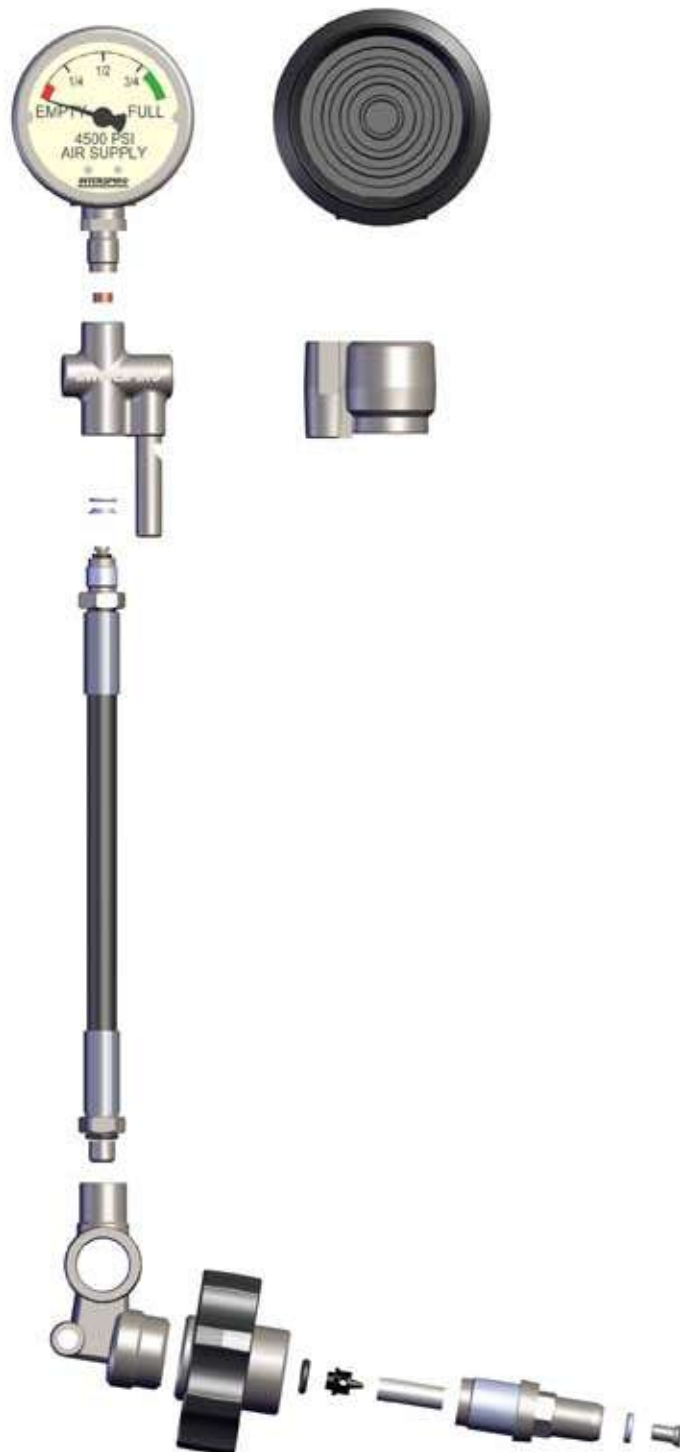


SPIROMATIC 90 USA/USA-S REGULATOR UNIT



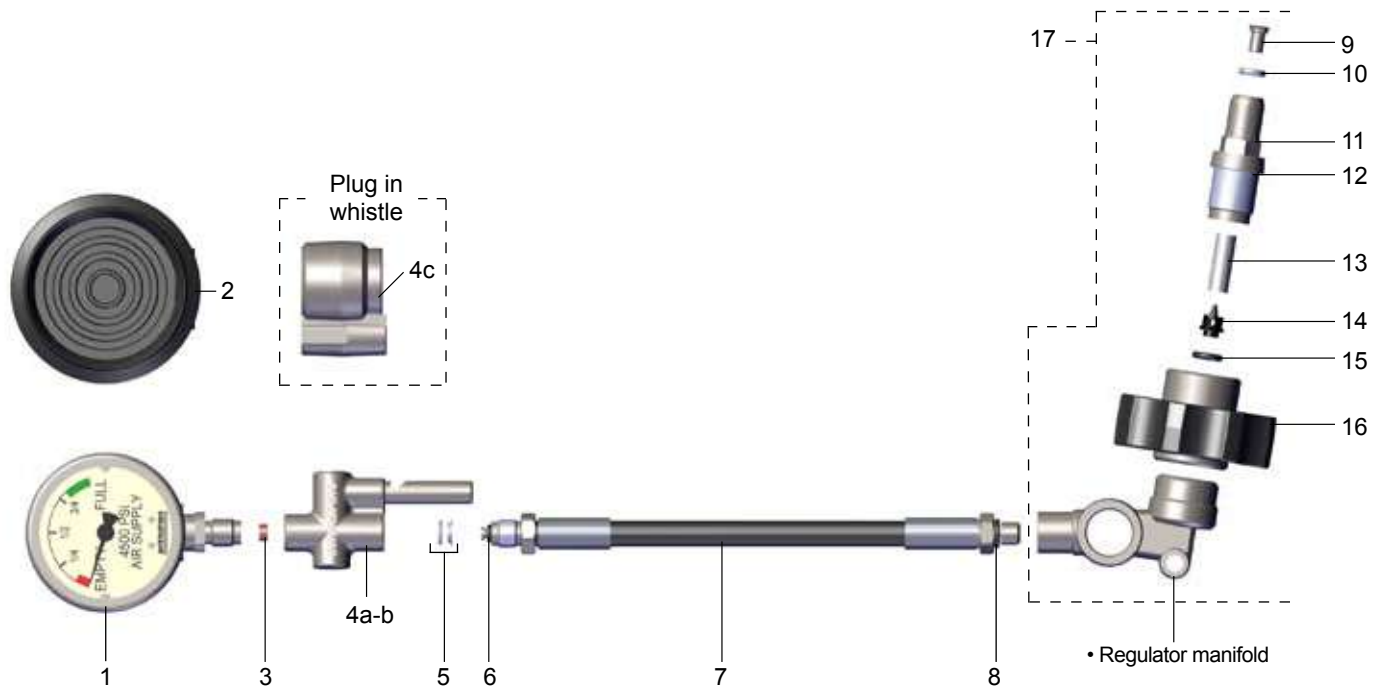
READ BEFORE USE

1. Only holders of a valid **INTERSPIRO SERVICE CERTIFICATE** may carry out service and repairs on **INTERSPIRO** breathing equipment. Unauthorized service may result in malfunction and users relying there on could sustain severe respiratory injury or death.
2. When using the spare part list always refer to the equipment's **SERVICE MANUAL** in regard to procedure and handling of the spare parts assembly and function.
3. Changes to this document – necessitated by typographical errors, inaccuracies of current information or improvements and changes of equipment – may be done at any time and without prior notice.
4. The **NOTE** column is used for short descriptions of the spare part, for example dimensions or number of included sub components. For example "10 x 336 100 437" indicates that this is a multi-pack that consists of 10 pieces of the single component 336 100 437.
5. The service kits contain replacement items used for preventive maintenance.
6. Always refer to **WWW.INTERSPIRO.COM** for product or document updates and for service bulletins.

CONTENTS

MANIFOLD UNIT.....	6
PRESSURE REGULATOR.....	8
WHISTLE INSERT (PLUG IN WHISTLE)	10
MEDIUM PRESSURE HOSES.....	12
TOOLS.....	14

