



STORZ & BICKEL GMBH & CO. KG

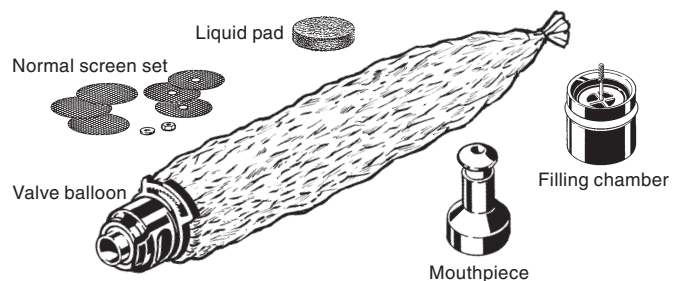
Volcano[®]
VAPORIZATION SYSTEM

OPERATING MANUAL

Read carefully before using the device
and save these instructions.

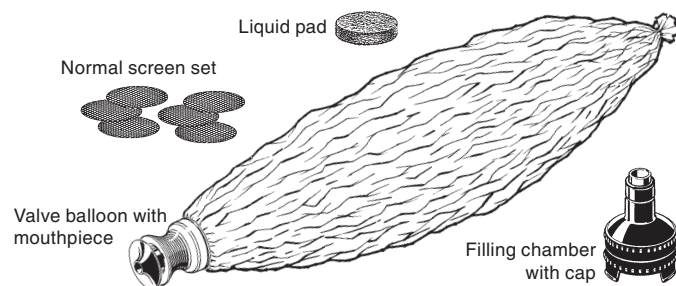
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PRODUCT OVERVIEW *SOLID VALVE*



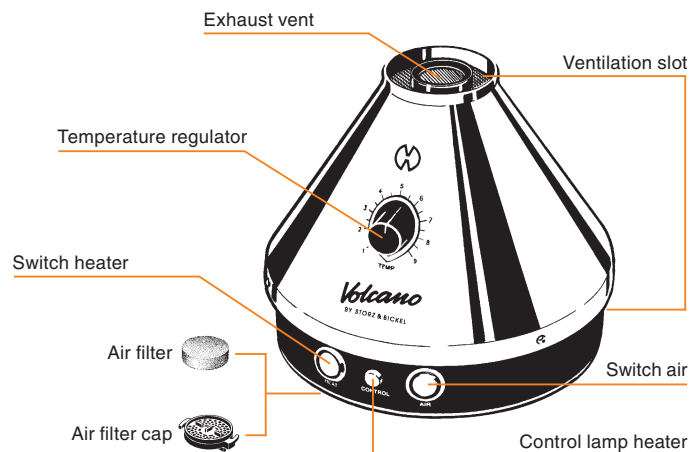
Compatible with **VOLCANO CLASSIC** and **VOLCANO DIGIT**

PRODUCT OVERVIEW *EASY VALVE*

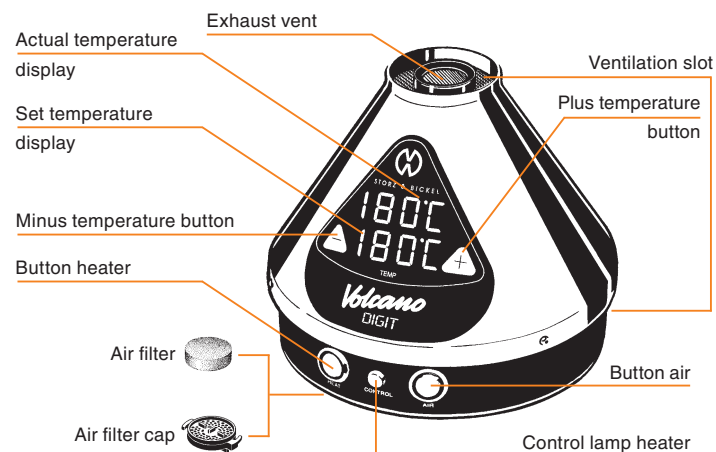


Compatible with **VOLCANO CLASSIC** and **VOLCANO DIGIT**

PRODUCT OVERVIEW *VOLCANO CLASSIC*



PRODUCT OVERVIEW *VOLCANO DIGIT*



SAFETY INSTRUCTIONS



Read the following safety information carefully and completely before operating the device!

This operating manual is a significant part of the vaporizer and must be provided to the user.

The instructions given in this operating manual must be strictly observed as they are extremely important to ensure safety during installation, use and maintenance of the vaporizer.

- The packing material (plastic bags, styrofoam material, boxes etc.) must be kept out of the reach of children as it is a potential source of danger.
- Before connecting the vaporizer, make sure that the information given on the type plate on the underside of the device corresponds to the supply mains at the place of installation.
- If there are any problems during operation, immediately pull out the main plug from the socket.
- The power cord must be unwound over its entire length (avoid rolling up the cable and looping it). It must not be exposed to any shocks and must be kept out of the reach of children. Also, it must not be kept near liquids or sources of heat and must not be damaged. Do not pull the mains cable over sharp edges and never crush or bend it. If the cable is damaged, contact our cus-

Please keep this brochure in a safe place for future reference.



Safety instructions!

In order to avoid injuries to persons and damage to the equipment, it is mandatory to observe instructions marked with this symbol.



Note/Tip!

This symbol always gives you technical information or useful tips regarding the **VOLCANO** vaporization system.

- tomer service department to have it replaced.
- The use of multiple sockets and/or extension cables is not recommended. However, if this is absolutely necessary, only products with a quality certificate (such as UL, IMQ, VDE, +S etc.) may be used, provided the specified power exceeds the power required (A = Ampere) by the devices that are connected.
- If you have any doubts, ask a specialist to check whether the electrical system is in accordance with the local safety regulations.
- Install the vaporizer on a stable and dry surface at a sufficient distance from sources of heat (oven, stove, fireplace etc.) and in a place where the ambient temperature cannot drop below 5°C (41°F). The vaporizer must be stored in a protected and dry place and must not be installed in damp rooms (such as bathrooms etc.).

SAFETY INSTRUCTIONS

- The hot air generator may only be repaired by our Customer Service. Incorrectly performed repairs without the use of original spare parts can prove dangerous to the user.
- Danger to life when opening the vaporizer as live components and connections are exposed.
- The vaporizer must never be repaired or transported when the main plug is plugged in.
- To pull the plug from the socket, pull the plug directly, never pull the main cable.
- The vaporizer must never be operated when the main cable is defective.
- Do not put any objects into the openings of the device.
- Do not leave the vaporizer unattended while it is being operated. After use, switch off the heater and the air pump.
- The ventilation slots as well as the exhaust vent of the vaporizer must not be closed, capped or obstructed when the device is being operated or is cooling down.

