

SATURN manual

INDEX

Chapter 8 Description

8-1 Drawings and parts list.

CUSTOMER	Sofix Corporation
PURCHASE ORDER	P00-0523
TAG NUMBER	C-7200
MACHINE TYPE	<i>Saturn</i> Conical Screw Vacuum Dryer
MODEL NUMBER	DF-600-VD2
JOB NUMBER	2816
YEAR MANUFACTURED	2001

8 Drawings and Parts lists

8-1	Installation Drawing	drawing number	P3035 B
8-2	Assembly Sanitary	drawing number	22.20.00.114
8-3	Assembly Shaft Option	drawing number	22.40.00.077
8-4	Mechanical Screw Seal	drawing number	F/12390
8-5	Vessel	drawing number	700538 – 01-001
8-6	Filter Details	drawing number	700538 – 01-003

TOPVIEW IS RULING FOR NOZZLE-ORIENTATIONS

ALL DIMENSIONS ARE APPROXIMATE
AND WILL BE CONFIRMED AFTER
COMPLETION OF ASME CODE
CALCULATIONS

SOFIX CORP. P.O. No. P00-0523
SOFIX TAG No. C7200

JAYGO drawing No. S-2816CM-100F

Material specification

All wetted parts	stainless 304 L
Shell	stainless 304 L
Domed cover	stainless 304 L
Product piping	stainless 304 L
Reinforcements	stainless 304 L
Brackets	stainless 304 L

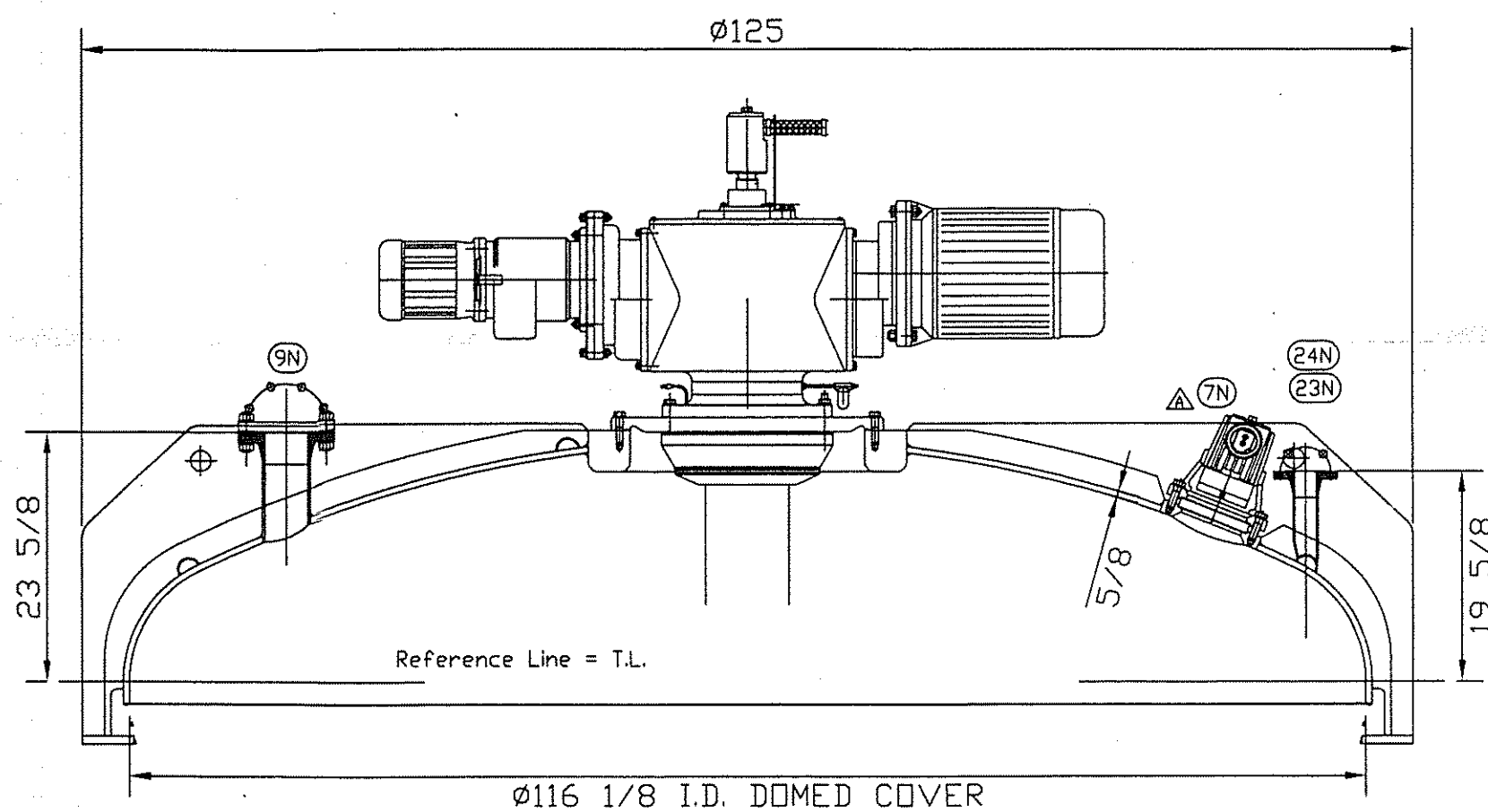
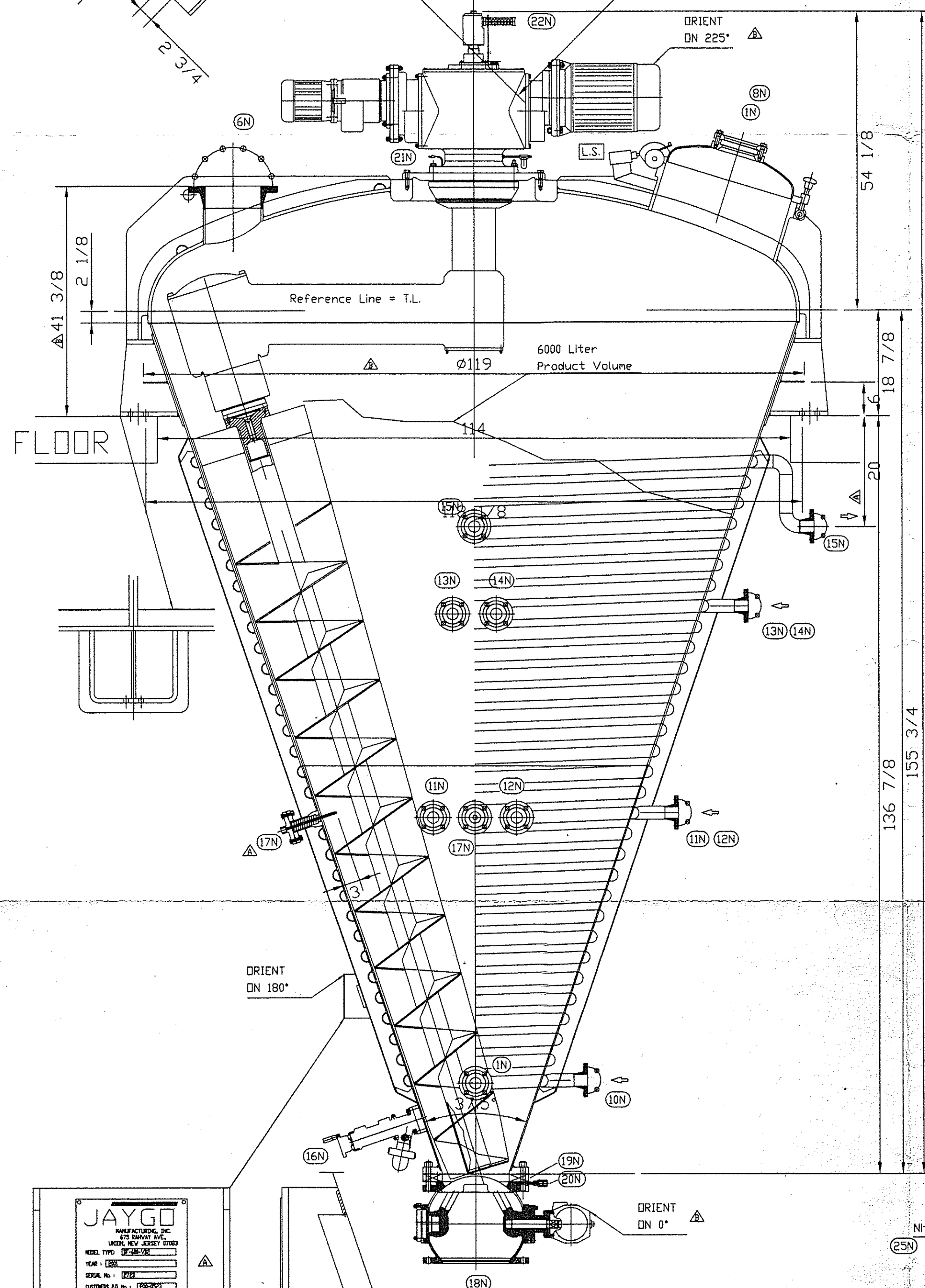
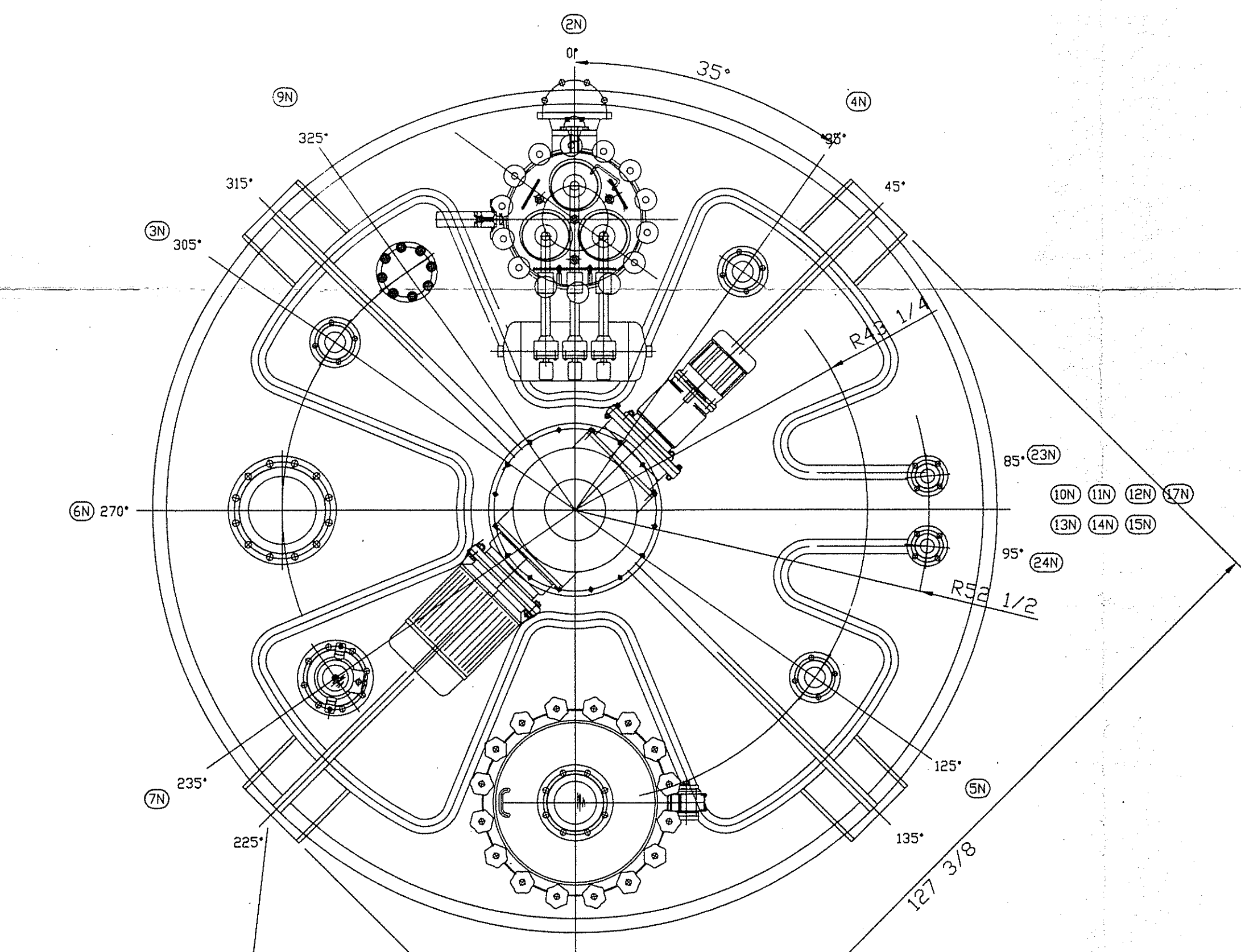
Flanges	stainless 304 L
Lifting lugs	stainless 304 L
1/2 coil jacket	stainless 304 L

