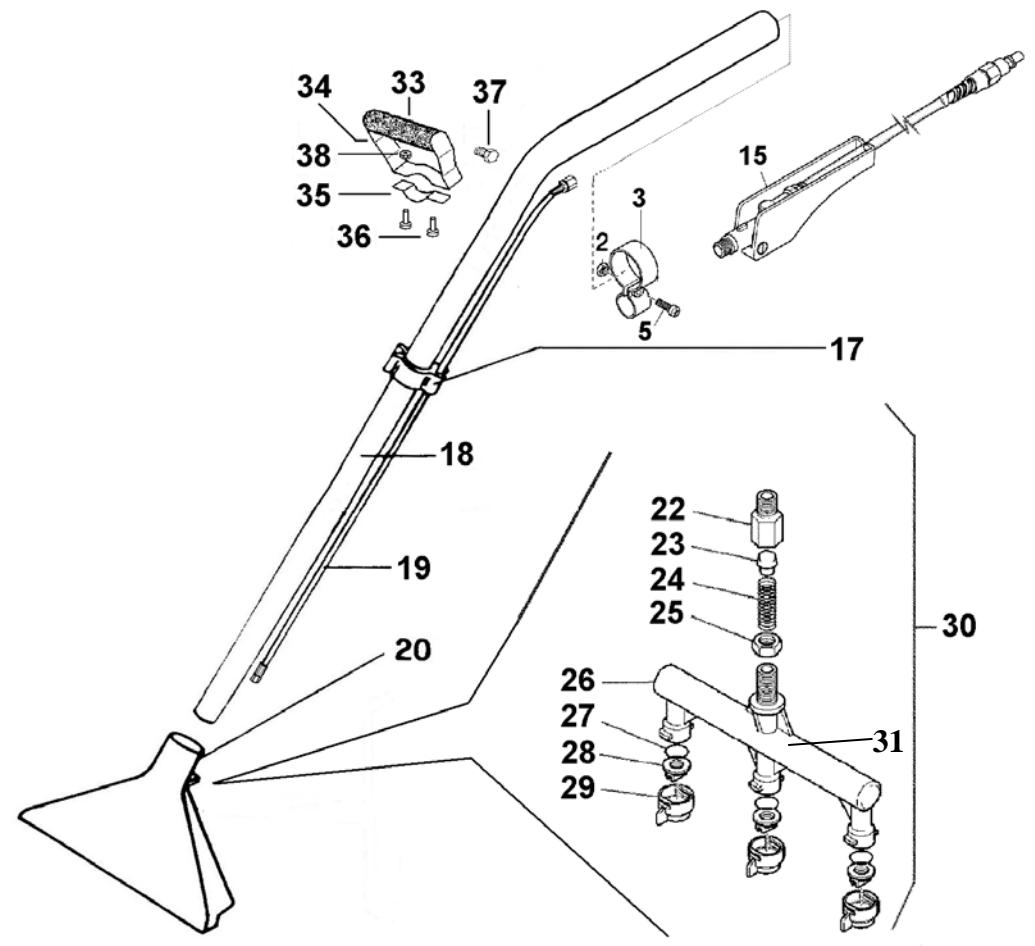
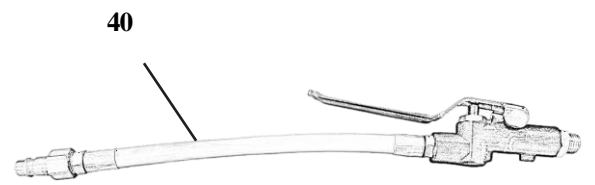


1110APE



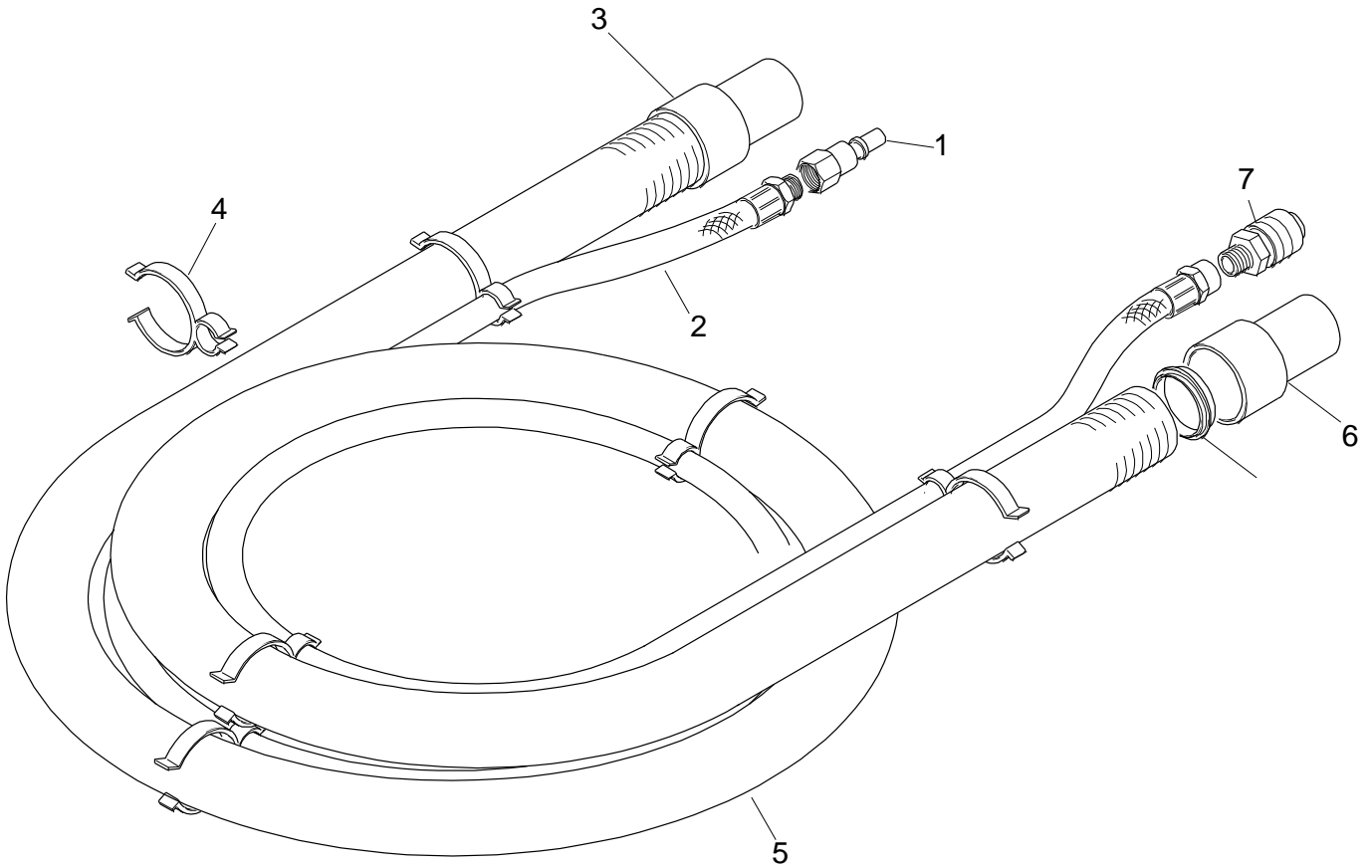
12300PE



12300PE 3 Jet Wand and 1110APE Hand Tool

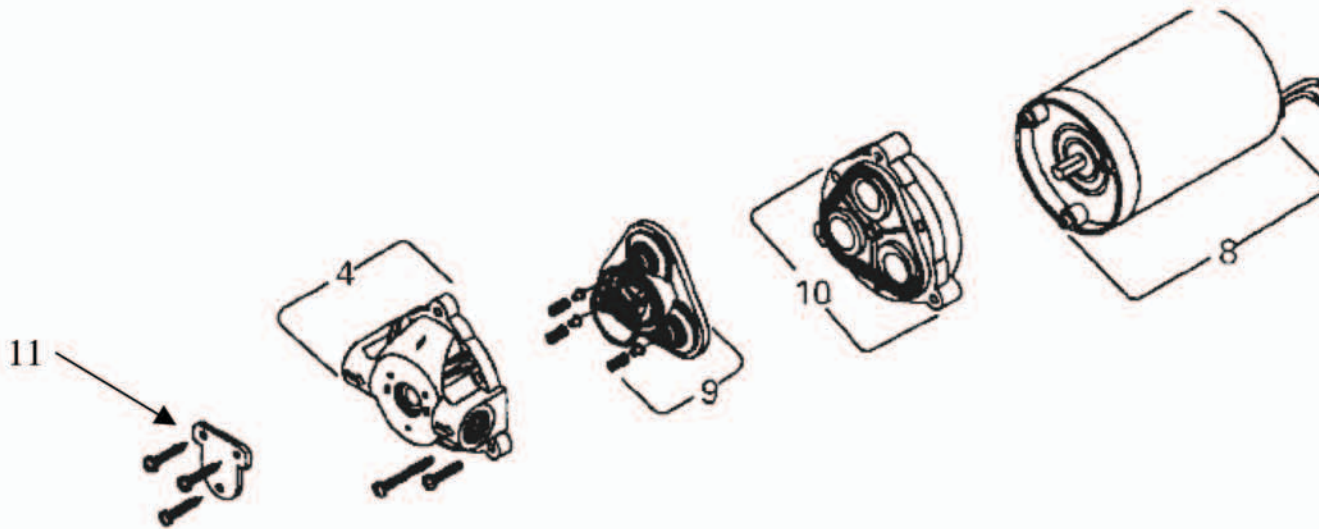
Ref	Code	Description
1	15342	ALUMINIUM HEAD
	15342C	ALUMINUM HEAD + METAL TUBE COD.339
2	15525	NUT D.5
3	15319	VALVE LOCK
4	15339	METAL TUBE D.38
5	15504	SCREW TC+ 5x20
6	15684	CONNECTING PART
7	15686	EXTENSION
8	15676	NOZZLE FOR NS10ALL
9	15764	HOSE NIPPLE 1/4 - 1/4
12	15689-PE	QUICK DISCONNECT MALE, ATT. F.1/4"
14	123200CPE	COMPLETE VALVE(PLASTIC), WITH COUPLING 689-PE AND HOSE NIPPLE 764
17	15541	TIE
18	15340-USA	VACUUM HOSE D.38
19	153440-L01	RAGNO PIPE N40 8x14 L.tot=1075mm F.F1/4"
20	15311	ALUMINIUM HEAD FOR NS300
22	157432	COUPLING FOR ANTIDROP, ATT. M. 1/4"
23	15111	RUBBER PIN
24	156071	SPRING FOR ANTIDROP
25	155321	LOCKING NUT DIAM. 1/4"
26	153287	NOZZLES MANIFOLD FOR NS300
27	153209	O-RING
28	15730	NOZZLE TIP 0,15/80
29	157180	NUT FOR NOZZLE
30	153287C	COMPLETE MANIFOLD (COD. 609, 6991, 7432, 111, 6071,5321,3287,3209,705-01,7810)
31	153287N	NOZZLE MANIFOLD
33	15117.3	CYLINDRIC SUPPORT FOR HANDLE
	15117.4	HANDLE RUBBER GRIP
34	15117.1	UPPER PART FOR HANDLE
35	15117.2	LOWER PART FOR HANDLE
36	15574	SCREW – 6x14
37	15509	SCREW – 6x20
38	15562A	LOCKING NUT – DIAM. 6
39	15117C	COMPLETE HANDLE (ITEMS 33 TO 38)
40	153200M	SOLUTION VALVE W/ METAL LEVER

13020PE 20' Solution / Vacuum Hose (1 ½" Diameter)



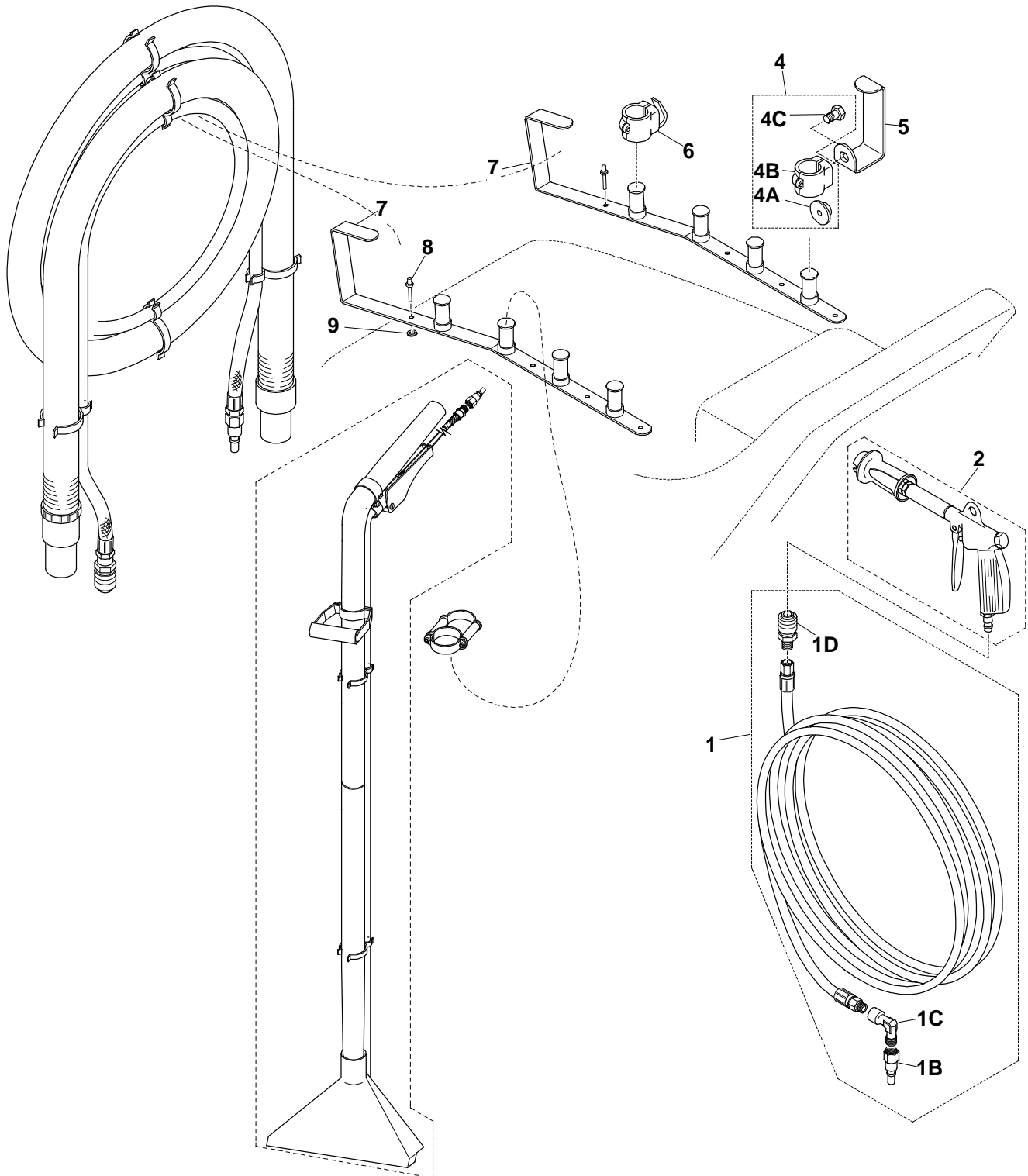
REF	PART #	DESCRIPTION
1	15689PE	QUICK DISCONNECT MALE – ATT. F-1/4" – METAL
2	15344075	SOLUTION HOSE 20'
3	15334	HOSE CUFF 1 ½"
4	15695	CLIP FOR SOLUTION HOSE
6	15334	HOSE CUFF 1 ½"
7	15687PE	FEMALE QUICK

