

## Parts List

8149.020/.190 Bravo 500





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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 500, 8149.020	X		X
Bravo 500, 8149.190		X	X

## The data plate

### Introduction

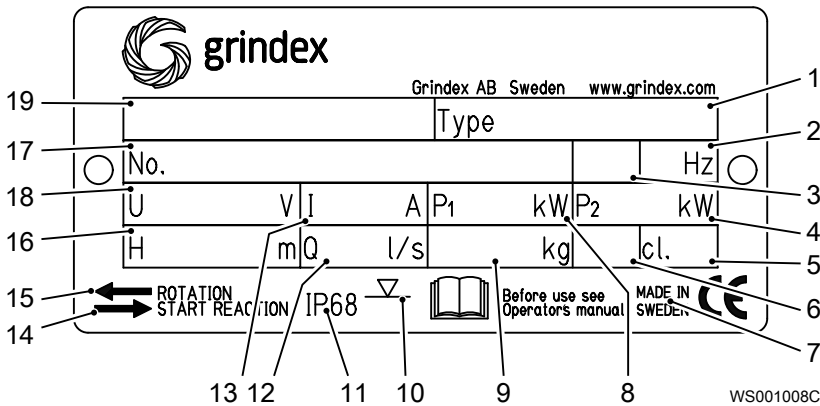
The data plate is a metal label located on the main body of the pump. The data plate lists key product specifications.

### The data plate

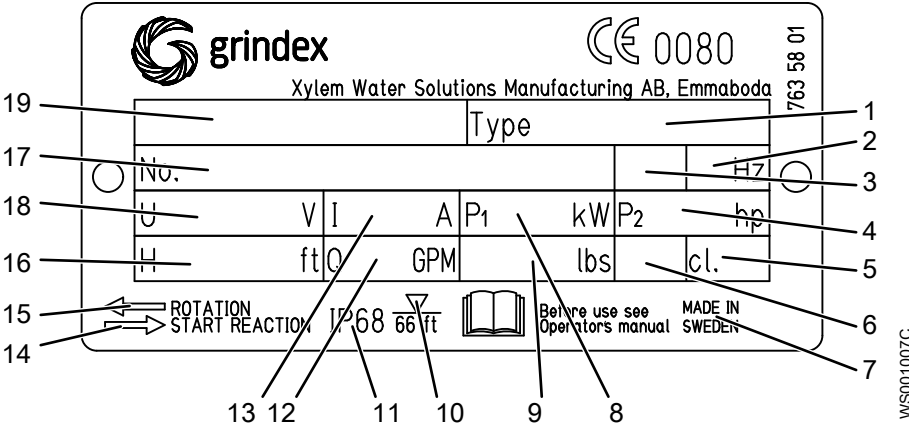
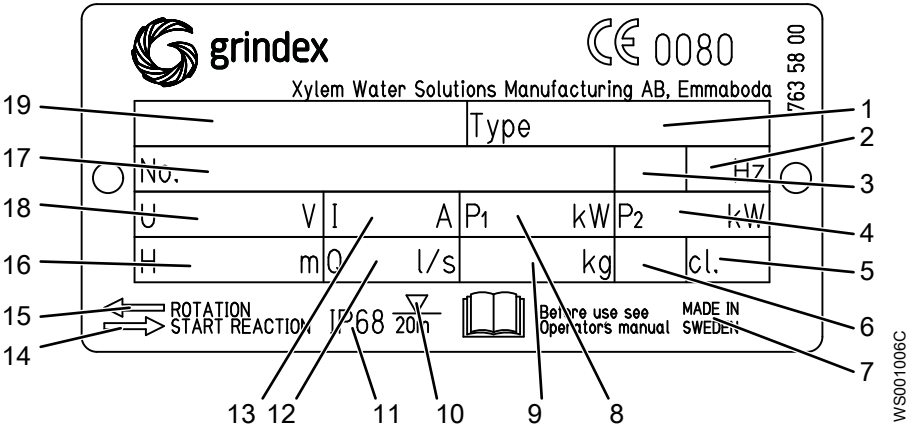
This list of callouts is applicable for all versions of data plates:

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:



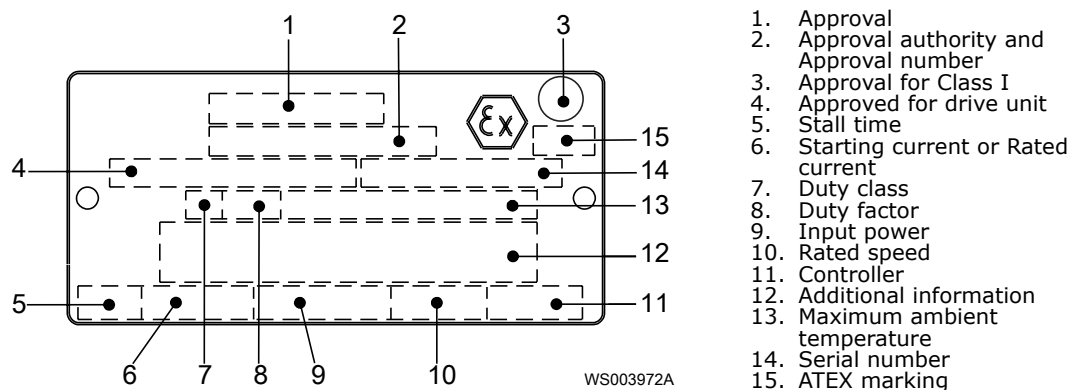
# Approvals

## Product approvals for hazardous locations

Pump	Approval
8149.190	European Norm (EN) <ul style="list-style-type: none"> <li>• ATEX Directive</li> <li>• EN 60079-0:2009, EN 60079-1:2007, EN 13463-1:2009, EN 13463-5:2011</li> <li>• <math>\text{Ex}</math>I M2 c Ex d I Mb</li> <li>• <math>\text{Ex}</math>II 2 G c Ex d IIB T3 Gb</li> </ul>
	EN approval for cable entry: <ul style="list-style-type: none"> <li>• Certificate number: INERIS 02ATEX9008 U</li> <li>• <math>\text{Ex}</math> II 2 G Ex d IIC Gb or I M2 Ex d I Mb</li> </ul>
	FM (FM Approvals) <ul style="list-style-type: none"> <li>• Explosionproof for use in Class I, Div. 1, Group C and D</li> <li>• Dust ignition proof for use in Class II, Div. 1, Group E, F and G</li> <li>• Suitable for use in Class III, Div. 1, Hazardous Locations</li> </ul>

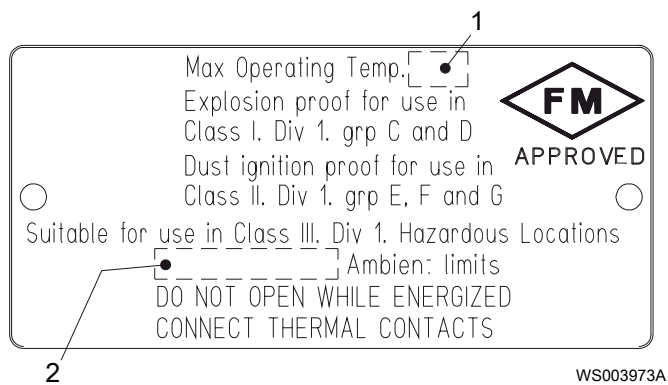
### EN approval plate

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.

