

L'ARTE DEL VAPORE™

STEAM BOX PRO



USING INSTRUCTIONS

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 COMUNICATED AS SOON AS POSSIBLE TO YOUR OWN RETAILER.



ATTENTION!!
STEAM.... BURNING DANGER



ATTENTION !



READ THE OPERATING MANUAL



OPERATING MANUAL;
OPERATING INSTRUCTIONS

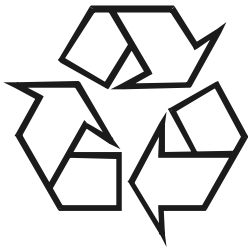


BURNING DANGER!!
IT IS COMPULSORY TO USE PROTECTIVE GLOVES.

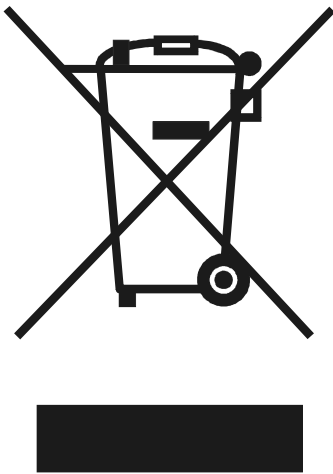


EQUIPMENT WITH SOUND PRESSURE LEVEL > 85db
IT IS COMPULSORY TO USE EARS PROTECTIVE SHROUDS.

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.



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.

1. SUMMARY

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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 failure). 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 every 2 years 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 leakage 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’s 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.** This appliance has been designed for a use with cleaning agents supplied or recommended by the manufacturer. The use of other cleaning agents or chemicals may adversely affect the safety of the appliance. If using detergent (which has not to be foamy) please follow the specific instructions: 1 liter detergent for every 10 liters water (about 10% is the detergent percentage), making sure to fill in first the detergent to obtain a better mixing.
Please be careful with the detergent to be used, as some in commerce, if heated above 100°C , taken to the gaseous state, could emanate highly toxic steams. Be aware to control the technical schedule and to consult the supplier.
- **ATTENTION.** The high pressure jets can be dangerous if not used properly. The jet does not have to be directed against persons, electrical devices under tension or the unit itself.
- Do not direct the jet against yourself or others in order to clean clothes or footwear.
- Disconnect the power supply before proceeding with the maintenance effected by the user.
- This device is not intended to be used by persons (including children) with a reduced physical, mental or sensorial ability or with insufficient experience and/or competence, unless they are not supervised by a person responsible for their safety and they are not instructed by that person on how to use the device.
- Monitor the children so they cannot play with the machine.
- To ensure the machine's safety, use only original spare parts from the manufacturer or spare parts approved by the manufacturer.
- **ATTENTION.** Pressure hoses, fitting and couplings are important for the safety of the machine. Use only hoses, fitting and couplings 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 a 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 / s².

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.

