



Duplex-Cleaning-Machines



@Duplex UK



Duplex CleaningUK



Duplex Cleaning Machines

Duplex Cleaning Machines (UK) Ltd.
Unit 27 Joseph Wilson Ind. Est,
Whitstable, Kent CT5 3PS.
Tel: +44 (0)1227 771276
Fax: +44 (0)1227 770220
info@duplex-cleaning.com
www.duplex-cleaning.com



JET VAC ECO



ENGLISH

INTERPRETATION OF THE SYMBOLS PLACED ON THE UNIT

BEFORE USING THE STEAM GENERATOR, READ AND FOLLOW THIS INSTRUCTION MANUAL.

IT IS RECOMMENDED TO KEEP THIS INSTRUCTION MANUAL TO CONSULT IT LATER OR TO GIVE IT TO THE FOLLOWING OWNERS.

PLEASE READ THE SAFETY INSTRUCTIONS ON THIS HANDBOOK BEFORE PROCEEDING ON THE FIRST USE.

EVENTUAL DAMAGES DUE TO THE CARRIAGE MUST BE COMMUNICATED AS SOON AS POSSIBLE TO YOUR OWN RETAILER.



ATTENTION!!

STEAM.... BURNING DANGER



ATTENTION !



READ THE OPERATING MANUAL

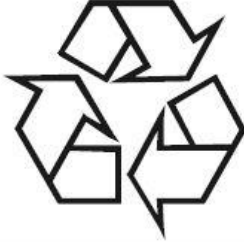
OPERATING MANUAL;

OPERATING INSTRUCTIONS




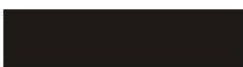
ENVIRONMENT PROTECTION

ALL THE PACKINGS ARE RECYCLABLE, PACKINGS DO NOT HAVE TO BE THROWN IN THE DOMESTIC WASTE BUT THEY HAVE TO BE DELIVERED TO THE CENTERS SPECIALIZED FOR THE DISPOSING OF THE WASTE.

	<p>ALL THE PACKINGS ARE RECYCLABLE, PACKINGS DO NOT HAVE TO BE THROWN IN THE DOMESTIC WASTE BUT THEY HAVE TO BE DELIVERED TO THE CENTERS SPECIALIZED FOR THE DISPOSING OF THE WASTE.</p>
---	--

ALL DEVICES NOT USED ANYMORE CONTAIN PRECIOUS RECYCLABLE MATERIALS THAT SHOULD BE DELIVERED TO THE CENTERS SUITABLE FOR THE DISPOSING OF THE WASTE. ELECTRIC AND ELECTRONIC EQUIPMENT, BATTERIES, OIL AND SIMILAR SUBSTANCES MUST BE RECYCLED IN THE PROPER RECYCLING CENTERS AND MUST NOT BE LEFT IN THE ENVIRONMENT.

SUBSTANCES SUCH AS OIL FOR MOTORS, DIESEL OIL, PETROL MUST NOT BE LEFT IN THE ENVIRONMENT AND MUST BE RECYCLED IN THE PROPER RECYCLING CENTERS ACCORDING TO THE ENVIRONMENTAL REGULATIONS.

 	<p>ALL DEVICES NOT USED ANYMORE CONTAIN PRECIOUS RECYCLABLE MATERIALS THAT SHOULD BE DELIVERED TO THE CENTERS SUITABLE FOR THE DISPOSING OF THE WASTE. ELECTRIC AND ELECTRONIC EQUIPMENT, BATTERIES, OIL AND SIMILAR SUBSTANCES MUST BE RECYCLED IN THE PROPER RECYCLING CENTERS AND MUST NOT BE LEFT IN THE ENVIRONMENT.</p>
	<p>SUBSTANCES SUCH AS OIL FOR MOTORS, DIESEL OIL, PETROL MUST NOT BE LEFT IN THE ENVIRONMENT AND MUST BE RECYCLED IN THE PROPER RECYCLING CENTERS ACCORDING TO THE ENVIRONMENTAL REGULATIONS.</p>

1. SUMMARY

1. SUMMARY	4
2. SAFETY REGULATIONS	4
3. TECHNICAL CHARACTERISTICS	6
4. PREFACE	6
5. TECHNICAL DRAWINGS	7
6. NOMENCLATURE	11
7. OPERATING INSTRUCTIONS	12
8. MAINTENANCE	13
9. BEFORE REFERRING TO THE TECHNICAL SERVICE	16
10. DECLARATION OF CONFORMITY	17

2. SAFETY REGULATIONS

The electric supply connection shall be made by a qualified electrician and comply with IEC 60364-1.

It is recommended that the electric supply to this machine should include either a residual current device that will interrupt the supply if the leakage current to earth exceeds 30ma for 30ms or a device, which will prove the earth circuit.

SAFETY VALVE This machine is equipped with two safety valves, able to ensure the safety of the machine itself in case other primary control devices are inefficient (due to a fault). Due to the extreme importance of these components and as not to compromise the safety of the machine, it is recommended to provide to check them and to substitute them through an authorized service center by 1.500 hours of usage or once a year, starting from the purchasing date.

PRESSURE SWITCH This machine is equipped with a pressure switch able to check and to maintain the pressure under certain preset limits (ref. “rated pressure” on the technical label underneath the machine). In case there would be a steam leak on the lower side of the machine, it means that the functioning of this device has been compromised and the safety valve has been involved as to limit the boiler internal pressure. **It is recommended not to use the machine, immediately unplug the machine from the power feeding and call the service center.**

MUD DRAIN FROM THE BOILER If you are not acquainted with the hardness level of the used water, it is recommended to proceed with the boiler cleaning (according to the

procedure indicated in the proper section) after 24 hours of usage. On the contrary, if you know the hardness level and it is between 0 and 4 french degrees , the boiler cleaning can be carried out after 100 hours of usage.

ATTENTION. Do not use the appliance within the range of persons unless they wear protective clothing.

ATTENTION. Pressure jets can be dangerous if subject to misuse. The jets must not be directed at people, live electrical equipment, or the machine itself.

Do not direct the jet against yourself or others in order to clean clothes or footwear.

Disconnect power before effectuating maintenance on user's responsibility.

Steam cleaners shall not be used by children or untrained personnel.

To ensure the machine safety, use only original spare parts from the manufacturer or approved by the manufacturer.

ATTENTION. Pressure hoses, fitting and couplings are important for the safety of the machine. Use only those recommended by the manufacturer.

Do not use the machine if the power cord or other important parts of the machine are damaged, i.e. safety devices, pressure hoses and trigger gun.

If an extension cord is used the plug and socket must be of watertight construction.

ATTENTION. Inadequate extension cords can be dangerous.

The user must not leave the iron (optional) unattended when it is connected to the power supply.

The hand-arm vibration data, referred to this device, are not mentioned as they are below 2.5 m / s ².

3. TECHNICAL CHARACTERISTICS

To verify the technical data of your model, consult the plate under the appliance.

4. PREFACE

Dear Client,

We would like to congratulate you on your choice.