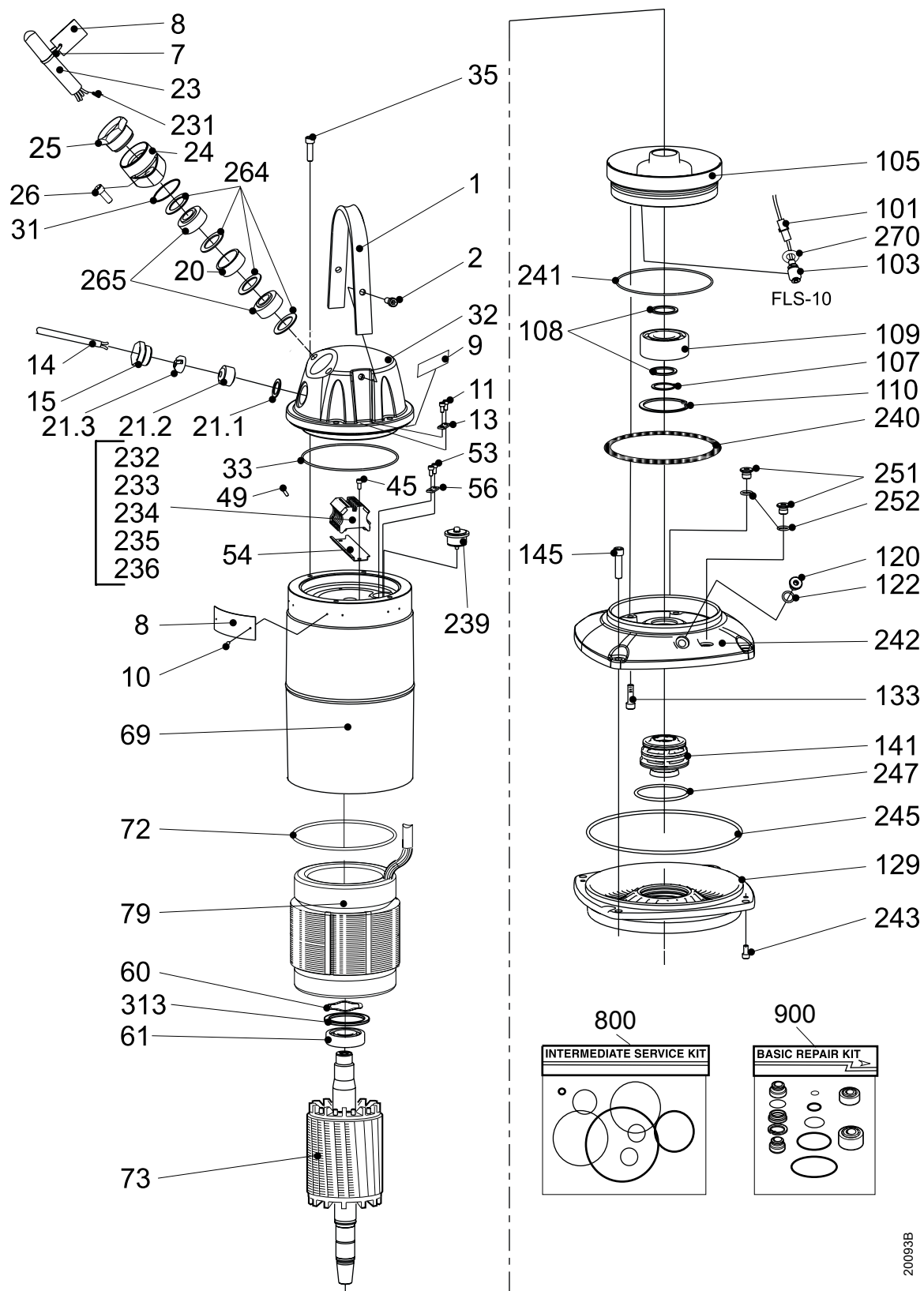


1. Temperature class
2. Maximum ambient