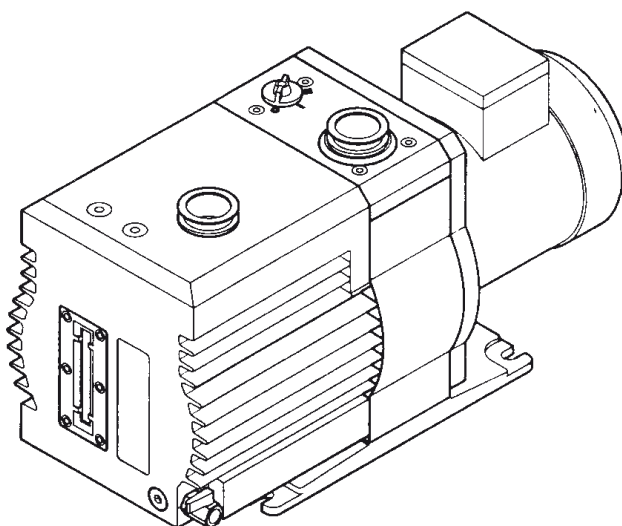


PHV K

*Dual stage oil lubricated
rotary vane pumps*



***Technical data
and parts lists***

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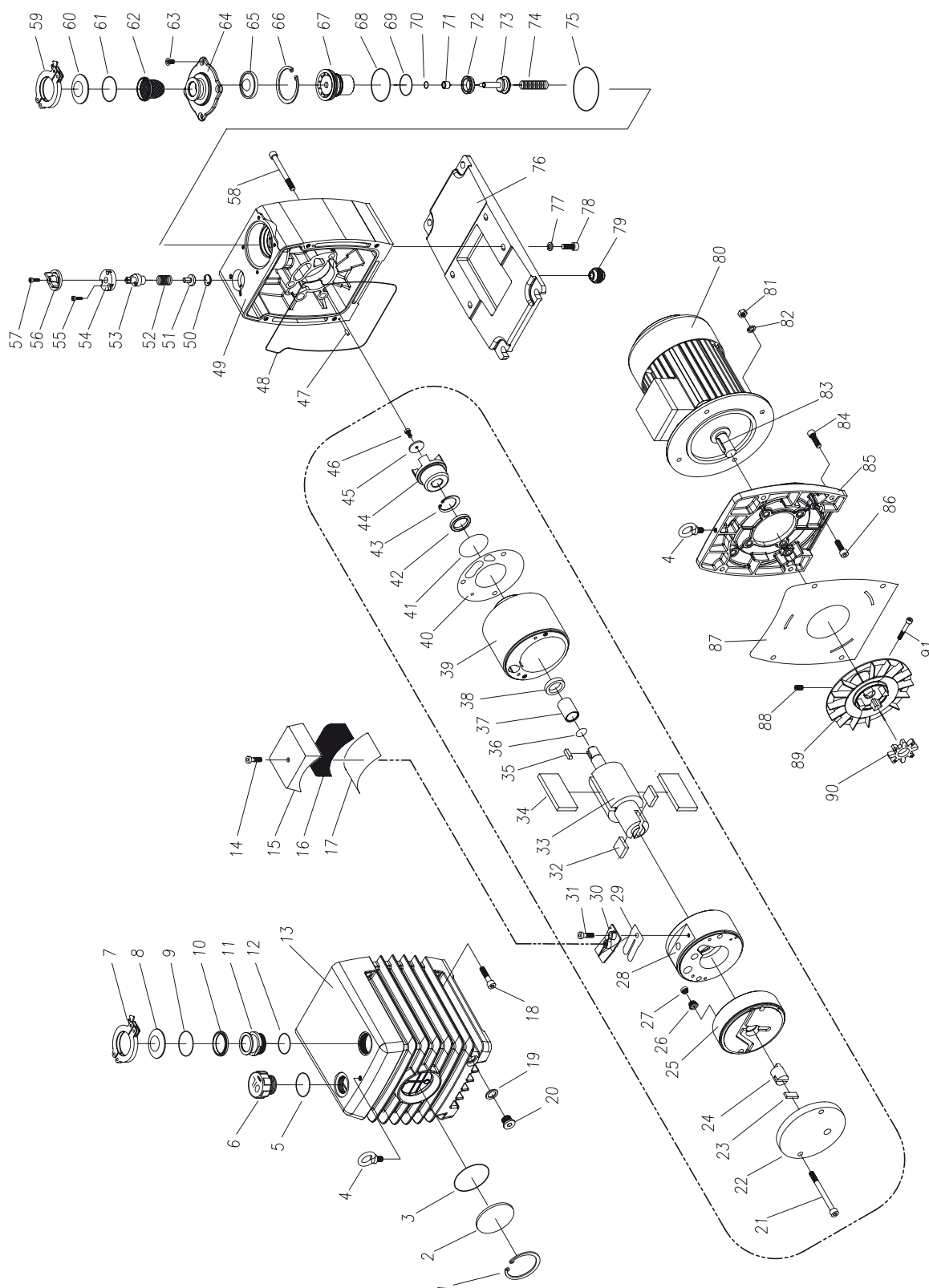
Technical data and parts lists

