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Pump allocation according to pressure

P	←	U	KW	TYP	Page	R+M Nr.	Brand	P	←	U	KW	TYP	Page	R+M Nr.	Brand
90	8	2,800	1.5	WW90	42	000 900 01	Interpump	170	14	1,450	4.5	EL1714	42	017 140 01	Interpump
90	8	2,800	1.5	WW90	42	000 900 04 "B"	Interpump	170	17	2,800	5.5	WW176	42	001 760 01	Interpump
100	11	1,450	2.2	W98	42	000 980 01	Interpump	170	35	1,450	11.2	XLT 3517IR	57	174 035 170	Hawk
100	13	1,450	2.5	W99	42	000 990 01	Interpump	170	46	1,750	14.7	HT6646	43	066 460 01 "HT"	Interpump
100	21	1,450	4	WS102	42	001 020 01	Interpump	172	38	1,450	12.5	TW 10025S	55	172 100 250	Comet
100	30	1,450	5.5	WS104	42	001 040 01	Interpump	172	42.5	1,450	13.7	TW 11025S	55	172 110 250	Comet
120	13	1,450	2.9	WS133	42	001 330 01	Interpump	173	13	1,420	4.7	5CP2140W	56	132 140	CAT
120	13	1,450	2.9	WS133LX	42	001 330 11	Interpump	175	8.6	1,420	3.1	5CP2110W	56	132 110	CAT
120	14	1,450	3	W124LX	42	001 240 02	Interpump	175	15	1,420	5.5	5CP2150	56	132 150	CAT
120	18.7	1,450	4	WS132	42	001 320 01	Interpump	175	15	950	5.5	5CP2120W	56	132 120	CAT
120	48	1,450	10.9	GC 50/125	45	171 048 120	Udor	180	13	2,800	4	WW186	43	001 860 03 "V"	Interpump
120	48	1,450	10.9	GC 50/125LX	45	171 048 121	Udor	180	13	2,800	4	WW186	43	001 860 05 "BV"	Interpump
130	9.5	1,450	2.2	W130	42	001 300 01	Interpump	200	15	1,000	5.5	W201	42	002 010 02	Interpump
130	41	1,450	11	WS135	42	001 350 01	Interpump	200	15	1,450	5.5	WS201	42	002 010 01	Interpump
140	11	1,450	3	EL1411	43	014 110 03 "V"	Interpump	200	15	1,450	5.5	WS201LX	42	002 010 11	Interpump
140	11	1,450	3	XT11.14N	54	170 701 4	Annovi	200	15	2,800	5.5	WW209	43	002 090 03 "V"	Interpump
140	11.5	2,800	3	WW141	42	001 410 01	Interpump	200	15	2,800	5.5	WW209	43	002 090 05 "BV"	Interpump
140	12	1,450	3	W140	42	001 400 01	Interpump	200	15	1,450	5.5	RK15.20HN	54	170 206 38	Annovi
140	12	1,450	3	W140	42	001 400 04 "B"	Interpump	200	15	1,450	5.7	NMT 1520R	57	174 015 200	Hawk
140	21	1,450	7.5	HT4721	43	047 210 01 "HT"	Interpump	200	18	1,450	7.5	RK18.20HN	54	170 206 43	Annovi
140	42	1,450	11.1	GC 42/14S	45	171 042 140	Udor	200	21	1,450	7.5	WS202	42	002 020 01	Interpump
150	7	1,450	2.2	W1507	43	015 070 05 "BV"	Interpump	200	21	1,450	7.9	GC21/20S	45	171 021 200	Udor
150	7.5	1,420	2.3	3CP1130	56	131 130	CAT	200	21	1,450	7.9	NMT 2120R	57	174 021 200	Hawk
150	8	1,450	2.2	W150	42	001 500 01	Interpump	200	26	1,450	9.2	XW26.20N	54	170 200 59	Annovi
150	10	1,420	3	300	56	133 00	CAT	200	26	1,450	9.8	GC26/20S	45	171 026 200	Udor
150	11	1,420	3	3CP1140	56	131 140	CAT	200	30	1,450	11	W2030	42	020 300 01	Interpump
150	13	1,420	4.1	340	56	133 40	CAT	200	30	1,450	10	XW30.20N	54	170 200 60	Annovi
150	13	1,420	4.1	340F	56	133 401	CAT	200	30	1,450	11.3	GC 30/20S	45	171 030 200	Udor
150	14	1,450	4	W154	42	001 540 01	Interpump	200	35	1,450	13.5	W2035	42	020 350 01	Interpump
150	14	1,450	4	W154	43	001 540 05 "BV"	Interpump	200	39	1,750	14.7	HT6639	43	066 390 01 "HT"	Interpump
150	15	1,000	4	W151	42	001 510 02	Interpump	200	41	1,450	16	W2141	42	021 410 01	Interpump
150	15	1,450	4	WS151	42	001 510 01	Interpump	200	15	2,800	5.5	WW209	42	002 090 01	Interpump
150	15	1,450	4	WS151LX	42	001 510 11	Interpump	207	15	1,450	5.5	FW 4030 S	55	172 040 300	Comet
150	15	2,800	4	WW156	42	001 560 01	Interpump	207	18.8	1,450	6.4	FW 5030 S	55	172 050 300	Comet
150	15	2,800	4	WW156	43	001 560 03 "V"	Interpump	207	21	1,450	7.1	FW 5530 S	55	172 055 300	Comet
150	15	1,420	4.4	350	56	133 50	CAT	210	15	1,450	6.1	TTL 1520	57	177 015 200	Bertolini
150	15	1,450	4	XM15.15N	54	170 790 6	Annovi	210	19	1,420	8.3	5CP5120	56	135 120	CAT
150	15	950	4.4	310	56	133 10	CAT	210	21	1,450	8.6	TTL 2120	57	177 021 200	Bertolini
150	18	1,100	6.9	530	56	135 30	CAT	240	30	1,450	14.2	XLT 3025IR	57	174 030 240	Hawk
150	21	1,450	5.5	WS152	42	001 520 01	Interpump	248	27	1,450	16.5	TW 7036S	55	172 070 360	Comet
150	30	1,450	7.4	WS153	42	001 530 01	Interpump	250	25	1,450	13.5	W2525	42	025 250 01	Interpump
150	30	1,450	7.5	XW30.15N	54	170 201 79	Annovi	250	30	1,450	14	XW30.25N	54	170 211 37	Annovi
150	42	1,450	11.8	XWL42.15N	54	170 210 60	Annovi	275	15	1,450	8.2	RK15.28HN	54	170 206 40	Annovi
150	50	1,750	14.7	W1550	42	015 500 01	Interpump	276	19	1,450	10	RW 5040S	55	172 050 400	Comet
160	14	2,800	5.5	WW161	42	001 610 01	Interpump	300	13	1,450	7.6	TTL 1330	57	177 013 300	Bertolini
160	15	1,450	4.5	HT4715	43	047 150 01 "HT"	Interpump	300	20	1,450	11.5	TTL 2030	57	177 020 300	Bertolini
160	18	1,450	5.5	WS162	42	001 620 01	Interpump	300	24	1,450	14.1	XLT 2530IR	57	174 024 300	Hawk
160	18	1,450	5.5	HT4718	43	047 180 01 "HT"	Interpump	345	18	1,450	15.5	TW 4550S	55	172 045 500	Comet
160	30	1,450	9.2	WS1630	42	016 300 01	Interpump	400	18	1,450	14.7	W4018	42	040 180 01	Interpump
170	13	1,450	5.5	WS171LX	42	001 710 11	Interpump	500	15	1,450	14.7	W5015	42	050 150 01	Interpump

LX= shaft on the left

Symbols P pressure ← flow U revolutions KW kilowatt TYP type

Pump allocation according to flow rate

☰	P	U	KW	TYP	Page	R+M Nr.	Brand
7	150	1,450	2.2	W1507	43	015 070 05 "BV"	Interpump
7.5	150	1,420	2.3	3CP1130	56	131 130	CAT
8	90	2,800	1.5	WW90	42	000 900 01	Interpump
8	90	2,800	1.5	WW90	42	000 900 04 "B"	Interpump
8	150	1,450	2.2	W150	42	001 500 01	Interpump
8.6	175	1,420	3.1	5CP2110W	56	132 110	CAT
9.5	130	1,450	2.2	W130	42	001 300 01	Interpump
10	150	1,420	3	300	56	133 00	CAT
11	100	1,450	2.2	W98	42	000 980 01	Interpump
11	140	1,450	3	EL1411	43	014 110 03 "V"	Interpump
11	140	1,450	3	XT11.14N	54	170 701 4	Annovi
11	150	1,420	3	3CP1140	56	131 140	CAT
11.5	140	2,800	3	WW141	42	001 410 01	Interpump
12	140	1,450	3	W140	42	001 400 01	Interpump
12	140	1,450	3	W140	42	001 400 04 "B"	Interpump
13	100	1,450	2.5	W99	42	000 990 01	Interpump
13	120	1,450	2.9	WS133LX	42	001 330 01	Interpump
13	120	1,450	2.9	WS133LX	42	001 330 11	Interpump
13	150	1,420	4.1	340	56	133 40	CAT
13	150	1,420	4.1	340F	56	133 401	CAT
13	170	1,450	5.5	WS171LX	42	001 710 11	Interpump
13	173	1,420	4.7	5CP2140W	56	132 140	CAT
13	180	2,800	4	WW186	43	001 860 03 "V"	Interpump
13	180	2,800	4	WW186	43	001 860 05 "BV"	Interpump
13	300	1,450	7.6	TTL 1330	57	177 013 300	Bertolini
14	120	1,450	3	W124LX	42	001 240 02	Interpump
14	150	1,450	4	W154	42	001 540 01	Interpump
14	150	1,450	4	W154	43	001 540 05 "BV"	Interpump
14	160	2,800	5.5	WW161	42	001 610 01	Interpump
14	170	1,450	4.5	EL1714	42	017 140 01	Interpump
15	150	1,000	4	W151	42	001 510 02	Interpump
15	150	1,450	4	WS151	42	001 510 01	Interpump
15	150	1,450	4	WS151LX	42	001 510 11	Interpump
15	150	2,800	4	WW156	42	001 560 01	Interpump
15	150	2,800	4	WW156	43	001 560 03 "V"	Interpump
15	150	1,420	4.4	350	56	133 50	CAT
15	150	1,450	4	XM15.15N	54	170 790 6	Annovi
15	150	950	4.4	310	56	133 10	CAT
15	160	1,450	4.5	HT4715	43	047 150 01 "HT"	Interpump
15	175	1,420	5.5	5CP2150	56	132 150	CAT
15	175	950	5.5	5CP2120W	56	132 120	CAT
15	200	1,000	5.5	W201	42	002 010 02	Interpump
15	200	1,450	5.5	WS201	42	002 010 01	Interpump
15	200	1,450	5.5	WS201LX	42	002 010 11	Interpump
15	200	2,800	5.5	WW209	43	002 090 03 "V"	Interpump
15	200	2,800	5.5	WW209	43	002 090 05 "BV"	Interpump
15	200	1,450	5.5	RK15.20HN	54	170 206 38	Annovi
15	200	1,450	5.7	NMT 1520R	57	174 015 200	Hawk
15	207	1,450	5.5	FW 4030 S	55	172 040 300	Comet
15	200	2,800	5.5	WW209	42	002 090 01	Interpump

☰	P	U	KW	TYP	Page	R+M Nr.	Brand
15	210	1,450	6.1	TTL 1520	57	177 015 200	Bertolini
15	275	1,450	8.2	RK15.28HN	54	170 206 40	Annovi
15	500	1,450	14.7	W5015	42	050 150 01	Interpump
17	170	2,800	5.5	WW176	42	001 760 01	Interpump
18	150	1,100	6.9	530	56	135 30	CAT
18	160	1,450	5.5	WS162	42	001 620 01	Interpump
18	160	1,450	5.5	HT4718	43	047 180 01 "HT"	Interpump
18	200	1,450	7.5	RK18.20HN	54	170 206 43	Annovi
18	345	1,450	15.5	TW 4550S	55	172 045 500	Comet
18	400	1,450	14.7	W4018	42	040 180 01	Interpump
18.7	120	1,450	4	WS132	42	001 320 01	Interpump
18.8	207	1,450	6.4	FW 5030 S	55	172 050 300	Comet
19	210	1,420	8.3	5CP5120	56	135 120	CAT
19	276	1,450	10	RW 5040S	55	172 050 400	Comet
20	300	1,450	11.5	TTL 2030	57	177 020 300	Bertolini
21	100	1,450	4	WS102	42	001 020 01	Interpump
21	140	1,450	7.5	HT4721	43	047 210 01 "HT"	Interpump
21	150	1,450	5.5	WS152	42	001 520 01	Interpump
21	200	1,450	7.5	WS202	42	002 020 01	Interpump
21	200	1,450	7.9	GC21/20S	45	171 021 200	Udor
21	200	1,450	7.9	NMT 2120R	57	174 021 200	Hawk
21	207	1,450	7.1	FW 5530 S	55	172 055 300	Comet
21	210	1,450	8.6	TTL 2120	57	177 021 200	Bertolini
24	300	1,450	14.1	XLT 2530IR	57	174 024 300	Hawk
25	250	1,450	13.5	W2525	42	025 250 01	Interpump
26	200	1,450	9.2	XW26.20N	54	170 200 59	Annovi
26	200	1,450	9.8	GC26/20S	45	171 026 200	Udor
27	248	1,450	16.5	TW 7036S	55	172 070 360	Comet
30	100	1,450	5.5	WS104	42	001 040 01	Interpump
30	150	1,450	7.4	WS153	42	001 530 01	Interpump
30	150	1,450	7.5	XW30.15N	54	170 201 79	Annovi
30	160	1,450	9.2	WS1630	42	016 300 01	Interpump
30	200	1,450	11	W2030	42	020 300 01	Interpump
30	200	1,450	10	XW30.20N	54	170 200 60	Annovi
30	200	1,450	11.3	GC 30/20S	45	171 030 200	Udor
30	240	1,450	14.2	XLT 3025IR	57	174 030 240	Hawk
30	250	1,450	14	XW30.25N	54	170 211 37	Annovi
35	170	1,450	11.2	XLT 3517IR	57	174 035 170	Hawk
35	200	1,450	13.5	W2035	42	020 350 01	Interpump
38	172	1,450	12.5	TW 10025S	55	172 100 250	Comet
39	200	1,750	14.7	HT6639	43	066 390 01 "HT"	Interpump
41	130	1,450	11	WS135	42	001 350 01	Interpump
41	200	1,450	16	W2141	42	021 410 01	Interpump
42	140	1,450	11.1	GC 42/14S	45	171 042 140	Udor
42	150	1,450	11.8	XWL42.15N	54	170 210 60	Annovi
42.5	172	1,450	13.7	TW 11025S	55	172 110 250	Comet
46	170	1,750	14.7	HT6646	43	066 460 01 "HT"	Interpump
48	120	1,450	10.9	GC 50/12S	45	171 048 120	Udor
48	120	1,450	10.9	GC 50/12S *	45	171 048 121	Udor
50	150	1,750	14.7	W1550	42	015 500 01	Interpump

Pump/motor assignment



Pump	TYP	coupling	flange	solid shaft	KW
Annovi Reverberi					
170 701 4	XT11.14N	100 004 41	100 004 40	175 002 004	2.2
170 790 6	XM15.15N	100 151 11	100 015 10	175 002 001	4.0
170 206 38	RH15.20HN	100 151 11	100 015 10	175 002 002	5.5
170 206 45	RK21.15HN	100 151 11	100 015 10	175 002 002	5.5
170 201 79	XW30.15N	100 013 21	100 013 20	175 002 091	7.5
170 206 43	RK18.20HN	100 013 21	100 013 20	175 002 091	7.5
Bertolini					
177 015 200	TTL 1520	100 151 11	100 015 10	175 002 002	5.5
177 013 300	TTL 1330	100 013 21	100 013 20	175 002 091	7.5
Comet					
172 040 300	FW 4030 S	100 151 11	100 015 10	175 002 002	5.5
172 050 300	FW 5030 S	100 013 21	100 013 20	175 002 091	7.5
172 055 300	FW 5530 S	100 013 21	100 013 20	175 002 091	7.5
Hawk					
174 015 200	NMT 1520R	100 151 11	100 015 10	175 002 002	5.5
174 021 200	NMT 2120R	100 013 21	100 013 20	175 002 091	7.5
Interpump					
000 980 01	W98	100 019 11	100 009 10	175 002 004	2.2
000 990 01	W99	100 019 11	100 009 10	175 002 004	2.2
001 300 01	W130	100 004 41	100 004 40	175 002 004	2.2
001 500 01	W150	100 004 41	100 004 40	175 002 004	2.2
001 330 01	WS133	100 151 11	100 015 10	175 002 001	4.0
001 330 11	WS133LX	100 151 11	100 015 10	175 002 001	4.0
001 240 02	W124LX	100 004 41	100 004 40	175 002 001	4.0
001 320 01	WS132	100 151 11	100 015 10	175 002 001	4.0
001 020 01	WS102	100 151 11	100 015 10	175 002 001	4.0
001 400 01	W140	100 004 41	100 004 40	175 002 001	4.0
001 540 01	W154	100 004 41	100 004 40	175 002 001	4.0
001 510 01	WS151	100 151 11	100 015 10	175 002 001	4.0
001 510 11	WS151LX	100 151 11	100 015 10	175 002 001	4.0
017 140 01	EL1714	100 004 41	100 004 40	175 002 001	4.0
047 150 01	HT4715	100 151 11	100 015 10	175 002 001	4.0
001 520 01	WS152	100 151 11	100 015 10	175 002 002	5.5
001 620 01	WS162	100 151 11	100 015 10	175 002 002	5.5
001 710 11	WS171LX	100 151 11	100 015 10	175 002 002	5.5
002 010 01	WS201	100 151 11	100 015 10	175 002 002	5.5
002 010 11	WS201LX	100 151 11	100 015 10	175 002 002	5.5
047 180 01	HT4718	100 151 11	100 015 10	175 002 002	5.5
002 020 01	WS202	100 013 21	100 013 20	175 002 091	7.5
047 210 01	HT4721	100 013 21	100 013 20	175 002 091	7.5



CAT					
131 130	3CP1130	133 073 6	137 017 24	175 002 004	2.2
133 00	300	133 072 1	133 071 5	175 002 016	4.0
133 40	340	133 072 1	133 071 5	175 002 001	4.0
133 50	350	133 072 1	133 071 5	175 002 001	4.0
133 401	340F	133 072 1	133 071 5	175 002 001	4.0
131 140	3CP1140	133 073 6	137 017 24	175 002 016	4.0
132 110	5CP2110W	133 072 1	137 017 30	175 002 001	4.0
132 140	5CP2140W	133 072 1	137 017 30	175 002 002	5.5
132 150	5CP2150	133 072 1	137 017 30	175 002 002	5.5

Pump	TYP	flange	hollow shaft	KW
Annovi Reverberi				
170 701 4	XT11.14N	175 300 306 1	175 001 061	3.0
170 790 6	XM15.15N	-	175 001 081	4.0
170 206 38	RK15.20HN	-	175 001 090	5.5
170 201 79	XW30.15N	-	175 001 120	7.5
170 206 43	RK18.20HN	-	175 001 120	7.5
Comet				
172 040 300	FW 4030 S	-	175 001 090	5.5
Hawk				
174 015 200	NMT 1520R	-	175 001 090	5.5
Interpump				
001 330 01	WS133	-	175 001 061	3.0
001 330 11	WS133LX	-	175 001 061	3.0
001 240 02	W124LX	175 300 306 1	175 001 061	3.0
001 400 01	W140	175 300 306 1	175 001 061	3.0
001 020 01	WS102	-	175 001 081	4.0
001 320 01	WS132	-	175 001 081	4.0
001 540 01	W154	175 300 307 4	175 001 081	4.0
001 510 01	WS151	-	175 001 081	4.0
001 510 11	WS151LX	-	175 001 081	4.0
047 150 01	HT4715	-	175 001 081	4.0
001 620 01	WS162	-	175 001 090	5.5
047 180 01	HT4718	-	175 001 090	5.5
001 710 11	WS171LX	-	175 001 090	5.5
002 010 01	WS201	-	175 001 090	5.5
002 010 11	WS210LX	-	175 001 090	5.5
047 210 01	HT4721	-	175 001 120	7.5
002 020 01	WS202	-	175 001 120	7.5