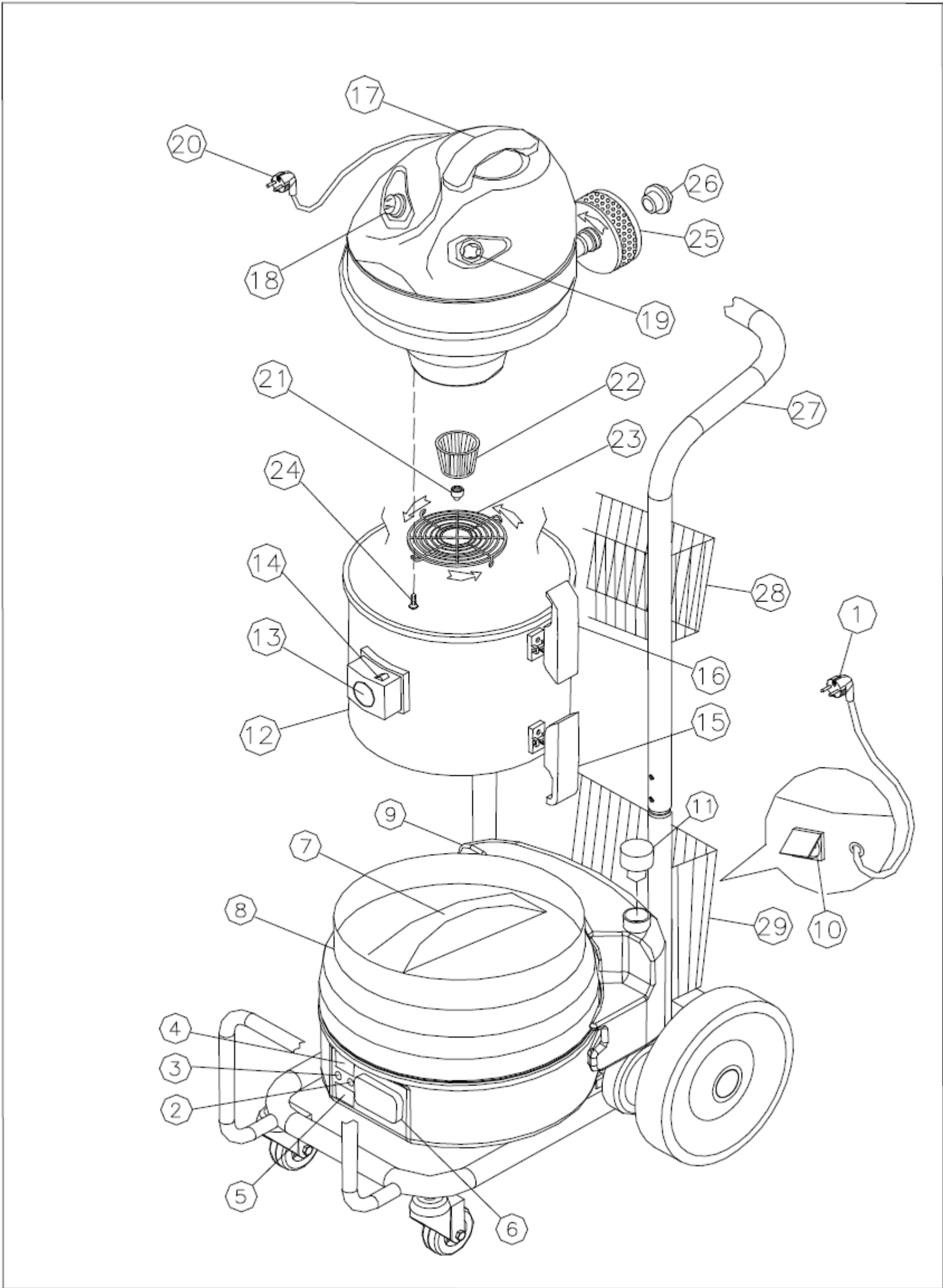
Please consider that the machine before leaving our factory has been tested and tweaked by qualified and specialized personnel.

