

Parts List

8148.020/.190 Bravo 400



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Introduction

Purpose of this manual

The purpose of this manual is to provide necessary information on spare parts and accessories order.

Disclaimer

Always use genuine Grindex parts. The use of other spare parts or accessories can invalidate any claims for warranty or compensation. Grindex does not take any responsibility for damages that are caused by the use of non-original parts. For more information, contact your local sales and service representative.

Data for ordering spare parts

The following information is needed for spare part orders:

- Serial number of the product
- Part number
- Quantity of bulk material, see * in tables

Specially approved products

Qualification of personnel

Only Grindex or Grindex-authorized service personnel may undertake repair work on Ex-approved products.

Dimensional accuracy inspection

Spare parts marked with (Ex) after the part number are subject to dimensional accuracy inspection when used in specially approved products.

Product Description

Products included

Pump model	Standard	EX	Slurry
Bravo 400, 8148.020	X		X
Bravo 400, 8148.190		X	X

The data plate

Introduction

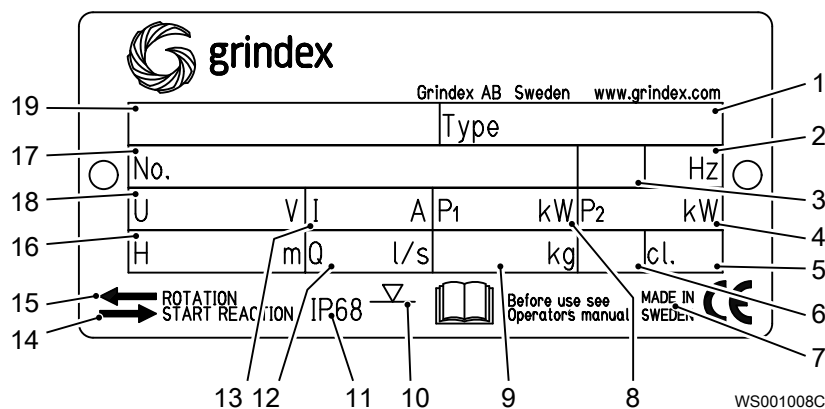
The data plate is a metal label located on the main body of the pump. The data plate lists key product specifications.

The data plate

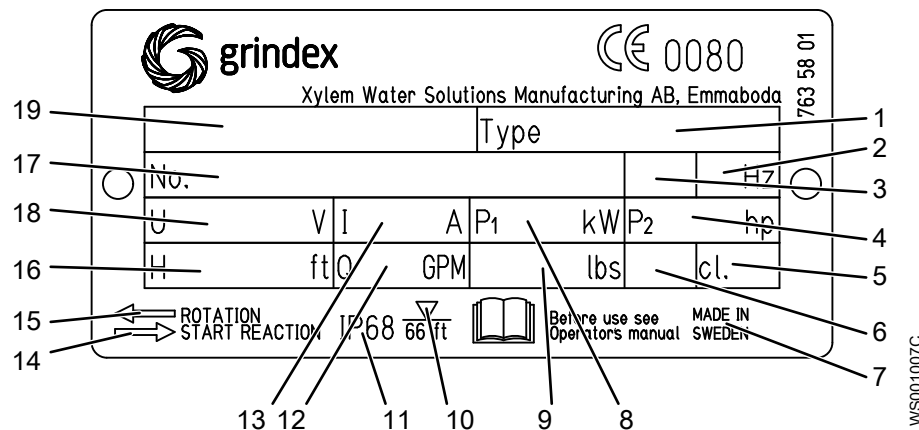
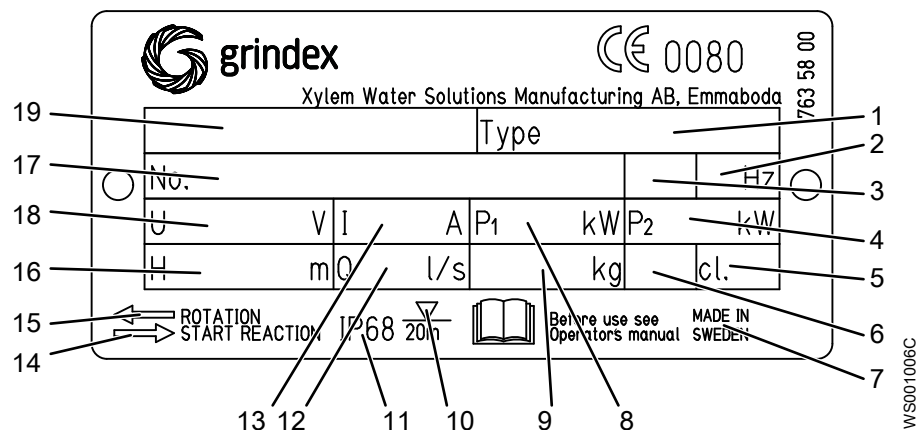
This list of callouts is applicable for all versions of data plates:

1. Pump type number
2. Frequency
3. Phases, type of current
4. Rated shaft power
5. Thermal class
6. Locked rotor code-letter
7. Country of origin
8. Maximum power consumption
9. Product weight
10. Maximum submersion depth
11. Degree of protection
12. Maximum capacity
13. Rated current
14. Direction of the start reaction
15. Direction of the impeller rotation
16. Maximum head
17. Serial number
18. Rated voltage
19. Pump model

