

TW 411

TW 412



English

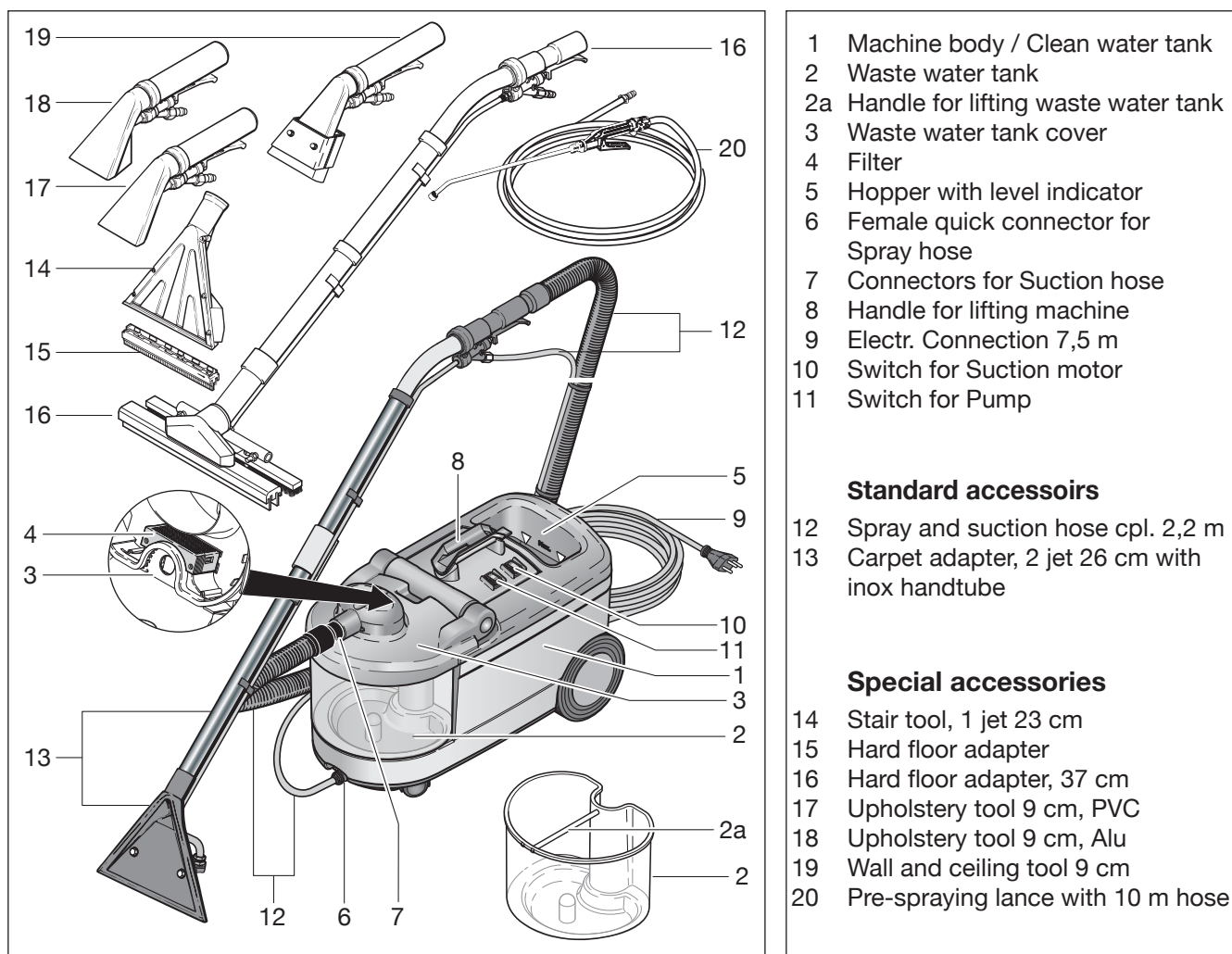


BA 000.002



06 / 2011

Description of pictures TW 411 / TW 412



Technical Specification	TW 411	TW 412
Suction nozzle width	26 cm	26 cm
Capacity fresh water	10,5 lt	28 lt
Capacity waste water	9 lt	9 lt
Voltage	230V / 50Hz	230V / 50Hz
Suction motor	1200 W-220 mbar	1200 W-220 mbar
Pump pression max.	2,4 bar	2,4 bar
Watervolume	1,5 l/min.	2,8 l/min.
Number of spray nozzles	2	2
Spray- and Suctionhose	2,2 m	2,2 m
Cable length	7,5 m	7,5 m
Weight	14 kg	14 kg
Measurements l/w/h	65 x 32,5 x 44 cm	65 x 32,5 x 44 cm
Max. températures cleaning	50° C	50° C
Sound pressure level	76,5 dB (A)	76 dB (A)

1. Spray extraction operations

1.1 Preparing the textile floor covering

Vor dem Sprühextrahieren muss der Teppich mit einem Staubsauger gründlich abgesaugt werden.

2. Preparatory steps before using the machine:

- ☞ Only use the machine if the voltage stated on the type plate (number of volts) is identical with the available supply and the connector socket is earthed.
- ☞ Check that the filter is present in the fresh water tank.
- ☞ Mix the cleaning agent in a bucket with cold or hot water (max. 50°C). Dosing: Direct extraction 1% - 3%, pre-spraying 3% - 10%.
- ☞ Connect the pressure hose to the machine at the quick-release coupling. Insert the suction hose in the machine. Assemble suction hose and pressure hose to suction / spray pipe.
- ☞ Check that all switches are off.
- ☞ Plug in the main supply cable.

3. Starting up the machine:

- ☞ Switch on the pressure pump. Do not switch on the pressure pump unless the fresh water tank is full, otherwise the pump will be damaged as it is not designed for dry running.
- ☞ Switch on the suction motor.

4. Operating procedure

4.1 Spray extraction with normal soiling

Pull nozzle slowly backwards (approx. 5 sec./m) with slight pressure on the handpipe and spray/extract in this manner, i.e. spray and pick up immediately. Shortly before completing each phase, shut off the water supply and pick up the water last sprayed on. The next working length should overlap the previous one by 1 - 2 cm.

4.2 With heavy soiling

Carry out spray/extraction a second time, where possible in a crosswise direction. This second cleaning phase is only to be carried out on a totally dry carpet. Note the safety precautions detailed under side English 8.

4.3 Pre-spraying with cleaning solution with heavy soiling

☞ Using suction / spray pipe:

Pass nozzle fairly quickly over the carpet (approx. 3 sec./m) with the valve open and suction motors switched off.

☞ Using spray lance:

Connect spray lance to socket for pressure hose. (Max. pressure 5 bar).

☞ Using an external spray device:

Spray the entire carpet surface, wetting badly soiled areas more thoroughly. Allow the cleaning solution time to act, but never allow it to dry out.

- ☞ Then spray / extract with clean water as described under 4.1.

4.4 With very heavy soiling

Shampoo extremely heavily soiled carpets before using a single brush machine.