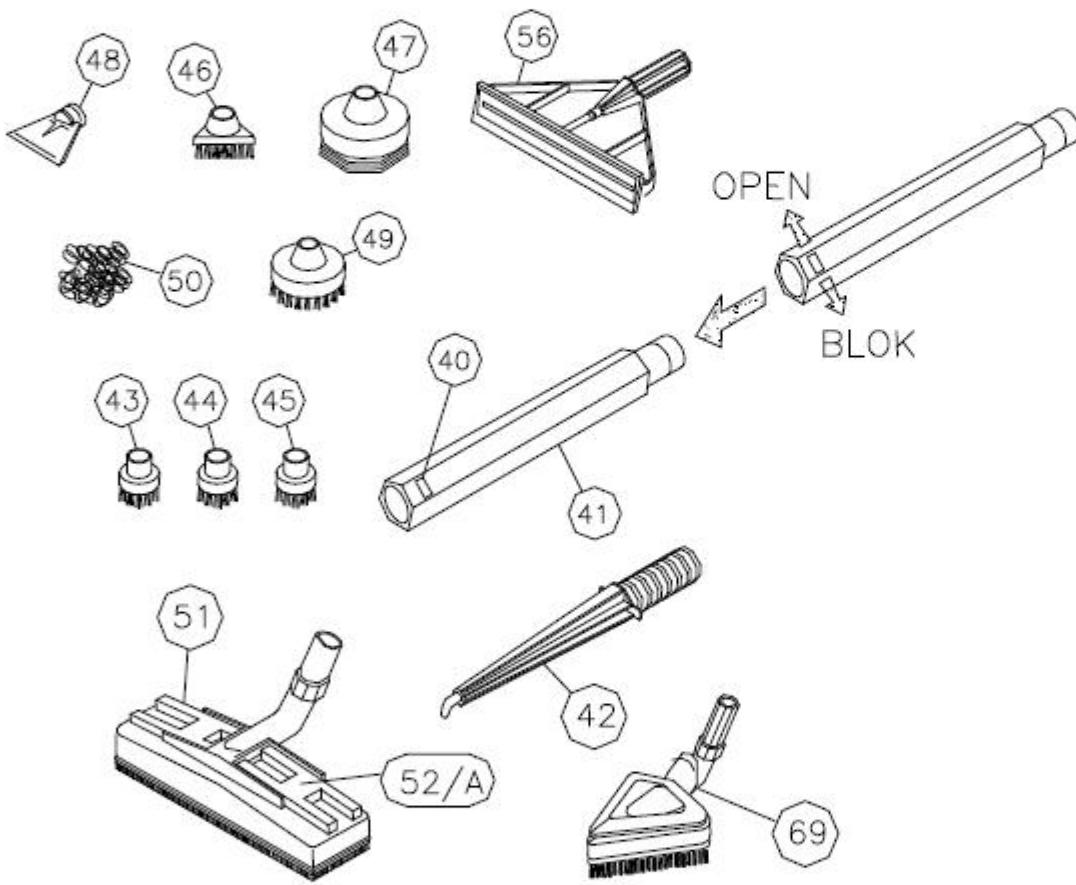
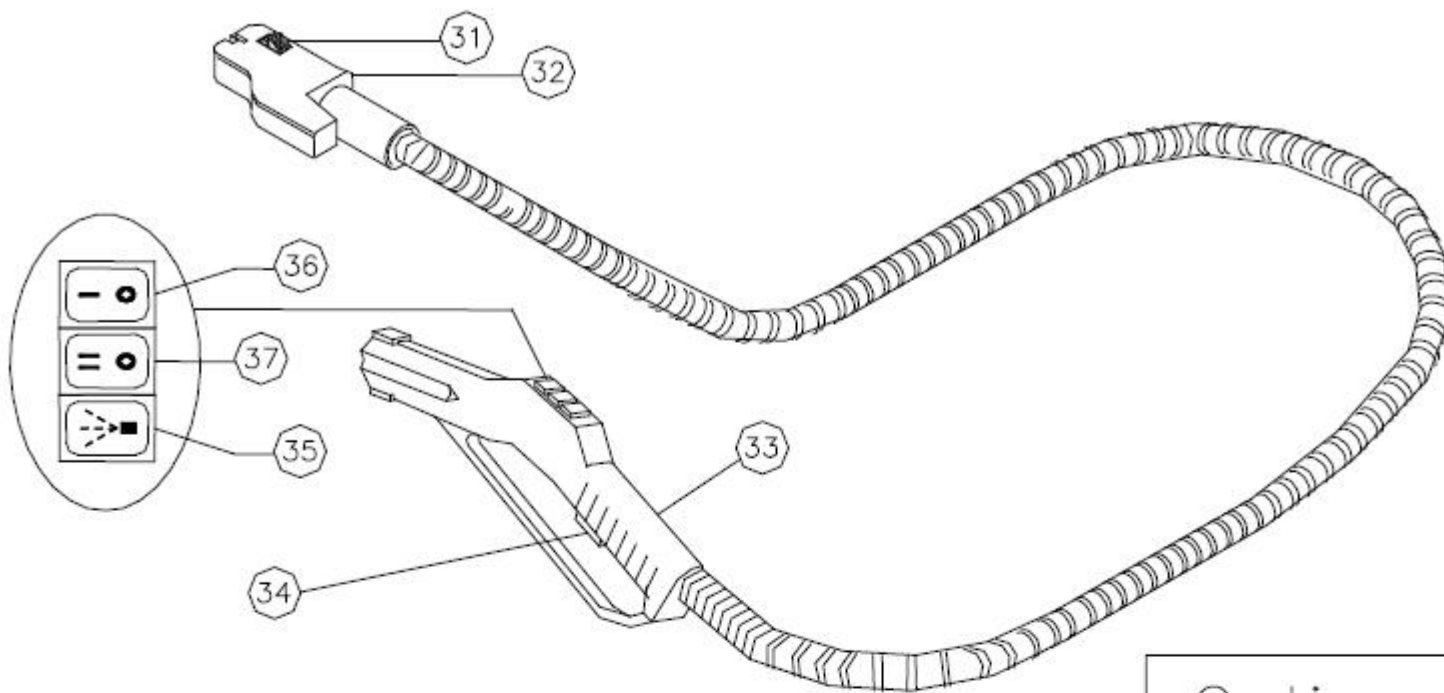
With the goal of improving and continually updating production by always offering innovative products, TECNOVAP has studied, designed and created the **JET VAC ECO** ; a combined machine for cleaning which brings together the power of steam and the force of vacuuming.

This product is equipped with a dependable stainless steel boiler with automatic refilling system which allows it to produce a powerful and continuous supply of steam (24/24 hours).

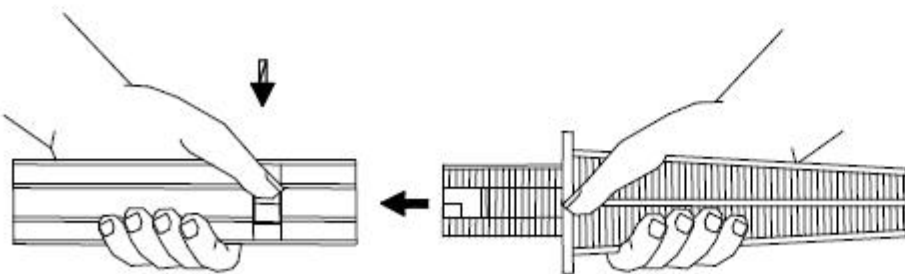
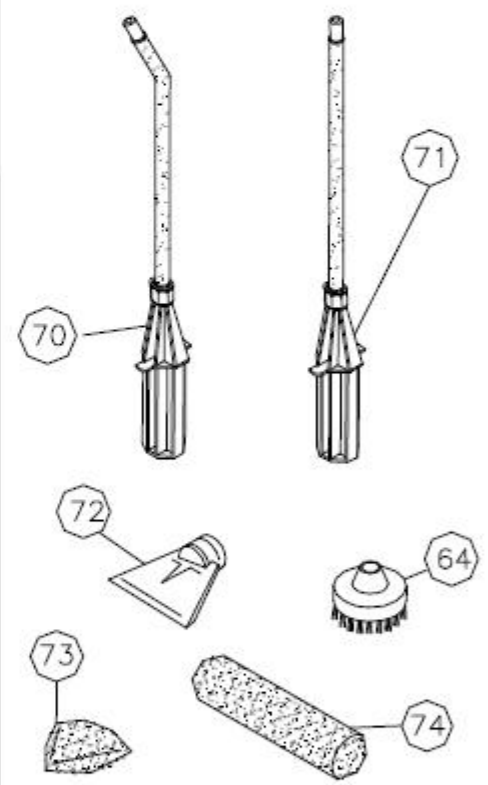
The Jet Vac Eco is the ideal solution when it comes to cleaning and disinfecting. With the various accessories available, it cleans, disinfects, and removes dirt eliminating completely even the bacterial flora hidden in those areas most difficult to reach.