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

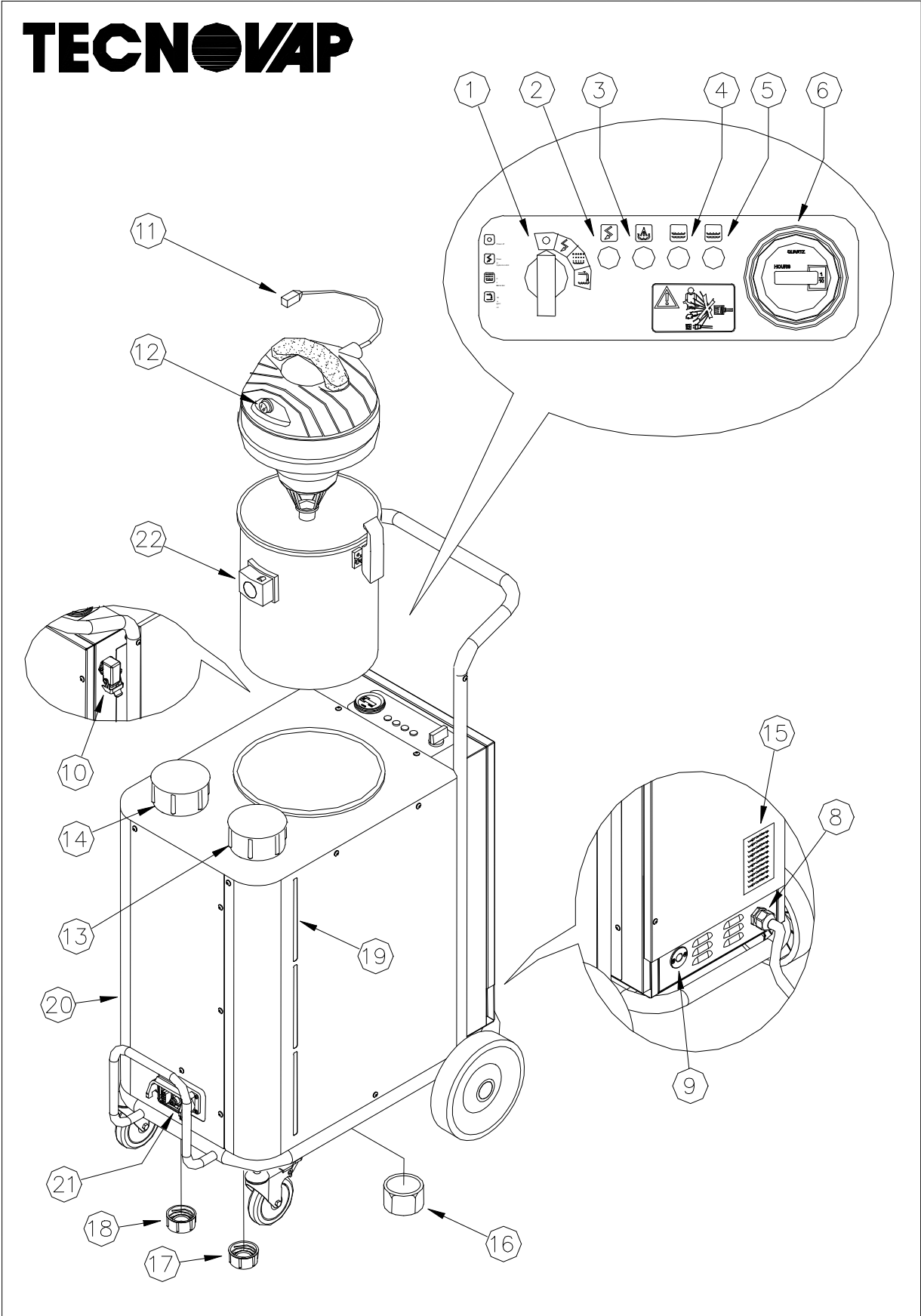
This product is equipped with a reliable stainless steel boiler with automatic refilling system which allows it to produce a powerful and continuous supply of steam (24 hours).

The **STEAM BOX PRO** model is also equipped with a separate detergent tank which enables the injection of a detergent at 90-125°C and with a hot water injection system.

