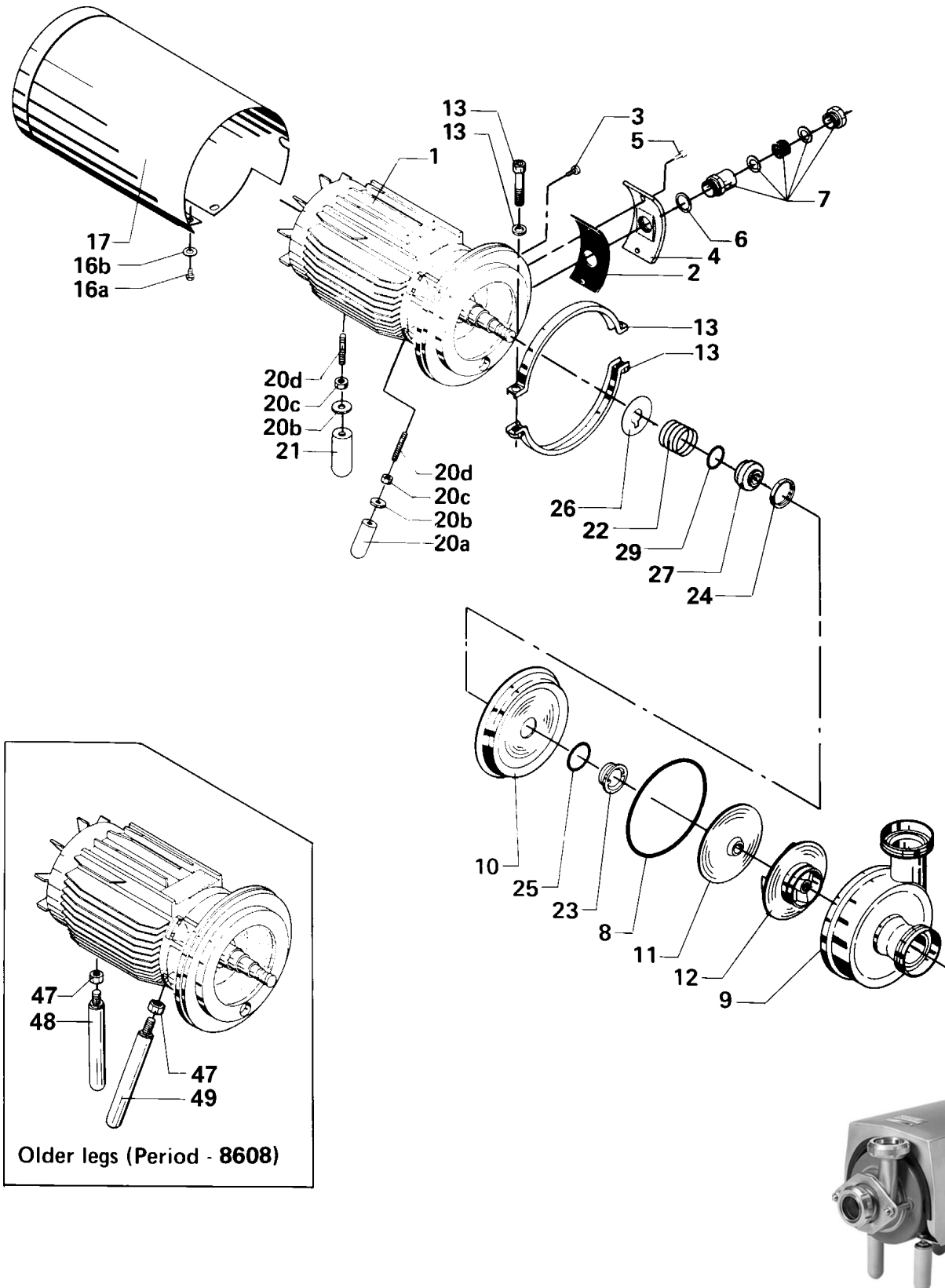


Centrifugal Pumps – Single Shaft Seal
Types FM-1A & FM-2A