temperature

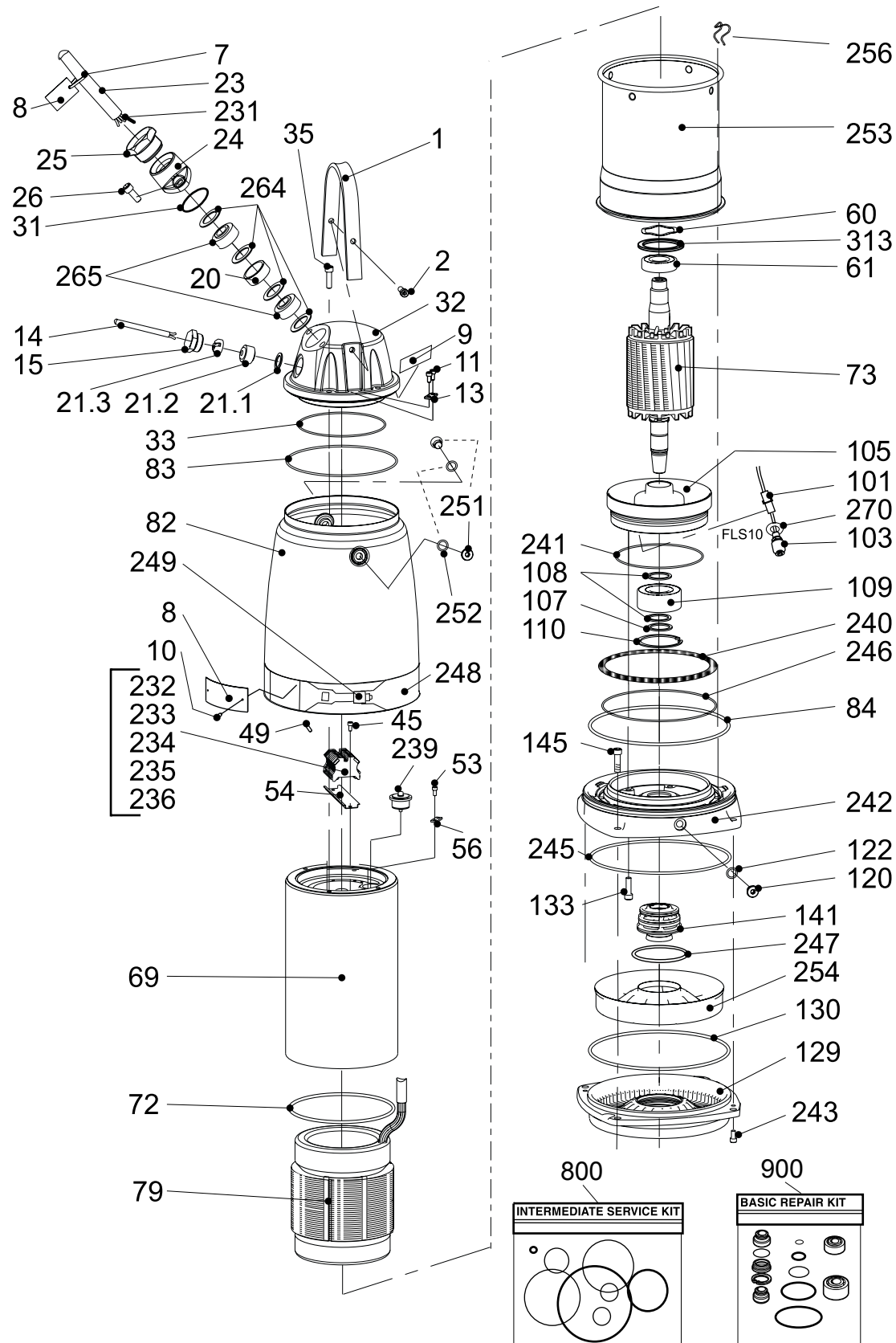


# Drive Unit