INTERPUMP high pressure pumps

Standard



Repair kits

01



Valves 6 pieces

02



Seal kit for 1 piston

03



Sleeve kits for 3 pistons

04



Oil seal kits for 3 pistons

Version "B"



05



Ceramic socket for 1 piston

06



Tension screws for 3 pistons

07



Valve plugs

08



O-ring for valve plugs 1 piece

Standard						"B"	01	02	03	04	05	06	07	08	
[P]	[←]	[U]	[KW]	[TYP]	Serie	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	
90	8	2,800	1.5	WW90	51	000 900 01	000 900 04	340 001 01	340 096 01	340 097 01	340 083 01	510 400 09		340 084 01*	903 847 00
100	11	1,450	2.2	W98	50	000 980 01		340 001 01	340 027 01	340 019 01	340 023 01	500 404 09	340 006 01	340 004 01*	903 847 00
100	13	1,450	2.5	W99	50	000 990 01		340 001 01	340 027 01	340 019 01	340 023 01	500 404 09	340 006 01	340 004 01*	903 847 00
100	21	1,450	4	WS102	47	001 020 01		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 004 01*	903 847 00
100	30	1,450	5.51	WS104	69	001 040 01		340 062 01	340 082 01	340 069 01	340 037 01	470 404 09	340 054 01	982 312 00	904 051 00
120	13	1,450	2.9	WS133	47	001 330 01		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 004 01*	903 847 00
120	13	1,450	2.9	WS133LX	47	001 330 11		340 001 01	340 028 01	340 069 01	340 010 01	470 404 09	340 006 01	340 004 01*	903 847 00
120	14	1,450	3	W124LX	44	001 240 02		340 123 01	340 131 01	340 127 01	340 023 01	440 401 09		340 124 01*	903 847 00
120	18.7	1,450	4.04	WS132	47	001 320 01		340 001 01	340 029 01	340 148 01	340 002 01	470 405 09	340 006 01	340 004 01*	903 847 00
130	9.5	1,450	2.2	W130	44	001 300 01		340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01*	903 847 00
130	41	1,450	11	WS135	48	001 350 01		340 001 01	340 028 01	340 069 01	340 024 01	470 404 09	340 006 01	340 004 01*	903 847 00
140	11.5	2,800	3	WW141	50	001 410 01		340 001 01	340 092 01	340 088 01	340 023 01	520 400 09		340 004 01*	903 847 00
140	12	1,450	3	W140	44	001 400 01		340 123 01	340 131 01	340 127 01	340 023 01	440 401 09		340 124 01*	903 847 00
150	8	1,450	2.2	W150	44	001 500 01		340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01*	903 847 00
150	14	1,450	4	W154	44	001 540 01		340 123 01	340 131 01	340 127 01	340 023 01	440 401 09		340 124 01*	903 847 00
150	15	1,000	4	W151	47	001 510 02		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 004 01*	903 847 00
150	15	1,450	4	WS151	47	001 510 01		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 004 01*	903 847 00
150	15	2,800	4	WW156	44	001 560 01		340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01*	903 847 00
150	15	1,450	4	WS151LX	47	001 510 11		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 004 01*	903 847 00
150	21	1,450	5.5	WS152	47	001 520 01		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 005 01*	903 847 00
150	30	1,450	7.35	WS153	69	001 530 01		340 062 01	340 082 01	340 069 01	340 037 01	470 404 09	340 054 01	982 312 00	904 051 00
150	50	1,750	14.7	W1550	66	015 500 01		340 169 01	340 247 01	340 248 01	340 002 01	660 410 09		661 300 41	903 857 00**
160	14	2,800	5.5	WW161	50	001 610 01		340 001 01	340 092 01	340 088 01	340 091 01	520 400 09		340 004 01*	903 847 00
160	18	1,450	5.5	WS162	47	001 620 01		340 001 01	340 029 01	340 148 01	340 002 01	470 405 09	340 006 01	340 005 01*	903 847 00
160	30	1,450	9.2	WS1630	47	016 300 01		340 169 01	340 029 01	340 148 01	340 002 01	470 405 09	340 006 01	982 300 00	903 864 00
170	13	1,450	5.5	WS171LX	47	001 710 11		340 001 01	340 028 01	340 069 01	340 010 01	470 404 09	340 006 01	340 004 01*	903 847 00
170	14	1,450	4.5	EL1714	63	017 140 01		340 123 01	340 167 01	340 161 01	340 159 01	440 401 09		340 124 01*	903 847 00
170	17	2,800	5.5	WW176	44	001 760 01		340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01*	903 847 00
200	15	1,000	5.5	W201	47	002 010 02		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 005 01*	903 847 00
200	15	1,450	5.5	WS201	47	002 010 01		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 005 01*	903 847 00
200	15	1,450	5.5	WS201LX	47	002 010 11		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 005 01*	903 847 00
200	21	1,450	7.5	WS202	47	002 020 01		340 001 01	340 028 01	340 069 01	340 002 01	470 404 09	340 006 01	340 005 01*	903 847 00
200	30	1,450	11	W2030	66	020 300 01		340 169 01	340 173 01	340 172 01	340 002 01	660 401 09		661 300 41	903 857 00**
200	35	1,450	13.5	W2035	66	020 350 01		340 169 01	340 173 01	340 172 01	340 002 01	660 401 09		661 300 41	903 857 00**
200	41	1,450	16	W2141	66	021 410 01		340 169 01	340 182 01	340 181 01	340 002 01	660 404 09		661 300 41	903 857 00**
200	15	2,800	5.5	WW209	44	002 090 01		340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01*	903 847 00
250	25	1,450	13.5	W2525	66	025 250 01		340 169 01	340 171 01	340 170 01	340 002 01	660 400 09		661 300 41	903 857 00**
400	18	1,450	14.7	W4018	66	040 180 01		340 150 01	340 175 01	340 174 01	340 002 01	660 402 09		661 301 41	903 857 00**
500	15	1,450	14.7	W5015	66	050 150 01		340 150 01	340 175 01	340 174 01	340 002 01	660 402 09		661 301 41	903 857 00**

* Kit with 6 valve plugs LX = shaft on the left

** back ring 905 165 00 required

Symbols [P] pressure [←] flow [U] revolutions [KW] kilowatt [TYP] type

INTERPUMP high pressure pumps with built-in valve

Version "V"



Version "BV"



Repair kits

01	02	03	04
Valves 6 pieces	Seal kit for 1 piston	Sleeve kits for 3 pistons	Oil seal kits for 3 pistons
05	06	07	08
Ceramic socket for 1 piston	Valve plugs. Kit with 6 plugs	O-ring for valve plugs 1 piece	

	"V"	"BV"	01	02	03	04	05	06	07	08
	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.
[P] [U] [KW] [TYP] Serie	014 110 03 ■		340 123 01	340 167 01	340 161 01	340 159 01	440 401 09		340 124 01	903 847 00
140 11 1,450 3 EL1411 63		015 070 05 ■	340 123 01	340 096 01	340 097 01	340 083 01	510 400 09		340 157 01	903 847 00
150 7 1,450 2.2 W1507 51		001 540 05 ■	340 123 01	340 131 01	340 127 01	340 023 01	440 401 09		340 124 01	903 847 00
150 14 1,450 4 W154 44	001 560 03 ■		340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01	903 847 00
150 15 2,800 4 WW156 44	001 860 03 ■	001 860 05 ■	340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01	903 847 00
180 13 2,800 4 WW186 44	002 090 03 ■	002 090 05 ■	340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01	903 847 00
200 15 2,800 5.5 WW209 44										

- Type "H" is equipped with an automatic pressure regulator that allows to zero the pump pressure.
- Type "K" is equipped with an automatic pressure regulator that allows to zero the pressure in the entire system (pump and hose).

INTERPUMP special high pressure pumps

Version "HT"



Series "HT". Made out of high quality components and materials. Especially designed for car wash and industrial applications of up to 85 °C

Repair kits

01	02	03	04
Valves 6 pieces	Seal kit for 1 piston	Sleeve kits for 3 pistons	Oil seal kits for 3 pistons
05	06	07	08
Ceramic socket for 1 piston	Tension screws for 3 pistons	Valve plugs	O-ring for valve plugs 1 piece

	"HT"	01	02	03	04	05	06	07	08
	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.
[P] [U] [KW] [TYP] Serie	047 210 01	340 201 01	340 203 01	340 202 01	340 002 01	470 405 09	340 006 01	340 005 01*	903 847 00
140 21 1,450 7.5 HT4721 47.HT	047 150 01	340 201 01	340 203 01	340 202 01	340 002 01	470 405 09	340 006 01	340 005 01*	903 847 00
160 15 1,450 4.5 HT4715 47.HT	047 180 01	340 201 01	340 203 01	340 202 01	340 002 01	470 405 09	340 006 01	340 005 01*	903 847 00
160 18 1,450 5.5 HT4718 47.HT	066 460 01	340 169 01	340 211 01	340 210 01	340 002 01	660 404 09		661 303 41	903 857 00
170 46 1,750 14.7 HT6646 66.HT	066 390 01	340 169 01	340 209 01	340 208 01	340 002 01	660 401 09		661 303 41	903 857 00
200 39 1,750 14.7 HT6639 66.HT									

* Kit with 6 valve plugs

The photos showing the pumps and repair kits are only for your information. The products might differ from the photos regarding their dimension and design.

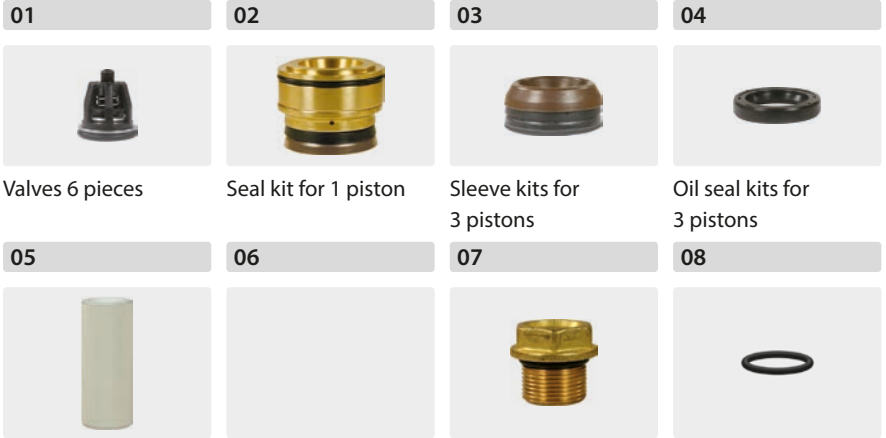
INTERPUMP motor pumps

Standard



Motor pump with switch and cable.
Dimensions: 455 x 320 x 258 mm.

Repair kits



01 Valves 6 pieces

02 Seal kit for 1 piston

03 Sleeve kits for 3 pistons

04 Oil seal kits for 3 pistons

05 Ceramic socket for 1 piston

06 Valve plugs. Kit with 6 plugs

07 O-ring for valve plugs 1 piece

Standard	Total stop	01	02	03	04	05	06	07	08
R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.
001 200 01	001 200 03	340 123 01	340 131 01	340 127 01	340 023 01	440 401 09		340 124 01	903 847 00

P	←	U	KW	TYP	V
120	14	1,450	3.8	M14-120	400

R+M Nr.
001 200 01

R+M Nr.
001 200 03

R+M Nr.
340 123 01

R+M Nr.
340 131 01

R+M Nr.
340 127 01

R+M Nr.
340 023 01

R+M Nr.
440 401 09

R+M Nr.

R+M Nr.
340 124 01

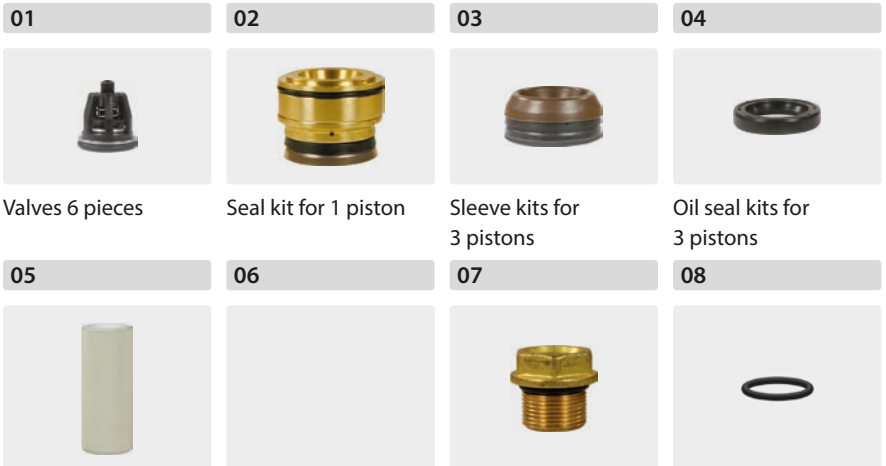
R+M Nr.
903 847 00

INTERPUMP high pressure pumps for petrol engines

Version "C"



Repair kits



01 Valves 6 pieces

02 Seal kit for 1 piston

03 Sleeve kits for 3 pistons

04 Oil seal kits for 3 pistons

05 Ceramic socket for 1 piston

06 Valve plugs. Kit with 6 plugs

07 O-ring for valve plugs 1 piece

"C"	"CV"	01	02	03	04	05	06	07	08
R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.
009 610 06	015 130 07	340 123 01	340 096 01	340 097 01	340 083 01	510 400 09		340 157 01	903 847 00
009 620 06	009 610 07	340 123 01	340 130 01	340 088 01	340 023 01	520 400 09		340 124 01	903 847 00
		340 123 01	340 130 01	340 088 01	340 125 01	520 400 09		340 124 01	903 847 00
	020 160 17	340 123 01	340 166 01	340 160 01	340 159 01	520 400 09		340 124 01	903 847 00

Version "CV"



P	←	U	KW	TYP	Serie
150	13	3,400	3.67	TT1513C	51
170	15	3,400	4.77	WW961C	44
170	17.4	3,400	5.51	WW962C	44
200	16	3,400	6.1	UH2016	63

R+M Nr.
009 610 06
009 620 06

R+M Nr.
015 130 07
009 610 07
020 160 17

R+M Nr.
340 123 01
340 123 01
340 123 01
340 123 01

R+M Nr.
340 096 01
340 130 01
340 130 01
340 166 01

R+M Nr.
340 097 01
340 088 01
340 088 01
340 160 01

R+M Nr.
340 083 01
340 023 01
340 125 01
340 159 01

R+M Nr.
510 400 09
520 400 09
520 400 09
520 400 09

R+M Nr.

R+M Nr.
340 157 01
340 124 01
340 124 01
340 124 01

R+M Nr.
903 847 00
903 847 00
903 847 00
903 847 00

Valves

- Type "H" is equipped with an automatic pressure regulator that allows to zero the pump pressure.
- Type "K" is equipped with an automatic pressure regulator that allows to zero the pressure in the entire system (pump and hose).

Shaft

- 3/4" ■ 1"

Symbols **P** pressure **←** flow **U** revolutions **KW** kilowatt **TYP** type **V** voltage

INTERPUMP repair kits

Valves



6 pieces

R+M Nr.	TYP
340 001 01	Kit 1
340 043 01	Kit 43
340 062 01	Kit 62
340 123 01	Kit 123
340 169 01	Kit 169

Valve plugs



6 pieces

R+M Nr.	TYP	⊙
340 004 01	Kit 4	M24x2x16
340 005 01	Kit 5	M24x2x16 (NK)

Oil seal kits



For 3 pistons

R+M Nr.	TYP	⊙	⊙	⊏
340 002 01	Kit 2	22	32	5.5
340 023 01	Kit 23	20	30	5.0
340 024 01	Kit 24	22	35	8.0
340 037 01	Kit 37	32	42	7.0
340 083 01	Kit 83	15	24	5.0
340 159 01	Kit 159	18	26	6.0

Hot water kit



For 3 pistons with valves.
Suitable for hot water. For pumps series 47. Max. 85 °C

R+M Nr.	TYP	⊙
340 220 01	Kit 220	20 mm

Valves



6 pieces. For hot water. Max. 85 °C

R+M Nr.	TYP
340 201 01	Kit 201

Special oil



R+M Nr.	VPE
150 000 1	1 x 1l
150 000 2	24 x 1l

Seal kits



For 1 piston

R+M Nr.	TYP	⊙
340 027 01	Kit 27	20 mm
340 028 01	Kit 28	20 mm
340 029 01	Kit 29	22 mm
340 080 01	Kit 80	45 mm
340 082 01	Kit 82	20 mm
340 092 01	Kit 92	15 mm
340 096 01	Kit 96	15 mm
340 130 01	Kit 130	15 mm
340 131 01	Kit 131	18 mm
340 167 01	Kit 167	18 mm
340 203 01	Kit 203	22 mm
340 205 01	Kit 205	18 mm

Sleeve kits



For 3 pistons

R+M Nr.	TYP	⊙
340 019 01	Kit 19	20 mm
340 069 01	Kit 69	20 mm
340 088 01	Kit 88	15 mm
340 097 01	Kit 97	15 mm
340 127 01	Kit 127	18 mm
340 141 01	Kit 141	18 mm
340 148 01	Kit 148	22 mm
340 160 01	Kit 160	15 mm
340 161 01	Kit 161	18 mm
340 172 01	Kit 172	22 mm
340 174 01	Kit 174	16 mm
340 202 01	Kit 202	22 mm

Tension screws



Screw with gasket seal

R+M Nr.	TYP
340 006 01	Kit 6
340 054 01	Kit 54

Ceramic sockets



Ceramic

R+M Nr.	⊏	⊙
510 400 09	25.0 mm	15 mm
520 400 09	37.5 mm	15 mm
440 401 09	37.5 mm	18 mm
500 404 09	40.0 mm	20 mm
470 404 09	50.0 mm	20 mm
470 405 09	50.0 mm	22 mm
660 401 09	54.0 mm	22 mm

O-rings for valve plugs



R+M Nr.	TYP	⊏	⊙
903 847 00	M24	2.62	20.24
904 051 00	M32	3.53	26.58

UDOR high pressure pumps

Pumps



Pump

P	←	U	KW	TYP
120	50	1,450	10.9	CC 50/12S
120	50	1,450	10.9	CC 50/12S *
140	42	1,450	11.1	CC 42/14S
200	21	1,450	7.9	CC21/20S
200	26	1,450	9.8	CC26/20S
200	30	1,450	11.3	CC 30/20S

Repair kits



Valves 6 pieces

Seal kits for 3 pistons

Piston rings for 3 pistons

Oil seal kit for 1 piston

Ceramic socket for 1 piston

Fastening kit for 3 pistons

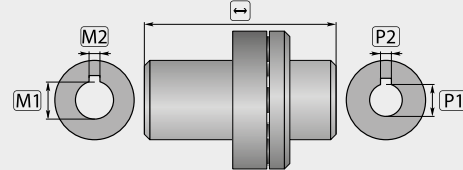
R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.
171 048 120	171 606 103	171 606 112	171 606 119	171 000 743	171 120 534	171 606 138
171 048 121	171 606 103	171 606 112	171 606 119	171 000 743	171 120 534	171 606 138
171 042 140	171 606 103	171 606 112	171 606 119	171 000 743	171 120 534	171 606 106
171 021 200	171 606 103	171 606 110	171 606 117	171 000 743	171 120 532	171 606 106
171 026 200	171 606 103	171 606 110	171 606 117	171 000 743	171 120 532	171 606 106
171 030 200	171 606 103	171 606 111	171 606 118	171 000 743	171 120 533	171 606 106

