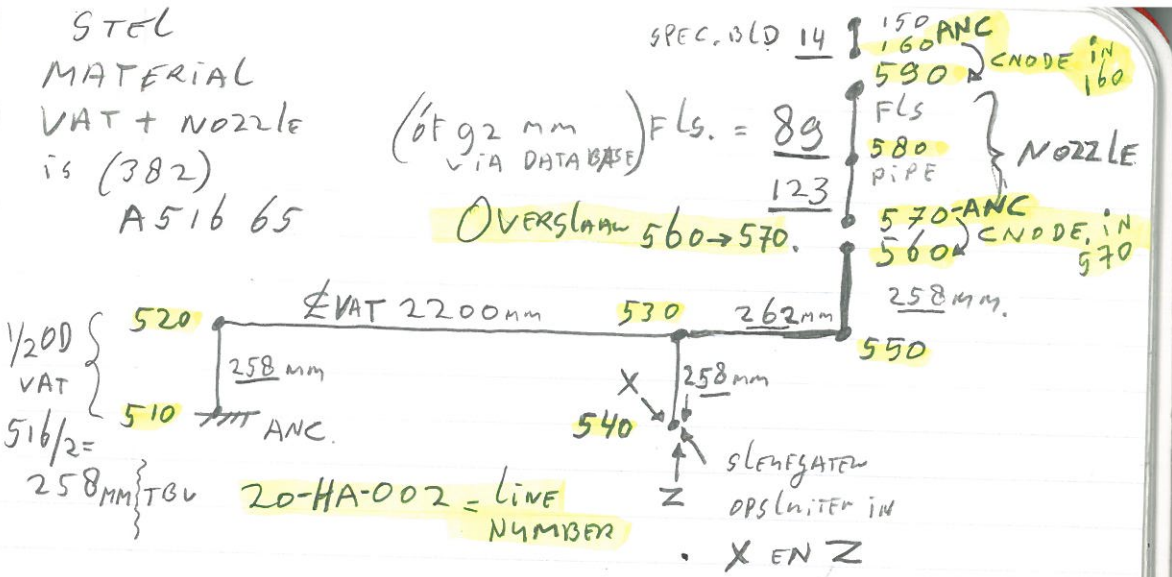
STEL
MATERIAL
VAT + NOZZLE
is (382)
A516 65

(of 92 mm via DATA BASE) Fls. = 89
123

SPEC. BLD 14

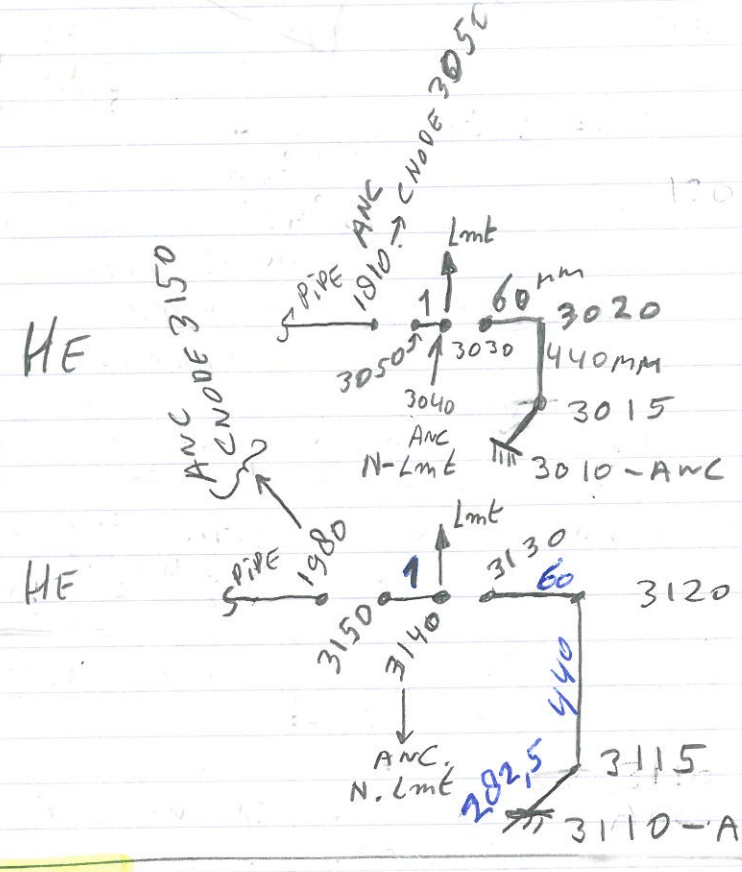


* 510 T/m 560 NORMAAL INVOEREN DAN NUMMER OVERSLAAN EN 570 → 580 MET IN 570 → ANC EN ↳ CNODE 560 ! } 1
EN IN 570: Nozzle Lmt CHECK! } 2

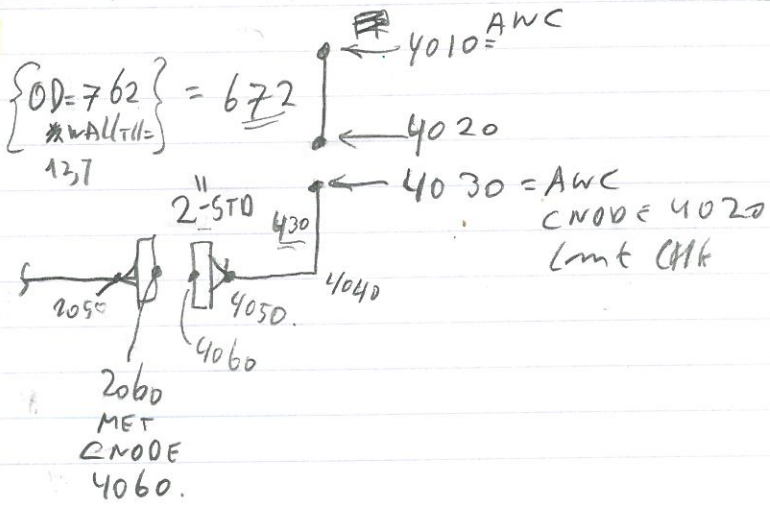
* REF VECTOR IN -Y. (-1).

* IN NODE 160: ANC MET CNODE = 590.
MET FLAN GECHECK AAN BEIDE KANTEN SPEC. BLD.

* WIND SHAPE FACTOR = 0,7.


HE
ANC CNODE 3150
PIPE 1980
3150
1
3140
Lmt
3130
60
3120
ANC N. Lmt
440
3115
282,5
3110-ANC
HE
PIPE ANC 1910
CNODE 3050
3050
1
3030
Lmt
60 mm
3020
440MM
3040
ANC N-Lmt
3015
3010-ANC

40-VL-001:


{OD=762 *WALL TH= 13,7} = 672
4010= ANC
4020
4030 = ANC CNODE 4020 Lmt CHK
2"-STD
430
4040
4050
4060
2060
2060 MET CNODE 4060.

Route	Discipline	Checked	Date	Comments (Y/N)
	Sales / Project Eng. / Eng. Man			
1	Process	RLe	15-05	Y
2	Mechanical	SvdL	15-05-15	N
	Electrical & Instrumentation			
	QC Inspection			

Update process data according latest EDS
STEL: 383
MAT CII = ~~382~~

Construction/TEMA type	BEM		
Wind Code/Wind Speed	acc. 10000-12-N-90-RA-120001-001		
Medium	Cooling water	Produced water	
Number of Passes	1	1	
Surface	54		m2
Capacity	330	400	dm3
Weight: Empty	2100		kg
Front Channel	190		kg
Rear Channel	190		kg
Internals	1000		kg
Filled with Water	2830		kg
Operational	2830		kg
Flow max.	128948	51304	kg/h
Design duty	3026		kW
Working Press.	3,05 [3,0]	4,58 [4,5]	kg/cm²(g) [barg]
Working Temp. In/Out	35/55	130,28/80	°C
Design Pressure	12,24 [12,0]	12,24 (12,0)	kg/cm²(g) [barg]
Design Temperature	-15/+80	-15/+80	°C
Ambient Temperature	11,3 ... 33,1		°C
MAWP	14,8 [14,6]	14,8 [14,6]	kg/cm²(g) [barg]
MAP	20,0 [19,6]	20,0 [19,6]	kg/cm²(g) [barg]
Test Pressure (NR-13)	22,2 [21,8]	22,2 [21,8]	kg/cm²(g) [barg] ②
Test Pressure (MAP)	26,0 [25,5]	26,0 (25,5)	kg/cm²(g) [barg]
NR-13 classification	D - 5 - V	D - 5 - V	
Joint Efficiency	0,85	0,85	
Corrosion Allowance	3	6	mm ④
PW Heat Treatment	No	No	
ND Examination	Spot	Spot	
Preservation Internal	No	No	
External	System 13a	System 13a	
Insulation (by others)	N/A	40	mm ④ ③
Number of Vessels	1		
Manufact. Serial Number	31289		

