



STEAM CLEANER

Steam Jet

Contents

Section 1- Introduction

(1-1) How to use the manual	4
(1-2) Terminology and signs	5

Section 2- General information

(2-1) Company's liabilities	7
(2-2) Guarantee	7

Section 3- Device introduction

(3-1) Main parts	10
(3-2) Panel Description	11

Section 4- Technical features

(4-1) Technical features	13
(4-2) Technical details	14

Section 5- Transportation and installation

(5-1) Unboxing	16
(5-2) Device transportation	16
(5-3) Environmental conditions	17
(5-4) Device installation	18

Section 6- Device applications

(6-1) Complete start-up of Device	20
(6-2) Device full operation	21

Section 7- Safety

(7-1) General safety	23
(7-2) safety measures of device	24

Section 8- Maintenance

(8-1) Clean-up	26
(8-2) Periodical maintenance	26
(8-3) maintenance technical instructions	27

Dear Customer

We thank you for your selectivity and trust in purchasing domestically produced products, and we are pleased that after continuous efforts, we have been able to manufacture Steam Jet device and put it at your disposal.

This product has been designed by our technical and engineering team of experienced and committed people in the fields of mechanical, electronics and computer engineering, and by utilizing updated technology and building upon 25 years of experience in manufacturing dental equipment, this product has reached production of export index quality.

In designing the product, three principles of accuracy, reliability and safety performance and also user friendly have been considered, so in order to correctly and completely utilize product features, we ask you to read the instruction manual carefully and if you have any questions or you need more information, contact the after-sales unit.

The instruction manual is a comprehensive reference for the efficient and safe use of the product. Following the instructions of this manual has a great role in reducing consumable costs, avoiding risks and ultimately increasing product life. The instruction manual should always be kept near the product and the user should periodically read it.

Please impart us with your constructive guidance, so that we can benefit from your comments, recommendations, and gain knowledge about your needs.

**We hope that you will find using Steam Jet to be an enjoyable and successful experience,
Polaris Engineering and Manufacturing**



Steam Jet

Introduction

(1-1) How to use the manual

This manual presents the instructions about use, installation, and maintenance of Steam Cleaner made by Polaris Co. It should be noted that:

- The product should be used according to the instructions of this manual. Thus, all parts of it should be read carefully before starting and installing the tool. Special attention should be paid to the highlighted parts. (see section 2-1).
- Observing the instructions of the manual assures the health and safe operation of the tool.
- Manual is an integral part of the product. Thus, it should always come with the product and should be used optimally as a reference for use during the operation of the product. It should be available even during the sale of the product, or even when it is not used.
- In case of losing or damaging the manual, get a replacement one from the after-sales service department of Polaris Co.

The following are explained in detail in this manual:

- Installation and start-up of the product
- Operation details of the product and its parts
- Maintenance program
- Primary safety and preventive details

(1-2) Terminology and signs

Knowledge of signs meanings is of great importance. A list of signs has been introduced in the following for initial recognition and reference to them if necessary.



Danger!

Indicates compulsory warnings.



Warning!

Indicates functional recommendations.



Forbidden!

Indicates forbidden activities.



Caution!

Refers to user instructions of the tool.



Steam Jet

General Information

(2-1) Company liabilities

Polaris Co. is not liable for any problem involving the following: Failure to follow the instruction manual (incorrect use of the product), repair by an unauthorized person and part replacement without coordination with the after-sales service department, failure due to power fluctuations.

(2-2) Guarantee

Guarantee of this product includes repairs, supply, and replacement. If used appropriately, the guarantee Polaris Co. covers all main parts of the device for 18 months.



Following cases and parts are not covered by guarantee:

- power fluctuations
- incorrect transportation of device
- inappropriate and frequent use of device despite having obvious flaws
- not observing the maintenance instructions
- installation by unauthorized persons
- any repair or replacement by unauthorized persons.
- cable cut off
- using water with minerals in the regions which have mineral water



Commutation fees of company representatives to install or repair during guarantee period will be received from buyer at site.



The device can't be used before installation and insurance of correct operation of protective parts.



It is highly recommended that user has a general knowledge of this manual before using this device. The cases which appear to be operation flaws in the device should be registered by user and they should be sent to the after-sale service department.