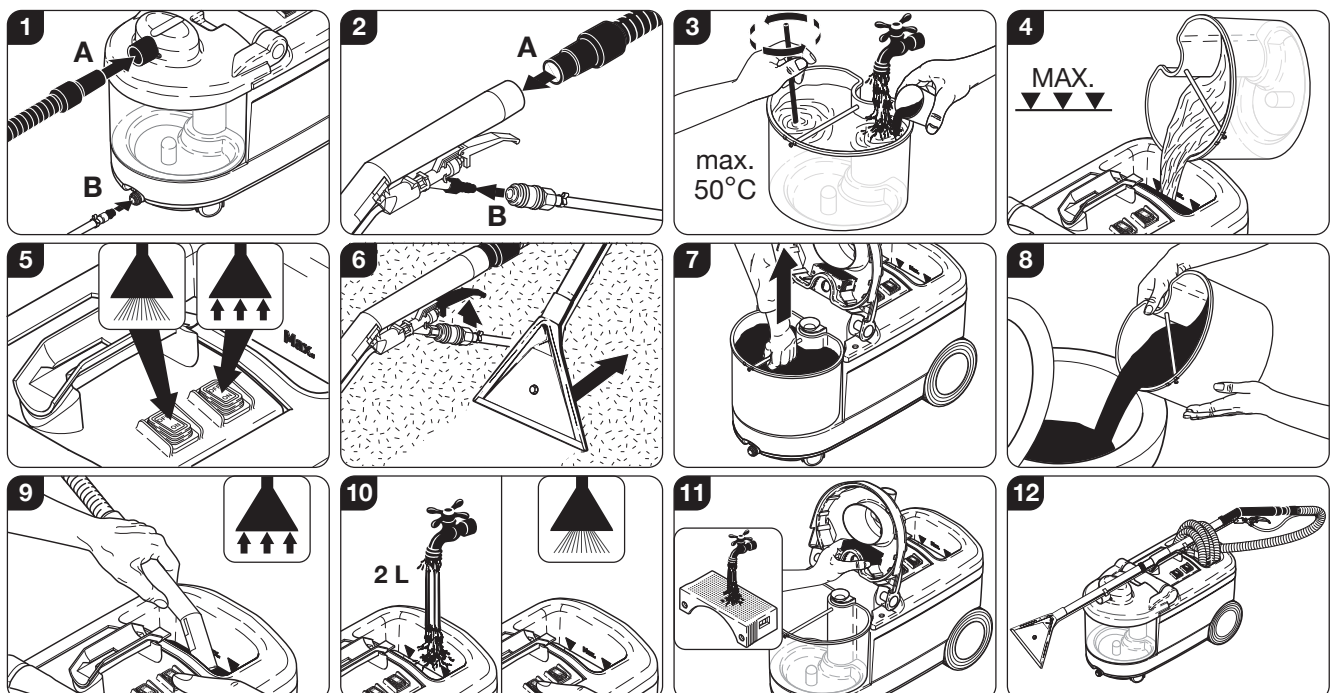
4.5 Foaming

When using the spray extraction machine, excess foam may occur in the recovery tank, especially if the carpet has previously been cleaned using a high foam shampoo. If this occurs add defoamer as required to the recovery tank.

4.6 Cleaning areas with difficult access.

Areas of carpeting which are inaccessible to the spray extraction nozzle, e.g. corners, recesses, edges, under radiators or on stairs, can be cleaned easily using the manual extraction nozzle.

5. Assembly and application TW 411 / 412



6 Maintenance / servicing

6.1 Daily servicing:

- ☞ Drain the fresh watertank. Fill with approx. 6l of fresh water. Hold the nozzle over a réceptacle and flush the pressure pump, hose and spray nozzles thoroughly. Clean float and fresh water filter (on tank base). Drain fresh water tank completely.
- ☞ Drain waste water tank completely and thoroughly wash out with clean water.
- ☞ Wipe machine dry inside and out.

6.2 Repairs and maintenance:

- ☞ The motors and pressure pump are maintenance-free.
- ☞ We recommend our Service for repairs and inspections.
- ☞ Protect machine and accessories from frost.

7 Faults

7.1 Possible causes of insufficient spraying capacity:

- ☞ Spray nozzles blocked
- ☞ Fresh water filter dirty
- ☞ Fresh water tank empty
- ☞ Pressure pump not switched on

7.2 Possible causes of low suction capacity:

- ☞ Transparent dome not correctly mounted to waste water tank aperture (air entering)
- ☞ Suction slot on nozzle blocked
- ☞ Suction hose not correctly connected to handpipe
- ☞ Waste water tank full (float at top is interrupting suction)
- ☞ Riser tube mesh blocked

8. Final remark

Subject to changes within the framework of technical progress!!