15644 SHURFLO PUMP



Ref #	Part #	Description
4	15644.1	Upper Housing
10	15644.3	Diaphragm/Drive Assy
8	15644.4	Motor
9	15644.2	Bypass Valve Assy
11	15644.5	Pressure Switch Cover

KIT-BRACKETS-GR FOR HOSES, WAND, AND PRESPRAY. MODELS TP12QX, TP18DX, AV12QX, AV18AX



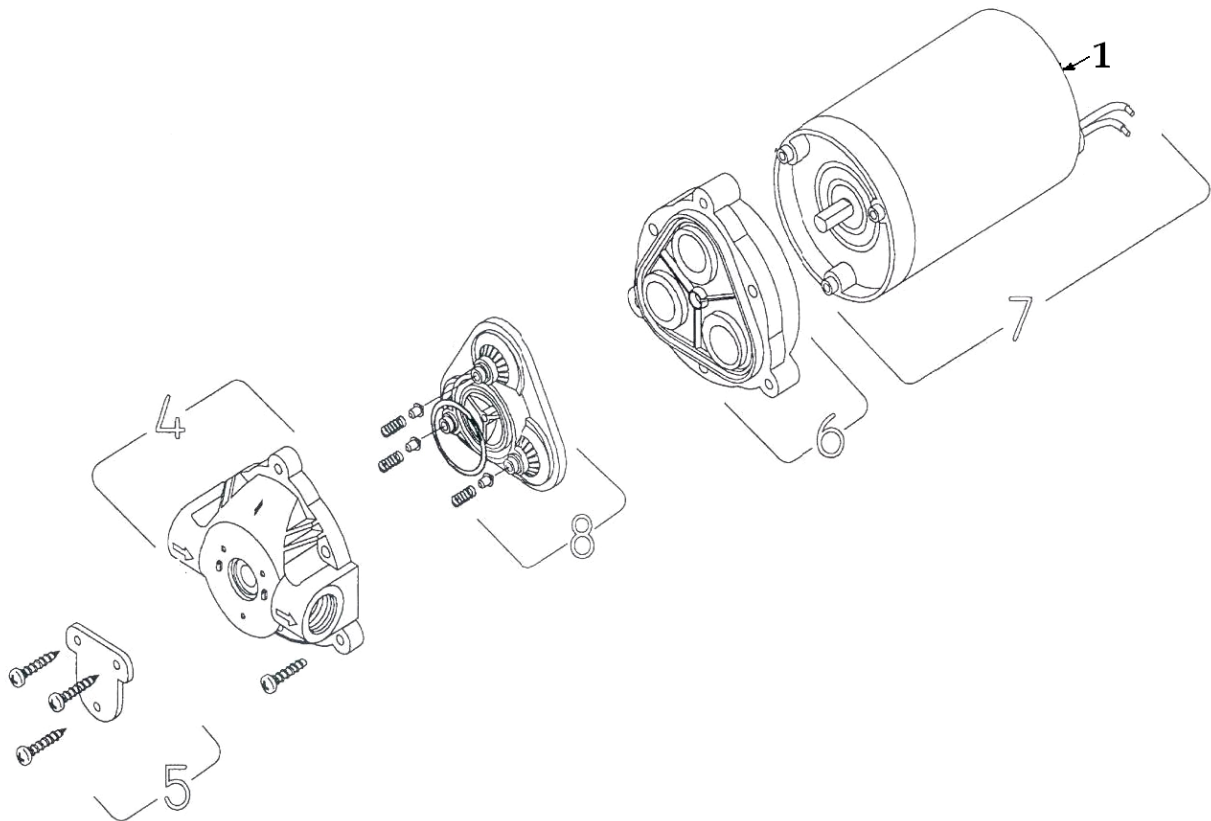


March 2011

KIT-BRACKETS-GR FOR HOSES, WAND, AND PRESPRAY. MODELS TP12QX, TP18DX, AV12QX, AV18AX

Ref	Code	Description
1	15344CL100MG	RAGNO HOSE 6x14 L=10M + MALE COUPLING +ELBOW
1B	15689-T	QUICK DISCONNECT MALE, ATT. F.1/4 WITH ANTIDRIP
1C	1562614	COUPLING – ELBOW MF A10 1/4 – 1/4
1D	15687-PE	QUICK DISCONNECT FEMALE, ATT. M. ¼
2	15-LANCIA-GR	COMPLETE PRESPRAYING GUN FOR SMARTKIT (06)
	15688-PE	QUICK DISCONNECT MALE, ATT. M.1/4
	159040	SPRAY GUN
	1590430	EXTENSION FOR PRESPRAY GUN 10M-M1/4
	159042-06	NOZZLE 06 WITH VARIABLE ANGLE AND BYPASS
4	159025	CLIP DIAM. 22 COMPLETE (49145+9023.1+58206)
4A	1549145	WASHER FOR LOCKING HOOK 49143
4B	159023.1	CLIP DIAM. 22 FOR HOOK SUPPORT (WITHOUT HOOK)
4C	1558206I	SCREW TE 6x8 INOX
5	1549143	GRACEHP SPRAY TUBE HOOK
6	159023	CLIP DIAM. 22 WITH HOOK FOR GUN
	8020283	COMPLETE KIT BRACKETS + HOOK TO HANG HOSES & WAND (CODEX: 2x49148+10x5191+10x529+1x117-HOOK)
7	1549148	LOWER SUPPORT FOR GRACE TOOLS AND HOSES
8	155191	RIVET 4x22
9	15529	STAINLESS STEEL WASHER 4x16

SHURFLO PUMP 15644 (110V)



Pos.	Codex	Description
5	15644.5	Plate
4	15644.1	Upper housing 15644.1
8	15644.2	Bypass valve assembly 15644.2
6	15644.3	Diaphragm 15644.3
6+8+4+5	15644.H	Complete head
7	15644.4	Complete motor with carbon brushes 15644.4



USER MANUAL

SMARTKIT



READ CAREFULLY BEFORE USING THE DEVICE

General

The SMARTKIT device is a patented technology specifically intended for use with NaceCare TP 12, AV 18, TP 18 ABV 12 machines. It is not permitted to use the SMARTKIT device with any other machine.

SMARTKIT allows carpet Prespraying with the same machine used for carpet cleaning. Prespraying is a very important operation, since it facilitates the dirt removal from carpet fibres. It allows us to get better cleaning results and to accelerate the following cleaning operation. Furthermore, SMARTKIT allows rinsing the carpet surfaces after cleaning, which is an extremely important operation in order to remove all the sticky chemical residual, which otherwise would cause a quick carpet re-soiling.

Safety instructions (read carefully)

SMARTKIT is a non-electric device. For the safety instructions, read carefully the safety instructions of the machine on which it is installed.



PROTECT THE ENVIRONMENT

Please dispose of packaging materials and old machine components in a safe environmentally way according to your local waster disposal regulations.



Always remember to recycle.

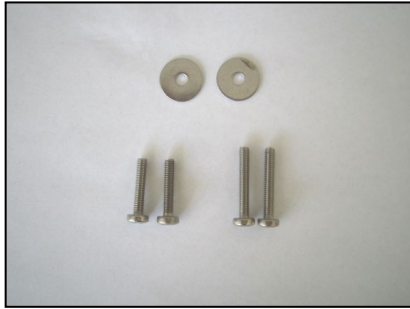
Parts provided with SMARTKIT

SMARTKIT is supplied with the following parts:

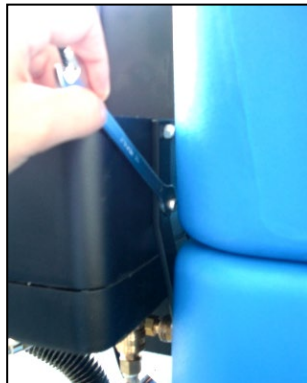
- 1 metal bracket to connect **SMARTKIT** to the machine.
- Parts to fix the bracket to the machine:
 - 2 screws TC+ INOX 4x20
 - 2 screws TC+ INOX 4x25
 - 2 washers 4X16 INOX,
- Parts to fix **SMARTKIT** on the bracket.
 - 2 screws TC 6x16
 - 2 locking nuts diam.6
- Prespray hose and gun (PRESPRAY)
- Hook for prespray hose and hook for prespray gun.

Connection to the machine body

1. Fix the bracket to the machine panel, using the 2 washers 4x16 and the 2 screws 4x20 (the longer screws 4x25 must be used only for Serena Silent or TP18 with heater HT1800. For this case, see the paragraph "Connection of **SMARTKIT** to a machine with heater". In all the other cases, shorter screws must be used).



2. Fix the body of **SMARTKIT** onto the bracket, using the 2 screws TC 6x16 and the 2 locking nuts diam.6.



3. Assemble the hooks supplied with **SMARTKIT** on the brackets situated on the machine upper tank. These hooks allow to hang the prespray hose and gun on the machine.



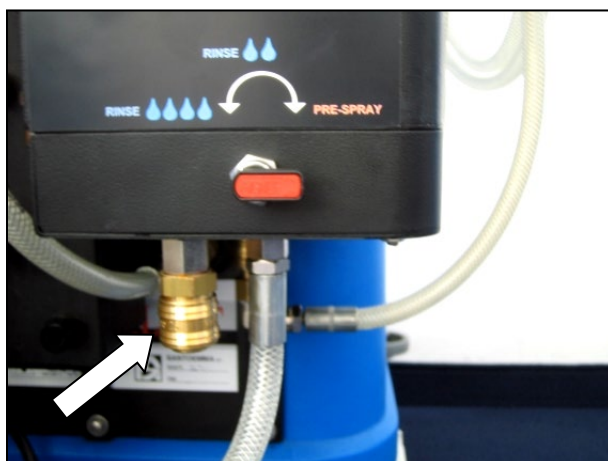
4. Connect **SMARTKIT** to the machine, inserting the male quick disconnect coupling into the female quick disconnect coupling which is situated on the machine body.



5. Connect the prespray hose to the specific exit of **SMARTKIT**



6. Connect the hose of the accessory to the specific exit of **SMARTKIT**



Connection of SMARTKIT to a machine with heater

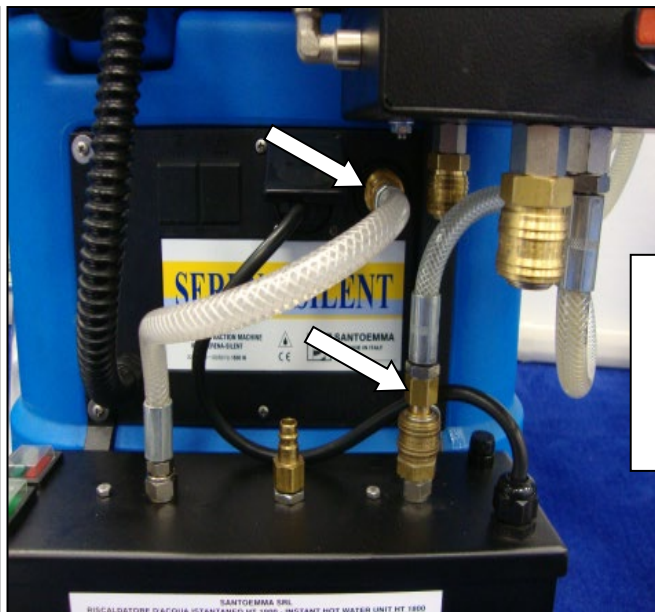
For the TP12 or TP18, the heater is assembled horizontally, using the dedicated brackets supplied with HT1800. The 2 screws 4x25, included in **SMARTKIT**, are supposed to be used to lock on the machine body both the heater's right-side bracket and the bracket of **SMARTKIT**. The bracket of SMARTKIT-EL is assembled upon the right-side bracket of the heater.

For the AV12 or AV18 with heater, the heater is assembled vertically on the machine, using the dedicated bracket supplied with HT1800.

SMARTKIT is assembled on the machine as described in the previous paragraph.

In any case, the heater HT1800 must be normally plugged with the heater input coupling into the female coupling of the machine, while the male coupling of **SMARTKIT** must be put inside the female output of the heater.