5. TECHNICAL DRAWINGS

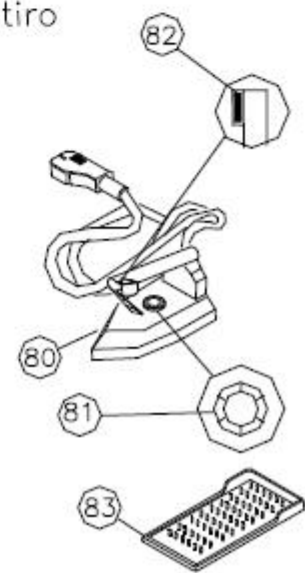


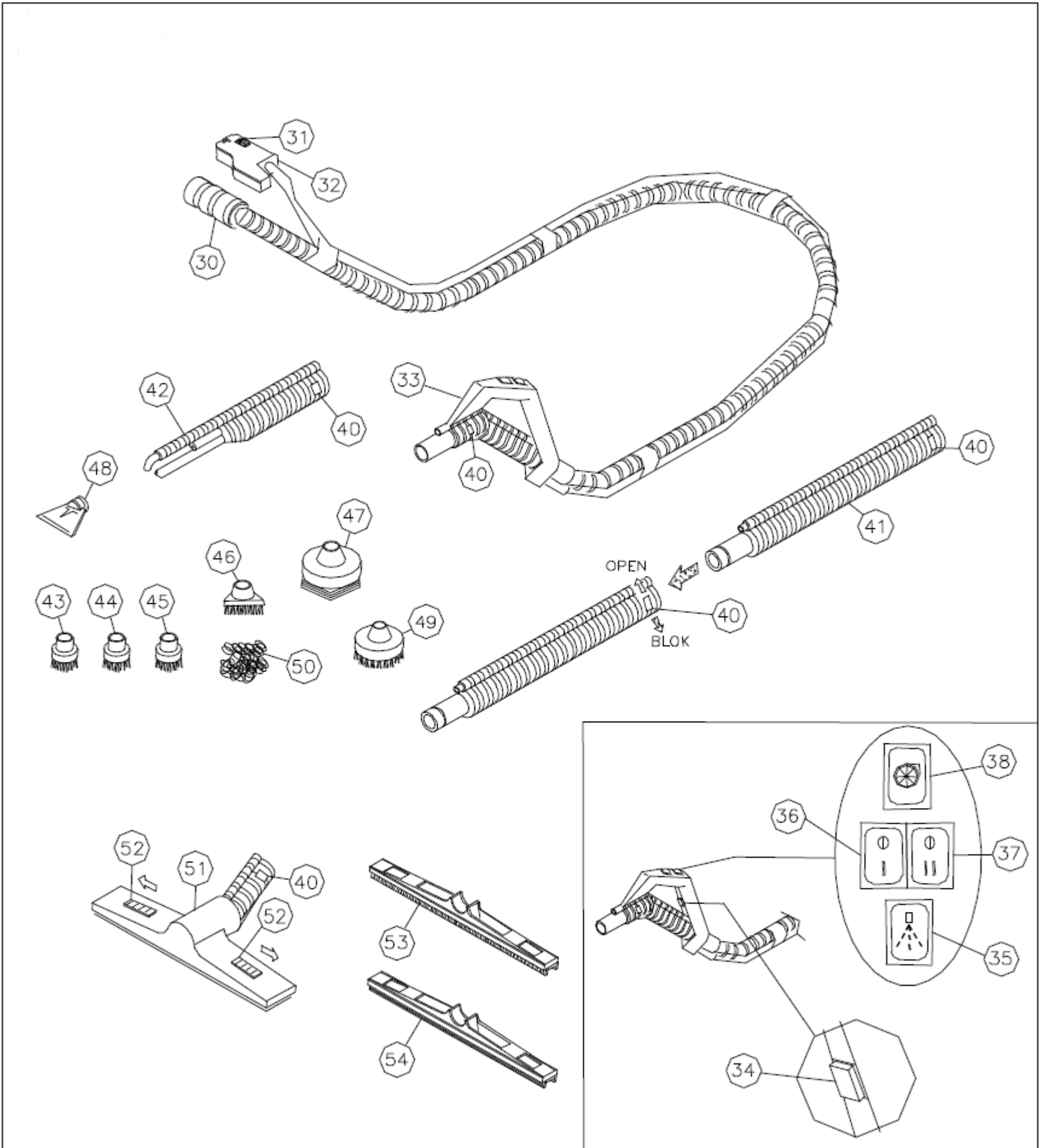


Optional

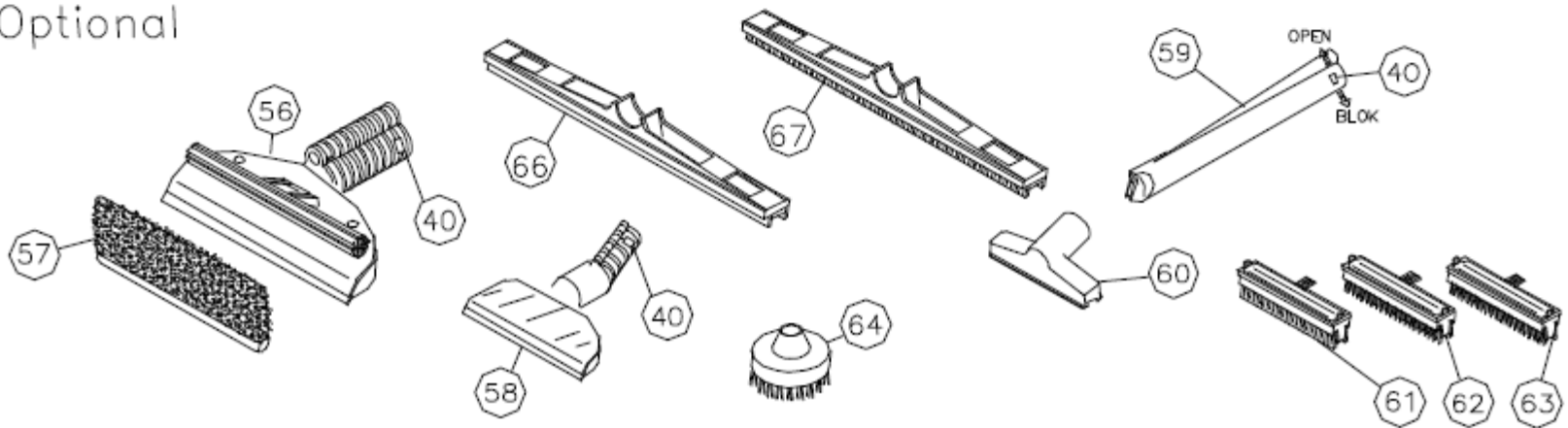