Environmental protection

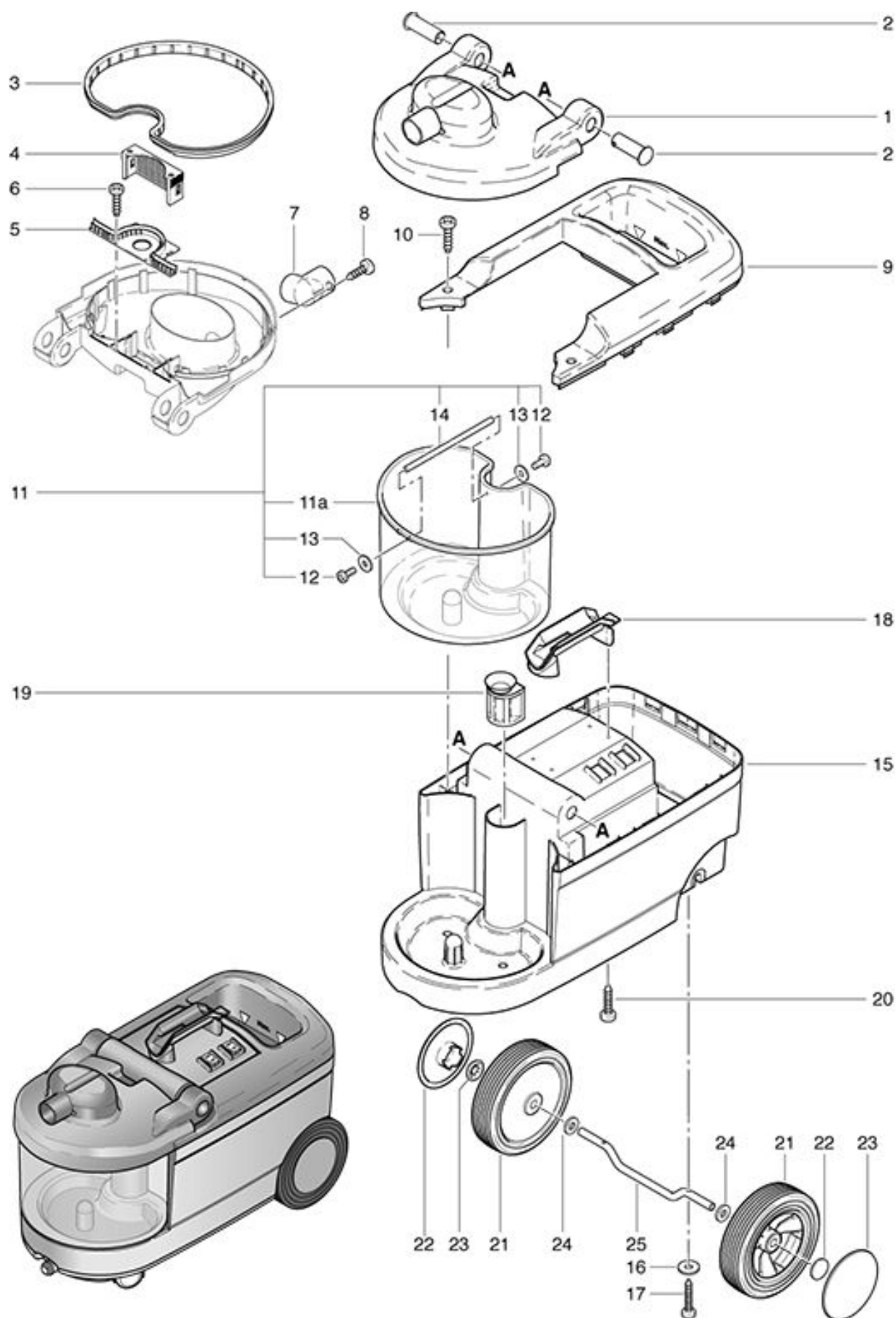
	The packaging material can be recycled. Please do not throw the packaging material into household waste; please send it for recycling.
	Old appliances contain valuable materials that can be recycled; these should be sent for recycling.. Batteries, oil, and similar substances must not enter the environment. Please dispose of your old appliances using appropriate collection systems.

ООО "Альянс Клининговых Технологий"
Беларусь, г.Минск,
ул.Космонавтов 4; 220025
Телефон: +375 29 9442827
E-mail: info@technologyalliance.by