See pictures below:



TP12 or TP18
with heater and
SMARTKIT



AV12 or AV18
with heater and
SMARTKIT

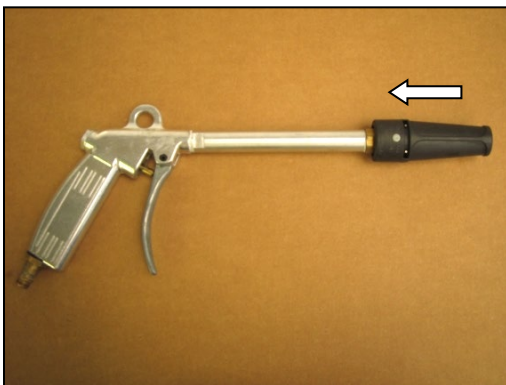
Prespray

Rotate the red lever towards RIGHT. In this position, it is possible to spray water and chemical, through the outlet located at the front outlet of SMARTKIT (see picture), where the prespray hose is connected.

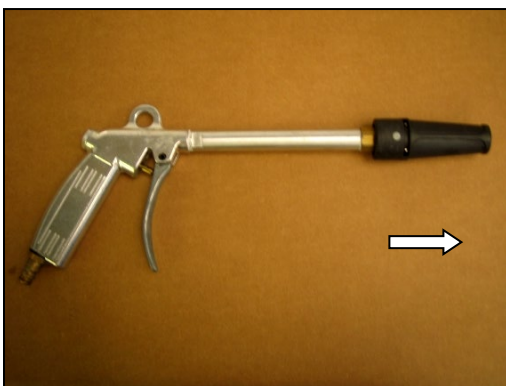


In this position, the concentration of the chemical solution is about 10%.

Pull back the nozzle on the prespray gun, in order to spray the chemical solution at a correct pressure.



If the prespray hose is empty (for example the first time the machine is used), it is necessary to wait some time before all the air goes out from the hose. To reduce this time, it is possible to push forward the nozzle, in order to quickly drain the hose from the air.



After that, pull back the nozzle again.

While prespraying, slightly rotate the nozzle to tune the spray angle.



Cleaning with water and chemical

After prespraying, in most situations it is not necessary to clean with further chemical, but it is enough to clean with clean water only, using either the manual accessory or the cleaning unit located below the machine (for the models AV12, AV18, AVB12). In this way, cleaning and rinsing are performed in the same time.

However, it is also possible to clean with water and chemical, connecting the hose of the manual accessory or the hose of the spraybar, to the front outlet of SMARTKIT, instead of the prespray hose (see picture below)

With different accessories, the chemical concentration may slightly change to have a correct chemical concentration.



Rinsing

In order to rinse carpet, rotate the red lever towards LEFT if you want to have the maximum waterflow (deep-cleaning) or UP for a reduced waterflow (maintenance cleaning).

Deep-cleaning is indicated for very dirty carpets, while for less dirty carpets it is possible to proceed with a maintenance cleaning.



Maintenance of SMARTKIT

Periodically clean the chemical filter.

If in the time SMARTKIT does not pick up chemical, it is then necessary to clean the dosing contained in the chemical hose.

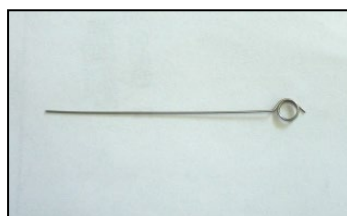
8020946 chemical cap – this goes on the clear hose from the smart kit and threads on to the chemical jug

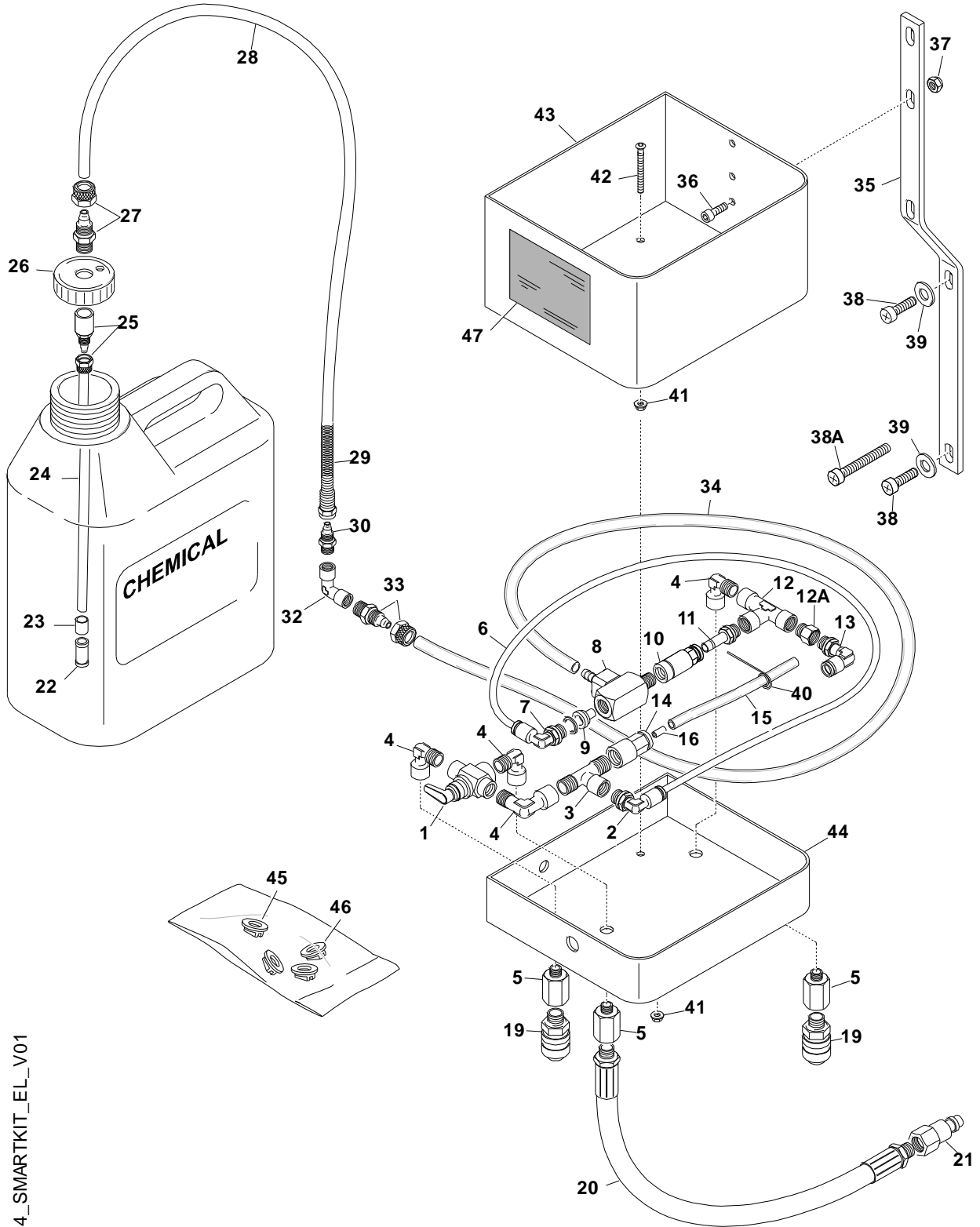


8020947 dema tube – this goes inside the chemical jug tightly



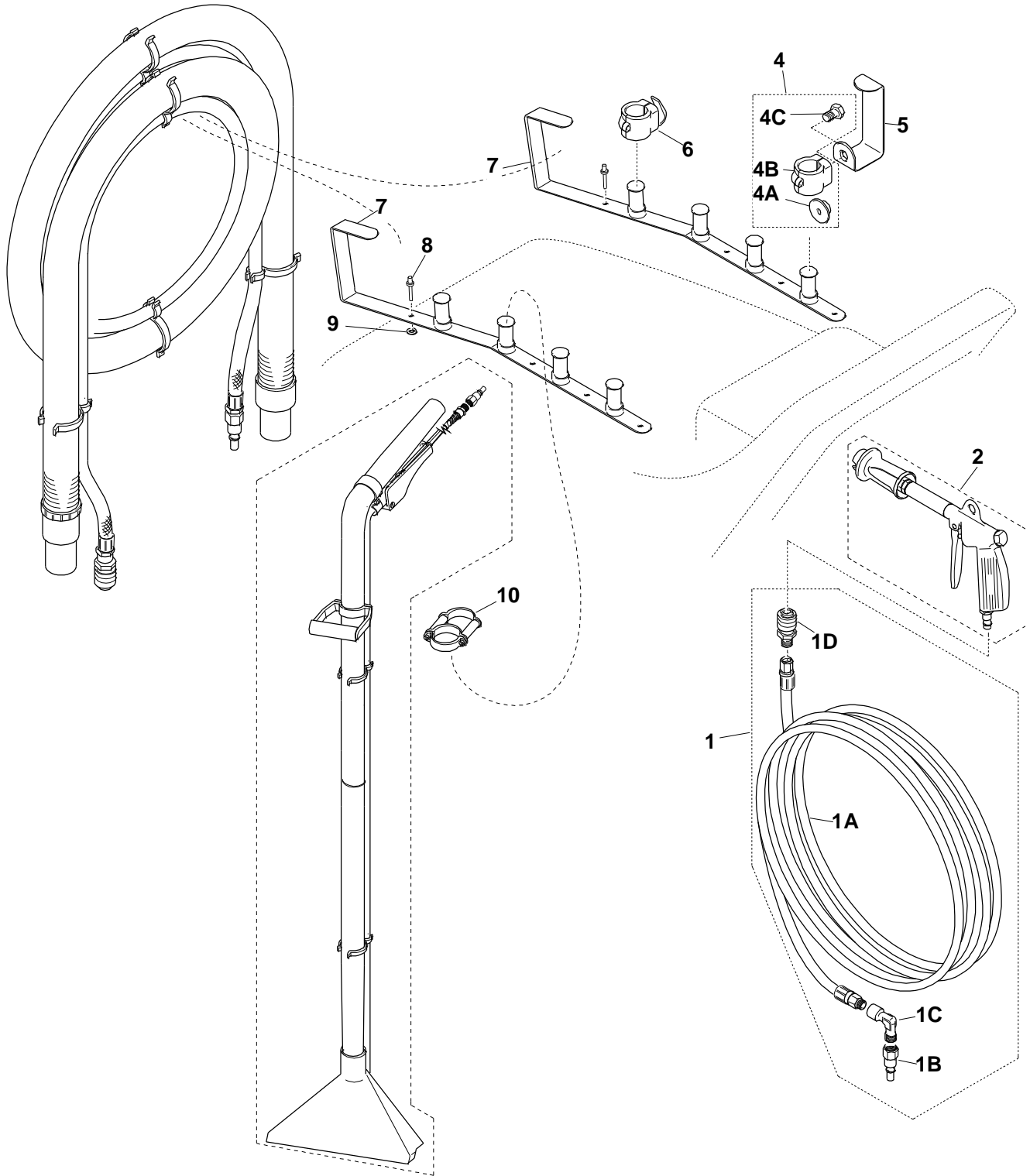
If this is not enough, it is necessary to clean the device sucking the chemical, inside **SMARTKIT**. This operation can be done using the specific pin located inside the lower part of SMARTKIT-EL