NOZZLE DATA

MARK	NUMBER	NOM. SIZE	SERVICE	FLANGE	REMARKS
N1	1	6"	Inlet	WN, RF, 150 # s.f.	ASME B16.5
N2	1	6"	Outlet	WN, RF, 150 # s.f.	ASME B16.5
N3	1	4"	Inlet	WN, RF, 150 # s.f.	ASME B16.5
N4	1	4"	Outlet	WN, RF, 150 # s.f.	ASME B16.5
N5	1	2"	Relief Outlet	WN, RF, 150 # s.f.	ASME B16.5 ③
N6	1	4"	Relief Outlet	WN, RF, 150 # s.f.	ASME B16.5 ③
N7	1	2"	Drain	WN, RF, 150 # s.f.	ASME B16.5 ③
N8	1	3"	Utility	WN, RF, 150 # s.f.	ASME B16.5 ③

Notes:
1. Tube to tubesheet connection is double grooved and expanded. Tubes expanded upto max. 3 mm of shellside face of tubesheet. Expansion percentage 3-5%.
2. Tolerance in acc. with design code unless otherwise noted.
3. All sharp corners shall be ground finish radius 2-3 mm
4. The exchanger shall be hycrostatically tested with water. The shell side and tube side are to be tested seperately in such a manner that leaks at the tube joints can be detected from at least one side.
5. All open flanges shall be provided with soft rubber gaskets, 6 mm thick metal protection plates from material of the same nominal material composition as the host, equipment bolted with a minimum of 4 - M12 galvanised bolts.
6. Pcinting/Coating acc. P100779-PM-COP-001 ②
7. Insulation acc. P100779-PM-IPS-001
8. Load cases acc. 10000-12-N-90-RA-120001-001

Revision 3:
-Revised acc. comments client, see ③
-Added nozzle N5/N6/N7/N8

20HA002

3	Revised acc. comments client, see ③	HE	16-04-15	MAL	20-04-15	
2	Revised acc. comments client, see ②	HE	03-03-15	MAL	03-03-15	
1	Original issue	HE	28-01-15	MAL	29-01-15	
revision	description	drawn	date	checked	date	

NOTICE: Protected acc. according to DIN 34

FRAMES — scale: 1:10 — size: A1 — drawing number: WO-100908 — group: 101 — version: 3

Rev	Reason For Issue	Date	Eng by	Drawn	Chk.	Appr.
02	CLIENT COMMENTS	16.04.15	HE	HE	MAL	TBO
01	ORIGINAL ISSUE/FOR REVIEW	28.01.15	HE	HE	MAL	TBO

Vessel: PETROJARL I - Queiroz Galvão - Atlanta

Document Title: 20-HA-002 GENERAL ARRANGEMENT EQUIPMENT PRODUCED WATER PRE-COOLER

Current Document

Document No.: 10000-11-M-20-XD-110021-001 — Sheet: 1 — Sht: —

Discipline: M — System: 20 — Document Type: XD — Area: NA — Status: 2+1

Rev. No.: 01 — Originator/Contractor Company Name: FRAMES — Originator: 11

Original — Date: 28.01.15 — Rev. No.: — Date: — Originator/Contractor Document Number: P100779-PM-GAE-20HA002-001 — Sub Supplier Company Name: — Sub Supplier Document Number: — Revision: 02

Acceleration table	X-acceleration (longitudinal)	Y-acceleration (transversal)	Z-acceleration (vertical)
Design Condition	0g	0.35g	0.22g
Survival Condition	0g	0.43g	0.27g
Transition Condition	0g	0.64g	0.51g
Flood Extreem	0.11g	0.6g	0g
Flood Combined	0.06g	0.68g	0.22g