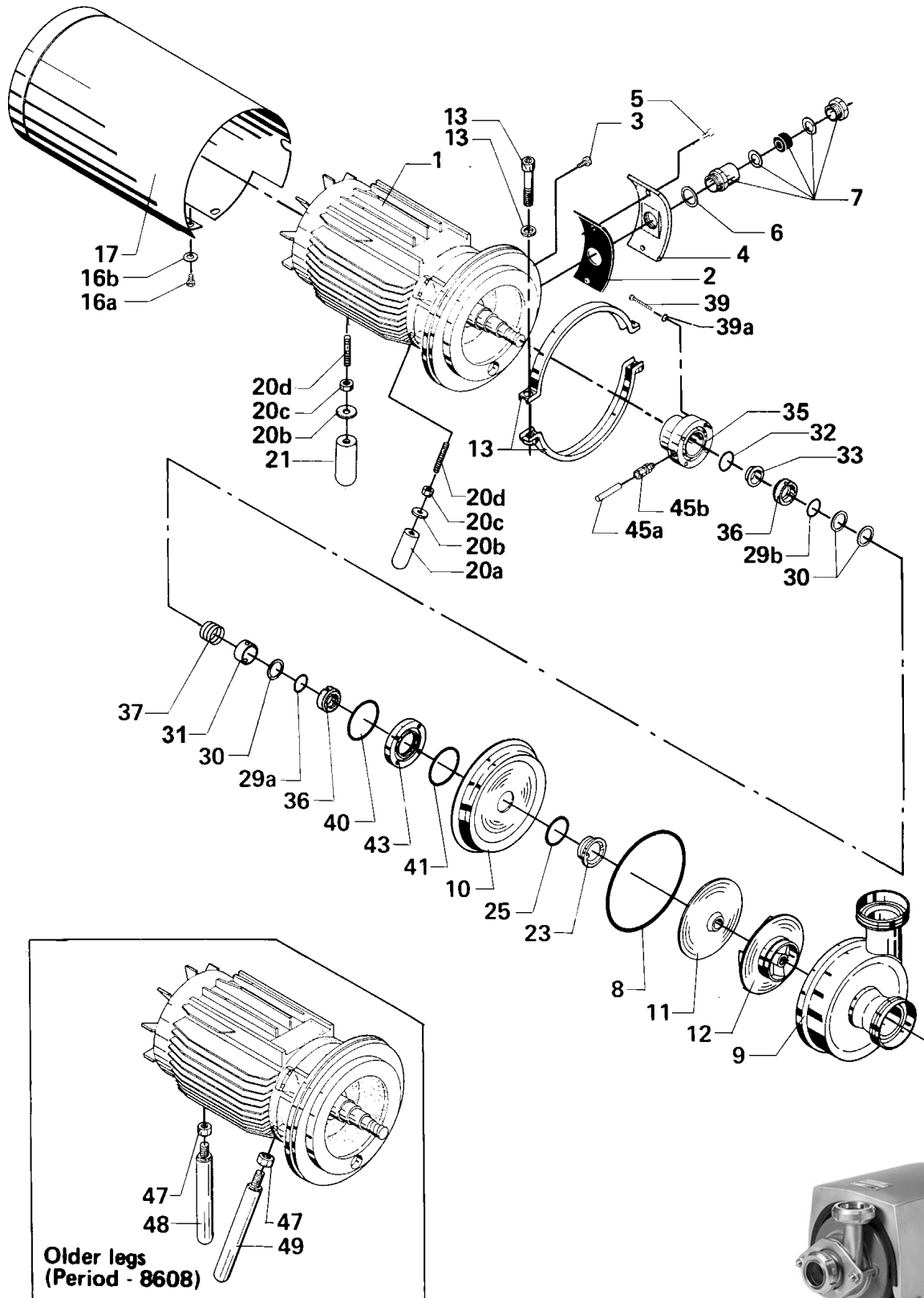
Centrifugal Pumps – Single Shaft Seal Types FM-1A & FM-2A