General notes
O-rings and lip seals: PTFE-encapsulated/PTFE
Orbital lipseals: Screw double-neck seal
Elektr: 460V - 3Ph 60hz

Electromotors: TEFC, Class I, Group C&D, Div.1
Motors to be Explosion proof
Main power: 20 Hp 1800 rpm
Orbital power: 1 Hp 1800 rpm
Screw speed: 65 rpm
Orbital speed: 1 rpm

Surface preparation
All product contacting parts: Ra < 1.0 um
All outside SS parts: bead blast finish
Drive and carbon steel parts: RAL 1013 coated

WEIGHTS
Total weight of machine: 6500 kg
Weight of screw: 500 kg



Design data:

Mixing and drying vessel:	Inspection: ASME NAT Board
ASME section VIII, Div. 1-95	Design pressure (Int): 44 PSig and full vacuum
Design pressure (Int)	Design temperature: 300°F
Design temperature	Test pressure in vessel: 66 PSig
Test pressure in vessel	Working pressure: Full vacuum
Working pressure	Working temperature: 72-302 °F
Working temperature	Nominal product cap: 6000 litre
Nominal product cap	Waterfill cap: 6700 litre
Waterfill cap	Vessel full of water: 10800 litre
Vessel full of water	

Halfpipe coil on vessel wall:	Inspection: ASME NAT Board
ASME section VIII, Div. 1	Design pressure (Int): 75 PSig and full vacuum
Design pressure (Int)	Design temperature: 300°F
Design temperature	Test pressure in coil: 115 PSig
Test pressure in coil	Working pressure: Full vacuum to 60 PSig
Working pressure	Working temperature: 70-302°F
Working temperature	

Filter area: 75 sq. ft.

Equipment - Empty weight	6500 kg
Equipment - Operation weight	10820 kg
Equipment - Test weight	17300 kg

Seismic load per ASCE 7-95: A_s = A_v = 0.10
Importance Factor = 1.0
Site Coefficient S_s = 1.5

ITEM	QTY	DESCRIPTION	MATERIAL	DIMENSIONS / REMARKS
29N	1	DN500	REWN	Hinged manway filter
28N	1	150#	40	REWN Filter jacket in
27N	1	150#	40	REWN Filter jacket out
26N	1	150#	40	REWN Vacuum connection
25N	1	150#	40	NPT Nitrogen to filtercleaning dev.
24N	1	150#	40	REWN Domed cover jacket out
23N	1	150#	40	REWN Domed cover jacket in
22N	1	150#	40	NPT Nitrogen to Double Mechseal
21N	1	150#	40	NPT Nitrogen to Orbital Lipseal
20N	1	150#	40	NPT Nitrogen to Ball Valve seal
19N	1	150#	40	NPT Nitrogen to purging
18N	1	150#	40	RF Outlet
17N	1	150#	40	RF Thermowell connection
16N	1	150#	40	RF Sampling valve connection
15N	1	150#	40	REWN Vessel jacket out
14N	1	150#	40	REWN Vessel jacket in
13N	1	150#	40	REWN Vessel jacket out
12N	1	150#	40	REWN Vessel jacket in
11N	1	150#	40	REWN Vessel jacket out
10N	1	150#	40	REWN Vessel jacket in
9N	1	150#	40	REWN Blind flange
8N	1	150#	40	RF Sightglass
7N	1	150#	40	RF Lightglass With EX-light
6N	1	150#	40	REWN Flange
5N	1	150#	40	REWN Flange
4N	1	150#	40	REWN -
3N	1	150#	40	REWN -
2N	1	150#	40	REWN Vac. filter flange
1N	1	150#	40	REWN Hinged manway vessel

ITEM	QTY	DESCRIPTION	MATERIAL	DIMENSIONS / REMARKS
SCALE	1:10	DATE	rights reserved. Reproduction or reuse is strictly prohibited. All rights reserved. The information on this drawing is the property of the company and is not to be disclosed to third parties without the written permission of the company.	
DRAWN BY	AVG	18-09-2000	A:AVG	19-09-00
CHKD	AVG		B:AVG	24-10-00
PROJECT	SOFIX CORP.			
PART	DF-600-VD2			
				
Saturn. Mixers and dryers.				
SPS GROUP Sales: 020 8900 0000 Technical: 020 8900 0001 Fax: 020 8900 0002				
Geometrical tolerances see to 100 um				
Surface texture ecc. surface treatment see 100 um				
Dimensions without tolerance see 100 um				
FORM				DRWING NR P30355

Memo Pad for Gerald W. Eichman

C7200 Arm

Category: Sofix
C7200 Arm
Inverter Duty TEFC
Reliance
1 HP 1740 RPM
ID: P14X9127N
230/460
3.0/1.5 A
SF 1.0
143TC

C7200 Screw

Category: Sofix
C7200 Screw
Inverter Duty

MAGNATEC CENTURY
P/N 6-378605-40H1

HP 3.3-20
RPM 260-1760
VOLTS 84-480
AMPS 24
FR: 256 TC
TYPE: CEE5S
CONSTANT TORQUE

This motor is no longer available.
Looks like standard 20 HP 256TC inverter duty motor.

The motor has a Class 1 Div 11 Grp C & D tag.

Rebuilt 6/11/2004
0.86 ohms phase all three phases.
> 2000 M Ohm to ground
Motor hub 1.63" 3.537 " long
Shaft bolt 16MM X 2
3/8 key.

Do not grease bearings.