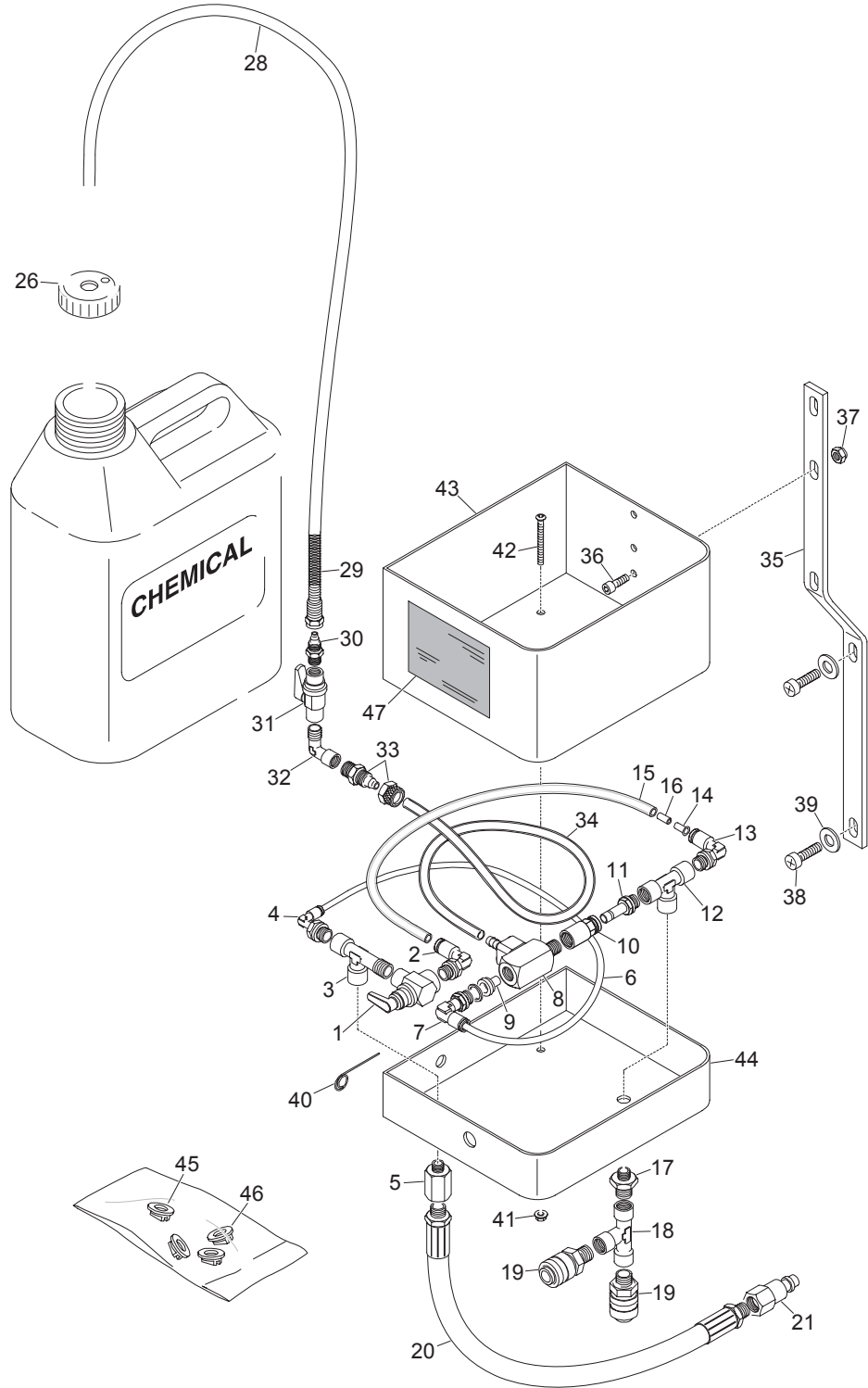
T54_SMARTKIT_EL_V01

1	156172	PANEL VALVE LEVER 90° 1/8
2	156052A	TURNABLE ELBOW- AUTOM COUPL. R31 FOR D.4 PIPE
3	157222	"T" COUPLING MFM A13 1/8
4	15626	ELBOW COUPLING – MF A10 1/8 – 1/8
5	156831	COUPLING FM A5Z 1/4 -1/8
6	1569391	PIPE DIAM. 4/2,5 L=44cm
7	156052A	TURNABLE ELBOW- AUTOM COUPL. R31 FOR D.4 PIPE
8	1590452	DEMA INJECTOR 1/8 – 1/8
9	1590453-03	BUSHING 03 TYPE FOR DEMA INJECTOR
10	15714	AUTOMATIC COUPLING F. ATT. F. R2 8 – 1/8
11	15698	AUTOMATIC COUPLING M. ATT. M. R6 8 – 1/8
12	15722.1	"T" COUPLING FFF A11 1/8
12A	15683	COUPLING FM 1/8-1/8 A5/Z
13	156053A	TURNABLE ELBOW- AUTOM COUPL. R31 FOR 6/8 PIPE
14	157141	AUTOMATIC COUPLING F-ATT.F. R2 4-1/8
15	1574061	RILSAN PIPE 6/8 L=260mm
16	1590453-04	BUSHING 04 TYPE FOR DEMA INJECTOR
19	15687-PE	QUICK DISCONNECT F. ATT. M. 1/4
20	15344-L380-INN	RAGNO PIPE 6x14 L=380mm M. 1/4 + M. 1/4
21	15689-T	QUICK DISCONNECT M. ATT.F.1/4 (14) W/ANTIDRIP
22	156081	FILTER FOR TIP PROTECTION
23	N/A	RED TIP FOR SMARTKIT
24	N/A	RILSAN PIPE 6/8 L=290mm
25	N/A	COUPLING C2 F.1/8 FOR 6/8 HOSE
26	8020946	CAP WITH HOLE – FOR 5 LITER CHEMICAL TANK
27	N/A	COUPLING C1Z 8/6 – 1/8 WIHTOUT SPRING
28	1573522	EXTRAFLEX PIPE 6/8 L=50cm
29	156160.2	SPRING FOR 6/8 PIPE
30	15616	COUPLING C1 8/6 1/8
32	15626	ELBOW COUPLING – MF A10 1/8 – 1/8
33	15616	COUPLING C1 8/6 1/8
34	1573522	EXTRAFLEX PIPE 6/8 L=50cm
35	1547232	LOCKING PLATE
36	155741	SCREW TC BRUGOLA 6x16 Zn
37	15562A	LOCKING NUT DIAM. 6 Zn
38	1553620	STAINLESS STEEL SCREW TC+ 4x20
38A	1553625	STAINLESS STEEL SCREW TC+ 4x25
39	15529	STAINLESS STEEL WASHER 4x16
40	156072	PIN FOR SMARTKIT BUSHING CLEANING
41	15562R	NUT DIAM.6 MA Zn WITH WASHER
42	1557650	SCREW TC BRUGOLA BOMBATA 6x50 INOX
43	154918	CHEMICAL TANK HOLDER
44	154920	SMARTKIT CASE
45	15705-0580	NOZZLE 05/80 (FOR USING SMAKRTKIT WITH HAND TOOL)
46	15730	NOZZLE 0.15/80 (FOR USING SMARTKIT WITH 3 NOZZLES WAND)
47	151212	SMARTKIT LABEL



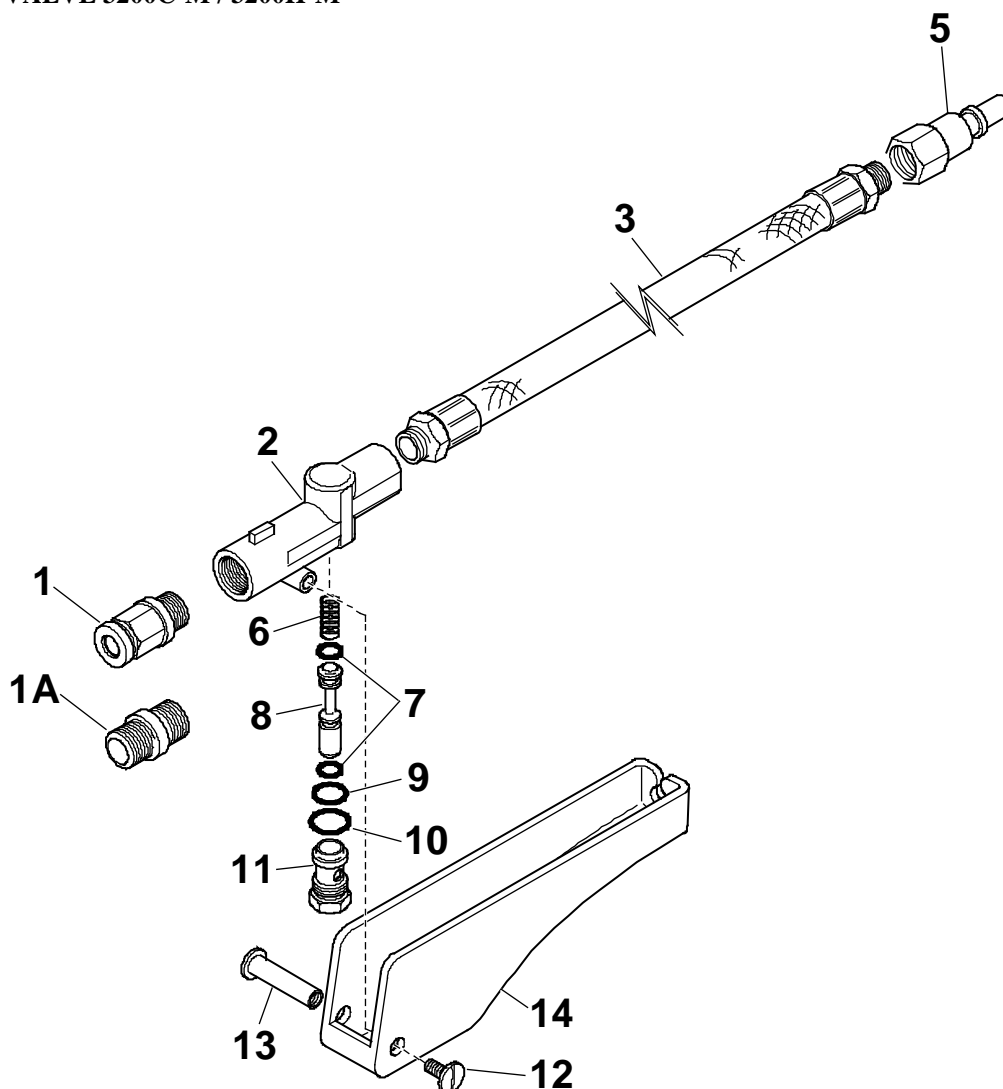
ref	Part Number	Description
1	15344C-L100-TG	RAGNO HOSE 6x14 L=10M + MALE COUPLING +ELBOW
1A	15344-L100-INN	TUBO RAGNO 6x14 10m MF ¼
1B	15689-T	QUICK DISCONNECT MALE, ATT. F.1/4 WITH ANTIDRIP
1C	1562614	COUPLING – ELBOW MF A10 1/4 – 1/4
1D	15687-PE	QUICK DISCONNECT FEMALE, ATT. M. ¼
2	Ø V#@ 8k	COMPLETE PRESPRAYING GUN FOR SMARTKIT (06)
	15688-PE	QUICK DISCONNECT MALE, ATT. M.1/4
	159042-06	NOZZLE 06 WITH VARIABLE ANGLE AND BYPASS
4	159025	CLIP DIAM. 22 COMPLETE (49145+9023.1+58206)
4A	1549145	WASHER FOR LOCKING HOOK 49143
4B	159023.1	CLIP DIAM. 22 FOR HOOK SUPPORT (WITHOUT HOOK)
4C	1558206	SCREW TE 6x8 Zn
5	1549143	GRACEHP SPRAY TUBE HOOK
6	159023	CLIP DIAM. 22 WITH HOOK FOR GUN
7	1549148	LOWER SUPPORT FOR GRACE TOOLS AND HOSES
8	155191	RIVET 4x22
9	15529	STAINLESS STEEL WASHER 4x16
10	15117-HOOK	HOOK D.38 FOR NS300

SMART KIT parts breakdown



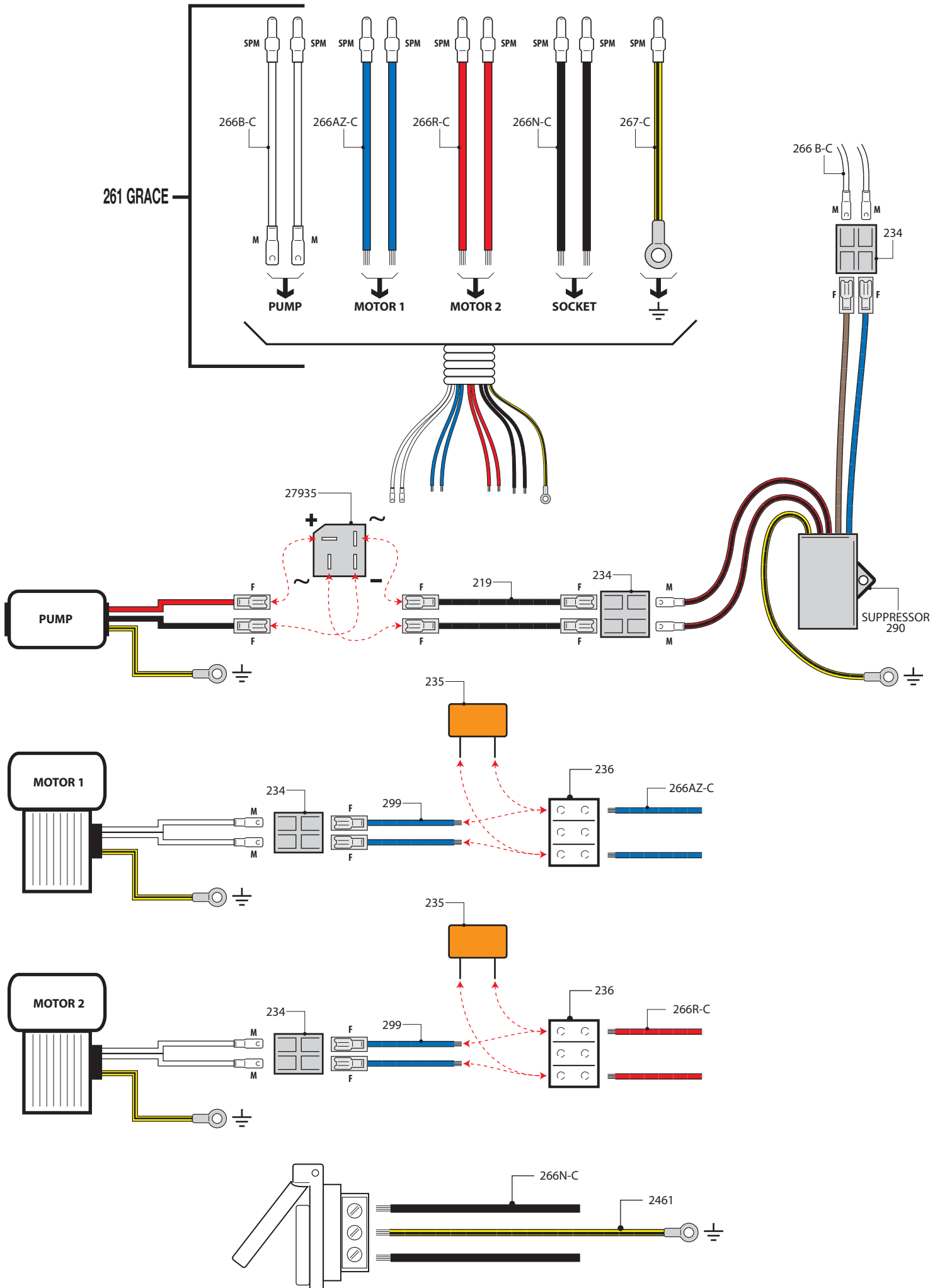
Ref	Part Number	description
1	15 6172	Ball valve 90° 1/8
2	15 6053A	Swivel elbow R31 FOR 6/8 PIPE
3	15 72232	"T" COUPLING FFM A13 1/8
4	15 6052A	Swivel elbow R31 FOR D.4 PIPE
5	15 6831	COUPLING FM A5Z 1/4 -1/8
6	15 6936	Hose 4/2,5 L=33cm
7	15 6052A	Swivel elbow R31 FOR D.4 PIPE
8	15 90452	DEMA chemical injector 1/8 – 1/8
9	15 90453-03	BUSHING 03 TYPE FOR DEMA INJECTOR
10	15 714	PTC COUPLING F. ATT. F. R2 8 – 1/8
11	15 698	PTC COUPLING M. ATT. M. R6 8 – 1/8
12	15 722.1	"T" COUPLING FFF A11 1/8
13	15 6053A	Swivel elbow R31 FOR 6/8 PIPE
14	15 7491	Restrictor
15	15 74061	RILSAN hose 6/8 L=260mm
16	15 90453-04	BUSHING 04 TYPE FOR DEMA INJECTOR
17	15 749	NIPPLE A2 1/4 - 1/8
18	15 72211	"T" COUPLING FFF A11 1/4
19	15 687-PE	QUICK DISCONNECT F. ATT. M. 1/4
20	15 344-L80-INN	Pressure hose 6x14 L=380mm M. 1/4 + M. 1/4
21	15 689-PE	QUICK DISCONNECT M. ATT.F.1/4 (14) PARKER
26	80 20946	Chemical cap 90 degree elbow
28	15 73522	Poly tube 6/8 L=50cm
29	15 6160.2	SPRING FOR 6/8 Poly tube
30	15 616	COUPLING C1 8/6 1/8
31	15 6171	VALVE FF 1/8
32	15 626	ELBOW COUPLING – MF A10 1/8 – 1/8
33	15 616	COUPLING C1 8/6 1/8
34	15 73522	Poly tube 6/8 L=50cm
35	15 4723	LOCKING PLATE
36	15 5741	SCREW 6x16 Zn
37	15 562A	LOCKING NUT DIAM. 6 Zn
38	15 53625	STAINLESS STEEL SCREW TC+ 4x25
39	15 529	STAINLESS STEEL WASHER 4x16
40	15 6072	PIN FOR SMARTKIT BUSHING CLEANING
41	15 562R	NUT DIAM.6 MA Zn WITH WASHER
42	15 57650	SCREW 6x50 INOX
43	15 4920	CHEMICAL TANK HOLDER
44	15 4918	Housing
45	15 719	NOZZLE 02/80 (FOR USING SMAKRTKIT WITH HAND TOOL)
46	15 730	NOZZLE 0.15/110 (FOR USING SMARTKIT WITH 3 NOZZLES WAND)