This is the data plate for non explosion-proof version .020:



These are the data plates for explosion-proof version .190:



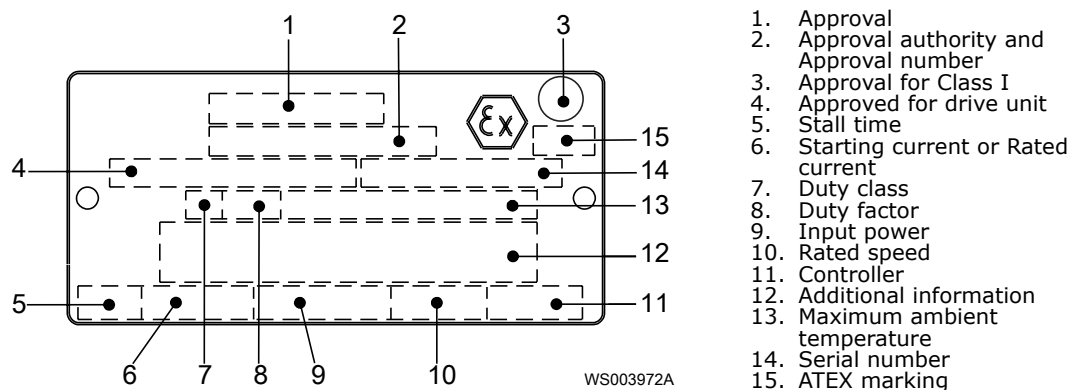
Approvals

Product approvals for hazardous locations

Pump	Approval
8148.190	European Norm (EN) <ul style="list-style-type: none"> • ATEX Directive • EN 60079-0:2009, EN 60079-1:2007, EN 13463-1:2009, EN 13463-5:2011 • ExI M2 c Ex d I Mb • ExII 2 G c Ex d IIB T3 Gb
	EN approval for cable entry: <ul style="list-style-type: none"> • Certificate number: INERIS 02ATEX9008 U • Ex II 2 G Ex d IIC Gb or I M2 Ex d I Mb
	FM (FM Approvals) <ul style="list-style-type: none"> • Explosionproof for use in Class I, Div. 1, Group C and D • Dust ignition proof for use in Class II, Div. 1, Group E, F and G • Suitable for use in Class III, Div. 1, Hazardous Locations

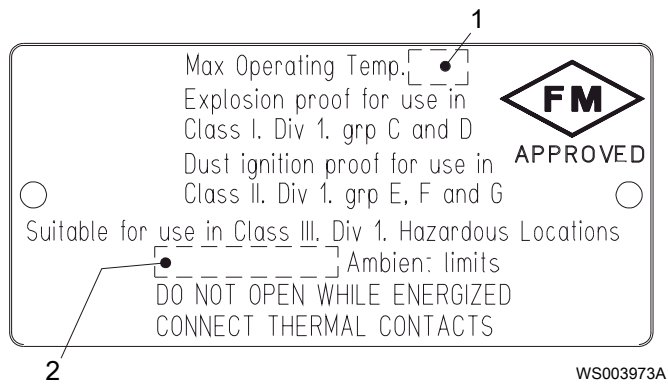
EN approval plate

This illustration describes the EN approval plate and the information that is contained in its fields.



FM approval plate

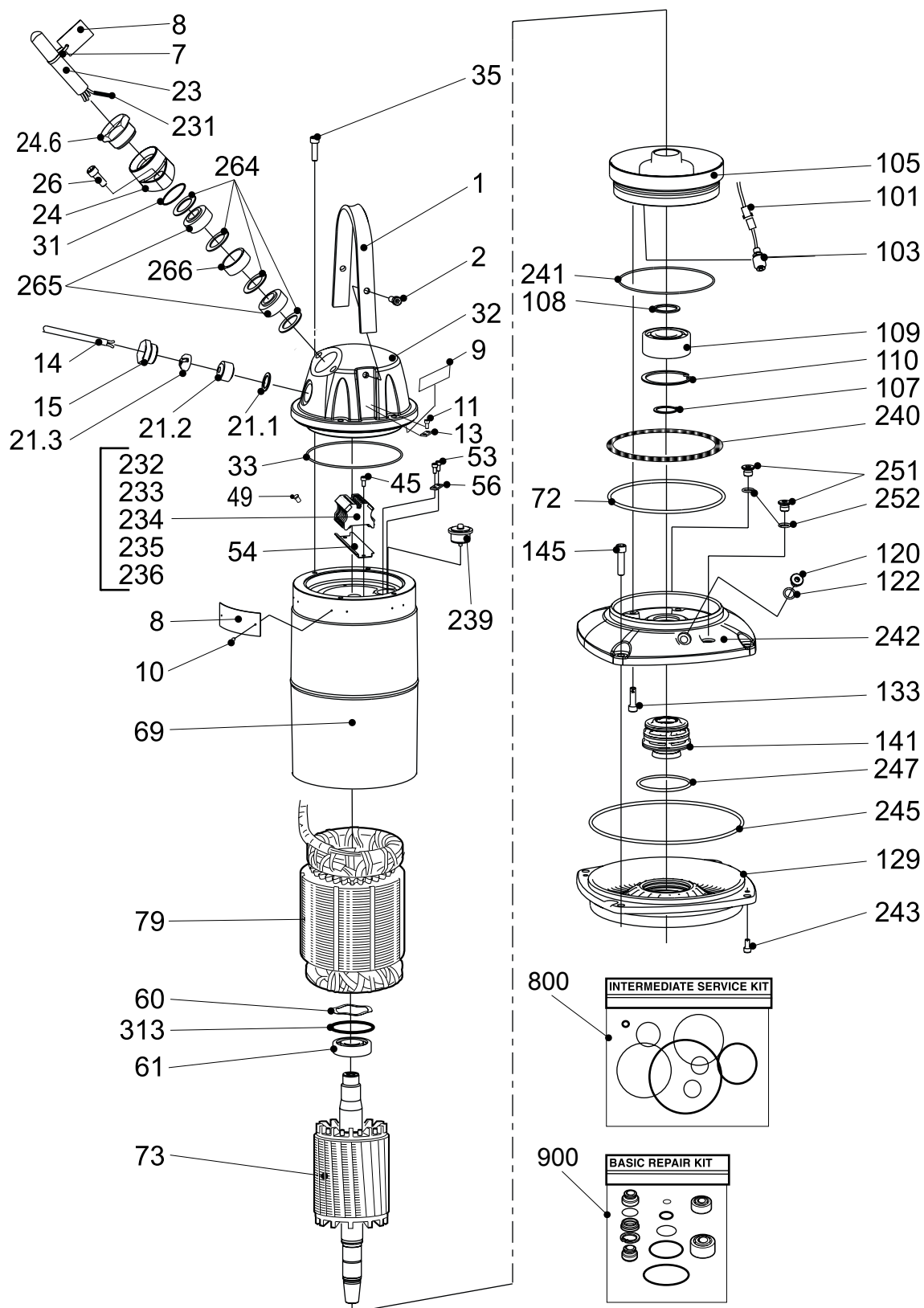
This illustration describes the FM approval plate and the information that is contained in its fields.