TW 411

Cover-Housing

As at: 06/19/14 Time:17:12

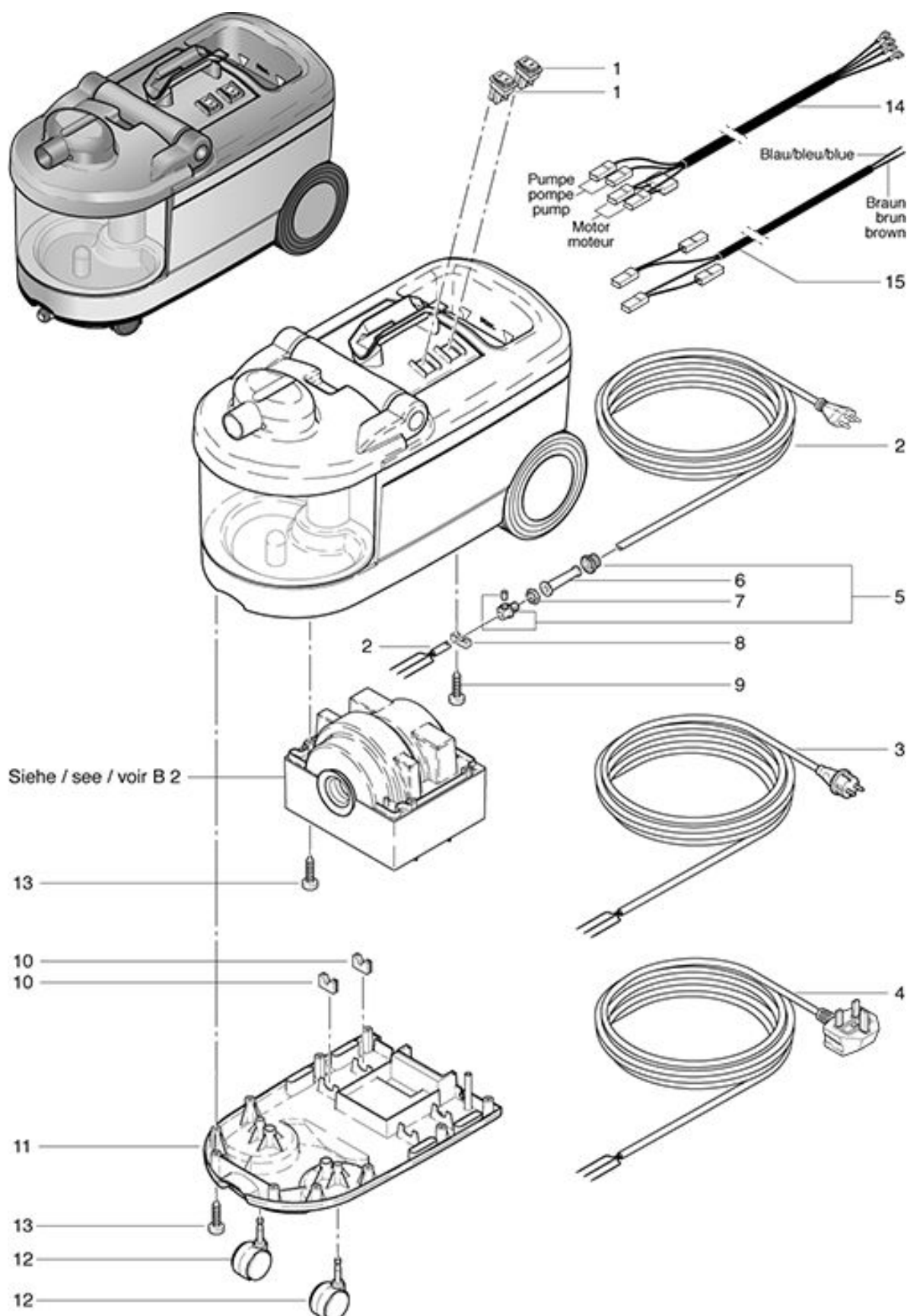


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Cover-Housing

As at: 06/19/14 Time:17:12

Pos.	Description	Reference
01	Cover	043.201
02	Hinge pin	043.504
03	Seal for cover	043.202
04	Filter	043.205
05	Cover employment	043.204
06	screw WN 1411 KA30x16	P...516 F
07	Bent tube	043.203
08	screw WN 1452 KA 30x10 A2	P...515 Q
09	Cover	043.502
10	PT-screw KA 30x16	P...516F
11	Boiler compl. exist out position 11a-14	043.300
11a	Recovery tank	043.301
12	Fillister-head screw M 3x8	P...476 O
13	Washer M 3	P...497 J
14	Axle	043.302
15	Housing	043.510
16	Washer M 4	P...497 C
17	PT-screw KA 40x25	P...516 O
18	Handle	043.503
19	Intake socket	043.505
20	screw WN 1412 KA40 x 25	P...516 O
21	wheel	380.135
22	Wheel cover	300.242
23	Guard ring with cap	P...499 L
24	Washer 13x28x4	P...510 P
25	Axle	043.501