Danger of burning!

- Do not touch the exhaust vent and the filling chamber when they are hot.
- The filling chamber may only be placed on the exhaust vent while filling the balloon. After filling the balloon, the filling chamber must be removed from the hot air generator in order to avoid overheating

of the filling chamber (danger of burning).

- Do not put any body parts or objects in the hot air jet.
- The vaporizer must only be cleaned with a dry cloth. If need be, use a damp cloth for cleaning. Before cleaning, pull out the main cable from the socket. Never immerse the vaporizer in water or in other liquids or clean it with a direct water or steam jet.
- The vaporizer must not be used in damp or wet conditions.
- Do not expose the vaporizer to rain. Do not use in the bathroom or over water.
- Never touch the vaporizer with wet or damp body parts.
- Never put containers containing liquids on the vaporizer.
- Never operate the vaporizer when it is wet or damp. If the vaporizer becomes wet, it must be checked by our Customer Service for damage to electrical components.
- Do not use in an atmosphere with risk of explosion or ignition.
- Never allow the vaporizer to be used by children or unqualified persons.
- Only use original Storz & Bickel accessories and spare parts.



The manufacturer is not responsible for any damage or personal injury caused by inappropriate, incorrect or irresponsible use.

GENERAL

The **VOLCANO** Vaporization System releases flavor and active ingredients from plant material through vaporization by hot air. With the vaporization technique hot air passes through the plants listed below. During this process the flavoring and active ingredients will be set free through controlled temperature (max. 230°C/446°F). Due to the specific vaporization temperature of the plant material the ingredients are released into the air and can subsequently be inhaled.

Traditionally flavors and active ingredients are extracted, among other methods, by smoking or incensing. The temperature is reached through combustion which has several disadvantages. Smoking involves the combustion, incensing the carbonization of plant material, followed by the unavoidable inhalation of toxic combustion by-products, which cause irritation of the respiratory tract as well as noxious odors. In addition, the high and uncontrolled combustion temperature (500 - 700°C; 932 - 1292°F) causes the unnecessary destruction of the majority of the ingredients, thus squandering the original material.

OVERVIEW OF PLANTS

Below is an overview of the plants which are suitable for vaporization in the **VOLCANO**. The aromas of the plants listed below may aid in reducing stress*.

Information and up to date news about plants suitable for vaporization

will be published on www.storz-bickel.com.

*This statement has not been evaluated by the FDA. The **VOLCANO** Vaporization System is not a medical device and is not intended to diagnose, treat, cure or prevent any disease.

Plant name	Botanical name	Used part of the plant	Temperature setting
Eucalyptus	Eucalyptus globulus	the leaves	1 / 130°C (266°F)
Hops	Humulus lupulus	the cones	3 / 154°C (309°F)
Chamomille	Matriarca chamomilla	the blossoms	6 / 190°C (374°F)
Lavender	Lavandula angustifolia	the blossoms	1 / 130°C (266°F)
Lemon balm	Melissa officinalis	the leaves	2 / 142°C (288°F)
Sage	Salvia officinalis	the leaves	6 / 190°C (374°F)
Thyme	Thymus vulgaris	the herb	6 / 190°C (374°F)

OVERVIEW OF PLANTS

The essences (aroma oils) of these plants can be vaporized at up to 130°C (266°F) with the help of the liquid pad supplied with the vaporizer. To do so, please follow the instructions given in the chapter „LIQUID PAD“.



ATTENTION: The **VOLCANO**

Vaporization System is not designed for medical-therapeutic purposes. If you have any health problem consult your doctor or pharmacist. You may notice that one or more plants may cause an allergic reaction. In such a case you are urgently recommended to refrain from using the plant causing such a reaction. Only use the plant parts which are

found in this list and which have been verified according to the regulations of the European or any other pharmacopoeia with regard to genuineness, purity and pathogenic germs. You can purchase such plants or plant parts in pharmacies*.

It is important to observe the following instructions in order to set the vaporization system with the plant material in the best possible way for your personal requirements.

*This statement has not been evaluated by the FDA. The **VOLCANO** Vaporization System is not a medical device and is not intended to diagnose, treat, cure or prevent any disease.

FACTORS INFLUENCING VAPORIZATION

The amount of active ingredients released into the balloon can be influenced by the following factors:

1. Quality: The concentration of ingredients in the plant material.
2. Quantity: The amount of plant material in the filling chamber.
3. Surface: The finer the plant is grinded, the greater the surface and the more ingredients can be released during vaporization.
4. Temperature: The higher the temperatures, the more active ingredients will be released at once.

Please note: Increasing the temperature should be the last resort, because plant material tastes more roasted when using higher temperature.

The ingredients of a plant are released in a gentle way so that a repetition of vaporization with the same material in the filling chamber is possible. Depending on the 4 factors described above, the material in the filling chamber can be reused several times until all aromas and active ingredients are completely dissolved. It is advised to take out the content of the filling chamber and grind it once again to increase the surface of the original material. An increased temperature would activate more ingredients as well, but has a negative effect on the taste. If no more vapors are visible at the highest temperature, the material used for vaporization is completely used up and must be replaced with new material. For taste-related reasons, we recommend

FACTORS INFLUENCING VAPORIZATION

replacing the material used for vaporization before it is completely used up.

It is important to watch the vapor density in the balloon. A fine, white vapor feels very comfortable when inhaled. As the vapor gets denser the taste can get too strong. In case of a very high vapor intensity (density) the concentration of aromas and active ingredients may cause an irritation of the respiratory tract. If this is the case lower the temperature.



Watch vapor density

It is not necessary to fill the balloon completely. It is often sufficient to fill only half or even less than half of the balloon in order to achieve the desired results.

The balloon is not suitable for storing vapors over a long period because the vapors condense on the balloon surface over time (a few hours). Only fill the amount you want to inhale within 10 minutes.

Breathing technique

Inhale only half of the volume of air that one could inhale. Hold your breath for a few seconds and exhale slowly. It is recommended to consciously concentrate on your respiration.

For current and detailed information please visit our website:
www.storz-bickel.com

VOLCANO DIGIT AND CLASSIC HOT AIR GENERATORS

Unpacking

The box contains all components as well as the operating manual. Keep the operating manual for future reference.