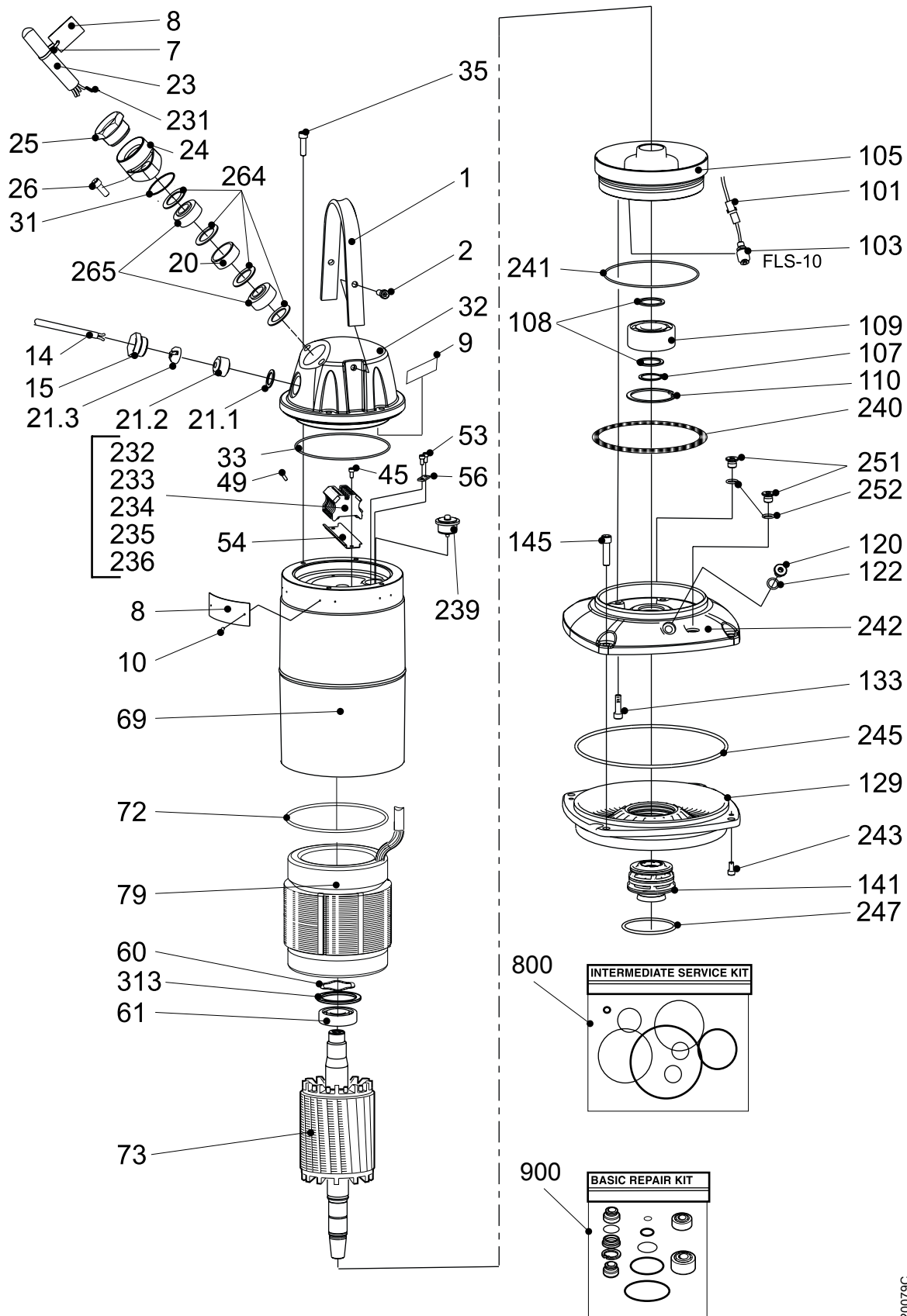
## Explosion-proof (EX): without cooling jacket