Required
OIL SEAL OUTBOARD of
SHAFT END BNS.
~~Drive~~

Project:		SOFIX Corporation					
Description:		Sanitary design - Type 2	Dwg. no.:	22.20.00.114	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/12	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
1	1	Holder vertical pinion lower	22.21.00.006				
2	4	Hexagon bolt					
3	4	Plain washer					
4	4	Distance bush	22.21.00.012				
5	16	Hex. sock. head screw + Washer					
6	1	Reductor gear housing	22.21.00.004C				
7	1	Hexagon screw					
8	1	Plain washer					
9	1	Reductor plate	22.21.00.001A				
10	1	Oscillating wheel	22.21.00.015				
11	4	Hexagon screw					
12	4	Plain washer					
13	1	Hub oscillating wheel	22.21.00.014				
14	1	Hex. socket set screw with cuppoint					
15	4	Stud + Nut					
16	4	Plain washer					
17	12	Plain washer					
18	12	Hex. sock. head cap screw					
19	1	Oil-scraping gland	22.21.00.002A				
20	1	Felt pad					
21	2	Hex. socket head cap screw + Nut					
22	2	Hexagon socket head cap screw					
23	1	Motorreduktor					
24	1	Nema motor					
25	1	Distance bush	22.21.00.008				
26	1	Holder vertical pinion upper	22.21.00.005				
27	4	Hexagon socket head cap screw					
28	1	Cover vertical pinion holder	22.21.00.007A				
29	1	Seal ring					
30	1	Nut + Retaining ring					
31	1	Double-row angul. contact ball bearing					
32	1	Crown gear wheel orbitarm	22.21.00.017				
33	8	Hex. socket head screw + Washer					
34	1	Parallel key					
35	1	Cilindrical rollerbearing					
36	1	Vertical gear	22.21.00.013A				
37	2	Shims vert. pinion	22.21.00.011				
38	1	Hub vert. pinion	22.21.00.010				

Project:		SOFIX Corporation					
Description:		Sanitary design - Type 2	Dwg. no.:	22.20.00.114	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/12	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
39	1	Pinion orbitarm	22.21.00.016				
40	1	Ring gauge	22.21.00.009				
41	1	Hexagon bolt					
42	2	Plain washer					
43	1	Distance ring	22.22.00.018				
44							
45	1	Nut for rolling bearings					
46	1	Washer for rolling bearings					
47	1	Parallel key					
48	1	Drive shaft flange	22.20.00.011A				
49	4	Hexagon screw					
50	1	Retaining ring bearing	22.20.00.024				
51	1	Shim					
52	2	Nilosring					
53	12	Hexagon bolt + Washer					
54	1	Four-points bearing					
55	1	Mountingplate crown gear	22.20.00.009B				
56	12	Hex. socket head screw + Washer					
57	1	Shims crown gear	22.20.00.010A				
58	1	Crown gear main drive second step	22.22.00.012				
59	10	Hex. socket head screw					
60	1	Motor gear wheel 60 Hz	22.22.00.015				
61	1	Drive casing flange	22.22.00.004				
62							
63	1	Nema motor					
64	1	Gearwheel first step main drive 60Hz	22.22.00.010B				
65	1	Distance bush	22.22.00.014A				
66	1	Deep groove ball bearing					
67	1	Parallel key					
68	1	Distance bush	22.22.00.013				
69	1	Intermediate flange Nema-motor	22.22.00.016A				
70	1	Mountingplate Nema-motor	22.22.00.001				
71	1	Drive pinion housing	22.22.00.006A				
72	4	Hexagon nut					
73	4	Hexagon bolt					
74	8	Plain washer					
75	1	Shim					

Project:		SOFIX Corporation					
Description:		Sanitary design - Type 2	Dwg. no.:	22.20.00.114	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/12	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
76	1	Nut for rolling bearings					
77	1	Washer for rolling bearings					
78	1	Double-row angular contact ball bearing					
79	1	Crowngear pinion maindrive 2nd step	22.22.00.011				
80	1	Parallel key	22.20.00.064				
81	1	Hub gear wheel orbitarm drive	22.20.00.023				
82	12	Hexagon bolt					
83	1	Gear wheel orbitarm drive	22.21.00.018A				
84	1	Nilosring					
85	1	Shim					
86	16	Hexagon socket head cap screw					
87	1	Nilosring					
88	16	Plain washer					
89	1	Tapered roller bearing					
90	16	Hexagon bolt					
91	16	Plain washer					
92	12	Plain washer					
93	1	Plug + fibre washer					
94	8	Hexagon nut					
95	8	Plain washer					
96	8	Stud					
97	1	Oilplug with oil separator	26.20.00.030A				
98	1	V-ring					
99	1	Drive-unit house	22.20.00.008B				
100	1	Sightglass					
101	8	Hexagon bolt					
102	8	Plain washer					
103	20	Plain washer					
104	20	Hexagon head screw					
105	1	O-ring					
106	1	Drive base plate	22.20.00.020B				
107	1	O-ring					
108	1	Lantern seal mainshaft	22.20.00.016C				
109	1	Air hose					
110	1	Tapered roller bearing					
111	8	Hex. socket head screw +Washer					
112	2	Adapter elbow union					
113	1	O-ring					
114	1	Nilosring					

Project:		SOFIX Corporation					
Description:		Sanitary design - Type 2	Dwg. no.:	22.20.00.114	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/12	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
115	1	Sealholder mainshaft	22.20.00.014A				
116	8	Hex. socket head screw +Washer					
117	1	Locking ring	22.20.00.015B				
118							
119	5	PS-seal					
120	2	Purge ring seal	22.20.00.017A				
121	3	Rubberring					
122	1	PS-seal					
123	1	Wearing bush seal mainshaft	22.20.00.069				
124	1	Reductor main shaft	22.20.00.070				
125	1	Shaft main drive	22.20.00.071				
126	1	Cilindrical roller bearing					
127	1	Nilosring					
128	1	Distance ring 90 degr. head	22.31.00.022				
129	1	Parallel key	22.20.00.063				
130	1	Pinion crown gear 90 head	22.31.00.009				
131	1	Parallel key	22.20.00.062				
132	1	Locking ring gear wheel 90 head	22.31.00.007A				
133	4	Spring washer					
134	4	Hexagon socket head cap screw					
135	10l	Shell Cassida gear oil					
136	1	T coupling					
137	1	Coupling					
138							
139							
140							
141	1	Cover 90 head	22.31.00.011				
142	1	O-ring					
143	12	Hexagon head screw					
144	12	Plain washer					
145							
146							
147							
148	1	O-ring					
149	4	Plug + fibre washer					
150	12	Hexagon socket head cap screw					
151	1	O-ring					
152	12	Spring washer					
153	1	Assembly Orbitarm	22.30.00.077				

Project:		SOFIX Corporation					
Description:		Sanitary design - Type 2	Dwg. no.:	22.20.00.114	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/12	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
154	1	Orbit arm shaft	22.30.00.079				
155	1	Gear wheel crown gear 90 head	22.31.00.008				
156	6	Hexagon socket head cap screw					
157	6	Plain washer					
158	1	Hexagon bolt					
159	1	Plain washer					
160	1	Locking plate 90 head	22.31.00.003A				
161	1	Parallel key					
162	1	Shims 90 head	22.31.00.006A				
163	1	Hub 90 head	22.31.00.005A				
164	8	Hexagon socket head cap screw					
165	8	Plain washer					
166	1	Bearing bush	22.31.00.012				
167	1	Sealing ring					
168	1	Retaining ring for bores					
169	1	Double row angular contact ball bearing					
170	1	Bearing bush	22.30.00.058				
171	1	Sealing ring					
172	1	Cilindrical roller bearing					
173	8	Plain washer					
174	8	Hexagon socket head cap screw					
175	1	Retaining ring for bores					
176	1	Inner tube 73 head sanitary	22.30.00.034B				
177	2	Tube round					
178							
179	2	Nilosring					
180	1	Deep groove ball bearing					
181							
182							
183							
184							
185							
186	1	O-ring					
187	1	73 shaft sanitary - Mech. seal	22.30.00.049A				
188							
189							
190							
191	1	Nilosring					
192	1	O-ring					

Project:		SOFIX Corporation					
Description:		Sanitary design - Type 2	Dwg. no.:	22.20.00.114	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/12	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
193	1	Tapered roller bearing					
194	1	Outer tube 73 head	22.30.00.009A				
195	1	Shims crown gear 73kop	22.30.00.022A				
196							
197	12	Hexagon socket head cap screw					
198	1	Gear wheel crown gear 73 head	22.30.00.005				
199	1	Nilosring					
200	1	Tapered roller bearing					
201							
202	1	Sealing ring					
203	1	Shims					
204	1	Pressure ring	22.30.00.018A				
205	12	Plain washer					
206	12	Hexagon head screw					
207	1	Clamping piece 73 head	22.30.00.011B				
208	1	Parallel key					
209	24	Plain washer					
210	24	Hexagon socket head cap screw					
211	1	O-ring					
212	12	Plain washer					
213	12	Hexagon bolt					
214	1	Washer for rolling bearings					
215	1	Nut for rolling bearings					
216	1	Cover 73 head with bolts	22.30.00.073				
217	1	Central drawbolt	22.30.00.042A				
218							
219	6	Hexagon bolt					
220	6	Plain washer					
221	1	Hexagon bolt					
222	1	Plain washer					
223							
224							
225							
226							
227	1	Locking plate 73 head	22.30.00.001A				
228	1	Pinion crown gear 73 head	22.30.00.006				
229	1	Hub pinion 73 head	22.30.00.066				
230	1	Parallel key					
231							