Take out the accessories and the vaporizer from the box. Immediately after unpacking check whether the vaporizer, the accessories, the cable and the plug were included in the delivery and work properly. If you notice any defects, inform the seller or the delivery agent immediately.



The packing material (plastic bags, styrofoam material, boxes etc.) must be kept out of the reach of children as it is a potential source of danger.

Please dispose of the packing material in a proper and environmentally friendly manner.

We recommend keeping the original packaging in case it is required later (transport, customer service etc.).

VOLCANO DIGIT AND CLASSIC HOT AIR GENERATORS

Installation

Before installing the vaporizer, make sure that the information given on the type plate on the underside of the device corresponds to the local supply mains data.

All parts of the electrical system must comply with currently applicable official regulations.

Put the vaporizer on a flat and stable surface.

Take care that the main cable cannot be damaged through bending, crushing or pulling.



If the vaporizer is not installed properly, this may cause personal injuries and material damage for which the manufacturer cannot be held responsible.

Application and operation



This vaporizer was developed for vaporizing the plant materials listed in the plant overview as well as their essences. Any other use is inappropriate and potentially dangerous.

For use and maintenance, the user must always follow the instructions given in this operating manual.

If you have any doubts, or if there are any problems immediately switch off the vaporizer and pull out the main plug. Do not try to remedy the defect yourself. Contact our Customer Service directly.

After using the device, allow it to cool down before storing it away.

Care and maintenance

Before maintenance the device has to be switched off and the main plug has to be unplugged.

At the bottom of the hot air generator is an air filter. The air filter can occasionally be inspected by turning the air filter cap counter clockwise and remove the air filter.



Reassemble in reverse sequence

Only clean the device with a damp cloth when dirty. Do not use any harsh cleaning agents or scouring powder.

Clean the housing with a soft cloth; or, if need be, use a mild cleaning agent (soap water).

Storage

Store the vaporizer in a dry place protected against atmospheric exposure and out of the reach of children or unqualified persons.

In case of problems

Immediately pull out the main cable and ensure that no one can connect the vaporizer to the mains supply again without this being noticed.

If there are any faults in the electronics of **VOLCANO DIGIT**, you can perform a reset by pulling out the mains plug and plugging it again after waiting for minimum three seconds.

Put the vaporizer in the original packaging, or pack it properly in other packing material, and take it to our Customer Service.

If the vaporizer has an irreparable defect, do not throw it away. As it is made of high-quality, completely recyclable parts, it should be recycled according to the regulations applicable at your place of residence.

Trouble shooting

Please make sure that there is no power failure and that the line protective switch (in the fuse box) and the main switch are switched on.



If the instructions mentioned above do not solve the problem and also if there are any other defects or difficulties that are not mentioned here, pull out the main plug immediately.



Do not open the hot air generator! Without special tools and specialized knowledge, any attempt to open the device will cause damage to it. Such an attempt will invalidate the warranty claim.

Do not try to remedy the defect yourself. Contact our Customer Service department directly.

Technical Data **VOLCANO DIGIT** and **VOLCANO CLASSIC**

Voltage: 220-240 V / 50-60 Hz or 110-120 V / 50-60 Hz.

The specification is located on the bottom side of the **VOLCANO** hot air generator.

Heat output: 100 W

Air pump output: 11 W

Air temperature:

CLASSIC adjustable between approx. 130°C to 230°C (266°F to 446°F);

DIGIT adjustable between approx. 40°C to 230°C (104°F to 446°F)

Air flow: approx. 12 l/min

Weight: **CLASSIC** approx. 1,6 kg;
DIGIT approx. 1,8 kg

Safety category 1 (protective earthed)
Please unplug to disconnect from the main current.

Subject to technical changes.

Patents: DE Pat. 198 03 376;
DE 100 42 396; EU 0933093;
US Pat. 6,513,524;
further patents pending.

Commissioning



Do not leave the device unattended while it is being operated. Put the **VOLCANO DIGIT** on a flat and stable surface. Check whether the mains voltage corresponds to the voltage rating stated on the device. The power cord and the plug must be in a perfect condition. Only connect the **VOLCANO DIGIT** to a properly installed (grounded) socket.

It is mandatory to ground the vaporizer. The manufacturer will not bear any responsibility whatsoever if this accident prevention measure is not taken.

When the main plug is plugged in, the LED display of the device lights up briefly. At the same time, an internal software query is performed.

The green point on the display shows that the hot air generator is connected to the power supply.

Heating up

To switch on the heater, push the red button labeled „HEAT“. The set/actual temperature will light up, signaling that the heater is switched on.

At the same time, the yellow control lamp will light up to indicate that the appliance is heating up.

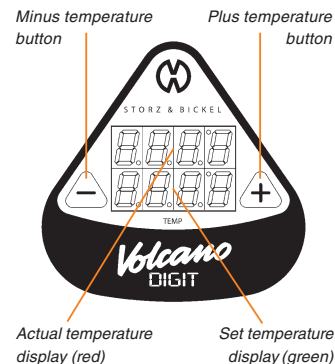
The upper, red display shows the actual temperature in the filling chamber with the air pump switched on, and the lower, green display shows the

desired set temperature. The heating process is completed when the set value is equal to the actual value. Heating up can take up to 5 minutes depending upon the chosen temperature. After the heating up process is completed, the temperature is constantly maintained at the set value. The luminous intensity of the yellow control lamp corresponds to the intensity of the heating-up process.



For technical reasons the temperature in the filling chamber cannot be measured during vaporization. During operation the temperature is measured at the heating block. The display indicates the reference values for the attached filling chamber with the air pump switched on.

Temperature setting



VOLCANO DIGIT

When you press the plus button, the set value is increased, and when you press the minus button, the set value is decreased. When you briefly tap the plus or minus button, the set values are increased or decreased respectively in 1-degree increments. If you keep the plus or minus button pressed, the set values start running continuously in the corresponding direction. If you simultaneously tap the plus button and the minus button, the display changes from degree Celsius to degree Fahrenheit and vice versa.



If the actual value is higher than the set value, you can speed up the cooling down process by switching on the air pump.



30 minutes after the last time a button is pressed, the device automatically switches off.

As long as the heating has a substantial amount of residual warmth, the temperature is displayed until it drops below 40°C (104°F). Then the display turns off, and the green dot on the display indicates that the hot air generator is connected to the mains supply.

