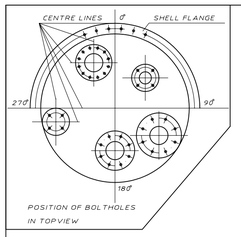

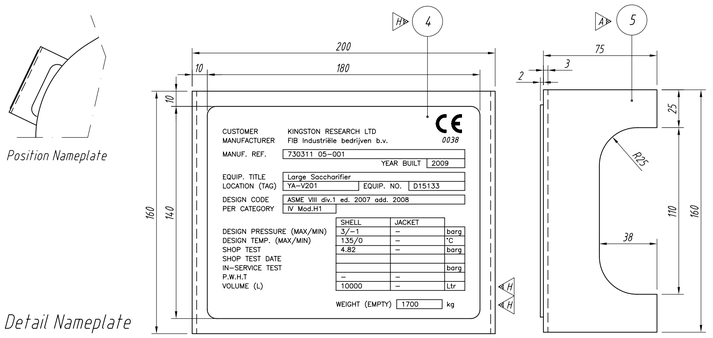

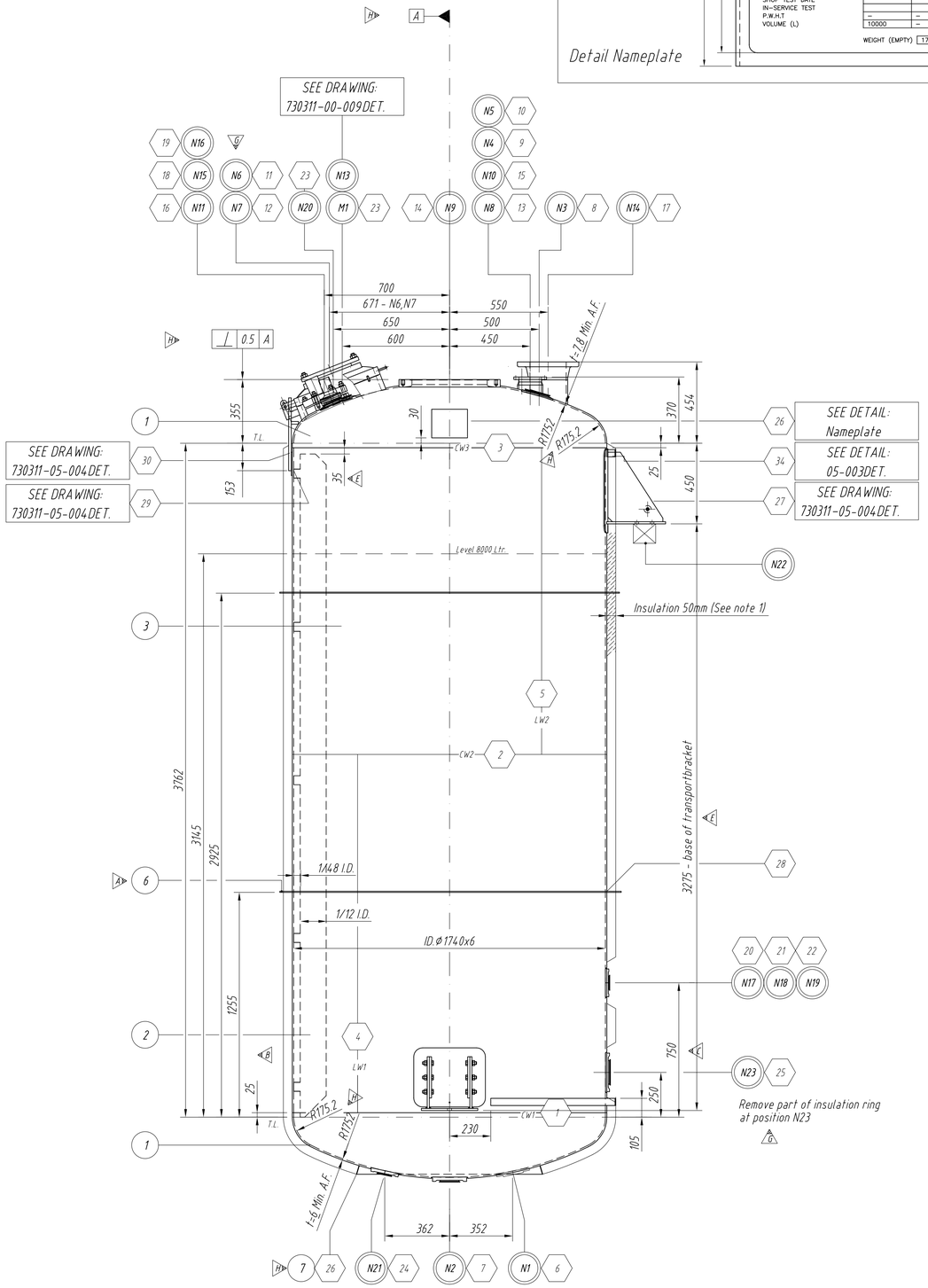

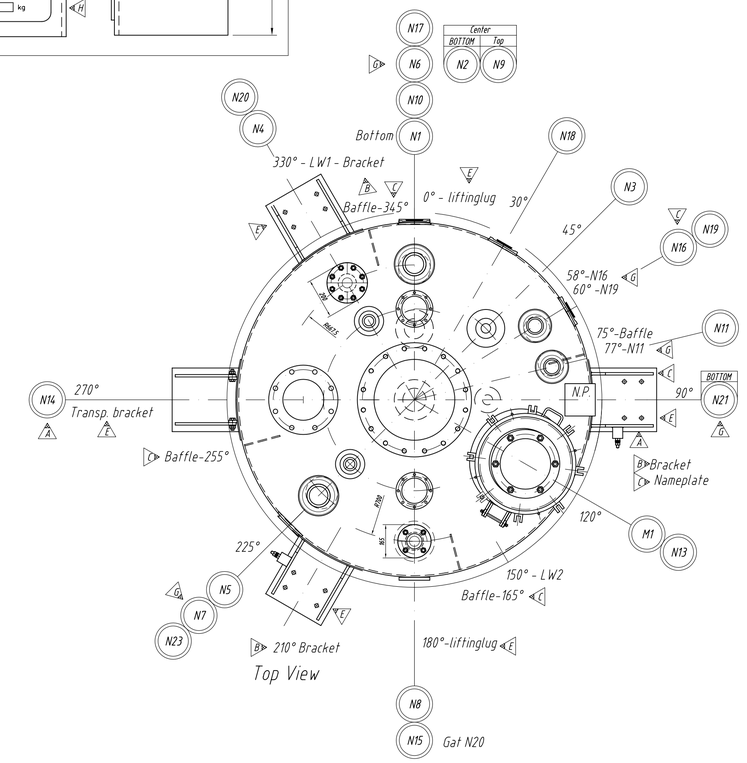

General notes

G A	1	Build up: Rockwool & Aluminiumplate.
	2	All main pressure bearing parts 3.1 cert. EN10204 acc. PED annex 1 Par.4.3
	3	Finish outside; Pickled and passivated
A		surface finish inside; 2B < Ra 0.8um
A		welding finish inside; Ra < 0.8 µm
A	5	Flange N9 "Agitator connection" Machining after welding
C B	6	Nameplate acc.: GIS-46-0101 section 7.11.3
C B	7	Earthingbosses acc.: GIS-46-0101 section 7.11.5
B	8	All sharp edges inside to be rounded off with R=5
B	9	For all DIN 11864 nozzles the grooved flange is welded on the vessel.
F	10	There are to be no underflush weld caps
F	11	Only materials from a European or North-American origin wil be used
F	12	100% DPI of support and lifting attachment welds
G	13	Refer to aseptic project specification. (BD 2007)
I	14	Manhole to be provided with at least 1 locking nut

REV MAN	POS NO	NUMB REQ	DESCRIPTION / DIMENSION	MATERIAL	CERT.
H	7	1	Plate 2 D=1037 d=1007 h=48 (Cone)	A240 316L	3.1
D	6	2	Flatbar 80x8 L=5755	AISI 316L	3.1
A	5	1	Plate 3 338x160	A240 304L	3.1
H	4	1	Nameplate 2 180x140	SS	-
	3	1	Plate 6 1712x5485	A240 316L	3.1
	2	1	Plate 6 2000x5485	A240 316L	3.1
G	1	2	Head HD ID=1740 h=25 t=7.8 Min. A.F Acc. DIN28011	A240 316L	3.1

