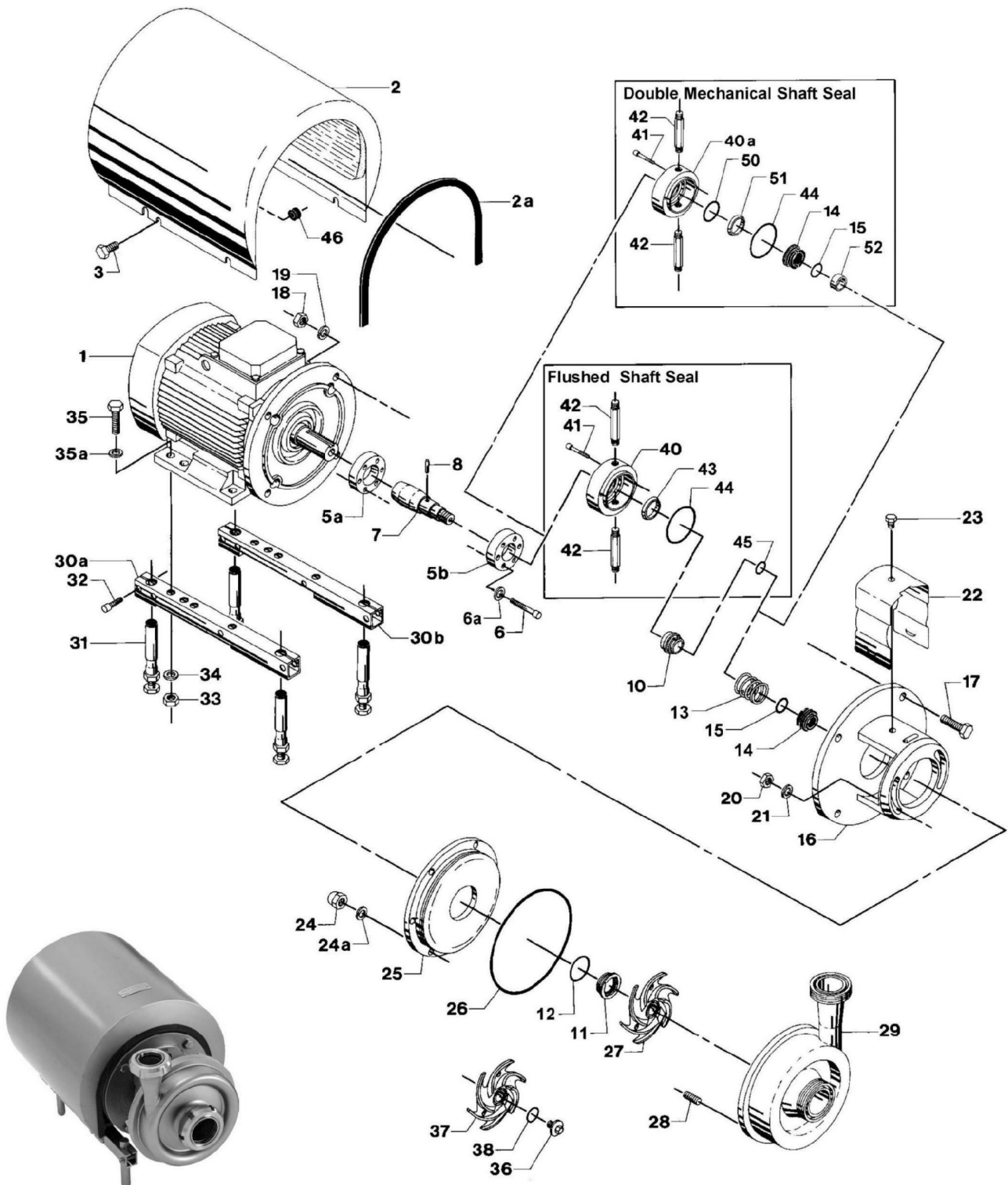


Centrifugal Pump, Type LKH-45 Single, flushed and double mechanical shaft seal



Centrifugal Pump, Type LKH-45
 Single, flushed and double mechanical shaft seal

Pos.	Qty.	Denomination	4 kW	5.5-7.5 kW	11-15 kW
3	4	Screw	9611-99-3240	9611-99-3240	9611-99-3241
5a	1	Compression ring with thread	9612-1336-02	9612-1336-05	9612-1336-03
5b	1	Compression ring without thread	9612-1337-02	9612-1337-05	9612-1337-03
6	6	Screw	9611-99-3197	9611-99-3197	9611-99-3198
6a	6	Washer	9611-99-3199	9611-99-3196	9611-99-3199
7	1	Shaft with internal/external thread and pin (pos. 8)	9612-1325-02	9612-1326-02	9612-1327-02
8	1	Comes pin	9611-99-0622	9611-99-0622	9611-99-0622
10	1	Drive ring Single shaft seal	9612-1377-01	9612-1377-01	9612-1377-01
10	1	Drive ring Flushed shaft seal	9612-1397-01	9612-1397-01	9612-1397-01
16	1	Adaptor	9612-3424-01	9612-3425-01	9612-3426-01
17	4	Screw for adaptor	9611-99-1834	9611-99-1852	9611-99-2163
18	4	Nut for adaptor	9611-99-0587	9611-99-0587	9611-99-2160
19	4	Washer for adaptor	9611-99-0676	9611-99-0676	9611-99-1886
20	2	Nut	9611-99-0353	9611-99-0353	9611-99-0353
21	2	Washer	9611-99-2559	9611-99-2559	9611-99-2559
22	1	Safety guard	9612-1311-06	9612-1311-07	9612-1311-08
23	1	Screw for safety guard	9611-99-3239	9611-99-3239	9611-99-3239
24	6	Cap nut	9611-99-2593	9611-99-2593	9611-99-2593
24a	6	Washer	9611-99-1887	9611-99-1887	9611-99-1887
25	1	Back plate	9612-1384-23	9612-1384-23	9612-1384-23
26	1	O-ring EPDM (standard)	9611-99-2983	9611-99-2983	9611-99-2983