VOLCANO CLASSIC

Commissioning



Do not leave the device unattended while it is being operated. Put the **VOLCANO CLASSIC** on a flat and stable surface. Check whether the mains voltage corresponds to the voltage rating stated on the device. The power cord and the plug must be in a perfect condition. Only connect the **VOLCANO CLASSIC** to a properly installed (grounded) socket.

It is mandatory to ground the vaporizer. The manufacturer will not bear any responsibility whatsoever if this accident prevention measure is not taken.

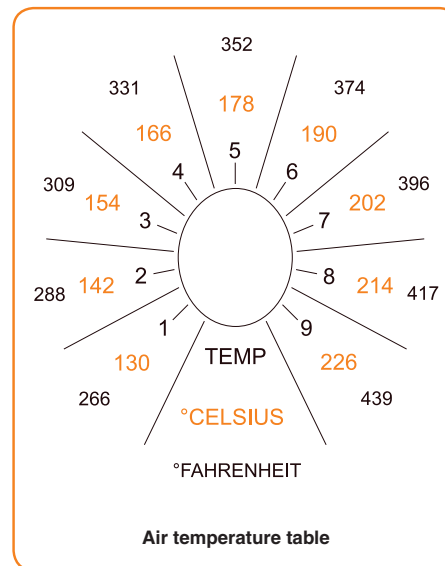
Heating up

Switch on the heater by pushing the red button „HEAT“. The red switch will light up signalling that the heater is in operation. At the same time, the yellow control lamp will be signalling that the appliance is heating up. This process can take up to 5 minutes depending upon the chosen temperature.

As soon as the yellow control light turns off, the desired temperature has been reached and heating up of the heating block is completed. If the temperature in the heating block drops, the heating block will automatically heat up, which is signalled by the yellow control lamp lighting up again.

VOLCANO CLASSIC

Temperature setting



Air temperature table

The air temperature is always fluctuating about $\pm 5^{\circ}\text{C}$ ($\pm 9^{\circ}\text{F}$) related to the indicated values because of the heating up and cooling down of the heating block. For example at level 6 from 185 up to 195°C (365° up to 383°F).

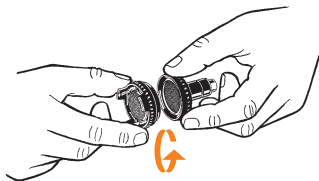
Choose the desired temperature at the temperature regulator knob.



Choose temperature

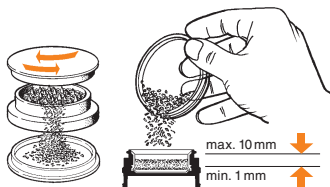
EASY VALVE APPLICATION AND OPERATION

Turn the filling chamber cap in order to remove it from the filling chamber.



Remove filling chamber cap

Fill the desired amount of ground plant material in the filling chamber.



Fill filling chamber

Then screw on the filling chamber cap again.



Screw on filling chamber cap



Take care that the screens are not obstructed with plant material. To guarantee optimal results, we recommend cleaning the screens regularly with the brush supplied with the device.

Put the filling chamber with cap on the exhaust vent of the hot air generator and allow it to lock in place. Switch on the air pump. To do so, press the green button/switch labeled „AIR“. The filling chamber as well as its content must be preheated for a couple of seconds before the ingredients start to vaporize. Before attaching, remove the mouthpiece from the valve balloon.

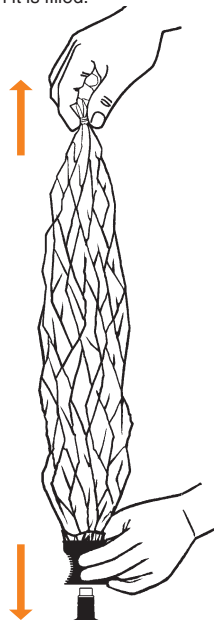
approx. 5 sec



Preheat plant material for a few seconds

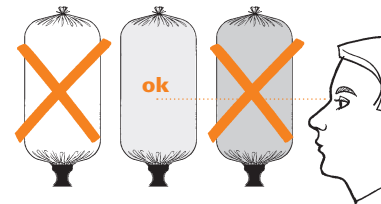


Before putting the valve balloon on the filling chamber, stretch it tight so that the balloon is placed vertically on the vaporizer when it is filled.



Put the valve balloon on the filling chamber and allow it to lock in place. This will open the valve. Now the balloon will fill with flavors and vapors of active ingredients.

Only fill the balloon with the approximate amount of vapor that you intend to use within the next 10 minutes. Do not fill the balloon completely (over-pressure) in order to prevent the loss of vapors of active ingredients. It is important to observe the vapor density in the balloon (see „Factors influencing vaporization“).



Watch vapor density

When the balloon is filled, switch off the air pump and remove the valve balloon together with the filling chamber. To do so, hold the filling chamber cap at the textured grip.

EASY VALVE APPLICATION AND OPERATION



Remove complete balloon unit



Beware of hot surface!



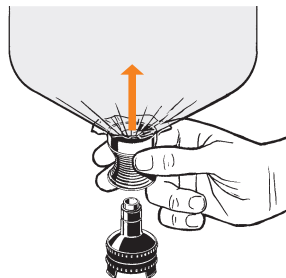
After filling a balloon do not touch any parts of the filling chamber or of the cap until they have cooled down.



Beware of hot surface!

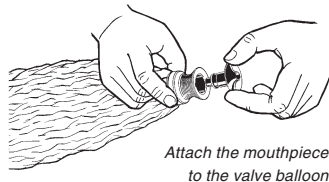
Never leave the filling chamber on top of the exhaust vent of the **VOLCANO** as long as the heater is on, except when filling the balloon. Non-observance can lead to an overheated filling chamber, which might burn one's fingers.

Detach the valve balloon from the filling chamber. When you do so, the valve is automatically closed so that the vapors in the balloon cannot escape.



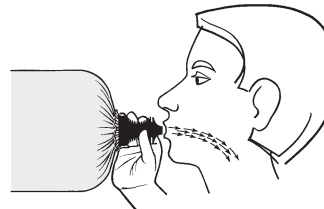
Detach valve balloon from filling chamber

Attach the mouthpiece to the valve balloon and allow it to lock in place.



To inhale, put the mouthpiece to your lips and lightly press against the mouthpiece with your lips. By doing so, the valve opens and the vapors can be inhaled from the balloon. As soon as you remove the pressure from the mouthpiece, the valve automatically closes.