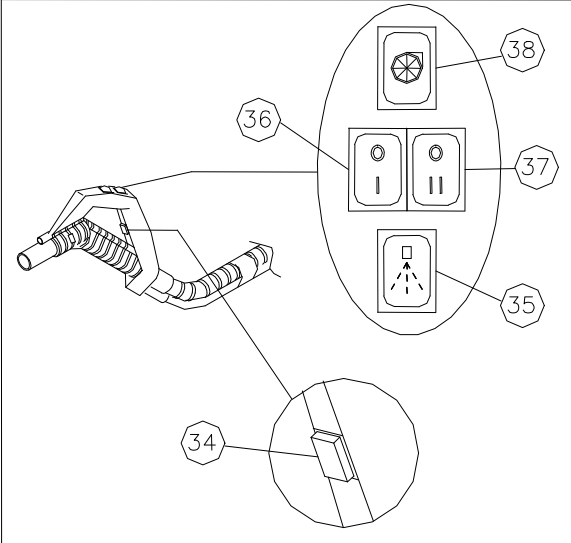
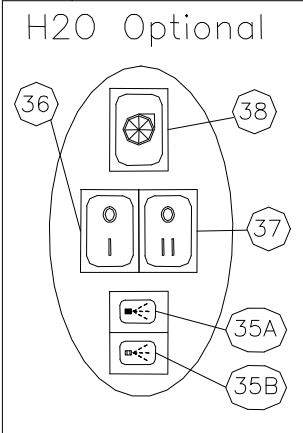
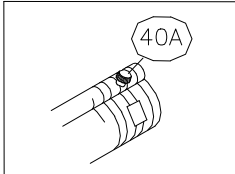
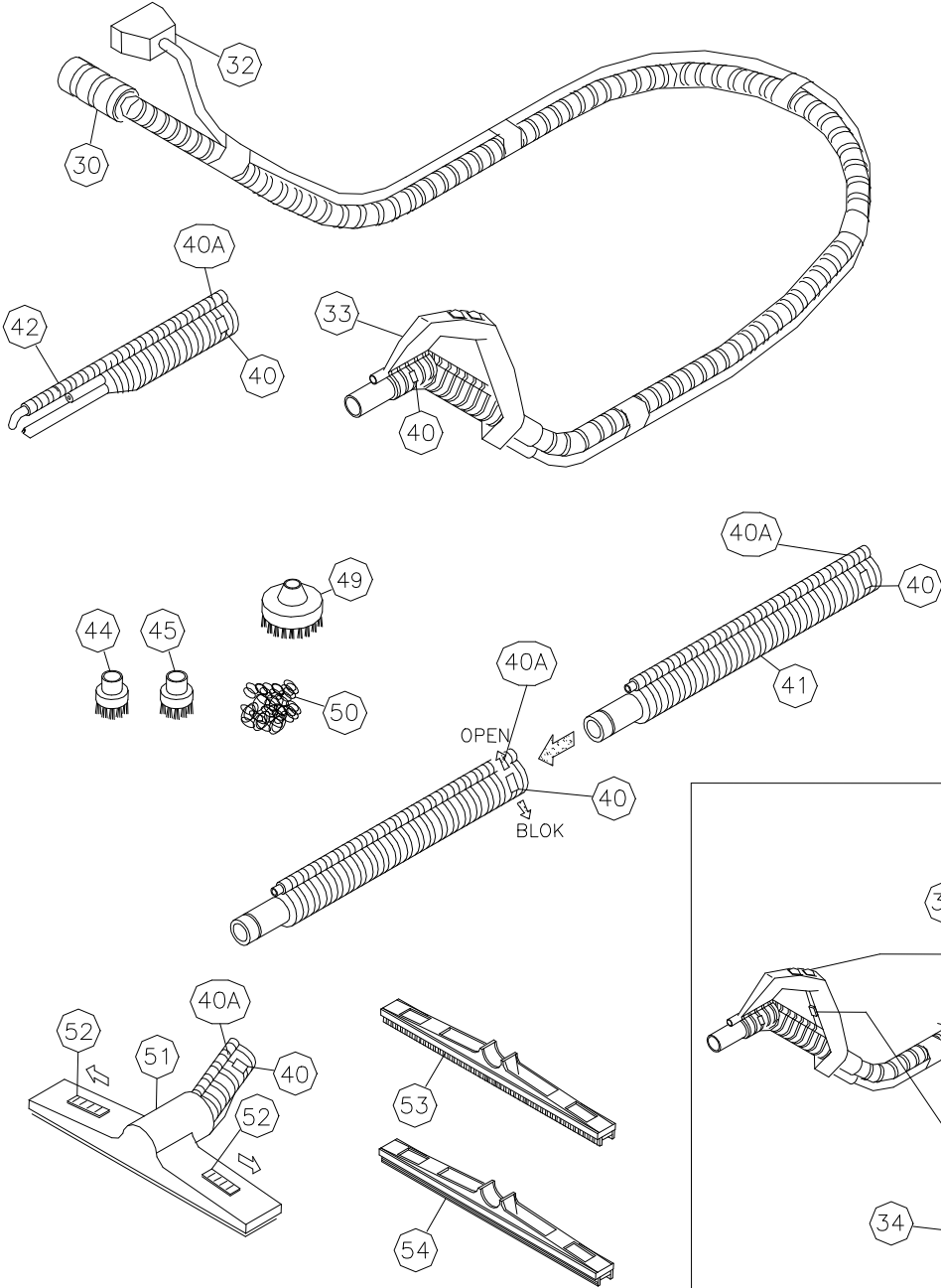
With the power of steam, meaning ecological cleaning power, TECNOVAP has combined a powerful vacuum (OPTIONAL) able to pick up solids and liquids.

The **STEAM BOX PRO** 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 areas most difficult to reach.

