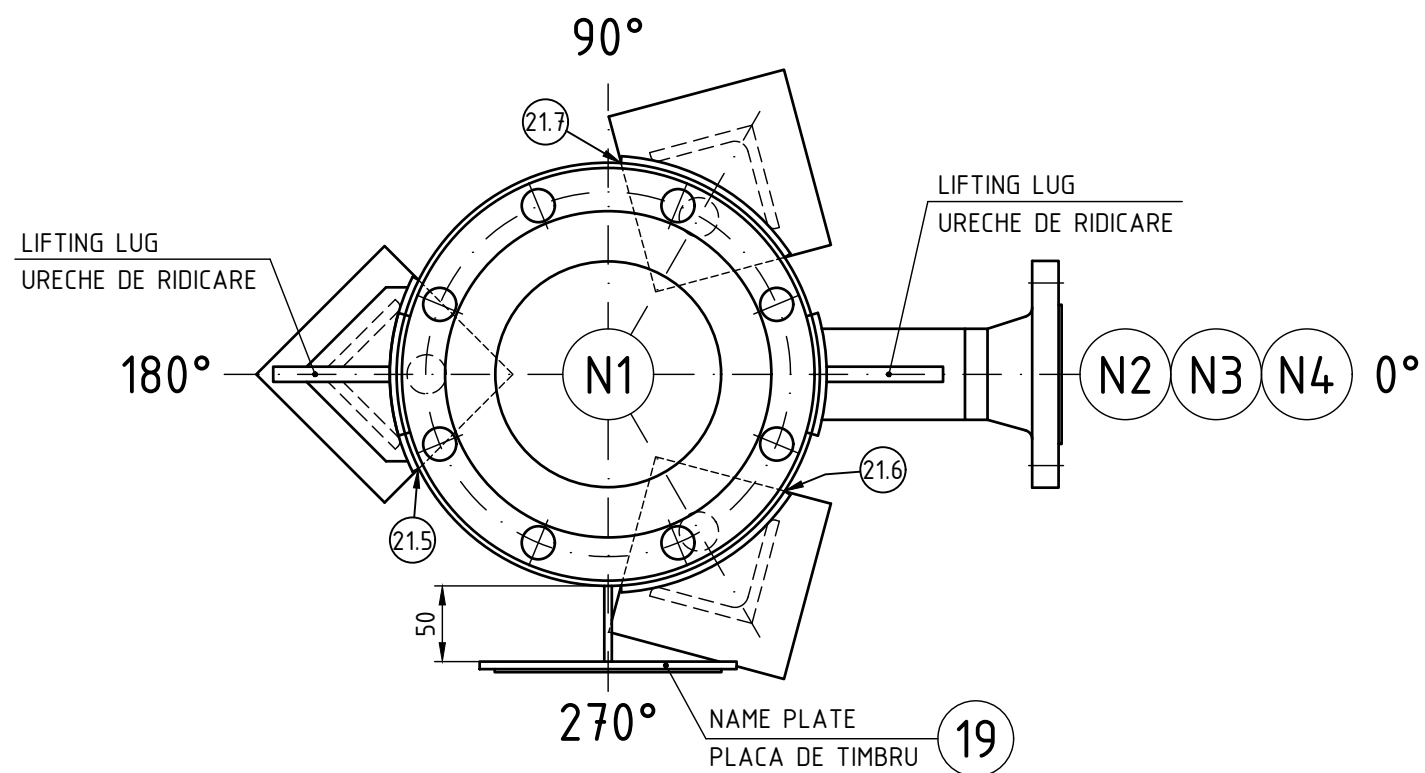
Loads for Foundation on one leg (top & bottom) Incarcari pentru fundatie pe picior (deasupra si la baza)			
WEIGHT - G - (kg) GREUTATE - G - (kg)	ERECTION INSTALARE	OPERATING OPERARE	HYD. TEST HIDRO. TEST
VERTICAL LOAD (weight+wind) - (N) INCARCAREA VERTICALA (greutate+vant)	1928	2106	1437
VERTICAL LOAD (weight+earthquake) - (N) INCARCAREA VERTICALA (greutate+seism)	3873	4601	1380
SHEARING LOAD - T - (N) (wind/earthquake) FORȚA TAETOARE - T - (N) (vant/seism)	186	186	21
	489	647	-
MOMENT - (Nxm) (wind/earthquake)	108	108	12
	284	375	-