ENG

PHV 5K, PHV 10K, PHV 20K, PHV 30K, PHV 50K, PHV 75K

DESCRIZIONE - DESCRIPTION			PHV5K	PHV10K	PHV20K	PHV30K	PHV50K	PHV75K
Portata nominale Nominal capacity	50Hz	m³/h	5	10	20	30	50	75
	60Hz	m³/h	6	12	24	36	60	90
Pressione finale Ultimate pressure	Gas ballast C	mbar	1x10 ⁻³					
	Gas ballast I		7x10 ⁻³					
	Gas ballast II		1x10 ⁻²					
Pressione max vapore H2O vapour pressure		mbar	53	53	33	33	53	53
Carica olio - Oil charge		Litri	1.1	1.2	2.0	2.3	4.5	6.5
Aspirazione - Inlet		DN	25KF				40KF	
Scarico - Discharge		DN	25KF				40KF	
Potenza motore - Motor power		kW	0.37		0.75		1.5	2.2
Numero di giri Revolutions number	50Hz	R.P.M	1400					
	60Hz		1700					
Rumorosità (gas ballast chiuso) (closed gas ballast valve)		dB (A)	50	50	52	52	56	56
Peso totale - Total weight		kg	21	22.5	38	41	68	84

PHV 5K, PHV 10K, PHV 20K, PHV 30K



Technical data and parts lists

ENG

PHV 5K, PHV 10K, PHV 20K, PHV 30K

NO	DESCRIPTION	NO. REQUIRED PER UNIT			
		PHV 5K	PHV 10K	PHV 20K	PHV 30K
1	Stop Ring	1			
2	Sight glass	1			
3	O-Ring	1			
4	Eye bolt	2			
5	O-Ring	1			
6	Oil cap	1			
7	Clamp ring	1			
8	Port cap	1			
9	O-Ring	1			
10	Center ring	1			
11	Outlet port	1			
12	O-Ring	1			
13	Oil casing	1			
			1		
				1	
					1
14	Hex socket head cap screw	1		1	
15	Exhaust valve cover	1		1	
16	Screen	1		1	
17	O-ring	1			
18	Hex socket head cap screw	4			
19	Flat O-ring	1			
20	Oil drain plug	1			
21	Hex socket head cap screw	2		2	
22	Rear plate	1		1	
23	Oil pump vane	1			
24	Oil pump	1			
25	Intermediate plate	1		1	

NO	DESCRIPTION	NO. REQUIRED PER UNIT			
		PHV 5K	PHV 10K	PHV 20K	PHV 30K
26	Non return valve	1			
27	Non return valve spring	1			
28	2 nd cylinder	1		1	
29	Exhaust valve plate	1		1	
30	Exhaust valve catcher	1		1	
31	Hex socket head cap screw	1			
32	2 nd vane	2		2	
33	Rotor	1			
			1		
				1	
					1
34	1 st vane	2	2	2	2
35	Rotor key	1		1	
36	Oil seal sleeve O-ring	1		1	
37	Oil seal sleeve	1		1	
38	Oil seal	1		1	
39	1 st cylinder	1	1	1	1
40	Cylinder gasket	1		1	
41	O-ring	1			