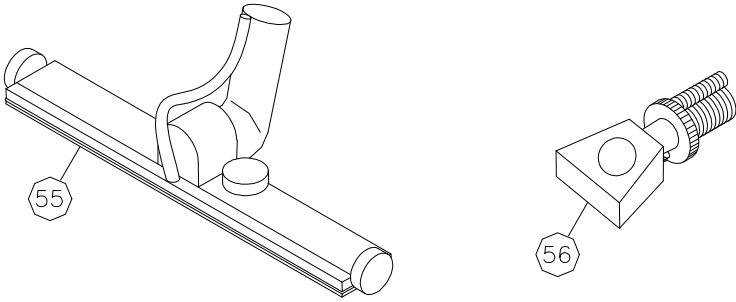
5. TECHNICAL DRAWINGS

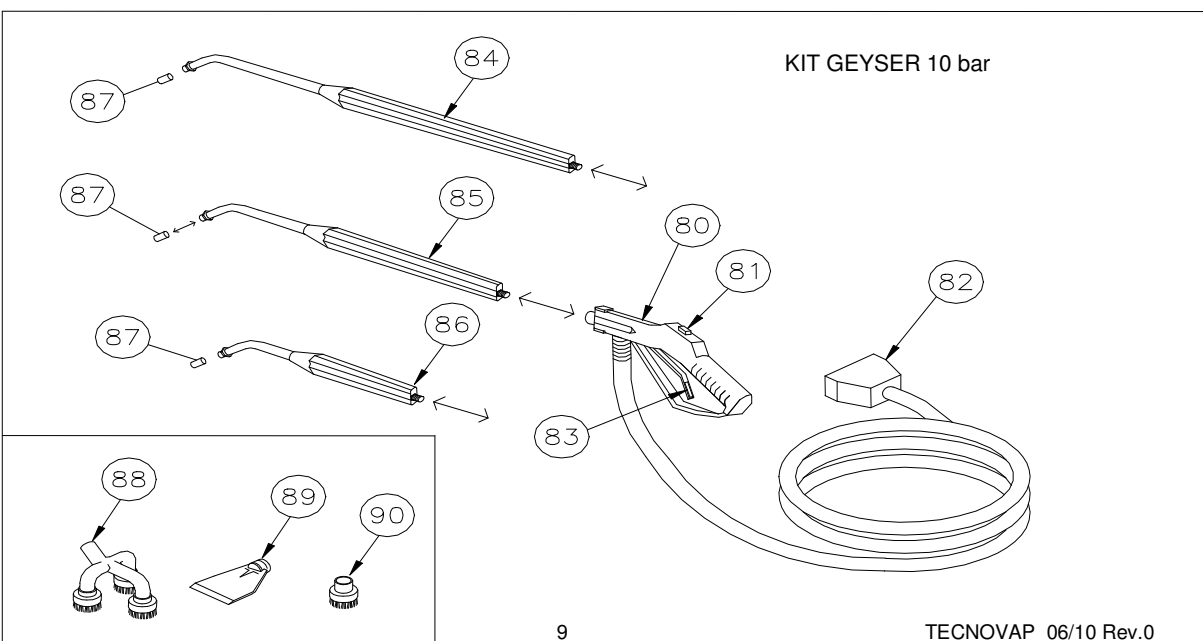
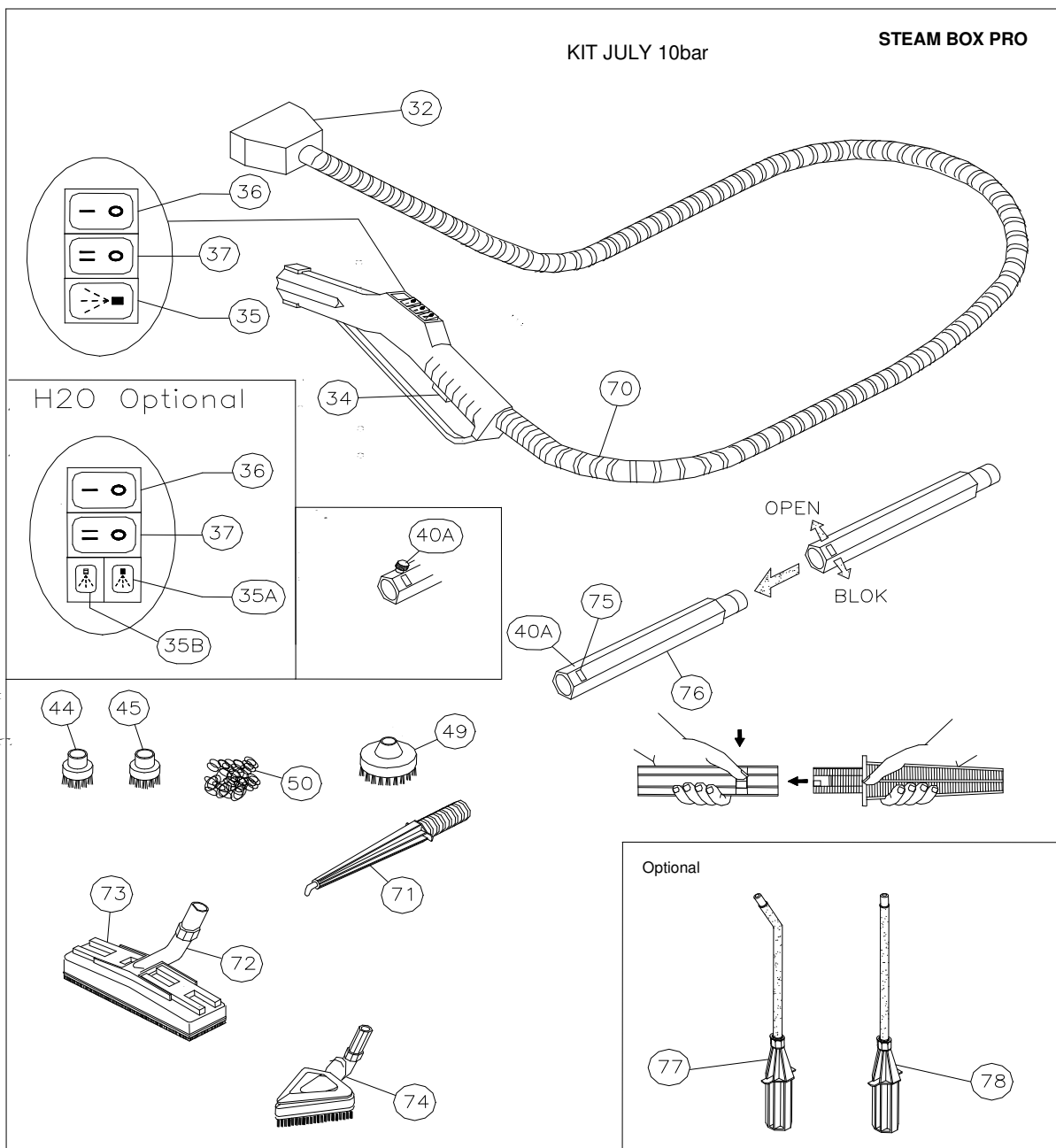