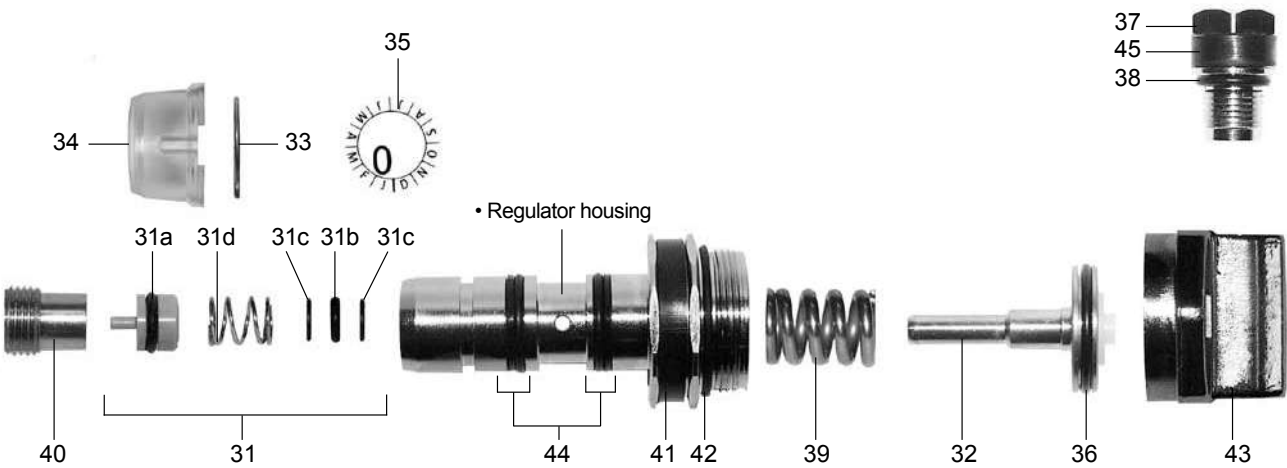
MANIFOLD UNIT



#	ORDER NO.	DESCRIPTION	NOTE
1a	460 200 084	Pressure gauge, 4500 psi	4500 psi
1b	460 200 085	Pressure gauge, 2216 psi	2216 psi
2	30 984-51	Pressure gauge cover	
3	336 190 159	Gasket set	2 sizes
4a	31 030-57	Whistle, 4500 psi	
4b	31 030-58	Whistle, 2216 psi	
4c	95 905-51	Whistle manifold	10 x 336 900 105
5	460 190 192	Friction washer kit	5 x 31 795-01, 5 x 31 796-01, 5 x 944 610 201 (#6)
6	336 190 235	O-ring	10 x 944 610 201
7	460 190 380	High pressure hose	Incl. #5, #6 & #8
8	336 190 312	O-ring	10 x 336 900 105
9	460 190 060	Nipple tip and O-ring	10 x 336 100 656, 10 x 336 900 182
10	336 190 437	O-ring	10 x 336 900 182
11a	460 200 090	Connection nipple, 4500 psi	1 x 336 100 652
11b	460 200 091	Connection nipple, 2216 psi	1 x 336 100 655
12	96 944-51	Connector washer	10 x 96 944-01
13a	346 190 643	Inlet filter	10 x 212 100 014
13b	346 190 644	Inlet filter	100 x 212 100 014
14	460 190 059	Filter holder kit	10 x 336 100 653, 10 x 212 100 014 (#13), 10 x 336 900 183 (#15)
15	336 890 105	O-ring	10 x 336 900 183
16a	460 200 088	Handwheel connector, 4500 psi	1 x 336 190 432
16b	460 200 089	Handwheel connector, 2216 psi	1 x 336 190 433
17a	336 890 438	Manifold assembly, 4500 psi	
17b	336 890 444	Manifold assembly, 2216 psi	

#	ORDER NO.	DESCRIPTION	NOTE
A	460 200 082	Service kit for 1 cylinder connector	1 x #10, #12, #13, #15
B	460 200 100	Service kit for Manifold	1 x #5, #6, #10, #12, #13, #15