PHV 5K, PHV 10K, PHV 20K, PHV 30K

NO	DESCRIPTION	NO. REQUIRED PER UNIT			
		PHV 5K	PHV 10K	PHV 20K	PHV 30K
42	Oil seal	1		1	
43	Stop ring	1		1	
44	Pump Coupling	1		1	
45	Coupling disk	1		1	
46	Hex socket head cap screw	1		1	
47	Alignment pin	2			
48	O-ring	1		1	
49	Pump housing	1		1	
50	Gas ballast valve plate	1			
51	Gas ballast valve seat	1			
52	Gas ballast valve spring	1			
53	Gas ballast valve piston	1			
54	Regulator plate	1			
55	Hex socket head cap screw	3			
56	Gas ballast knob	1			
57	Hex socket head cap screw	1			
58	Hex socket head cap screw	3		3	
59	Clamp ring	1			
60	Port cap	1			
61	O-ring	1			
62	Dirt trap	1			
63	Flat head cap screw	4			
64	Inlet port	1			
65	Valve plate	1			
66	Stop ring	1			
67	Valve cover	1			

NO	DESCRIPTION	NO. REQUIRED PER UNIT			
		PHV 5K	PHV 10K	PHV 20K	PHV 30K
68	O-ring	1			
69	O-ring	1			
70	O-ring	1			
71	Bushing	1			
72	U-Seal	1			
73	Valve piston	1		1	
74	Spring	1		1	
75	O-ring	1			
76	Pump base	1		1	
77	Spring washer	4		4	
78	Hex socket head cap screw	4		4	
79	Foot	4			
80	Motor	1		1	
81	Flange nut	4		4	
82	Washer	4		4	
83	Plate key	1			
84	Hex socket head cap screw	4		4	
85	Motor housing	1		1	
86	Hex socket head cap screw	4		4	
87	Motor housing gasket	1		1	
88	Set screw	1			