* shaft on left

Symbols P pressure ← flow U revolutions KW kilowatt TYP type ⊙ diameter ⊙ thread ⊙ internal diameter ⊏ height ← length

INTERPUMP couplings and flanges

Flexible couplings



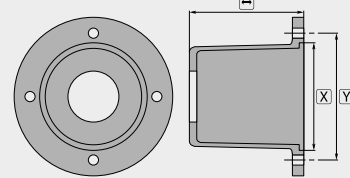
Rubber pads



R+M Nr.
100 090 47

R+M Nr.	TYP	↔	M1	M2	P1	P2	pump series
100 019 11	ZG091	93	28	8	24	8	50
100 151 11	ZG151	105	28	8	24	8	47 - 47HT - 47SS - 66 - 66HT - 66SS - E3
100 015 21	ZG202	114	38	10	24	8	47 - 47HT - 47SS - 66 - 66HT - 66SS - E3
100 004 41	ZG044	102	28	8	24	8	44 - 60 - 60HT - 63 - 63HTS - 63SS - E2
100 013 21	ZG132	121	38	10	24	8	47 - 47HT - 47SS - 66 - 66HT - 66SS - E3

Flange



R+M Nr.	TYP	↔	X	Y	engine flange	pump series
100 009 10	ZF091	101	110	130	B3 - B14 (100)	50 - 51
100 015 10	ZF151	110	110	130	B3 - B14 (100-112)	47 - 47HT - 47SS - 66 - 66HT - 66SS - E3
100 004 40	ZF044	110	110	130	B3 - B14 (100-112)	44 - 60 - 60HT - 63 - 63HTS - 63SS - E2
100 013 20	ZF132	127	130	165	B3 - B14 (132)	47 - 47HT - 47SS - 66 - 66HT - 66SS - E3

Gears for pumps

Type RS 500 for petrol engines



Gear ratio 1 : 2.2
 Engine: up to 18.5 kW
 Motor shaft Ø 25.4 mm = 1"
 Pump shaft Ø 24 mm. Engines:
 Acme, Aspera Motors, Briggs & Stratton, Honda, CO.TIEMME, Intermotor, Lombardini, Ruggerini. Pumps: Comet: LW, HW, RW, SW, TW. AR: serie 228, serie 194. IP: serie 47, serie 66

R+M Nr.
109 510 00

Type B 18 for petrol engines



Gear ratio 1 : 2.176.
 Engine: 8 - 13 KW.
 Motor shaft Ø 25.4 mm = 1"
 Pump shaft Ø 24 mm. Engines:
 Acme, Aspera Motors, Briggs & Stratton, Honda, CO.TIEMME, Intermotor, Lombardini, Ruggerini. Pumps: AR, Bertolini, Comet, Interpump, Leuco, Hawk, Udor

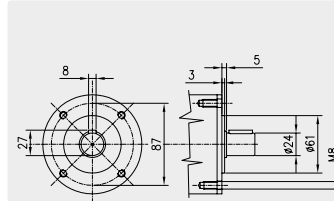
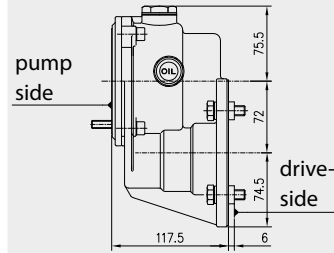
R+M Nr.
176 000 000

Type M 261 for p. t. o. shafts



Gear ratio 2.61 : 1.
 Engine: 11.19 KW at 540 r.p.m.
 Motor shaft Ø 1" 3/8 Z 6. (P.T.O.)
 Pump shaft Ø 24 mm.
 Engines:
 Comet: LW, HW, RW, FW, TW.
 AR: serie 228, serie 194.
 IP: serie 47, serie 66

R+M Nr.
172 900 095



Pump unit with power take-off (p.t.o.) shaft gearbox



new

Ready to fit high pressure pump with regulation valve ST-280.
 Pressure gauge 0 - 250 bar. Bypass hose and water filter ST-33.
 Water inlet temperature max 30 °C

R+M Nr.	↻	⊖	P	↔
179 030 166 92	M22 M	3/4" F	160 bar	30 l/m

Symbols ⊖ inlet ⊕ outlet VPE packing unit 🚚 shipment by truck

Repair kits suitable for KR



Parbacks

000 000

Kr

R+M Nr.	∅	VPE
155 900 *	6 mm	2 x 3
155 897 0 *	7 mm	2 x 3
155 898 0	8 mm	2 x 3
155 899 0	16 mm	2 x 3

Sleeve kits



Kr

For 3 pistons

R+M Nr.	TYP
155 895 0 *	12 mm Junior
155 891 0 *	14 mm
155 894 0	14 mm AZ
155 890 0	18 mm AP
155 892 0	20 mm AQ

Oil seal kits



Kr

3 pieces

R+M Nr.	∅	⊙	I
156 376 0 *	20	12	6
156 375 0	24	14	7
156 379 0	24	15	7
156 374 0	28	18	7
156 378 0 *	28	20	7
156 377 0 *	30	20	7
156 373 0 *	35	25	7

Oil seal kit



Kr

1 piece

R+M Nr.	∅	⊙	I
155 923 0 *	47	35	7

Single seals suitable for Kärcher



Highest quality at favourable prices

U-rings



K

R+M Nr.	VPE	∅	⊙	I
161 265 0	30	22	14	5.3
161 264 0	60	22	14	5.3
161 273 0	30	26	18	5.4
161 272 0	60	26	18	5.4
161 279 0	30	28	20	5.3
161 278 0	60	28	20	5.3
161 285 0	30	30	22	5
161 284 0	60	30	22	5
161 291 0	30	34	24	5.3
161 290 0	60	34	24	5.3

Compact seals



K

R+M Nr.	VPE	∅	⊙	I
161 271 0	30	20	14	4
161 270 0	60	20	14	4
161 275 0	30	28	18	6
161 274 0	60	28	18	6
161 281 0	30	30	20	6
161 280 0	60	30	20	6

Oil seals



K

R+M Nr.	VPE	∅	⊙	I
157 465 0	3	30	20	7

O-rings



K

R+M Nr.	VPE	K∅	⊙	I
161 277 0	30	18	33.05	1.78
161 276 0	60	18	33.05	1.78
161 283 0	30	22	34.65	1.78
161 289 0	30	22	36.00	2.00
161 282 0	60	22	34.65	1.78
161 288 0	60	22	36.00	2.00

Repair kits suitable for WAP



W

4 pieces for 1 piston

R+M Nr.	K∅
151 382 0 *	25 mm



W

Seal kit for quick screw connection.
10 pieces for 5 screw connections

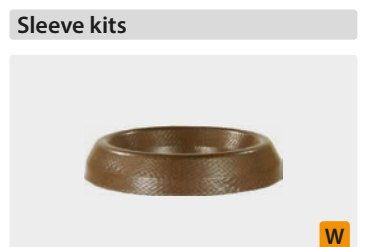
R+M Nr.
161 186 0 *



W

7 pieces for 1 piston

R+M Nr.	K∅
151 383 0 *	25 mm



W

R+M Nr.	∅	⊙
151 380 0	37	25
151 381 0 *	35	22

* limited stock

Symbols ⊕ inlet ⊖ outlet I height K∅ piston diameter ⊙ internal diameter VPE packing unit P pressure ∅ diameter TYP type

Repair kits suitable for Kärcher high pressure pumps

Seal kits



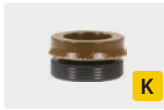
3 x 4 pieces

R+M Nr.	sets
156 317 0	3
156 324 0	3
156 325 0	3
156 327 0	3
156 328 0	3
156 332 0	3
156 333 0	3

3 x 4 pieces

R+M Nr.	sets
156 336 0	3
156 343 0	3
156 346 0	3
156 347 0	3

Seal kits



3 x 2 pieces

R+M Nr.	sets
156 322 0	3
156 338 0	3
156 341 0	3
156 342 0	3

Seal kits



3 x 3 pieces

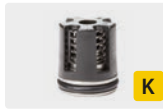
R+M Nr.	sets
156 326 0	3
156 337 0	3
156 345 0	3

Socket



R+M Nr.	piece
151 492 0	1

Valves



R+M Nr.	pieces
151 410 0	6
151 411 00	100
151 410 5	6



Seal kits

Socket

Valves

Seal kits

Socket

Valves

hp devices	K	R+M Nr.	R+M Nr.	R+M Nr.
Farmer C /2.1	18	156 317 0		
Farmer Super	20	156 347 0		
HD 1000 SEI /WS	20	156 343 0		
HD 1000 SEI-EEX	20	156 343 0		
HD 1000 SI /2.5	20	156 347 0		
HD 1020 B	18	156 317 0		151 410 0
HD 1050	20	156 347 0		
HD 1050 B	20	156 347 0		151 410 0
HD 1050 BX	20	156 347 0		
HD 1050 DE	20	156 347 0		151 410 0
HD 1050 I 380V	20	156 347 0		
HD 1090	20	156 345 0		151 410 5
HD 1090 Plus	20	156 345 0		
HD 1090 EUR	20	156 345 0		
HD 1090 I	20x35	156 345 0	151 492 0	151 410 5
HD 1090 SX	20	156 345 0		151 410 5
HD 1090 SX Plus	20	156 345 0		
HD 1094	20	156 345 0		
HD 1200 B	20	156 347 0		
HD 1200 BE	20	156 347 0		
HD 1290 S	22	156 333 0		151 410 5
HD 1290 S Plus/SX/SX Plus	22	156 333 0		
HD 1294	20	156 347 0		
HD 2000	22	156 332 0		151 410 5
HD 2000 C	22	156 332 0		
HD 2000 Super	22	156 333 0		151 410 5
HD 215	20	156 347 0		
HD 500 S Plus	12	156 342 0		
HD 525 S	12	156 342 0		
HD 575 /575 B	16	156 324 0		151 410 0
HD 575 S	16	156 324 0		
HD 585	14	156 325 0		
HD 600	14	156 325 0		
HD 600 /1000SI (10600)	22	156 333 0		
HD 600 /1000SI (10601)	22	156 333 0		
HD 625	14	156 325 0		
HD 640 S Plus	14	156 338 0		
HD 645	14	156 325 0		151 410 0
HD 650 /SX Euro /SXL	14	156 325 0		
HD 655 220V	16	156 324 0		
HD 655 Euro	16	156 324 0		151 410 0
HD 658	16	156 336 0		
HD 680 S	16	156 324 0		151 410 0
HD 700	16	156 324 0		151 410 0
HD 715 ST	14	156 325 0		
HD 750	20	156 347 0		
HD 755	18	156 317 0		
HD 755 S	16	156 324 0		151 410 0
HD 790	16	156 324 0		151 410 0

hp devices	K	R+M Nr.	R+M Nr.	R+M Nr.
HD 799 S	16	156 324 0		
HD 800 B	14	156 325 0		
HD 850	20	156 347 0		
HD 850 WS	20	156 347 0		
HD 855	22	156 328 0		151 410 0
HD 855 S	18	156 317 0		151 410 0
HD 860 ST	20	156 347 0		
HD 890 /890 S	18	156 317 0		151 410 0
HD 895	16	156 324 0		
HD 895 S /S Plus /SX Plus	16	156 324 0		
HD 901 (Benzin)	14	156 325 0		
HDS 1000 BE /2.1	20	156 347 0		
HDS 1000 BE /2.2	16	156 324 0		
HDS 1000 BE	20	156 347 0		
HDS 1000 D /2.2	20	156 347 0		
HDS 1000 DE	20	156 347 0		
HDS 1000 DE /2.1	20	156 347 0		
HDS 1195 EUR /2.1	22	156 332 0		151 410 5
HDS 1195 EUR /2.2	22	156 332 0		151 410 5
HDS 1195 VEX	22	156 332 0		151 410 5
HDS 1210	24	156 327 0		
HDS 1250	24	156 327 0		
HDS 1290 ST /GAS	24	156 327 0		
HDS 1290 STL P	24	156 327 0		
HDS 1291 ST	22	156 332 0		
HDS 1295	22	156 332 0		151 410 5
HDS 1295 SX	22	156 328 0		151 410 5
HDS 1295 EUR	22	156 332 0		151 410 5
HDS 1390	24	156 327 0		
HDS 1590	24	156 327 0		
HDS 2000 Super	22	156 332 0		151 410 5
HDS 3000	22	156 332 0		151 410 5
HDS 400 C	14	156 325 0		
HDS 450 Ci	12	156 342 0		
HDS 450 CI-AL	12	156 342 0		
HDS 500 CI	14	156 325 0		
HDS 501 C	12	156 342 0		
HDS 550	16	156 324 0		
HDS 550 C	16	156 324 0		
HDS 555 C /CS	18	156 317 0		151 410 0
HDS 555 CI	16	156 336 0		151 410 0
HDS 557 CI	16	156 324 0		151 410 0
HDS 558 C	14	156 325 0		151 410 0
HDS 558 CSX	14	156 325 0		
HDS 580 /610	20	156 347 0		
HDS 590 C /2.0	16	156 324 0		
HDS 590 C /2.1	18	156 317 0		
HDS 600 C	18	156 317 0		151 410 0
HDS 650	20	156 347 0		




Repair kits suitable for Kärcher high pressure pumps

		Seal kits	Socket	Valves			Seal kits	Socket	Valves
hp devices	KØ	R+M Nr.	R+M Nr.	R+M Nr.	hp devices	KØ	R+M Nr.	R+M Nr.	R+M Nr.
HDS 655 Euro	20	156 346 0			K 300	12	156 326 0		
HDS 655 GB	18	156 317 0			K 302	12	156 326 0		
HDS 655 /745	20	156 347 0			K 310	12	156 326 0		
HDS 695	18	156 317 0		151 410 0	K 330	12	156 326 0		
HDS 697 CI	16	156 336 0		151 410 0	K 3300 GS	12	156 326 0		151 410 0
HDS 698 C	14	156 325 0		151 410 0	K 340	12	156 326 0		
HDS 698 CSX	14	156 325 0			K 355	14	156 337 0		
HDS 699	16	156 336 0		151 410 0	K 360 /360 M	12	156 326 0		
HDS 700 B	14	156 325 0			K 370	12	156 326 0		
HDS 750	20x35	156 347 0	151 492 0		K 3770 M	12	156 326 0		
HDS 755	20	156 346 0		151 410 5	K 3770 M- Plus	12	156 326 0		
HDS 755 /760	20x35	156 347 0	151 492 0		K 380 M /390 M	12	156 326 0		
HDS 790 C /CI	18	156 317 0		151 410 0	K 4.99 M	14	156 337 0		
HDS 790CS	18	156 317 0			K 400	14	156 337 0		
HDS 795	18	156 317 0		151 410 0	K 401	14	156 337 0		
HDS 797 CI	18	156 317 0		151 410 0	K 402	14	156 337 0		
HDS 798 C /CSX	16	156 324 0			K 410	14	156 337 0		
HDS 800 B	20	156 347 0			K 450 M	12	156 326 0		
HDS 800 E	20x35	156 347 0	151 492 0		K 460 /460 M	12	156 326 0		
HDS 800B-EL.-H. /2.1	20	156 347 0			K 470	12	156 326 0		
HDS 800B-EL.-H. /2.2	20	156 347 0			K 49xm	12	156 326 0		
HDS 801 B	14	156 325 0			K 5.80	12	156 326 0		
HDS 801 E12K w	20x35	156 347 0	151 492 0		K 5.80 M	14	156 337 0		
HDS 810 SE	20	156 347 0			K 5.85 M	14	156 337 0		
HDS 850	20x35	156 347 0	151 492 0		K 500 /510	14	156 337 0		
HDS 890 /2.1	20x35	156 347 0	151 492 0		K 502 M	12	156 342 0		
HDS 890 /2.2	20x35	156 347 0	151 492 0		K 502 MS	12	156 342 0		
HDS 890 C	18	156 317 0		151 410 0	K 510	14	156 337 0		
HDS 890 ST	20x35	156 347 0	151 492 0		K 520 M	12	156 342 0		
HDS 891 /1291ST	22	156 332 0			K 570	16	156 322 0		
HDS 895	18	156 317 0		151 410 0	K 580 G	14	156 337 0		
HDS 895 S	22	156 332 0		151 410 0	K 580 M	14	156 337 0		
HDS 895 S EUR	20	156 346 0		151 410 0	K 590 GM	14	156 337 0		
HDS 895 SX	22	156 328 0		151 410 0	K 595 /2.1	16	156 322 0		
HDS 900 B	18	156 317 0		151 410 0	K 595 V /2.3	14	156 337 0		
HDS 990	20x35	156 347 0	151 492 0		K 6.80	12	156 342 0		
HDS 995	22	156 332 0		151 410 5	K 610	14	156 337 0		
HDS 995 EUR	20	156 346 0		151 410 5	K 620 M	14	156 337 0		
HDS 995 S	20	156 346 0		151 410 5	K 650 M- Plus	12	156 342 0		
HDS 995 SX	22	156 328 0		151 410 5	K 670 M	12	156 342 0		
HDS SUPER EUR	16	156 324 0			K 695	14	156 337 0		
K 1750 G	14	156 337 0			K 720 /2.1	14	156 337 0		
K 2.06	12	156 326 0			K 720 /2.3	14	156 337 0		
K 2.40	12	156 326 0			K 720 M /2.1	14	156 337 0		
K 2.75	12	156 326 0			K 720 M /2.2	14	156 337 0		
K 200	12	156 326 0			K 720 MX /2.1	14	156 337 0		
K 201	12	156 326 0			K 720 MX /2.4	14	156 337 0		
K 202 plus	12	156 326 0			K 720 MXS	14	156 337 0		
K 203 plus	12	156 326 0			K 750 M	13	156 341 0		
K 205	18	156 317 0			K 770 MX	13	156 341 0		
K 205 VPS	12	156 326 0			K 855 HS	12	156 326 0		
K 209 Plus	12	156 326 0			K 856	12	156 326 0		
K 210	12	156 326 0			K racing	14	156 337 0		
K 215 Plus	12	156 326 0			K special /2.0	14	156 337 0		
K 220	12	156 326 0			K special /2.1	14	156 337 0		
K 230 D	12	156 326 0			K special /2.4	14	156 337 0		
K 235 D	12	156 326 0			SB-HDS 695	18	156 317 0		
K 240	12	156 326 0							
K 270	12	156 326 0							
K 29x /29xm	12	156 326 0							

Symbols $\text{K}\varnothing$ piston diameter

Repair kits suitable for high pressure pumps



01	02	03
		
Valves 6 pieces	Seal kits for 3 pistons	Oil seal kits for crankshaft

limited stock

Hawk		01	02	03
Pumps	KØ	R+M Nr.	R+M Nr.	R+M Nr.
H300	20	160 105 501	160 124 801	160 107 901
H330	20	160 105 501	160 124 801	160 107 901
HC200A	18	160 105 501	160 164 201	
HC240A	18	160 105 501	160 164 201	
HC240I	18	160 105 501	160 164 201	
HC280A	18	160 105 501	160 164 201	
HC310 / 340 / 350	18		160 164 201	
HC450	20	160 105 501	160 124 801	160 107 901
HC450I	20	160 105 501	160 124 801	160 107 901
HC500	20	160 105 501	160 124 801	160 107 901
HC500I	20	160 105 501	160 124 801	160 107 901
HC530	20	160 105 501	160 124 801	160 107 901
HC550	20	160 105 501	160 124 801	160 107 901
HC550I	20	160 105 501	160 124 801	160 107 901
HC580	20	160 105 501	160 124 801	160 107 901

R+M high quality spare parts are obtained from well-established manufacturers. As a rule they are no original spare parts. The original order numbers and the indication of other information are exclusively for your guidance and furthermore they are not intended for the general use, e.g. invoices addressed to end users. In case of mentioning the original order numbers in your orders it can not be assumed that the products ordered are original spare parts. Original spare parts are supplied when they are especially offered as those in our catalogue or in other mailing pieces such as special offers or newsletters.