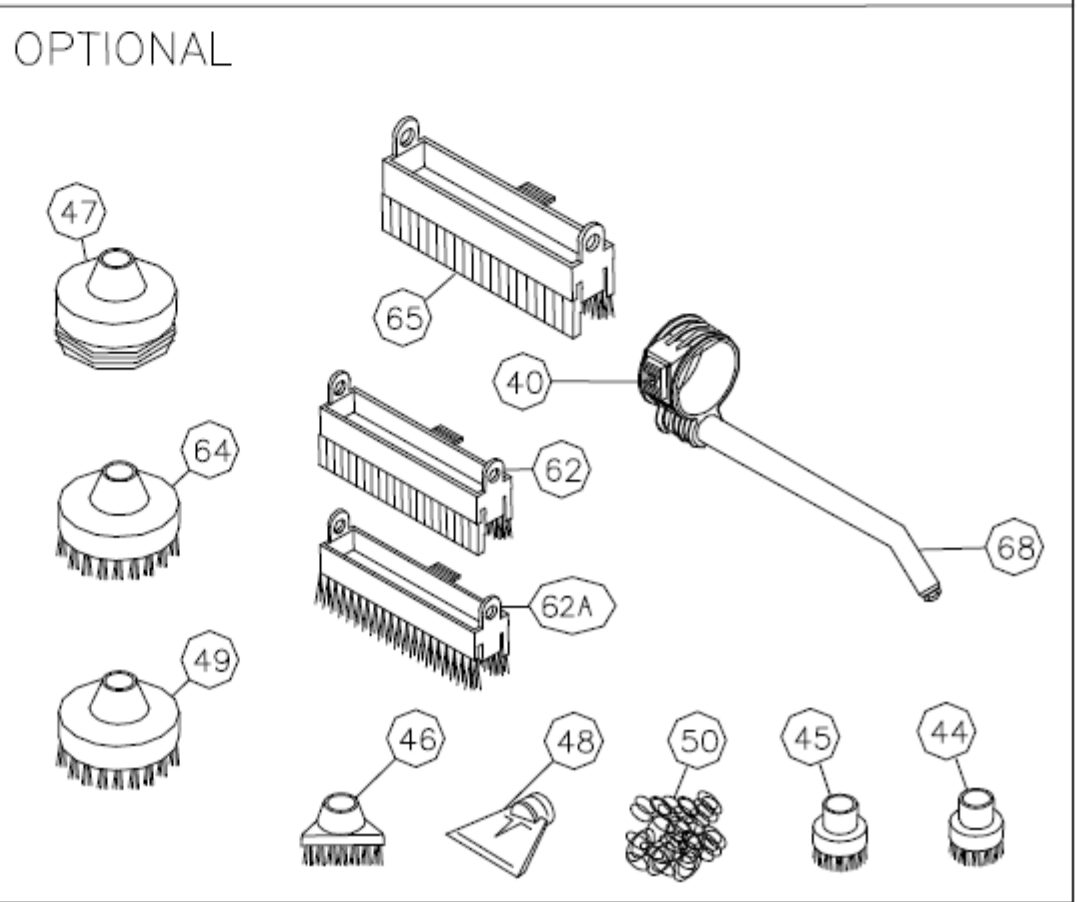
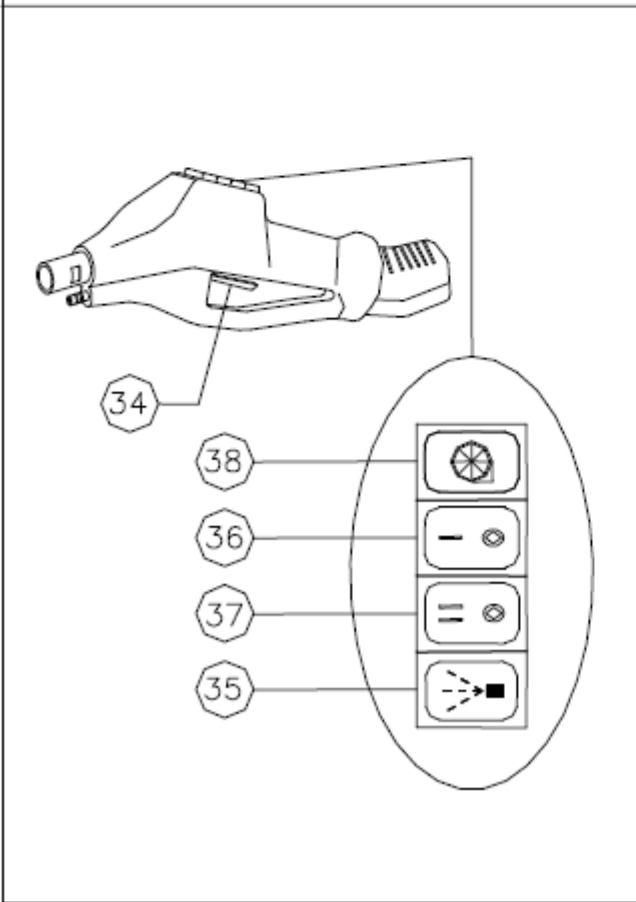
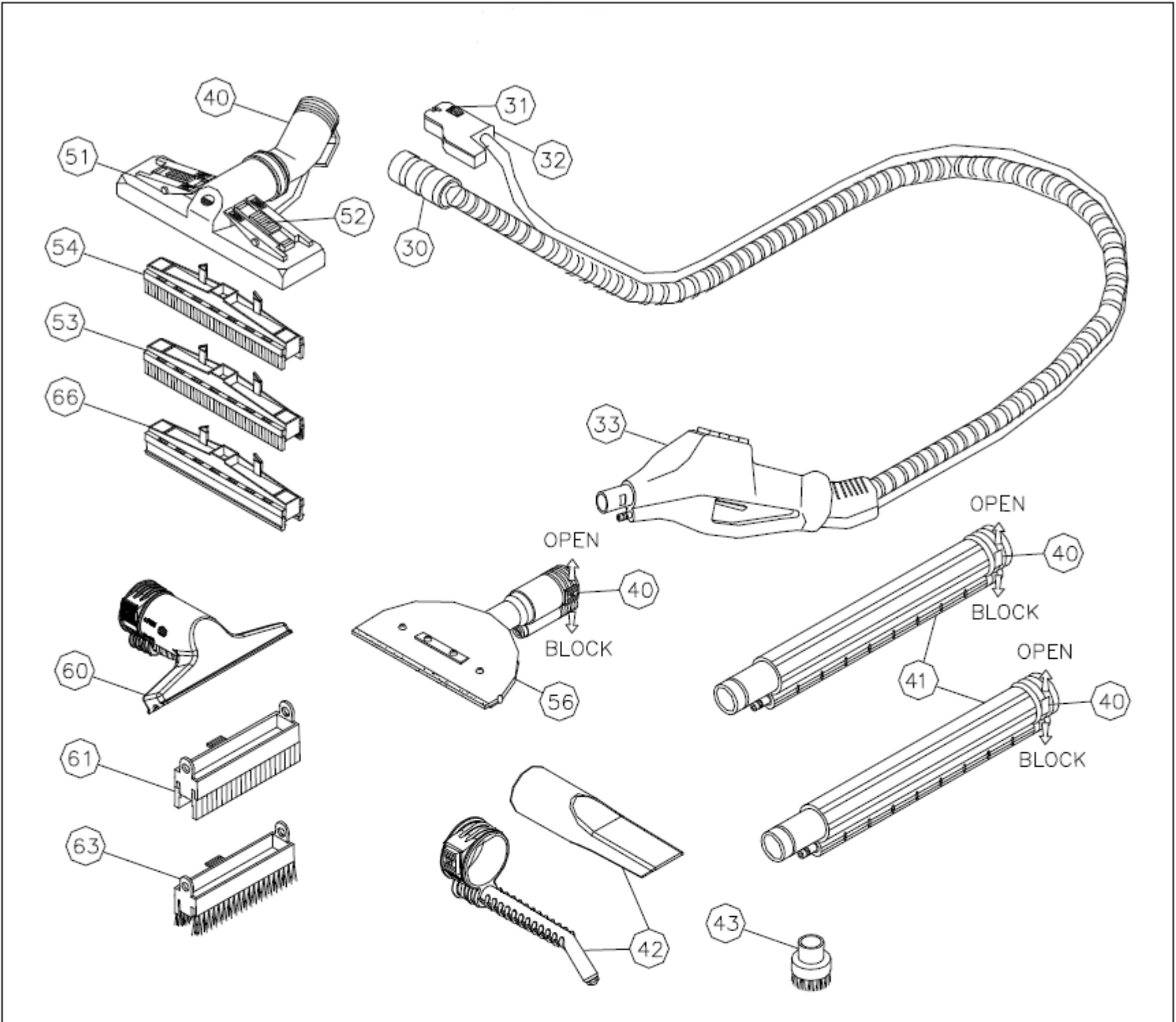
Stiro