# EX: with cooling jacket

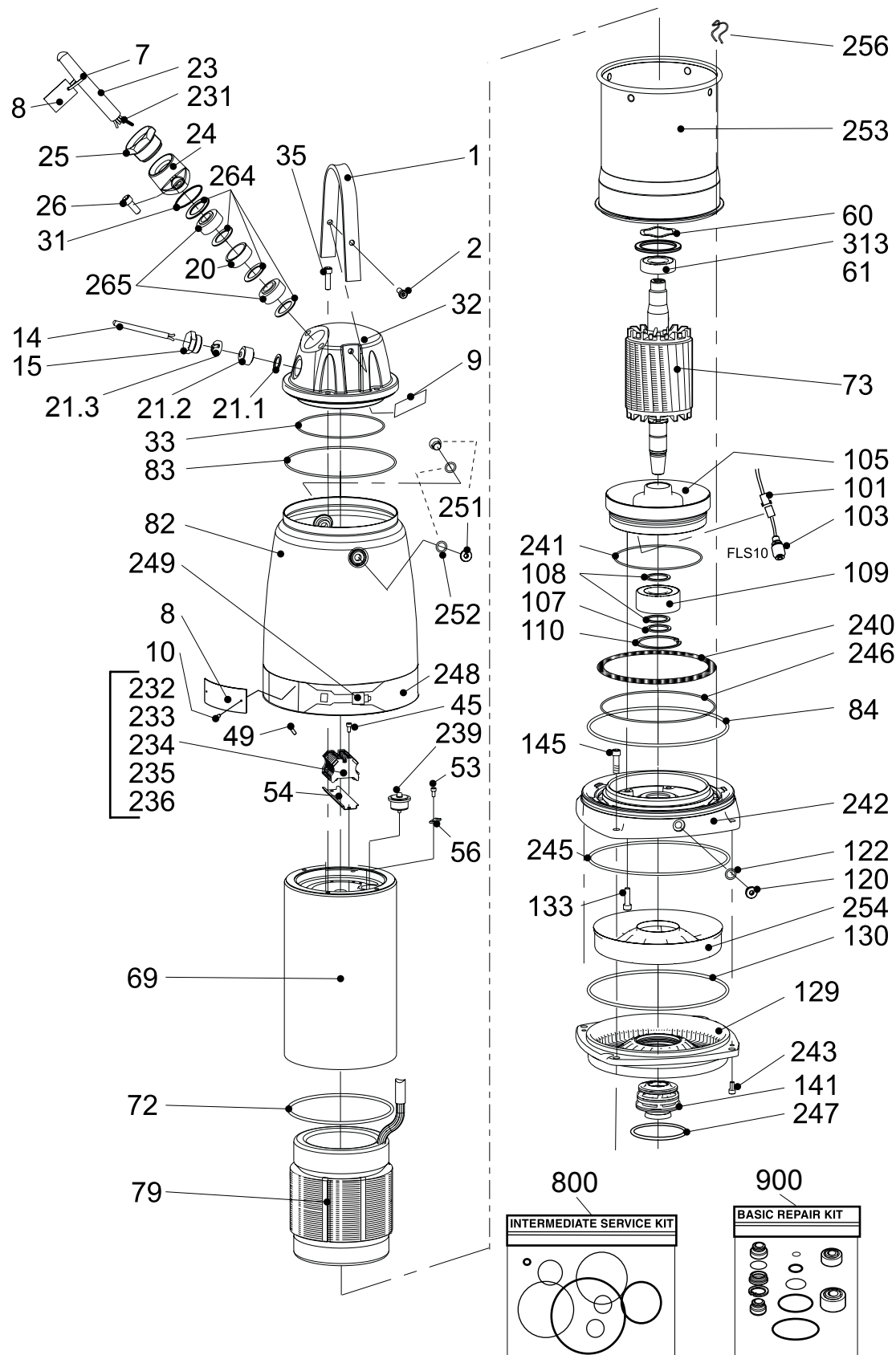


# Non-EX: without cooling jacket



20079C

# Non-EX: with cooling jacket



20092B

## List of parts

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
1	51 465 00	Lifting handle	1	1
2	410 374	Hex.socket hd screw M12X45-A4-80	Xylem Part. No 83 04 53	2
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	Xylem Part. No 630 69 02	2
8	50 888 00	Plate-blank	Use 50 907 00 (EU), 50 907 01 (US) as spare part.	1
8	50 888 00	Plate-blank	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.	1
8	51 614 00	Certificate plate	Xylem Part. No 752 20 00	1
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;W2 ;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	Xylem Part. No 82 20 88	4
11	410 503	Hex.socket hd screw M6X12-A2-70	Xylem Part. No 82 00 11	2
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	Xylem Part. No 397 81 00	1
20	51 025 02	Ring	1	1
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

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
21.3	50 926 00	Cable clip (10)-12 MM	1	1
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	410 068	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	410 128	Motor cable 4G16+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
25	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	
25	51 419 01	Gland screw 1 1/2" NPT.FOR METALHOSE	For use with metal hose. Xylem Part. No 633 11 04	1	1
26	410 374	Hex.socket hd screw M12X45-A4-80	Xylem Part. No 83 04 53	2	2
31	410 086	O-ring 49.5X3 NBR		1	1
31	410 513	O-ring 49.5X3 FPM		1	1
32	51 461 00	Entrance cover		1	
32	51 461 01	Entrance cover		1	
32	51 461 02 (EX)	Entrance cover	Xylem Part. No 650 87 03		1
32	51 461 03 (EX)	Entrance cover	Xylem Part. No 650 87 01		1
33	132 380	O-ring 194.3X5.7 NBR		1	1
33	410 549	O-ring 194.3X5.7 FPM		1	1
35	410 374	Hex.socket hd screw M12X45-A4-80	Xylem Part. No 83 04 53	4	4
45	410 503	Hex.socket hd screw M6X12-A2-70	Xylem Part. No 82 00 11	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	Xylem Part. No 82 00 11	4	4
54	51 464 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	51 463 00	Stator housing		1	
69	51 463 01 (EX)	Stator housing	Xylem Part. No 650 90 05		1
72	410 546	O-ring 239.5X5.7 NBR		1	1
72	410 550	O-ring 239.3X5.7 FPM		1	1
73	51 466 01	Shaft unit		1	1
79	51 457 01	Stator 25-17-4a	50Hz: 660 - 690V Y, 380 - 400V D. 60Hz: 460V D.	1	1
79	51 457 02	Stator 25-17-4a	50Hz: 400V Y, 230V D.	1	1
79	51 457 05	Stator 25-17-4a	50Hz: 415 - 440V D.	1	1
79	51 457 06	Stator 25-17-4a	50Hz: 500V D. 60Hz: 575 - 600V D.	1	1
79	51 457 07	Stator 25-17-4a	60Hz: 460V Yser, 230V Y//.	1	1
79	51 457 13	Stator 25-17-4a	60Hz: 380V D.	1	1