1. Temperature class
2. Maximum ambient temperature

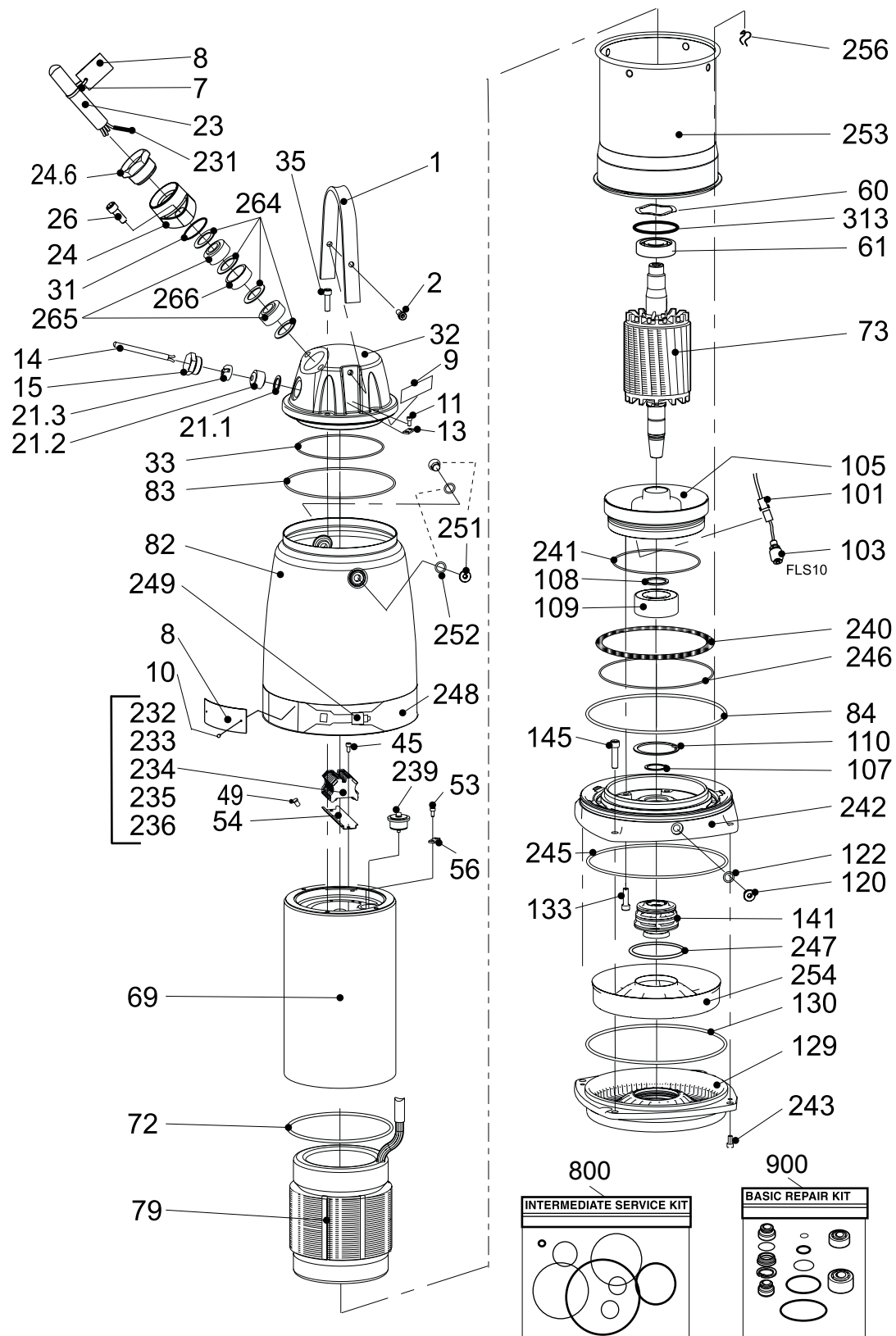
Drive Unit

Explosion-proof (EX): without cooling jacket



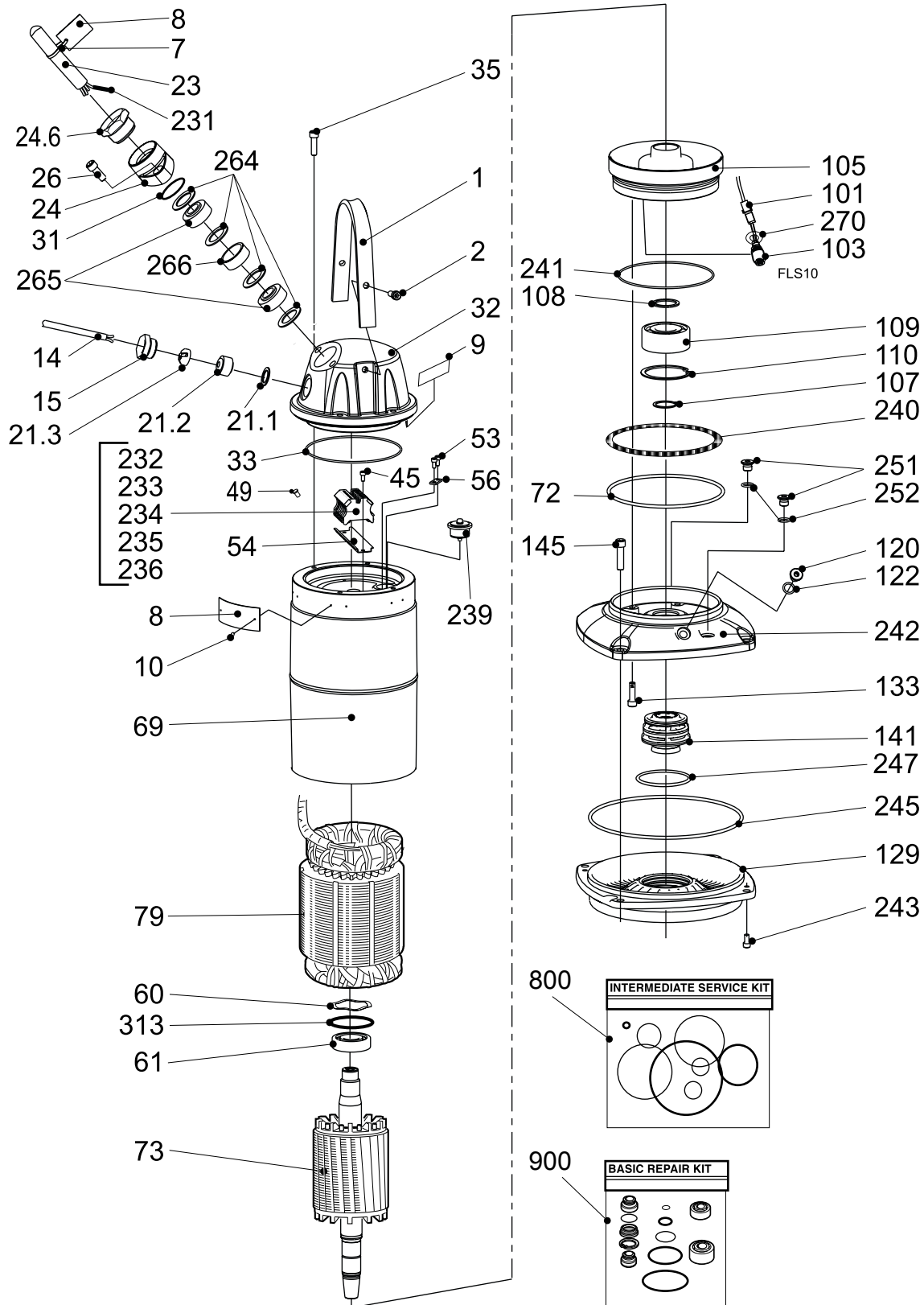
20090B

EX: with cooling jacket



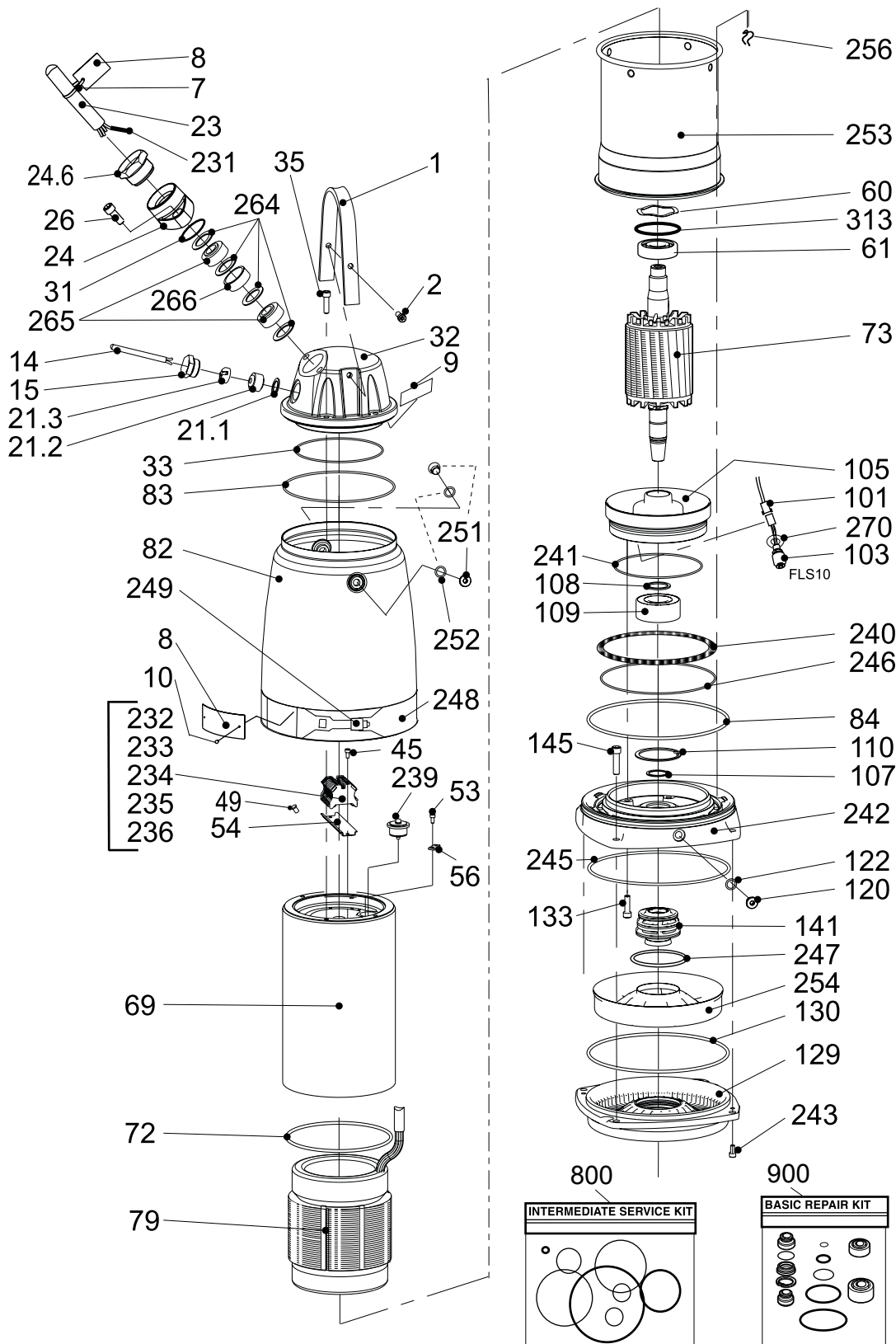
20091B

Non-EX: without cooling jacket



20078C

Non-EX: with cooling jacket



20089B

List of parts

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
1	51 430 00	Lifting handle	1	1
2	410 518	Hex.socket hd screw M10X35-A4-80	2	2
		Xylem Part. No 83 04 56		
7	410 517	Cable tie 200X2.4 PA 6/6 -55+105	1	1