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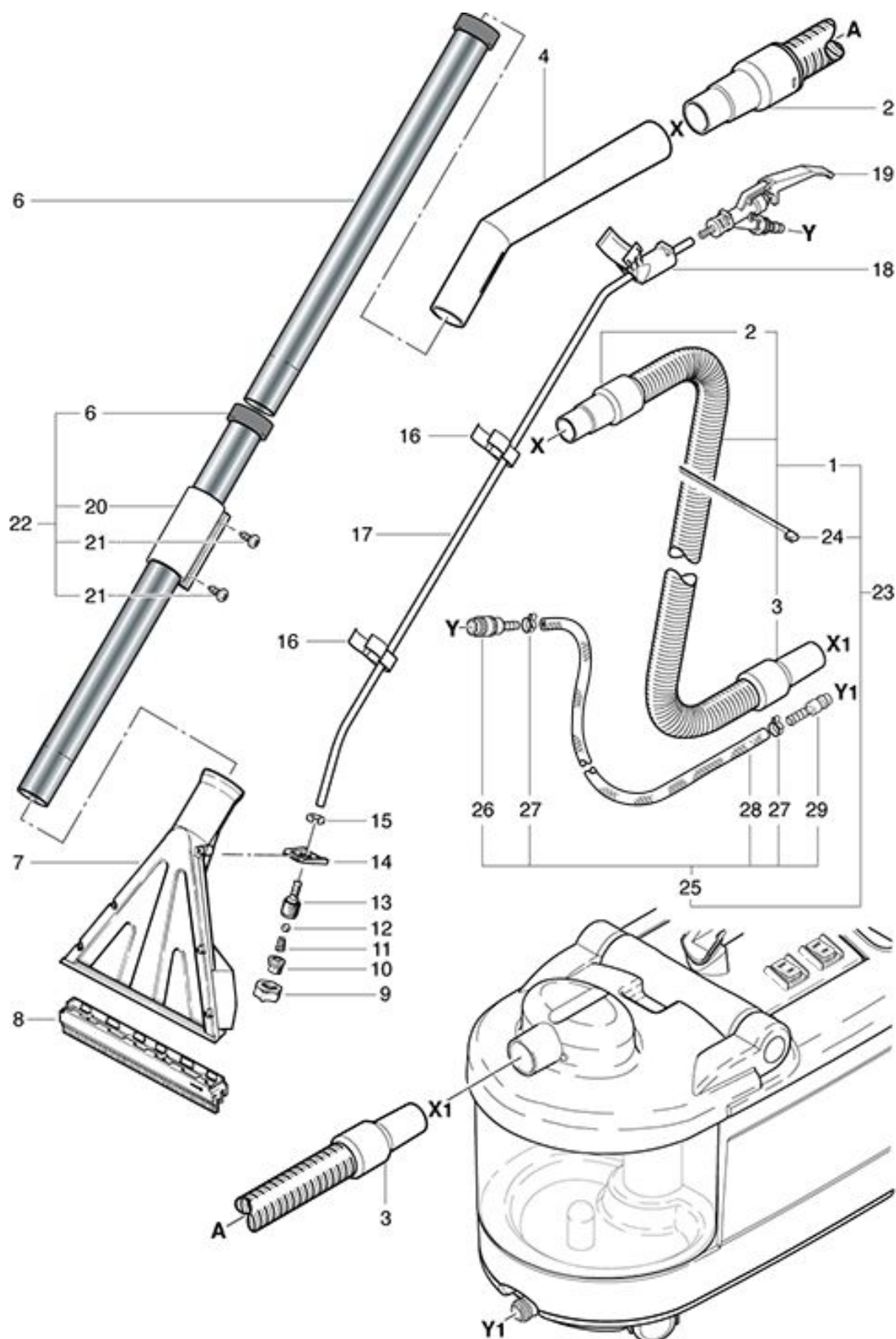
Pump assembling vacuum motor and Electrical connection