26	1	O-ring NBR	9611-99-2984	9611-99-2984	9611-99-2984
26	1	O-ring FPM	9611-99-2985	9611-99-2985	9611-99-2985
27	1	O-ring FEP	9611-99-2986	9611-99-2986	9611-99-2986
27	1	Impeller	9612-3630-07	9612-3630-07	9612-3630-01
28	6	Bolt	9611-99-2169	9611-99-2169	9611-99-2169
29	1	Pump casing, IDF	9612-4924-16	9612-4924-16	9612-4924-16
29	1	Pump casing, SMS	9612-4924-17	9612-4924-17	9612-4924-17
29	1	Pump casing, DIN	9612-4924-18	9612-4924-18	9612-4924-18
29	1	Pump casing, ISO	9612-4924-19	9612-4924-19	9612-4924-19
29	1	Pump casing, BS	9612-4924-20	9612-4924-20	9612-4924-20
29	1	Pump casing, flange DN100/DN80	9612-1380-11	9612-1380-11	9612-1380-11
30a	1	Support bar, right	9612-1322-05	9612-1322-06	9612-1322-03
30b	1	Support bar, left	9612-1323-05	9612-1323-06	9612-1323-03
31	4	Leg	9612-3967-01	9612-3967-01	9612-3967-01
32	4	Screw (Period 9711-)	9611-99-1126	9611-99-1126	9611-99-1126
32	4	Screw (Period -9711)	9611-99-1907	9611-99-1907	9611-99-1907
33	4	Nut	9611-99-0353	9611-99-0353	9611-99-0587
34	4	Spring washer	9611-99-1887	9611-99-1887	9611-99-0676
35	4	Screw	9611-99-1911	9611-99-1911	9611-99-1834
35a	4	Washer	9611-99-0786	9611-99-0786	9611-99-0706
46	4	Distance sleeve		9611-99-2737	31438-0390-2
36	1	Impeller screw	9612-1396-01	9612-1396-01	9612-1396-01
37	1	Impeller for impeller screw	9612-3630-08	9612-3630-08	9612-3630-02
38	1	O-ring EPDM	9611-99-2145	9611-99-2145	9611-99-2145
38	1	O-ring NBR	9611-99-2147	9611-99-2147	9611-99-2147
38	1	O-ring FPM	9611-99-2146	9611-99-2146	9611-99-2146
38	1	O-ring FEP	9611-99-2148	9611-99-2148	9611-99-2148