Optional





6. PARTS LIST

- 1) Powercord steam generator 42) Turbo lance steam – steam & vac
- 2) “Low water” indicator (red) 43) Small nylon brush (Ø 28mm)
- 3) “Ready steam” indicator (green) 44) Small brass brush (Ø 28mm)
- 4) Power switch 45) Small stainless steel brush (Ø 28mm)
- 5) Boiler switch 46) Triangular brush
- 6) Steam outlet 47) Steam plunger
- 7) Handle bar steam generator 48) Steam scraper
- 8) Steam generator 49) Large nylon brush (Ø 60mm)
- 9) Water tank 50) Stainless steel wool pad
- 10) Electric socket for vacuum cleaner (20) 51) Floor tool (steam and steam & vac) for inserts
- 11) Water tank cap 52) Latches for blocking inserts
- 12) Vacuum drum 52A) Cloth clamps
- 13) Vacuum hose outlet 53) Insert squeegee/brush (L.375mm)
- 14) Locking latch vacuum outlet 54) Insert squeegee/squeegee (L.375mm)
- 15) Fixing for vacuum unit 56) Steam and steam & vac window cleaner
- 16) Fixing for vacuum head 57) microfibre cloth for window cleaner
- 17) Handle bar vacuum cleaner 58) Carpet tool – transparent
- 18) Vacuum switch 59) Steam & vac lance
- 19) Electronic regulation vacuum head 60) Upholstery tool
- 20) Power cord vacuum cleaner 61) Insert squeegee/squeegee (L.145mm)
- 21) Locking nut for separator 62) Insert squeegee/brush (L.145mm)
- 22) Separator 62A) Insert stainless steel/stainless steel (L. 145mm)
- 23) Grill protection for separator 63) Insert brush/brush (L.145mm)
- 24) Fixing screw for grill protection for separator 64) Large stainless steel brush (Ø 60mm)
- 25) Anti-allergens Hepa filter (optional) 65) Insert squeegee/brush (L.300mm)
- 26) Conveyor cap 66) Carpet insert
- 27) Trolley 67) Insert stainless steel/stainless steel (L.375mm)
- 28-29) Cestino porta accessori 68) Long lance
- 30) Flexible vacuum hose 69) Triangular brush
- 31) Steam plug locking latch 70) Curved bayonette lance 45°
- 32) Steam plug 71) Bayonette lance
- 33) Steam and steam & vac hose with handgrip 72) Stainless steel steam scraper
- 34) Security trigger for steam outlet 73) Triangular steam buffer
- 35) Water command switch (intermittent) 74) Rectangular steam buffer
- 36) Steam adjustment switch (minimum) 80) Professional steam iron
- 37) Steam adjustment switch (medium) 81) Thermostat
- 38) Vacuum switch 82) Steam switch
- 40) Clamping latches for accessories 83) Rubber rest pad
- 41) Extension tubes

7. OPERATING INSTRUCTIONS

- (a) After opening the packaging box eventually fix the machine on the trolley.
- (b) Plug the power cord (20) into the electric socket (10) and verify that the vacuum power switch (18) is in ON position.
- (c) Lift the tank cap (11) and add water to the water tank, **we recommend to exclusively fill in water only, any other liquid may damage the generator permanently**.
- (d) Insert the plug (1) into an electrical outlet, making sure that the voltage and the amperage correspond with those printed on the plate of the machine (on the inferior part).

WARNING

WHEN THE WATER TANK IS EMPTY THE LOW WATER INDICATOR (2) SWITCHES ON AND THE STEAM OUTPUT WILL BE DISABLED UNTIL WATER IS BEING ADDED TO THE WATER TANK (9).

PLEASE NOTE: THIS OPERATION CAN BE CARRIED OUT WITHOUT SWITCHING OFF THE MACHINE.

USE OF THE ACCESSORIES

Insert the vacuum hose (30) into vacuum hose outlet (13) and the steam plug (32) into the steam outlet (6) found on the front of the machine. Push until the latches (14 and 31) lock into place.

Activate the power switch (4) and the boiler switch (5) for the production of steam and wait approximately 5 minutes until the green "ready steam" indicator (3) on the command switch lights up indicating that the boiler has reached the operating pressure. The switches (35,36 and 37) located on the handle should be in OFF position.

When the indicator (3) lights up, position the switches (36 and 37) on the handgrip to regulate the steam flow as follows: switch (36) minimum flow, switch (37) medium flow, switches (36) and (37) maximum flow. Use the security trigger (34) to activate the steam flow.

The vacuum switch (38) activates the vacuum and can be used simultaneously with steam, the power can be regulated by pressing the + and – symbols on the electronic regulation (12) on the vacuum head.

The switch (35) enables you to inject overheated water with the steam by activating it for a few seconds at a time to avoid exceeding the injected liquid to the steam.

To clean with the combination of steam, injection of overheated water and vacuum suction choose the accessory best suited for the job:

Warning!!

By pushing the switch (35) overheated water under pressure with a temperature, according to the model, of up to 180 °C will come out of the lance. Please be careful not to action this switch without alert and do not align the jet towards persons or animals.

To clean with the combination of steam, injection of overheated water and vacuum suction choose the accessory best suited for the job:

The multi-purpose floor tool (51): with appropriate inserts (53,54,66,67). Inserts are locked into place by sliding the latches (52) to the OPEN position and hold the insert in place applying a little pressure while sliding the latches in

BLOK position. Mount the floor tool onto the hand grip or on the extension tubes and lock everything by sliding the latches (40) to the BLOCK position. Remember that the command switches on the handle (35-36-37-38) must be on OFF position up to the completing of this operation.

Turbo lance steam/vac (42): to be used by itself or with the small included brushes or with the steam plunger (47) and the steam scraper (48) according to the cleaning job to be executed.

For mounting this tool please follow the above instructions of the floor tool.

When finished cleaning, it is recommended to vacuum approximately 3-5 litres of clean water to rinse the inside of the hose (33) and the suction conduits. Wash and dry all accessories used. Remove the vacuum drum (13) and, after emptying and rinsing it, let it dry before storing it away.

If you are using the brushes of the Kit July (steam only) the bristles can be covered with an absorbing cloth by using the clamps (52A) to hold the cloth in place. This is a recommended use to clean delicate surfaces (such as precious wood for ex.) or vertical surfaces (in tiles for ex.) etc. The cloth is acting as dirt "extractor" in this case.