Mechanical data

		Vessel	-	-	
F	Design code	ASME VIII div.1 ed. 2007 add. 2008 / PED Cat.IV module H1			
	Inspection	FIB QA			
	Design pressure Max. / Min.	3 / -1	-	-	barg
	Design temperature Max. / Min.	135 / 0	-	-	°C
	Operating pressure Max. / Min.	2/-1	-	-	barg
	Operating temperature	120 / 10	-	-	°C
H	Test pressure (Horz.)	4.82	-	-	barg
	Volume	10	-	-	m³
	Corrosion allowance	0	-	-	mm
	Joint efficiency	0.85 acc. uw 12 (b)	-	-	
	X-ray	Spot acc. uw 11 (b)	-	-	%
	[redacted] PED Fluidgroup / Phase	1 / G	-	-	
H	Weight empty (incl. 120 Kg. Insulation)	1700	-	-	Kg.
H	Weight full of water	11700			Kg.
	Welding method	See WPS			
	Surface treatment SS.	see note 3			
		-			
	CS	-			
		-			
	Tolerances according	FIB-TOL-002			
	Flange gasket contact face finish	Smooth finish (Ra 3.2-6.3 µm)			
	Bolt holes in the flanges to straddle centerlines unless otherwise shown on dwg				

Process connection

	Mark	Numb. Req.	Service	Nom. Bore	Pipe	Flange connection
A	N1	1	Product Outlet Bottom	DN50	-	Flange RTA valve - acc. 00-027
G A	N2	1	CIP	DN80/65	-	Varivent T Housing 221MBL002243G-3
A	N3	1	Product Inlet Top	DN50	-	Flange RTA valve - acc. 00-027
G A	N4	1	Acid	DN32/25	-	Varivent T Housing 221MBL002243G-3
G A	N5	1	Caustic	DN32/25	-	Varivent T Housing 221MBL002243G-3
G A	N6	1	CO2 / Process air	DN80/65	-	Varivent T Housing 221MBL002243G-3
G A	N7	1	CIP/ Water	DN80/65	-	Varivent T Housing 221MBL002243G-3
C A	N8	1	Spray Nozzle 1	DN125	141.3x8.56	DIN 11864 aceptic flange - GEA supply
A	N9	1	Agitator connection	DN400	PAD Flange	DIN 28117 PN10 aceptic flange - Special
C A	N10	1	Spraynozzle 2	DN125	141.3x8.56	DIN 11864 aceptic flange - GEA supply
G A	N11	1	Pressure transmitter	DN50/40	-	Varivent T Housing 221MBL002243G-3
A	N13	1	Sightglass / lightglass	DN200	-	PN10 DIN28120 aceptic flange
A	N14	1	Grain Inlet Top	8"	219x8.18	WNFF Flange 150# ANSI
D C A	N15	1	Bursting Disk	DN25	-	PAD Flange - Special
G A	N16	1	Levelswitch Top	DN50/40	-	Varivent T Housing 221MBL002243G-3
G A	N17	1	pH Transmitter1	DN50/40	-	Varivent T Housing 221MBL002243G-3
G A	N18	1	Temperatuur transmitter	DN50/40	-	Varivent T Housing 221MBL002243G-3
G A	N19	1	pH Transmitter 2	DN50/40	-	Varivent T Housing 221MBL002243G-3
C A	N20	1	Bursting disk upside down	DN65	-	PAD Flange - Special
G	N21	1	Levelswitch Bottom	DN50/40	-	Varivent T Housing 221MBL002243G-3
G A	N23	1	Extra Sprayball Conn.	DN100	-	Varivent T Housing 221MBL002243G-3

Other connection

	Mark	Numb. Req.	Service	Nom. Bore	Pipe	Flange connection
A	M1	1	Manhole	DN500	-	O.D.500 / I.D. 450
	N22	3	Weight transmitter	-	-	-

Reference document list

Document no.	Document name	Client document no.
00-009	Manhole 500x25 with sightglass DN200	-
G 221MBL002243G-3	Varivent T Housing	-
05-003	Nozzle details	-
05-004	Bracket details	-
05-200	Strength Calculations	-
05-250	WPS	-
05-252	PQR	-
05-298	Risk Analysis	-
05-600	Installation Manual	-
05-900	Test & Inspection plan	-
M.A.P. III	Mechanical Assurance Practise	-
F ZA 7	Process data sheet	-

AS BUILT STATUS FIB | AS BUILT STATUS CLIENT | AS BUILT STATUS INSP. AUTHORITY

E | F | G | H | I | J | 14-04-2010

SCALE 1:15 | DRAWN A.Hoekstra | CHECKED G. Bijker | DATE 15-05-2009 / 14-04-2010 | REMARKS - / Drawing acc. GEA datasheet YA-V201 Rev. H

REVISED
F AH, 18-09-2009 see rev. marks.
G AH, 15-10-2009 see rev. marks.
H Pid, 27-11-2009 see rev. marks.
I Pid, 25-03-2010 see rev. marks.
J PHd, 14-04-2010 see rev. marks.