Repair kits suitable for Speck high pressure pumps



Valves



Valves 6 pieces

Seal kits



Seal kits for 3 pistons

Socket



Ceramic socket 1 piece

Pump	R+M Nr.	R+M Nr.	R+M Nr.	KØ
NP10 / 10 - 140	160 079 201	158 211 0	160 068 701	18 x 32,5
NP10 / 13 - 140	160 079 201	158 211 0	160 068 701	18 x 32,5
NP10 / 15 - 140	160 079 201	158 211 0	160 068 701	18 x 32,5
NP16 / 14 - 210	160 079 201	158 212 0	160 068 701	18 x 32,5
NP16 / 15 - 210	160 079 201	158 212 0	160 068 701	18 x 32,5
NP25 / 70 - 100		155 875 0 *		
P10 / 13 - 100	160 079 101	158 203 0		
P10 / 15 - 130	160 079 101	158 203 0		
P11 / 10 - 100	160 079 101	158 203 0	160 068 401	18 x 39,0
P11 / 10 - 100D		158 203 0	160 068 401	18 x 39,0
P11 / 13 - 100	160 079 101	158 203 0	160 068 401	18 x 39,0
P11 / 13 - 100D		158 203 0	160 068 401	18 x 39,0
P11 / 15 - 150	160 079 101	158 203 0	160 068 401	18 x 39,0
P11 / 15 - 150D		158 203 0	160 068 401	18 x 39,0
P21 / 15 - 160	160 079 101		160 068 401	18 x 39,0
P21 / 16 - 200	160 079 001	158 206 0	160 068 601	16 x 39,0
P21 / 18 - 130	160 079 101		160 068 501	20 x 39,0
P21 / 23 - 130	160 079 101		160 068 501	20 x 39,0
P21 / 5 - 450	160 079 201			
P21 / 7 - 400	160 079 201			
P55 / 165G		155 873 0 *		

Seal kits suitable for Lavor high pressure pumps



Seal kit for 1 piston

Pump	KØ	R+M Nr.
Fire 100	15	160 122 301
Fire 131	15	160 122 301
Jet Fire 1000	15	160 122 301
Jolly EM	15	160 122 301
Kalda	15	160 122 301
KW 21	15	160 122 301
KW 26	15	160 122 301
Laser (starting 95')	15	160 122 301
Lavorjet	15	160 122 301
LW	15	160 122 301

* limited stock

Symbols [P] pressure [↻] flow [U] revolutions [KW] kilowatt [TYP] type [I] height [KØ] piston diameter [🚚] shipment by truck

Annovi Reverberi motor pumps

Motor pumps series 198



Pump with regulation valve* and injector. Voltage 380/50 Hz (170 204 20), Voltage 230/50 Hz (170 204 15)

P	U	KW	TYP
120 8	2,800	1.8	HPJ8.12REG
140 11	2,800	3.0	HPJ11.14REG

R+M Nr.
170 204 15
170 204 20

Repair kits

01	02	03	04
Valves 6 pieces	Seal kits for 3 pistons	Oil seal kits	Ceramic sockets for 3 pistons
R+M Nr. 170 286 9	R+M Nr. 170 279 8	R+M Nr. sets 170 251 1 5	R+M Nr. $\text{K}\text{\O}$ I 170 279 6 15 40
R+M Nr. 170 286 9	R+M Nr. 170 279 8	R+M Nr. sets 170 251 1 5	R+M Nr. $\text{K}\text{\O}$ I 170 279 6 15 40

Motor pumps series 228



Motor pump without regulation valve. Voltage 380/50Hz

P	U	KW	TYP
200 15	1,450	5.5	HRK15.20H
150 21	1,450	5.5	HRK21.15H

R+M Nr.
170 208 62
170 208 67

Repair kits

01	02	03	04
Valves 6 pieces	Seal kits for 3 pistons	Oil seal kits	Ceramic sockets for 3 pistons
R+M Nr. 170 286 4	R+M Nr. 170 185 7	R+M Nr. sets 170 185 5 7	R+M Nr. $\text{K}\text{\O}$ I 170 275 7 18 40
R+M Nr. 170 286 4	R+M Nr. 170 188 8	R+M Nr. sets 170 185 5 7	R+M Nr. $\text{K}\text{\O}$ I 170 275 9 22 40

Motor pump combinations



400 V. All models are equipped with a regulation valve*, delayed total stop control, pressure gauge, 5 m electric cable and an on-off switch. C 1/2" M C 3/8" M. Max. 30 °C

P	U	KW	TYP
150 15	1,450	4	MTP HXM 15.15
150 21	1,450	5.5	MTP HRK 21.15
200 15	1,450	5.5	MTP HRK 15.20
150 26	1,450	7.5	MTP HXW 26.15
150 30	1,450	7.5	MTP HXW 30.15

R+M Nr.
170 208 711
170 257 56
170 238 68
170 260 58
170 260 60

Repair kits

01	02	03	04
Valves 6 pieces	Seal kits for 3 pistons	Oil seal kits	Ceramic socket for 3 pistons
R+M Nr. 170 186 4	R+M Nr. 170 188 8	R+M Nr. sets 170 278 6 6	R+M Nr. $\text{K}\text{\O}$ I 170 274 6 18 35
R+M Nr. 170 186 4	R+M Nr. 170 185 7	R+M Nr. sets 170 185 5 7	R+M Nr. $\text{K}\text{\O}$ I 170 275 9 22 40
R+M Nr. 170 278 0	R+M Nr. 170 278 2	R+M Nr. sets 170 185 5 7	R+M Nr. $\text{K}\text{\O}$ I 170 275 7 18 40
R+M Nr. 170 278 0	R+M Nr. 170 278 3	R+M Nr. sets 170 287 3 7	R+M Nr. $\text{K}\text{\O}$ I 170 265 0 20 45
R+M Nr. 170 278 0	R+M Nr. 170 278 3	R+M Nr. sets 170 287 3 7	R+M Nr. $\text{K}\text{\O}$ I 170 189 1 22 45



400 V. All models are equipped with a regulation valve*, delayed total stop control, pressure gauge, 5 m electric cable and an on-off switch. C 1/2" F C 3/8" M. Max. 85 °C at min. 2 bar inlet pressure

P	U	KW	TYP
150 15	1,450	4	MTP HRWH 15.15
150 21	1,450	5,5	MTP HRWH 21.15

R+M Nr.
170 269 18
170 269 11

01	02	03	04
Valves 6 pieces	Seal kits for 3 pistons	Oil seal kits	Ceramic socket for 3 pistons
R+M Nr. 170 423 28	R+M Nr. 170 423 29	R+M Nr. sets 170 185 5 7	R+M Nr. $\text{K}\text{\O}$ I 170 250 0 18 40
R+M Nr. 170 286 4	R+M Nr. 170 425 64	R+M Nr. sets 170 185 5 7	R+M Nr. $\text{K}\text{\O}$ I 170 252 6 22 45

* Setting up of a regulation valve: page 61

Annovi Reverberi high pressure pumps with hydraulic motor

Pumps with hydraulic motor



R+M Nr.	TYP
170 216 03	HYD-XM 15.15
170 216 05	HYD-RK 15.20

Pumps



R+M Nr.	KØ	⊖	P
170 215 98	18	15 l/min	150 bar
170 216 00	18	15 l/min	200 bar

Hydraulic motor



3/4" F. 19 cm³ / revolution.
 U 500-3,500 r.p.m..
 P Max. 210 bar
 Outside diameter of shaft: 15.8 mm

R+M Nr.	TYP
175 500 5	SNM 2/19CI06LFU1F

Jetter Valves



Jetter valves are special valve assemblies which allow to shut off one particular intake valve. The Jetter Valve cuts off the flow of one of the three pistons of the jetter pump. Due to this the pump starts pulsating which causes significant vibrations of the nozzle and an increased cleaning effect at a reduced flow rate (approximately -1/3 of the full flow rate of the pump). Jetter Valves should not be combined with pulsation dampers in one jetter unit. Jetter Valves substitute one of the three intake valves of a pressure pump (suction side (upstream)). Never use jetter valves as a substitute on the high pressure side! Pulsation can be started or stopped by a lever or hand wheel at the jetter valve.

Feet for pumps

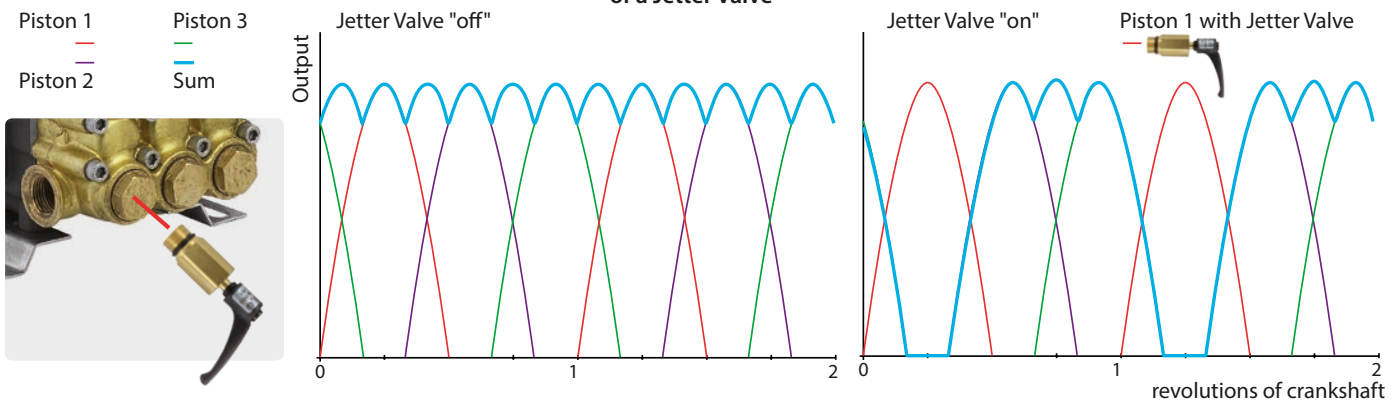


Adjustable feet for pumps incl. 4 screws.
 For Annovi Reverberi XM, XMS, XMA, RK, RKA

R+M Nr.	TYP
170 402 35	XT, XM
170 401 61	RK
170 402 36	XW

R+M Nr.
170 272 9

Functional principle of a Jetter Valve



Symbols P pressure ⊖ flow U revolutions KW kilowatt TYP type I height KØ piston diameter

Annovi Reverberi high pressure pumps

Pump series 132



P	←	U	KW	TYP
140	11	1,450	3.0	XT11.14N

R+M Nr.
170 701 4

Repair kits



Valves 6 pieces

R+M Nr.
170 186 4



Seal kits for 3 pistons

R+M Nr.
170 424 79



Oil seal kits

R+M Nr.	sets
170 278 6	6



Ceramic socket for 3 pistons

R+M Nr.	KØ	I
170 262 9	18	30

Pump series 178



P	←	U	KW	TYP
150	15	1,450	4.0	XM15.15N

R+M Nr.
170 790 6

Repair kits



Valves 6 pieces

R+M Nr.
170 186 4



Seal kits for 3 pistons

R+M Nr.
170 274 7



Oil seal kits

R+M Nr.	sets
170 187 2	6



Ceramic socket for 3 pistons

R+M Nr.	KØ	I
170 274 6	18	35

Pump series 194



P	←	U	KW	TYP
200	26	1,450	9.2	XW26.20N
150	30	1,450	7.5	XW30.15N
200	30	1,450	10.0	XW30.20N
250	30	1,450	14.0	XW30.25N
150	42	1,450	11.8	XWL42.15N

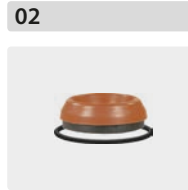
R+M Nr.
170 200 59
170 201 79
170 200 60
170 211 37
170 210 60

Repair kits



Valves 6 pieces

R+M Nr.
170 278 0
170 278 0
170 278 0
170 278 0
170 278 0



Seal kits for 3 pistons

R+M Nr.
170 278 2
170 278 3
170 278 3
170 278 3
170 278 3
170 427 08



Oil seal kits

R+M Nr.	sets
170 287 3	7
170 287 3	7
170 287 3	7
170 287 3	7
170 287 3	7
170 287 3	7



Ceramic sockets for 3 pistons

R+M Nr.	KØ	I
170 265 0	20	45
170 189 1	22	45
170 189 1	22	45
170 189 1	22	45
170 189 1	22	45
170 184 9	28	45

Pump series 228



P	←	U	KW	TYP
200	15	1,450	5.5	RK15.20HN
275	15	1,450	8.2	RK15.28HN
200	18	1,450	7.5	RK18.20HN
150	21	1,450	5.5	RK21.15HN

R+M Nr.
170 206 38
170 206 40
170 206 43
170 206 45

Repair kits



Valves 6 pieces

R+M Nr.
170 286 4
170 286 4
170 286 4
170 286 4



Seal kits for 3 pistons

R+M Nr.
170 185 7
170 185 7
170 188 7
170 188 8



Oil seal kits

R+M Nr.	sets
170 185 5	7
170 185 5	7
170 185 5	7
170 185 5	7



Ceramic sockets for 3 pistons

R+M Nr.	KØ	I
170 275 7	18	40
170 275 7	18	40
170 275 8	20	40
170 275 9	22	40

The photos showing the pumps and repair kits are only for your information. The products might differ from the photos regarding their dimension and design.

COMET high pressure pumps

Premium



Max. 30 °C

P	☰	U	KW	TYP
345	18.0	1,450	15.5	TW 4550S
172	42.5	1,450	13.7	TW 11025S

R+M Nr.
172 045 500
172 110 250

Repair kits

01



Valves 6 pieces

R+M Nr.
172 900 003
172 900 005

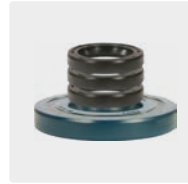
02



Seal kits for 3 pistons

R+M Nr.
172 900 027
172 900 020

03



Oil seal kits

R+M Nr.
172 900 018
172 900 210

04



Ceramic sockets for 3 pistons

R+M Nr.	⌀
172 900 012	18
172 900 014	25

Standard



Max. 30 °C

P	☰	U	KW	TYP
207	15.0	1,450	5.5	FW 4030 S
207	21.0	1,450	7.1	FW 5530 S

R+M Nr.
172 040 300
172 055 300

Repair kits

01



Valves 6 pieces

R+M Nr.
172 900 001
172 900 001

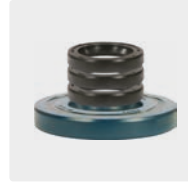
02



Seal kits for 3 pistons

R+M Nr.
172 900 023
172 900 024

03



Oil seal kits

R+M Nr.
172 900 016
172 900 016

04



Ceramic sockets for 3 pistons

R+M Nr.	⌀
172 900 008	18
172 900 009	20

Hot water seal kits are available on request.

COMET motor pumps

Motor pump combinations*



400 V. All models are equipped with a regulation valve **, delayed total stop control, pressure gauge, 6 m electric cable and an on-off switch. Ⓢ 3/4" M Ⓢ M22 M. Max. 30 °C

P	☰	U	KW	TYP
150	15	1,450	4.0	FW2 4025 TS+VA
210	15	1,450	5.5	FW2 4030 TS+VA
160	21	1,450	5.5	FW2 5523 TS+VA
170	15	1,450	4.5	RW 6.15 TS+VA

R+M Nr.	🚚
172 040 255	
172 040 305	
172 055 225	
172 006 155	

Repair kits

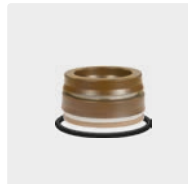
01



Valves 6 pieces

R+M Nr.
172 900 001
172 900 001
172 900 002
172 900 001

02



Seal kits for 3 pistons

R+M Nr.
172 900 185
172 900 185
172 900 024
172 900 026

03



Oil seal kits

R+M Nr.
172 900 186
172 900 186
172 900 186
172 900 017

04



Ceramic sockets for 3 pistons

R+M Nr.	⌀
172 900 008	18
172 900 008	18
172 900 009	20
172 900 011	20

* with pump FW2 from 2013

** Setting up of a regulation valve: page 61

R+M high quality spare parts are obtained from well-established manufacturers. As a rule they are no original spare parts. The original order numbers and the indication of other information are exclusively for your guidance and furthermore they are not intended for the general use, e.g. invoices addressed to end users. In case of mentioning the original order numbers in your orders it can not be assumed that the products ordered are original spare parts. Original spare parts are supplied when they are especially offered as those in our catalogue or in other mailing pieces such as special offers or newsletters.

Symbols P pressure ☰ flow U revolutions KW kilowatt TYP type ⌀ piston diameter 🚚 shipment by truck ○ thread I height

CAT high pressure pumps

Standard



Repair kits

01



Valves 3 pieces

02



Seal kits for 3 pistons

03



Ceramic socket 1 piece

04



Oil seal kit 1 piece

P	U	KW	TYP	
150	10	1,420	3	300
150	15	950	4.4	310
150	13	1,420	4.1	340
150	15	1,420	4.4	350
150	18	1,100	6.9	530
150	13	1,420	4.1	340RS
150	7.5	1,420	2.3	3CP1130
150	11	1,420	3	3CP1140
175	8.6	1,420	3.1	5CP2110W
175	15	950	5.5	5CP2120W
173	13	1,420	4.7	5CP2140W
175	15	1,420	5.5	5CP2150W
210	19	1,420	8.3	5CP5120

R+M Nr.
133 00
133 10
133 40
133 50
135 30
133 401 *
131 130
131 140
132 110
132 120
132 140
132 150
135 120

R+M Nr.
133 082 1
133 082 1
133 082 1
133 082 1
133 082 0
133 082 1
133 306 2
133 306 2
133 182 1
133 082 1
133 082 1
133 082 1
133 082 1
133 306 0

R+M Nr.
133 062 3
133 062 3
133 062 3
133 062 3
133 048 8
133 062 3
133 398 3
133 398 3
133 362 8
133 362 8
133 362 8
133 362 8
133 362 8
133 363 0

R+M Nr.	KØ
134 336 7	20
134 336 7	20
134 336 7	20
134 336 7	20
134 323 2	18
134 336 7	20
134 697 6	18
134 697 6	18
134 684 1	20
134 684 1	20
134 684 1	20
134 684 1	20
134 965 5	20

R+M Nr.
134 322 8
134 322 8
134 322 8
134 322 8
134 322 8
134 322 8
134 683 9
134 683 9
134 683 8
134 683 8
134 683 8
134 683 8

The photos showing the pumps and repair kits are only for your information.
The products might differ from the photos regarding their dimension and design.