SOLUTION VALVE 3200C-M / 3200H-M

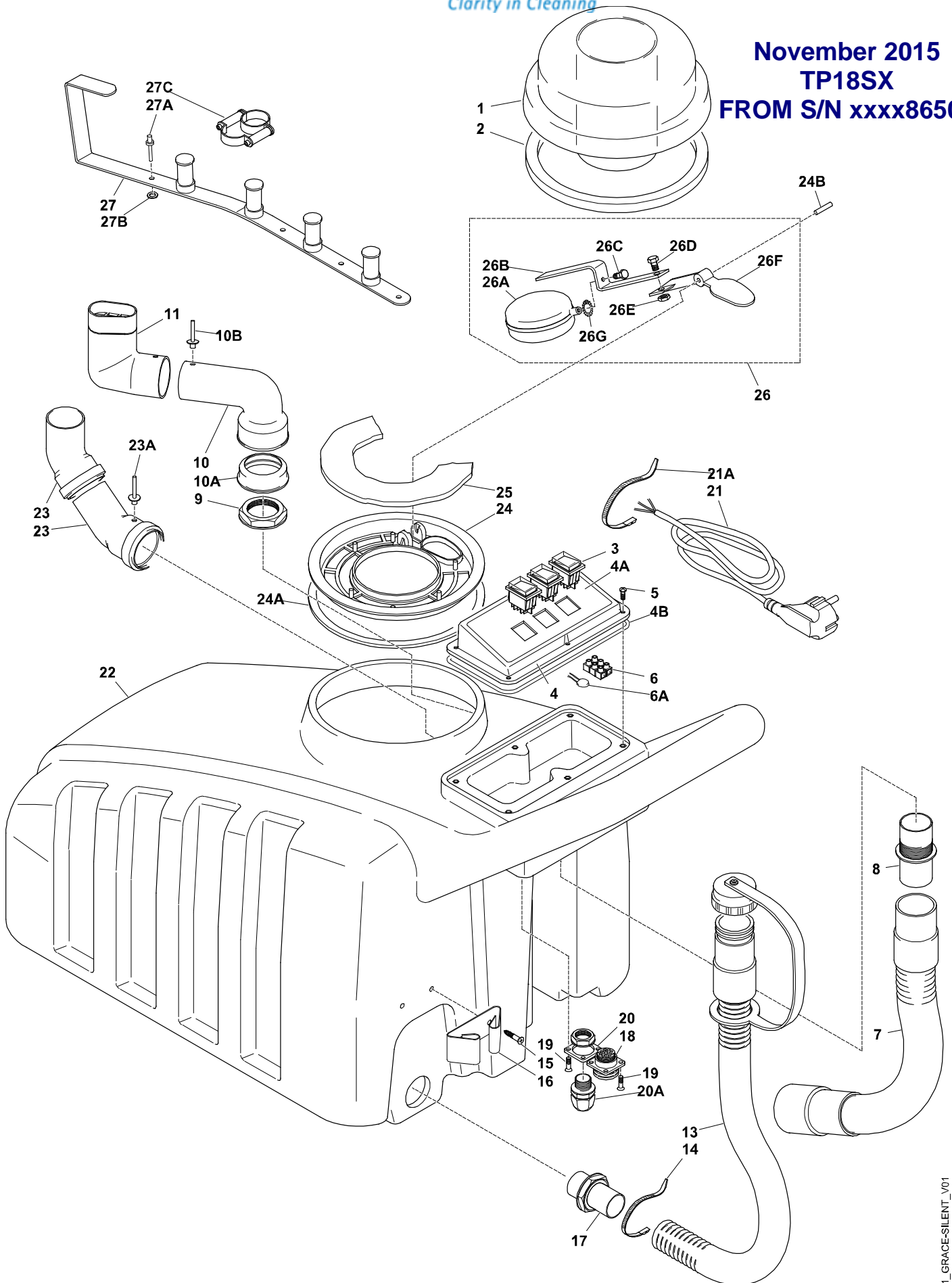


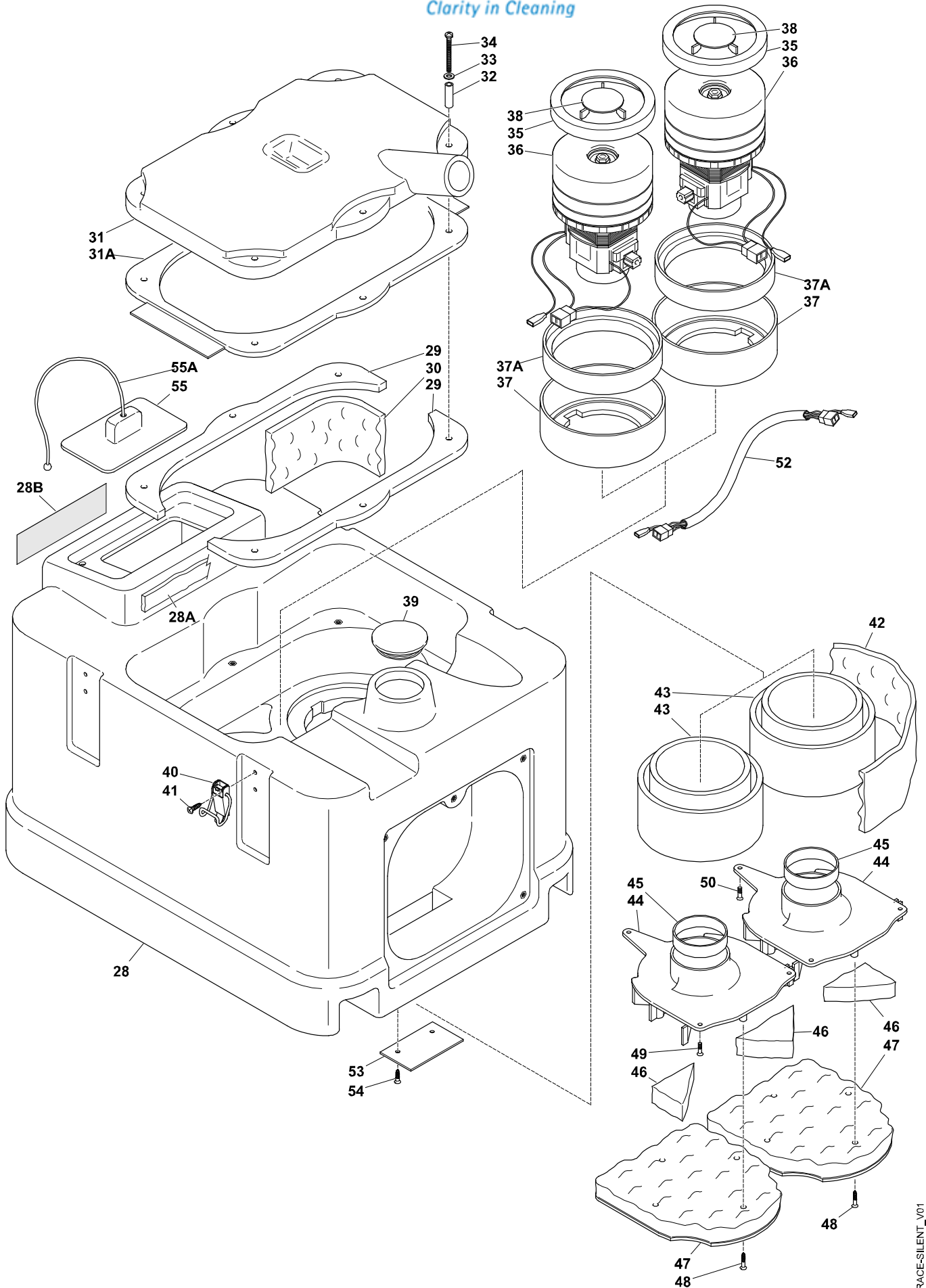
Ref	Code	Description
1	15750	COUPLING D.8 – M. ¼
1A	15764	COUPLING M. ¼ – M. ¼
2	153201	PLASTIC BODY FOR SOLUTION VALVE
3	1573501C	HIGH PRESSURE HOSE M. ¼ - ¼
5	15689-PE	MALE QUICK DISCONNECT – F. ¼" THREAD – METAL
6	153207	SPRING FOR SOLUTION VALVE
7	1532010	O-RING
8	153204	SOLUTION VALVE SHUTTER
9	153209	O-RING 7,66 x 1,78
10	153208	LOWER O-RING FOR SHUTTER
11	153203	SEAT FOR SHUTTER
12	153206	SCREW M. FOR SOLUTION VALVE
13	153205	SCREW F. FOR SOLUTION VALVE
14	153202	SOLUTION VALVE LEVER
	153200C-M	ITEMS 1 + FROM 2 TO 14, ASSEMBLED
	153200H-M	ITEMS 1A+FROM 2 TO 14, ASSEMBLED

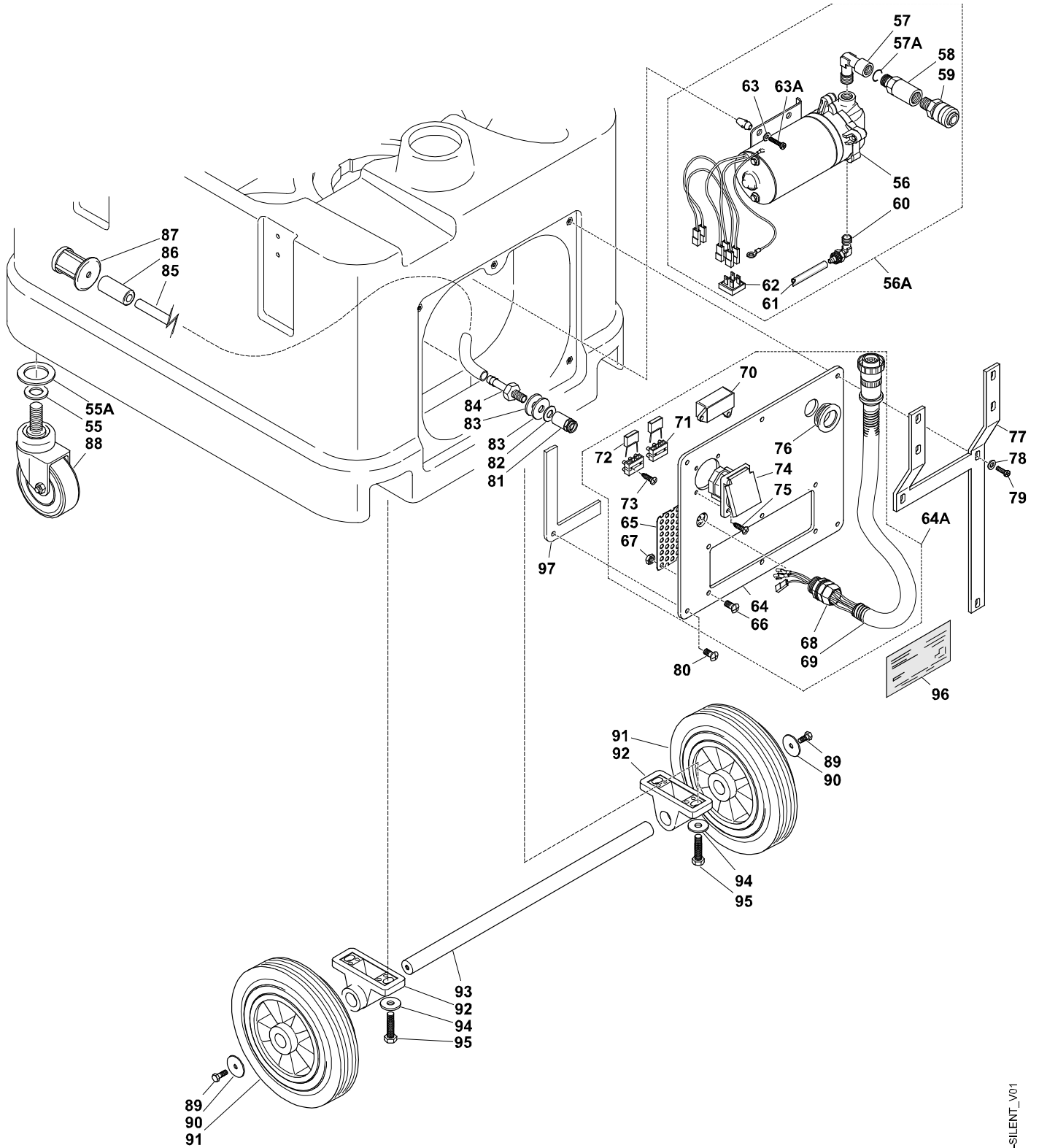
Electrical sketch of TP18SX LOWER TANK



November 2015
TP18SX
FROM S/N xxxx86500







INJECTION-EXTRACTION MACHINE – TP18SX (SERIAL N> xxxx86500)