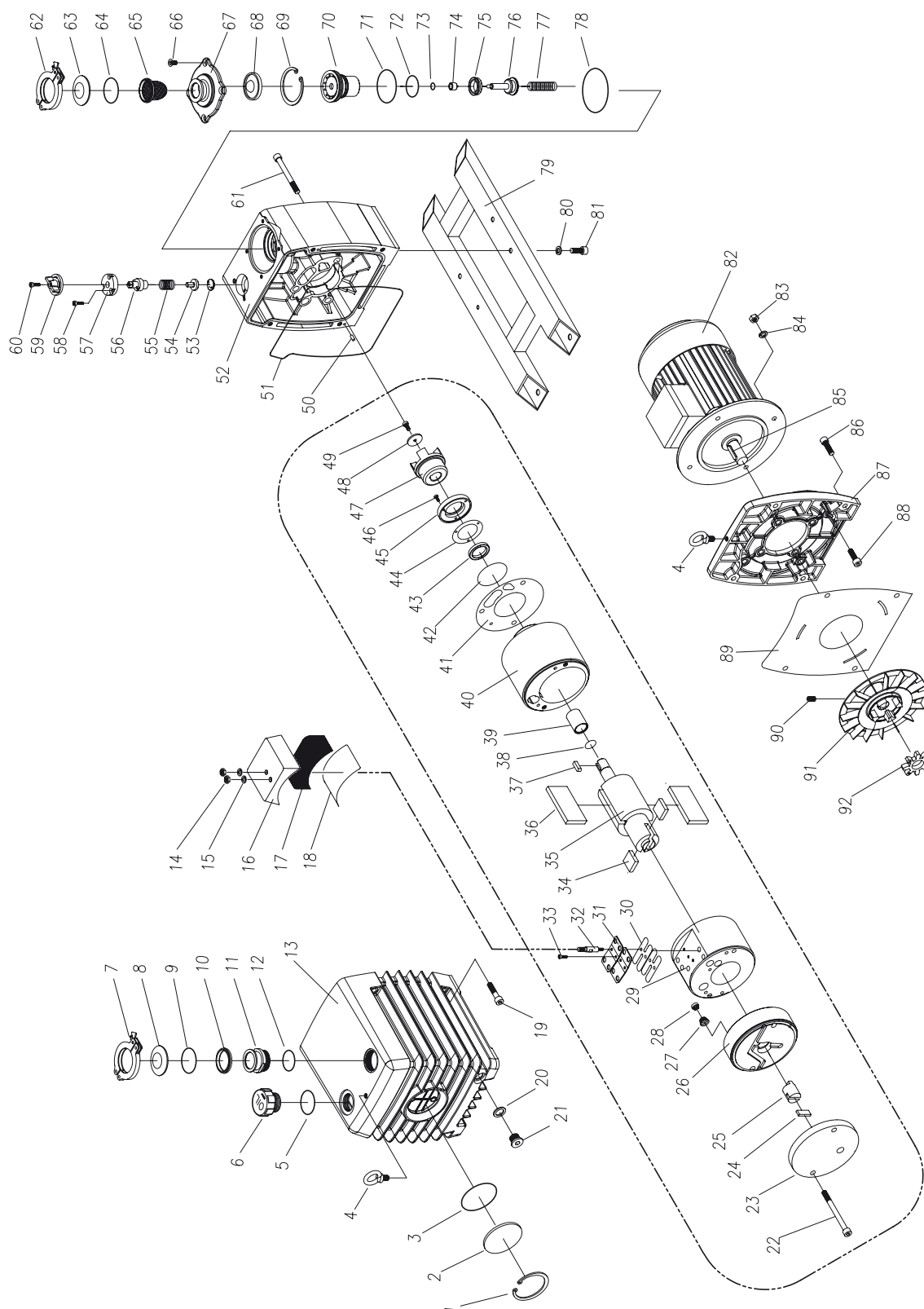
Technical data and parts lists

ENG

PHV 5K, PHV 10K, PHV 20K, PHV 30K

[illegible]

PHV 50K, PHV 75K



Technical data and parts lists

ENG

PHV 50K, PHV 75K

NO	DESCRIPTION	NO. REQUIRED PER UNIT	
		PHV 50K	PHV 75K
1	Stop Ring	1	
2	Sight glass	1	
3	O-Ring	1	
4	Eye bolt	2	
5	O-Ring	1	
6	Oil cap	1	
7	Clamp ring	1	
8	Port cap	1	
9	O-Ring	1	
10	Center ring	1	
11	Outlet port	1	
12	O-Ring	1	
13	Oil casing	1	
			1
14	Hex nut	2	
15	Washer	2	
16	Exhaust valve cover	1	
17	Screen	1	
18	O-Ring	1	
19	Hex socket head cap screw	4	
			4
20	Flat O-ring	1	
21	Oil drain plug	1	
22	Hex socket head cap screw	2	
23	Rear plate	1	
24	Oil pump vane	1	
25	Oil pump	1	
26	Intermediate plate	1	
27	Non return valve spring	1	
28	Non return valve	1	
29	2 nd cylinder	1	
30	Exhaust valve plate	2	
31	Exhaust valve catcher	2	