KIT RADAMES



Optional








6. NOMENCLATURE


01) general power switch	41) steam & vac extension tube
02) power control light	42) steam & vac turbo lance
03) "Ready steam" indicator (green)	44) brass brush (Ø 28mm)
04) "Low detergent" indicator (red)	45) stainless steel brush (Ø 28mm)
05) "Low water" indicator (red)	49) stainless steel brush (Ø 60mm)
06) hour meter	50) stainless steel wool pad
08) power cord with plug	51) floor tool for inserts
09) water inlet for direct water feed	52) locking latches for inserts
10) outlet for vacuum	53) Insert squeegee/brush (L.375mm)
11) vacuum power cord	54) Insert squeegee/squeegee (L.375mm)
12) vacuum power switch	55) steam & vac industrial brush L.530 (optional)
13) water tank with cap (blue)	56) stainless steel upholstery tool (optional)
14) detergent tank with cap (yellow)	-
15) technical label	70) steam hose with handgrip
16) boiler drain cap	71) steam lance
17) drain cap water tank	72) rectangular brush
18) drain cap detergent tank	73) cloth holder
19) water level control	74) triangular brush
20) detergent level control	75) locking latches for accessories
21) steam outlet with flap cover	76) steam extension tube
22) vacuum hose outlet	77) 45° curved bayonet lance (optional)
-	78) bayonet lance (optional)
30) vacuum hose coupler	-
32) steam plug	80) steam hose Geyser with handgrip
33) steam & vacuum hose with handgrip.	81) detergent switch
34) steam command switch	82) steam plug
35) detergent command switch (intermittent)	83) steam command switch
35A) detergent switch (only for mod. with H2O inj.)	84) lance 400 mm
35B) hot water switch (only for mod. with H2O inj.)	85) lance 800 mm
36) 37) steam regulation switches	86) lance 1200 mm
38) vacuum switch	87) round nozzle
40) locking latches for accessories	88) triangular stainless steel brush
40A) hand wheel screw (only 10 bar models)	89) flat nozzle 4cm
	90) stainless steel brush