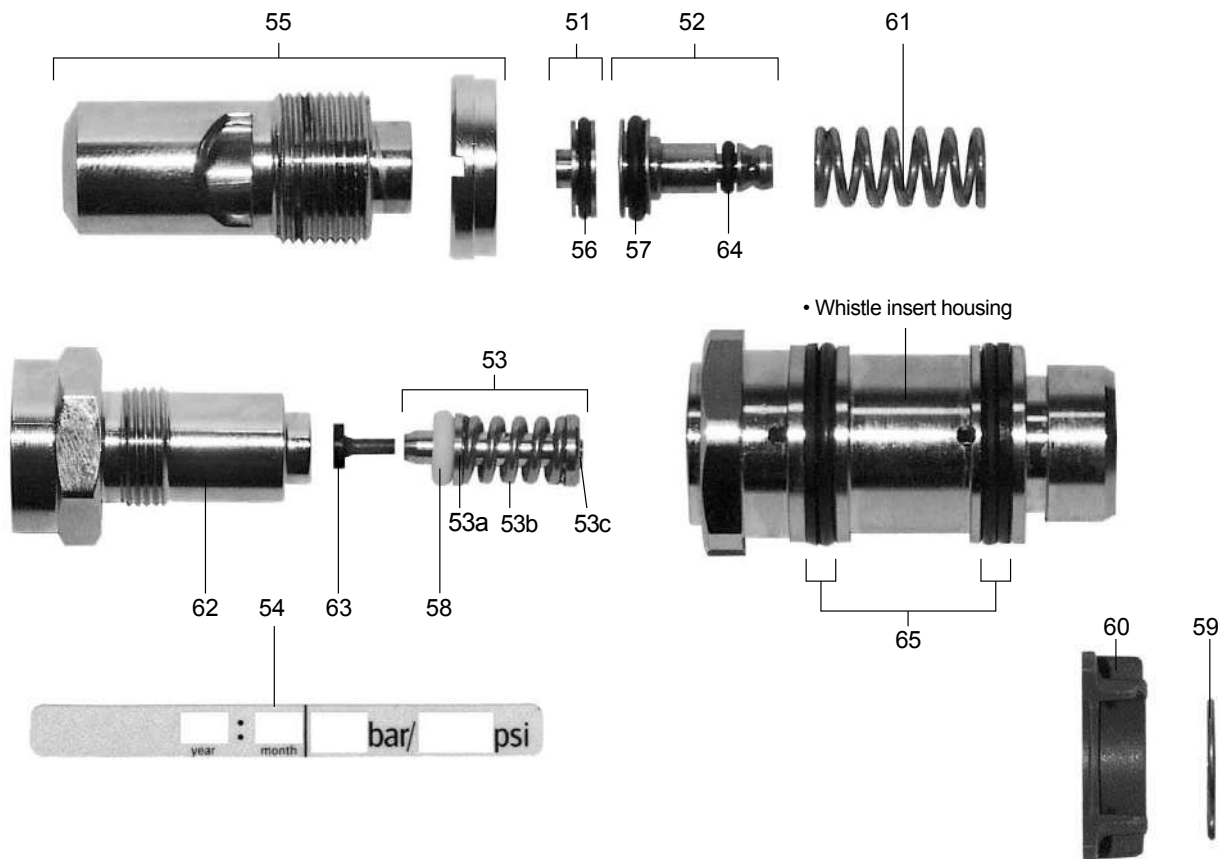
PRESSURE REGULATOR



#	ORDER NO.	DESCRIPTION	NOTE
•	460 190 141	Pressure regulator	Not incl. #33-34
•	346 190 649	Pressure regulator, for the CE market	Not incl. #33-34
31	346 190 023	Valve seat set	
32	460 190 386	Piston	
33	346 190 293	Locking clip	10 x 346 190 158
34	346 190 294	Protective cover	10 x 346 190 159
35	346 190 295	Sealing lable	25 x 346 100 170
36	346 190 022	O-ring	10 x 346 900 002
37	460 190 387	Relief valve BSP 1/8"	Incl. #38
38	336 190 311	O-ring	10 x 944 610 206
39	346 190 026	Spring	5 x 346 100 005
40	460 190 388	Adjusting screw	5 x 346 100 009
41	460 190 201	Protective band	5 x 95 472
42	346 190 024	O-ring	10 x 346 900 004
43	460 190 389	Regulator cover	2-port
44a	460 190 198	O-ring and back-up rings	10 x 346 900 001, 10 x 95 471-01
44b	460 190 199	O-ring and back-up rings	50 x 346 900 001, 50 x 95 471-01
45	346 190 053	Protective band	10 x 346 100 066