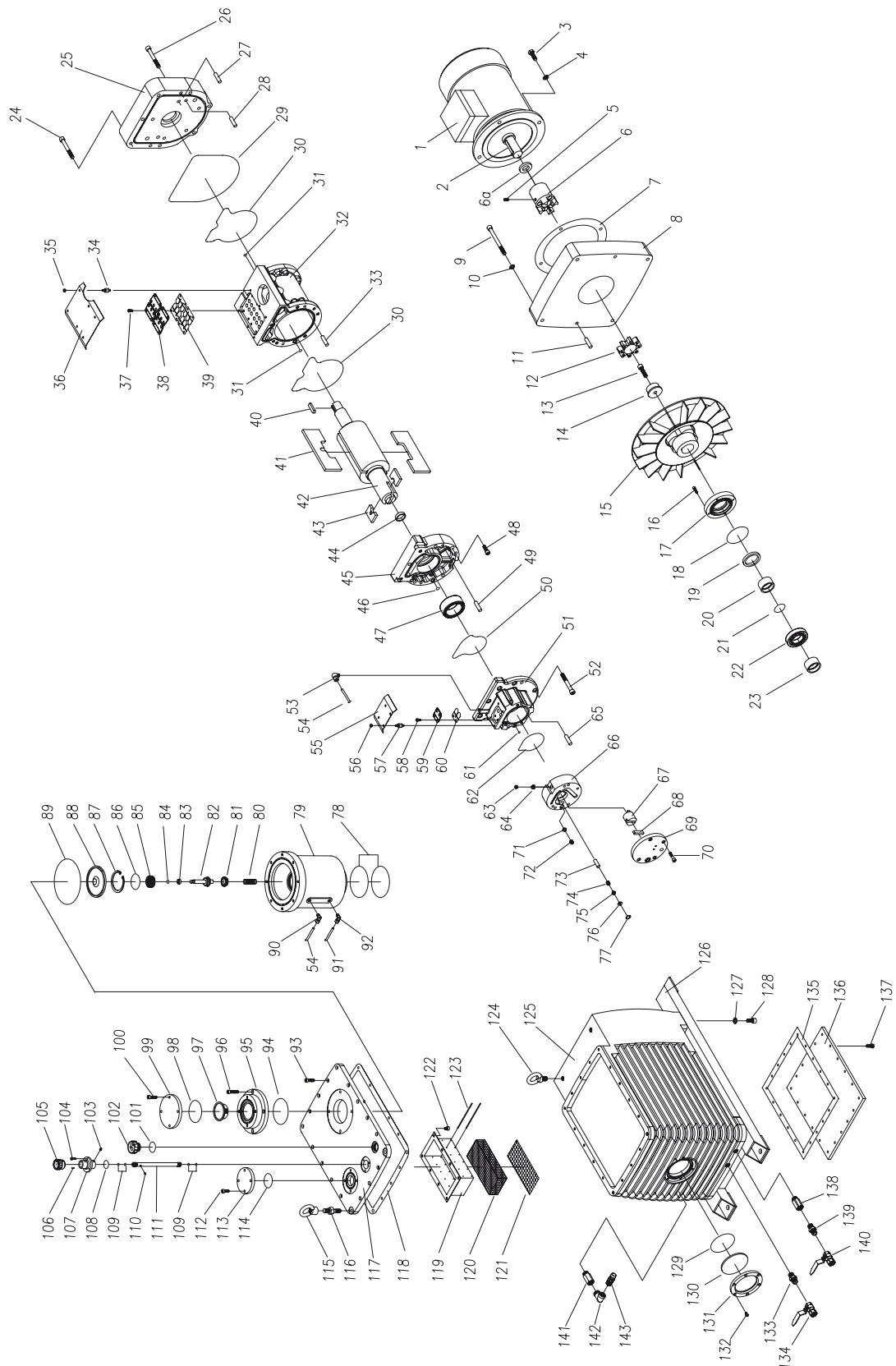
NO	DESCRIPTION	NO. REQUIRED PER UNIT	
		PHV 50K	PHV 75K
32	Exhaust valve bolt	2	
33	Exhaust valve bolt	2	
34	2 nd vane	2	
35	Rotor	1	
			1
36	1 st vane	2	
			2
37	Rotor key	1	
38	Oil seal sleeve O-ring	1	
39	Oil seal sleeve	1	
40	1 st cylinder	1	
			1
41	Cylinder gasket	1	
42	O-ring	1	
43	Oil seal	1	
44	Oil seal cover Gasket	1	
45	Oil seal cover	1	
46	Hex socket head cap screw	3	
47	Pump Coupling	1	
48	Coupling disk	1	
49	Hex socket head cap screw	1	
	Hex bolt		1
50	Alignment pin	2	
51	O-ring	1	
			1
52	Pump housing	1	
			1
53	Gas ballast valve plate	1	
54	Gas ballast valve seat	1	
55	Gas ballast valve spring	1	
56	Gas ballast valve piston	1	
57	Regulator plate	1	
58	Hex socket head cap screw	3	