7. OPERATING INSTRUCTIONS

- (a) Insert the (optional) vacuum plug (11) into the outlet (10) and verify that the vacuum power switch (12) is activated.
- (b) Lift the tank caps (13 e 14) and add water in the water tank (13) (blue cap) and appropriately diluted detergent (see the underlined section on safety regulations) in the detergent tank (14) (yellow cap) of the machine. **It is recommended to be very careful during this process because an inverted filling up** (detergent into the water tank or water into the detergent tank) **causes a steam generator fault.**
- (c) When using detergent (not foamy for extraction machines) please follow the specific instructions: normally 1 litre of detergent for every 10 litres of water (about 10% is the detergent percentage), making sure to fill in first the detergent to obtain a better mixing. **Please be careful with the detergent to be used, as some in commerce, if heated above 100°C , taken to the gaseous state, could emanate highly toxic steams. Be aware to control the technical data sheet and to consult the supplier.**
- (d) Insert the plug (8) into an electrical outlet, making sure that the voltage and the amperage correspond with those printed on the technical label under the machine.
- (e) Turn the general switch (1) in the position  if the machine is used autonomously or in the position  if it is connected to direct water feed; when the indicator (3) turns on, the machine is ready to be used.
- (f) You can empty the remaining steam (once you have finished to use the machine) turning the selector switch in the position  .

Water filling

In case of lack of water the red light indicator (5) turns on uttering an intermittent sound.



Proceed with the tank (13) filling checking the water line designed for this purpose on the tank (19). This device is equipped with an automated water filling system when directly connected to the water supply, if you want to use this mode you have to turn the general switch (1) in the following position .

Note: if the knob is positioned on direct water feed and the indicator (5) turns on, it has to be considered as a trouble signal. (see on section 9. *Before referring to the technical service*).

Detergent filling


The lack of detergent is highlighted by the ignition of the indicator (4) and by a continuous sound. Proceed with the tank filling (14), by checking the control line designed on the tank (20).

To reactivate the detergent pump (if it has been disconnected because of the lack of detergent in the tank) proceed as follow:

1. Turn the machine either on mode  or on mode .
2. Make sure that all the switches on the handgrip are deactivated.
3. Activate the detergent switch (35) as well as the steam command switch (34) and wait until the liquid comes out.

OPERATING THE STEAM BOX PRO WITH KIT RADAMES

Insert the vacuum hose (30) into the vacuum hose outlet (22) and the steam plug (32) into the steam outlet (21) found on the machine and action the flap cover.

Position the general switch (1) on the position "boiler on"  for the production of steam and wait approximately 3 - 8 minutes (depending on the model) until the green "ready steam" indicator (3) lights up indicating the boiler has reached the operating pressure. The switches (36,37 and 38) located on the handle should be in the off position.

Positioning the switches (36 and 37) on the handgrip will regulate the steam flow as follows: switch (36) minimum flow, switch (37) medium flow, switches (36) and (37) maximum flow. Use the steam command switch (34) to activate steam flow.

The vacuum switch (38) activates the vacuum and can be used simultaneously with steam.

The detergent switch (35) or (35A, only for models with hot water injection) enables you to inject detergent with the steam by activating it for a few seconds at a time to avoid the excess of liquid injection with the steam. For the hot water injection please refer to the previously indicated modality by activating the switch (35B).

Attention!!

Using the switch (35B) you will get hot water under pressure which, according to the model of the machine, can reach a temperature of 180°C; please pay attention that the switch is not being pressed accidentally and that the jet is not being directed toward people or animals.

To clean with steam choose the accessory best suited for the cleaning task:

The multi-purpose floor tool (51): with appropriate inserts (53,54). 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 the BLOCK position. Remember that the command switches on the handle (36-37-38) must be on off position.


If necessary, attach the extension tubes (41) and lock them into place using the clamping units (40) in the BLOCK position. Only one tube may be used if desired.

Turbo lance steam/vac (42): to be used by itself or with the small round brushes (44,45, 49), according to the cleaning job to be executed.