8. MAINTENANCE

ATTENTION

DISCONNECT FROM ELECTRICAL POWER SUPPLY BEFORE CARRYING OUT USER MAINTENANCE. IT IS RECOMMENDED THAT BOILER MAINTENANCE IS CARRIED OUT WHEN THE EQUIPMENT HAS COOLED DOWN. (SWITCHED OFF FOR AT LEAST 5 HOURS)

MAINTENANCE OF STEAM GENERATOR

ELIMINATING SCALE RESIDUE FROM THE BOILER

If you do not know the degree of hardness of the used water we suggest cleaning the boiler after every 24 working hours, if the degree of hardness is known and lies between 0 and 4 french degrees the frequency can be varied to 100 hours of use.

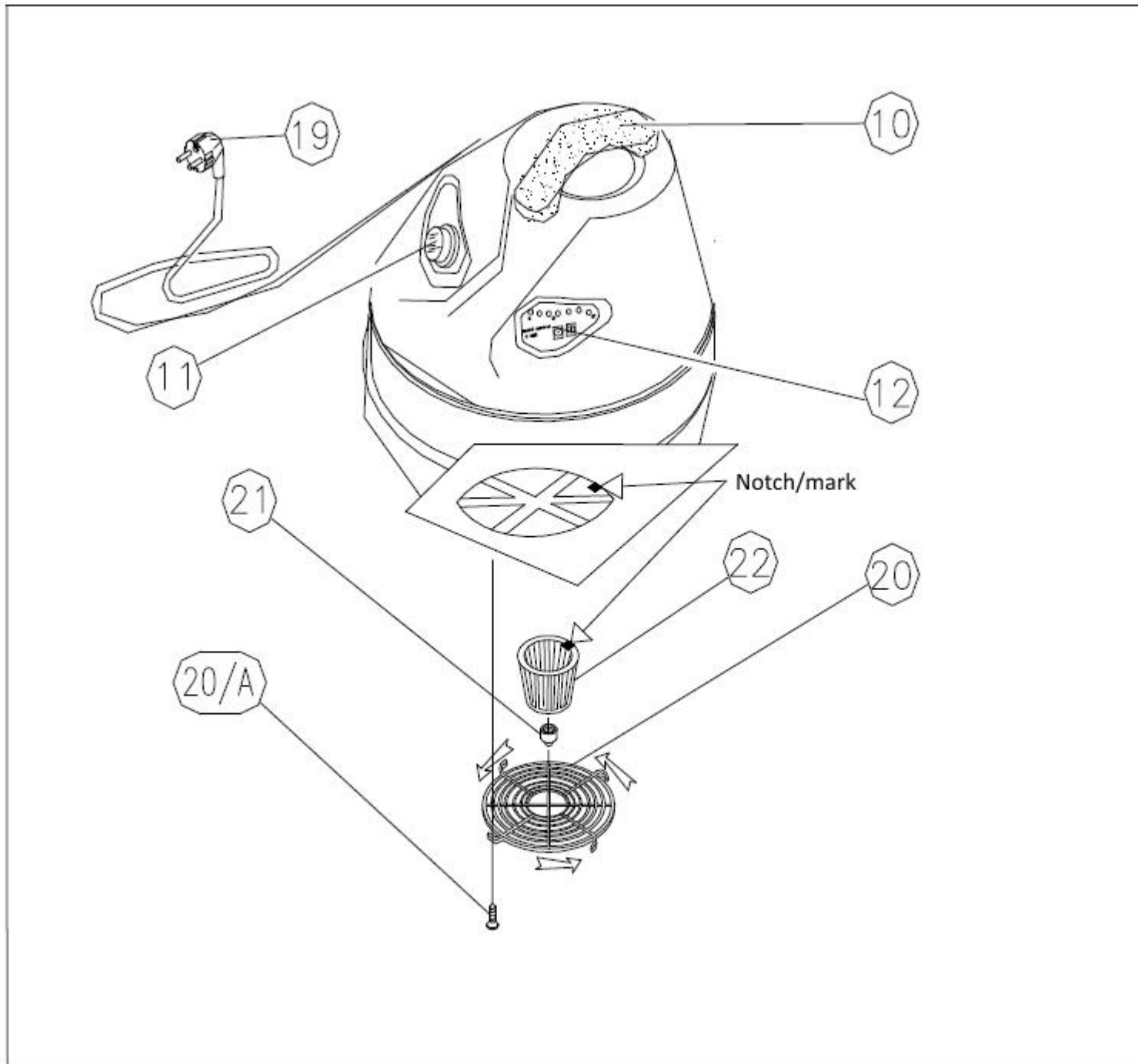
Fill the water tank, place a recipient container under the machine and remove the boiler drain cap underneath the machine. Then switch on the machine activating the power switch only (4) and let the water pump work for about 2 minutes, then switch off the machine (power switch 4) and unplug the power cord (1) from the electrical socket and replace the boiler drain cap (6). The process of cleaning is completed, once again plug the power cord (1) into the electric outlet and activate the power switch (4). It is recommended to activate also the command switch (36) for minimum steam on the handgrip and activating the security trigger (34) to release the air contained in the empty boiler. Wait for the completed cycle of refilling from the pump (approx. 3 min.).

The maintenance of the boiler is completed; proceed with the using instructions as described in chapter 5.