Pos.	Qty.	Denomination	4 kW	5.5 kW	7.5 kW	11 kW	15 kW
1	1	Motor, M2AA ¹	9612-4028-07	9612-4028-15	9612-4028-30	31801-0122-1	31801-1194-1
1	1	Motor, M2AA ²	9612-4028-09	9612-4028-17	9612-4028-32	31801-0122-3	31801-1194-3
2	1	Shroud complete (Period 9310)	9612-1390-03	9612-1390-08	9612-1390-08	9612-1390-05	9612-1390-05
2a	1	Edge list (Included in pos. 2)					

* 3 ~, 50 Hz, 220-240VΔ/380-420VY - Standard < 4 kW ** 3 ~, 50 Hz, 380-420VΔ/660-690VY - Standard > 5.5 kW
 3 ~, 60 Hz, 250-280VΔ/440-480VY - Standard < 4.6 kW 3 ~, 60 Hz, 440-480 Δ - Standard > 6.3 kW

Pos. Qty. Denomination 4-15 kW Shaft Seal: See page 58 and 59

Pos.	Qty.	Denomination	4-15 kW
Accessories	1	Tool complete	9612-1371-01
Parts for Flushed Shaft Seal	40	1 Seal housing	9612-1339-01
41	2	Screw for seal housing	9611-99-0203
42	2	Tube	9612-3589-07
Parts for Double Mechanical Shaft Seal	40a	1 Seal housing	9612-1339-02
41	2	Screw for seal housing	9611-99-0203
42	2	Tube	9612-3589-07
Service kit for single shaft seal			
□		Service kit, EPDM	9611-92-2178
□		Service kit, NBR	9611-92-2179
□		Service kit, FPM	9611-92-2180
□		Service kit, FEP	9611-92-2181
Service kit for single shaft seal and impeller screw			
◆		Service kit, EPDM	9611-92-2182
◆		Service kit, NBR	9611-92-2183
◆		Service kit, FPM	9611-92-2184
◆		Service kit, FEP	9611-92-2185
Service kit for flushed shaft seal			
○		Service kit, EPDM	9611-92-2186
○		Service kit, NBR	9611-92-2187
○		Service kit, FPM	9611-92-2188
○		Service kit, FEP	9611-92-2189
Service kit for flushed shaft seal and impeller screw			
*		Service kit, EPDM	9611-92-2190
*		Service kit, NBR	9611-92-2191
*		Service kit, FPM	9611-92-2192
*		Service kit, FEP	9611-92-2193
Service kit for double mechanical shaft seal			
◇		Service kit, EPDM	9611-92-2222
◇		Service kit, NBR	9611-92-2223
◇		Service kit, FPM	9611-92-2224
◇		Service kit, FEP	9611-92-2225
Service kit for double mechanical shaft seal and impeller screw			
◇		Service kit, EPDM	9611-92-2226
◇		Service kit, NBR	9611-92-2227
◇		Service kit, FPM	9611-92-2228
◇		Service kit, FEP	9611-92-2229

Parts marked with □/◆/◇/○/● are included in the service kits.