Pos. Qty.	Denomination	FM-1A/2A	Pos. Qty.	Denomination	FM-1A/2A	Pos. Qty.	Denomination	FM-1A/2A			
2	1	Packing	31439-0015-1	Δ Shaft seal, complete, NBR (Standard) ..	9612-4392-01		Accessories (delivered with every new pump)				
3	1	Set screw for earth wire	221533-02	22	1	Spring	31438-0057-1	1	Spanner for impeller	31439-0104-1	
4	1	Cover	31439-0007-1	23	1	Stationary seal ring SiC	31437-0225-1		Older legs (Period -8608)		
5	2	Screw	221125-22	25	1	Seal	31437-0121-1	47	3	Lock nut	2218043-18
6	1	Packing	31439-0049-1	27	1	Rotating seal ring	31439-0165-1	48	1	Back leg	31439-0146-1
7	1	Compression gland, 22.5 mm	31801-0154-4	29	1	O-ring	31439-0168-1	49	2	Front leg	31439-0146-2
10	1	Back plate	31439-0101-1								
11	1	Impeller cover	31439-0099-1	Δ Shaft seal, complete, EPDM	9612-4392-03						
13	1	Clamp set	9611-92-1001	22	1	Spring	31438-0057-1				
16a	4	Screw	2210938-23	23	1	Stationary seal ring SiC	31437-0225-1				
16b	4	Washer	9611-99-1831	25	1	Seal	31437-0121-3				
17	1	Shoud	31439-0169-1	27	1	Rotating seal ring	31439-0165-1				
20a	2	Front leg	31460-1248-1	29	1	O-ring	31439-0168-4				
20b	3	Washer	31460-0104-1								
20c	3	Nut	9611-99-1829	Δ Shaft seal, complete, FPM	9612-4392-04						
20d	3	Stud bolt	31458-0077-1	22	1	Spring	31438-0057-1				
21	1	Back leg	31460-1248-3	23	1	Stationary seal ring SiC	31437-0225-1				
24	1	Nut	31437-0120-1	25	1	Seal	31437-0121-3				
26	1	Thrower	31439-0037-1	27	1	Rotating seal ring	31439-0165-1				
				29	1	O-ring	31439-0168-5				
Other parts			(Period From 8608)	(Period to 8608)							
			FM-1A	FM-1A							
Pos. Qty.	Denomination										
1	1	Motor 3 kW 220/380 V	31439-0190-1	31439-0181-1							
	1	Motor 3 kW 230-260/400-440 V	31439-0190-2	31439-0181-2							
	1	Motor 3 kW 380/660 V	31439-0190-3	31439-0181-3							
			(Period From 8608)	(Period to 8608)							
			FM-2A	FM-2A							
Pos. Qty.	Denomination										
1	1	Motor 4 kW 220/380 V	31455-0046-1	31455-0043-1							
	1	Motor 4 kW 230-260/400-440 V	31455-0046-2	31455-0043-2							
	1	Motor 4 kW 380/660 V	31455-0046-3	31455-0043-3							
			(Period From 8608)	(Period to 8608)							
			FM-2A	FM-2A							
Pos. Qty.	Denomination										
1	1	Fan	31437-0208-2	31437-0208-2							
	1	Rotor with shaft	31439-0182-1	31455-0044-1							
8Δ	1	O-ring, NBR (Standard)	31439-0112-1	31455-0008-1							
	1	O-ring, EPDM	31439-0112-4	31455-0008-4							
	1	O-ring, FPM	31439-0112-5	31455-0008-5							
	1	O-ring, PTFE	31439-0112-3	31455-0008-3							
9	1	Pump casing with sanitary fittings. FM-1A, 51 mm inlet and outlet FM-2A, 63.5 mm inlet and outlet									
		ISO male	31439-0176-1	31455-0041-1							
		SMS	31439-0176-2	31455-0041-2							
		DIN	31439-0176-3	31455-0041-3							
		ISO clamp	31439-0176-4	31455-0041-4							
		BS	31439-0176-5	31455-0041-5							
12*	1	Impeller (ø165)	31439-0097-1	31455-0010-1							
* Sometimes reduced impeller diameter. Check the diameter of the original impeller.											
Δ		Service kit, NBR	9611-92-1058	9611-92-1062							
Δ		Service kit, EPDM	9611-92-1059	9611-92-1063							
Δ		Service kit, FPM	9611-92-1060	9611-92-1064							
Δ		Service kit, PTFE	9611-92-1061	9611-92-1065							

Parts marked with Δ are included in the Service kits.