As at: 06/19/14 Time:17:12

Pos.	Description	Reference
01	Valve-switch 230 V	P...240
02	Electr. Connection 7,5 m SEV	P...287
03	Electr. Connection 7,5 m VDE	P...288
04	Electr. Connection 7,5 m GB	P...277
05	Cable clamp	P...279
06	Cable grommet	P...280
07	Conter nut PG 9	P...279 H
08	Cable clamp	4611085
09	PT screw KA 50x18	P...516 F
10	Pump holder	043.603
11	Bottom	043.401
12	Swivel castor wheel Ø 50 mm	P...204 F
13	PT screw KA 50x16	P...515 Z
14	cable tree for pump and moteur	043.612
15	cable tree set	043.614

TW 411 Suction set

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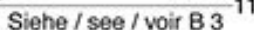
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Suction set

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Pos.	Description	Reference
01	Suction hose 2,2m, including items 2+3	043.561
02	Hose socket Ø 32 mm	P...575
03	Hose socket 32 mm	P...562 C
04	Toolhandle tw, anthrazit	606.010
05	Slide	P...581 B
06	Stainless steel tube	645.002 A
07	Suction nozzle 23 cm	P...600 I
08	Hardfloor slide	P...600 W
09	Cap nut 3/8"	P...602 D
10	Spraying jet withe	P...602 C
11	Pressure spring	P...444 E
12	Ball	P...172 W
13	Holder for nozzle	P...602 E
14	Mounting bracket for nozzle	P...602 I
15	Locking washer Ø 9 mm	P...499 N
16	Hose clip	P...670
17	Pressure hose 6/8x1045 mm	P...665
18	Triffer mounting braket	606.020
19	Spraying compl. with fitting	900.681
20	Sliding clamp	012.411
21	PT-screw KA 40x8	P...515 W
22	Stainless steel tube with sliding clamp	645.003
23	Spray and suction hose 2,2m cpl. incl. Items 1,24,25	043.560
24	Cable tie 4.8x200 mm	P...609
25	Spraying hose 2,2 m cpl.including items 26-29	043.562
26	Hose connector	900.165
27	Hose clamp 13.3 mm	P...550 I
28	Pressure hose Ø 6/12x2250mm	043.563
29	Connector	P...501 D