EASY VALVE APPLICATION AND OPERATION

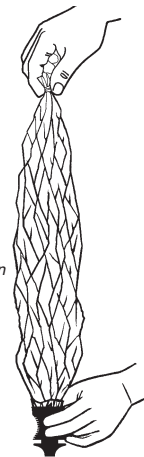


Press mouthpiece against lips to inhale



When the content of the balloon is almost used up, you can empty the balloon completely by pulling it tight.

Stretch balloon tight



EASY VALVE CLEANING AND MAINTENANCE

EASY VALVE valve balloon with mouthpiece

The **EASY VALVE** valve balloon with mouthpiece does not require any maintenance and should be replaced regularly with a new valve balloon with mouthpiece for hygienic reasons. For the same reasons, a valve balloon with mouthpiece should not be used by several persons at the same time.

Filling chamber with cap

Before disassembling, allow the filling chamber and the cap to cool down.

These parts should be cleaned regularly to guarantee proper functioning and a clean taste. For hygienic reasons cleaning should also be done when the device is used by other persons. For manual cleaning, use spirit (ethyl alcohol) and paper or cotton towels only. Filling chamber and cap are easily disassembled and reassembled within seconds. Filling chamber and cap parts may also be cleaned in a dishwasher. Screens, cap ring and clips are too small for this and might get lost in a dishwasher. Before assembling allow all parts to dry properly.

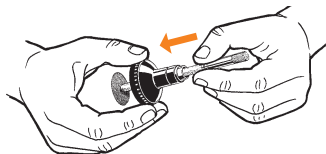
EASY VALVE CLEANING AND MAINTENANCE



Manual cleaning with alcohol (min. 90%)

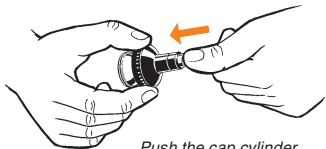
Disassembling the cap

Use, e.g., the handle of the cleaning brush to press the upper screen down in order to push it out.

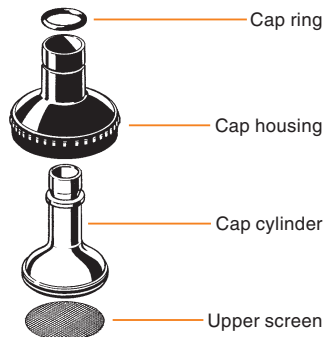


Push out the upper screen with the help of the cleaning brush

Push the cap cylinder downwards out of the cap housing. At the same time the cap ring will be stripped off.



Push the cap cylinder out of the cap housing



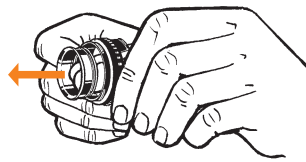
Reassemble in reverse sequence.



The upper screen has to be placed carefully into the intended notch. Non-observance may result in plant particles in the balloon that might be inhaled subsequently.

Disassembling the filling chamber

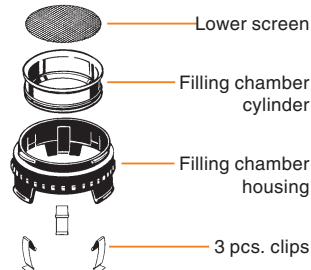
Push the lower screen upwards out of the filling chamber cylinder. Push the filling chamber cylinder upwards out of the filling chamber housing.



Push the filling chamber cylinder upwards out of the filling chamber housing

EASY VALVE CLEANING AND MAINTENANCE

When the filling chamber cylinder is pushed out, the three clips are loosened and fall out of the filling chamber housing.

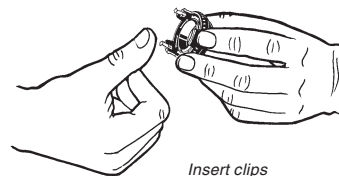
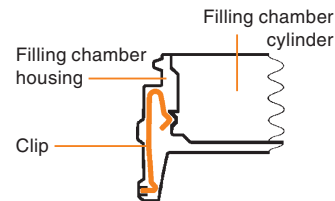


Assembling the filling chamber

Push the filling chamber cylinder from above into the filling chamber housing and allow it to lock in place.

Insert the clips in the openings provided for them in the foot of the filling chamber housing.

Make sure the clips are positioned properly, as shown in the detailed drawing.



Insert clips

Insert the screen into the filling chamber from above.

SOLID VALVE APPLICATION AND OPERATION

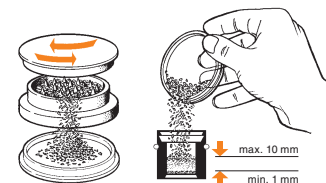


The balloon material must be kept out of the reach of children as it is a potential source of danger. As an alternative to the **VOLCANO** balloon, only use heat-resistant, food safe and tasteless oven hoses and roasting bags.

Filling the filling chamber

Remove the entire filling chamber

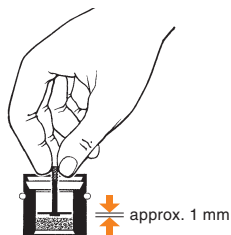
insert and fill the chamber with the desired amount of herbs.



Fill filling chamber

SOLID VALVE APPLICATION AND OPERATION

Fit in the filling chamber insert and use the pin to lower the screen unit so that the content of the filling chamber is loosely fixed between the screens.



Insert filling chamber insert

Make sure that the filling chamber disc sits properly in the filling chamber. It must touch the top edge of the filling chamber cylinder.



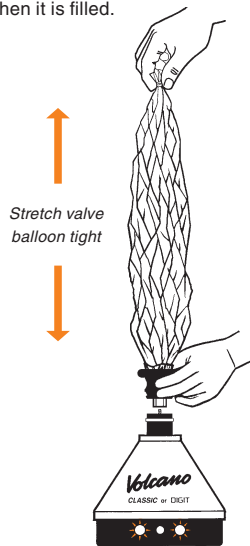
Take care that the screens are neither bent nor obstructed with plant material. To guarantee optimal results, it is advised to clean the screens regularly with the enclosed cleaning brush.

Put the filling chamber on the exhaust vent of the **VOLCANO**. Turn on the air pump, by pushing the green button „AIR“. The filling chamber and its content have to be preheated for a couple of seconds before the ingredients will start to vaporize.



Preheat plant material for a few seconds

Before putting the valve balloon on the filling chamber, stretch it so that it extends vertically from the vaporizer when it is filled.