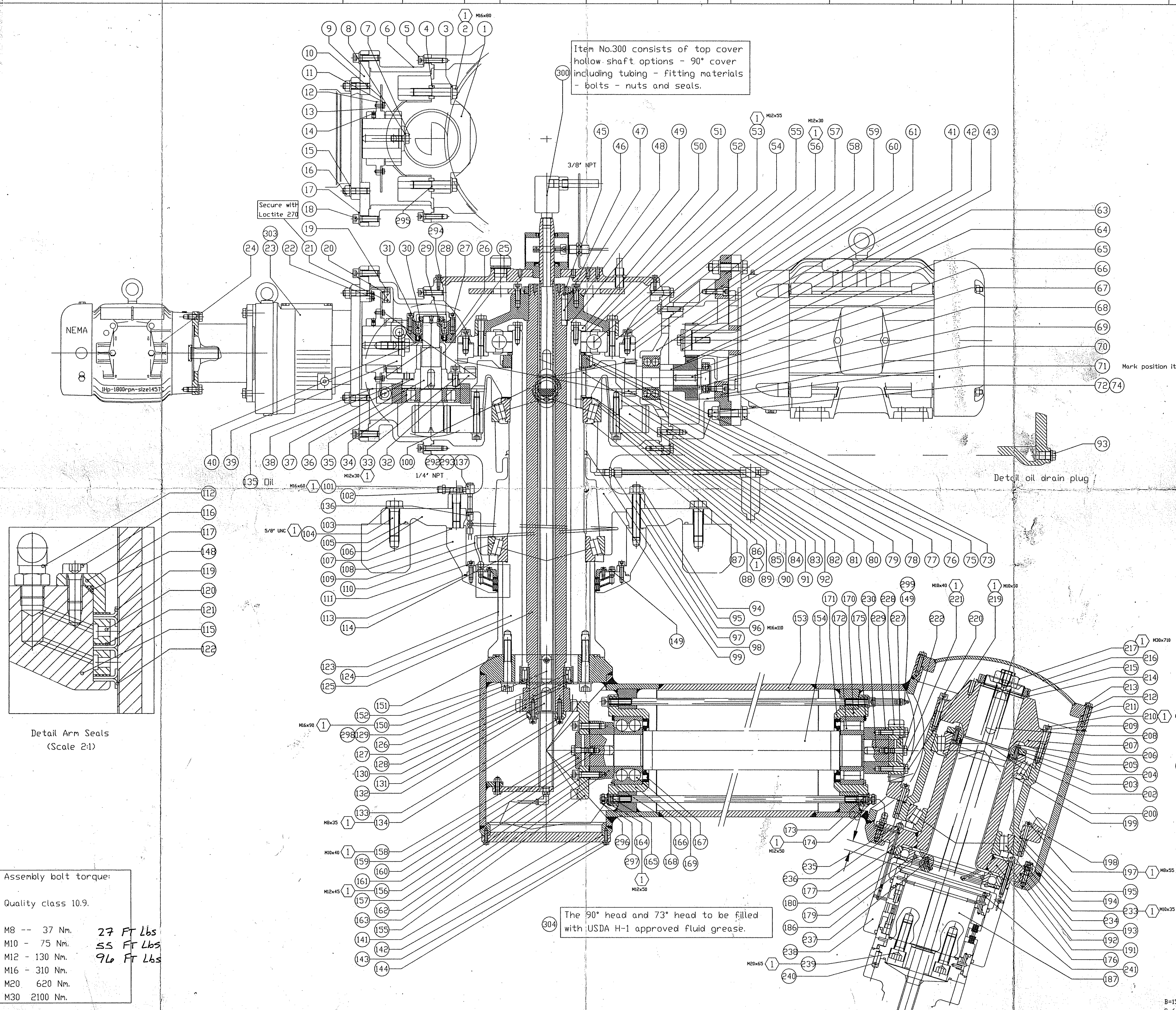
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Description:		Sanitary design - Type 2	Dwg. no.:	22.20.00.114	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/12	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
232							
233	15	Hexagon socket head cap screw					
234	15	Plain washer					
235	18	Hexagon nut + Washer					
236	18	Stud					
237	1	Parallel pin					
238	1	Double mechanical seal 73 degr. shaft					
239	4	Hexagon socket head cap screw					
240	1	Parallel pin					
241	1	Parallel pin					
242							
243							
244							
245							
292	1	Tube					
293	1	Nipple					
294	1	O-ring					
295	4	Shim ring					
296	2	Cable plug					
297	2	Cable gland					
298	1	Hexagon socket head cap screw					
299	1	Lubricating nipple					
300	1	Hollow shaft option single type 2	22.40.00.077				
301	1 kg	Cassida Grease					
302	1	Tube PFTE flange sealant					
303	1.2/2.6 l	Shell Cassida gear oil					
304	10 kg	Cassida Grease					

2-216 MCM-213

2-216 MCM-213

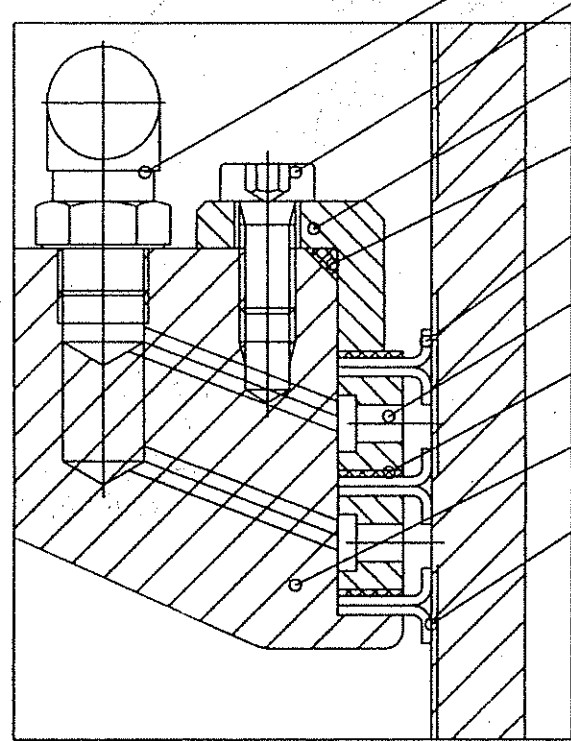
2-216 MCM-213

2-216 MCM-213



Item No.300 consists of top cover
hollow shaft options - 90° cover
including tubing - fitting materials
- bolts - nuts and seals.

Mark position item 71 and 61 after mounting!



Detail Arm Seals
(Scale 2:1)

Assembly bolt torque:

Quality class 10.9.	
M8 -- 37 Nm.	27 Ft Lbs
M10 - 75 Nm.	55 Ft Lbs
M12 - 130 Nm.	96 Ft Lbs
M16 - 310 Nm.	
M20 - 620 Nm.	
M30 - 2100 Nm.	

The 90° head and 73° head to be filled
with USDA H-1 approved fluid grease.

All product contacting seams
must be sealed with PTFE flangesalant
trade mark FINLON -H-. (Eriks NL.)

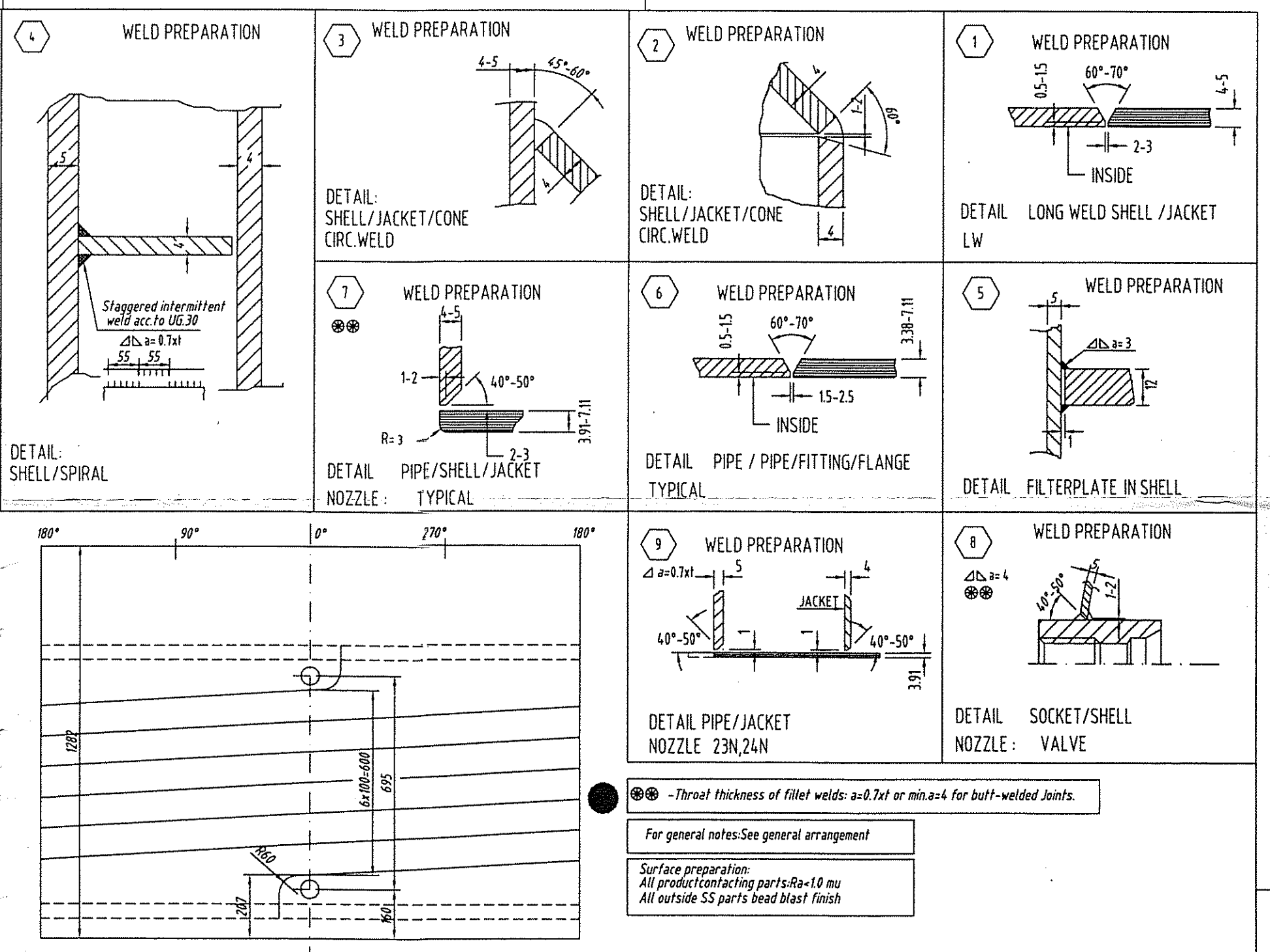
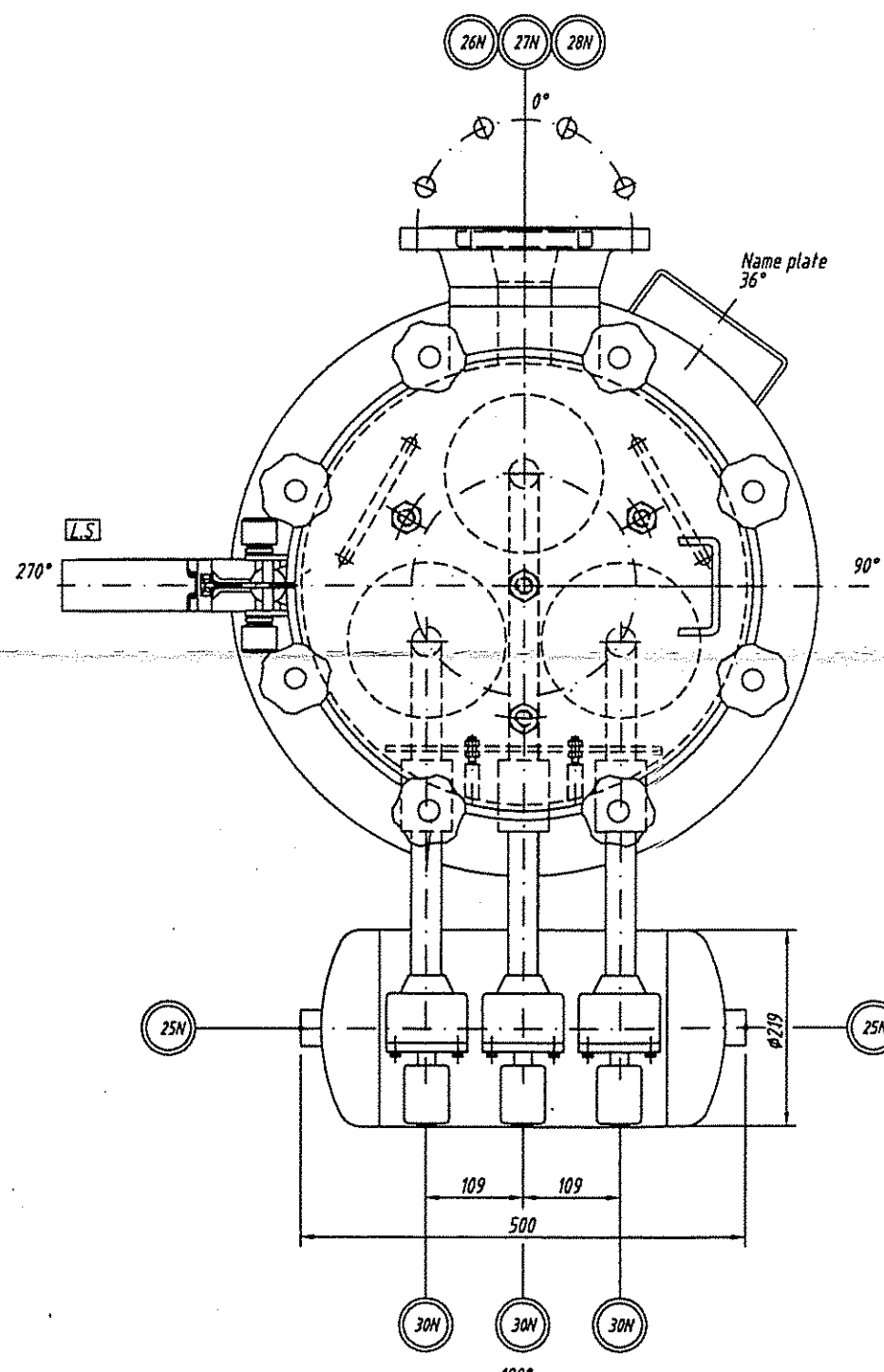
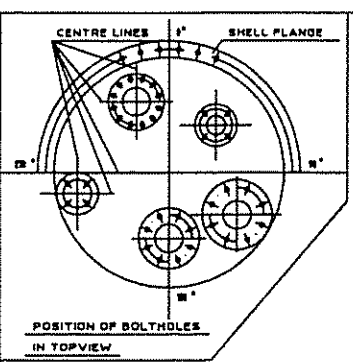
All bearings to be filled with
USDA H-1 approved grease except
the bearings running in oil.