7	50 457 02	Cable tie 292X3.5;NYLON; +125 C	1	1
8	51 648 00	Certificate plate		2
		Xylem Part. No 630 69 02		
8	50 888 00	Plate-blank	1	1
		Use 50 907 00 (EU), 50 907 01 (US) as spare part for non explosion-proof version.		
8	50 888 00	Plate-blank	1	1
		Use 51 633 00 (EU), 51 633 02 (US) as spare part for explosion-proof version. Xylem Part. No 763 58 00 and 763 58 01 resp.		
8	51 614 00	Certificate plate		1
		Xylem Part. No 752 20 00		
9	410 526	Marking strip 5-GW(T1;T2;T15;T16)	1	1
9	410 527	Marking strip W5;V5;U5;V2;W1;U2;V1;W 2;U	1	1
9	50 918 00	Connection plate SCREENED CABLE	1	1
9	51 426 00	Connection plate	1	1
9	51 438 00	Plate	1	1
9	51 440 00	Connection plate	1	1
9	51 441 00	Connection plate	1	1
10	410 000	Drive screw 4X5-A2-70	4	6
11	410 503	Hex.socket hd screw M6X12-A2-70		4
		Xylem Part. No 82 00 11		
13	50 902 00	Earthing plate		1
14	410 350	Control cable SUBCAB 7X1.5 MM2 OD=15-17	22,50	22,50
15	51 407 00	Gland screw FOR CABLE ENTRY	1	1
		Xylem Part. No 397 81 00		
21.1	50 127 04	Plain washer (10)-22 MM	1	1
21.2	410 043	Seal sleeve (10)-12 MM	1	1
21.2	410 045	Seal sleeve (14)-16 MM	1	1
21.3	50 926 00	Cable clip (10)-12 MM	1	1