MAINTENANCE OF THE VACUUM CLEANER


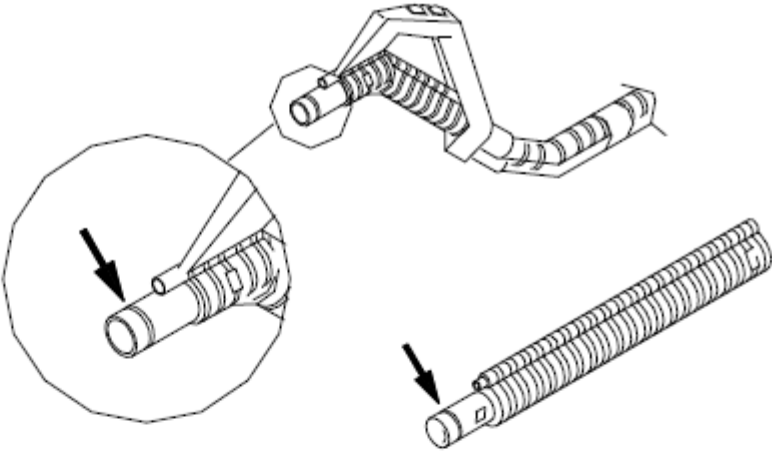

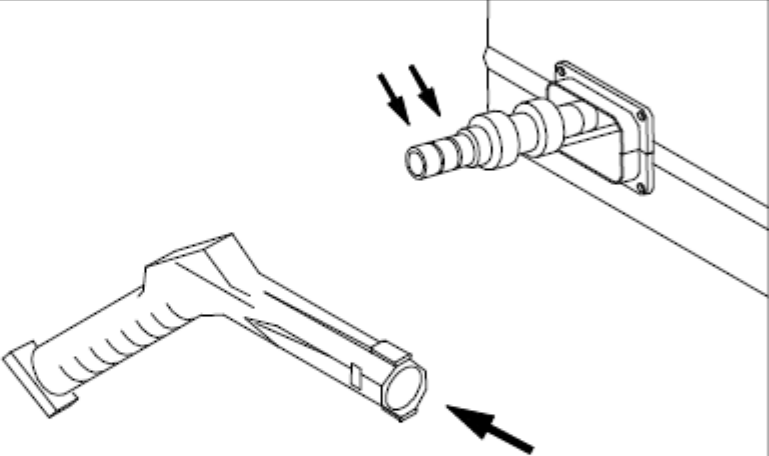

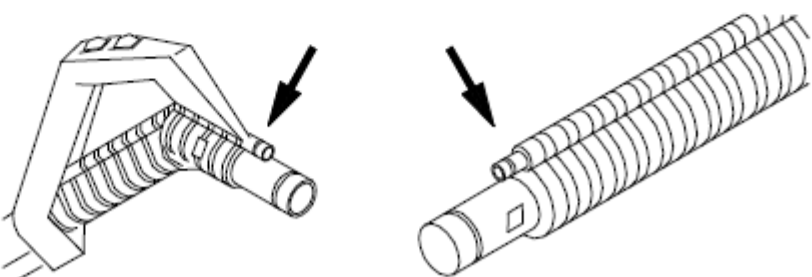
Control periodically the separator (22) through the grill protection and verify that there are no sediments or dirt that sometimes can deposit on it.

If necessary proceed as follows: remove the screw (20A) and the protection grill (20) turning it counter clockwise and pulling it down, unscrew the locking nut of the separator (21) and remove the separator (22). Proceed with the cleaning of the separator (22) and remount everything by paying attention that the marking on the inside of the separator is positioned correctly on the housing of the turbine.



MAINTENANCE OF THE ACCESSORIES

Clean and grease occasionally the connections of the hose extension and of the accessories.

<p>PG5123 OR 29.82x2.62</p>	 <p>PG5123 OR 29.82x2.62</p>	
<p>PG5106 OR 9.25x1.78</p>	 <p>PG5106 OR 9.25x1.78</p>	
<p>PG5116 OR 6.75x1.78</p>	 <p>PG5116 OR 6.75x1.78</p>	

9. BEFORE REFERRING TO THE TECHNICAL SERVICE

PROBLEM	POSSIBLE CAUSE	REMEDY
MACHINE DOES NOT PRODUCE STEAM AND VACUUM DOES NOT WORK.	LACK OF POWER.	MAKE SURE PLUG IS WELL INSERTED (1) AND THAT THERE IS MAIN POWER TO THE OUTLETS.
THE RED "LOW WATER" INDICATOR (2) LIGHTS UP.	ALL THE WATER HAS BEEN CONSUMED.	REFILL THE WATER TANK (5A) WITH CLEAN WATER.
SUCTION POWER IS MISSING.	<ul style="list-style-type: none"> A. LACK OF POWER TO THE VACUUM CLEANER. B. THE VACUUM TUBE IS OBSTRUCTED. C. THE VACUUM DRUM (12) IS FULL OF WATER. 	<ul style="list-style-type: none"> A. C) MAKE SURE THE SWITCH (18) IS ON AND THE PLUG (20) IS WELL INSERTED. (10) B. B) CLEAN TUBE AND ACCESSORY USED. C. EMPTY THE VACUUM DRUM (4).
WATER LEAKS THROUGH THE CONNECTIONS OF THE ACCESSORIES.	CHECK THE WEAR OF THE O-RING.	CLEAN AND LUBRICATE THE O-RING WITH GREASE. IF NECESSARY, REPLACE WITH ONE SPARE SUPPLIED.
STEAM DOES NOT COME OUT.	<ul style="list-style-type: none"> A. BOILER HAS NOT REACHED YET THE OPERATIONAL PRESSURE (GREEN LIGHT (3) IS OFF). B. STEAM COMMAND SWITCHES (36-37) ARE OFF. A) THE STEAM COMMAND SWITCH (34) HAS NOT BEEN USED.. 	<ul style="list-style-type: none"> A. WAIT A FEW MINUTES. B. SWITCH ON THE STEAM COMMAND SWITCHES (36-37). C. USE THE STEAM COMMAND SWITCH (34) TO ACTIVATE THE STEAM FLOW..
DROPS OF WATER COME OUT OF THE ACCESSORIES	AT BEGINNING OF WORK WATER CONDENSES IN THE TUBES AND ACCESSORIES DUE TO THE DIFFERENCE IN TEMPERATURE.	AFTER A FEW MINUTES OF USE THIS PROBLEM WILL CEASE. IF IT CONTINUES, PROCEED TO THE CLEANING OF THE BOILER.
NOISE INSIDE THE GENERATOR.	WHILE COOLING DOWN, THE BOILER, AFTER 6-7 HOURS, IS CREATING AN INTERNAL DEPRESSION, WHICH AT EACH IGNITION PROVOCES SOME VIBRATIONS.	WAIT FOR THE PRESSURE STABILIZATION (ABOUT 2-3 MINUTES), THE NOIS DISAPPEARS.
ACCESSORIES DO NOT FIT PERFECTLY	THERE IS DIRT BUILD UP IN THE JOINTS AND LOCK/RELEASE LATCHES (40).	CLEAN AND LUBRICATE THE JOINTS.

10. DECLARATION OF CONFORMITY



DICHIARAZIONE DI CONFORMITA' CE ***(EC DECLARATION OF CONFORMITY)***

TECNOVAP S.R.L. con la presente dichiara che:
le macchine per pulizia a vapore modello:
(Certifies that the steam cleaning machine model):
Carmen Mini

Risultano conformi alle specifiche delle direttive
(conforms to the specifications of directives)
2006/95/CE 2004/108/CE 2006/42/CE 2002/95/CE

Per il controllo della conformità alle sopraindicate direttive, sono stati seguiti i seguenti standard :
(For the checking of conformity to the above directives, the following standards have been used):

Riferimento alle norme armonizzate:
(Reference to harmonized standards):

EN 60335 -1
EN 60335 -2-2
EN 60335 -2-79
EN 60335 -2-3
EN 55014 -1
EN 55014 -2
EN 61000 -3-2
EN 61000 -3-3

PESCANTINA – VERONA (ITALY) 02-02-2010

FRANCHINI Giuliano
(Managing Director)

A handwritten signature in black ink, appearing to read "Giuliano Franchini".

Ordinary maintenance procedures

Working hours	Frequency	Notes
Generator	Intervention	

Extraordinary maintenance procedures

Working hours Generator	Date of Intervention	Intervention, description, replaced components, etc.
--	---------------------------------	---

THE MANUFACTURER RESERVES THE RIGHT TO PRODUCE TECHNICAL AND STRUCTURAL
IMPROVEMENTS WITHOUT PRIOR NOTICE