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

OPERATING THE STEAM BOX PRO WITH KIT JULY

Insert steam plug (32) into the steam outlet (21) found on the machine and action the flap cover.

Position the general switch (1) in the position "boiler on"  for the production of steam and wait approximately 3 - 8 minutes (depending on the model) until the green "ready steam" indicator (3) lights up indicating the boiler has reached operating pressure. The switches (36 and 37) located on the handle should be in off position. Activating the switches (36 and 37) on the handgrip will regulate the steam flow as follows: switch (36) minimum flow, switch (37) medium flow, switches (36 and 37) maximum flow. Use the steam command (34) switch to activate the steam flow.

Follow the instructions "**operating with Kit Radames**" for the injection of hot water or detergent.

Insert the steam lance (71) by sliding the latch (75) to the OPEN position, lock into place and then slide the latch into the BLOCK position, then screw the hand wheel screw (40A).

Follow the same procedure in attaching the rectangular brush (72) or the triangular brush (74) which can be covered with an absorbing cloth by using the gripper (73) 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.. In this case the cloth is acting as dirt "extractor".

OPERATING THE STEAM BOX PRO WITH STEAM GEYSER LANCE

Insert the steam plug (82) into the steam outlet (21) found on the front of the machine.

Position the general switch (1) in the position  or  for the production of steam

and wait approximately 3 - 8 minutes (depending on the model) until the green "ready steam" indicator (3) lights up indicating the boiler has reached the operating pressure. Press the steam command switch (83) to activate the steam flow. If necessary press the detergent switch (81) in short intervals to inject detergent.

Insert the desired lance (84-85-86) onto the Geyser handgrip (80) and screw onto the lance the nozzle (87) or the various optional accessories (88-89-90) according to the type of cleaning to be carried out. Now your lance is ready for use.

8. MAINTENANCE



ATTENTION

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

MAINTENANCE OF THE STEAM GENERATOR

ELIMINATE SCALE RESIDUE FROM THE BOILER

We suggest cleaning the boiler after every 50 hours of use, or also if the machine has remained unused for a long period of time.

Fill the water tank, with about 5 liters, placing a recipient container under the machine and remove the boiler drain cap (16) underneath the machine. Then position the general switch (1) on the general power only . Wait until the "low water" indicator (5) lights up which indicates that the internal cleaning of the boiler has been completed. Unplug the power cord (8) from the electric outlet and proceed by replacing the drain cap (16). Once again plug the power cord (8) into the electric outlet and position the general switch (1) on general power only . It is recommended to activate also the command switch (36) for minimum steam on the handgrip to release the air contained in the empty boiler. Wait for the completed cycle of refilling from the pump (approx. 3 – 5 min.).

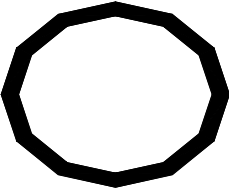
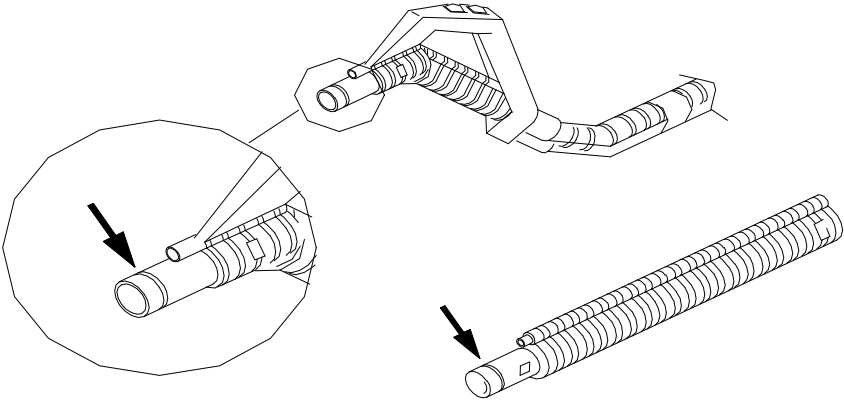