Ref.	Code	Description
1+2	15178C	COVER WITH GASKET
2	15179	GASKET
3	15217	2 POSITIONS SWITCH
4	15176	PANEL
4A	15181	LABEL FOR UPPER PANEL
4B	15128	UPPER PANEL GASKET
5	15551	STAINLESS STEEL SCREW TC+ 4x16
6	152361	CONNECTING TERMINAL
6A	158132	VARISTOR (230V)
7	153641C-GRACE	COMPLETE HOSE D.50 FOR GRACE-SILENT
8	153652	HOSE NIPPLE D.50 FOR GRACE SILENT
9	15548134	RING NUT 1 + 3/4" FOR GRACE-SILENT
10	15153.1	LARGE ELBOW 90° WITHOUT GASKET
10A	15153.2	GASKET FOR LARGE ELBOW 90°
10B	15519	RIVET 4 x 12
11	151533C	ELBOW 90° - OVAL SHAPE
13	151591C-GRSIL	COMPLETE DRAIN HOSE FOR GRACE-SILENT
14	15541	TIE
15	15542	SCREW 4,2x16
16	151602	CLIP FOR DRAIN HOSE D.38
17	151612	HOSE NIPPLE 1"1/4 FOR DIAM.38
18	15259-GRACE	SOCKET FOR GRACE, WITH WIRES
19	15538	SCREW TC+ 3,9x13
20	15109	FAIRLEAD PLATE
20A	15295	FAIRLEAD WITH NUT
21	152091	CABLE 3x2,5x10M. COMPLETE WITH EURO PLUG
	15215	CABLE 3xAWG14 L.15m. SJTW-CSA USA PLUG
21A	15541	TIE
22	151510AZ	GRACE-SILENT BLUE UPPER TANK
23	15183	ELBOW
23A	15519	RIVET 4 x 12
24	1518801	SUPPORT FOR GRACE-SILENT LARGE FILTER
24A	1518804	GASKET FOR FILTER SUPPORT
24B	15599	CYLINDRIC PIN 4x34,8 - INOX
25	1518803	LARGE FILTER PPI30 – GRACE-SILENT
26	1517042C-GRACESIL	COMPL.GROUP – GRACE-SILENT FLOATER MOVING PART
26A	151707	FLOATER WITH THREAD FOR SCREW
26B	151715	PLATE FOR GRACE-SILENT FLOATER
26C	1558206W	SCREW TE 6x8 INOX passo 1/4x3/8 WHITWORTH
26D	15582	SCREW TE 6x14 UNI 5739 INOX
26E	15562R	NUT INOX D.6 WITH WASHER
26F	1518802	MOVING PART GRACE-SILENT IND. FLOATER
26G	1552106I	LOCKING WASHER DIAM 6 INOX
27	1549150	SUPPORT FOR ACCESSORIES AND HOSES GRACE-SILENT
27A	15519	RIVET 4 x 12
27B	15529	WASHER 4x16x1 INOX UNI 6593
27C	15117-HOOK	HOOK D.38 FOR NS300
28	151520AZ	GRACE-SILENT BLUE LOWER TANK
28A	151552	FRONT GASKET FOR TANK
28B	151871	SANTOEMMA LABEL FOR TANKS
29	151556	GASKET TANK/MANIFOLD GRACE-SILENT (3 STAGES)
30	2061	UPPER SOUNDPROOFING PART GRACE SILENT

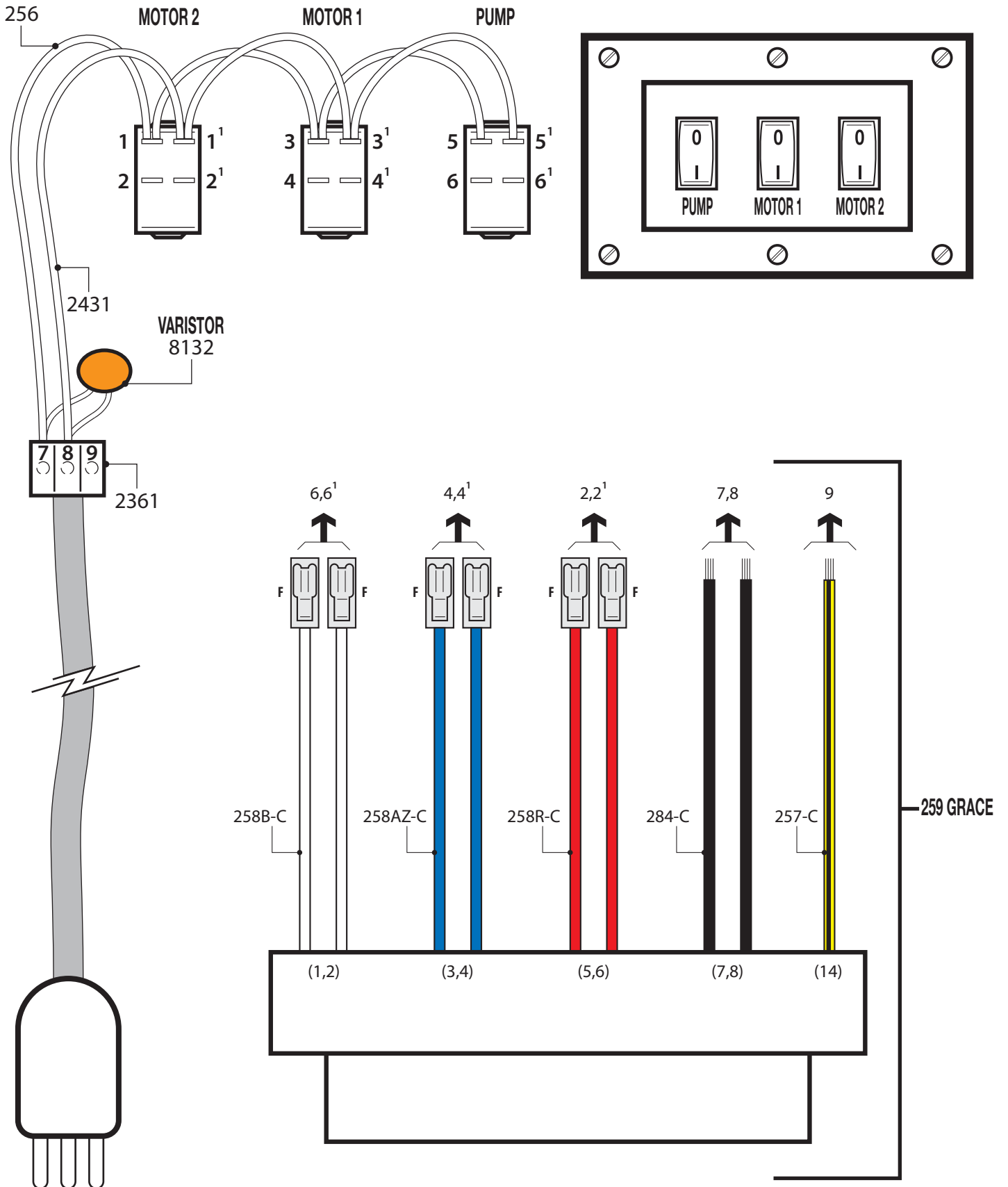
INJECTION-EXTRACTION MACHINE – TP18SX (SERIAL N> xxxx86500)

Ref.	Code	Description
31	151550N2	MANIFOLD FOR GRACE-SILENT MOTORS
31A	1515541	GASKET FOR GRACE-SILENT MANIFOLD
32	1556352	THIMBLE FOR MANIFOLD SCREWS GRACE-SILENT
33	155171	WASHER 5x15x1,5 UNI 6593 INOX
34	155713I	SCREW TC+ 5x50 UNI 7687 INOX (3 STAGES)
	155711	SCREW TC+ 5x40 UNI 7687 INOX (2 STAGES)
35	15811	MOTOR GASKET D.145x5 (3 STAGES-240V)
	15825	MOTOR GASKET D.145x3 (2 STAGES 120V-240V)
	1581213	MOTOR GASKET D.145x13 (3 STAGES-100V)
36	15808PA/AK	3 STAGES AKUSTEK MOTOR 1500W 240V 60Hz (HW)
	15821	2 STAGES MOTOR 1200W 220-240V 50/60 HZ
	15820	2 STAGES MOTOR 1200W 110-120V 50/60 HZ
	15810PA	3 STAGES MOTOR 1300W 100V 50-60Hz
37	1513211	SOUNDPROOFING UPPER CYLINDER FOR GRACE-SILENT
37A	1581213	MOTOR GASKET D.145x13 (FOR 2 STAGES ONLY)
38	15824	MOTOR VALVE
39	1550243	ROUND CAP FOR GRACE LOWER TANK
40	15142	COUPLER
41	15542	SCREW TC+ 4,2x16 Zn
42	152062	LOWER SOUNDPROOFING PART GRACE SILENT
43	1513212	SOUNDPROOFING LOWER CYLINDER FOR GRACE-SILENT
44	151412	LOWER FLANGE GRACE-SILENT MOTOR
45	151322	ROUND SEALING PART FOR MOTOR COOLING AIR
46	1513221	SEALING PART FOR GRACE COOLING AIR
47	152000C	COMPLETE SOUNDPROOFING PANEL (2000+2011)
48	15544	SCREW TC+ 4.2x22 Zn
49	15536	STAINLESS STEEL SCREW TC+ 4x10
50	15536	STAINLESS STEEL SCREW TC+ 4x10
51	151334	COVER FOR LOWER TANK
51A	1513341	TIE FOR LOWER TANK COVER
52	1529714	CABLE 3x1,5mmq FOR GRACE-SILENT L700mm
53	151482	COVER PLATE FOR CABLES GRACE-SILENT
54	15542	SCREW TC+ 4,2x16 Zn
55	15540	WASHER 10x20x0,8
55A	15597	WASHER 20x37x3 UNI 6592 Zn
56	15643	PUMP 220-240V 50-60 Hz 100 PSI+ RECTIFIER 27935
	15644	PUMP 100-120V 50-60 Hz 100 PSI (INTERNAL RECT.)
56A	15643C-M	PUMP 220-240V 50-60 Hz 100 PSI+ RECTIFIER 27935 + FITTINGS + METAL COUPLING
	15644C-M	PUMP 100-120V 50-60 Hz 100 PSI (INTERNAL RECT.) +FITTINGS + METAL COUPLING
57	157201	ELBOW MF 3/8-3/8"
57A	1513738	ORING
58	15753	EXTENSION FOR METAL COUPLING
59	15687-T	QUICK DISCONNECT FEMALE – METAL
60	15622	ELBOW COUPLING M.3/8 FOR HOSE 6/8
61	15733	HOSE FOR PUMP L=230mm
62	1527935	RECTIFIER 35A 1000V GBPC
63	155171	WASHER 5x15x1,5 UNI 6593 INOX
63A	15546	SCREW TC+ 5x25 DIN 7985 Zn
64	151481	LOWER CONTROL PANEL GRACE-SILENT
	151481-USA	LOWER CONTROL PANEL GRACE-SILENT USA
64A	15PA-GRACE-INF	COMPLETE LOWER PANEL FOR GRACE (230V)
	15PA-GRACE USA2-INF	COMPLETE LOWER PANEL FOR GRACE USA (100-120V)

INJECTION-EXTRACTION MACHINE – TP18SX (SERIAL N> xxxx86500)

Ref.	Code	Description
65	151801	COOLING PLATE GRACE-SILENT PANEL
66	15536	SCREW TC+ 4x10 INOX UNI 7687
	1553620	SCREW TC+ 4x20 INOX UNI 7687
67	15523	NUT ES. 4 MA UNI 5587
68	15262C	CONNECTING PART FOR CABLE-PANEL
69	15261-GRACE	CABLE SHEATH WITH WIRES +COD.260+265
	15261-GRACE-USA	CABLE SHEATH WITH WIRES +COD.260+265 FOR USA
70	15290	RADIO INTERFERENCE SUPPRESSOR (230V)
71	15236	CONNECTING TERMINAL
72	15235	RADIO INTERFERENCE SUPPRESSOR FOR MOTOR (230V)
73	155612	SCREW TC+ SVASATA 2,9x16 INOX
74	152690	ELECTRICAL OUTLET FOR EURO PLUG
75	15538	SCREW TC+ 3,9x13
76	15163	BUSH
77	1547234	PLATE FOR FIXING HEATER / SMARTKIT ON GRACE-SILENT
78	15529	WASHER 4x16x1 INOX UNI 6593
79	1553620	SCREW TC+ 4x20 INOX UNI 7687
80	15536	SCREW TC+ 4x10 INOX UNI 7687
81	15714	QUICK DISCONNECT FEMALE
82	15540	BRASS WASHER
83	15147	NEOPRENE WASHER
84	15702D	CONNECTING PART
85	15745	EXTRAFLEX HOSE FOR FILTER 67cm
86	15747	BALLAST
87	15608	FILTER
88	15115.1	WHEEL
89	15582	STAINLESS STEEL SCREW TE 6x14
90	155632	WASHER 6x30x2 Zn
91	15422	WHEEL
92	15419N	PILLOW BLOCK
93	154181	SHAFT FOR WHEELS SERENA/ELITE
94	15594	WASHER 8x24 Zn
95	15583	SCREW TE 8x20 UNI 5739 Zn 8.8
96	15157	LABEL FOR LOWER PANEL GRACE-SILENT
97	151866	GASKET FOR GRACE-SILENT PANEL