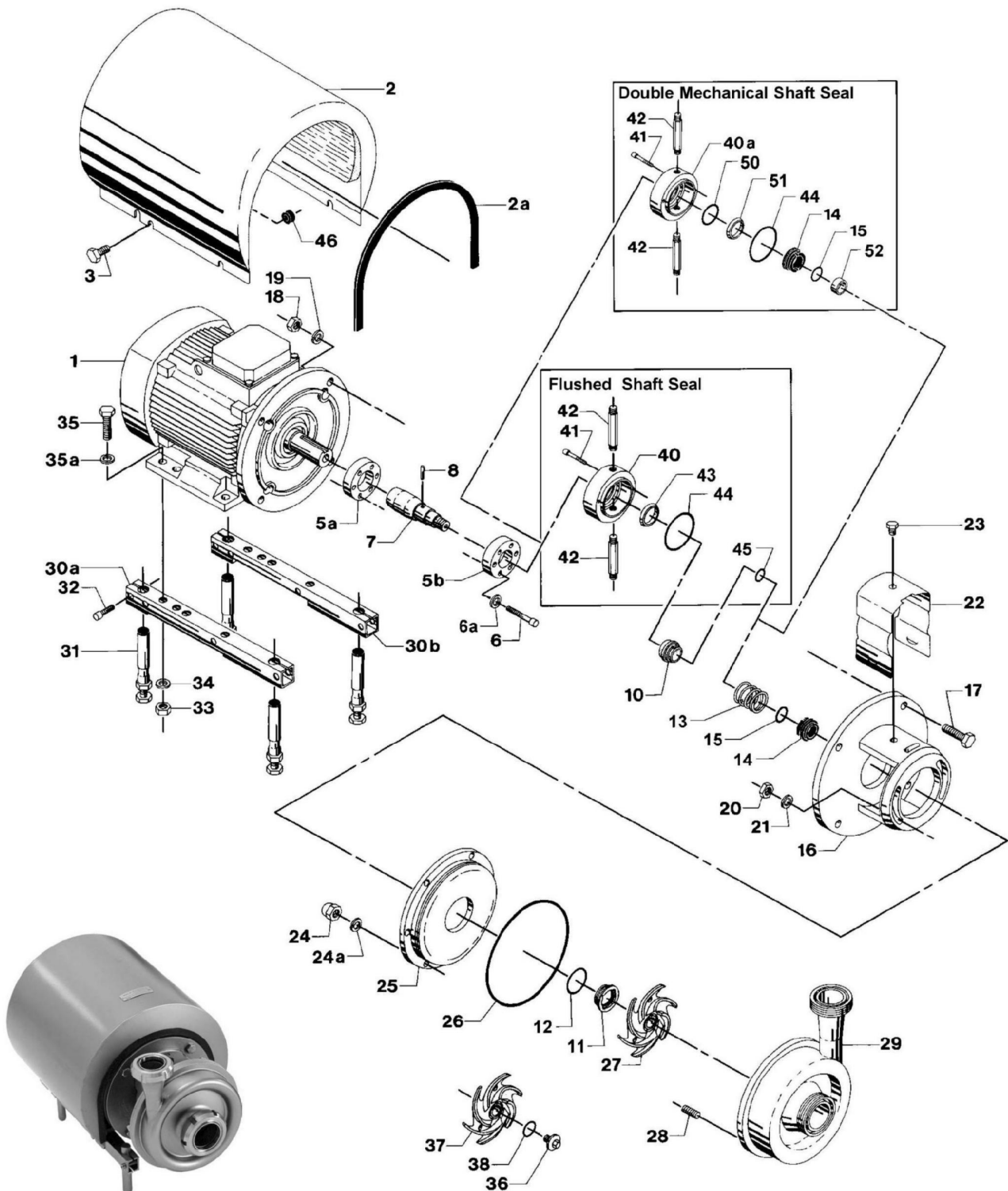
Recommended Spare Parts: Service kits.

Conversion kit, single to flushed shaft seal 9611-92-2042 = Pos. 10+40+41+42+43+44+45.
 Conversion kit, single to double mechanical shaft seal 9611-92-2175 = Pos. 14+15+40a+41+42+44+50+51+52.
 SIC/SIC = 9611-92-2302.
 Conversion kit, flushed to double mechanical shaft seal 9611-92-2176 = Pos. 14+40a+50+51+52.

Surface roughness, product wetted parts: Ra ≤ 0.8 μm

Pos.	Qty.	Denomination	4-7.5 kW	11-15 kW
25	1	Back plate	9612-1384-24	9612-1384-24
27	1	Impeller	9612-3630-09	9612-3630-05
29	1	Pump casing, IDF	9612-4925-16	9612-4925-16
29	1	Pump casing, SMS	9612-4925-17	9612-4925-17
29	1	Pump casing, DIN	9612-4925-18	9612-4925-18
29	1	Pump casing, ISO	9612-4925-19	9612-4925-19
29	1	Pump casing, BS	9612-4925-20	9612-4925-20
36	1	Impeller screw	9612-1396-03	9612-1396-03
37	1	Impeller for impeller screw	9612-3630-10	9612-3630-06