Centrifugal Pumps – Flushed Shaft Seal
Types FM-1A & FM-2A



Centrifugal Pumps – Flushed Shaft Seal
Types FM-1A & FM-2A



Pos.	Qty.	Denomination	FM-1A/FM-2A		Pos.	Qty.	Denomination	FM-1A/FM-2A		Pos.	Qty.	Denomination	FM-1A/FM-2A	
2	1	Packing	31439-0015-1		Δ Shaft seal, complete, NBR (Standard)		9612-4393-01			Alternatives				
3	1	Set screw for earth wire	221533-02		23 1 Stationary seal ring SiC		31437-0225-1			Shaft seal, complete, NBR (Standard)		9612-4393-05		
4	1	Cover	31439-0007-1		25 1 Seal		31437-0121-1			23 1 Stationary seal ring SiC		31437-0225-1		
5	2	Screw	221125-22		29a 1 O-ring, front		31439-0168-1			25 1 Seal		31437-0121-1		
6	1	Packing	31439-0049-1		29b 1 O-ring, back		31439-0168-1			29a 1 O-ring, front		31439-0168-1		
7	1	Compression gland, 22.5 mm	31801-0154-4		30 3 Washer		104125			29b 1 O-ring, back		31439-0168-1		
10	1	Back plate	31439-0101-1		31 1 Spacer		31437-0212-1			30 3 Washer		104125		
11	1	Impeller cover	31439-0099-1		32 1 O-ring		223406-51			31 1 Spacer		31437-0212-1		
13	1	Clamp set	9611-99-1001		33 1 Stationary seal ring		31450-0007-1			32 1 O-ring		223406-51		
16a	4	Screw	2210938-23		36 2 Rotating seal ring		31437-0211-1			33 1 Stationary seal ring		31450-0007-1		
16b	4	Washer	9611-99-1831		37 1 Spring		104154			36a 1 Rotating seal ring SiC		31437-0211-4		
17	1	Shroud	31439-0169-1		40 1 O-ring		223406-60			36b 1 Rotating seal ring		31437-0211-1		
20a	2	Front leg	31460-1248-1		41 1 O-ring		223406-58			37 1 Spring		104154		
20b	3	Washer	31460-0104-1		Δ Shaft seal, complete, EPDM		9612-4393-03			40 1 O-ring		223406-60		
20c	3	Nut	9611-99-1829		23 1 Stationary seal ring SiC		31437-0225-1			41 1 O-ring		223406-58		
20d	3	Stud bolt	31458-0077-1		25 1 Seal		31437-0121-3			Shaft seal, complete, EPDM		9612-4393-07		
21	1	Back leg	31460-1248-3		29a 1 O-ring, front		31439-0168-4			23 1 Stationary seal ring SiC		31437-0225-1		
35	1	Seal housing	31439-0114-1		29b 1 O-ring, back		31439-0168-4			25 1 Seal		31437-0121-3		
39	4	Screw	9611-99-0208		30 3 Washer		104125			29a 1 O-ring, front		31439-0168-4		
39a	4	Washer	9611-99-0800		31 1 Spacer		31437-0212-1			29b 1 O-ring, back		31439-0168-4		
43	1	Fastening ring	31439-0113-1		32 1 O-ring		223406-51			30 3 Washer		104125		
45a	2	Flushing tube	31439-0122-5		33 1 Stationary seal ring		31450-0007-1			31 1 Spacer		31437-0212-1		
45b	2	Fitting	2525524-02		36 2 Rotating seal ring		31437-0211-1			32 1 O-ring		223406-51		
46	1	Assembly mandrel(not shown)	31439-0118-1		37 1 Spring		104154			33 1 Stationary seal ring		31450-0007-1		
			(Period From 8608) FM-1A	(Period to 8608) FM-1A	40 1 O-ring		223406-60			36a 1 Rotating seal ring SiC		31437-0211-4		
Pos.	Qty.	Denomination			41 1 O-ring		223406-58			36b 1 Rotating seal ring		31437-0211-1		
1	1	Motor 3 kW 220/380 V	31439-0189-1	31439-0188-1	Δ Shaft seal, complete, FPM		9612-4393-04			37 1 Spring		104154		
1	1	Motor 3 kW 230-260/400-440 V	31439-0189-2	31439-0188-2	23 1 Stationary seal ring SiC		31437-0225-1			40 1 O-ring		223406-60		