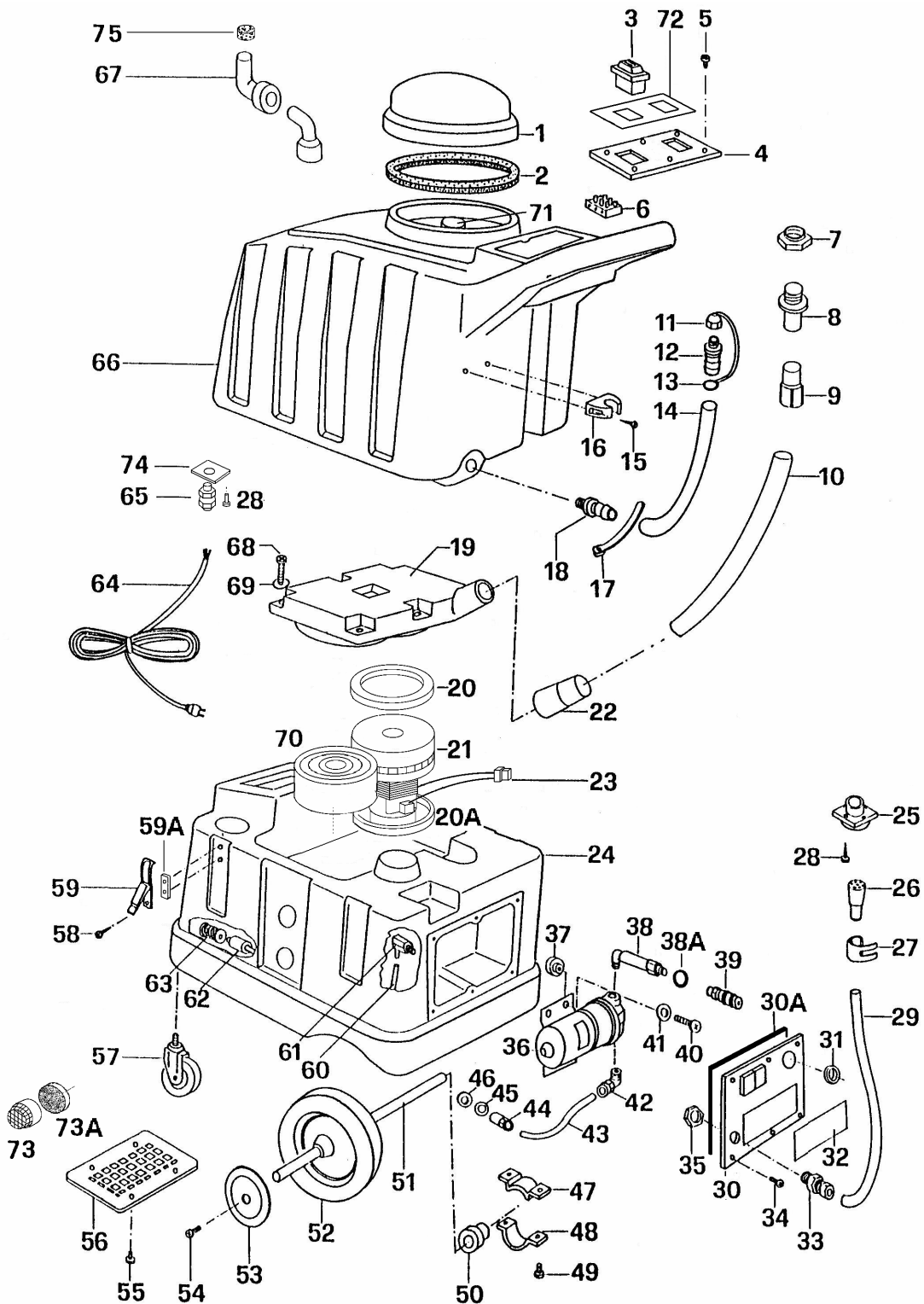
Electrical sketch of TP18SX UPPER TANK



Tempest 18 SX

Schematic Drawing

1205 Britannia Rd. E. Mississauga, Ontario, Canada L4W 1C4
Tel.: 1-800-387-3210 Fax: 1-800-709-2896



Tempest 18 SX

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Parts List

Item #	Part #	DESCRIPTION
1	15178	COVER
	15178C	COVER WITH GASKET
2	15179	GASKET
3	15217	SWITCH
4	15189	PANEL
5	15536	SCREW
6	15236	CONNECTING TERMINAL
7	15548	NUT
8	15365	HOSE NIPPLE
9	15334	CUFF
10	15364	HOSE D38
11	15159	CAP
12	15161	HOSE NIPPLE
13	15162	TIE
14	15358	DRAIN HOSE
14A	15358C	DRAIN HOSE COMPLETE
15	15544	SCREW
16	15160	CLIP
17	15541	TIE
18	15161	HOSE NIPPLE
19	15155.1	MANIFOLD
20	15825	GASKET 3mm
20A	15825	GASKET 3mm
21	15809	MOTOR 1300W 110V 50-60 HZ
22	15363	CUFF
23	15234	CONNECTOR
	15250	MALE ELECTRICAL TERMINAL
24	15152	BLUE LOWER TANK
25	152592C	SOCKET WITH WIRES
26,27,29	152612C	WIRING HARNESS
27	15265	TIE
28	15538	SCREW
29	15261	CABLE SHEATH
30	15148	PANEL
30A	15186	PANEL GASKET
31	15163	BUSH
32	15157	PANEL LABEL
33	152621	CONNECTING PART
34	15536	SCREW
35	15564	NUT
36	15644	PUMP 100-120V 100 PSI
36A	15644C	PUMP 100-120V 100 PSI + FITTINGS
37	157360	VIBRATION DAMPING

Tempest 18 SX

1205 Britannia Rd. E. Mississauga, Ontario, Canada L4W 1C4
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Parts List

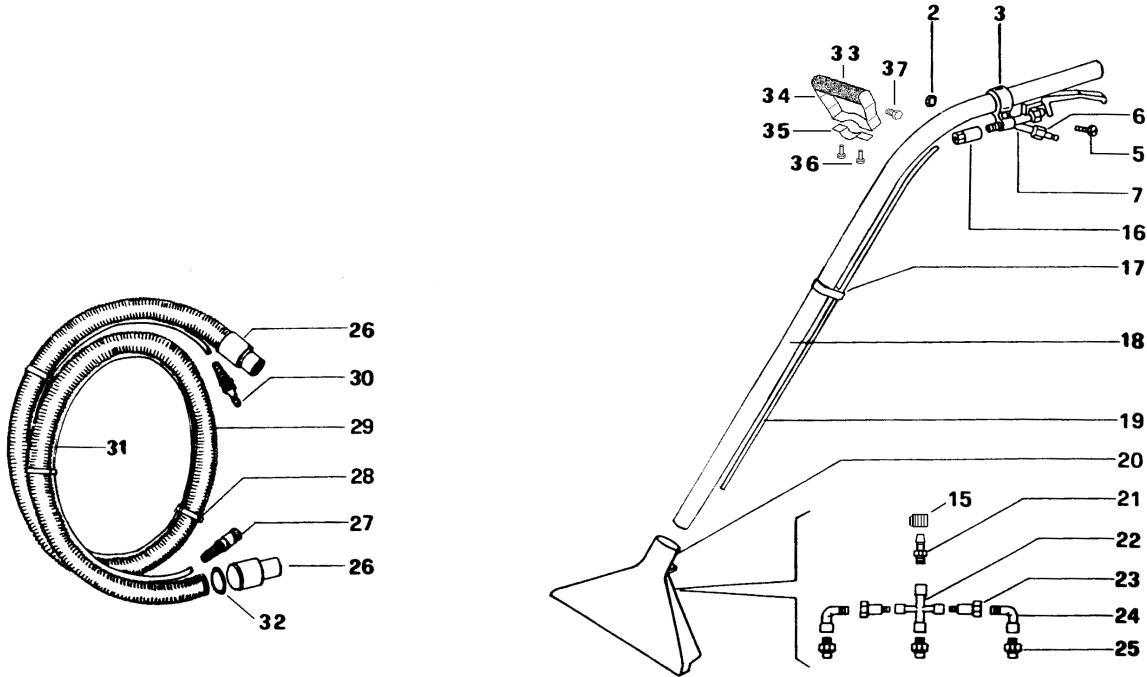
38	15720	ELBOW
	15753	EXTENSION FOR METAL COUPL.
38A	15137	O-RING FOR QUICK DISCONN.
39	15687	METAL QUICK DISC. FEMALE
	15687PE	BRASS PE QUICK DISC. FEMALE
40	15546	SCREW 5x25
41	15517	WASHER
42	15622	ELBOW
43	15746	RILSAN PIPE
44	15714	QUICK DISCONN.-FEMALE
45	15540	METAL WASHER
46	15147	NEOPRENE WASHER
47	15420	UPPER BEARING FLANGE
47A	154270	PLATE
48	15421	LOWER BEARING FLANGE
49	15583	SCREW
50	15419	PILLOW BLOCK
51	15418	SHAFT
52	15422	WHEEL
53	15423	WHEEL COVER
54	15582	SCREW
55	15536	SCREW
56	15180	LOWER PANEL
57	15115	WHEEL
58	15545	SCREW
59	15142	TOGGLE
59A	15167	PLATE
60	15745	EXTRAFLEX PIPE
61	15724	CONNECTING PART
	15702	HOSE NIPPLE
62	15747	BALLAST
63	15608	FILTER
64	15215	CABLE 3 x 14 AWG x 15m
65	15295	FAIRLEAD WITH NUT
66	15151	BLUE UPPER TANK
67	15131	ELBOW
68	15571	SCREW
69	15517	WASHER
70	15203	SPACER
71	15183	45° ELBOW
72	151811	UPPER PANEL LABEL
73	1511638	PLASTIC FILTER
73A	152024	FILTER PPI45 D.40
74	15109	PLATE FOR FAIRLEAD
75	15188	VACUUM FILTER

ACCESSORY WAND AND HOSE

SP-12300 & SP-12300PE
SP-13020 & SP- 13020PE

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Tel.: 1-800-387-3210 Fax: 1-800-709-2896

Schematic Drawing



ACCESSORY WAND AND HOSE

SP-12300 & SP-12300PE

SP-13020 & SP- 13020PE

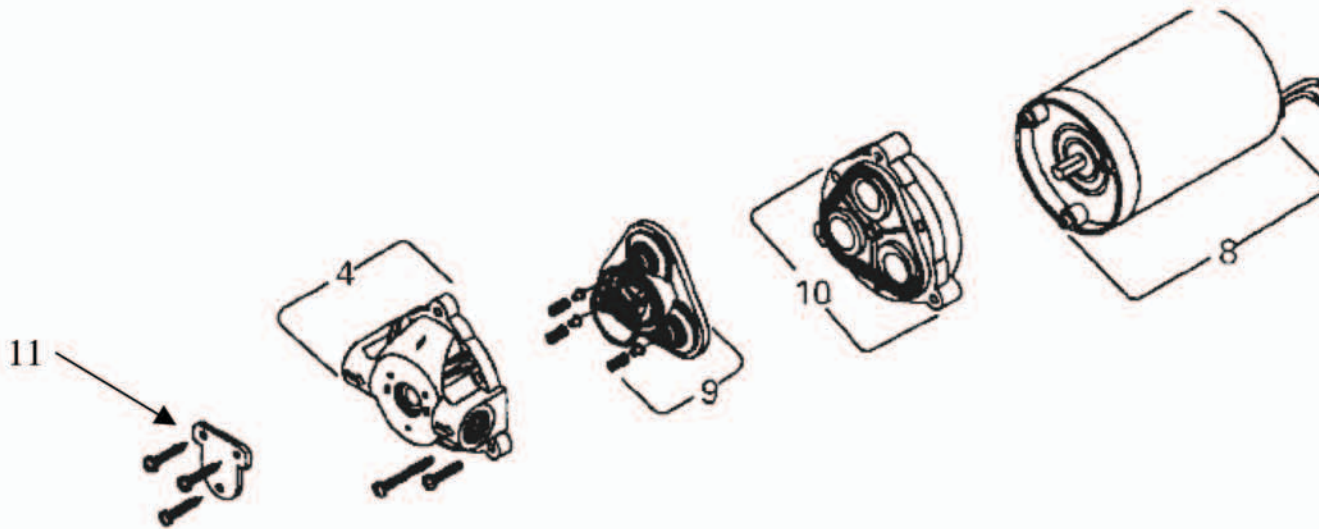
1205 Britannia Rd. E. Mississauga, Ontario, Canada L4W 1C4

Tel.: 1-800-387-3210 Fax: 1-800-709-2896

Parts List

Item #	Part #	DESCRIPTION
2	SP-12525	NUT
3	SP-12319	VALVE LOCK
5	SP-15504	SCREW
6	SP-15689	METAL QUICK DISCONN. MALE
	SP-15689PE	BRASS PE QUICK DISCONN. MALE
7	SP-12320	SOLUTION VALVE
15	SP-12609	TIE
16	SP-15690	COUPLING FOR SOLUTION PIPE
17	SP-12682	TIE
18	SP-12340	STAINLESS STEEL TUBE D.38
19	SP-12347	6x14 SOLUTION HOSE, BRAIDED
20	SP-12311	ALUMINIUM HEAD
21	SP-15702B	HOSE NIPPLE
22	SP-12685	CROSS
23	SP-12686	EXTENSION
24	SP-12626	ELBOW
25	SP-12671	NOZZLE 02/110
26	SP-15334	HOSE CUFF D. 38
27	SP-15687	METAL QUICK DISC. F.
	SP-15687PE	BRASS PE QUICK DISC. F.
	SP-15690	COUPLING FOR SOLUTION PIPE
28	SP-13695	TIE FOR BRAIDED SOLUTION HOSE
29	SP-13368	VACUUM HOSE, 20'
30	SP-15688	METAL QUICK DISCONNECT MALE
	SP-15688PE	BRASS PE QUICK DISCONN. MALE
	SP-15690	COUPLING FOR SOLUTION PIPE
31	SP-13341	SOLUTION TUBE
32	SP-13112	RING
33	SP-121173	HAND GRIP CYLINDER
	SP-121174	HAND GRIP, TEXTURED
34	SP-121171	UPPER PART FOR HANDLE
35	SP-121172	LOWER PART FOR HANDLE
36	SP-15584	SCREW , 6 x 12
37	SP-15509	SCREW, 6 x 20