Centrifugal Pump, Type LKH-50
Single, flushed and double mechanical shaft seal



**Centrifugal Pump, Type LKH-50
 Single, flushed and double mechanical shaft seal**

Pos.	Qty.	Denomination	5.5-7.5 kW	11-18.5 kW	22 kW
3	4	Screw	9611-99-3240	9611-99-3241	9611-99-3242
5a	1	Compression ring with thread	9612-1336-05	9612-1336-03	9612-1336-04
5b	1	Compression ring without thread	9612-1337-05	9612-1337-03	9612-1337-04
6	6	Screw	9611-99-3197	9611-99-3198	9611-99-3199
6a	6	Washer	9611-99-3199	9611-99-3199	9611-99-3199
7	1	Shaft with internal/external thread and pin and pin (pos.3)	9612-1326-02	9612-1327-02	9612-1328-02
8	1	Conex pin	9611-99-0622	9611-99-0622	9611-99-0622
10	1	Drive ring, Single shaft seal	9612-1377-01	9612-1377-01	9612-1377-01
16	1	Drive ring, Flushed shaft seal	9612-1397-01	9612-1397-01	9612-1397-01
17	1	Adaptor	9612-3425-01	9612-3426-01	9612-3426-01
18	4	Screw for adaptor	9611-99-2162	9611-99-2163	9611-99-2163
19	4	Nut for adaptor	9611-99-2557	9611-99-2160	9611-99-2160
20	2	Washer for adaptor	9611-99-0676	9611-99-1886	9611-99-1886
21	2	Nut	9611-99-0353	9611-99-0353	9611-99-0353
22	2	Washer	9611-99-2559	9611-99-2559	9611-99-2559
23	1	Screw for safety guard	9612-1311-07	9612-1311-06	9612-1311-06
24	6	Cap nut (Period 9211)	9611-99-2593	9611-99-2593	9611-99-2593
24a	6	Handle (Period 9210)	9611-99-2303	9611-99-2303	9611-99-2303
25	1	Back plate	9612-1384-06	9612-1384-06	9612-1384-06
26	1	O-ring, EPDM (standard)	9611-99-2171	9611-99-2171	9611-99-2171
26	1	O-ring, NBR	9611-99-2173	9611-99-2173	9611-99-2173
26	1	O-ring, FPM	9611-99-2172	9611-99-2172	9611-99-2172
27	1	O-ring, FEP	9611-99-2174	9611-99-2174	9611-99-2174
27	1	Impeller	9612-1320-07	9612-1320-01	9612-1320-01
28	6	Bolt	9611-99-2169	9611-99-2169	9611-99-2169
29	1	Pump casing, IDF	9612-1398-21	9612-1398-21	9612-1398-21
29	1	Pump casing, SMS	9612-1398-22	9612-1398-22	9612-1398-22
29	1	Pump casing, DIN	9612-1398-23	9612-1398-23	9612-1398-23
29	1	Pump casing, ISO	9612-1398-24	9612-1398-24	9612-1398-24
29	1	Pump casing, BS	9612-1398-25	9612-1398-25	9612-1398-25
29	1	Pump casing, flange DN100/DN80	9612-1398-05	9612-1398-05	9612-1398-05
Legs					
30a	1	Support bar, right (Period 9310)	9612-1322-06		
30a	1	Support bar, right (*Period 9009-9310)	9612-1322-02	9612-1322-03	9612-1322-04
30b	1	Support bar, left (Period 9310)	9612-1323-06		
30b	1	Support bar, left (*Period 9009-9310)	9612-1323-02	9612-1323-03	9612-1323-04
31	4	Leg	9612-3967-01	9612-3967-01	9612-3967-01
32	4	Screw (Period 9711)	9611-99-1126	9611-99-1126	9611-99-1126
33	4	Screw (Period -9711)	9611-99-1907	9611-99-1907	9611-99-1907
34	4	Nut	9611-99-0353	9611-99-0587	9611-99-0587
34	4	Spring washer	9611-99-1887	9611-99-0676	9611-99-0676
35	4	Screw	9611-99-1911	9611-99-1834	9611-99-1834
35a	4	Washer	9611-99-0786	9611-99-0706	9611-99-0706
46	4	Distance sleeve		31438-0390-2	31438-0390-1
46	4	Distance sleeve for M2AA motor (Period 9310)	9611-99-2737		
Alternatives					
35	1	Impeller screw	9612-1396-01	9612-1396-01	9612-1396-01
37	1	Impeller for impeller screw	9612-1320-08	9612-1320-02	9612-1320-02
38	1	O-ring EPDM	9611-99-2145	9611-99-2145	9611-99-2145
38	1	O-ring NBR	9611-99-2147	9611-99-2147	9611-99-2147
38	1	O-ring FPM	9611-99-2146	9611-99-2146	9611-99-2146
38	1	O-ring FEP	9611-99-2148	9611-99-2148	9611-99-2148