- Authorized representatives of Polaris Co.
These persons are endorsed by the company to work on the device under any operational circumstances. They are also authorized to do any electrical and mechanical adjustment/repair, maintenance program and authorized parts replacement.



Steam Jet

Device Introduction

(3-1) Main parts description

The major parts of the steam cleaner include the following:

- 1 Handle
- 2 Steam gun holder
- 3 Steam gun trigger (for the release of steam)
- 4 Gun
- 5 Gun Hose
- 6 Water storage inlet lid
- 7 Pedal
- 8 Fuse
- 9 Wire
- 10 Safety valve



Fig-1 Different parts of the steam cleaner

(3-2) Panel description

The major parts of the steam cleaner include the following:

- ① Main on/off switch
- ② Heater on/off switch
- ③ Heater indicator light
- ④ Water shortage indicator light
- ⑤ Pressure gauge
- ⑥ Steam flow cap
- ⑦ High Temperature

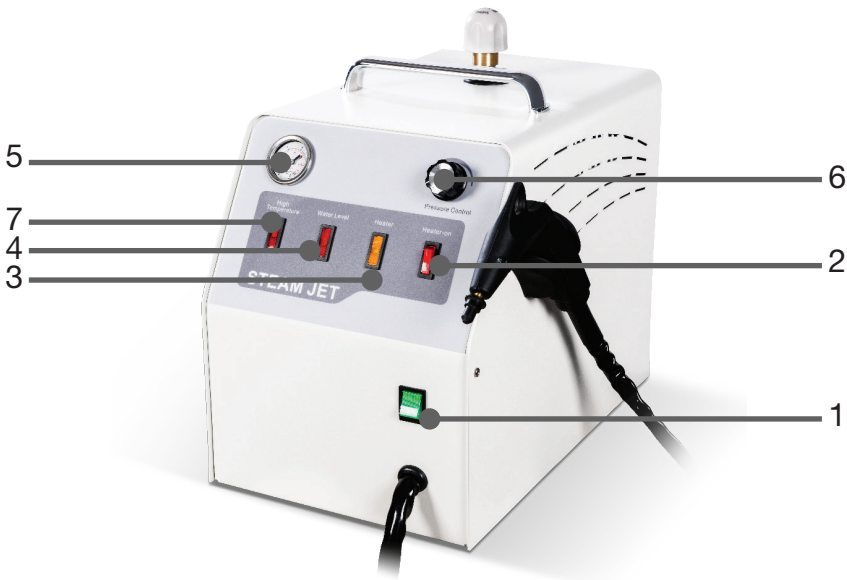


Fig-2 Panel



Steam Jet

Technical Features

(4-1) Technical features and operation rules of device

Polaris Co. products are manufactured based on the latest technologies and are of the highest qualities. The most recent design and manufacturing methodologies are employed to increase the lifetime and quality of products.

The device described in this manual is a -6bar electronic steam cleaner. This device provides the following functions:

- Evaporation with a pressure indicator
- The boiling water storage is filled manually.
- Electronic control of the storage water level, switch off and alarming with an alarm light when the water level is below the allowable level
- Functional switch pressure
- Dual safety devices
- Secondary switch pressure turning the heater off at a pressure of 8 bar
- Warning light
- Safety valve
- Stainless steel boiling storage with a capacity of 4 liters
- Safety fuse

(4-2) Technical details

Technical specifications of the Steam Jet are given in Table 1:

Power supply	210-240 V AC – 50/60 Hz
Capacitance	1950 V
Noise level	Below 70 dB
Storage capacity	4 liters
Storage filler capacity	2.5 - 3 liter
Steam boiler diameter	170 mm
Steam boiler height	225 mm
Appliance height	420 mm
Appliance width	305 mm
Appliance depth	465 mm
Net weight	18 kg

Table 1 The device technical specifications

Accessories

The device box includes Steam Jet device, electricity cable, and this instruction manual.