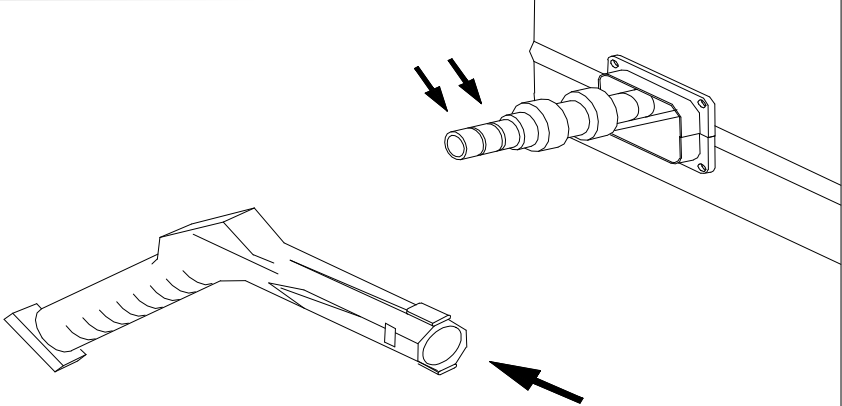

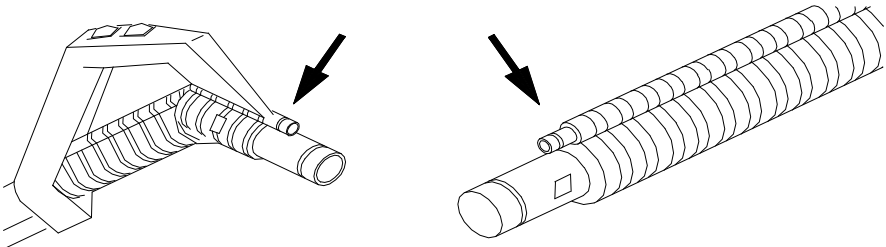

The maintenance of the boiler is completed; proceed with the using instructions as described in chapter 7.

MAINTENANCE OF THE VACUUM CLEANER

The vacuum cleaner of the STEAM BOX models does not require any specific maintenance.

MAINTENANCE OF THE ACCESSORIES

Grease occasionally joints on the accessories and extension tubes.

			
PG5123			
OR 29.82x2.62			
			
PG5106			
OR 9.25x1.78			
			
PG5116			
OR 6.75x1.78			
			

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 (8) IS WELL INSERTED AND THAT THERE IS MAIN POWER TO THE OUTLETS.
THE RED "LOW WATER" INDICATOR (5) LIGHTS UP.	ALL THE WATER FROM THE WATER TANK (13) HAS BEEN CONSUMED.	REFILL THE WATER TANK (13) WITH CLEAN WATER.
THE RED "LOW WATER" INDICATOR" TURNS ON (5) EVEN IF THE MACHINE IS DIRECTLY CONNECTED TO THE WATER SUPPLY.	LACK OF WATER IN THE HOSE OR DIRTY WATER FILTER	CHECK THE PRESENCE OF WATER BEFORE THE FEEDING HOSE. CLEAN THE FILTER INSTALLED INSIDE THE CONNECTION. (9)
THERE IS NO INJECTION OF DETERGENT.	ALL THE DETERGENT FROM THE DETERGENT TANK COULD HAVE BEEN CONSUMED.	CONTROL THE LEVEL IN THE DETERGENT TANK. IF NECESSARY, REFILL THE DETERGENT TANK AS DESCRIBED IN THE
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 IS FULL OF WATER. 	<ul style="list-style-type: none"> A. MAKE SURE THE SWITCH (12) IS ON AND THE PLUG (11) IS WELL INSERTED B. CLEAN TUBE AND ACCESSORY USED. C. EMPTY THE VACUUM DRUM
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. C. 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 STEAM FLOW.
DROPS OF WATER COME OUT OF THE ACCESSORIES.	AT BEGINNING OF WORK WATER CONDENSES IN THE TUBES DUE TO THE DIFFERENCE IN TEMPERATURE BETWEEN THE STEAM AND THE ACCESSORIES	AFTER A FEW MINUTES OF USE THIS PROBLEM WILL CEASE. IF IT CONTINUES, PROCEED TO THE CLEANING OF THE BOILER.
ACCESSORIES DO NOT FIT PERFECTLY.	THERE IS DIRT BUILD UP IN THE JOINTS AND LOCK/RELEASE LATCHES (40).	CLEAN AND LUBRICATE THE JOINTS.

10. EC 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):
Steam Box Pro

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 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", written over a horizontal line.

Extraordinary maintenance procedures

[illegible]

NOTES

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