#	ORDER NO.	DESCRIPTION	NOTE
A	460 190 322	Service kit for 1 Pressure regulator	1 x #31, 1 x #33-36, 1 x #38, 1 x #41, 1 x #42, 1 x #45, 2 x #44

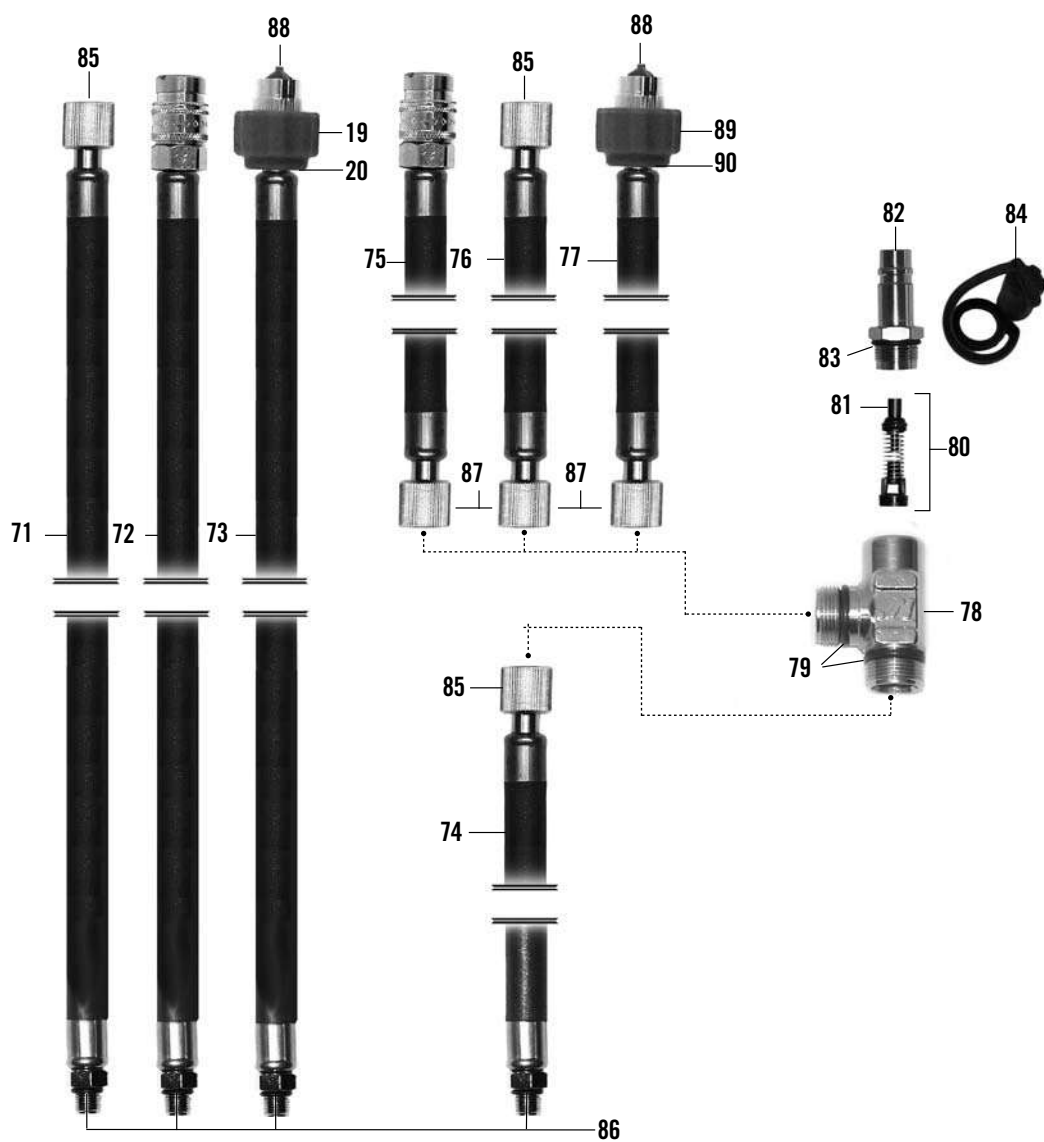
WHISTLE INSERT (PLUG IN WHISTLE)