Part	Number
Water storage filler	1
Water storage filler funnel	1
Gun	1
10-A fuse	2
Pedal	1
Gun barrel	3
Gun barrel washer	3

Table 2 A list of product accessories



Steam Jet

**Transportation and
installation**

In order to avoid accidents, it is really important to follow the following instructions during the installation and fixing of equipment. All steps are explained in detail:

(5-1) Unboxing

Having received the device, make sure that the main box is sealed and intact. Otherwise, inform the after-sales service department of Polaris Co, or its authorized representatives.

(5-2) How to move the device

The device should be moved as follows:

- 1 Turning off the device element
- 2 Unplug the device from the power source
- 3 Making sure of the internal pressure of the device by pressing the steam evacuation button while the device is on.
- 4 evacuate the water tank
- 5 the device should remain in vertical position during movement. for mor safety and prevention of any injury due to neglecting the technical detailes, refer to section 4-1.



Failure to follow the aforementioned instructions results in device being damaged, and Polarsi Co, won't be held liable.

(5-3) environmental circumstances

It is important to choose an appropriate environment with following conditions during installation and operation for personal safety, correct operation and long lifetime.

Workplace temperature: 0-40°C

Maximum humidity: 75%



The device should not be used in a place where there is danger of explosion or firing



The light of the place should be high enough so that all parts of the device can be seen clearly.



The device should never be exposed directly to sunlight or humidity of rain, etc.

The following should be done before the use of the device:

- 1 Steam cleaner has been designed to be put on a stable and firm worktable in parallel with the ground. The stability of all parts of the worktable should be checked.
- 2 Plug the device into the outlet after input power and main electricity are checked (device working voltage is based on AC 220 electricity).



The grid single-phase electricity should match the power supply specifications of device.

(5-4) device installation

- 1 Remove the device out of its box carefully. To do so, take out all the protective material (Plastofoms) around it, take out the steam cleaner, and put it on a flat and standard laboratory table such that the space within 15 cm radius of the device is empty. Make sure that the surface and legs of the table are not made of metal.



There is a danger of electrocution, if the surface or legs of table are made of metal and they are in contact with the ground. Thus, put your Steam Jet on a wooden table or fiberglass.

- 2 Steam Jet should not be exposed to sunlight directly.
- 3 An appropriate cord should be used to connect the device to its nearby power supply.
- 4 An electrical protector must be put on the way of the socket by the user, so overload or indirect currents don't have contact with the protective parts of the device.



It is recommended that the environment electronic system has a ground connection part.



Steam Jet

Device Application

(6-1) Device initiation

Before using the device, put it on a firm, flat and stable surface and follow these steps:

- 1 Turn the water storage lid counter-clockwise to open it.
- 2 Add 400 to 1000 ml distilled water to the storage using the funnel and filler.



Steps 1 and 2 are necessary when the water indicator light is on. In this case, turn off the machine and take the following steps after making sure it is cold (at least 40 minutes is required for the device to cool down after it is switched off).



While opening the lid do not open it fully if a steam sound is heard.



Never fill the storage fully.

- 3 Turn the water storage lid counter-clockwise to close it.
- 4 Connect the appliance to the AC power source.
- 5 Press the main switch On/Off button to the 1 position.



Make sure the heater on switch is switched off.

- 6 Switch the heater on.



At this stage the heater is turned on. Please wait 30 minutes after switching it on and turn the device off in the event of any vibrations or any other problem. Report the case to the after sales service unit of Polaris Co.

- 7 The steam inside the storage needs 20 minutes to reach a pressure of 6 bar.
- 8 Put the brush on the gun and adjust it to the maximum.



While the appliance is working the gun brush gets hot. Therefore, it is recommended to use a glove at this point.

- 9 Release the steam inside using the gun nozzle or the pedal.

(6-2) Device application

- 1 Put the device on a worktable (refer to section 5-4).
- 2 Plug the device into a socket, and make sure it is connected according to what was said in the section (4-5).
- 3 Open the water storage lid according to the figure and fill it with water. For the first use, 3 liters of water is required. In subsequent uses add at least 500 ml and at most 1 liter of water to the storage when the water level indicator light goes on. If some excess water overflows from the appliance, drain the excess water, dry the appliance and put on the lid.



Please never fill the storage with more than 3 liters of water (not the whole storage shall be filled with water).