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
21.3	50 926 02	Cable clip (14)-16 MM	1	1
23	410 061	Motor cable SCREEN S3X2.5+3X2.5/3+4X1	20,60	20,60
23	410 063	Motor cable 7G2.5+2X1.5 MM2 OD=20-23	20,60	20,60
23	410 066	Motor cable 14AWG/7 OD=18-20MM	16,60	16,60
23	410 068	Motor cable 12AWG/7 OD=20-22 MM	16,60	16,60
23	410 069	Motor cable 10AWG/3-2-1- GC OD=20-22MM	16,60	16,60
23	410 124	Motor cable SCREEN S3X6+3X6/3+4X1.5	20,60	20,60
23	410 126	Motor cable 4G6+2X1.5 MM2 OD=23-25 MM	20,60	20,60
23	410 127	Motor cable 4G10+2X1.5 MM2 OD=26-28MM	20,60	20,60
23	410 129	Motor cable 4G4+2X1.5 MM2 OD=20-22 MM	20,60	20,60
23	410 130	Motor cable 7G4+2X1.5 MM2 OD=22-26 MM	20,60	20,60
23	410 131	Motor cable 7G6+2X1.5 MM2 OD=24-28 MM	20,60	20,60
23	410 134	Motor cable 8AWG/3-2-1-GC OD=27-29 MM	16,60	16,60
23	410 135	Motor cable 6AWG/3-2-1-GC OD=30-32 MM	16,60	16,60
23	410 136	Motor cable 4AWG/3-2-1-GC OD=33-35 MM	16,60	16,60
23	410 347	Motor cable SUBCAB S3X16+3X16/3+4X1.5	20,60	20,60
23	50 777 00	Motor cable 4G2.5+2X1.5 MM2 OD=17-18	20,60	20,60
24	51 411 00 (EX)	Entrance flange SS	Xylem Part. No 597 87 01	1
24	51 411 01 (EX)	Entrance flange ISO 228/1- G2	Xylem Part. No 597 87 04	1
24	51 411 02 (EX)	Entrance flange 2-11.5 NPT	Xylem Part. No 597 87 08	1
24	51 411 03 (EX)	Entrance flange 1 1/2-11.5 NPT	Xylem Part. No 597 87 11	1
24	51 423 00 (EX)	Entrance flange	Xylem Part. No 642 17 01	1
24.6	51 419 00	Gland screw 1 1/4" ISO.FOR METALHOSE	For use with metal hose. Xylem Part. No 633 11 01	1

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
24.6	51 419 01	Gland screw 1 1/2" NPT.FOR METALHOSE	1	1
26	410 374	Hex.socket hd screw M12X45-A4-80	2	2
31	410 086	O-ring 49.5X3 NBR	1	1
31	410 513	O-ring 49.5X3 FPM	1	1
32	51 429 00	Entrance cover	1	
32	51 429 01	Entrance cover	1	
32	51 429 02 (EX)	Entrance cover		1
32	51 429 03 (EX)	Entrance cover		1
33	410 022	O-ring 175X3 NBR	1	1
33	410 506	O-ring 175X3 FPM	1	1
35	410 518	Hex.socket hd screw M10X35-A4-80	4	4
45	410 503	Hex.socket hd screw M6X12-A2-70	2	2
49	410 515	End sleeve H16/24	3	3
49	410 516	End sleeve H25/30	3	3
53	410 503	Hex.socket hd screw M6X12-A2-70	4	2
54	51 030 00	Rail	1	1
56	50 902 00	Earthing plate	2	2
60	410 080	Spring washer 71.5X59X0.55	1	1
61	410 100	Ball bearing 3306A-2Z/C3VT113	1	1
69	51 031 00	Stator housing	1	
69	51 031 01 (EX)	Stator housing		1
72	410 091	O-ring 209.3X5.7 NBR	1	1
72	410 512	O-ring 209.3X5.7 FPM	1	1
73	51 422 00	Shaft unit	1	1
79	51 421 01	Stator 21-18-4a	1	1
79	51 421 02	Stator 21-18-4a	1	1
79	51 421 03	Stator 21-18-4a	1	1
79	51 421 04	Stator 21-18-4a	1	1
79	51 421 05	Stator 21-18-4a	1	1
79	51 421 06	Stator 21-18-4a	1	1