For complete overview of all load cases see page 7+8 of document WO-100908-32

DESIGN BOLT TORQUE TIGHTENING ③

POS. NR.	BOLT SIZE	TORQUE REQUIRED Nm (f=0.12)	GASKET POS. NR.
44	3/4"	79	43

NOTE: TIGHTEN BY TORQUEWRENCH WITH ... Nm
EACH BOLT IN 4 STEPS OF 70% 90% 100%-100%

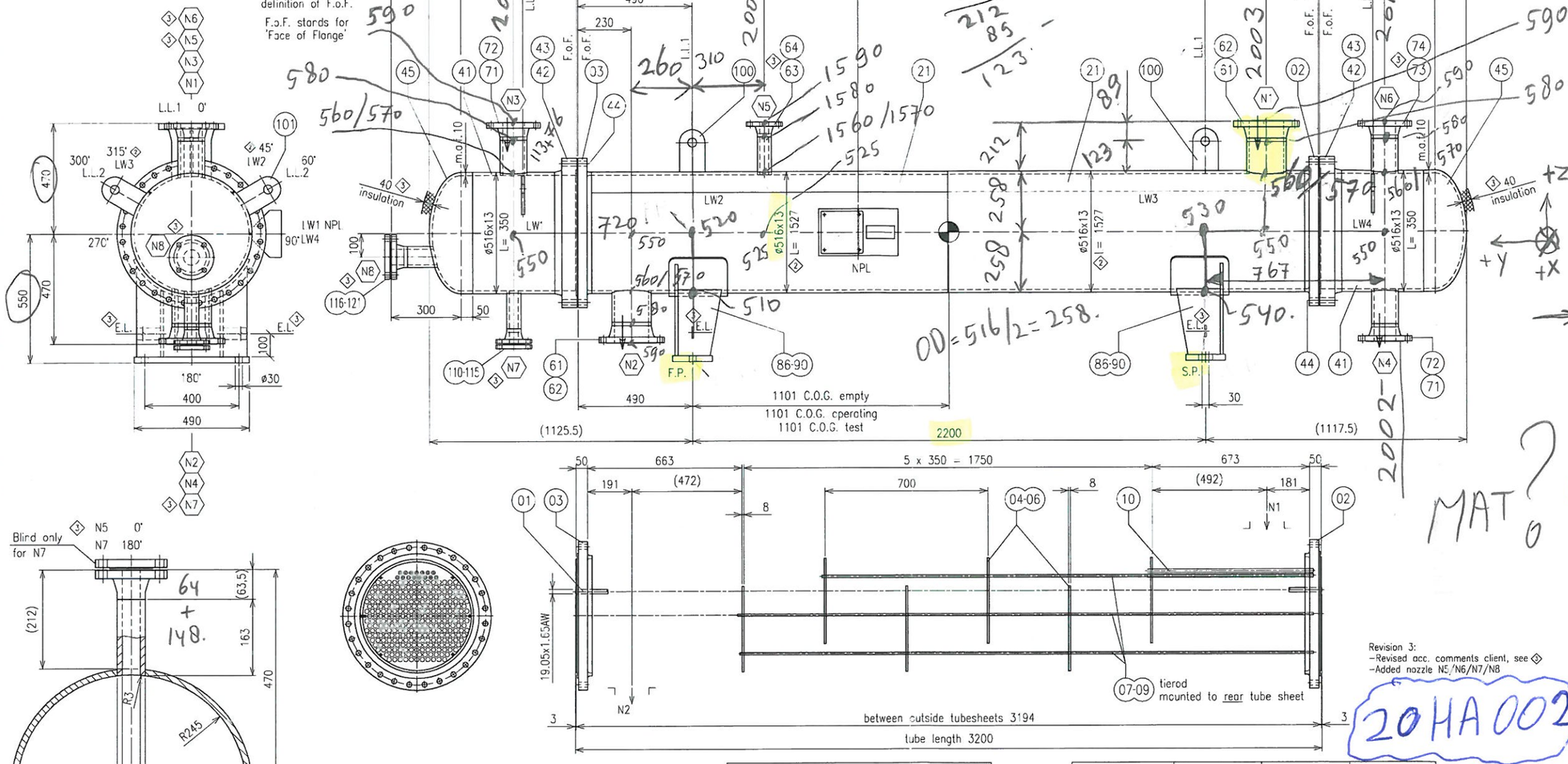
ALLOWABLE NOZZLE LOADS

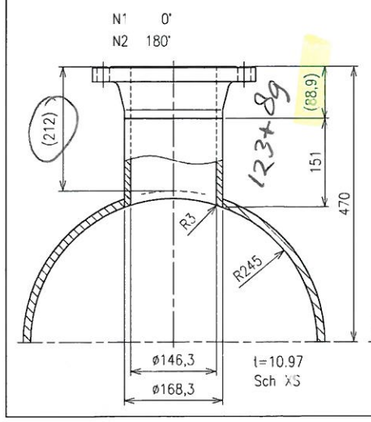
MARK	Fa kN	Fc kN	Fl kN	Mc kNm	Mt kNm	Ml kNm
N1	9	6.75	9	2.7	4.05	3.51
N2	9	6.75	9	2.7	4.05	3.51
N3	6	4.5	6	1.2	1.8	1.56
N4	6	4.5	6	1.2	1.8	1.56

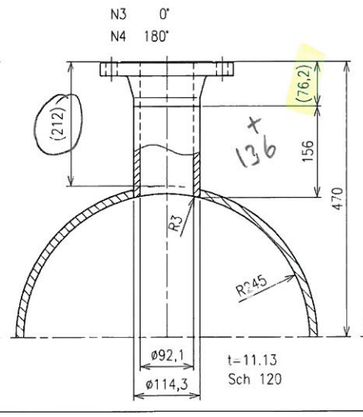
Nozzle loads acc. Frames spec. FPS-PM-VES-0001

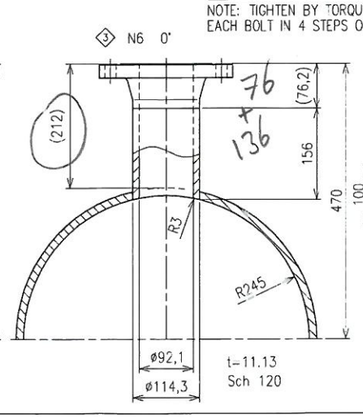
REFERENCE DOCUMENTS

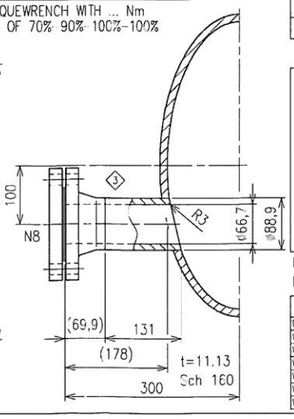
Draw no	Draw name	FPS Doc Number	Tekkay Petrojarl Doc Number
WO-100908 *01	General Arrangement	P100779-PM-GAE-20HA002-001	10000-11-M-2C-XD-110021-001
WO-100908 201	Fabrication Drawings	P100779-PM-DDE-20HA002-001	10000-11-M-2C-XS-110003-001
WO-100908 202	Fabrication Drawings	P100779-PM-DDE-20HA002-002	10000-11-M-2C-XS-110006-001
WO-100908 203	Fabrication Drawings	P100779-PM-DDE-20HA002-003	10000-11-M-2C-XS-110009-001
WO-100908 401	Partlist	P100779-PM-PLE-20HA002-001	10000-11-M-2C-LA-110003-001
WO-100908 32	Mechanical Calculation	P100779-PM-DCS-20HA002-001	10000-11-M-2C-CA-110001-001

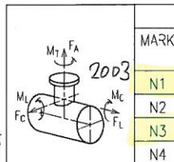


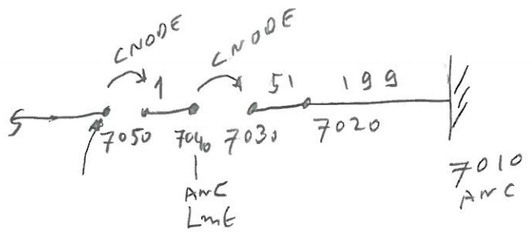


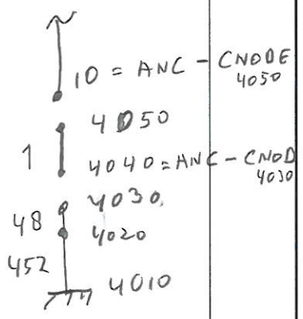








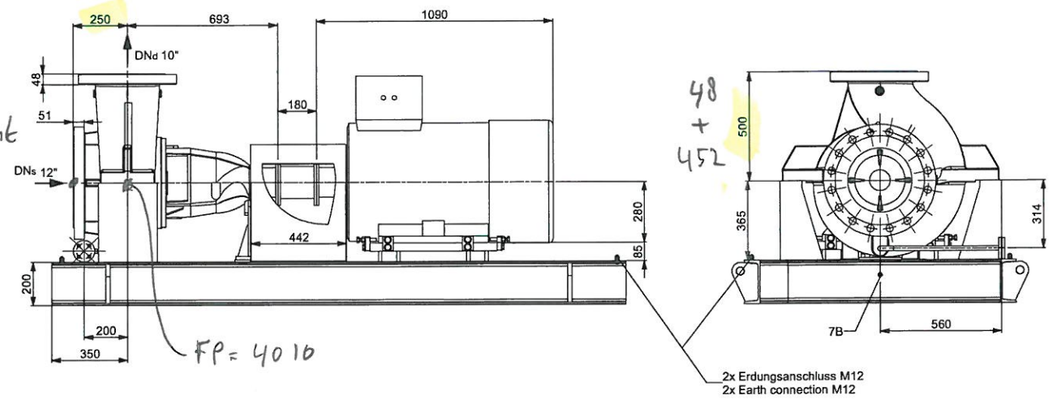


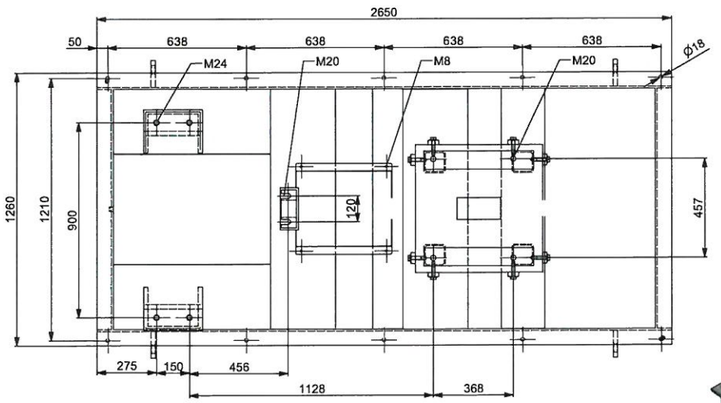


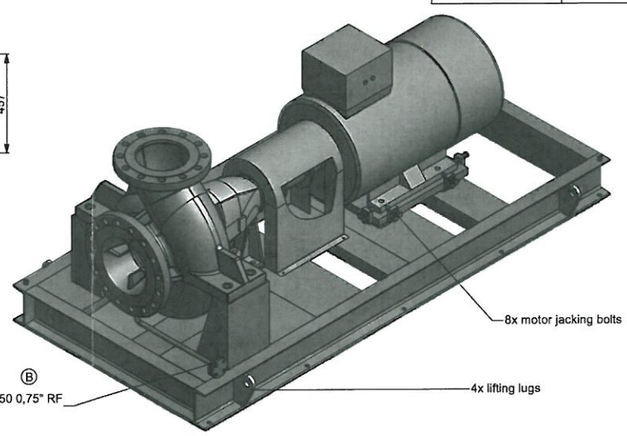
Aufstellungsplan / Foundation plan

DICKOW PUMPEN

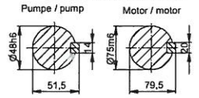
51+199



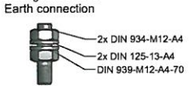




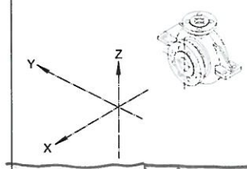
Wellenenden / shaft ends



Erdungsanschluss
Earth connection



Nozzle loadings



24i6		PERS	
Saugflansch Suction flange	12"	Druckflansch discharge flange	10"
Fx[N]	8000	Fx[N]	5340
Fy[N]	6670	Fy[N]	4450
Fz[N]	5340	Fz[N]	6670
Fr[N]	11700	Fr[N]	9630
Mx[Nm]	6100	Mx[Nm]	5020
My[Nm]	2980	My[Nm]	2440
Mz[Nm]	4610	Mz[Nm]	3800
Mr[Nm]	8210	Mr[Nm]	6750