MAXIMUM ALLOWABLE NOZZLE LOADS INCARCARI MAXIME ADMISIBILE IN RACORDURI				
NOZZLE RACORD	FORCES [N] FORȚE [N]		MOMENTS [Nxm] MOMENTE [Nxm]	
	P	V _c	V _t	M _c M _t M _r
N1	-4750	-3500	3500	-2500 -2500 3500

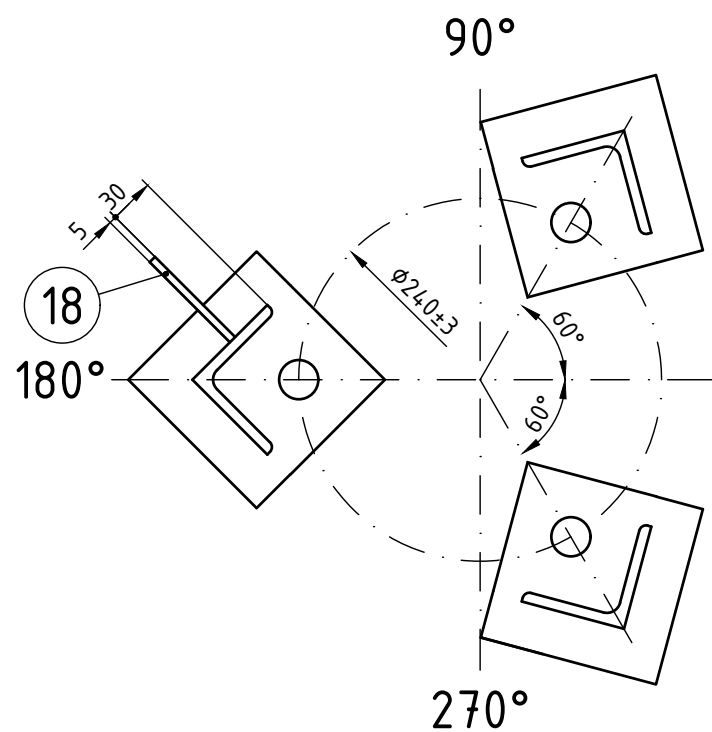


Note:
Nota:
-Positive loads (forces and moments) as per WRC 107 convention, applied on nozzle to shell junction.
-Incarcari pozitive (forte si momente) in conventia WRC 107, din imbinarea manfa-racord.

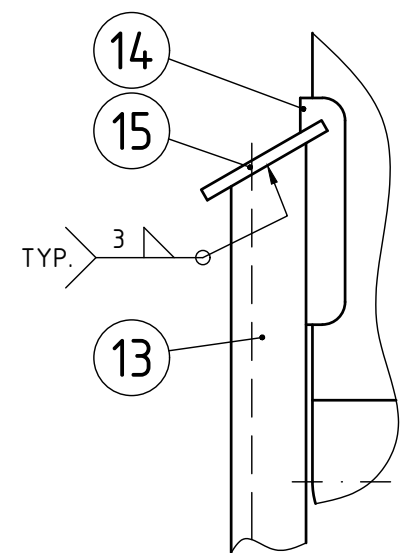
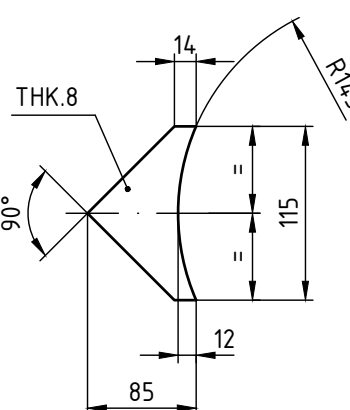
VIEW FROM A
REAL ORIENTATION OF NOZZLES ON SHELL
ORIENTAREA REALA A RACORDURILOR PE MANTA