Jaygo Job#: 2816
Jaygo Dwg#: S-2816CM-203
SOFIX PO#: P00-0523
SOFIX TAG#: C7200

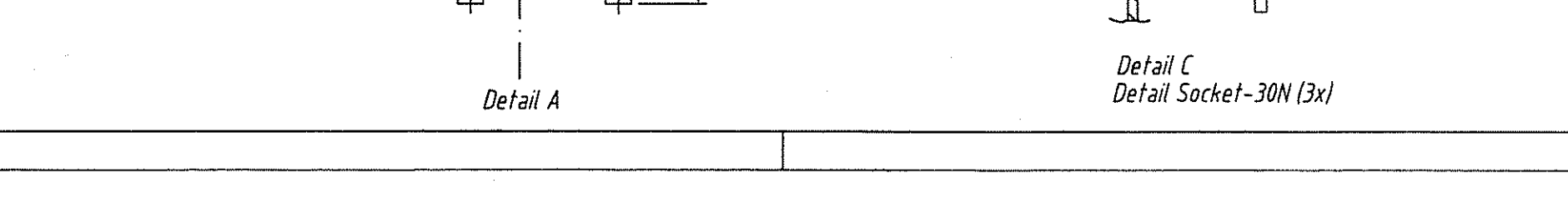
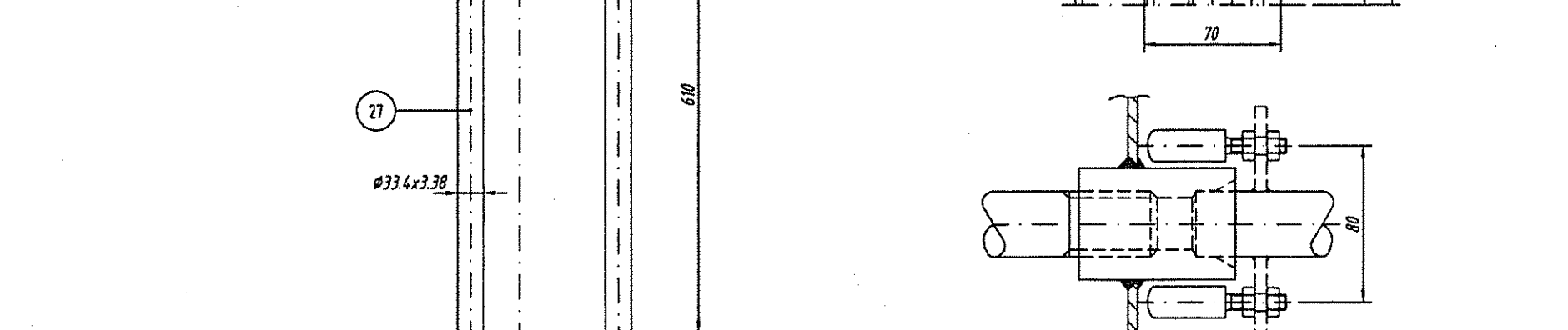
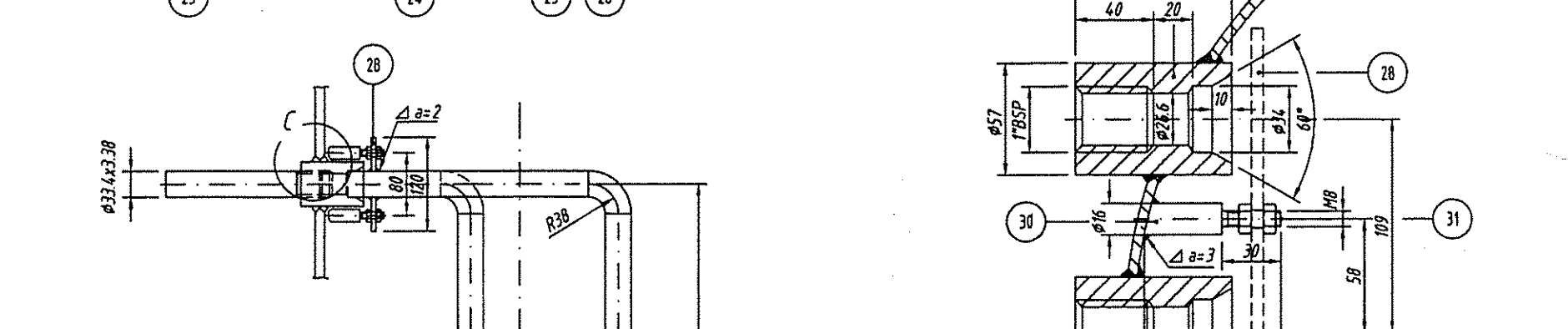
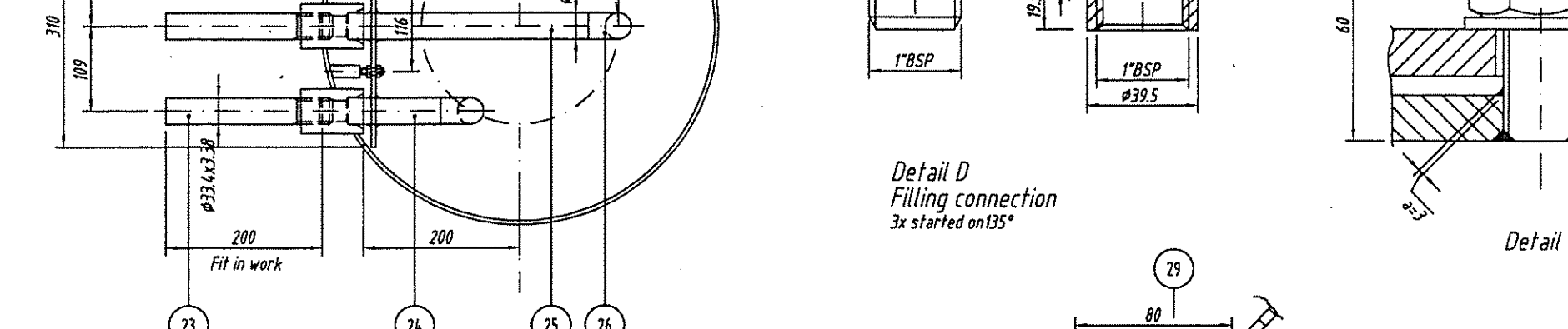
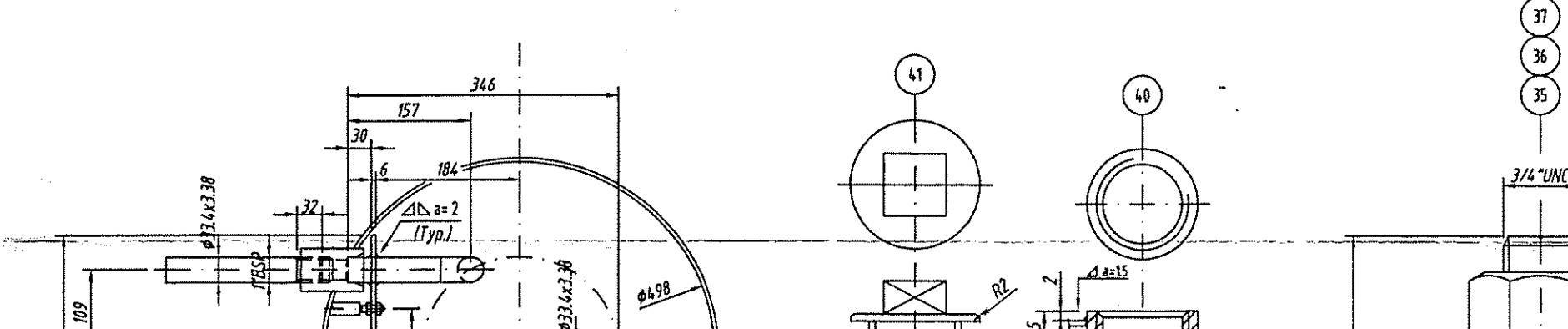
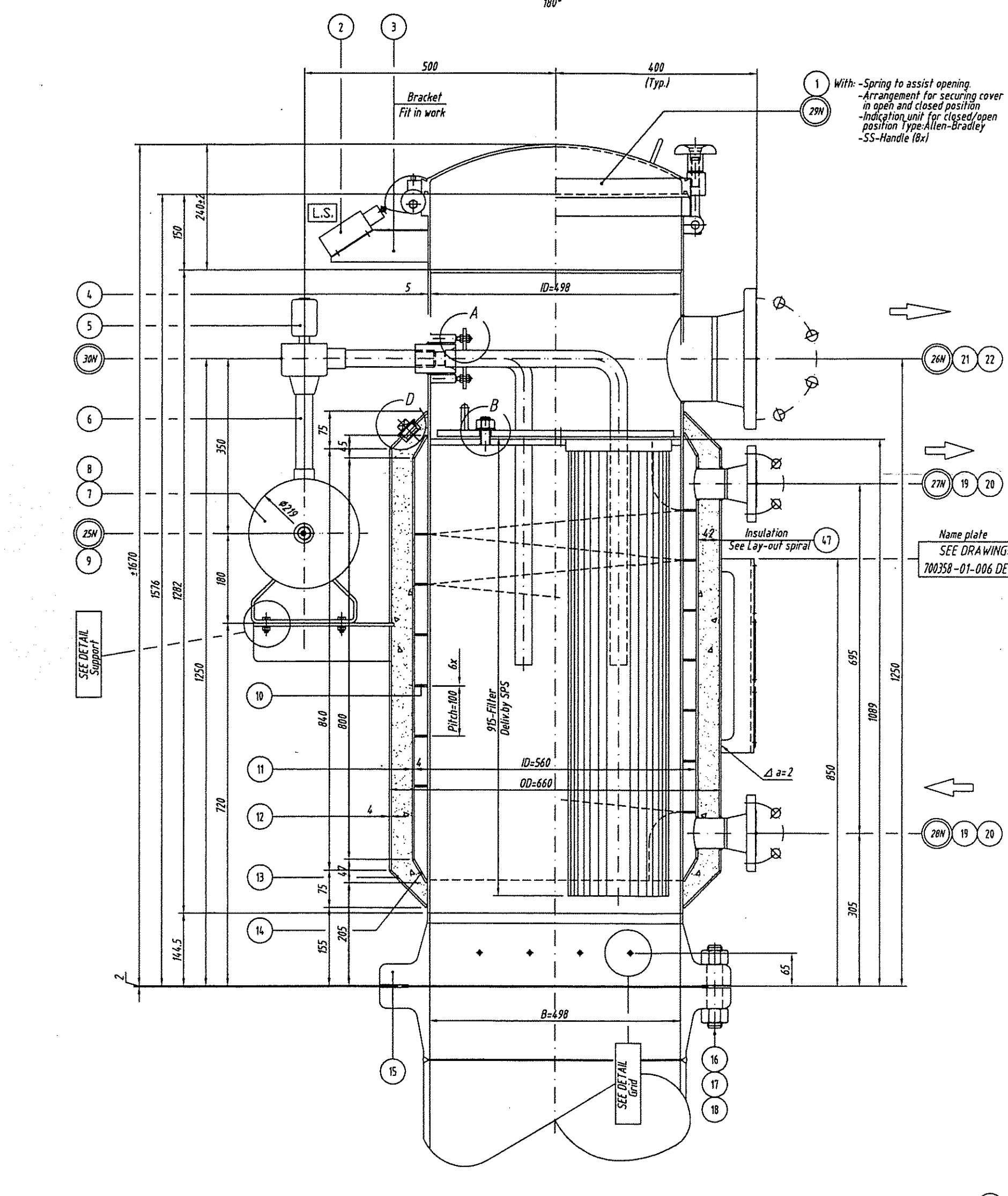
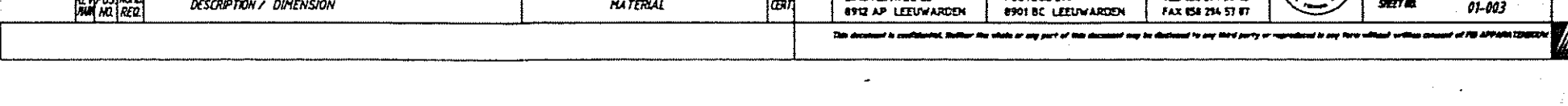
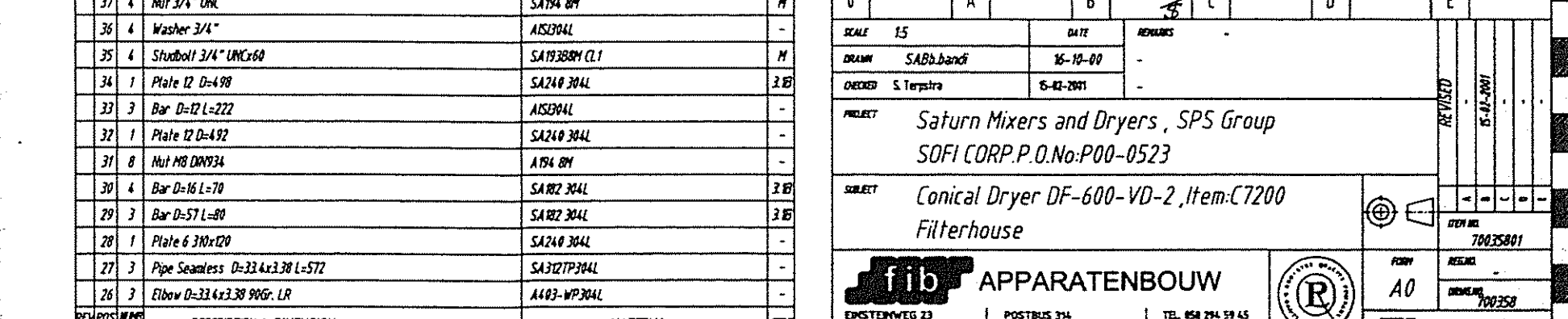