Gewichte / Weights

Pumpe / pump	~530kg
Kupplung / coupling	~10kg
Motor / motor	~745kg
Rahmen / frame	~425kg
TOTAL	~1710kg

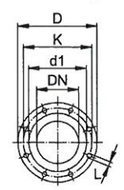
Best. Nr.: P.O. No.:	2015-002448
Pos. Nr.: Item No.:	40-PA-001 A/B
Kunde: Customer:	MULTIPOMP/ FPSO PETROJARL, Niederlande
Pumpen Nr.: Serial No.:	PB15203267/68
Pumpentype: Pump type:	NCL hu 250/320
Ausführung: Design:	C N6i
Motor:	(280S/120kW)
Rahmen: Base plate:	Sonderrahmen
Kupplung: Coupling:	FLENDER ARPEX NAN 212-6/180

Flansche / flanges

DN	D	K	d1	L
ASME B16.5 Class150				
10"	406	362	324	12xØ25,4
12"	483	432	381	12xØ25,4
0.75"	98,4	69,8	42.9	4xØ15,9

Anschlüsse/ connections		Bezeichnung/designation
7B	G1/2	Ablass Rahmen/ drain frame

Flansche/flanges

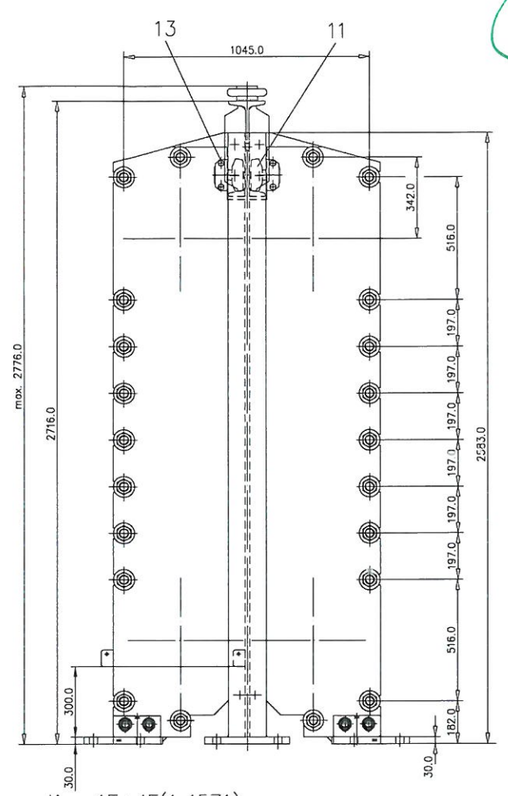


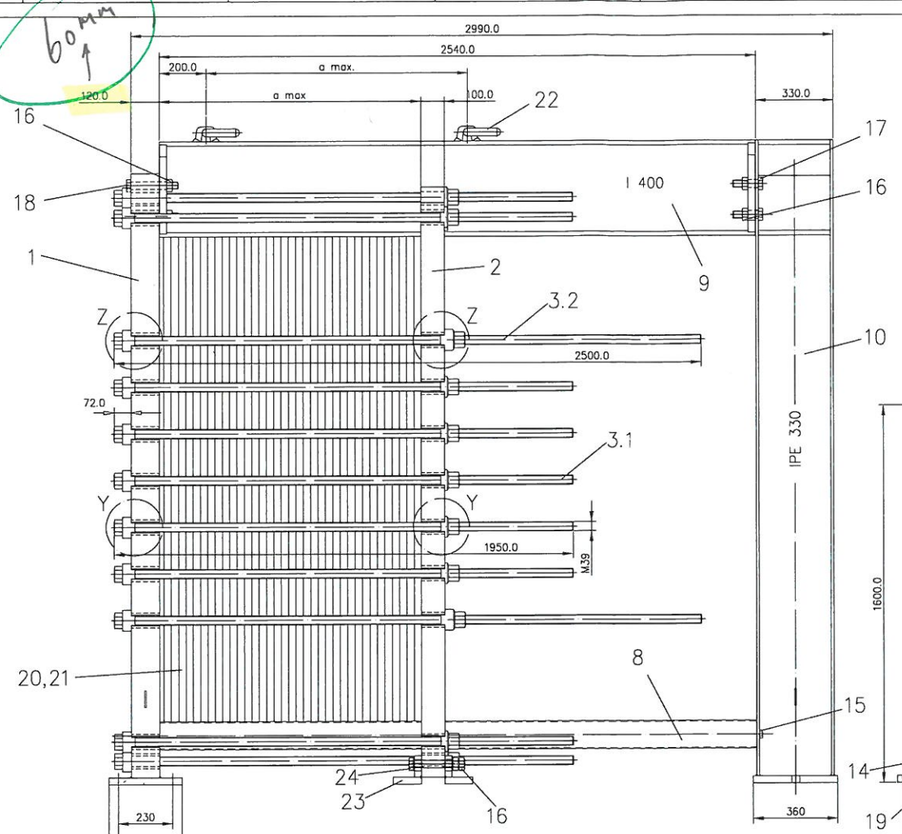
Rev.	Description	Date	Signature	Checked
B	Drain flange size corrected	17.04.15	Loserth	Konrad
A	Information added acc. to customer	14.04.15	Loserth	Konrad
○		02.04.15	Loserth	Konrad

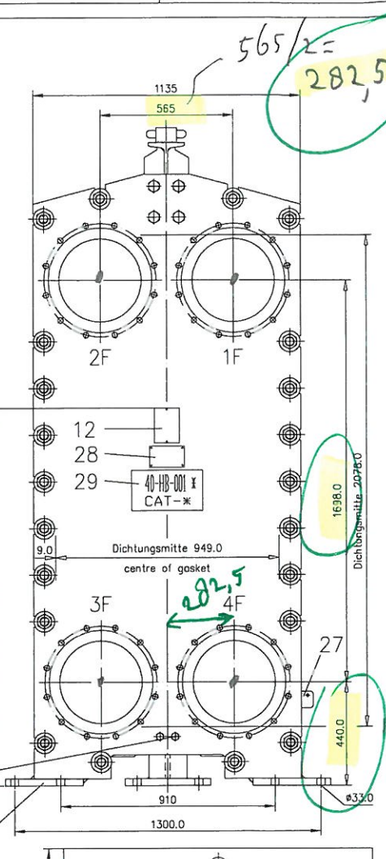
Doc. No. P100779-PM-GAE-40PA001AB-001

P.C2-MAT NR. 106 ANGENOMEN.