PROJECT GEA Process Engineering Nederland BV
BP - ZA 7034 - D15133 B

SUBJECT F Large Saccharifier - YA - V201
General Arrangement

ITEM NO. 730311-05
FORM A1
REG.NO. -
DRWG.NO. 730311
SHEET NO. 05-001

FIB industriële bedrijven
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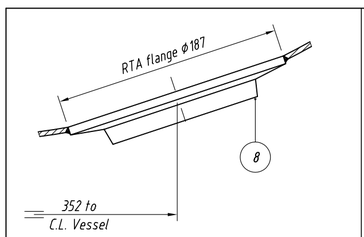
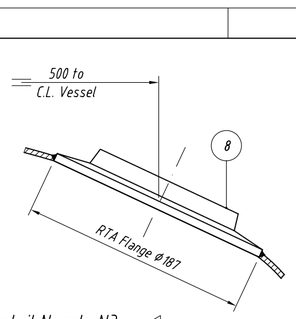
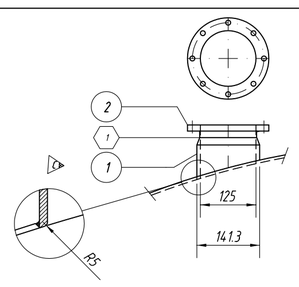
100 mm