PHV 50K, PHV 75K

NO	DESCRIPTION	NO. REQUIRED PER UNIT	
		PHV 50K	PHV 75K
59	Gas ballast knob	1	
60	Hex socket head cap screw	1	
61	Hex socket head cap screw	3	
62	Clamp ring	1	
63	Port cap	1	
64	O-ring	1	
65	Dirt trap	1	
66	Flat head cap screw	4	
67	Inlet port	1	
68	Valve plate	1	
69	Stop ring	1	
70	Valve cover	1	
71	O-ring	1	
72	O-ring	1	
73	O-ring	1	
74	Bushing	1	
75	U-Seal	1	
76	Valve piston	1	
77	Spring	1	
78	O-ring	1	
79	Pump base	1	
			1
80	Spring washer	4	
81	Hex socket head cap screw	4	
82	Motor	1	
			1
83	Flange nut	4	
	Hex nut		4
84	Washer	4	
	Spring washer		4
85	Plate key	1	
			1
86	Hex socket head cap screw	4	

[illegible]

PHV 120K, PHV 180K, PHV 270K, PHV 360K, PHV 450K



PHV 120K, PHV 180K, PHV 270K, PHV 360K, PHV 450K

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
1	Motor	1				
			1			
				1		
					1	
						1
2	Motor key	1				
			1			
					1	
3	Hex bolt		4			
					4	
4	Spring washer		4			
					4	
5	Set screw	1				
			1			
					1	
6	Motor coupling	1				
			1			
					1	
6a	Motor coupling washer	1				
7	Motor housing gasket	1				
			1			
					1	
8	Motor housing	1				
			1			
					1	
9	Hex socket head cap screw		4			
					4	
10	Washer		4			
					4	
11	Pin		2			
					2	
12	Coupling element	1				
			1			
					1	

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
13	Hex socket head cap screw	1				
			1			
					1	
14	Coupling disk	1				
			1			
					1	
15	Cooling fan	1				
			1			
					1	
16	Hex socket head cap screw	4				
			4			
					6	
17	Oil seal cover	1				
			1			
					1	
18	O-Ring	1				
			1			
					1	
19	Oil seal	1				
			1			
					1	
20	Oil seal sleeve	1				
			1			
					1	
21	O-Ring	1				
			1			
					1	
22	Bearing	1				
			1			
					1	
23	Sleeve	1				
			1			
					1	
24	Hex socket head cap screw	7				

Technical data and parts lists

ENG

PHV 120K, PHV 180K, PHV 270K, PHV 360K, PHV 450K

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
24	Hex socket head cap screw		7			
					13	
25	Front plate	1				
			1			
26	Hex socket head cap screw	5				
			5			
27	Pin	2				
				2		
28	Pin	2				
				2		
29	O-Ring	1				
			1			
30	O-Ring	2				
			2			
31	O-Ring	2				
				2		
32	1st cylinder	1				
			1			
				1		
					1	
33	Pin	2				
				2		
34	Exhaust valve bolt	3		4		5
35	Hex nut	3		4		5
36	1st exhaust valve cover	1				
			1			
				1		
					1	

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
37	Hex socket head cap screw	4	6	8		12
38	1st exhaust valve catcher	2		4		6
			1			
39	1st exhaust valve plate	2		4		6
			1			
40	Rotor key	1				
			1			
					1	
41	1st vane	2				
			2			
				2		
					2	
						2
42	Rotor	1				
			1			
				1		
					1	
						1
43	2nd vane	2				
			2			
					2	
44	Rotor sleeve	1				
			1			
					1	
45	Intermediate plate	1				
			1			
46	O-Ring	1				
				1		
47	Bearing	1				
			1			
					1	
48	Hex socket head cap screw	2				
			2			

PHV 120K, PHV 180K, PHV 270K, PHV 360K, PHV 450K

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
48	Hex socket head cap screw				3	
49	Pin	2				
				2		
50	O-Ring	1				
			1			
					1	
51	2 nd cylinder	1				
			1			
					1	
52	Hex socket head cap screw	5				
			5			
			2			
					8	
53	Elbow connector		1			
					1	
54	Pipe	1				
			1			
				1		
					1	
						1
55	2 nd exhaust valve cover	1				
			1			
					1	
56	Hex nut	2		4		
57	Exhaust valve bolt	2		4		
58	Hex socket head cap screw			2		
59	2 nd exhaust valve catcher		1			
					1	
60	2 nd exhaust valve plate		1			
					1	
61	O-Ring		1			
					1	
62	O-Ring	1				
			1			