SOLID VALVE APPLICATION AND OPERATION

Attach the valve with the affixed balloon to the filling chamber. To do this, set the valve onto the filling chamber from above until both gripper elements are engaged. The valve will automatically open up. The balloon will slowly fill with the vaporized aromas and active ingredients.



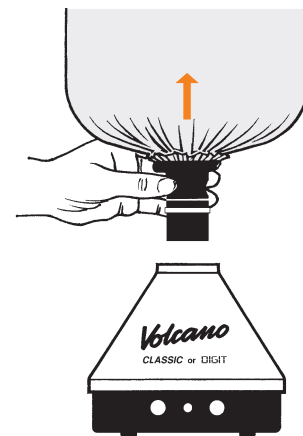
Watch vapor density

When the balloon is filled, turn off the air pump and remove the balloon unit. Grasp the valve firmly with your thumb and index finger at the designated indentation.



Attach valve balloon to filling chamber

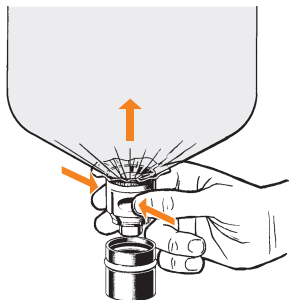
Only fill the balloon with the approximate amount of vapor that you intend to use within the next 10 minutes. Do not overfill the balloon (overpressure) in order to prevent the loss of vapor and its active ingredients. It is important to watch the vapor density (as described under „factors influencing vaporization“).



Remove complete balloon unit

SOLID VALVE APPLICATION AND OPERATION

Place the filling chamber on a heat-proof surface, for example these instructions, and detach the valve balloon from the filling chamber by pressing the grippers together. The valve closes automatically so that the vapors in the balloon cannot escape.



Detach valve balloon from filling chamber



Beware of hot surface!



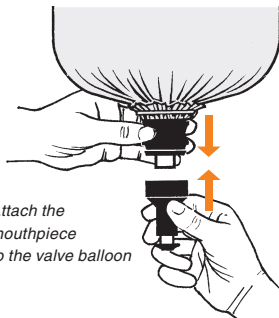
After filling a balloon do not touch any parts of the filling chamber or of the cap until they have cooled down. Never leave the filling chamber on top of the exhaust vent of the **VOLCANO** as long as the heater is on, except when filling the balloon. Non-observance can lead to an overheated filling chamber, which might burn one's fingers.



Beware of hot surface!

Never leave filling chamber on **VOLCANO**

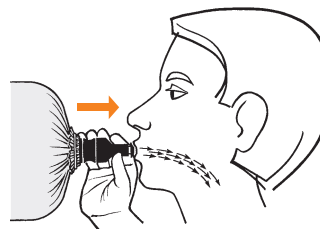
Attach the mouthpiece to the valve balloon. Make sure that both grippers are engaged.



Attach the mouthpiece to the valve balloon

To inhale, put the mouthpiece to your lips and lightly press against the mouthpiece with your lips. By doing so, the valve opens and the vapors can be inhaled from the balloon. As soon as you remove the pressure from the mouthpiece, the valve automatically closes.

SOLID VALVE APPLICATION AND OPERATION



Press mouthpiece against lips to inhale



When the content of the balloon is almost used up, you can empty the balloon completely by pulling it tight.



Stretch valve balloon tight



SOLID VALVE CLEANING AND MAINTENANCE

Mouthpiece, valve and filling chamber

These parts should be cleaned regularly to guarantee proper functioning and a clean taste. For hygienic reasons cleaning should also be done when the device is used by other persons. Always replace the balloon after cleaning has been done. Only use spirit (ethyl alcohol) with paper or cotton towels or dishwashing liquid with warm water.



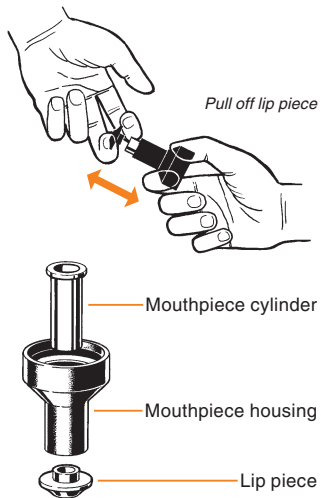
Manual cleaning with alcohol (min. 90%)

SOLID VALVE CLEANING AND MAINTENANCE

The mouthpiece, valve and filling chamber are easily disassembled within seconds for cleaning. Mouthpiece, valve and filling chamber may also be cleaned in a dishwasher. The screens and the parts of the filling chamber insert are too small for that and might get lost in a dishwasher.

Disassembly of the mouthpiece

Pull off the lip piece from the mouthpiece cylinder and remove the cylinder from the mouthpiece housing. Before assembling allow all parts to dry properly.



Reassemble in reverse sequence.

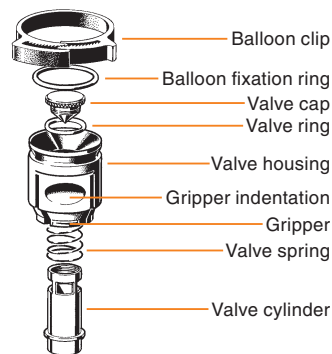
Disassembly of the valve

Undo the balloon clip and remove the balloon along with the fixation ring. Insert your index finger into the open end of the valve cylinder. Push up the valve cylinder until you can unscrew the valve cap.



Remove the valve cap and valve ring. Pull out the valve cylinder along with the valve spring of the valve housing. In case of tightness, the parts can be loosened by warming them up in warm water.

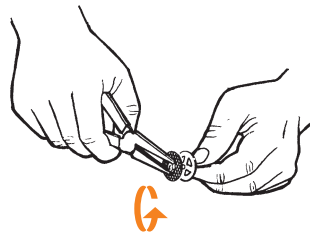
SOLID VALVE CLEANING AND MAINTENANCE



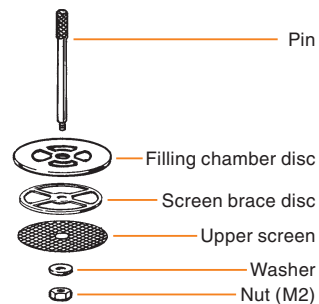
Reassemble in reverse sequence.

Disassembly of the filling chamber insert

The filling chamber insert can be easily removed from the filling chamber. The filling chamber insert can be disassembled by screwing off the nut.