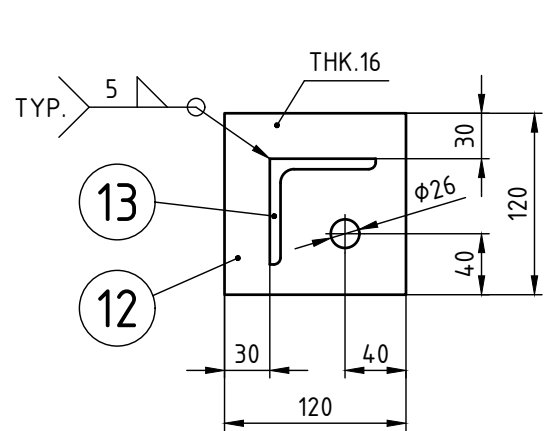
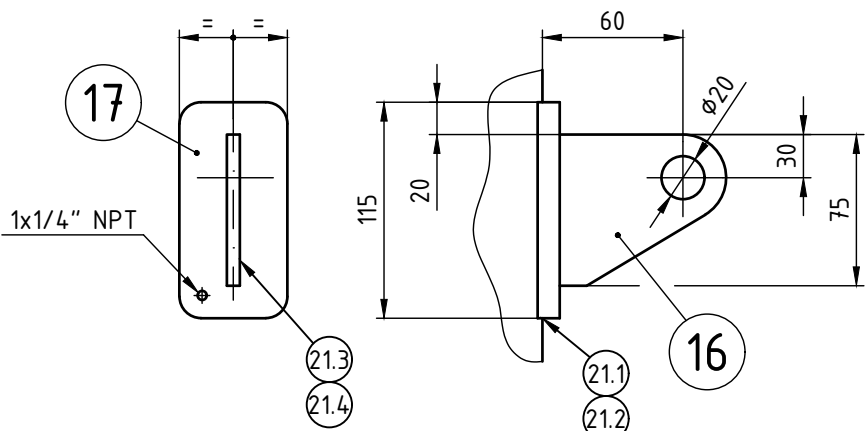
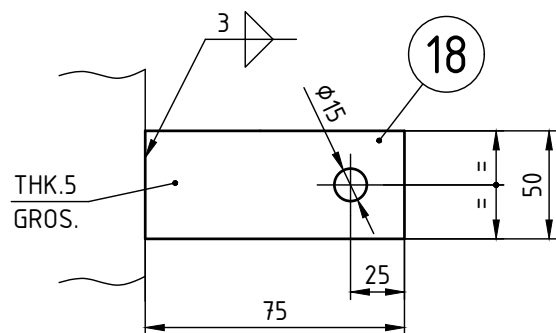
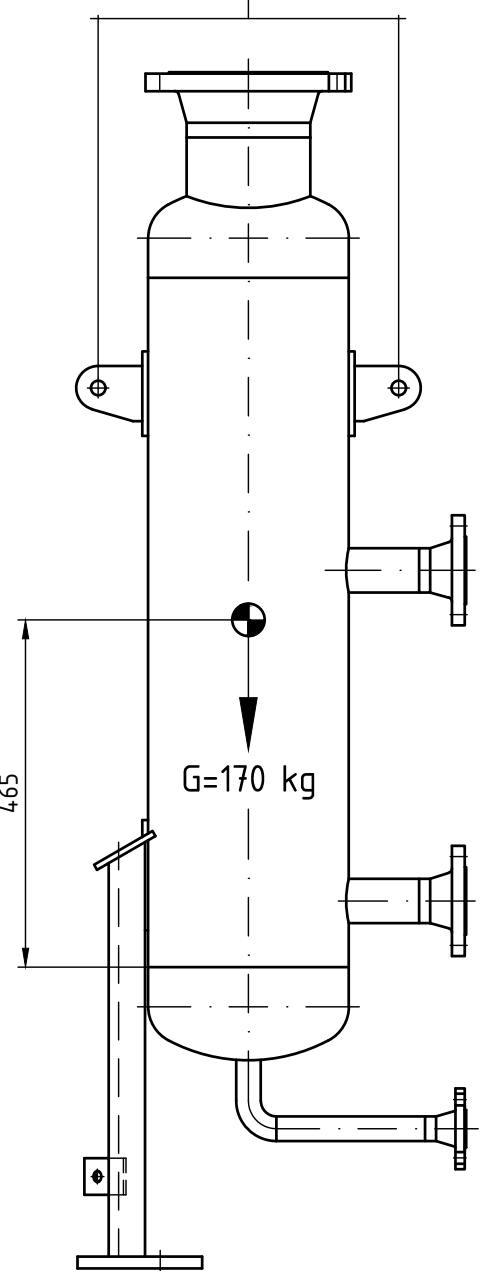
SECTION B-B