Repair kits for CAT high pressure pumps

Valves



3 pieces

R+M Nr.	TYP
133 068 7	623 - 820 - 823 - 1010 - 1013
133 082 0	510 - 530 - 550 - 560 - 570 - 590 - 650 - 660
133 082 1	5CP - 300 - 310 - 340 - 350
133 091 5	230 - 240 - 270
133 306 2	3CP1120 - 3CP1130 - 3CP1130
133 401 7	3520 - 3527 - 3531 - 3537
133 405 2	25F
133 423 5	3520 - 3535
133 492 0	1050

Seal kits



For 3 pistons

R+M Nr.	TYP
133 002 3	280 - 290 - 400 - 410 - 420 - 430 small
133 048 8	53 - 58 - 530 - 540
133 061 0	51 - 55 - 550
133 062 3	30 - 31 - 34 - 35 - 300 - 310 - 340 - 350
133 062 9	45
133 079 8	650 - 660
133 391 6	1050
133 091 4	230 - 240 - 270
133 095 2	2530 - 2537
133 104 0	3531 - 3535 - 3537
133 163 8	5CP hot water
133 198 3	3CP hot water
133 362 3	350 hot water
133 362 8	5CP2120W - 5CP2140W - 5CP2150W
133 398 3	3CP1120 - 3CP1130 - 3CP1130

Socket



1 piece

R+M Nr.	KØ	TYP
134 323 2	18	53 - 56 - 57 - 58 - 59 - 60 - 530 - 540 - 560 - 580 - 590 - 654
134 331 1	16	51 - 55 - 510 - 550
134 336 7	20	5FR - 300 - 310 - 340 - 350
134 390 1	18	3FR - 230 - 240 - 270
134 684 1	20	5CP2120W - 5CP2140W - 5CP2150W
134 697 6	18	3CP1120 - 3CP1130 - 3CP1130
134 355 2	24	1050

Double nipples



new AGR BSP : AGN NPT.
Stainless steel





new AGR BSP : AGN NPT.
Zinc-plated steel

R+M Nr.	Ø	P	l
570 892	3/8"	315 bar	38 mm
570 999 2	1/2"	200 bar	46 mm



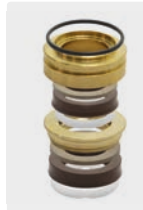



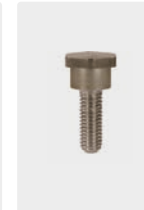
R+M Nr.	Ø	P	l
570 782	3/8"	280 bar	34.5 mm
570 982	1/2"	200 bar	43.0 mm

* shaft on the left

BERTOLINI high pressure pumps

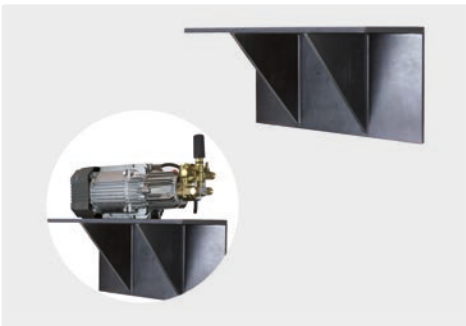
Pump		Repair kits										
		01	02	03	04	05	06					
												
		Valves 6 pieces	Seal kit	Seal kits for 3 pistons	Oil seal kit for 1 piston	Ceramic socket for 1 piston	Fastening kit for 1 piston					
P	←	U	KW	TYP	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	
210	15	1,450	6.1	TTL	1520	177 015 200	177 698 679 73	177 698 369 73	177 698 399 73	177 698 729 73	177 600 091 82	177 600 720 02
210	21	1,450	8.6	TTL	2120	177 021 200	177 698 679 73	177 698 369 73	177 698 399 73	177 698 729 73	177 600 091 82	177 600 720 02
300	13	1,450	7.6	TTL	1330	177 013 300	177 698 679 73	177 698 349 73	177 698 339 73	177 698 729 73	177 600 551 82	177 600 735 12
300	20	1,450	11.5	TTL	2030	177 020 300	177 698 679 73	177 698 349 73	177 698 339 73	177 698 729 73	177 600 551 82	177 600 735 12

Hawk high pressure pumps

Pump		Repair kits										
		01	02	03	04	05	06					
												
		Valve 1 piece	Seal kit for 3 pistons	Seal kits for 3 pistons	Oil seal kit for 3 pistons	Ceramic socket for 1 piston, complete	Fastening screw for 1 piston					
P	←	U	KW	TYP	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.	R+M Nr.		
200	15	1,450	5.7	NMT	1520R	174 015 200	174 260 008	174 190 557 8	174 260 077	174 260 803	174 260 107	174 030 219
200	21	1,450	7.9	NMT	2120R	174 021 200	174 260 008	174 190 557 8	174 260 077	174 260 803	174 260 107	174 030 219
300	24	1,450	14.1	XLT	2530IR	174 024 300	174 260 131	174 260 128	174 260 126	174 260 003	174 260 129	174 180 223
240	30	1,450	14.2	XLT	3025IR	174 030 240	174 260 010	174 260 127	174 260 125	174 260 003	174 260 130	174 180 223
170	35	1,450	11.2	XLT	3517IR	174 035 170	174 260 010	174 260 114	174 260 113	174 260 003	174 260 117	174 180 223

Pump accessories

Wall bracket



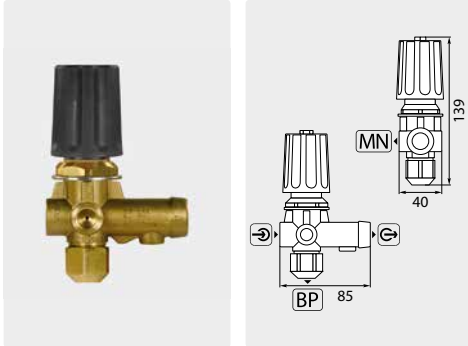
Wall bracket for motor pump combinations.
Material: Plastic. Dimensions 26 x 50 cm. Load capacity max. 45 kg

R+M Nr.
110 20

Symbols P pressure ← flow U revolutions KW kilowatt TYP type G inlet ⊖ outlet BP bypass MN pressure gauge D nozzle

Suttner regulation valves ST-261

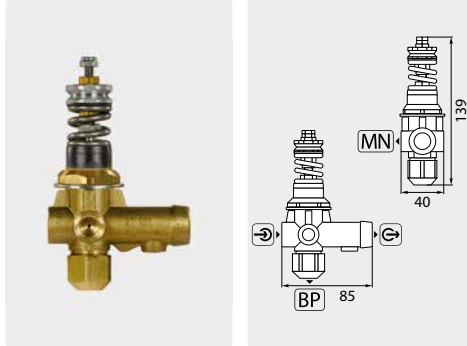
ST-261 for panel mounting



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Max. 250 bar / 80 °C

R+M Nr.	☉
200 261 559	30 l/min

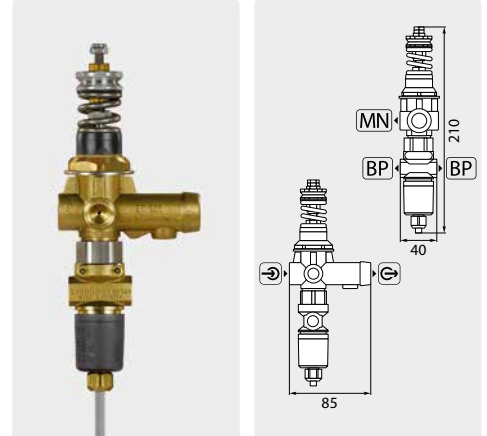
ST-261 for panel mounting



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Max. 250 bar / 80 °C

R+M Nr.	☉
200 261 557	30 l/min

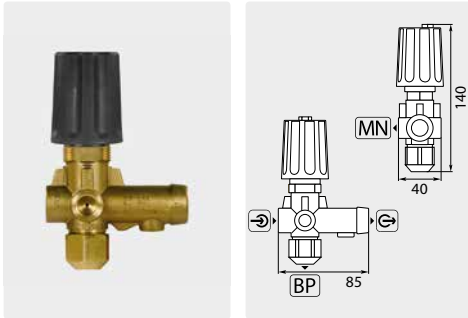
ST-261 for panel mounting with pressure switch



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Regulation valve with pressure switch (IP65) and cable 1,200 mm. Max. 250 bar / 80 °C

R+M Nr.	☉
200 261 655	30 l/min

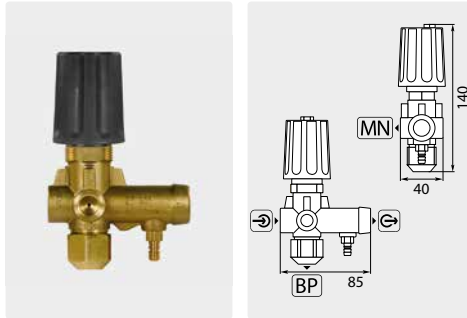
ST-261 without chemical injector



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Max. 250 bar / 80 °C

R+M Nr.	☉
200 261 500	30 l/min

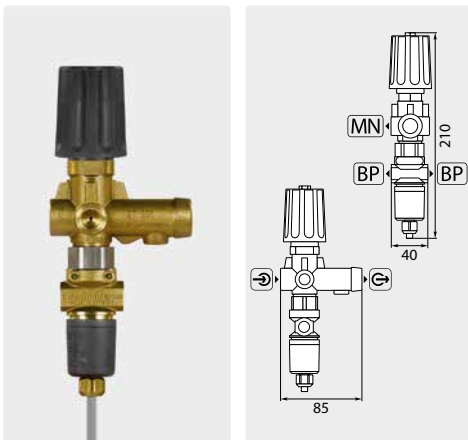
ST-261 with chemical injector



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Hose tail 6 mm. Max. 250 bar / 80 °C

R+M Nr.	D	☉
200 261 560	1.8	30 l/min
200 261 570	2.1	30 l/min
200 261 580	2.4	30 l/min

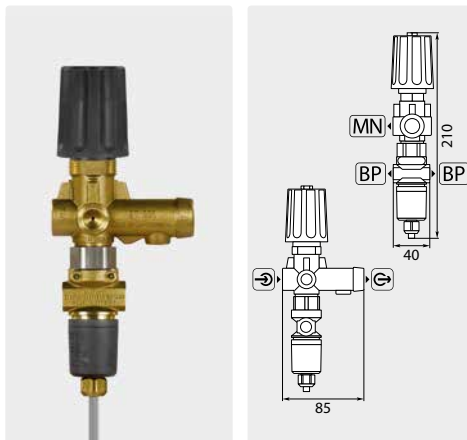
ST-261 with pressure switch three-core



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Regulation valve with pressure switch (IP65) three-core and cable 1,200 mm. Max. 250 bar / 80 °C

R+M Nr.	☉
200 261 550	30 l/min

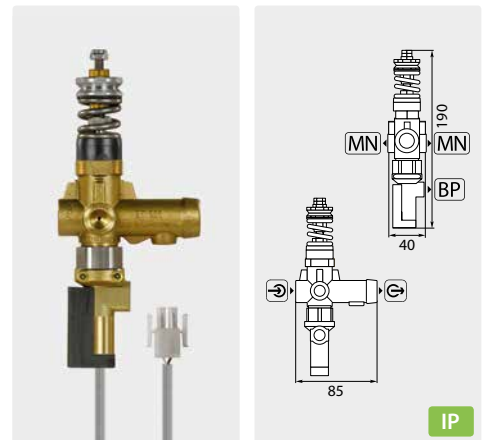
ST-261 with pressure switch four core



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Regulation valve with pressure switch (IP65) four-core and cable 1,200 mm. Max. 250 bar / 80 °C

R+M Nr.	☉
200 261 551	30 l/min

ST-261 with pressure switch



☉ = inlet 3/8" F. ☉ = outlet 3/8" F. [BP] = bypass 1/4" F. [MN] = pressure gauge 1/4" F. Regulation valve with pressure switch (IP55) and cable 140 mm. Max. 250 bar / 80 °C

R+M Nr.	☉
200 261 660	30 l/min

Suttner regulation valves ST-261

Repair kits ST-261



Piston rod

R+M Nr.
200 261 526



Pressure switch (IP55) with cable 1,200 mm

R+M Nr.
200 261 517



Pressure rod

R+M Nr.
200 261 527



Handgrip

R+M Nr.
200 260 547



HP check valve

R+M Nr.
200 261 528



Metering valve. Tail 6 mm

R+M Nr.
050 000 370 1
200 061 500 2



Pressure switch (IP65) three-core and cable 1,200 mm

R+M Nr.
200 261 513



Pressure switch (IP65) with four-core and cable 1,200 mm

R+M Nr.
200 261 514



Micro switch

R+M Nr.
090 000 050



Chemical check valve. Hose tail 6 mm

R+M Nr.
200 060 725

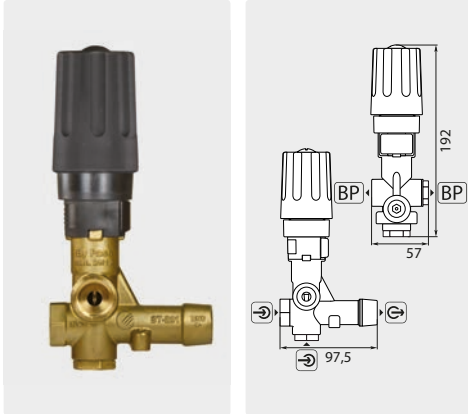


Tamperproof cap for ST-261. Not suitable for panel mounting.

R+M Nr.
020 000 277

Suttner regulation valves

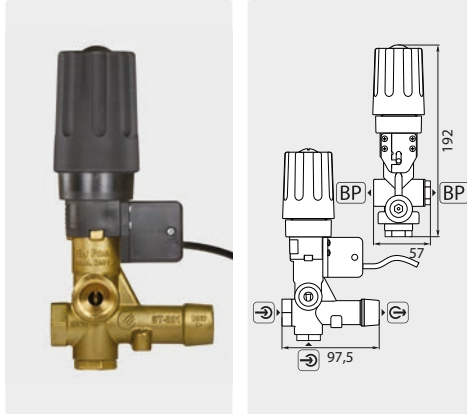
ST-291



⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F. BP = bypass 1/2" F. Max. 350 bar / 90 °C

R+M Nr.	200 291 500	40 l/min
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ST-291 with switch



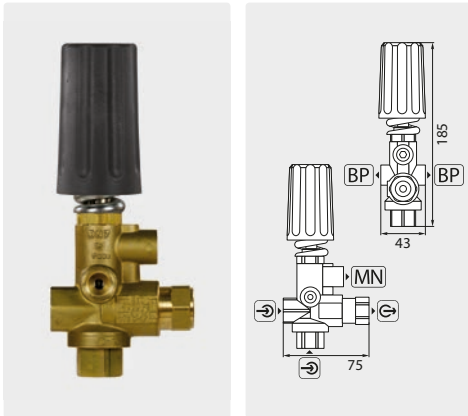
⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F. BP = bypass 1/2" F. Regulation valve with pressure switch (IP67) and cable 1,200 mm. Max. 350 bar / 90 °C

R+M Nr.	200 291 550	40 l/min
----------------	-------------	----------

Repair kits ST-291

Piston rod	Switch (IP67) with cable 1,200 mm
R+M Nr.	R+M Nr.
200 291 495	200 291 450
Check valve	Seal kit
R+M Nr.	R+M Nr.
200 291 490	200 291 485

ST-280



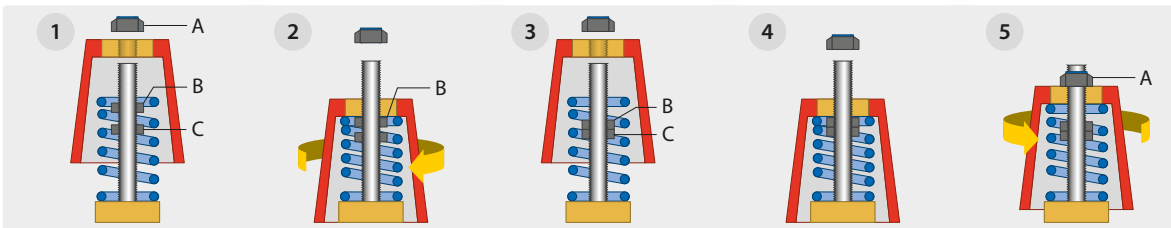
⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F. BP = bypass 1/4" F. MN = pressure gauge 1/4" F. Max. 250 bar / 80 °C

R+M Nr.	200 280 510	30 l/min
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Repair kits ST-280

Type A	Type C	Type D
R+M Nr.	R+M Nr.	R+M Nr.
200 280 650	200 280 646	200 280 526

Setting up of a regulation valve



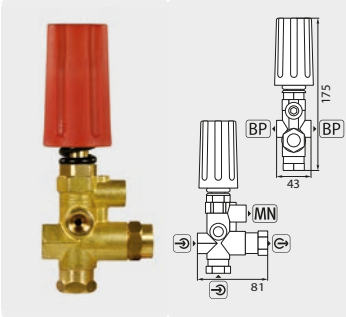
www.rm-suttner.com

1. Loose fixing nut (A) and take off handgrip. Also loose nut (B) and nut (C). Put handgrip back in position without fixing it. Switch on high pressure device and press gun trigger.
2. While keeping an eye on the gauge's pressure slowly tighten the handgrip. When working pressure is attained turn handgrip one rotation tighter. In this position nut (B) must be next to the handgrip. Otherwise, nut (B) has to be adjusted until this position is reached.
3. Take off handgrip and fix nut (C) against nut (B).
4. Unscrew the handgrip until it bumps to nut. Press trigger of gun several times in order to control the working and switching pressure. If necessary, repeat phase 2.
5. Turn handgrip back until minimum/steam pressure stage is obtained (according to indication of manufacturer). Mount fixing nut until swing of grip. Fixing nut (A) defines the stage of low and steam pressure, nut (B) defines the stage of working and switching pressure.