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
62	O-Ring				1	
63	Non-return valve			1		
64	Non-return valve spring			1		
65	Pin		2			
					2	
66	Oil pump housing	1				
			1			
					1	
67	Oil pump	1				
			1			
					1	
68	Oil pump vane	1				
			1			
					1	
69	Rear plate	1				
			1			
					1	
70	Hex socket head cap screw	4				
			4			
					4	
71	Over pressure valve			1		
72	Over pressure valve spring			1		
73	Guide pin		1			
					1	
74	Check valve spring		1			
					1	
75	Check valve		1			
					1	
76	Check valve disk		1			
					1	
77	Stop ring		1			
					1	
78	O-Ring		2			
					2	

Technical data and parts lists

ENG

PHV 120K, PHV 180K, PHV 270K, PHV 360K, PHV 450K

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
79	Inlet valve body	1				
				1		
					1	
80	Inlet valve spring	1				
					1	
81	U-seal			1		
82	Inlet valve piston	1				
					1	
83	Inlet valve bushing			1		
84	O-Ring			1		
85	Inlet valve cover			1		
86	O-ring			1		
87	Stop ring			1		
88	Valve plate	1				
					1	
89	O-Ring	1				
					1	
90	Nipple connector	1				
					1	
91	Pipe	1				
			1			
				1		
					1	
						1
92	Elbow connector	1				
					1	
93	Hex socket head cap screw	12	14	16		
					14	16
94	O-Ring	1				
					1	
95	Inlet port	1				
					1	
96	Hex socket head cap screw	4				
					4	

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
97	Dirt trap	1				
					1	
98	O-Ring	1				
					1	
99	Inlet flange	1				
					1	
100	Hex socket head cap screw	4				8
101	O-Ring			1		
102	Oil Intake plug			1		
103	Set screw			1		
104	Hex socket head cap screw			3		
105	Gas Ballast knob			1		
106	Pin			2		
107	Gas Ballast body			1		
108	O-Ring			1		
109	O-Ring			4		
110	Nozzle Silencer			1		
111	Gas Ballast pipe	1				
			1			
				1		
					1	
112	Hex socket head cap screw	4				8
113	Outlet flange	1				
					1	
114	O-Ring	1				
					1	
115	Eye nut	2				
				2		
116	Hex bolt	2				
				2		
117	Top cover	1				
			1			
				1		
					1	

PHV 120K, PHV 180K, PHV 270K, PHV 360K, PHV 450K

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
117	Top cover					1
118	Top cover gasket	1				
			1			
				1		
					1	
119	Screen fixed box	1				
			1			
				1		
					1	
120	Screen (0.35x14 Mesh)			1		
121	Screen	1				
			1			
				1		
					1	
122	Hex socket head cap screw	6		8		10
123	Pin	8				
			10	12		
					12	
124	Eye bolt	2				
				2		
125	Oil casing	1				
			1			
				1		
					1	
126	Pump base	1				
			1			
				1		
					1	

NO	DESCRIPTION	NO. REQUIRED PER UNIT				
		PHV 120K	PHV 180K	PHV 270K	PHV 360K	PHV 450K
127	Spring washer		4			
					4	
128	Hex socket head cap screw		4			
					4	
129	O-Ring		1			
130	Sight glass		1			
131	Sight glass bezel		1			
132	Hex socket head cap screw		6			
133	Nipple(Union PT)		1			
					1	
134	Ball valve(Oil drain)		1			
					1	
135	Cooling water cover gasket			1		
					1	
						1
136	Cooling water cover			1		
					1	
						1
137	Hex socket head cap screw			20	18	22
138	Reducer				1	
139	Nipple				1	
140	Ball valve				1	
141	Reducer			2		
					2	
142	Service elbow			2		
					2	
143	Hose nipple			2		
					2	

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