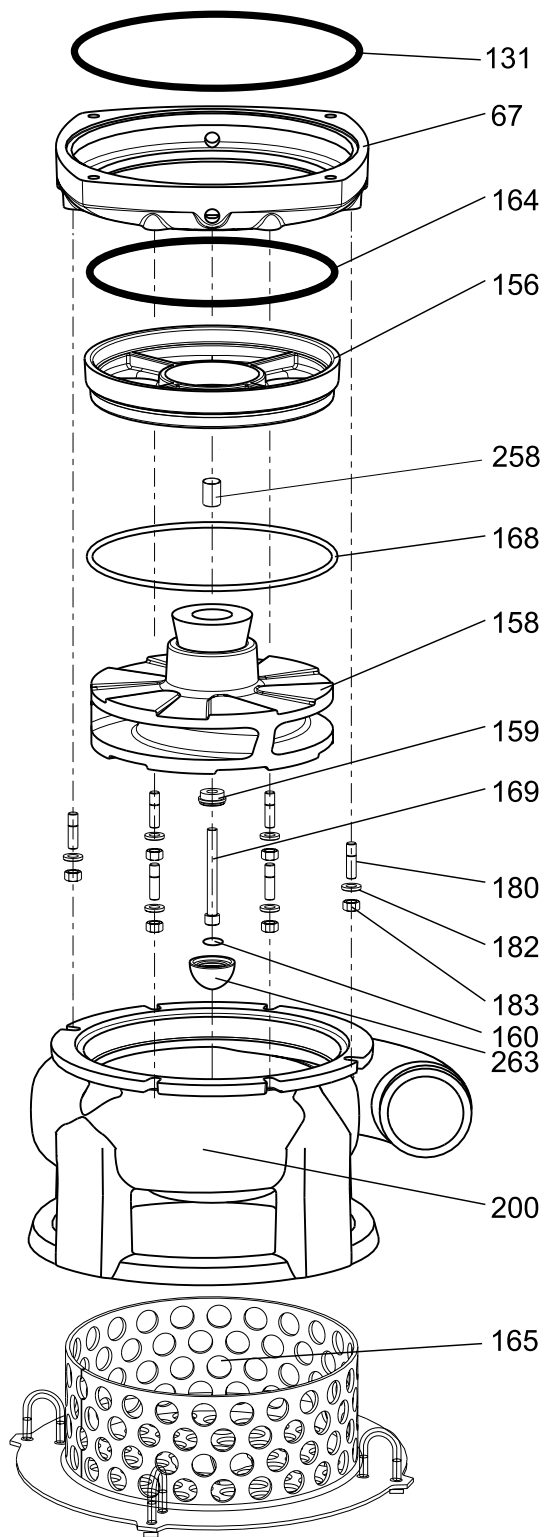
Pos. No	Part. No	Denomination	Qty/Version		
			020	190	
79	51 421 07	Stator 21-18-4a	60Hz: 380V Y.	1	1
79	51 421 08	Stator 21-18-4a	50Hz: 500V D. 60Hz: 575 - 600V D.	1	1
79	51 421 09	Stator 21-18-4a	50Hz: 660V Y, 380V D. 60Hz: 440V D.	1	1
82	51 607 00	Cooling jacket OUTER	Standard	1	1
82	51 607 01	Cooling jacket OUTER	Stainless steel	1	1
83	410 720	O-ring 221.84X3.53 FPM		1	1
83	50 772 89	O-ring 221.84X3.53 NBR		1	1
84	410 507	O-ring 279.3X5.7 FPM		1	1
84	50 037 32	O-ring 279.3X5.7 NBR		1	1
101	50 698 00	Cable unit FLS10		1	1
103	519 21 00	Level sensor FLS10		1	
103	50 486 01 (EX)	Level sensor FLS10	Xylem Part. No 663 04 00		1
105	51 032 00	Bearing holder		1	
105	51 032 01 (EX)	Bearing holder	Xylem Part. No 642 10 01		1
107	410 081	Retaining ring SGA 40		1	1
108	410 079	Supporting washer 40X50X2.5-SPRING STEEL		1	1
109	410 101	Ball bearing 3308A-2Z/ C3VT113		1	1
110	410 093	Retaining ring JB 90		1	1
120	51 428 00	Plug		1	1
122	410 508	O-ring 17X3 NBR		3	3
122	410 511	O-ring 17X3 FPM		3	3
129	51 420 00	Seal housing cover		1	1
130	410 721	O-ring 230X3 NBR		1	1
133	410 518	Hex.socket hd screw M10X35-A4-80	Xylem Part. No 83 04 56	6	6
141	51 028 20	Mechanical seal		1	1
141.1	51 063 32	Retaining ring		1	1
145	410 374	Hex.socket hd screw M12X45-A4-80	Xylem Part. No 83 04 53	4	4
231	410 054	Shrink hose ID 6.4		0,35	0,35
231	410 122	Shrink hose ID 9.5		0,35	0,35
232	410 523	Terminal clamp WDU6/10		3	3
233	410 519	Terminal clamp WDU35/IK/ZA		6	6
233	410 524	Terminal clamp WDU16,1000V		8	8

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
234	410 520	Cross connection WQW35/2	3	3
234	410 525	Cross connection WQV16/2	4	4
234	51 427 00	Cross connection	1	1
234	51 427 01	Cross connection	1	1
235	410 522	End support WEW 35/2	2	2
236	410 521	Partition	1	1
239	51 024 00	El.lead through unit	1	1
239	51 409 00	El.lead through unit	1	1
240	51 413 00 (EX)	Spring	Xylem Part. No 607 48 00	1
241	410 022	O-ring 175X3 NBR	1	1
241	410 506	O-ring 175X3 FPM	1	1
242	51 597 00	adapter	Execution without cooling jacket.	1
242	51 597 01 (EX)	adapter	Execution without cooling jacket. Xylem Part. No 642 11 03	1
242	51 610 12	adapter	1	
242	51 610 13 (EX)	adapter	Xylem Part. No 608 22 13	1
243	50 021 32	Hex.socket hd screw M8X16- A4-70	Xylem Part. No 83 02 97	2
245	410 507	O-ring 279.3X5.7 FPM	1	1
245	50 037 32	O-ring 279.3X5.7 NBR	1	1
246	410 721	O-ring 230X3 NBR	1	1
247	410 097	O-ring 84.4X4 FPM	1	1
248	51 611 00	Strip	1	1
249	410 719	Clip	1	1
251	51 428 00	Plug	2	2
252	410 508	O-ring 17X3 NBR	2	2
252	410 511	O-ring 17X3 FPM	2	2
253	51 608 00	Cooling jacket INNER	1	1
254	51 609 00	Flow diffusor	1	1
256	51 612 00	Wire bow	4	4
264	132 312	Plain washer (33)-35 MM	4	4
264	132 334	Plain washer (14)-20 MM	4	4
264	132 336	Plain washer (20)-32 MM	4	4
265	410 113	Seal sleeve (17)-20 MM	2	2
265	410 114	Seal sleeve (20)-23 MM	2	2
265	410 115	Seal sleeve (23)-26 MM	2	2
265	410 116	Seal sleeve (26)-29 MM	2	2