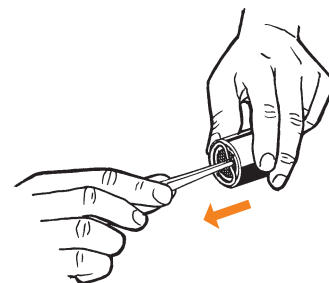
Disassembling the filling chamber insert



Reassemble in reverse sequence.

Disassembly of the filling chamber

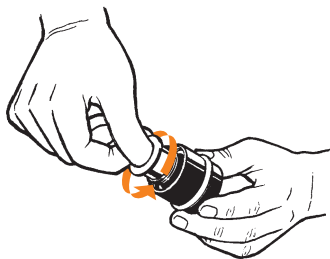
The lower screen will be pushed out of the filling chamber. The filling chamber ring can be pulled off with tweezers.



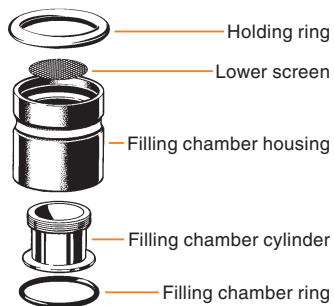
Pull off filling chamber ring with tweezers

SOLID VALVE CLEANING AND MAINTENANCE

Filling chamber housing and filling chamber cylinder can be screwed off now. In case of tightness, the parts can be loosened by warming them up in warm water.



Screw off filling chamber housing from filling chamber cylinder

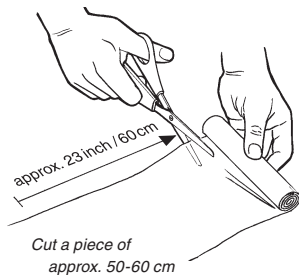


Reassemble in reverse sequence.

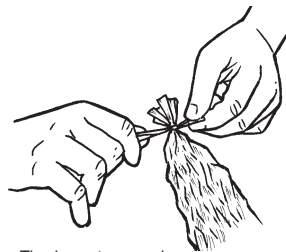
Attachment of the balloon to the valve

As an alternative to the **VOLCANO** balloon, use a tasteless, heatproof and foodsafe balloon, which is used in the food industry. It is available in nearly every drug store and supermarket. Do not use any other plastic bags or clingwraps. The procedure to change a balloon with a heatproof oven tube is described below:

Cut a piece of approximately 50-60 cm



Cut a piece of approx. 50-60 cm



Tie close at one end

SOLID VALVE CLEANING AND MAINTENANCE

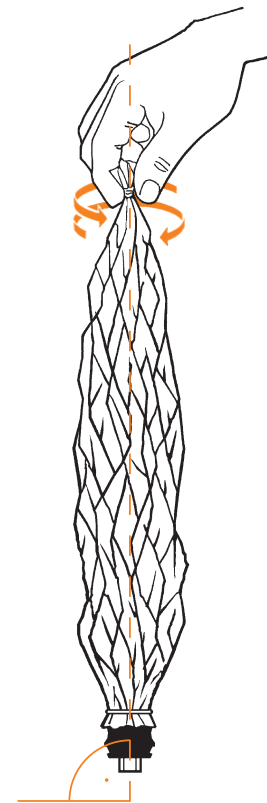
As the opening of the balloon is much wider than the diameter of the valve housing, the balloon must be folded. To do this pull the balloon fixation ring approximately 3 cm over the open end of the balloon and then pull the balloon fixation ring with the balloon over the collar of the valve until it fits into the intended notch.



Attach balloon to valve

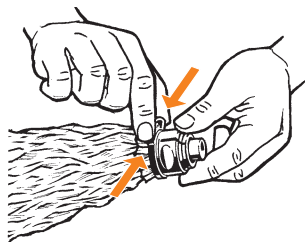
Adjust the folds equally around the valve collar making certain that the valve hangs straight down when the balloon is held at the end.

Bend the protruding end of the balloon back. Secure the balloon by pulling the balloon clip over both the valve and the balloon fixation ring so that the balloon fixation ring is no longer visible and the protruding end of the balloon points backwards.



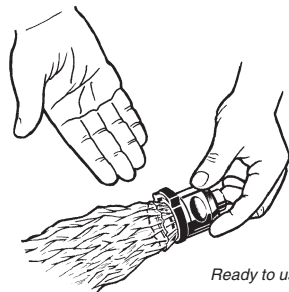
Align balloon to valve

SOLID VALVE CLEANING AND MAINTENANCE



Fixing the balloon with the balloon clip

If needed, the excess **VOLCANO** balloon material can be trimmed away using a pair of scissors, making certain not to poke a hole into the balloon.



Ready to use



Balloon sets can be ordered directly from www.storz-bickel.com.

LIQUID PAD

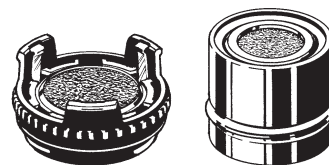
The liquid pad is used to vaporize the essences (aroma oils) of the plants specified in the plant list. The stainless steel wire of the liquid pad serves as the carrier of the essence, comparable to the unvaporizable plant fibers in plant material used for vaporization.



Caution! The essences are usually concentrates; therefore, a very small dosage is sufficient. The vaporized concentrates may not be inhaled directly, but instead pumping them into the room air directly from the filling chamber without the valve balloon attached.

Preparation

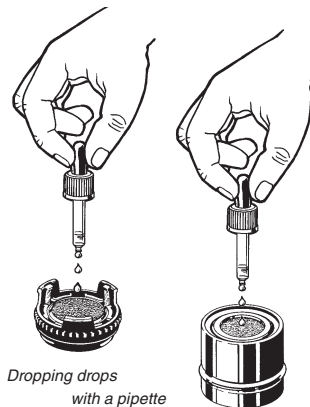
If the liquid pad is used, the screens in the filling chamber are not required and should be removed. This applies to the filling chamber of the **EASY VALVE** as well as to the filling chamber of the **SOLID VALVE**. In both cases the liquid pad is inserted in place of the lower screen in the filling chamber. You will need the filling chamber disc of the filling chamber insert of the **SOLID VALVE** as this valve cannot open without the filling chamber disc.



Preparation to use the liquid pad

Application

Put the filling chamber upside down and allow the essence to drip in an evenly distributed manner on the lower side of the liquid pad with the help of a pipette. The liquid pad can soak up to 10 drops without any problems. If you use an essence with unknown concentration, use maximum one drop and carefully increase the amount until you achieve the correct dosage.