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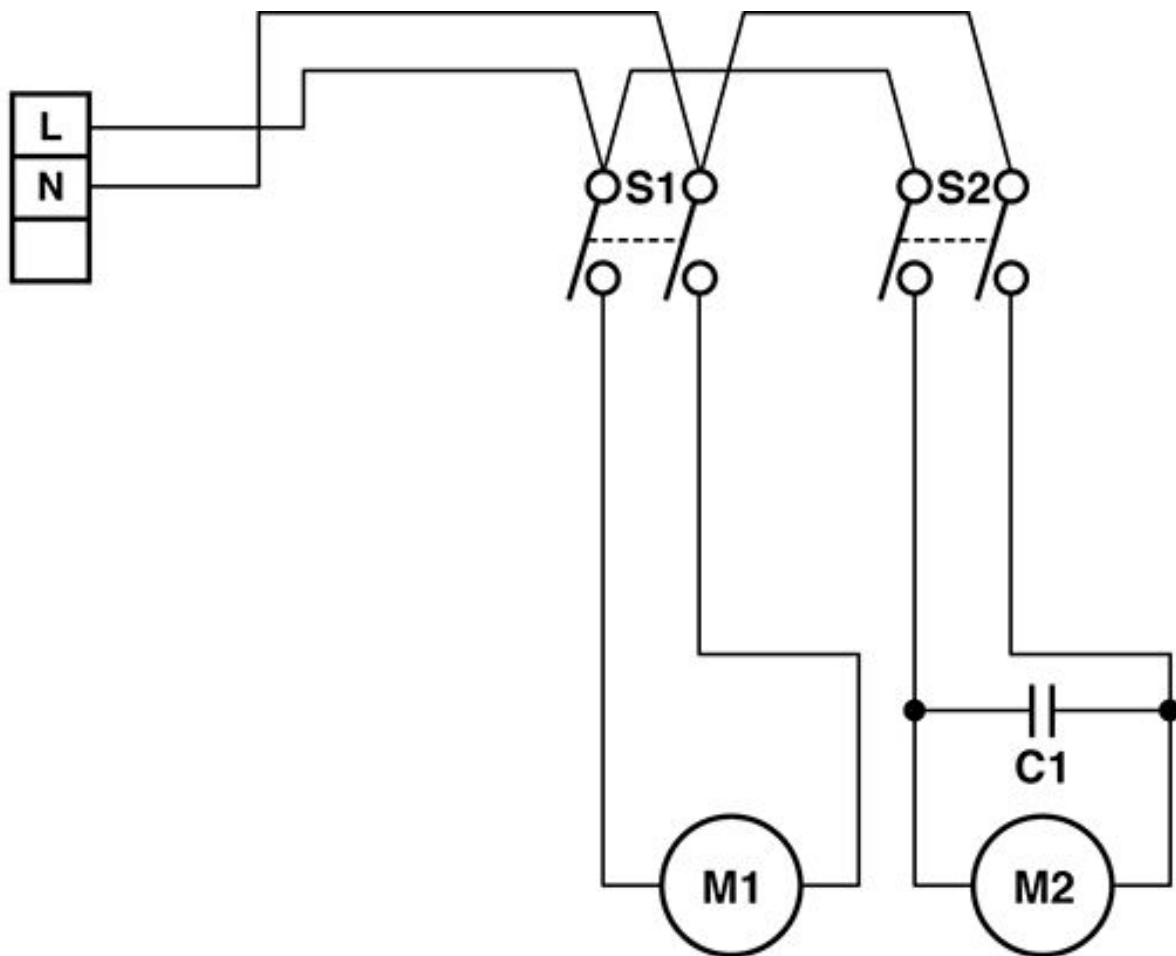


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Vacuum motor-Pump

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Pos.	Description	Reference
01	Fan unit complete including: items 2-10	043.600
02	Lower jacket of motor	043.602
03	Upper jacket of motor	043.601
04	Suction motor	P...876
05	Pair of Charbon brushes	P...876KB
06	Profile	043.606
07	Seal for motor	043.607
08	Motor sealing ring	P...971 J
09	Seal for motor	043.605
10	PT-screw KA 50x16	P...515 Z
11	NDSX-pump 230V/50Hz	P...809
12	Pump holder	043.603
13	Hose pump-coupling	043.609
14	Hose clamp 17,0-706R	P...550 C
15	Hose tank-pump	043.610
16	Angled hose nippel 8/R 1/4"	P...541 H
17	Hexagon nut 3/8"	P...535 B
18	Gasket 30/17x2 mm	P...097
19	Reducer 3/8"-1/4"	P...535 A
20	Fresh water filter	P...106
21	Male connector NW 8-1/4"	P...525 K
22	Washer 14/24/2 mm	P...260
23	Female quick connector 1/4\\" big	P...500 B
24	Support	043.650
25	Terminal 3 poles	P...383 A
26	Marking plate	P...390
27	PT screw KA 30x16	P...516 F
28	cable tree for pumpe and motor	043.612
29	cable tree vacuum motor	043.613
30	cable tree set	043.614



- S1 = Wippenschalter 230 V 1 / Interrupteur 230 V 1 / Valve-switch 230 V 1
 S2 = Wippenschalter 230 V 2 / Interrupteur 230 V 2 / Valve-switch 230 V 2
 C1 = Entstörkondensator 0,15 uF / Condensateur 0,15 uF / Capacitor 0,15 uF
 M1 = NDS-X-Pumpe 230 V / Pompe NDS-X-230 V / NDS-X-pump 230 V
 M2 = Saugmotor / Motuer d'aspiration / Vacuum motor

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Wiring diagram

As at: 06/19/14 Time:17:12

Pos.	Description	Reference
C 1	Capacitor 0,15 uF	P...391
M 1	Pump	P...809
M 2	Suction motor	P...876
S 1	Tumbler switch 1	P...240
S 2	Tumbler switch 2	P...240