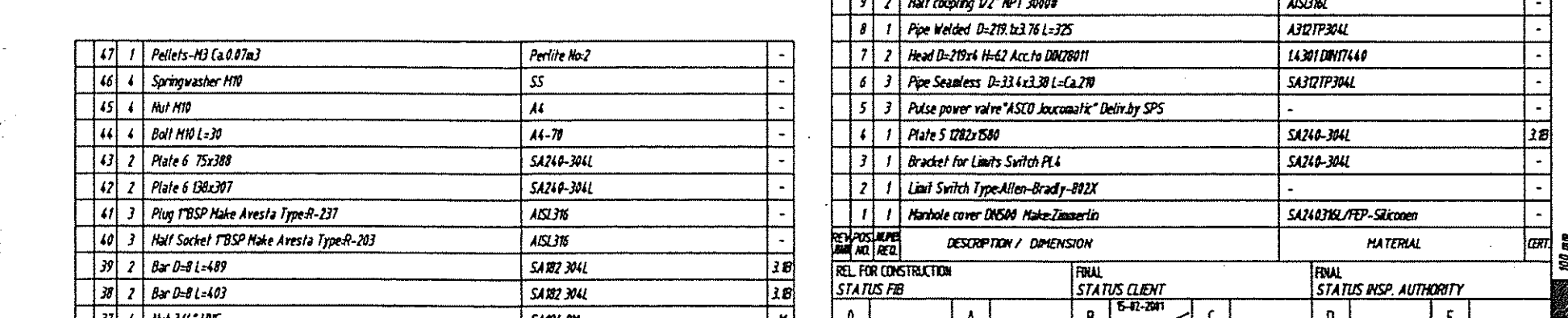
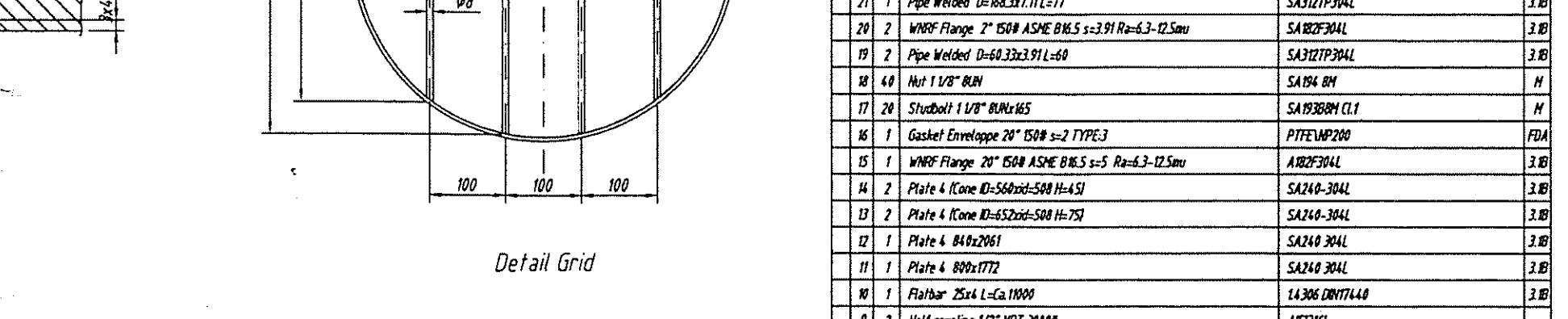
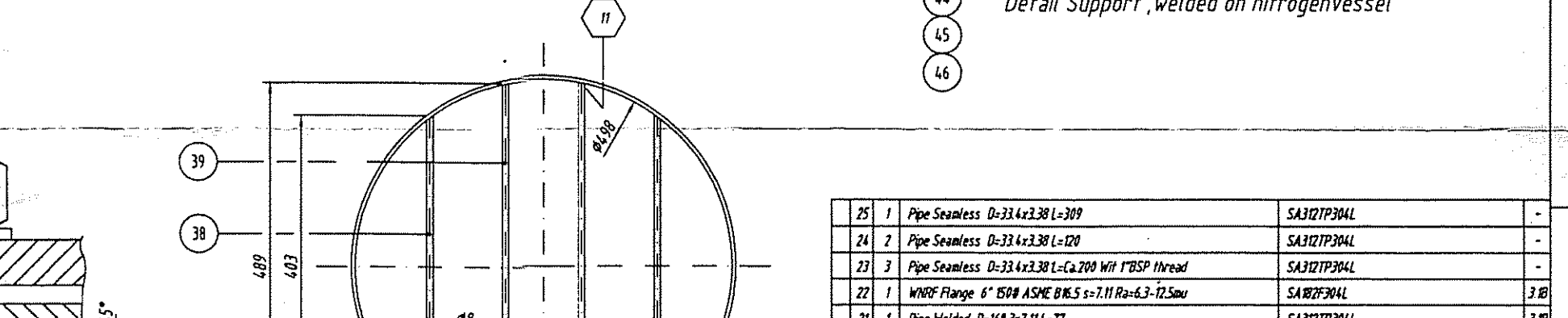
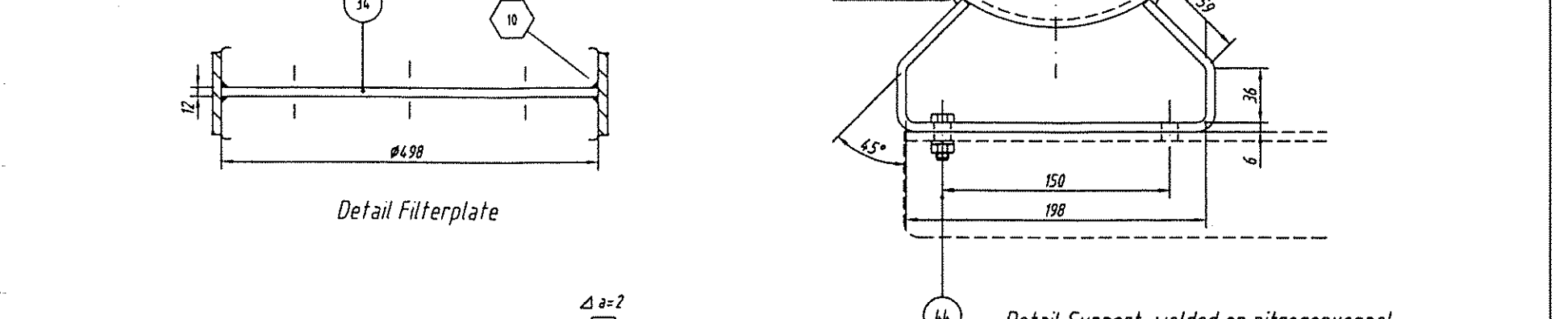
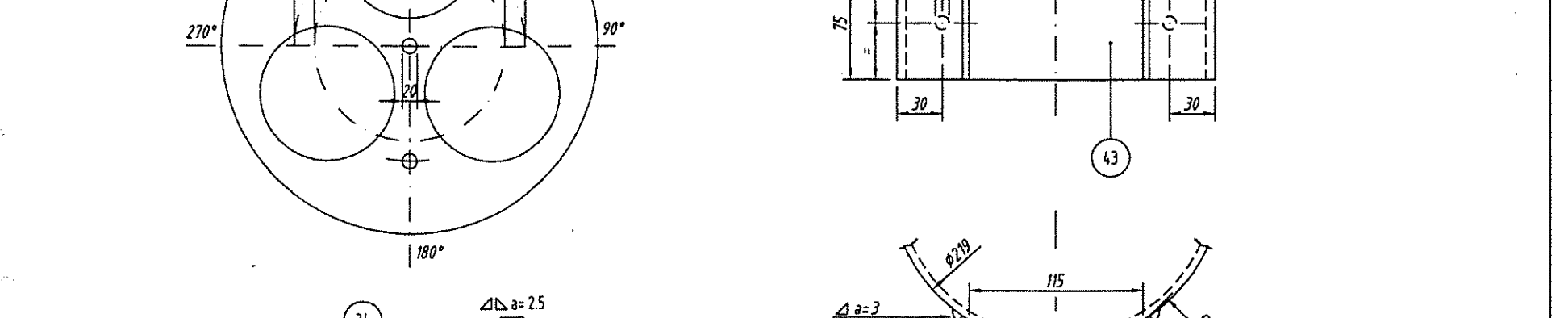
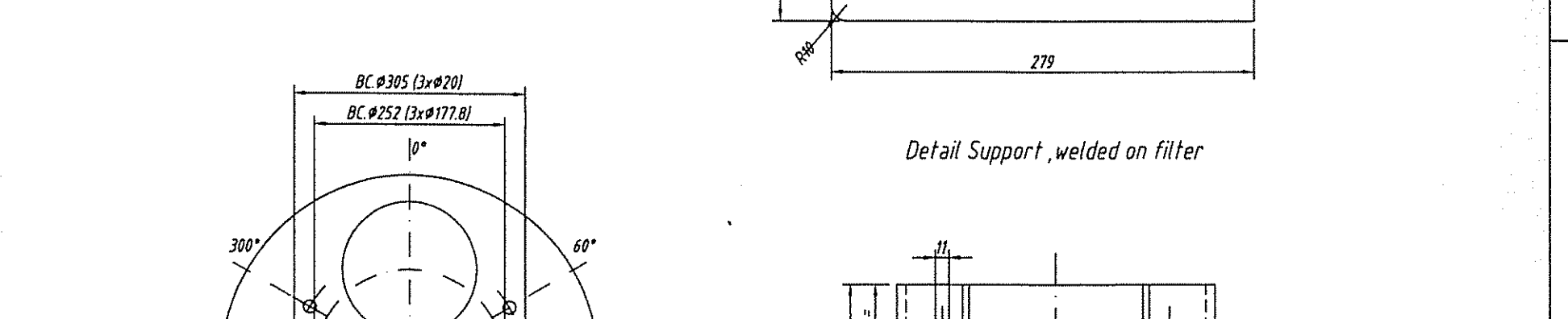
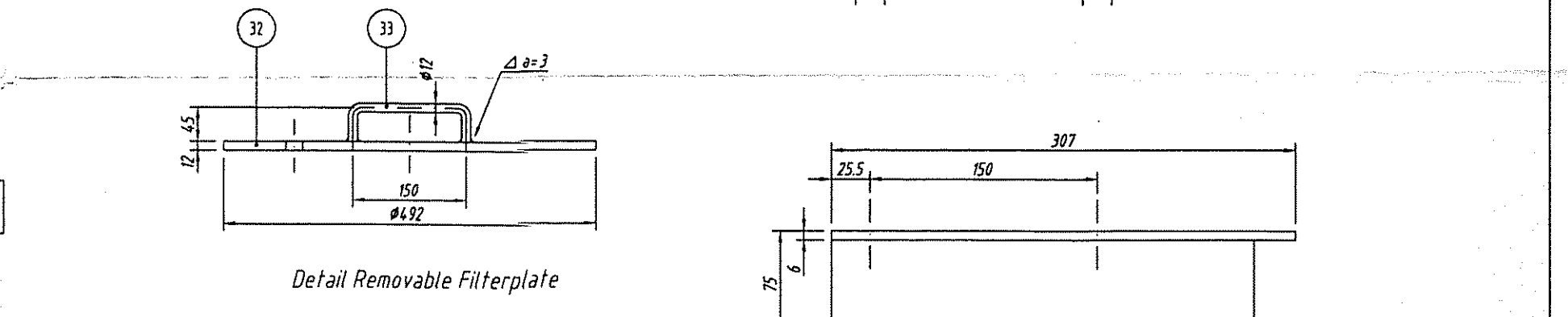
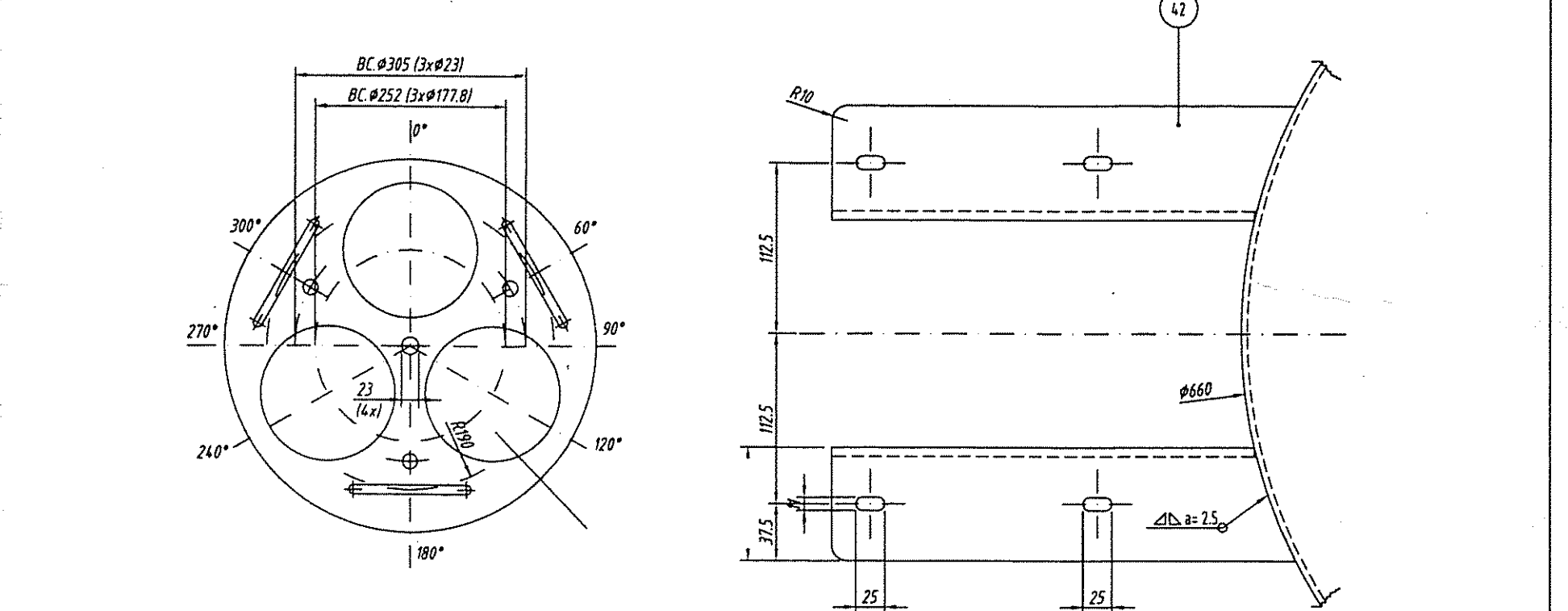
ITEM	QTY	DESCRIPTION	MATERIAL	DIMENSIONS / REMARKS
SCALE	1 : 2.5	DATE	11/28/00	
DRAWN BY	SPS			
CHECK				
APPROV				
PROJECT	P3035			
PART	Assembly Sanitary Design			
Saturn.		Geometrical tolerances acc. to ISO 1101		
Mixers and dryers.		Surface finish acc. to ISO 1305		
SPS Group		Dimensions without tolerances acc. to ISO 2768		
Solely responsible for the design		FIRM		
Approved by: [Signature]		DRWG NR.		
Date: 11/28/00		222000.114		