15644 SHURFLO PUMP



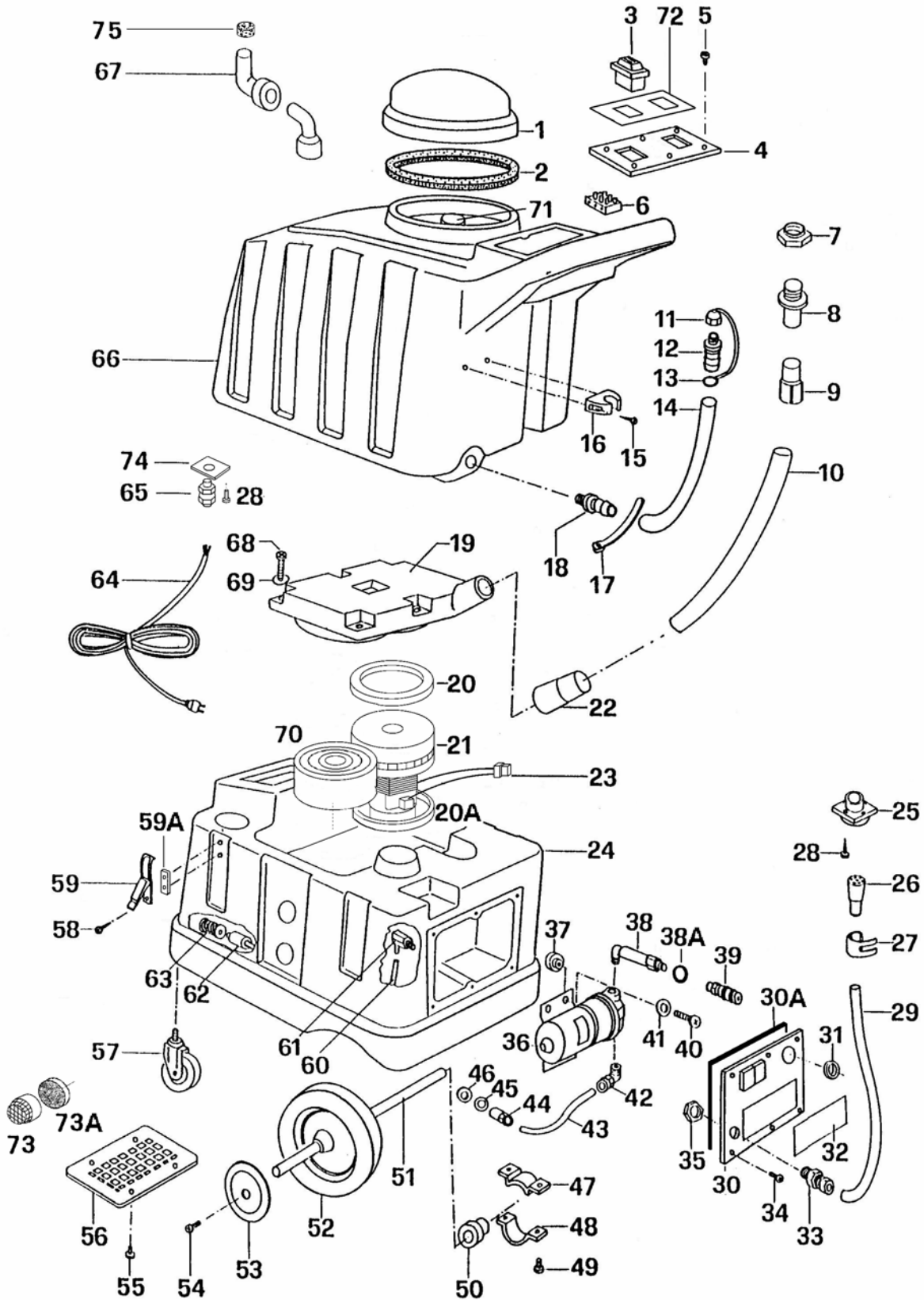
Ref #	Part #	Description
4	15644.1	Upper Housing
10	15644.3	Diaphragm/Drive Assy
8	15644.4	Motor
9	15644.2	Bypass Valve Assy
11	15644.5	Pressure Switch Cover



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Clarity in Cleaning

TP18SX



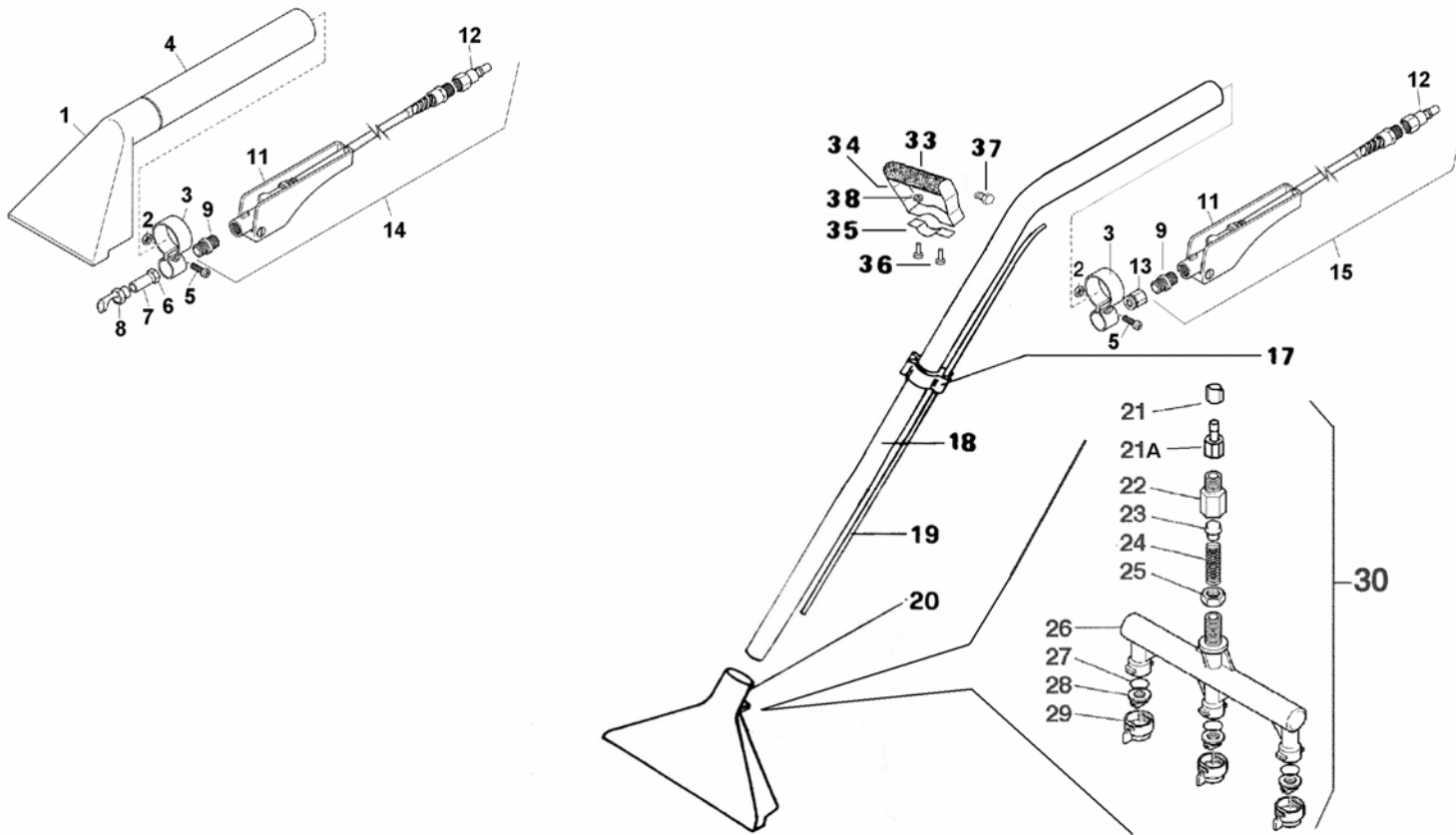
TP18SX

PAGE 1

REF.	PART #	DESCRIPTION
1	15178	RECOVERY DOME
	15178C	RECOVERY DOME WITH GASKET
2	15179	GASKET
3	15217	2 POSITION SWITCH
4	15189	PANEL
5	15536	STAINLESS STEEL SCREW TC+ 4x10
6	15236	CONNECTING TERMINAL
7	15548	RING NUT
8	15365	HOSE NIPPLE
9	15334	CUFF D. 38
10	15364	VACUUM HOSE D. 38
11	15159	CAP
12	15161	HOSE NIPPLE
13	15162	TIE
14	15358	DRAIN HOSE
14A	15358C	COMPLETE DRAIN HOSE
15	15544	SCREW 4,2x22
16	15160	CLIP
17	15541	TIE
18	15161	HOSE NIPPLE
19	15155N	MANIFOLD
20	15825	MOTOR GASKET 3mm
20A	15825	MOTOR GASKET 3mm
21	15809	3-STAGE MOTOR 1300W 120V 50-60Hz
22	15363	CUFF
23	15234	PLASTIC CONNECTOR
	15250	MALE SPADE CONNECTOR – 6,3mm
24	15152	SOLURION TANK
25	15259	SOCKET
	152591C	SOCKET WITH WIRES
26	15260	PLUG
27	15265	TIE
28	15538	SCREW TC+ 3,9x13
29	15261	CABLE SHEATH
29	152611C	COMPLETE CABLE
30	15148G	LOWER PANEL
30A	15186	PANEL GASKET
31	15163	BUSHING
32	151571	PLATE
33	152621	CONNECTOR (ELBOW)
34	15536	STAINLESS STEEL SCREW TC+ 4x10
35	15564	RING NUT
36	15644	PUMP 100-120V 50-60 Hz 100 PSI
36A	15644CM	PUMP 100-120V 50-60 Hz 100 PSI+ FITTINGS

REF.	PART #	DESCRIPTION
37	157360	VIBRATION DAMPING (SHURFLO)
38	15720	ELBOW
38	15753	EXTENSION FOR METAL COUPLING
39	15687PE	METAL QUICK DISCONNECT FEMALE
40	15546	SCREW TC+ 5x25 (SHURFLO)
41	15517	WASHER 5x15
42	15622	ELBOW
43	15746	RILSAN PIPE
44	15714	QUICK DISCONNECT FEMALE
45	15540	BRASS WASHER
46	15147	NEOPRENE WASHER
47	15420	UPPER BEARING FLANGE
47A	154270	PLATE
48	15421	LOWER BEARING FLANGE
49	15583	SCREW TE 8x20
50	15419	PILLOW BLOCK
51	15418	SHAFT
52	15422	WHEEL
53	15423	WHEEL COVER
54	15582	SCREW TE 6x8
55	15536	STAINLESS STEEL SCREW TC+ 4x10
56	15180	LOWER PANEL
57	15115	WHEEL
58	15545	SCREW
59	15142	COUPLER
59A	15167	PLATE
60	15745	EXTRAFLEX PIPE
61	15724	CONNECTING PART
61	15702B	HOSE NIPPLE
62	15747	BALLAST
63	15608	FILTER
64	15215	CABLE 3xAWG14 L.15m. SJT-CSA USA PLUG
65	15295	STRAIN RELIEF WITH NUT
66	15151	RECOVERY TANK
67	15131	ELBOW
68	15571I	SCREW STAINLESS STEEL TC+ 5x40
69	15517I	STAINLESS STEEL WASHER 5x15
70	15203	SOUNDPROOFING STRIPE
71	15183	ELBOW
72	15181I	LABEL
73	1511638	PLASTIC FILTER
73A	152024	FILTER PPI45 D.40
74	15109	FAIRLEAD PLATE
75	15188	VACUUM FILTER


NACECARE
SOLUTIONS
Clarity in Cleaning
12300PE & 1110APE





12300PE & 1110APE

REF.	PART #	DESCRIPTION
1	15342	ALUMINIUM HEAD
	15342C	ALUMINUM HEAD + METAL TUBE
2	15525	NUT D.5
3	15319	VALVE CLAMP
4	15339	METAL TUBE D.38
5	15504	SCREW TC+ 5x20
6	15684	CONNECTING PART
7	15686	EXTENSION
8	15676	NOZZLE FOR 1110APE
9	15764	NIPPLE ¼ - ¼
12	15689-PE	QUICK DISCONNECT MALE, ATT. F.1/4"
13	15690	PTC FITTING FOR SOLUTION HOSE 6x14 ATT. F.1/4"
14	123200CPE	COMPLETE VALVE, WITH FITTINGS
15	123200CPE	COMPLETE VALVE, WITH FITTINGS
17	15541	HOSE RETAINER
18	15340	VACUUM TUBE D.38
19	15347	SOLUTION HOSE L=111cm
20	15311	ALUMINIUM HEAD 12300PE
21	15609	2 EARED HOSE CLAMP
21A	156991	HOSE BARB DIAM.7 – ATT. F. ¼"
22	157432	COUPLING FOR CHECK VALVE, ATT. M. 1/4"
23	15111	POPPET FOR CHECK VALVE
24	156071	SPRING FOR CHECK VALVE
25	155321	LOCKING NUT DIAM. ¼"
26	153287	MANIFOLD FOR 12300PE
27	153209	O-RING



12300PE & 1110APE

REF.	PART #	DESCRIPTION
28	15705-01	BRASS NOZZLE 01/110
29	157180	LOCKING NUT FOR NOZZLE
30	153287C	COMPLETE NOZZLE MANIFOLD FOR 12300PE
31	15341	SOLUTION PIPE MT. 6
32	15112	RING
33	15117.3	SUPPORT FOR HANDLE
33	15117.4	HANDLE GRIP
34	15117.1	UPPER HANDLE
35	15117.2	LOWER HANDLE
36	15574	SCREW – 6x14
37	15509	SCREW – 6x20
38	15562A	LOCKING NUT – DIAM. 6
39	15117C	COMPLETE HANDLE (ITEMS 33 TO 38)



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