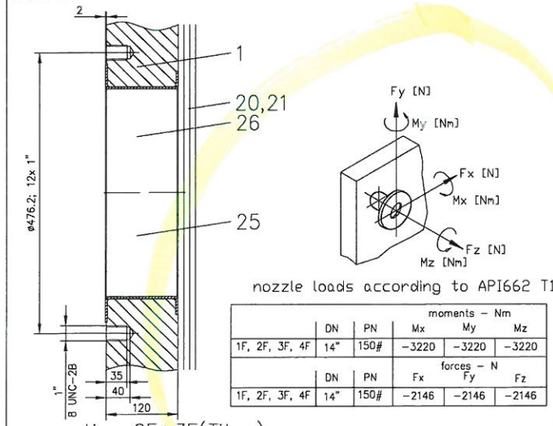
0002







operating data				side 1 room 1-4	side 2 room 2-3	
product				fresh water	sea water	
max. allowable working pressure / MAWP			kPa / bar g	1000.0 / 10.0	1000.0 / 10.0	
hydrostatic test pressure			kPa / bar g	1500.0 / 15.0	1500.0 / 15.0	
max. design temperature			°C	80.0	80.0	
min. design metal temperature / MDMT			°C	-15.0	-15.0	
content			m^3	0.8648	0.8648	
HE-surface			m^2	485.16		
weight dry / wet			kg	6804 / 8490		
inlet temperature			°C	55.0	29.6	
outlet temperature			°C	34.9	40.0	
test	drawing approved by			customer		DNV-OS-101
	approval of outward dimensions			GEA Ecoflex		DNV-OS-101
	hydrostatic test			customer ⚠		DNV-OS-101
	design acc. to			ASME Section VIII Div. 1 edition 2013		
surface 7.095-230.4.2.4	sandblasting	SA2.5		length of pl. pack	$a_{max.}$ = 1111 mm	
	primer	SigmaZinc 109HS grey	75µm			
	intermediate	SigmaCover 410 white	195µm		$a_{min.}$ = 1096 mm	
	top coat / colour	SigmarDur 520 RAL5002	50µm			
	total NDFT		320µm			

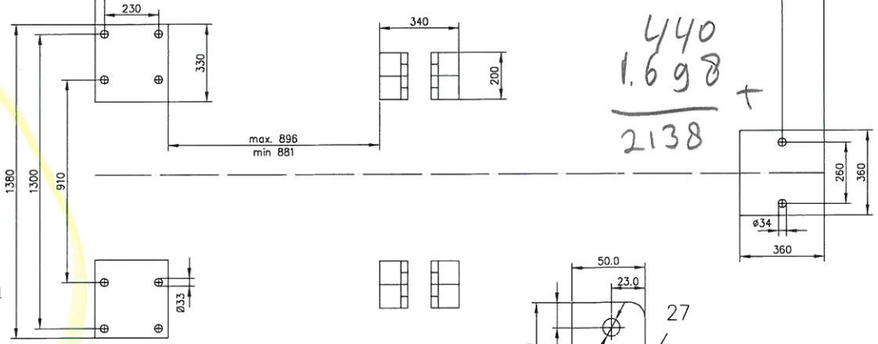


connection 1F+4F(1.4571)
metal insert 14"
ANSI B16.5 150 lb/sq.in
scale 1:5

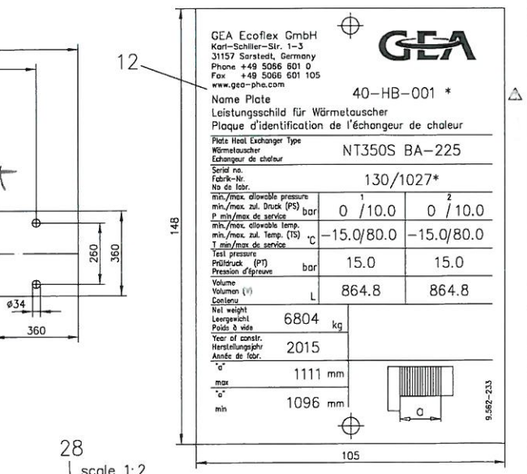
nozzle loads according to API662 T1

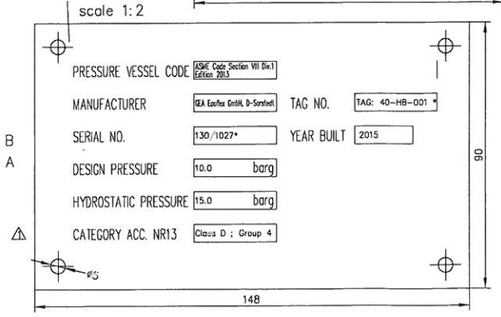
	DN	PN	moments – Nm Mx	My	Mz
1F, 2F, 3F, 4F	14"	150#	-3220	-3220	-3220
	DN	PN	forces – N Fx	Fy	Fz
1F, 2F, 3F, 4F	14"	150#	-2146	-2146	-2146

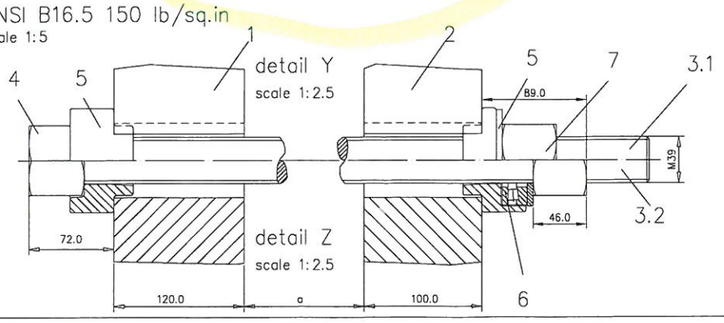
connection 2F+3F(Titan)
metal insert 14"
ANSI B16.5 150 lb/sq.in
scale 1:5

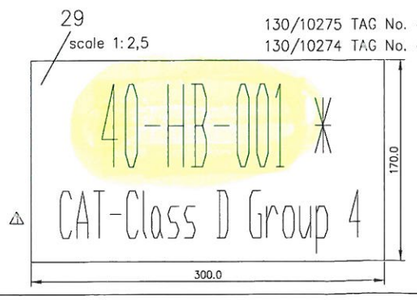


earhing lug
scale 1:1









130/10275 TAG No. 40-HB-001 B
130/10274 TAG No. 40-HB-001 A

flange connections 14" ANSI B16.5 150 lbs/sq.in.	1F	2F	3F	4F	1L	2L	3L	4L
	fresh water -in-	sea water -out-	sea water -in-	fresh water -out-				

part	quant.	denomination	material	cert.	
29	1	adhesive label Nr. 13			
28	1	customer label offshore	1.4571 DIN EN 10088-2		
27	2	earthing lug	SA240 TP304	3.1	
26	2	metal insert 14" ANSI 150lbs	1.4571 DIN EN 10088-2	3.1	
25	2	metal insert 14" ANSI 150lbs	Titan	3.1	
24	4	hexagon screw DIN 931 – M30x220	8.8 DIN EN ISO 898-1		
23	4	foot (loose plate)	S355J2 DIN EN 10025-2		
22	2	carrying eye	S355J2/1.6758 DIN EN 10025-2/DIN17115		
21	313	gasket	NBR		
20	313	HE-plate; 0.6 mm	Titan	3.1	
19	2	foot base plate	S235JR DIN EN 10025-2	3.1	equivalent ASME-mat. A570 Gr.38
18	4	hexagon screw DIN931-M30x200			
17	4	hexagon screw DIN933-M30x90			
16	16	hexagon nut DIN 934 – M30	Fk.8 DIN EN 20898-2		
15	2	hexagon screw DIN 933 – M20x45	8.8 DIN EN ISO 898-1		
14	2	hexagon screw DIN931-M20x150	8.8		
13	4	hexagon screw DIN933-M16x40	DIN EN ISO 898-1		
12	1	GEA Ecoflex name plate	1.4301 DIN EN 10088-2		
11	1	suspension compl.	S235JR DIN EN 10025-2		equivalent ASME-mat. SA283 Gr.C
10	1	support compl. IPE 330 DIN 1025-5	S235JR DIN EN 10025-2		
9	1	beam compl. I 400 DIN 1025-1	S235JR, DIN EN 10025-2		
8	1	connecting rod hollow sections 120x120x4,5 DIN EN 10210	S355J2H DIN EN 10025-2		
7	22	hexagon nut DIN 934 – M39 m=1,2d	SA 194 Grade 7 galv.	3.1	ASME Section II Part A valid edition
6	4	taper roller thrust bearing			
5	44	disc	C45 DIN EN 10083-2	2.2	
4	22	hexagon nut DIN 934 – M39 m=1,2d	SA 194 Grade 7 galv.	3.1	ASME Section II Part A valid edition
3.2	4	double end stud 2500mm	SA 193 Grade B7 galv.	3.1	ASME Section II Part A valid edition
3.1	18	double end stud 1950mm	SA 193 Grade B7 galv.	3.1	ASME Section II Part A valid edition
2	1	loose plate frame plates in acc. with ASME-Section II Part A SA-20	SA 516 Grade 60	3.1	ASME Section II Part A valid edition
1	1	base plate	SA 516 Grade 60	3.1	ASME Section II Part A valid edition

part	quant.	denomination	material	cert.	
130/10274+10275		S130/10274	0200068143		KAPP Nederland BV, Dordrecht
serial-no.		flow-diagram	order-no		customer