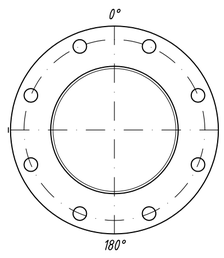
Detail Nozzle N1 GEA Supply

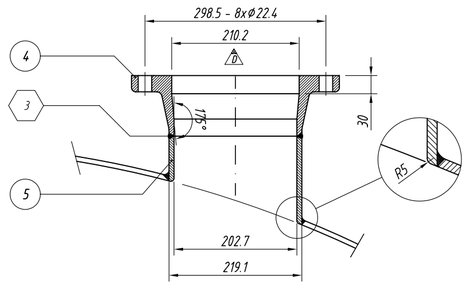


Detail Nozzle N3 GEA Supply

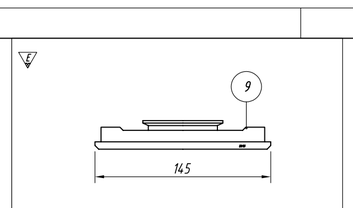


Detail Nozzle N8, N10

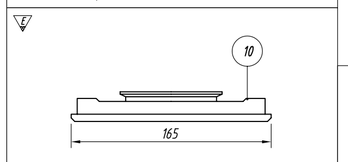




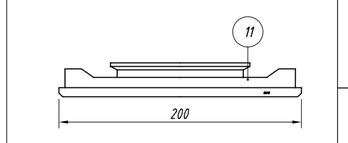
Detail Nozzle N14



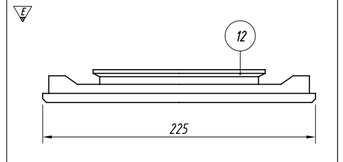
Detail N4, N5



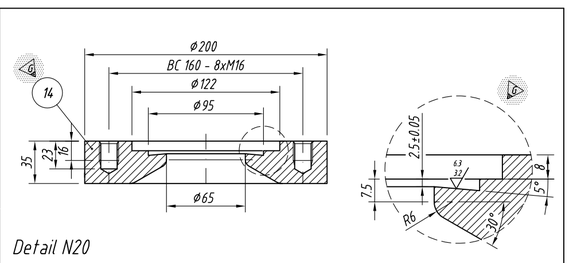
Detail N11, N16, N17, N18, N19, N21



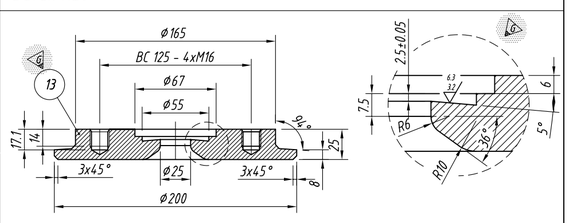
Detail N2, N6, N7



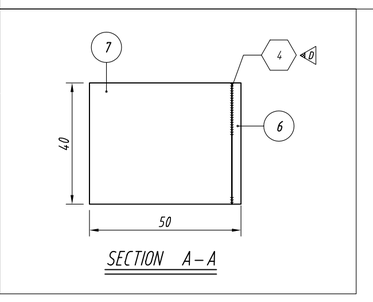
Detail N23



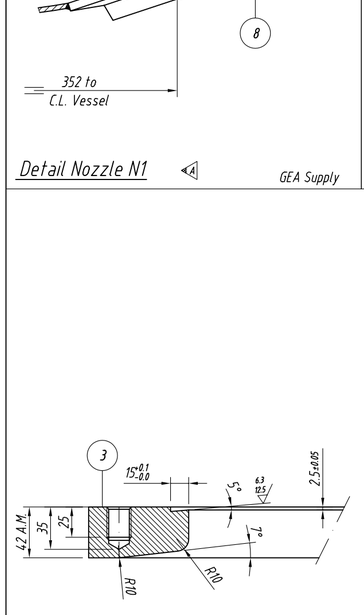
Detail N20

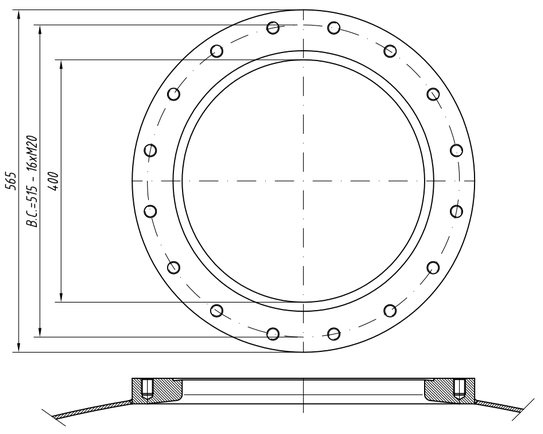


Detail N15



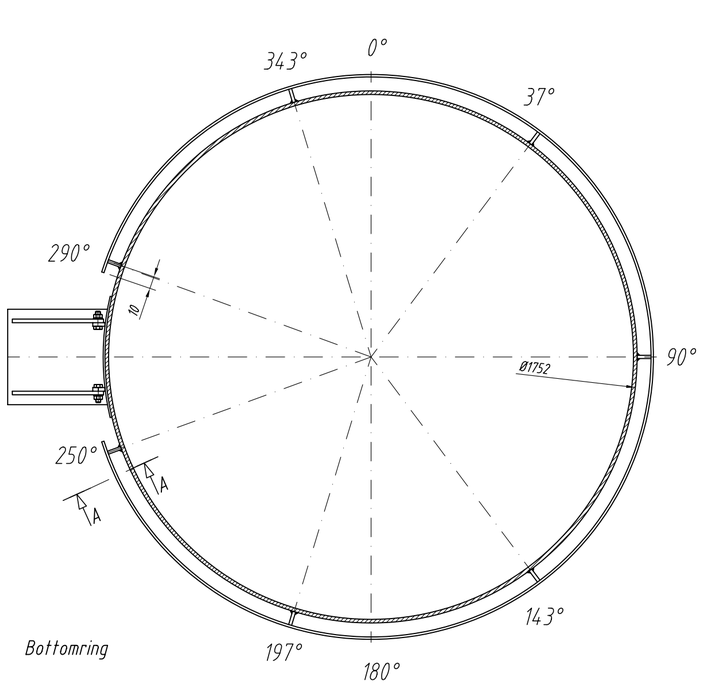
SECTION A – A



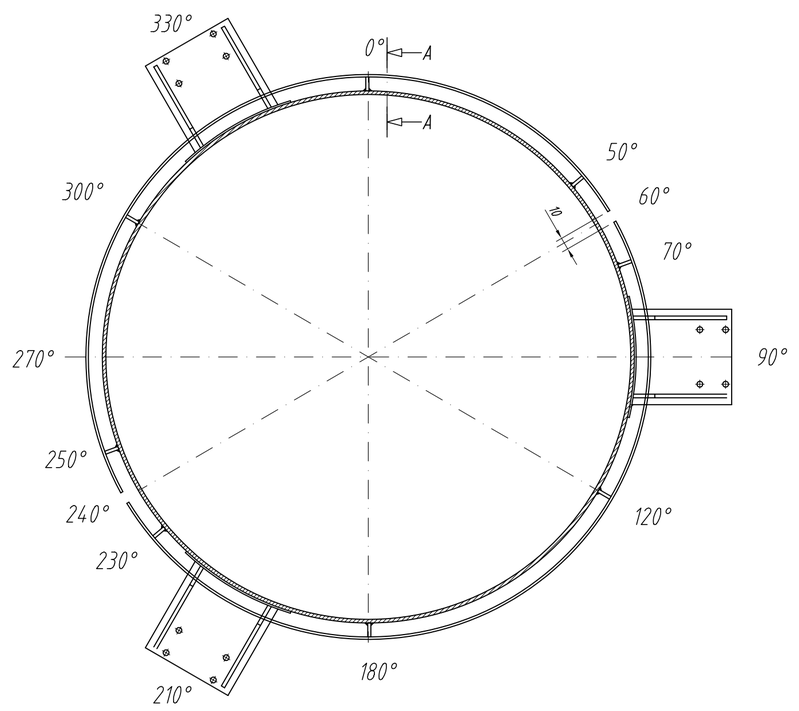


acc. DIN 2527 DN400 PN10

Detail Nozzle N9



Bottomring



Topring

Detail Insulation ring

REV MAN	POS NO.	NUMB REQ.	DESCRIPTION / DIMENSION	MATERIAL	CERT.
G	14	1	Plate 35 D=200	A240 316L	3.1