B=150.0
C=605.0

Project:		SOFIX					
Description:		Sealflushing single	Dwg. no.:	22.40.00.077	Rev.:	-	
Description 2			Subdwg.no.:		Date:	10/13	
Item no.	Number	Description	Dwg.no. + Rev.	Supplier	Material	Notes	Rev.
1	1	Rotating union					
2	1	Adapter					
3	1	Simmering					
4	1	Support	22.40.00.079				
5	1	Clampring	22.40.00.046				
6	1	Hexagon socket head cap screw					
7	1	Cam	22.40.00.059A				
8	2	Inductive sensor					
9	4	Hexagon head screw					
10	4	Plain washer					
11	1	Cover	22.20.00.013C				
12	1	Plate for direction of rotation	26.10.00.001				
13	12	Hexagon head screw					
14	12	Plain washer					
15	1	Bearing cover	22.40.00.075				
16	1	PS-seal Varilip D					
17	1	Bearing	22.40.00.072				
18	1	Vent screw					
19	4	Hexagon socket head cap screw					
20	4	Plain washer					
21	1	Pulsecounter wheel	22.40.00.069				
22	1	Tube	22.40.00.078				
23							
24							
25	2	Hexagon head screw					
26	2	Hexagon nut					
27	5mtr	Compressed air hose					
28	1	Male adapter elbow union					
29	1	Male adapter elbow union					
30							
31							
32							
33							
34							
35							



Lay-out spiral Pos.No.10



NO.	DESCRIPTION / DIMENSION	MATERIAL	QTY
25	1 Pipe Seamless D=334x2.38 L=300	SA302TP304L	-
26	2 Pipe Seamless D=334x2.38 L=200	SA302TP304L	-
27	3 Pipe Seamless D=334x2.38 L=200 W/ TSP Invert	SA302TP304L	-
28	1 WNF Flange 6" ISO ASME B16.5 s=11.11 Ra=6.3-12.5su	SA302TP304L	3.00
29	1 Pipe Welded D=168.3x7.11 L=77	SA302TP304L	3.00
30	2 WNF Flange 2" ISO ASME B16.5 s=3.91 Ra=6.3-12.5su	SA302TP304L	3.00
31	2 Pipe Welded D=48.2x3.91 L=40	SA302TP304L	3.00
32	4 Nut 1/2" UNF	SA304 BN	M
33	2 Studbolt 1/2" UNF RUNGIES	SA302BN CL1	M
34	1 Gasket Envelope 2" ISO s=2 TYPE 3	PITTE MP200	FOU
35	1 WNF Flange 2" ISO ASME B16.5 s=5 Ra=6.3-12.5su	A102TP304L	3.00
36	2 Plate 4" Flange D=508x150x10	SA240-304L	3.00
37	2 Plate 4" Flange D=508x150x10	SA240-304L	3.00
38	1 Plate 4" Flange D=508x150x10	SA240-304L	3.00
39	1 Plate 4" Flange D=508x150x10	SA240-304L	3.00
40	1 Flange 254 L=Ca.1000	SA304 BN	3.00
41	2 Half coupling 1/2" NPT 30400	A102BN	-
42	1 Pipe Welded D=76.1x2.76 L=75	A102TP304L	-
43	2 Head D=76.1x2.76 Acc to DIN 28711	A102TP304L	-
44	3 Pipe Seamless D=334x2.38 L=270	SA302TP304L	-
45	5 Plate 5" DN250	SA240-304L	3.00
46	1 Bracket for Limits Switch PL4	SA240-304L	-
47	1 Limit Switch Type 1000-0200-002X	-	-
48	1 Handle cover DN250 Handle 30400	SA240-304L/TP-30400	-
49	1 Plate 5" DN250	SA240-304L	3.00
50	1 Plate 5" DN250	SA240-304L	3.00
51	1 Plate 5" DN250	SA240-304L	3.00
52	1 Plate 5" DN250	SA240-304L	3.00
53	1 Plate 5" DN250	SA240-304L	3.00
54	1 Plate 5" DN250	SA240-304L	3.00
55	1 Plate 5" DN250	SA240-304L	3.00
56	1 Plate 5" DN250	SA240-304L	3.00
57	1 Plate 5" DN250	SA240-304L	3.00
58	1 Plate 5" DN250	SA240-304L	3.00
59	1 Plate 5" DN250	SA240-304L	3.00
60	1 Plate 5" DN250	SA240-304L	3.00
61	1 Plate 5" DN250	SA240-304L	3.00
62	1 Plate 5" DN250	SA240-304L	3.00
63	1 Plate 5" DN250	SA240-304L	3.00
64	1 Plate 5" DN250	SA240-304L	3.00
65	1 Plate 5" DN250	SA240-304L	3.00
66	1 Plate 5" DN250	SA240-304L	3.00
67	1 Plate 5" DN250	SA240-304L	3.00
68	1 Plate 5" DN250	SA240-304L	3.00
69	1 Plate 5" DN250	SA240-304L	3.00
70	1 Plate 5" DN250	SA240-304L	3.00
71	1 Plate 5" DN250	SA240-304L	3.00
72	1 Plate 5" DN250	SA240-304L	3.00
73	1 Plate 5" DN250	SA240-304L	3.00
74	1 Plate 5" DN250	SA240-304L	3.00
75	1 Plate 5" DN250	SA240-304L	3.00
76	1 Plate 5" DN250	SA240-304L	3.00
77	1 Plate 5" DN250	SA240-304L	3.00
78	1 Plate 5" DN250	SA240-304L	3.00
79	1 Plate 5" DN250	SA240-304L	3.00
80	1 Plate 5" DN250	SA240-304L	3.00
81	1 Plate 5" DN250	SA240-304L	3.00
82	1 Plate 5" DN250	SA240-304L	3.00
83	1 Plate 5" DN250	SA240-304L	3.00
84	1 Plate 5" DN250	SA240-304L	3.00
85	1 Plate 5" DN250	SA240-304L	3.00
86	1 Plate 5" DN250	SA240-304L	3.00
87	1 Plate 5" DN250	SA240-304L	3.00
88	1 Plate 5" DN250	SA240-304L	3.00
89	1 Plate 5" DN250	SA240-304L	3.00
90	1 Plate 5" DN250	SA240-304L	3.00
91	1 Plate 5" DN250	SA240-304L	3.00
92	1 Plate 5" DN250	SA240-304L	3.00
93	1 Plate 5" DN250	SA240-304L	3.00
94	1 Plate 5" DN250	SA240-304L	3.00
95	1 Plate 5" DN250	SA240-304L	3.00
96	1 Plate 5" DN250	SA240-304L	3.00
97	1 Plate 5" DN250	SA240-304L	3.00
98	1 Plate 5" DN250	SA240-304L	3.00
99	1 Plate 5" DN250	SA240-304L	3.00
100	1 Plate 5" DN250	SA240-304L	3.00