It is recommended to always fill the storage with distilled water to prevent sedimentation of minerals and damages to the appliance.

- 4 As you press the switch On/Off button to the On position the light inside of it goes on. The fan starts working and the main electrical circuit becomes active. At this time it is possible to use the pedal and gun. Press the heater button to the 2 positions and wait for 20 minutes for the pressure to reach 6 bar. Next, you can release the steam through the gun by pressing the button on the gun or the pedal.



In case the water level indicator goes on re-fill the storage after turning off the machine. Allow the machine to cool down for 40 minutes and then open the lid. (Make sure that the pressure storage indicator shows 0 and open the lid gently).



Steam Jet

Safety

(7-1) general safety

Users are required to read and always follow the listed suggestions and warnings here; following these instructions will assure a long-term, flawless operation for the product.



Before use, make sure the water storage is full of distilled water.



Make sure that all parts of the device are installed correctly before using the device.



Never use a defected device.



You should never use the device if its accessories are defected, otherwise, the device operation will be affected, and it will no longer be covered by guarantee. Thus, make sure all parts are flawless before operation. Never use a defected device.

- The place should be clean and well-lit and free of obstacles.
- If you see any flaws in the device operation, stop operating the device immediately, unplug it, and call the after-sales service department of Polaris Co and inform them about that.
- Never disassemble the electrical or pneumatic parts.
- Never replace the power supply or parts which are directly related to the plug.
- Operation of this device for applications other than those mentioned is forbidden.
- Make sure the device is disconnected from the main sockets before cleaning.

(7-2) Device safety measures

Polaris Co. makes use of high-quality raw materials for advanced production processes to promote the safety level. Quality control is performed in three stages of input, middle control, and final control through several control stations, a procedure which minimizes error and defects chances.



To assure that the device works safely, follow all the aforementioned steps.

In addition to the safety fuse and valve the appliance is composed of the following main components:

- 1 Secondary switch pressure activated at 8 bar
- 2 The possibility of turning off the appliance manually.

When the safety valve is activated:

- Turn off the heater and press the main switch to the "0" positions.
- Release the pressure through the gun until the pressure indicator shows a pressure of 4.
- Turn off the machine and contact Polaris Companies after sales service unit.



Steam Jet

Maintenance


(8-1) cleaning


Keep the device body clean using a dry cloth. Wet the cloth with little water or a non-greasy solution, if needed (only do this for body cleaning).

Users should make sure the device is kept clean and free of dust water and other unexpected solutions.

At the end of each operation and when the device is on OFF mode and stable, cleaning should be done.

If the user decides that the internal parts need cleaning, end user should contact the after-sales service department.

-  Put the main button on the off position before cleaning external parts of the device. It is forbidden to clean the device while it is plugged.

-  Never use combustible, corrosive, base or toxic solutions for cleaning the device.

(8-2) periodic maintenance

Inspection and periodic cleaning of the device depends on the operation level. It is suggested for the user to inform the company experts about the workflow through consultation after installation and learn the appropriate time for an inspection and periodic cleaning from them. If the user detects any damage or exhaustion during periodic inspections, end user should contact the after-sales department, so that measures are taken for maintenance and compulsory service.

Periodic service should be determined by the user and is performed by the after-sales service department. It is suggested that the maximum time interval for periodic repairs be 12 months.

If a user detects any defects or problems on the device, end user should place a warning sign on the device to indicate that it is being maintained and it should not be used (EC warning signs can be purchased at the associated stores).

Cleaning, periodic maintenance and appropriate use of the device are important factors in lifetime and safety of it.



When any defect is seen in the device operation, it is forbidden to use the device before solving that defect.



Safety and protective parts of the device should never be removed from the device unless for repair and maintenance purposes.

(8-3) Maintenance technical instructions

Empty the steam boiler through the following steps.

- 1 Press the heater button to the off position.
- 2 Press the main switch On/Off button to the 0 (off) position.
- 3 Unplug the appliance.
- 4 Wait until the appliance cools down (it takes about 40 minutes).
- 5 Open the water storage lid.
- 6 Take the appliance from its body and turn it upside down to allow the water to drain completely (It is recommended to do this step using two people).

Calling the aftersales services Unit of Polaris Co.

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