G	13	1	Plate 25 D=165	A240 316L	3.1
E	12	1	Varivent T Housing DN 100 see Process Connection	A479 316L	3.1
E	11	2	Varivent T Housing DN 80/65 see Process Connection	A479 316L	3.1
E	10	6	Varivent T Housing DN 50/40 see Process Connection	A479 316L	3.1
E	9	2	Varivent T Housing DN32/25 see Process Connection	A479 316L	3.1
E	8	2	Flange RTA DN50 PN6 see Process Connection	A479 316L	3.1
E	7	15	Flatbar 40x4 L=46	A240 304L	3.1
E	6	2	Flatbar 40x4 L=5830	A240 304L	-
	5	1	Pipe Welded D=219.1x8.18 L=147	A312TP316L	3.1
	4	1	WNFF Flange 8" 150# ASME B16.5 s=8.18	A182F316L	3.1
	3	1	Plate 45 D=565 d=400	A240 316L	3.1
A	2	2	Flange DN 125 DIN11864 - GEA supply	A182 316L	3.1
E	1	2	Bar D=140 L=95	A490 316L	3.1

AS BUILT STATUS FIB | AS BUILT STATUS CLIENT | AS BUILT STATUS INSP. AUTHORITY

E | F | G 25-03-2010 | H | I | J

SCALE	1:5	DATE	REMARKS –
DRAWN	A. Hoekstra	02-06-2009	–
CHECKED	G. Bijker	25-03-2010	–

REVISED: AH. 20-01-2010, see rev. marks. | RHL. 25-03-2010, see rev. marks.