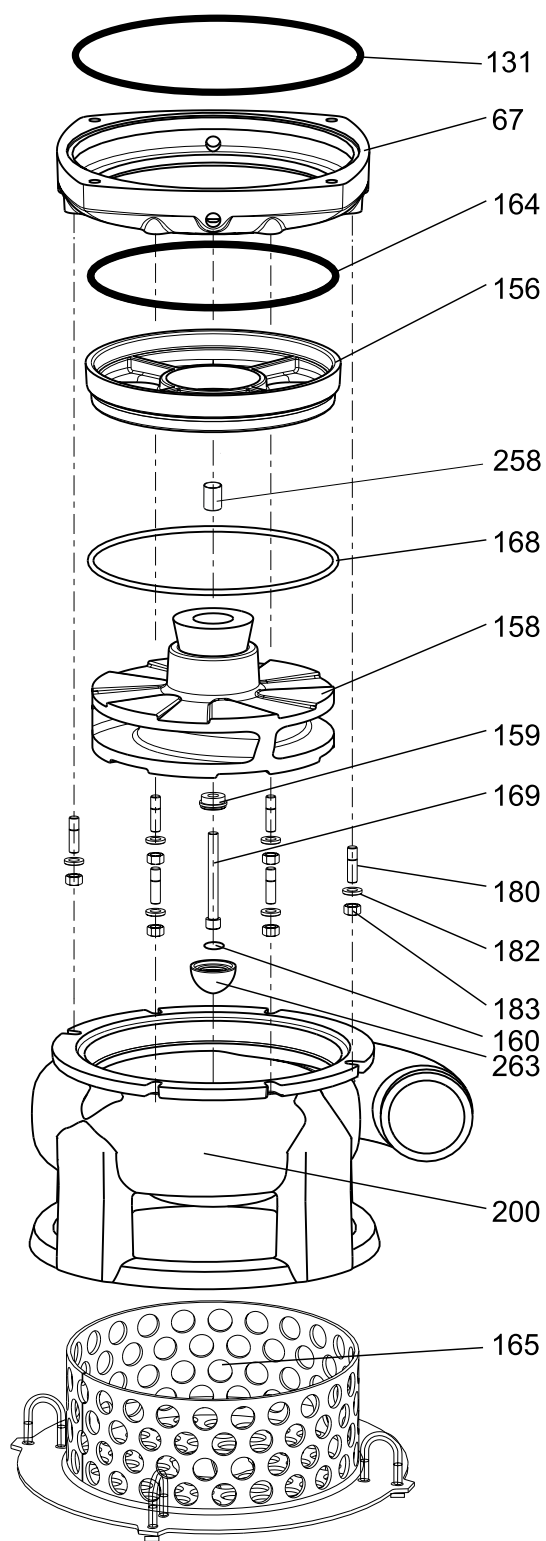
Pos. No	Part. No	Denomination	Qty/Version	
			020	190
82	51 627 00	Cooling jacket Standard	1	1
82	51 627 01	Cooling jacket Stainless steel	1	1
83	132 415	O-ring 259.3X5.7 NBR	1	1
83	410 700	O-ring 259.3X5.7 FPM	1	1
84	131 929	O-ring 339.3X5.7 NBR	1	1
101	50 698 00	Cable unit FLS10	1	1
103	519 21 00	Level sensor FLS10	1	
103	50 486 01 (EX)	Level sensor FLS10 Xylem Part. No 663 04 00		1
105	51 459 00	Bearing holder	1	
105	51 459 01 (EX)	Bearing holder Xylem Part. No 650 80 01		1
107	132 381	Retaining ring SGA 55	1	1
108	132 373	Supporting washer S 55X68X3	2	2
109	410 555	Ball bearing 3311A-2Z/ C3VT113	1	1
110	410 554	Retaining ring 120/2,85	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	51 458 00	Seal housing cover	1	1
130	410 699	O-ring 290X3 NBR	2	2
133	410 374	Hex.socket hd screw M12X45-A4-80 Xylem Part. No 83 04 53	6	6
141	51 455 00	Mechanical seal	1	1
145	410 553	Hex.socket hd screw M16X60-A4-80 Xylem Part. No 83 04 58	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	8	8
233	410 524	Terminal clamp WDU16,1000V	6	6
234	410 520	Cross connection WQW35/2	4	4
234	410 525	Cross connection WQV16/2	3	3
234	51 427 00	Cross connection	1	1
235	410 522	End support WEW 35/2	2	2
236	410 521	Partition	1	1
239	51 460 00	El.lead through unit	1	1