Pos.	Qty.	Denomination	5.5 kW	7.5 kW	11 kW	15 kW	18.5 kW	22 kW
1	1	Motor, M2AA**	9612-4028-15	9612-4028-30	31801-0122-1	31801-1194-1	9612-3454-13	9612-3454-15
1	1	Motor, M2AA***	9612-4028-17	9612-4028-32	31801-0122-3	31801-1194-3	9612-3454-14	9612-3454-16
1	1	Motor, MBT***	*31801-1860-3	*31801-1860-3				
2	1	Shroud (Period 9310)	9612-1390-06	9612-1390-06				
2	1	Shroud (*Period 9009-9310)	*9612-1390-04	*9612-1390-04	9612-1390-05	9612-1390-05	9612-1390-05	9612-1390-06
2a	1	Edge list (Included in pos. 2)						
* MBT motor (Period 9009-9310). Not available anymore.								
** 3 ~, 50 Hz, 220-240VA/380-420VY - Option *** 3 ~, 50 Hz, 380-420VA/660-690VY - Standard								
3 ~, 60 Hz, 250-280VA/440-480VY - Option 3 ~, 60 Hz, 440-480VA - Standard								
Pos.	Qty.	Denomination	5.5-22 kW	Shaft Seal: See page 58 and 59				
Accessories								
1	1	Tool complete	9612-1371-01					
Parts for Flushed Shaft Seal								
40	1	Seal housing	9612-1339-01					
41	2	Screw for seal housing	9611-99-0203					
42	2	Tube	9612-3589-07					
Parts for Double Mechanical Shaft Seal								
40a	1	Seal housing	9612-1339-02					
41	2	Screw for seal housing	9611-99-0203					
42	2	Tube	9612-3589-07					
Service kit for single shaft seal								
□		Service kit, EPDM	9611-92-2088					
□		Service kit, NBR	9611-92-2089					
□		Service kit, FPM	9611-92-2090					
□		Service kit, FEP	9611-92-2091					
Service kit for single shaft seal and impeller screw								
◆		Service kit, EPDM	9611-92-2130					
◆		Service kit, NBR	9611-92-2131					
◆		Service kit, FPM	9611-92-2132					
◆		Service kit, FEP	9611-92-2133					
Service kit for flushed shaft seal								
○		Service kit, EPDM	9611-92-2092					
○		Service kit, NBR	9611-92-2093					
○		Service kit, FPM	9611-92-2094					
○		Service kit, FEP	9611-92-2095					
Service kit for flushed shaft seal and impeller screw								
*		Service kit, EPDM	9611-92-2134					
*		Service kit, NBR	9611-92-2135					
*		Service kit, FPM	9611-92-2136					
*		Service kit, FEP	9611-92-2137					
Service kit for double mechanical shaft seal								
◇		Service kit, EPDM	9611-92-2230					
◇		Service kit, NBR	9611-92-2231					
◇		Service kit, FPM	9611-92-2232					
◇		Service kit, FEP	9611-92-2233					
Service kit for double mechanical shaft seal and impeller screw								
●		Service kit, EPDM	9611-92-2234					
●		Service kit, NBR	9611-92-2235					
●		Service kit, FPM	9611-92-2236					
●		Service kit, FEP	9611-92-2237					
Parts marked with □, ◆, ○, ◇, ● are included in the service kits.								
Recommended Spare Parts: Service kits.								

Conversion kit, single to flushed shaft seal 9611-92-2042 = Pos. 10+40+41+42+43+44+45.
 Conversion kit, single to double mechanical shaft seal 9611-92-2175 = Pos. 14+15+40a+41+42+44+50+51+52.
 SIC/SIC = 9611-92-2302.
 Conversion kit, flushed to double mechanical shaft seal 9611-92-2176 = Pos. 14+40a+50+51+52.

Surface roughness, product wetted parts: Ra ≤ 0.8 μm

Pos.	Qty.	Denomination	5.5-7.5 kW	11-22 kW
25	1	Back plate	9612-1384-22	9612-1384-22
27	1	Impeller	9612-1320-11	9612-1320-05
29	1	Pump casing, IDF	9612-4572-21	9612-4572-21
29	1	Pump casing, SMS	9612-4572-22	9612-4572-22
29	1	Pump casing, DIN	9612-4572-23	9612-4572-23
29	1	Pump casing, ISO	9612-4572-24	9612-4572-24
29	1	Pump casing, BS	9612-4572-25	9612-4572-25
Alternatives				
36	1	Impeller screw	9612-1396-03	9612-1396-03
37	1	Impeller for impeller screw	9612-1320-12	9612-1320-06