Symbols ⊕ flow ⊕ inlet ⊖ outlet BP bypass MN pressure gauge

Regulation valves

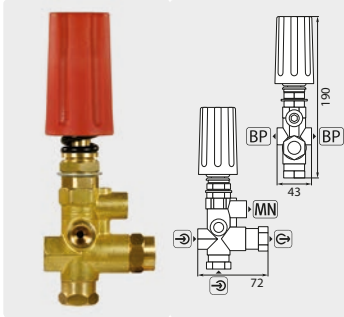
UL 250



⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F.
 BP = bypass 1/4" F. MN = pressure gauge 1/4" F. Ball check valve. Max. 250 bar / 60 °C

R+M Nr.	⊖
533 31	35 l/min

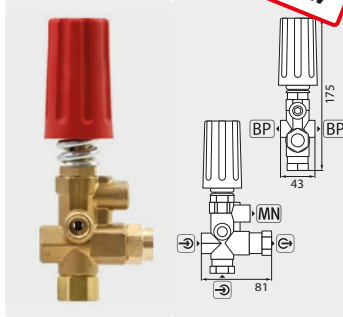
UL 250 for panel mounting



⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F.
 BP = bypass 1/4" F. MN = pressure gauge 1/4" F. Ball check valve. Max. 250 bar / 60 °C

R+M Nr.	⊖
533 351	35 l/min

ST-250



⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F.
 BP = bypass 1/4" F. MN = pressure gauge 1/4" F. Ball check valve. Max. 250 bar / 80 °C

R+M Nr.	⊖
200 250 500	35 l/min

UL 250

Standard

R+M Nr.
121 412 9

With ball check valve

R+M Nr.
121 412 91

ST-250

With ball check valve

R+M Nr.
200 250 490

VB7



⊕ = input 3/8" M. ⊖ = outlet 3/8" F.
 BP = bypass 3/8" F. MN = pressure gauge 1/4" F. Max. 220 bar / 90 °C

R+M Nr.	⊖
532 722 0	30 l/min

VB9



⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F.
 BP = bypass 3/8" F. MN = pressure gauge 1/4" F. Regulation valve with switch (IP55) and cable 1,000 mm. Max. 220 bar / 90 °C

R+M Nr.	⊖
532 235 0	30 l/min

VB9



⊕ = inlet 3/8" F. ⊖ = outlet 3/8" F.
 BP = bypass 3/8" F. MN = pressure gauge 1/4" F. Max. 220 bar / 90 °C

R+M Nr.	⊖
532 234 0	30 l/min

VB56



⊕ = inlet 1/2" F. ⊖ = outlet 3/8" F. Regulation valve with banjo-bolt. X: 26 mm. Y: 66 - 76 mm. Suitable for Leuco or Hawk MT-LT / CAT 5CP. Max. 220 bar / 90 °C

R+M Nr.	⊖
532 137 2	30 l/min



⊕ = inlet 1/2" F. ⊖ = outlet 3/8" F. Regulation valve with banjo-bolt. X: 4.5 mm. Y: 59.5 - 63.5 mm. Suitable for AR Serie RC. Max. 220 bar / 90 °C

R+M Nr.	⊖
532 139 2	30 l/min

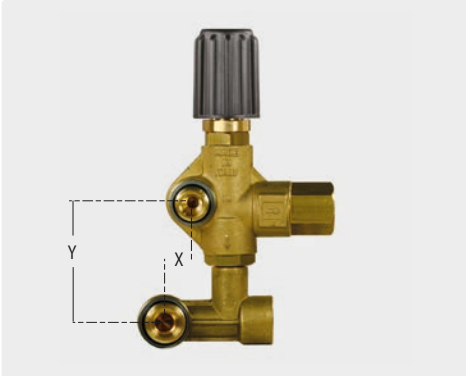


⊕ = inlet 1/2" F. ⊖ = outlet 3/8" F. Regulation valve with banjo-bolt. X: 4.5 mm. Y: 62 - 65.5 mm. Suitable for AR Series RK, Comet Series FW. Max. 220 bar / 90 °C

R+M Nr.	⊖
532 138 0	30 l/min

Regulation valves

VB75



☉ = inlet 1/2" F. ☉ = outlet 3/8" F. Regulation valve with banjo-bolt. X: 19 mm. Y: 62-73 mm. Suitable for IP50, IP44, IP47, IP60, IP63 / Speck NP16. Max. 250 bar / 90 °C

R+M Nr.	P	☉
532 093 0		30 l/min

VB85



☉ = inlet 1/2" F. ☉ = outlet 1/2" F. ☉ = bypass 1/2" F. Max. 90 °C

R+M Nr.	P	☉
532 851 6	max. 160 bar	80 l/min
532 852 8	max. 280 bar	80 l/min

Rep. Kit VB85



R+M Nr.
532 851 62

VB80



☉ = inlet 1/2" F. ☉ = outlet 1/2" F. ☉ = bypass 1/2" F. Stainless steel. Max. 90 °C

R+M Nr.	P	☉
532 802 84	max. 280 bar	80 l/min

VB80/150



☉ = inlet 1/2" F. ☉ = outlet 1/2" F. ☉ = bypass 1/2" F. ☉ = pressure gauge 1/4" F. Max. 90 °C

R+M Nr.	P	☉
532 801 50	max. 150 bar	80 l/min

VB53/500



☉ = inlet 1/2" F. ☉ = outlet 1/2" F. ☉ = bypass 1/2" F. Max. 90 °C

R+M Nr.	P	☉
532 535 00	max. 500 bar	80 l/min

VB26



☉ = inlet 1/2" F. ☉ = outlet 1/2" F. ☉ = bypass 1/2" F. Stainless steel. Max. 90 °C

R+M Nr.	P	☉
532 262 80	max. 280 bar	80 l/min

VRT100/190



☉ = inlet 1/2" F. ☉ = outlet 1/2" F. ☉ = bypass 1/2" F. Max. 90 °C

R+M Nr.	P	☉
532 056 0	max. 190 bar	100 l/min

Symbols ☉ inlet ☉ outlet ☉ bypass ☉ pressure gauge ☉ flow ☉ pressure

Regulation valves

VB350



Ⓒ = inlet 3/8" M. Ⓓ = outlet 3/8" F. [BP] = bypass 1/2" F. [MN] = pressure gauge 1/4" F. Regulation valve with switch (IP55) and cable 1,200 mm. Max. 350 bar / 90 °C

R+M Nr.	Ⓓ
532 350	40 l/min

VB350



Ⓒ = inlet 3/8" M. Ⓓ = outlet 3/8" F. [BP] = bypass 1/2" F. [MN] = pressure gauge 1/4" F. Max. 350 bar / 90 °C

R+M Nr.	Ⓓ
532 340	40 l/min

VB60/600



Ⓒ = inlet 1/2" F. Ⓓ = outlet 1/2" F. [BP] = bypass 1/2" F. Max. 600 bar / 90 °C

R+M Nr.	Ⓓ
532 260 0	60 l/min

VB60/600



Ⓒ = inlet 1/2" F. Ⓓ = outlet 1/2" F. [BP] = bypass 1/2" F. Regulation valve with micro switch (IP55) and cable 950 mm. Max. 600 bar / 90 °C

R+M Nr.	Ⓓ
532 265 0	60 l/min

Zeromatic 93



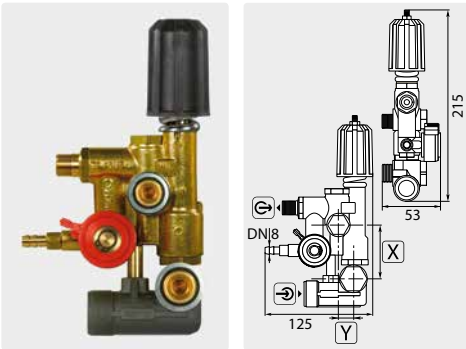
Ⓒ = inlet 1/2" F. Ⓓ = outlet 3/8" M. [BP] = bypass 1/2" F. [MN] = pressure gauge 1/4" F. Max. 250 bar / 60 °C

R+M Nr.	Ⓓ
170 290 7	40 l/min

Symbols Ⓒ inlet Ⓓ outlet [BP] bypass [MN] pressure gauge Ⓓ flow [TYP] type

INTERPUMP regulation valves

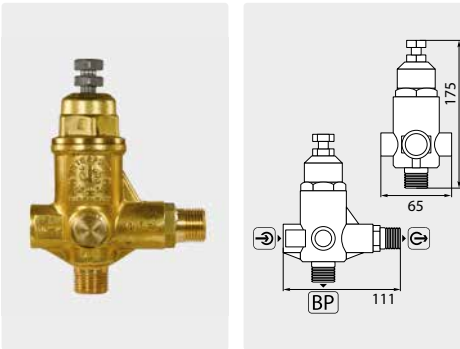
W2



☉ = inlet 1/2" F.
☉ = outlet 3/8" M.
Max. 200 bar / 60 °C

R+M Nr.	TYP	☉	X	Y
010 002 30	W2-1	11 - 15 l/min	63	18
010 002 31	W2-2	16 - 21 l/min	63	18
010 002 35	W2L-1	11 - 15 l/min	73	20
010 002 36	W2L-2	16 - 21 l/min	73	20

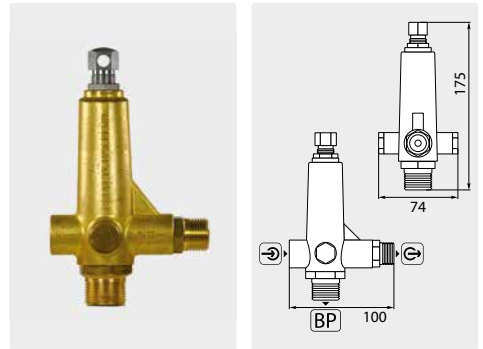
K1



☉ = inlet 3/8" F. ☉ = outlet 1/2" M.
BP = bypass 1/2" M.
Max. 250 bar / 60 °C

R+M Nr.	☉
100 000 10	9 - 41 l/min

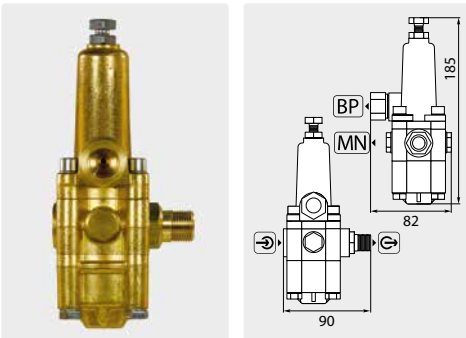
K5



☉ = inlet 3/8" F. ☉ = outlet 1/2" M. BP = bypass 1/2" F - 3/4" M. MN = pressure gauge 1/4" F.
Max. 200 bar / 60 °C

R+M Nr.	TYP	☉
100 000 51	K5.1	11 - 16 l/min
100 000 52	K5.2	16 - 25 l/min
100 000 53	K5.3	25 - 41 l/min

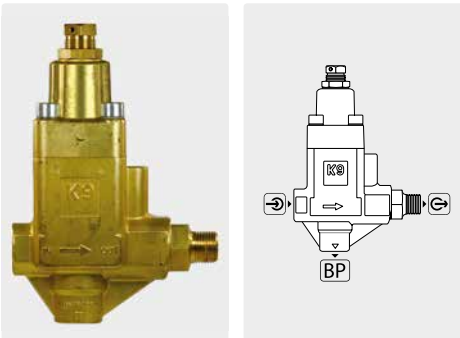
K7



☉ = inlet 3/8" F. ☉ = outlet 3/8" M. BP = bypass 3/8" F. MN = pressure gauge 1/4" F.
Max. 200 bar / 60 °C

R+M Nr.	TYP	☉
100 000 70	K7.0	8 - 11 l/min
100 000 71	K7.1	11 - 16 l/min
100 000 72	K7.2	16 - 25 l/min
100 000 73	K7.3	25 - 41 l/min

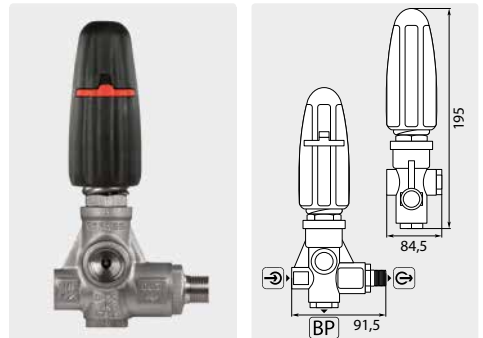
K9



☉ = inlet 1/2" F. ☉ = outlet 1/2" M.
BP = bypass 1/2" F.
Max. 400 bar / 60 °C

R+M Nr.	☉
100 000 95	50 l/min

H253

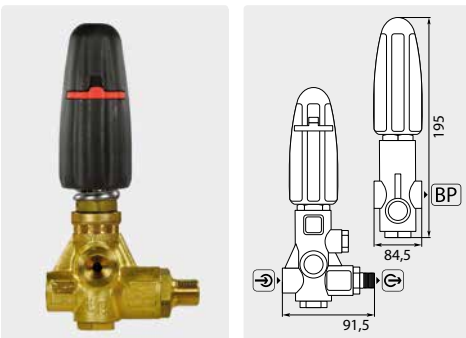


☉ = inlet 3/8" F. ☉ = outlet 3/8" M.
BP = bypass 3/8" F.
Max. 250 bar / 60 °C

R+M Nr.	TYP	☉
100 012 53	stainless steel	8 - 30 l/min

Info about the valves K1 . K3 . K5 . K7 . K9 . BKX.
By means of the valves the pressure can be zeroed in the entire system (pump and hose).

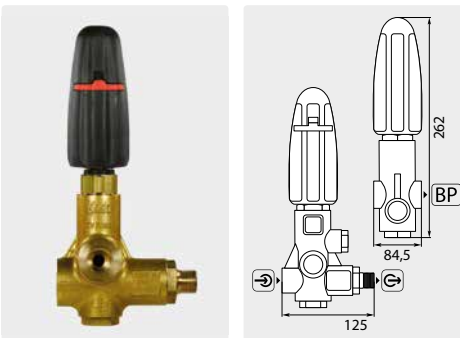
H284



☉ = inlet 3/8" F. ☉ = outlet 3/8" M.
BP = bypass 3/8" F. MN = pressure gauge 1/4" F.
Max. 280 bar / 85 °C

R+M Nr.	☉
100 002 84	8 - 41 l/min

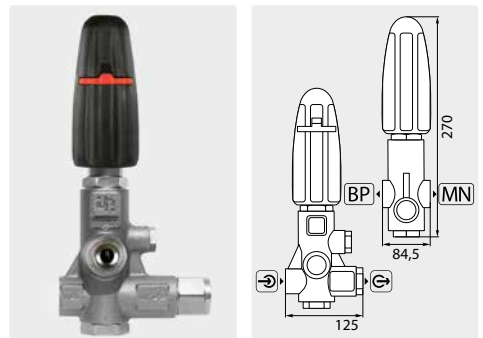
H450



☉ = inlet 1/2" F. ☉ = outlet 1/2" M.
BP = bypass 1/2" F.
Max. 400 bar / 85 °C

R+M Nr.	☉
100 014 40	50 l/min

H560

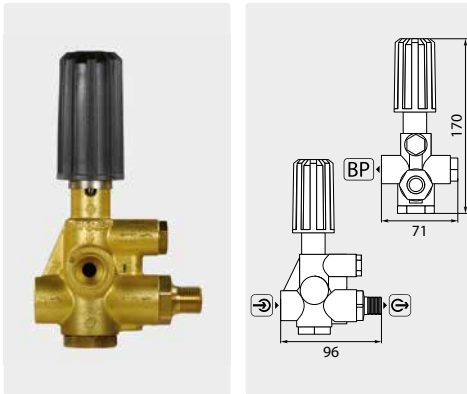


☉ = inlet 1/2" F. ☉ = outlet 1/2" F. BP = bypass 1/2" F. MN = pressure gauge 1/4" F.
Max. 500 bar / 60 °C

R+M Nr.	TYP	☉
100 005 60	stainless steel	60 l/min

INTERPUMP regulation valves

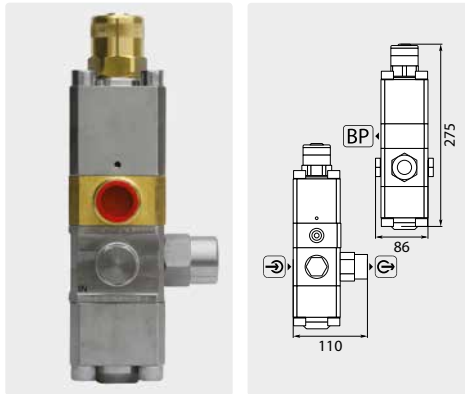
HM



☉ = inlet 3/8" F. ☉ = outlet 3/8" M. BP = bypass 3/8" F. MN = pressure gauge 1/4" F.
Max. 200 bar / 85 °C

R+M Nr.	☉
010 002 00	5 - 41 l/min

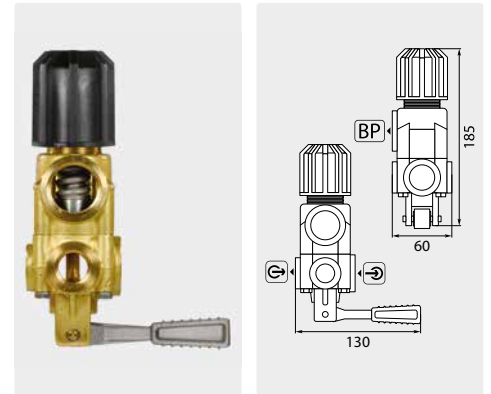
BKX



☉ = inlet 1/2" F. ☉ = outlet 1/2" F.
BP = bypass 3/4" F.
Max. 600 bar / 60 °C

R+M Nr.	☉
010 000 02	60 l/min

TIMAX



☉ = inlet 3/4" F. ☉ = outlet 1/2" F.
BP = bypass 1" F.
Max. 60 bar / 60 °C

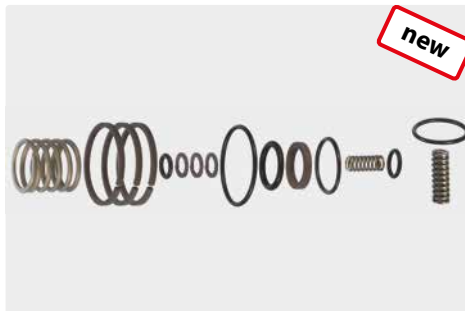
R+M Nr.	☉
010 010 01	200 l/min

Repair kits



R+M Nr.	Kit Nr.	TYP
340 058 01	58	K5
340 060 01	60	K5
340 070 01	70	K7
340 072 01	72	HM
340 093 01	93	W2, W2L
340 094 01	94	W2, W2L

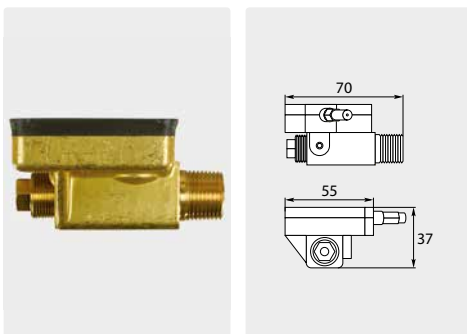
Rep. Kit BKX



R+M Nr.	
010 000 03	

Throttle control

IP adjustable

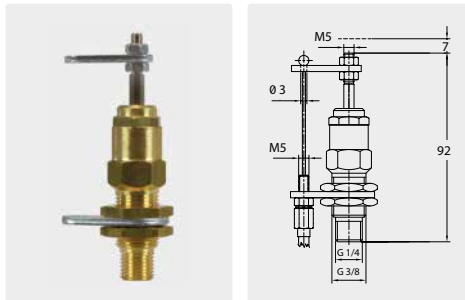


Regulator with string 1,000 mm. Min. 50 bar.
Max. 200 bar / 75 °C

R+M Nr.	☉
995 000 00	3/8" M

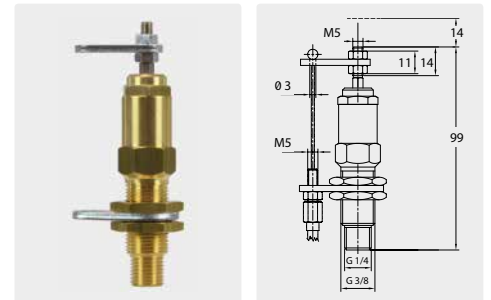
RG1

Throttle control for engine motors. It slows RPM down when by-pass is activated.



☉ 1/4" M. 15 - 250 bar - 218 - 3,650 psi.
Max. 160 °C.

R+M Nr.	Stroke	☉
532 012 0	7 mm	140 g

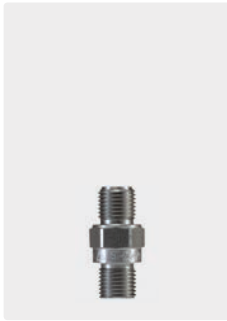


☉ 1/4" M. 15 - 250 bar - 218 - 3,650 psi.
Max. 160 °C.