ASME

no.	revision	name	date	checked	date	
1	E4_1_30-10274	S.Pech	13.04.2015	Boeksch	13.04.2015	replacement f.
2	E4_2_30-10274	S.Pech	20.04.2015	Boeksch	20.04.2015	
3						
4						replacement through
5						

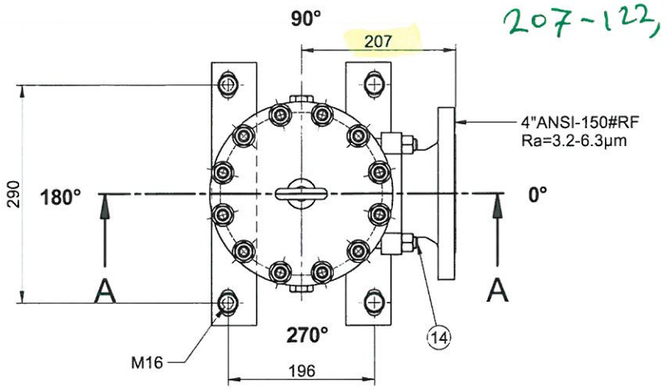
drawn 16.03.15 S.Pech
inspected 17.03.15 Boeksch

3.600-090 welding drawing (earthing lug)
3.600-091 welding drawing (foot plate)
3.601-004 welding drawing (connection)

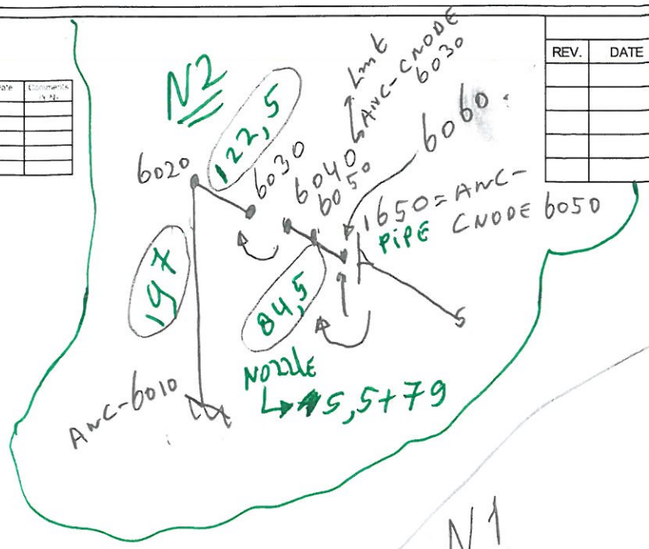
GEA Ecoflex GmbH
Kurt-Schiller-Str. 1-3
D-31157 Sarstedt

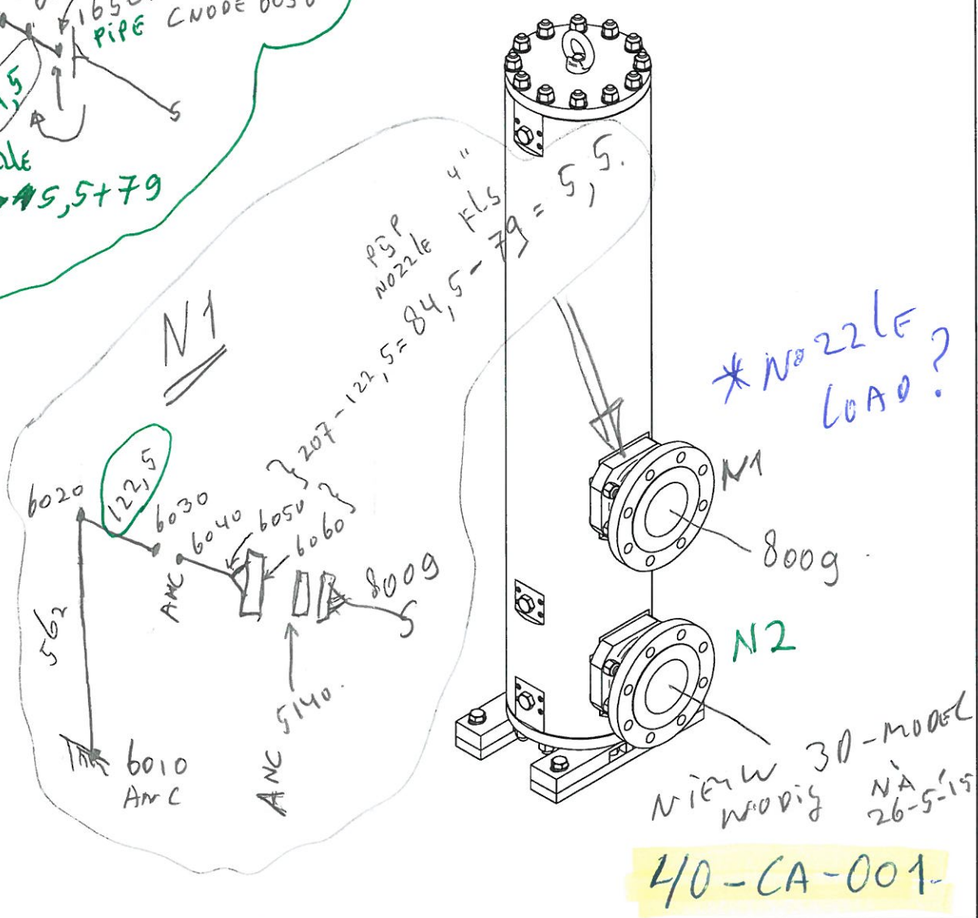
description: plate type heat exchanger NT350S BA-225
scale 1:12,5
part-no. Z130/10274
customer no. P100779-PW-GAF-40HB001AB-001 ⚠
Sach-Nr. 1.350-705-L2