PROJECT: GEA Process Engineering Nederland BV
BP - ZA 7034

SUBJECT: D Large Saccharifier - YA - V201
Nozzle details

ITEM NO. 730311-05

FIB industriële bedrijven
EINSTEINWEG 18 | POSTBUS 314 | TEL. 058 294 59 45 | www.fib.nl
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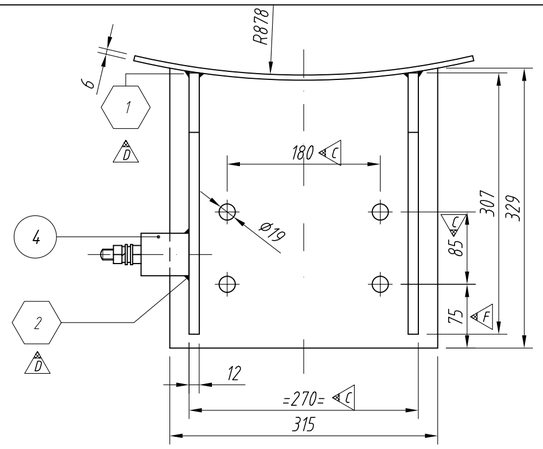
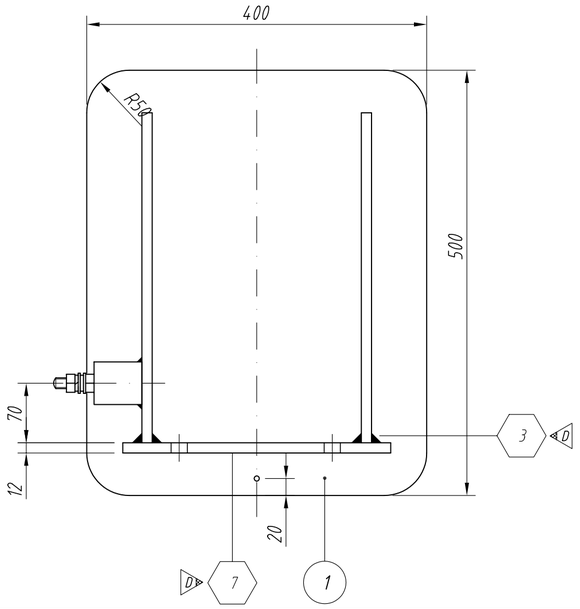
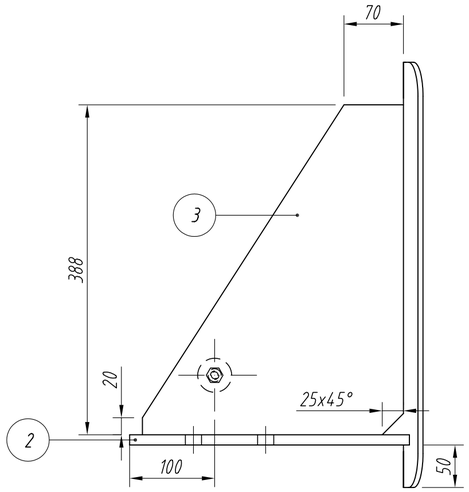
FORM A1 | REG.NO. – | DRWG NO. 730311 | SHEET NO. 05-003