POS.15



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



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	23-001 23 000 CS
TESTING GROUP AS PER SR EN 13445-5 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

NOTES:
1. MATERIALS FOR PRESSURE PARTS SHALL COMPLY WITH THE REQUIREMENTS OF THE MATERIALS TECHNICAL REQUIREMENTS SHEET NO.: 23-001 23 000 FCTM.
2. RAISED FACE: SERRATED SPIRAL FINISH MACHINED WITH A CUTTING TOOL HAVING A RADIUS OF 16^{3/4} 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 (DMAX-DMIN) 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.: 23-001 23 000 FCTM.
2. SUPRAFATA DE ETANSARE PRELUCRATA PRIN STRUNJIRE FRONTALA CU UN CUTIT CU RAZA DE 16^{3/4} 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 (DMAX-DMIN) 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 APLASATE SIMETRIC FATA DE AXA LONGITUDINALA A VASULUI SAU FATA DE AXE PARALELE CU AXELE 0°-180°, 90°-270°.

VESSEL TECHNICAL CHARACTERISTICS/CARACTERISTICI TEHNICE VAS

EQUIPMENT HAZARD CATEGORY (AS PER: CATEGORIA DE RISC A RECIPIENTULUI (CONFORM: Dir. 2014/68/EU (PED)		III
CONFORMITY ASSESSMENT PROCEDURE (AS PER: MODUL(E) DE EVALUARE A CONFORMITATII (CONFORM: Dir. 2014/68/EU (PED)		G
OPERATING PRESSURE PRESIUNEA DE LUCRU		MPa(barg)
MAX. ALLOWABLE WORKING PRESSURE (DESIGN PRESS.) PRESIUNEA MAX. ADMISIBILA DE LUCRU (DE CALCUL)		1.3 (13)
HYDROSTATIC TEST (AT TOP) INCERCAREA DE PRESIUNE HIDROSTATICA (LA VARF)		MPa(barg)
UNIT SEAL TEST PRESSURE (BY AIR OR INERT GAS) OR INCERCAREA DE ETANSITATE (CU AER SAU GAZ INERT) SAU ▲		2.3 (23)
PRESSURE/HOLDING TIME PRESIUNE/DURATA		min.
NECESSITY NECESITATE		YES DA
PRESSURE/HOLDING TIME PRESIUNE/DURATA		1.6 (16) / 30
ALLOWABLE TEMPERATURE TEMPERATURA ADMISIBILA		°C
MAXIMUM MAXIMA		70
MINIMUM MINIMA		-45
FLUID FLUIDUL	NAME DENUMIRE	HYDROGEN GAS HIDROGEN GAZOS
	CORROSIVENESS COROZIVITATE	mm/year mm/an
	EXTENT OF HAZARD PERICULOZITATE	1
	GROUP/ (AS PER GRUPO/ (CONFORM: AS PER CONFORM	HG NR.123/2015) 67/548/EEC
	OPERATING TEMPERATURE TEMPERATURA DE LUCRU	°C
INSULATION THICKNESS GROSIME IZOLATIE TERMICA	DENSITY DENSITATE	kg/m³
	VAPOURIZING PRESSURE AT MAXIMUM ALLOWABLE TEMP. PRESIUNEA DE VAPORIZARE LA TEMP. MAXIMA ADMISIBILA	bar
CAPACITY CAPACITATE	INSULATION THICKNESS GROSIME IZOLATIE TERMICA	mm
	CORROSION ALLOWANCE ADAOS DE COROZIUNE	mm
WEIGHT MASA	EMPTY GOL	kg
	IN OPERATION IN FUNCTIUNE	kg
FULL OF WATER PLIN CU APA	IN OPERATION IN FUNCTIUNE	kg
	FULL OF WATER PLIN CU APA	kg

▲ - BY WORKING FLUID AT WORKING PRESSURE, HOLDING TIME 60 MINUTES.
-CU FLUIDUL DE LUCRU LA PRESIUNEA DE LUCRU, TMP DE 60 MINUTE.