#	ORDER NO.	DESCRIPTION	NOTE
•	460 190 409	Whistle insert 4500 psi	74-78 bar Not incl. #59-60
•	460 190 410	Whistle insert 2216 psi	36-41 bar Not incl. #59-60
51	346 190 220	Nozzle with O-ring	Incl. #56
52	346 190 219	Regulating piston assy	Incl. #57 & 64
53	346 190 216	Piston assembly	Incl. #58
54	346 190 296	Sealing label	20 x 97 081-01
55	346 190 221	Whistle Assy	
56	346 190 251	O-ring	10 x 346 900 016
57	346 190 249	O-ring	10 x 346 900 014
58	336 190 240	O-ring	5 x 331 100 562
59	346 190 293	Locking clip	10 x 346 100 158
60	460 190 299	Retaining ring	10 x 346 100 208
61	346 190 218	Spring	5 x 346 100 082
62	346 190 248	Whistle cylinder	
63	346 190 217	Sealing cone	10 x 346 100 081
64	460 190 269	O-ring	10 x 346 900 015
65	460 190 200	O-ring and back-up rings	10 x 346 900 017, 10 x 95 473-01

#	ORDER NO.	DESCRIPTION	NOTE
A	460 190 323	Service kit for 1 Whistle insert assembly	1 x #54, 1 x #56-60, 1 x #63, 1 x #64, 2 x #65