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
265	410 117	Seal sleeve (29)-32 MM	2	2
265	410 118	Seal sleeve (32)-35 MM	2	2
266	51 025 02	Ring	1	1
270	51 118 00	Lock washer		1
313	410 084	O-ring 71.2X3 FPM	1	1
800	410 695	O-ring kit	1	1
900	51 619 01	Basic repair kit	1	1

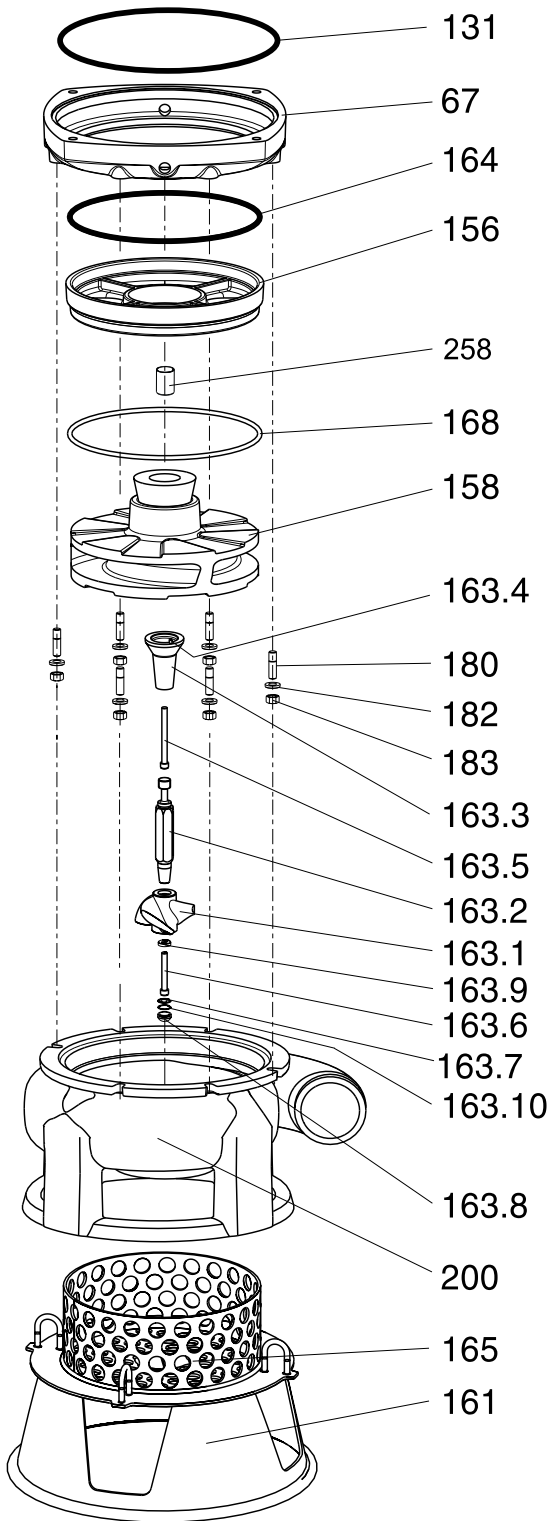
Hydraulic Unit

Without agitator



20080A

With agitator



20081A

List of parts

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
67	51 434 00	Pump housing adapter	1	1

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
131	410 507	O-ring 279.3X5.7 FPM	1	1
131	50 037 32	O-ring 279.3X5.7 NBR	1	1
156	51 425 00	Wearing cover	1	1
158	51 435 00	Impeller unit 50Hz.	1	1
158	51 435 01	Impeller unit 60 Hz.	1	1
159	51 453 00	Sleeve	1	1
160	410 663	Protective plug	1	1
161	51 431 00	Stand compl.	1	1
163	51 436 00	Agitator unit	1	1
163.1	51 412 00	Propeller	1	1
163.10	410 505	Retaining ring	1	1
163.2	51 415 00	Shaft	1	1
163.3	51 416 00	Barrel nut	1	1
163.4	410 501	parallel key	1	1
163.5	410 529	Hex.socket hd screw Xylem Part. No 84 51 62	1	1
163.6	50 023 02	Hex.socket hd screw M12X80-A2-70 Xylem Part. No 82 00 79	1	1
163.7	132 274	Plain washer 12-A2-A 170	1	1
163.8	51 406 00	Plug	1	1
163.9	51 417 00	Washer	1	1
164	410 510	O-ring	1	1
165	51 433 00	Strainer compl.	1	1
168	410 509	O-ring 297,8X6,99 NITRIL	1	1
169	410 529	Hex.socket hd screw Xylem Part. No 84 51 62	1	1
180	410 502	Stud 12X30-A4-70	6	6
182	410 504	Plain washer STAINLESS STEEL A4	6	6
183	132 280	Hexagon nut M12-A2-70	6	6
200	51 424 00	Pump housing	1	1
258	51 442 00	Sleeve unit	1	1
263	51 454 00	Wear protection	1	1



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