1	1	Motor 3 kW 380/660 V	31439-0189-3	31439-0188-3	25 1 Seal		31437-0121-3			41 1 O-ring		223406-58		
			(Period From 8608) FM-2A	(Period to 8608) FM-2A	29a 1 O-ring, front		31439-0168-5			Shaft seal, complete, FPM		9612-4393-08		
Pos.	Qty.	Denomination			29b 1 O-ring, back		31439-0168-5			23 1 Stationary seal ring SiC		31437-0225-1		
1	1	Motor 4 kW 220/380 V	31455-0073-1	31455-0072-1	30 3 Washer		104125			25 1 Seal		31437-0121-3		
1	1	Motor 4 kW 230-260/400-440 V	31455-0073-2	31455-0072-2	31 1 Spacer		31437-0212-1			29a 1 O-ring, front		31439-0168-5		
1	1	Motor 4 kW 380/660 V	31455-0073-3	31455-0072-3	32 1 O-ring		223406-51			29b 1 O-ring, back		31439-0168-5		
Pos.	Qty.	Denomination			33 1 Stationary seal ring		31450-0007-1			30 3 Washer		104125		
1	1	Fan	31437-0208-2	31437-0208-2	36 2 Rotating seal ring		31437-0211-1			31 1 Spacer		31437-0212-1		
8Δ	1	Rotor with shaft	31439-0182-3	31455-0044-3	37 1 Spring		104154			32 1 O-ring		223406-51		
1	1	O-ring, NBR (Standard)	31439-0112-1	31455-0008-1	40 1 O-ring		223406-60			33 1 Stationary seal ring		31450-0007-1		
1	1	O-ring, EPDM	31439-0112-4	31455-0008-4	41 1 O-ring		223406-58			36a 1 Rotating seal ring SiC		31437-0211-4		
1	1	O-ring, FPM	31439-0112-5	31455-0008-5	Δ Shaft seal, complete, PTFE		9612-4393-02			36b 1 Rotating seal ring		31437-0211-1		
1	1	O-ring, PTFE	31439-0112-3	31455-0008-3	23 1 Stationary seal ring SiC		31437-0225-1			37 1 Spring		104154		
9	1	Pump casing with sanitary fittings, FM-1A, 51 mm inlet and outlet FM-2A, 63.5 mm inlet and outlet			25 1 Seal		31437-0121-3			40 1 O-ring		223406-60		
		ISO male	31439-0176-1	31455-0041-1	29a 1 O-ring, front		31439-0168-3			41 1 O-ring		223406-58		
		SMS	31439-0176-2	31455-0041-2	29b 1 O-ring, back		31439-0168-3			Shaft seal, complete, PTFE		9612-4393-06		
		DIN	31439-0176-3	31455-0041-3	30 3 Washer		104125			23 1 Stationary seal ring SiC		31437-0225-1		
		ISO clamp	31439-0176-4	31455-0041-4	31 1 Spacer		31437-0212-1			25 1 Seal		31437-0121-3		
		BS	31439-0176-5	31455-0041-5	32 1 O-ring		223406-51			29a 1 O-ring, front		31439-0168-3		
12*	1	Impeller (ø165)	31439-0097-1	31455-0010-1	33 1 Stationary seal ring		31450-0007-1			29b 1 O-ring, back		31439-0168-3		
					36 2 Rotating seal ring		31437-0211-1			30 3 Washer		104125		
					37 1 Spring		104154			31 1 Spacer		31437-0212-1		
					40 1 O-ring		223406-60			32 1 O-ring		223406-51		
					41 1 O-ring		223406-58			33 1 Stationary seal ring		31450-0007-1		
Δ		Service kit, NBR	9611-92-1066	9611-92-1070						36a 1 Rotating seal ring SiC		31437-0211-4		
Δ		Service kit, EPDM	9611-92-1067	9611-92-1071						36b 1 Rotating seal ring		31437-0211-1		
Δ		Service kit, FPM	9611-92-1068	9611-92-1072						37 1 Spring		104154		
Δ		Service kit, PTFE	9611-92-1069	9611-92-1073						40 1 O-ring		223406-60		
										41 1 O-ring		223406-58		

* Sometimes reduced impeller diameter. Check the diameter of the original impeller

Older legs (Period -8608)
47 3 Lock nut 2218043-18
48 1 Back leg 31439-0146-1
49 2 Front leg 31439-0146-2

Accessoris (delivered with every new pump)
1 Spanner for impeller 31439-0104-1