Dropping drops with a pipette

LIQUID PAD



Please note that oils become more liquid at high temperatures. If you use too many drops, the essence could drip into the hot air generator, which must be avoided.

Certain essences may be provided in a diluted form as alcoholic solutions. The advantage of such essences is that the liquid is distributed more evenly around the stainless steel wire of the liquid pad. Therefore, the surface used for vaporization is larger. However, if such essences are used, first the alcohol must be separated from the essence as alcohol should not be inhaled. To do this, put the filling chamber onto the unheated (room temperature) **VOLCANO** and switch on the air pump until the alcohol has evaporated, which may take a few seconds. As alcohol has a characteristic odor, a simple smell test can be performed to find out whether the filling chamber is free of alcohol. The essences that vaporize only at higher temperatures remain in the liquid pad. Then heat up the **VOLCANO** and vaporize the essence left on the liquid pad as described in the chapters „**EASY VALVE**“ and „**SOLID VALVE**“. Essences without solvents can be vaporized directly after they are applied to the liquid pad.

Cleaning

Put the liquid pad in alcohol and rinse it thoroughly. As the liquid pad is made of stainless steel, it can be used again and again if it is cleaned well.

DECLARATION OF CE CONFORMITY

This device complies with the following EC Directives:

- Low Voltage Directive 73/23/EWG
- Electromagnetic Compatibility 89/336/EWG

WARRANTY

Manufacturer's Representations and Warranties

These representations and warranties are applicable to all end-customers (the "Customers" and each, individually, a "Customer") purchasing products (the "Products") sold by Storz & Bickel GmbH & Co. KG or Storz & Bickel America, Inc. (the "Company").

Warranty and Limitations

Company warrants solely to the original purchaser of the Products that for the Warranty Period (as defined below), the Products will be free from defects in materials and workmanship under normal use, and will conform to Company's published specifications of the Products. Notwithstanding the foregoing, Company retains its right to deviate from its published specifications due to the latest innovations and improvements in function and design of the Products. The foregoing warranty is subject to the proper storage, transportation and use of the Products, and does not include defects due to normal wear and tear or deterioration, including, but not limited to, defects on screens, air filters, balloon material and valve balloons.

Upon delivery, Customer shall immediately inspect the Products for con-

formity and visible defects. Customer shall give Company immediate written notice of any non-conformities or visible defects regarding the Products and contact Company in writing concerning return or repair, as the case may be.

Warranty

Customer shall notify Company in writing of any defects of the Products. Company's sole obligation under the foregoing warranty is, at Company's option, to repair or correct any such covered defect or to replace or exchange the Product, provided Customer has returned the Product with a copy of the original invoice to the Company or one of its authorized repair shops at his own cost. Any repaired, corrected, replaced or exchanged Products shall be subject to the warranty set forth in section "**Warranty and Limitations**", following their repair, correction, replacement or exchange. If Company has received notification from Customer, and no defects of the Product could be discovered, Customer shall bear the costs that Company incurred as a result of the notice.

The "warranty period" begins on the date on which the products are being

WARRANTY

physically delivered to customer's site, and continues to be in effect for twenty four (24) months for **VOLCANO DIGIT**, and thirty six (36) months for **VOLCANO CLASSIC**, **SOLID VALVE**, and **EASY VALVE** filling chamber. Company does not authorize any person or party to assume or create for it any other obligation or liability in connection with the Products except as set forth herein.

All requests and notices from U.S. Customers under this warranty shall be directed to:

Storz & Bickel America, Inc.
1155 5th Street, #104
Oakland, CA 94607
Phone: +1-510-451-1553
Fax: +1-510-451-2053
oakland@storz-bickel.com

All requests and notices from Canadian and all other Customers under this warranty shall be directed to:

Storz & Bickel GmbH & Co. KG
Rote Strasse 1,
78532 Tuttlingen, Germany
Phone +49-7461-969707-0,
Fax +49-7461-969707-7
info@storz-bickel.com

The warranty set forth in section "**Warranty and Limitations**" is made in lieu of all other warranties (whether express or implied), rights or conditions, and Customer acknowledges that except for such limited warranty, the Products are provided "as is."

Company specifically disclaims, without limitation, all other warranties, express or implied, of any kind, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose, non-infringement, and those warranties arising from a course of performance, a course of dealing or trade usage.

Liability

Handling of this product is to be as stated in the Operation Instructions. The user accepts full liability for improper handling and usage of this product. The intended application only refers to the plants named by us. Repair of this product is only to be done by us or one of our authorized repair shops. For repairs done by one of our repair shops, proof of the following must be presented: repair date, type and extent of repair as well as the company's name and signature. Only original Storz & Bickel parts are to be used. Failure to comply with any of the points mentioned in these Operation Instructions release Storz & Bickel GmbH & Co. KG from any and all liability.

Limitation of Liability

In no event shall Company be liable for any indirect, incidental, punitive, special or consequential damages, including but not limited to, damages for loss of profits, revenue, goodwill or use, incurred by Customer or any third party, whether in an action in contract, tort, strict liability, or im-

WARRANTY

sed by statute, or otherwise, even if advised of the possibility of such damages. Company's liability for damages arising out of or in connection with this agreement shall in no event exceed the purchase price of the Products. It is agreed and acknowledged that the provisions of this agreement allocate the risks between Company and Customer, that Company's pricing reflects this allocation of risk, and but for this allocation and limitation of liability, Company would not have entered into this agreement.

In jurisdictions that limit the scope of or preclude limitations or exclusion of remedies or damages, or of liability, such as liability for gross negligence or willful misconduct or do not allow implied warranties to be excluded, the limitation or exclusion of warranties, remedies, damages or liability set forth above are intended to apply to the maximum extent permitted by applicable law. Customer may also have other rights that vary by state, country or other jurisdiction.

Repair service

After the warranty period has expired, or if there are any defects which are not capped under warranty, our service department will repair the defect after providing the Customer with an estimate and receiving the payment.

The information contained in this operating manual is based on our experience and is current and complete to the best of our knowledge and ability at the time of printing. Storz & Bickel GmbH & Co. KG does not accept responsibility for errors, omissions or incorrect interpretations of the contents or any information herein. Users are advised that all applications and uses of the Products described must conform to applicable local laws, ordinances and codes and users of the Products are advised that they are solely responsible for determining and assuring the suitability of any Product for the intended application.

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