100 mm

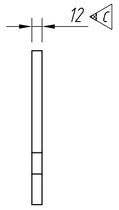


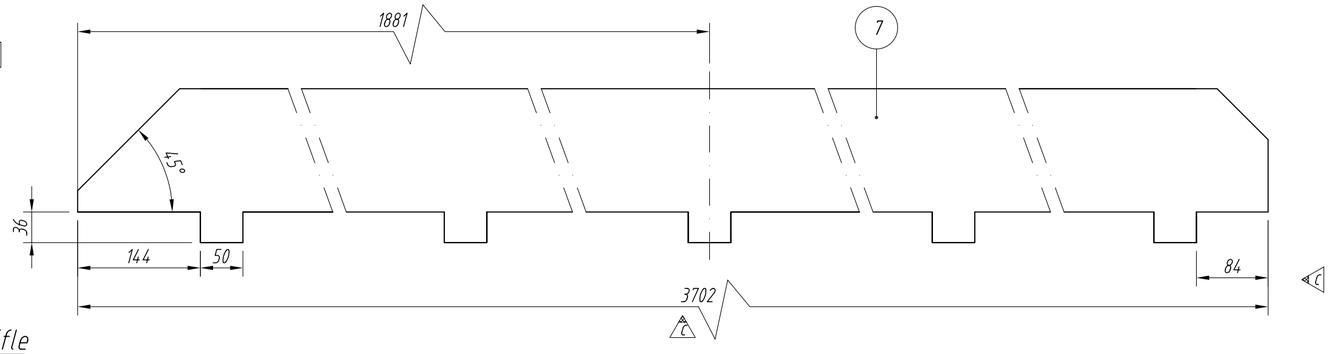




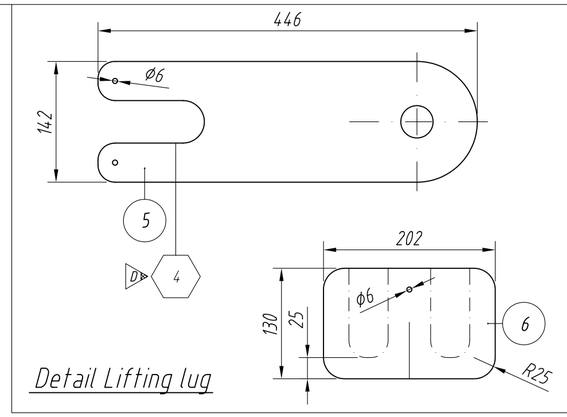
Detail Bracket

DIN28083 Size 6



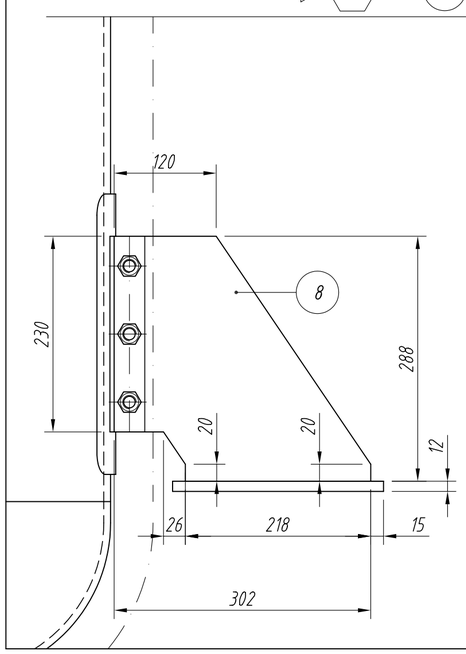


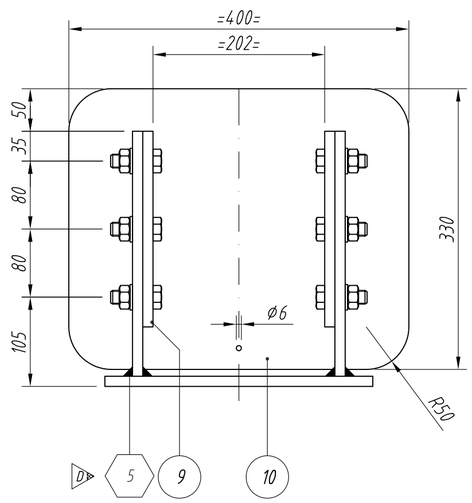
Detail Baffle

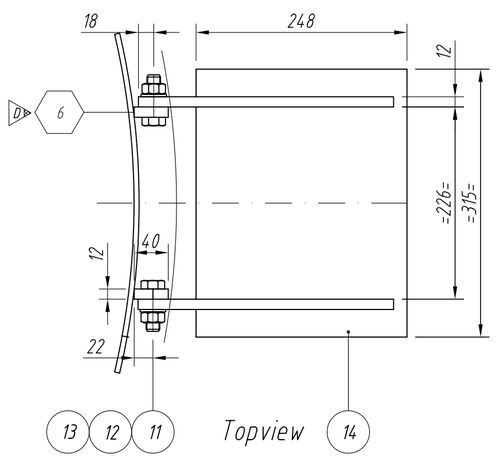


Detail Lifting lug

C	14	1	Plate 12 248x315	A240 316L	-
C	13	6	Washer M16 DIN125A	A4	-
C	12	6	Nut M16 DIN934	A4 DIN267	-
C	11	6	Bolt M16x50 DIN933	A4-70 DIN267	-
C	10	1	Plate 6 400x330	A240 316L	3.1
C	9	2	Plate 12 40x230	A240 304L	-
C	8	2	Plate 12 302x288	A240 304L	-
C	7	4	Plate 12 3702x181	A240 316L	3.1
	6	2	Plate 6 202x130	A240 316L	3.1
	5	2	Plate 15 446x142	A240 304L	-
	4	2	Earthingboss	SS / brass	-
C	3	6	Plate 12 307x388	A240 304L	-
C	2	3	Plate 12 329x315	A240 304L	-
C	1	3	Plate 6 500x402	A240 316L	3.1
REV MARK	POS NO.	NUMB REQ.	DESCRIPTION / DIMENSION	MATERIAL	CERT.







AS BUILT STATUS FIB | AS BUILT STATUS CLIENT | AS BUILT STATUS INSP. AUTHORITY

E | F | G 20-01-2010 | H | I | J

SCALE	1:5	DATE	REMARKS -
DRAWN	K vd Haring	03-06-2009	-
CHECKED	G. Bijker	20-01-2010	-

PROJECT: GEA Process Engineering Nederland BV
BP - ZA 7034

SUBJECT: D Large Saccharifier - YA - V201
Bracket / lug

REVISED: F RvL, 27-11-2009, see rev. marks. | G AH, 20-01-2010, see rev. marks. | H - | I - | J -

ITEM NO. -

FORM A2 | REG.NO. - | DRWG.NO. 730311 | SHEET NO. 05-004

FIB industriële bedrijven
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100 mm