Symbol Simbol	S1	S2	b	c	WPS	PQR	Symbol Simbol	S1	S2	b	c	WPS	PQR	Symbol Simbol	S1	S2	a	WPS	PQR	Symbol Simbol	S1	a	WPS	PQR
2a.1,2a.2	9.27	9.27	2"	2"			16.1	9.27	9.53	2"	2"			21.1,21.2	9.27	8	5			21.3,21.4	10	5		
4.1	8.74	9.53	2"	2"			16.2	9.27	9.09	2"	2"			21.5,21.7	9.27	8	5							
4.2,4.4	9.09	9.09	2"	2"			16.3,16.4	9.27	8.74	2"	2"													
4.5,4.6	8.74	8.74	2"	2"																				

19	SUPPORT AND NAME PLATE SUPPORT SI PLACA DE TIMBRU	23-001 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	23-001 23 017	2	SA-516 Gr 60	THK. 8mm	0.400
16	LIFTING LUG URECHE DE RIDICARE	23-001 23 016	2	SA-516 Gr 60	THK. 10mm	1.200
15	UPPER PLATE TABLA	-	3	SA-516 Gr 60		0.250
14	REINFORCING PAD INTARIRE	23-001 23 014	3	SA-516 Gr 60	#8x130x150	1.200
13	LEG L70x70x7 PICIOR	23-001 23 013	3	S355J2	L=564 mm	4.200
12	BASE PLATE TALPA	-	3	SA-516 Gr 60	#16x120x120	2.000
11	PIPE 1" SCH. XXS (ø33.4x9.09) TEAVA	-	1	SA-333 Gr 6	L=65 mm	0.400
10	ELBOW 90° LR 1" SCH. XXS 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=206 mm	1.400
8	WN FLANGE 1"-150#RF SCH. XXS FLANSA	ASME B16.5	1	SA-350 LF2 CL1		1.200
7	PIPE 2" SCH.160 (ø60.3x8.74) TEAVA	23-001 23 007	2	SA-333 Gr 6		1.800
6	WN FLANGE 2"-150#RF SCH.160 FLANSA	ASME B16.5	2	SA-350 LF2 CL1		2.900
5	PIPE ø168.3x9.53 TEAVA	23-001 23 005	1	SA-333 Gr 6		3.100
4	WN FLANGE 6"-150#RF FLANSA	ASME B16.5	1	SA-350 LF2 CL1	NECK THK. 8.74	13.700
3	10" SCH. STD (ø273x9.27) CAPAC	ASME B16.9	1	SA-420 WPL6-S	MIN. THK. 7.6mm	23.600
2	PIPE 10" SCH. STD (ø273x9.27) TEAVA	-	1	SA-333 Gr 6	L=935 mm	61.000
1	CAP 10" SCH. STD (ø273x9.27) CAPAC	ASME B16.9	1	SA-420 WPL6-S	MIN. THK. 7.6mm	23.600
POS.	DENOMINATION	REFERENCE	PCS.	MATERIAL	REMARKS	NET WT. kg/pc.
3						
2	As built	27.03.2023		Aldea Dan	Anghel Dan	
1	As built	23.02.2023		Aldea Dan	Anghel Dan	
0	Issued for approval	30.01.2023		Aldea Dan	Anghel Dan	
REV.	Denumirea modificarii	Data	Desenat / Designed	Verificat / Verified		
Beneficiar / Owner: PETROTEL LUKOIL SA		Nr. proiect / Project No.		Nr. desen / Drawing No.		Rev.
Furnizor / Supplier: PROCESS ENGINEERING SRL		JCE PR 23-001		23-001 23 000		F A1
Instalatie / Unit: HIDROFINARE BENZINA (HB)		Orig. desen				
Scara / Scale		Denumire vas / Vessel name		Poz. de montaj / Tag no.		
1/5		COLLECTOR / COLECTOR		03-FK1		