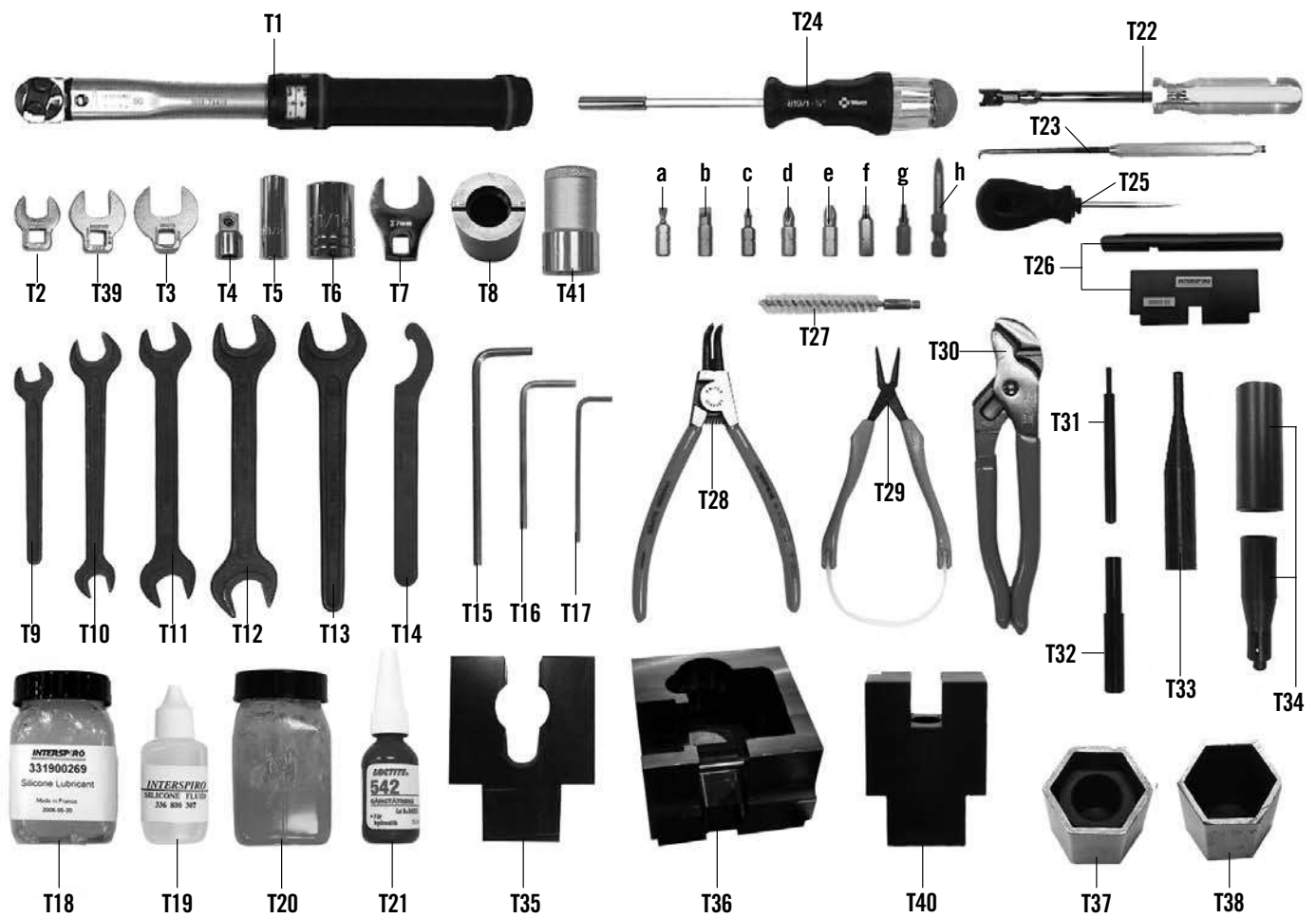
MEDIUM PRESSURE HOSES



#	ORDER NO.	DESCRIPTION	NOTE
71	460 190 360	Breathing hose 1.35m	
72	96 356-52	Breathing hose 1.30m	
73	460 200 003	Breathing hose 1.35m	
74	460 190 363	Breathing hose 0.82m	
75	460 200 004	Breathing hose 0.50m	
76	336 190 287	Breathing hose 0.55m	
77	460 200 005	Breathing hose 0.55m	
78	460 190 264	T-Manifold	
79	336 190 228	O-ring	10 x 336 900 007
80	346 190 223	Non-return valve	
81	460 190 369	Cone with O-ring	
82	96 531-51	Quick coupling	IS
83	346 190 069	O-ring	10 x 944 610 210
85	336 190 237	O-ring	10 x 336 900 099
86	336 190 311	O-ring	10 x 944 610 206
87	336 190 236	O-ring	10 x 944 610 205
88a	460 200 006	Valve lifter	Incl. #88b
88b	336 190 438	O-ring	10 x 336 900 023
89	460 200 007	Bypass knob	5 x 336 800 030
90	336 800 031	Stop ring	