REV.	DATE	DRAWN	CHECKED	DESCRIPTION



207-122,5 = 84,5

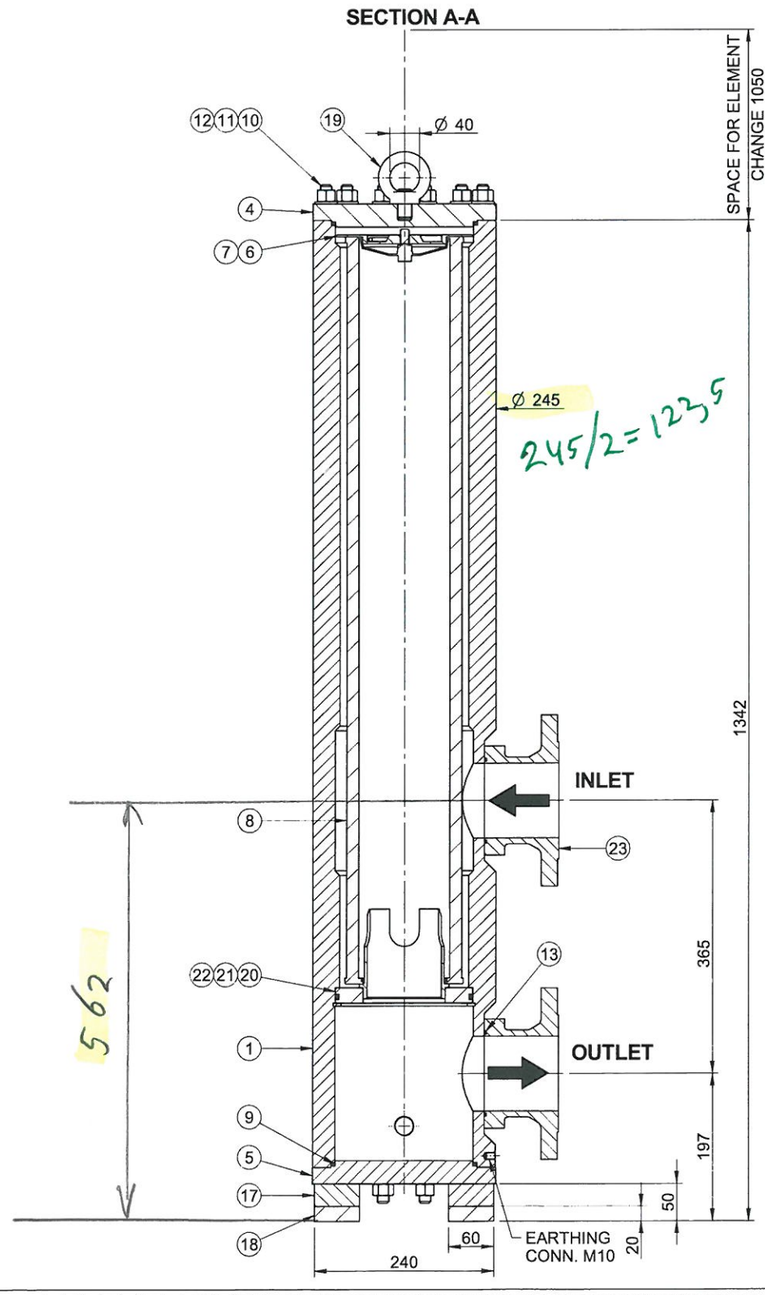


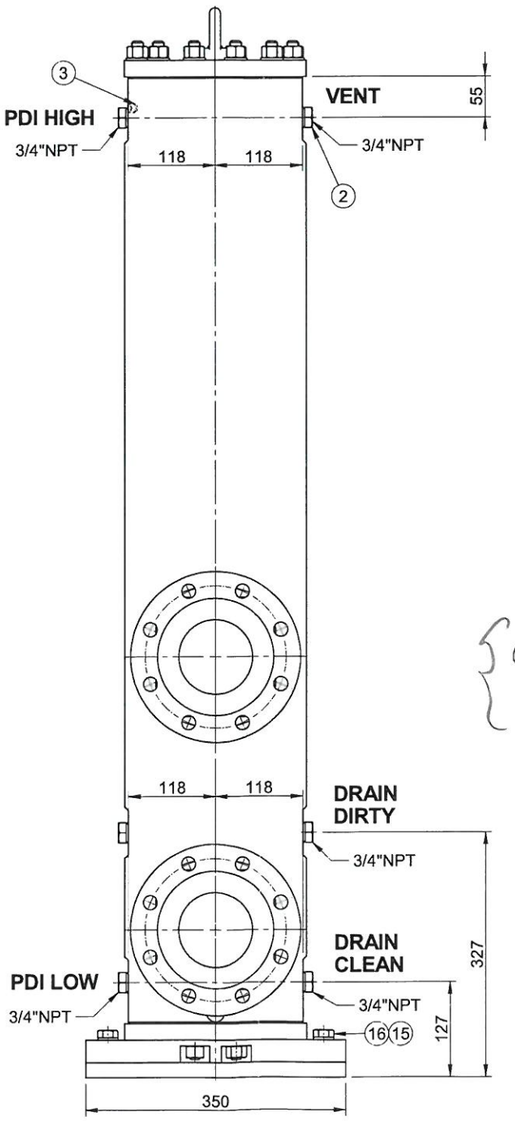


* NOZZLE LOAD?

4/0-CA-001

SECTION A-A





{C2-MATR. 106.}
AANGEMOMEN

FILTER		BALL VALVE	
CONFIGURATION: **SINGLE**	FILTER TYPE: **01800**	CONFIGURATION:	BALL TYPE:
MATERIAL: **SA106 GR.B**	INLET/OUTLET: **4"SAE-3KSI**	MATERIAL:	HOUSING SIZE:
SEAL MATERIAL: **VITON-A**	RESERVOIR CAP.:	SEAT MATERIAL:	EQUALIZING LINE:
NOTE:			

CONNECTIONS					INSTRUMENTATION	
	SIZE	CONNECTION	RATING	ORIENTAT.	PDI	YES
INLET	4"	ANSI FLANGED	150#	0°	LEVEL GAUGE	NO
OUTLET	4"	ANSI FLANGED	150#	0°	LEVEL SWITCH	NO
VENT	3/4"	NPT-F		90°	LEVEL TRANSM.	NO
DRAIN DIRTY	3/4"	NPT-F		90°	PRESS. SAFETY V.	NO
DRAIN CLEAN	3/4"	NPT-F		90°	FLOW MEASUREM.	NO
SIDE CONN.					AUTO DRAIN	NO
FLANGE FINISH	RF				BASEFRAME	NO

FILE TYPE: **FULL STRUCTURE**

FULL STRUCTURE REFERENCE:

TITLE: **GENERAL ARRANGEMENT DRAWING SINGLE FILTER 4-01800**

SCALE	DATE	DRAWN	CHECKED	APPROVED	DRG. LOC.	DESIGN AUTH.
1:4	19-06-14	LK	MK		CZ01	NL02

DRAWING No. **GA-161888-1** SHEET 1 OF 2

ISSUE **A**

INDUFIL B.V.®

SYST 0002

Ref.	CAD Reference	GMC	Description	Material	Dimension	Cert.	Note	Basic/Special	Qty.	Spares
1	057.24.100.01	0275	FILTER BODY	SA106 Gr.B	D244.5 X 36 L=1270	3.1	4-1800 4		1	
2	FC-500-0284	4553	HEXAGON PLUG	SA105N	3/4"NPT-3000PSI	3.1			6	
3	61121750012	6195	SET SCREW CUP POINT	ST.45H	M12 X 12 (DIN 916)		Blue Galvanized		24	
4	057.24.100.01-TC	4058	TOP COVER	SA516 Gr.60	D245 X 31	3.1	4-1800	STANDARD	1	
5	057.24.100.01-BC	4058	BOTTOM COVER	SA516 Gr.60	D245 X 31	3.1	4-1800	STANDARD	1	
6	045.24.001.07-P2	6194	CARTR.CONN.	ST.37	D182 X 12		4-SERIE		1	
7	045.24.001.07-P1	0541	CARTR.CONN.HANDLE	STAINLESS STEEL 316L	D5 R=45				1	
8	INR-S-01800		FILTER ELEMENT	INR-Z-01800-API-GF3-V	D158 X 1003				1	X
9	MO018430570	9528	O RING	Viton or Equal	D184.30 X 5.70 (SOR86)				2	X
10	V1178.0-0187	5580	ENGINEERED STUD	SA193 Grade B7 (G41400)	5/8"-11UNC-3/4" X 3/8" X 1 1/2"	3.1	Yellow Galvanized		24	
11	99621102200	5582	NUT HEX. HEAVY	SA194 Grade 2H	5/8"-11UNC (H=D)	3.1	Yellow Galvanized		32	
12	95160020101	6192	WASHER FLAT	ST.	M16 (DIN 125A)		Blue Galvanized		12	
13	0000243	9528	O RING	Viton or Equal	D104.37 X 3.53 (243)				2	X
14	V1178.0-0063	5580	ENGINEERED STUD	SA193 Grade B7 (G41400)	5/8"-11UNC-5/8" X 1" X 1 1/4"	3.1	Yellow Galvanized		8	
15	95160030501	6192	WASHER HELICAL	ST.	M16 (DIN 127B)		Blue Galvanized		4	
16	72162000045	5731	CAP SCREW HEX. HEAD	ST. 8.8	M16 X 45 (DIN 933)		Blue Galvanized		4	
17	057.24.001.25	4427	SUPPORT	ST.37	350 X 60 H=30				2	
18	033.00.035.23	4427	WELDPLATE	ST.37	350 X 60 X 20				2	
19	033.00.002.28	0464	EYE BOLT ASSEMBLY	C15 / EN10084	M20				1	
20	030.24.011.02-A	4427	MOUNTING PLATE	ST.37	D183.6 X 20				1	
21	MO017430570	9528	O RING	Viton or Equal	D174.30 X 5.70 (SOR84)				1	X
22	45018500001	0474	RETAINING RING INT.	1.4122	D185 X 4 (DIN 472)				1	
23	033.00.173.02	4553	FLANGE CONNECTION	SA105N	4"SAE X 4"ANSI-150#RF L=100	3.1			2	