R+M Nr.	Stroke	☉
532 013 0	14 mm	158 g

Symbols ☉ inlet ☉ outlet BP bypass MN pressure gauge ☉ flow TYP type ☉ weight ☉ thread I height SW hexagon

High pressure check valves ST-264



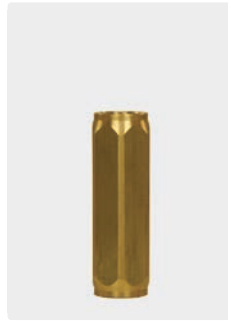
1/4" M. Stainless steel.
 ⓘ 37.8 mm. Opening
 pressure 0.05 - 0.1 bar.
 Max. 400 bar / 90 °C

R+M Nr.	SW
200 264 700	17 mm



1/4" F. Stainless steel.
 ⓘ 62 mm. Opening
 pressure 0.05 - 0.1 bar.
 Max. 400 bar / 90 °C

R+M Nr.	SW
200 264 500	19 mm



1/4" F. Brass.
 ⓘ 62 mm. Opening
 pressure 0.05 - 0.1 bar.
 Max. 150 bar / 90 °C

R+M Nr.	SW
200 264 510	19 mm



3/8" F. Stainless steel.
 ⓘ 65 mm. Opening
 pressure 0.05 - 0.1 bar.
 Max. 400 bar / 90 °C

R+M Nr.	SW
200 264 520	22 mm



3/8" F. Brass.
 ⓘ 65 mm. Opening
 pressure 0.05 - 0.1 bar.
 Max. 150 bar / 90 °C

R+M Nr.	SW
200 264 530	22 mm



1/2" F. Stainless steel.
 ⓘ 90 mm. Opening
 pressure 0.05 - 0.1 bar.
 Max. 400 bar / 90 °C

R+M Nr.	SW
200 264 540	27 mm

Thermal relief valves



1/2" M : hose tail 6 mm. Valve with
 copper sonde. Working temperature
 63 °C. Max. 10 bar

R+M Nr.
910 50



3/8" M : hose tail 6 mm. Valve with
 copper sonde. Working temperature
 63 °C. Max. 10 bar

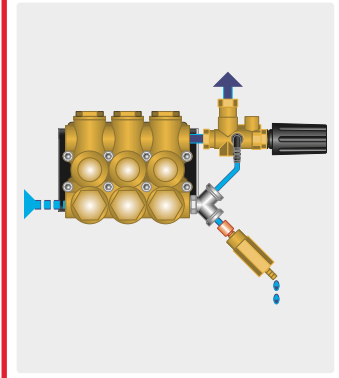
R+M Nr.
910 65



1/2" M : hose tail 6 mm. Valve with
 copper sonde. Working temperature
 63 °C. Max. 10 bar

R+M Nr.
910 55

Assembly instructions of a relief valves



High Pressure Filter ST-33



Brass with stainless steel filter. Bidirectional.
 Max. 400 bar / 40 l/min. / 150 °C

R+M Nr.	ⓘ	⊙	⊙
200 033 855	45.6 mm	1/4" M	1/4" F

Ultra High Pressure Filter



Stainless steel with brass mesh holder and stainless steel strainer. Suitable
 as inlet water filter for ST-164. Max. 400 bar / 100 °C

R+M Nr.	ⓘ	⊙	⊙
200 163 100	40 mm	M 22 M	3/8" M

Relief valves / pressure regulation valves

ST-230 Pressure regulating valve



- » Relief valve intended for use on water-operated high-pressure systems such as high-pressure cleaners or water heaters
- » Approved for use with fluids of Group II according to 2014/68/EU
- » \downarrow 110 mm
- » Max. 30 l/min / 95 °C

R+M Nr.	\ominus	\oplus	P
200 230 501	1/4" F	1/4" F	80-250
200 230 502	M16 x 1,5 M	1/4" F	80-250
200 230 601	1/4" F	1/4" F	120-350
200 230 602	M16 x 1,5 M	1/4" F	120-350

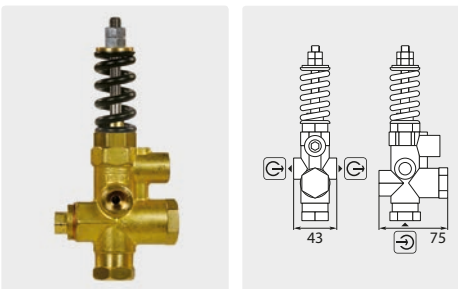
Repair kits



ST-230

R+M Nr.	TYP
200 230 496	250 bar
200 230 497	350 bar

S 250



\downarrow 160 mm. Max. 250 bar / 35 l/min / 95 °C

R+M Nr.	\ominus	\oplus
530 10	1/4" F	3/8" F

S3



\downarrow 110 mm. Max. 700 bar / 100 l/min / 85 °C

R+M Nr.	\oplus
010 002 15	1/2" M

Repair kits



S 250

R+M Nr.
121 412 92

SR



\downarrow 110 mm. Max. 200 bar / 41 l/min / 80 °C

R+M Nr.	\ominus	\oplus
010 002 10	1/4" F	3/8" M

VS 240



\downarrow 90 mm. Max. 240 bar / 24 l/min / 60 °C

R+M Nr.	\ominus	\oplus
530 525 0	\varnothing 3.5 mm	3/8" M

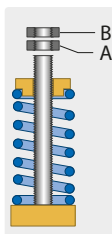
VS 500



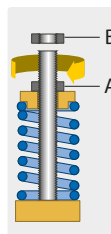
\downarrow 222 mm. Max. 500 bar / 80 l/min / 90 °C

R+M Nr.	BP	\oplus
532 520 0	3/8" F	1/2" F

Setting up of a relief valve



Screw off fixing nut (B) and regulating nut (A). Switch on high pressure cleaner and press trigger of gun so that the entire water flow runs out of the relief valve.


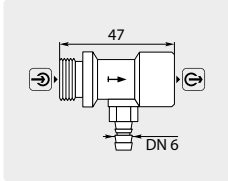

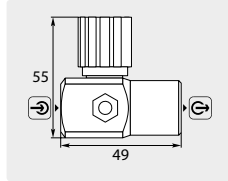

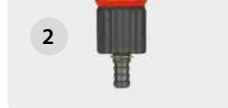







Slowly unscrew regulating nut (A) until pressure on the gauge is higher than the working pressure of the machine i.e. (> 100 bar = 10% . < 100 bar = 20%). Switch off hp cleaner and unscrew fix nut (B) without changing the position of nut (A).



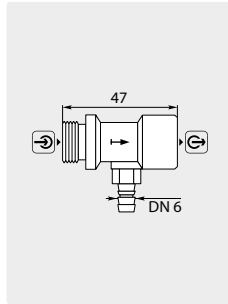



Attention




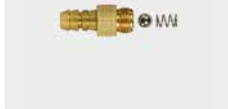
High pressure cleaner that are equipped with a regulation (bypass) valve must be set after having adjusted the relief valve.

Suttner chemical injectors

ST-60				ST-62				Metering valves		Repair kits	
								1 	2 		
Injector without metering valve. Max. 250 bar / 60 °C				Injector without metering valve. Adjustable bypass allows big water flow rates without reduction of the water pressure. Max. 250 bar / 60 °C				Valve for Suttner injector. Hose tail 6 mm		Chemical check valve. Hose tail 6 mm	
R+M Nr.			D	R+M Nr.			D	R+M Nr.			
200 060 600	3/8" M	3/8" F	1.8 mm	200 062 500	3/8" F NPT	3/8" F NPT	1.6 mm	050 000 370	1		
200 060 610	3/8" M	3/8" F	2.1 mm					200 061 500	2		
200 060 620	3/8" M	3/8" F	2.4 mm								

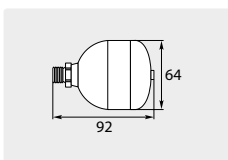
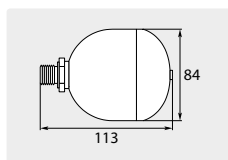

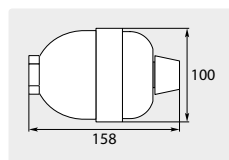







Suttner foam injectors

ST-60.1				ST-60.1				ST-60.1			
											
Coupling ST-45-250 : plug ST-45-250. Injector with metering valve, suction hose 1,000 mm and suction filter ST-31. Max. 250 bar / 60 °C				Injector without metering valve. Max. 250 bar / 60 °C				M22 F : M22 M. Injector with metering valve, suction hose 1,000 mm and suction filter ST-31. Max. 250 bar / 60 °C			
R+M Nr.	D			R+M Nr.			D	R+M Nr.	D		
200 060 750	1.6 mm			200 060 700	3/8" M	3/8" F	1.6 mm	200 060 760	1.6 mm		
				200 060 710	3/8" M	3/8" F	1.8 mm				

Metering valves		Repair kits	
1 	Valve for Suttner injector. Hose tail 6 mm		Chemical check valve. Hose tail 6 mm
2 	R+M Nr. 050 000 370 1 200 061 500 2		R+M Nr. 200 060 725

The suitable foam lances are presented on pages 313-315.

Accumulator

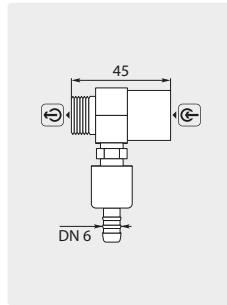
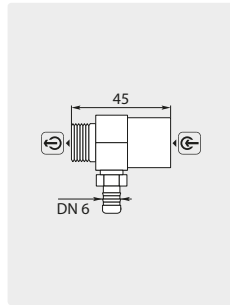
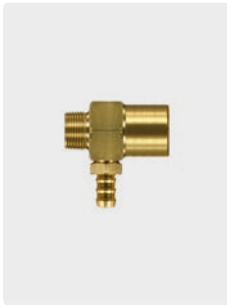
					
Volume 0.07 liter. Max. 80 °C		Volume 0.21 liter. Max. 85 °C		Volume 0.35 liter. Max. 85 °C	
R+M Nr.			R+M Nr.		
189 307 0	M14 M	15 - 200 bar	189 321 0	M16 M	25 - 220 bar
			189 321 2	3/8" M	25 - 220 bar
R+M Nr.			R+M Nr.		
189 211 0 *	3/8" F	40 - 210 bar			

* Accumulator must be filled with nitrogen

Symbols  inlet  outlet  bypass  height  nozzle  pressure  type  diameter  thread

Chemical injectors

R+M 300



Without metering valve. Max. 220 bar / 90 °C

R+M Nr.			
544 318 0	3/8" M	3/8" F	1.8 mm
544 321 0	3/8" M	3/8" F	2.1 mm
544 323 0	3/8" M	3/8" F	2.3 mm

Injector with metering valve. Max. 220 bar / 90 °C

R+M Nr.			
544 318 1	3/8" M	3/8" F	1.8 mm
544 321 1	3/8" M	3/8" F	2.1 mm
544 323 1	3/8" M	3/8" F	2.3 mm

R+M 300



Injector with metering valve. Max. 220 bar / 90 °C

R+M Nr.			
544 318 11	M22 M	M22 F	1.8 mm
544 321 11	M22 M	M22 F	2.1 mm
544 323 11	M22 M	M22 F	2.3 mm

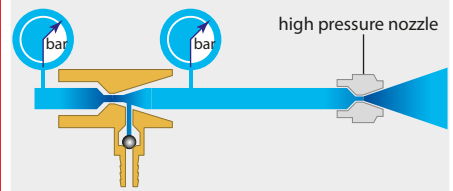


Injector with metering valve, suction hose 1,000 mm and suction filter ST-31. Max. 220 bar / 90 °C

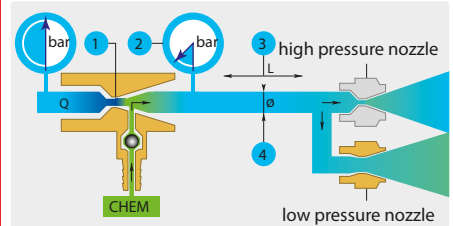
R+M Nr.			
544 318 14	M22 M	M22 F	1.8 mm
544 321 14	M22 M	M22 F	2.1 mm
544 323 14	M22 M	M22 F	2.3 mm

Functional principle of a chemical injector

High pressure phase



Low pressure phase



The operation of the injector depends on:

- 1 The nozzle type must be chosen in dependence on the output of the high pressure cleaner.
- 2 The difference of pressure allows addition of chemical products occurred by special effect of "venturi" nozzle. This effect is given when the water also rinses through the low pressure nozzle. This has a bigger orifice than the high pressure nozzle and is mounted on the spray lance (e. g. at a double lance).
- 3 Length of the high pressure hose (should not be longer than 20 m).
- 4 Internal diameter of the high pressure hose (the longer the hose the bigger should be its internal diameter). Hose extensions injure output of the injector.

Suttner chemical injectors

ST-64 upstream chemical injectors



Injector with shiftable and disengageable chemical dosing. For suction of chemicals in the water inlet of the pump. Mixtures of chemicals/water can be applied by high pressure. Please use the backflow preventer (R+M Nr. 734 10). Hose tail 6 mm.

Max. 10 bar / 90 °C

R+M Nr.			
200 064 500	1/2" M	1/2" F	5 – 15 l/min
200 064 510	1/2" M	1/2" F	15 – 30 l/min



Suction set with suction hose 1,500 mm, suction filters ST-31 and chemical-resistant plastic tube 320 mm. The tube keeps the suction filter at the deepest point.

R+M Nr.	TYP	DN
200 031 500	clear PVC hose	6 mm
200 031 510	reinforced PVC hose blue	9 mm
200 031 520	reinforced PVC hose yellow	9 mm
200 031 530	reinforced PVC hose clear	9 mm



Suction set with filter check valve ST-32 and stainless steel tube 350 mm.

R+M Nr.	DN
200 032 601	6 mm
200 032 602	8 mm
200 032 603	10 mm

Symbols inlet outlet flow diameter nozzle type nominal diameter colour

easyfoam365+ injectors by Suttner

Injectors ST-160



3/8" F : 3/8" M : hose tail 9 mm. Injector for applications with chemicals and foam. The chemical dosing is adjusted by 10 exchangeable nozzle inserts (0.5 - 2.0 mm).
Max. 350 bar / 90 °C

R+M Nr.	D
200 160 499	1.2 mm
200 160 500	1.3 mm
200 160 505	1.4 mm
200 160 510	1.5 mm
200 160 515	1.6 mm
200 160 520	1.7 mm
200 160 525	1.8 mm
200 160 530	1.9 mm
200 160 540	2.1 mm
200 160 550	2.3 mm
200 160 575	2.8 mm



3/8" F : 3/8" M : hose tail 9 mm. Injector ST-160 with metering valve ST-161.
Max. 350 bar / 90 °C

R+M Nr.	D
200 160 599	1.1 mm
200 160 600	1.2 mm
200 160 601	1.3 mm
200 160 602	1.4 mm
200 160 603	1.5 mm
200 160 604	1.6 mm
200 160 605	1.7 mm
200 160 606	1.8 mm
200 160 607	1.9 mm
200 160 609	2.1 mm
200 160 611	2.3 mm
200 160 614	2.8 mm

Injectors ST-166



3/8" F : 3/8" M : 2 hose tails 9 mm. Injector for applications with chemicals and foam. The injector sucks in/admixes up to two chemicals at the same time. The chemical dosing is adjusted by 2 x 10 exchangeable nozzle inserts (0.5 - 2.0 mm).
Max. 350 bar / 90 °C

R+M Nr.	D
200 166 500	1.3 mm
200 166 510	1.6 mm
200 166 530	1.9 mm

new

Valve lock



Valve lock for metering valve ST-161

R+M Nr.
040 003 566

Metering valves ST-161



Hose tail 9 mm : M14 M. Metering valve ST-161 suitable for being refitted in easyfoam365+ injectors (ST-160, ST-166, ST-167 and ST-168)

R+M Nr.	C
200 161 500	blue (FKM)



Hose tail 9 mm : M14 M. Metering valve ST-161 suitable for being refitted in easyfoam365+ injectors (ST-160, ST-166, ST-167 and ST-168)

R+M Nr.	C
200 161 515	grey (EPDM)



Hose tail 9 mm : hose tail 9 mm. Panel mount is possible

R+M Nr.	C
200 161 510	blue (FKM)

Exchangeable nozzle inserts



Plastic. 10 nozzle inserts (0.5 - 2.0 mm).
Incl. o-rings

R+M Nr.
200 163 340

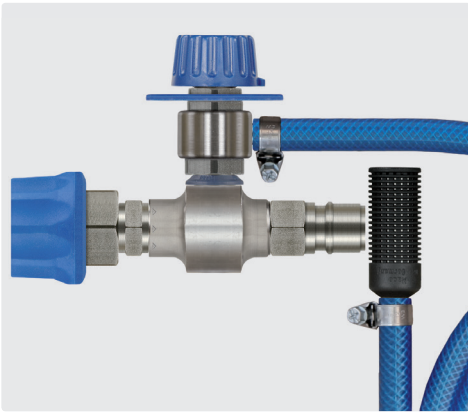


Plastic. 9 nozzle inserts (0.5 - 1.5 mm).
Incl. o-rings.
Incl. 1 insert without hole

R+M Nr.
200 163 335

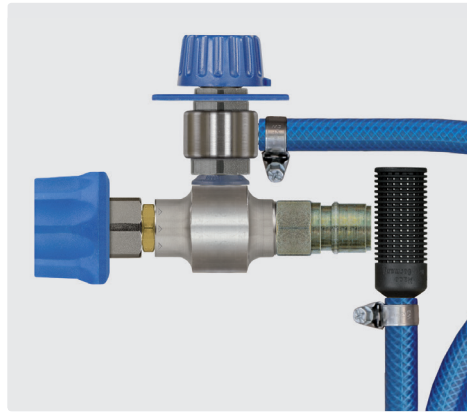
easyfoam365+ injectors by Suttner

Injectors ST-160 with metering valve ST-161



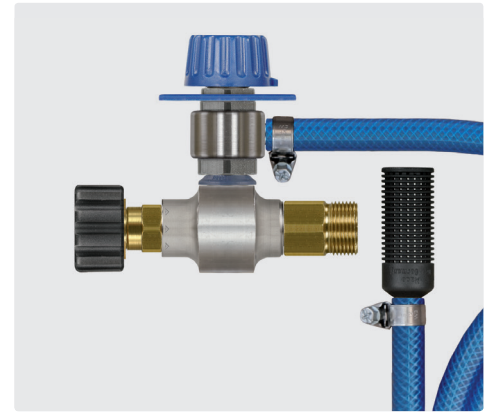
Coupling ST-45-250 stainless steel : plug ST-45-250 stainless steel. Injector with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 90 °C

R+M Nr.	D
200 160 846	1.3 mm
200 160 847	1.4 mm
200 160 848	1.5 mm
200 160 849	1.6 mm
200 160 850	1.7 mm
200 160 851	1.8 mm
200 160 854	2.1 mm
200 160 855	2.2 mm
200 160 856	2.3 mm



Coupling ST-45-250 nickel-plated brass : plug ST-45-250 zinc-plated steel. Injector with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 90 °C

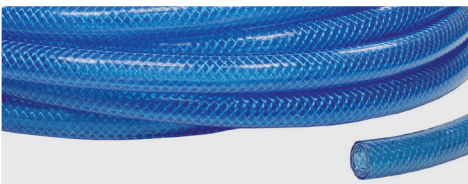
R+M Nr.	D
200 160 861	1.3 mm
200 160 862	1.4 mm
200 160 863	1.5 mm
200 160 864	1.6 mm
200 160 865	1.7 mm
200 160 866	1.8 mm
200 160 869	2.1 mm
200 160 870	2.2 mm
200 160 871	2.3 mm



M22 F : M22 M. Injector with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 350 bar / 90 °C

R+M Nr.	D
200 160 804	1.3 mm
200 160 800	1.4 mm
200 160 801	1.5 mm
200 160 802	1.6 mm
200 160 805	1.7 mm
200 160 806	1.8 mm
200 160 809	2.1 mm
200 160 810	2.2 mm
200 160 811	2.3 mm

Reinforced PVC hoses blue



Max. 60 °C. Other dimensions are available on request

Per metre

R+M Nr.	DN	W
080 000 310	9 mm	3.0 mm
306 71	13 mm	3.0 mm

Complete rolls

R+M Nr.	DN	L	W
306 560 50	9 mm	50 m	3.0 mm
306 710 50	13 mm	50 m	3.0 mm

Suction filter ST-31



Filter without check valve. Plastic. Stainless steel weight

R+M Nr.
200 031 615



Filter with check valve. Plastic. Stainless steel weight

R+M Nr.
200 031 611

Accessories injectors



Hose tail 9 mm : M14 M. Check valve

R+M Nr.
200 163 350



1/4" M : M14 M. Check valve

R+M Nr.
200 163 356

Symbols nozzle length wall thickness nominal diameter

easyfoam365+ injectors by Suttner

Injectors ST-160



Coupling ST-45-250 nickel-plated brass : plug ST-45-250 stainless steel. Injector with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 90 °C

R+M Nr.	D
200 160 616	1.8 mm : 2.3 mm



Coupling ST-45-250 nickel-plated brass : plug ST-45-250 stainless steel. Injector ST-160 with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 90 °C

R+M Nr.	D
200 160 615	1.7 mm : 2.3 mm



Coupling ST-45-250 nickel-plated brass : plug ST-45-250 stainless steel. Injector ST-160 with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 90 °C

R+M Nr.	D
200 160 617	2.2 mm : 2.8 mm

easyfoam365+ bypass injectors ST-167



Coupling ST-45-250 nickel-plated brass : plug ST-45-250 stainless steel. Injector ST-167 with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 100 °C

R+M Nr.	D
200 167 850	1.8 mm : 2.3 mm



Coupling ST-45-250 stainless steel : plug ST-45-250 stainless steel. Injector ST-167 with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 100 °C

R+M Nr.	D
200 167 855	1.8 mm : 2.3 mm



Coupling ST-45-250 nickel-plated brass : plug ST-45-250 stainless steel. Injector ST-167 with metering valve ST-161, suction hose 2,000 mm and suction filter ST-31. Max. 250 bar / 100 °C

R+M Nr.	D
200 167 860	1.8 mm : 2.8 mm

Reference list manufacturer number to R+M number

Manufacturer Nr.	R+M Nr.
640 124 4	200 160 616
640 124 4	200 160 615
640 124 6	200 160 617
640 124 2	200 167 850
640 124 3	200 167 855
640 124 7	200 167 860

R+M high quality spare parts are obtained from well-established manufacturers. As a rule they are not original spare parts. The original order numbers and the indication of other information are exclusively for your guidance and furthermore they are not intended for the general use, e.g. invoices addressed to end users. In case of mentioning the original order numbers in your orders it can not be assumed that the products ordered are original spare parts. Original spare parts are supplied when they are especially offered as those in our catalogue or in other mailing pieces such as special offers or newsletters.