#	ORDER NO.	DESCRIPTION	NOTE
A	460 190 414	Service kit for 3-way manifold	2 x #79, 1 x #81, 2 x #83

TOOLS



#	ORDER NO.	DESCRIPTION	NOTE
•	96 018-02	Tool kit	
T1	336 190 478	Torque wrench	
T2	95 998-5113	Crowfoot wrench 13 mm	
T3	95 998-5120	Crowfoot wrench 20 mm	
T4	31 646-51	Torque wrench adapter	
T5	460 200 096	Socket 1/2", connection nipple	
T6	96 003-51	Socket 11/16"	
T7	95 998-5127	Crowfoot wrench, thin, 27 mm	
T8	460 190 849	Socket, whistle	
T9	460 200 516	U-spanner 8 mm	
T10	460 190 774	U-spanner 10-13 mm	
T11	460 190 769	U-spanner 14-15 mm	
T12	460 190 775	U-spanner 18-19 mm	
T13	460 200 010	U-spanner 20 mm	
T14	95 992-51	BV nut spanner wrench	
T15	460 200 008	Hexagon key 5 mm	
T16	460 200 095	Hexagon key 1/8"	
T17	460 190 771	Hexagon key 2.5 mm	
T18	331 900 269	Lubricant	
T19	336 800 307	Silicone fluid	
T20	331 900 268	Lubricant	
T21	460 190 846	Locking compound	
T22	460 200 097	Stem nut driver,cyl. valve	
T23	95 999-01	Seal hook	
T24	32 233-51	Screwdriver with bit kit	
a-h	32 235-51	Screwdriver bit kit	
a	-	Slotted bit 3/16"	
b	-	Slotted bit 1/4"	
c	-	Phillips bit #1	
d	-	Phillips bit #2	
e	-	Phillips bit #3	
f	-	Square bit #2	
g	-	Torx bit, T-10	
h	-	Pozidrive bit, #1	
T25	460 190 768	Awl	
T26	30 001-01	Tool for breathing valve	
T27	460 200 030	Barrel brush	
T28	460 200 519	Circlip pliers	
T29	460 190 772	Long nosed pliers	
T30	96 984-51	Channel lock pliers	
T31	460 190 565	Punch for piston, O-ring, washer	
T32	460 190 566	Punch for O-ring, support washer	
T33	95 925-01	Assy. tool, reg. o-rings	
T34	95 926-01	Assy. tool,whistle o-rings	
T35	95 928-01	Fixture, whistle manifold	
T36	32 231-51	Fixture, regulator manifold	
T37	460 190 847	Fixture for Plug-in regulator	
T38	460 190 848	Fixture for Plug-in whistle	
T39	95 998-5115	Crowfoot wrench 15 mm	
T40	31 924-51	Fixture for whistle	
T41	460 200 029	Long socket, 15 mm	

INTERSPIRO

www.interspiro.com

CENTRAL EUROPE

AUSTRIA

INTERSPIRO GesmbH www.interspiro.de

Feldbacher Str. 3 A-8200 GLEISDORF AUSTRIA

TEL +43 (0)311 236 133 FAX +43 (0)311 236 133 22 E-MAIL info@interspiro.at

GERMANY

INTERSPIRO GmbH www.interspiro.de

Postfach 1220 D-76691 FORST/BADEN GERMANY

TEL +49 (0)7251 8030 FAX +49 (0)7251 2298 E-MAIL info@interspiro.de

SWITZERLAND

INTERSPIRO AG www.interspiro.de

Güterstraße 47 CH-4133 PRATTELN SWITZERLAND

TEL +41 61 827 99 77 FAX +41 61 827 99 70 E-MAIL info@interspiro.ch

THE NETHERLANDS & BELGIUM

INTERSPIRO BV www.interspiro.nl

Operetteweg 35 NL-1323 VK ALMERE NETHERLANDS

TEL +31 (0)36 5363103 FAX +31 (0)36 5384809 E-MAIL infobv@interspiro.com

NORTH & SOUTH AMERICA

INTERSPIRO Inc. www.interspiro.com

10225 82nd Avenue PLEASANT PRAIRIE WI 53158-5801 USA

TEL +1 262 947 9901 FAX +1 262 947 9902 E-MAIL sales@interspiro.com

UNITED KINGDOM & IRELAND

INTERSPIRO Ltd. www.interspiro.com

7 Hawksworth Road Central Park TELFORD Shropshire TF2 9TU UNITED KINGDOM

TEL +44 (0)1952 200 190 FAX +44 (0)1952 299 805 E-MAIL infouk@interspiro.com

SCANDINAVIA, ASIA/PACIFIC & MIDDLE EAST

SWEDEN

NORDIC & EXPORT SALES DIVISION www.interspiro.com

Box 2853 S-187 28 TÄBY SWEDEN

TEL +46 8 636 51 00 FAX +46 8 636 51 99 E-MAIL info@interspiro.com

MALAYSIA

INTERSPIRO Sdn Bhd www.interspiro.com

NO: 14-A Jalan Tiara 3, Tiara Square, Taman Perindustrian Sime UEP,

47600 Subang Jaya, Selangor MALAYSIA

TEL +603-802 482 21 FAX +603-808 182 21 E-MAIL asiapacific@interspiro.com