TITLE: **BILL OF MATERIALS**
SINGLE FILTER 4-01800

SCALE	DATE	DRAWN	CHECKED	APPROVED	DRG. LOC.	DESIGN AUTH.
1:4	19-06-14	LK	MK		CZ01	NL02

INDUFIL B.V.®
INDUFIL Copyright

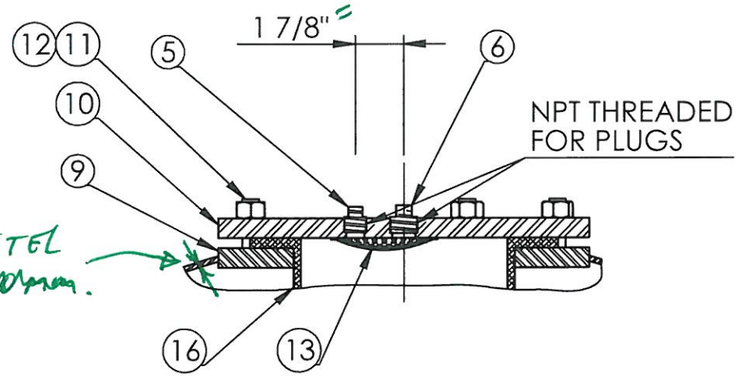
DRAWING No.
GA-161888-1
SHEET 2 OF 2

ISSUE
A

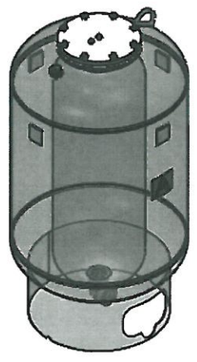
A1

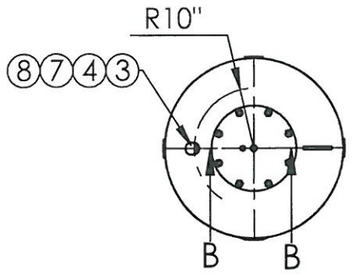
ITEM #	PART NUMBER	Description	RAW MAT'L	QTY.
1	99B0544	SHELL: C/S	9100057	1
2	9200200	HEAD: 30" OD C/S		2
3	9500000	SPUD: 1/8" NPT		1
4	9800460	AIR VALVE: 1/8" NPT		1
5	9500130	PLUG: 1/2" NPT		1
6	9500140	PLUG: 3/4" NPT		1
7	9800512	PIPE: 1 1/2" C/S		1
8	9801512	CAP: 1 1/2" VALVE PROTECTOR PLASTIC		1
9	9400102	FLANGE: C/S	9400100	1
10	9400095	COVER: C/S	9400093	1
11	9800532	STUD: 5/8"-11 C/S		8
12	9800620	NUT: 5/8"-11 C/S		8
13	9800452	SCREEN		1
14	9400542	LIFT LUG SA-105		1
15	9400506	BASERING	9100025	1
16	9800205	BLADDER: BUTYL		1
17	99K0420	BRACKET 3" X 3" X 1/4"		4
18	9400579	L-SERIES B.S.C.: 2" 304 SST		1
19	9421037	2" ELBOW 304 SST		1
20	9600830	ASME DATA PLATE		1

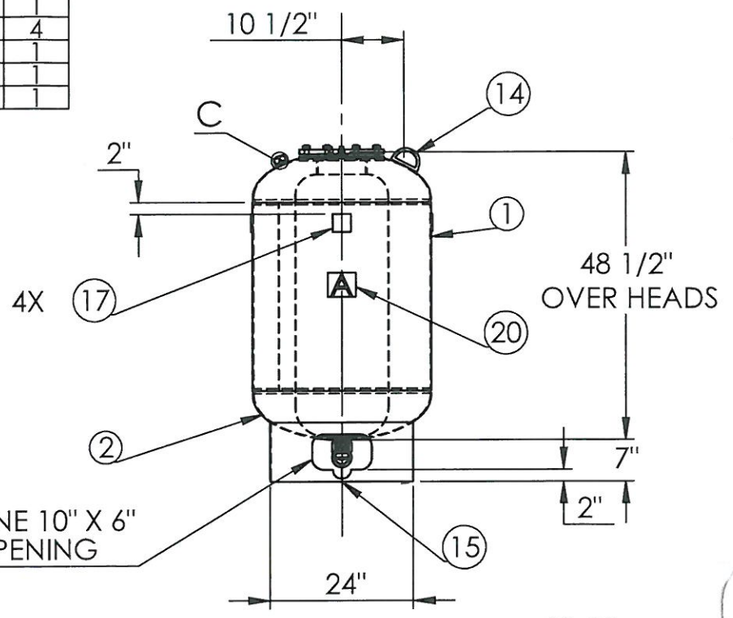
REVISIONS				
REV.	DATE	DESCRIPTION	QCM	EM
0	5/26/2015	ORIGINAL		

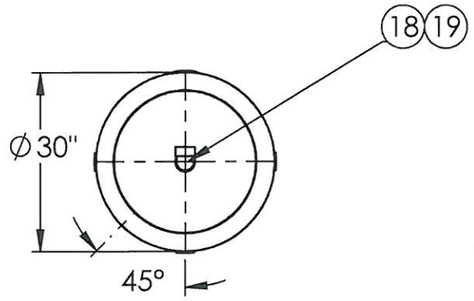


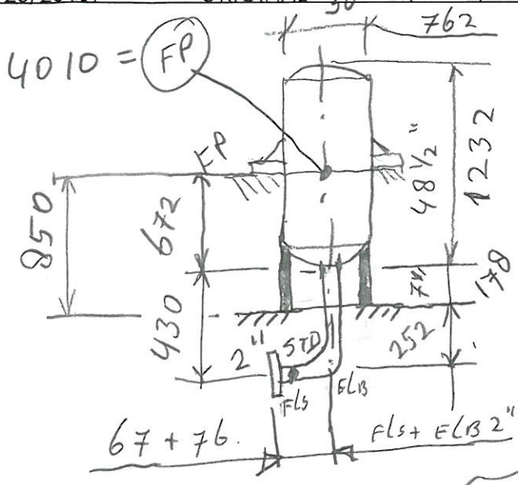
SECTION B-B
SCALE 1 : 8
TOP COVER DETAIL

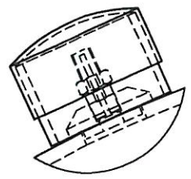












DETAIL C
SCALE 1 : 3
CHARGE VALVE

Route	Discipline	Checked	Date	Comments Y/N
x	Sales/Project Eng./Eng.Man.	AHe	28-05-15	N
	Process			
x	Mechanical			
	Electrical & Instrumentation			

SPECIFICATIONS			
OD 30"	LGTH 48 1/2"		
MAWP 150	AT 240 °F		PSI
MDMT -20 °F	150 PSI		°F
WC 132	GAL		
CODE "U" LATEST EDITION			
WELD DETAILS GIVEN			

NOTES:
1. EXTERIOR: RED OXIDE PRIMER
2. EPOXY-LINE INSIDE OF TOP FLANGE W/SCREEN.
3. SHIPPING: 40 PSI PRECHARGE
4. NO POST-WELD HEAT TREATMENT REQUIRED.
5. REMOVE ALL SHARP EDGES & BURRS INSIDE TANK.
6. ESTIMATED WEIGHT: 367.51 LB

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
WELD SYMBOLS ARE MINIMUM REQUIREMENT

TOLERANCES:
FRACTIONAL ±1/4"
ANGULAR: ±2 1/2°

SINCE 1908 wessels company

GRAME TXA 500 SPC.

SCALE: 1:35	P/N: A-V132071
DATE: 5/26/2015 BY: JB	

SHEET 1 OF 1