Suttner flow switches

ST-5 flow switches 210 bar



ST-5 High-Flow. Magnet with hole.
Vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
5.2 l closed. 4.2 l open.
Max. 210 bar / 60 l/min / 80 °C

R+M Nr.	
200 005 701	1/2" F

ST-5 flow switches 350 bar



Magnet without hole.
Vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
3.4 l closed. 2.9 l open.
Max. 350 bar / 30 l/min / 80 °C

R+M Nr.	
200 005 501	3/8" F



Magnet without hole.
Vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
0.3 l closed. 0.17 l open.
Max. 350 bar / 30 l/min / 80 °C

R+M Nr.	
200 005 558	3/8" F



Magnet with hole. Horizontal or vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
5.2 l closed. 4.2 l open.
Max. 350 bar / 30 l/min / 80 °C

R+M Nr.	
200 005 601	3/8" F

ST-6 flow switches



3/8" M : 3/8" M. Horizontal or vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
1.8 l closed. 1.4 l open.
Max. 310 bar / 30 l/min / 80 °C

R+M Nr.	
200 006 700	

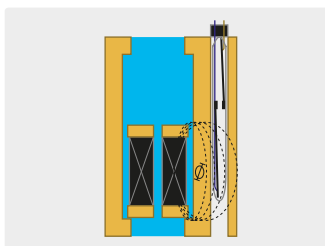


3/8" M : M16 M. Horizontal or vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
1.8 l closed. 1.4 l open.
Max. 310 bar / 30 l/min / 80 °C

R+M Nr.	
905 45	

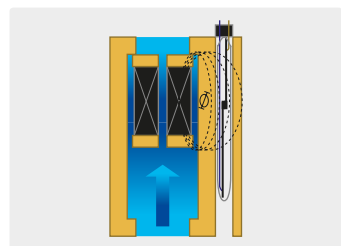
Functional principle of a flow switch

Without waterflow



The floater is in resting position.
The contact is open.

With waterflow



The floater is in working position.
The contact is closed by the magnetic floater.

ST-505 flow switches 600 bar



Floater VA with hole.
Vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
3.3 l closed. 1.8 l open.
Max. 600 bar / 30 l/min / 80 °C

R+M Nr.	
200 505 706	3/8" F



Floater VA without hole.
Vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
2.2 l closed. 1.6 l open.
Max. 600 bar / 30 l/min / 80 °C

R+M Nr.	
200 505 707	3/8" F



Floater brass with hole.
Vertical mount. Cable 1,200 mm.
Contact 1 A - 250 V.
0.5 l closed. 0.1 l open.
Max. 600 bar / 30 l/min / 80 °C

R+M Nr.	
200 505 708	3/8" F



Floater VA without hole.
Vertical mount. Cable 3,500 mm.
Contact 1 A - 250 V.
3.3 l closed. 1.8 l open.
Max. 600 bar / 30 l/min / 80 °C

R+M Nr.	
200 505 709	3/8" F



Floater brass without hole.
Vertical mount.
Cable 3,500 mm. Contact 1 A - 250 V.
0.5 l closed. 0.1 l open.
Max. 600 bar / 30 l/min / 80 °C

R+M Nr.	
200 505 711	3/8" F

Suttner flow switches

Spare parts flow switches



Floater ST-5 / ST-505 without hole

R+M Nr.
200 005 526



Floater ST-5 with hole

R+M Nr.
200 005 520



Floater ST-5 high-flow with hole

R+M Nr.
200 005 528



Floater ST-5 (200 005 601) with hole

R+M Nr.
200 005 519



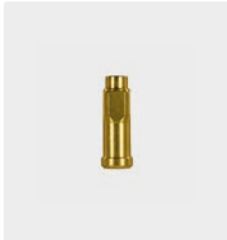
Floater ST-505 without hole

R+M Nr.
200 005 311

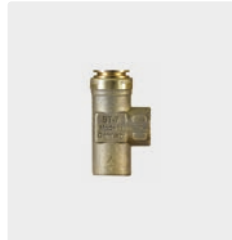


Floater ST-505 with hole

R+M Nr.
200 005 301



Floater ST-6



Repair-Kit floater ST-7

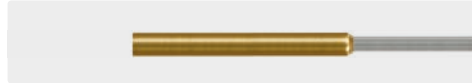


Repair-Kit switch ST-7. Cable 1,200 mm



REED switch ST-5 & ST-505

R+M Nr.	Cable
200 005 435	1,200 mm
200 005 438	3,500 mm



REED switch ST-6. Cable 1,200 mm

R+M Nr.
200 006 490

R+M Nr.	☐
200 007 497	4 l/min
200 007 499	1.5 l/min

R+M Nr.
200 007 498

R+M Nr.
200 006 431

ST-7 flow switches

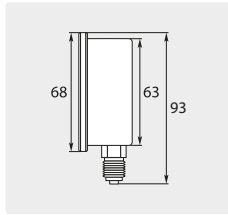


3/8" F. Protection class IP65. Cable 1,200 mm. 10 A. 250 V. Inrush current 20 A (NC) and 15 A (NO). Max. 350 bar / 45 l/min / 80 °C

R+M Nr.	☐	switch-on points
200 007 500	4.0 l/min	4.9 l closed. 3.5 l open
200 007 510	1.5 l/min	1.5 l closed. 0.8 l open

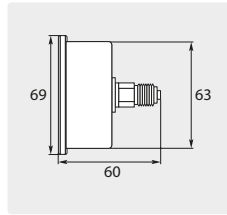
The ST-7 is a newly developed version of the flow switch having a completely new operating principle. In this new development a robust and industrial micro switch is inserted instead of the usually supersensitive REED-contacts with low switching capacity. This micro switch makes it possible to realize a significantly higher electrical output though having a longer working life. The electrical and water-hydraulic components of the flow switch are completely separated. The construction of the flow switch allows mounting the electrical parts independent of the hydraulic components within the series production process. When fitting together chassis and switch box both parts of the flow switch are connected again. Due to the mature engineering low switching points are realized in spite of maximum water quantities. The pressure drop within the flow switch is only 1.5 bar at 30 l/min.

High pressure gauges glycerine filled



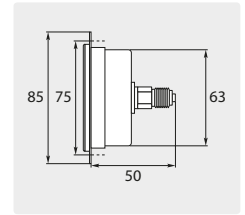
Ø 63 mm. 1/4" M. Housing stainless steel.
Inlet at the bottom

R+M Nr.	pressure range
549 10	0 - 100 bar . 0 - 1,500 PSI
549 20	0 - 160 bar . 0 - 2,500 PSI
549 30	0 - 250 bar . 0 - 4,000 PSI
549 40	0 - 400 bar . 0 - 6,000 PSI
549 50	0 - 600 bar . 0 - 8,000 PSI



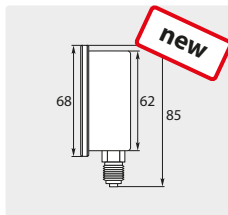
Ø 63 mm. 1/4" M. Housing stainless steel.
Inlet at the back

R+M Nr.	pressure range
548 10	0 - 100 bar . 0 - 1,500 PSI
548 20	0 - 160 bar . 0 - 2,500 PSI
548 30	0 - 250 bar . 0 - 4,000 PSI
548 40	0 - 400 bar . 0 - 6,000 PSI



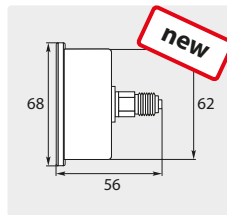
Ø 63 mm. 1/4" M. With mounting ring.
Housing stainless steel. Inlet at the back

R+M Nr.	pressure range
549 90	0 - 250 bar . 0 - 4,000 PSI



Ø 63 mm. 1/4" M. Housing stainless steel.
Inlet at the bottom. Type WIKA

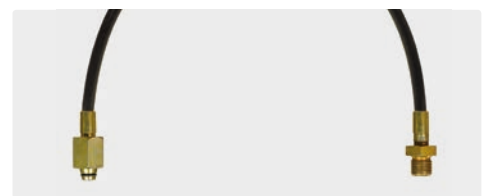
R+M Nr.	pressure range
549 102	0 - 100 bar . 0 - 1,500 PSI
549 202	0 - 160 bar . 0 - 2,500 PSI
549 302	0 - 250 bar . 0 - 4,000 PSI
549 402	0 - 400 bar . 0 - 6,000 PSI
549 502	0 - 600 bar . 0 - 8,000 PSI



Ø 63 mm. 1/4" M. Housing stainless steel.
Inlet at the back. Type WIKA

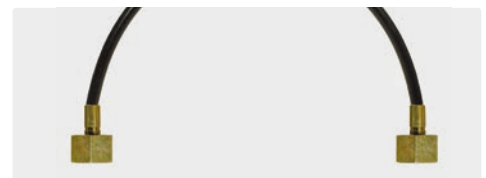
R+M Nr.	pressure range
548 102	0 - 100 bar . 0 - 1,500 PSI
548 202	0 - 160 bar . 0 - 2,500 PSI
548 302	0 - 250 bar . 0 - 4,000 PSI
548 402	0 - 400 bar . 0 - 6,000 PSI
548 631 000	0 - 1,000 bar . 0 - 15,000 PSI

Connecting hoses



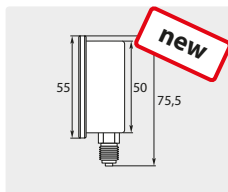
DN 2. Max. 250 bar / 65 °C

R+M Nr.	↔	⊖	⊕
495 261 040 5	405 mm	M12x1.5 F	M10x1 M



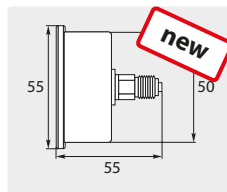
DN 2. Max. 250 bar / 65 °C

R+M Nr.	↔	⊖	⊕
495 252 050 0	500 mm	1/4" F	1/4" F
495 252 070 0	700 mm	1/4" F	1/4" F



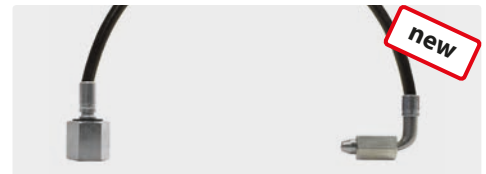
Ø 50 mm. 1/4" M. Housing stainless steel.
Inlet at the bottom. Type WIKA

R+M Nr.	pressure range
549 352	0 - 250 bar . 0 - 4,000 PSI
549 452	0 - 400 bar . 0 - 6,000 PSI



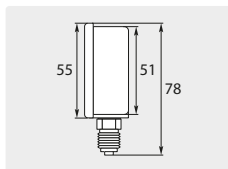
Ø 50 mm. 1/4" M. Housing stainless steel.
Inlet at the back. Type WIKA

R+M Nr.	pressure range
548 352	0 - 250 bar . 0 - 4,000 PSI
548 432	0 - 400 bar . 0 - 6,000 PSI



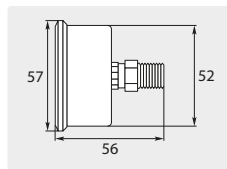
DN 2. Max. 250 bar / 65 °C

R+M Nr.	↔	⊖	⊕
495 253 100 0	1,000 mm	1/4" F	1/4" F 90°



Ø 50 mm. 1/4" M. Housing stainless steel.
Inlet at the bottom

R+M Nr.	pressure range
549 35	0 - 250 bar . 0 - 4,000 PSI
549 45	0 - 400 bar . 0 - 6,000 PSI



Ø 50 mm. 1/4" M. Housing stainless steel.
Inlet at the back

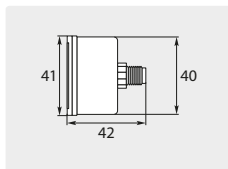
R+M Nr.	pressure range
548 35	0 - 250 bar . 0 - 4,000 PSI
548 43	0 - 400 bar . 0 - 6,000 PSI

Fixing straps

for pressure gauges, except WIKA



R+M Nr.	TYP
548 50	Ø 63 mm
548 55	Ø 50 mm



Ø 40 mm. 1/8" M. Housing plastic.
Inlet at the back

R+M Nr.	pressure range
548 37	0 - 250 bar . 0 - 4,000 PSI

Before setting the gauge under pressure please open the tip of the rubber plug.

High pressure solenoid valves closed in off-position

Rapa SV 04



1/4" F. NW 1.5 mm. Solenoid valve with connector. Pressure range 0 - 130 bar. Max. 90 °C

R+M Nr.	V
832 01	24 V =
832 00	24 V ~ 50 Hz
832 10	230 V ~ 50 Hz

AK



1/4" F. NW 1.2 mm. Solenoid valve without connector. Pressure range 0 - 180 bar. Max. 90 °C

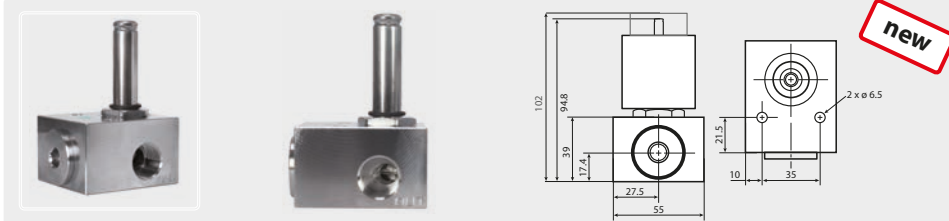
R+M Nr.	⊖	⊓	V
833 10	48 mm	109 mm	24 V =
833 15	48 mm	109 mm	24 V ~ 50 Hz
833 00	48 mm	109 mm	230 V ~ 50 Hz

Connector



R+M Nr.
833 50

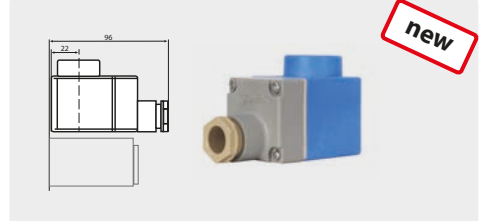
Danfoss VDHT



Stainless steel. Viton. Pressure range 0 - 160 bar. Without coil. Max. 90 °C

R+M Nr.	⊙	⊖
837 180 094	1/2"	60 l/min
837 180 092	3/8"	30 l/min

Danfoss solenoid coil



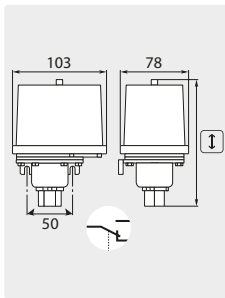
24 V / DC / 13 W

R+M Nr.
837 018 791 4

Symbols ⊙ thread ⊓ height ⊖ inlet ⊕ outlet ∅ diameter ⊖ length V voltage ⊖ flow

Pressure switches

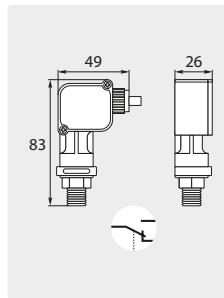
Condor / Fanal



Contact 10 A - 380 V. Thread 3/8" F.
Max. 250 bar / 90 °C

R+M Nr.	TYP	P	I
911 50	FF4-4	0.22 - 4 bar	110 mm
911 40	FF4-32	2 - 32 bar	110 mm
911 20	FF4-250	30 - 250 bar	140 mm

PR 5



Contact 5 A - 250 V. Cable 950 mm. Thread 1/4" M.
Max. 250 bar / 90 °C

R+M Nr.	★	start-up pressure
912 515	blue	15 bar
912 525	red	25 bar
912 540	black	40 bar

Diaphragm pressure switches SW 27



Stainless steel. Contact 4 A - 24 V - 250 V. EPDM seals. Usable as dry running protection.
Max. 300 bar / 90 °C

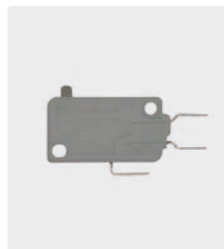
R+M Nr.	⊙	P
913 186 203	1/4" M	0.5 - 5 bar

Connector PG 9



Suitable for diaphragm pressure switch

Spare parts



Micro switches

R+M Nr.
913 118 002

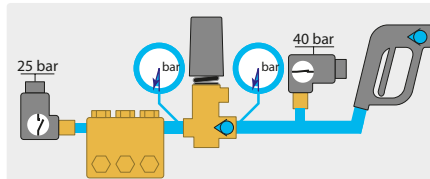
R+M Nr.
912 00

When exchanging the pressure switch please check the accumulator and if necessary exchange it.

Example of use

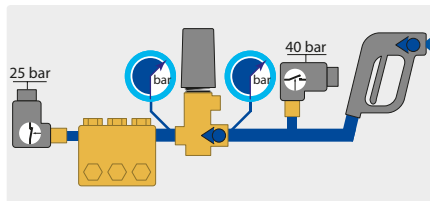
with two pressure switches

1 - Starting phase



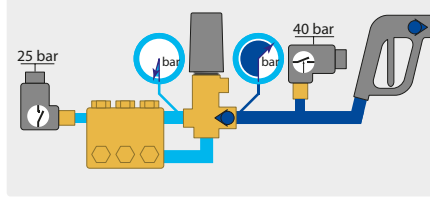
Contact of pressure switch (40 bar) is activated and by this way the cleaner can be started.

2 - High pressure phase



Reaching 25 bar the pressure switch (25 bar) changes the operating condition and secures the operation of the cleaner while pressure switch (40 bar) is deactivated.

3 - Stop phase



During the bypass phase water circulates in the pump without pressure. The pressure switch (25 bar) opens and the cleaner stops. At the same time there is still high pressure between the regulation valve and the gun. The high pressure cleaner starts again when operating the gun.

Symbols ⊙ thread I height TYP type P pressure ★ colour