Pos. No	Part. No	Denomination	Qty/Version		
			020	190	
240	51 413 01 (EX)	Spring	Xylem Part. No 607 48 04	1	1
241	132 422	O-ring 219.3X5.7 NBR		1	1
241	410 547	O-ring 219.3X5.7 FPM		1	1
242	51 462 00	adapter		1	
242	51 462 01 (EX)	adapter	Xylem Part. No 650 89 01		1
242	51 626 00 (EX)	adapter	Xylem Part. No 650 88 11		1
242	51 626 01	adapter		1	
243	50 023 09	Hex.socket hd screw M12X25-A4-80	Xylem Part. No 83 04 61	2	2
245	131 929	O-ring 339.3X5.7 NBR		1	1
245	410 548	O-ring 339.3X5.7 FPM		3	3
247	410 551	O-ring 92X4 FPM		1	1
248	51 611 01	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	51 629 00	Cooling jacket "INNER"		1	1
254	51 630 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
265	410 117	Seal sleeve (29)-32 MM		2	2
265	410 118	Seal sleeve (32)-35 MM		2	2
270	51 118 00	Lock washer			1
313	410 084	O-ring 71.2X3 FPM		1	1
800	410 696	O-ring kit		1	1
900	51 619 02	Basic repair kit		1	1

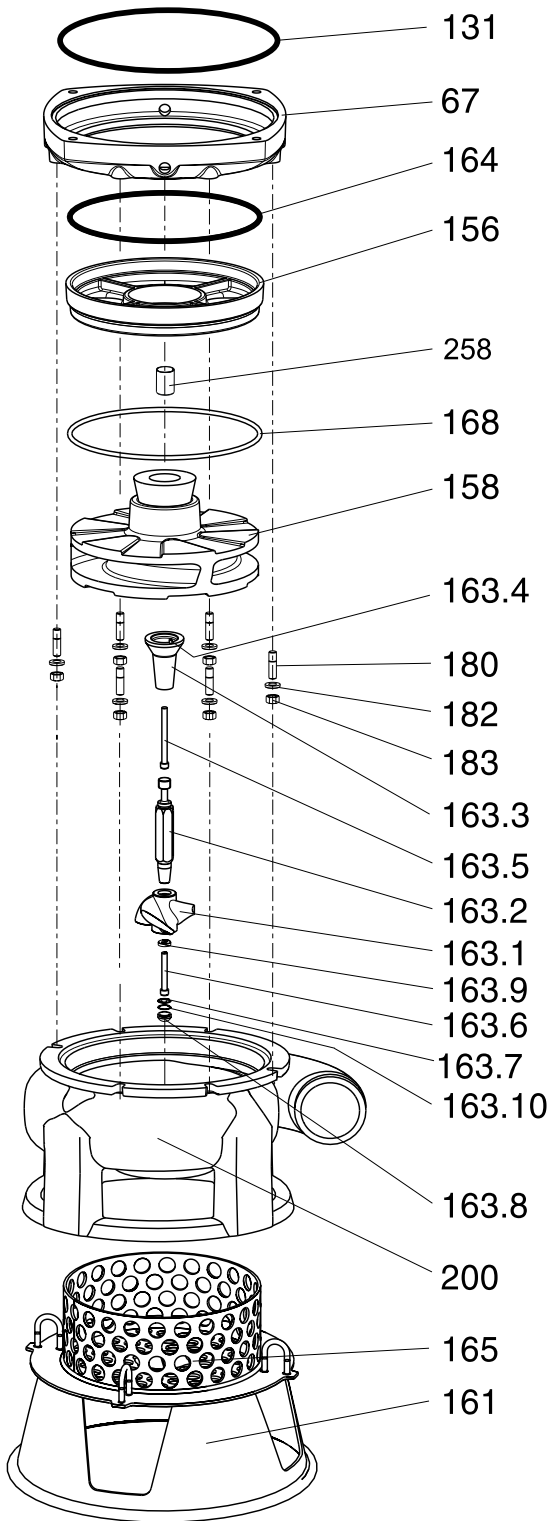
# Hydraulic Unit

## Without agitator



20080A

With agitator



20081A

List of parts

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
67	51 598 00	Pump housing adapter	1	1

Pos. No	Part. No	Denomination	Qty/Version	
			020	190
131	131 929	O-ring 339.3X5.7 NBR	1	1
156	51 425 00	Wearing cover	1	1
158	51 601 01	Impeller unit 50Hz.	1	1
158	51 601 02	Impeller unit 60Hz.	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 02	Agitator unit	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	410 552	Hex.socket hd screw Xylem Part. No 83 02 68	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	51 469 00	Sleeve unit	1	1
263	51 454 00	Wear protection	1	1









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