



*Volcano*

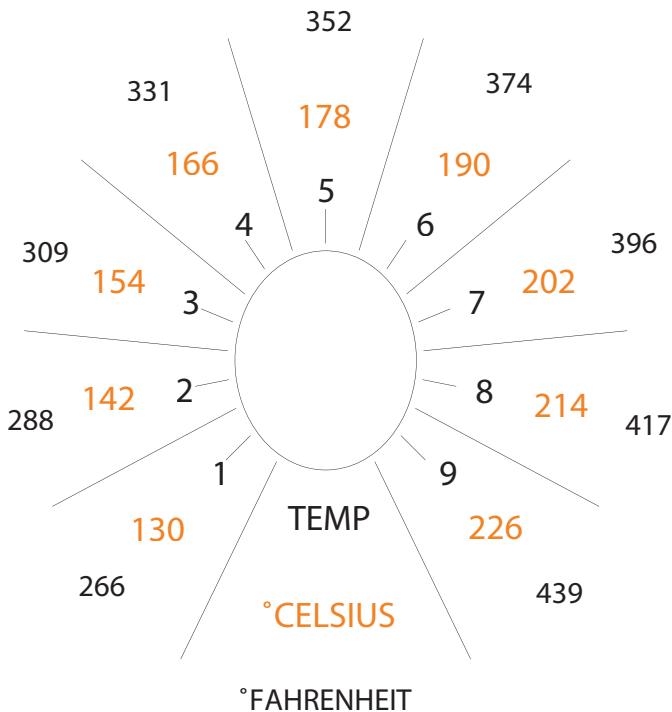
BY STORZ & BICKEL

GB

OPERATING MANUAL

Read and save these instructions.

## AIR TEMPERATURE TABLE



The temperature of the air fluctuates between the declared value in order of the heating and cool off process of the heating block always around  $\pm 5^{\circ}\text{C}$ . So for example at grade 6 between  $185\text{-}195^{\circ}\text{C}$ .

The temperature was measured (when the air was streaming) in the middle of the filling

chamber at the lower screen with an fast reacting, electronic thermometer.

Cellulose (organic material or plant material) has a point of spontaneous combustion at  $235^{\circ}\text{C}$  ( $455^{\circ}\text{F}$ ) and higher.

# SAFETY INSTRUCTIONS

## Attention

When using a product that generates hot air, it is vital to follow the following preventive safety guidelines to avoid the risk of fire, explosion, electrical shock and bodily

injuries. Read and follow these instructions attentively before you use this product. Keep these instructions in a safe place.

## Warning

Danger! This product must be unplugged before opening it, as live components and connections are exposed. Don't put any objects into the openings of the device. This product is not to be used in damp or wet surroundings.

Do not use in the bathroom or over water. Do not expose the appliance to rain. Do not use in presence of an explosive atmosphere or when there is a risk of ignition.

## Caution

The voltage rating stated on this product (V = Volt) must correspond to the main voltage. This product is only to be connected to a properly ground socket. Do not leave this product unattended when in use. Watch out for children. The ventilation slots as well as the exhaust vent are not to be grasped, covered or obstructed in any way during operation or during the cooling-down period. Can cause burns! Do not touch the neck of the exhaust vent or the filling chamber while it is still hot. The filling chamber is only to be attached when filling

the balloon. Do not put any bodily parts or objects in the hot air flow. Only use this product on a stable flat surface. Do not misuse the power cord (flex). Do not carry this appliance by its power cord and do not use the power cord to pull the plug out of the socket. Protect the power cord from heat and sharp edges. Store properly. Let this appliance cool down properly before it is stored away. When this product is not in use, it should be stored in a dry enclosed area out of the reach of children.



### Safety instructions

This symbol will always give you information with regard to the users safety. Always pay close attention to it.



### Note / Tip

This symbol always gives you technical information or useful tips with regard to this product.



## General:

The Volcano is a vaporizer or evaporator as the aromas and active substances of the plant material used vaporize due to the effect of hot air and can subsequently then be inhaled. This serves to allow the active substances (essentially nicotine) and the aromas of tobacco to be inhaled without the tobacco being burned, as is the case during smoking. Because the tobacco is not burned, no harmful cancer causing combustion pollutants are released, therefore the noxious intake is, when compared to smoking, greatly reduced. One should keep in mind though that nicotine, even without tar, can be a problem to health. The Volcano can help you withdraw from nicotine little-by-little; as for example a nicotine patch or nicotine chewing gum can, but with the added advantage of not having to abstain from habitual inhaling.

Depending upon how strongly one puffs on a cigarette or a pipe, temperatures of between 500°-600°C are reached whereby the tobacco is then burned. The Volcano heats up hot air which in turn flows through the tobacco, heating it up to a temperature of between 130° - 230°C. This is sufficient to release the active substances, respectively the aromas. Plant material (cellulose) begins slowly to turn black and subsequently begins to burn only when temperatures of more than 235°C are reached, therefore it is impossible that any burning can occur in the Volcano.

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

1. Quality: The amount of concentrated

active substances in the respective tobacco.

2. Quantity: The amount of tobacco in the filling chamber.

3. Temperature: Higher temperatures release more active substances at one time than lower temperatures. Aromas begin to release at lower temperatures as compared to active substances. Therefore, the temperature of the Volcano should be set between 6 - 9 in order to release active substances. Because the tobacco is not burned, hot air can flow as often through the tobacco until all active substances and aromas have been extracted. That means, you can blow up several balloons with one filling of the filling chamber.

A large part of the active substances are damaged unused when burned by smoking. Therefore you have, except for the health aspects, the advantage of using essential less material to achieve the same results due to the gentle vaporizing of the active substances.

A further advantage is the milder taste and greatly reduced odor. Here a word about taste: Because the taste is not overshadowed by smoke when using a vaporizer, the differences are much more evident. This does not mean though that a herb that has a questionable smell will taste better. A tobacco that smells good will be able to fully develop and release its good taste in the vaporizer. The higher the temperature, the more the tobacco will have a "roasted" taste.

We offer more current and detailed information on our website.

## Starting Up:



Place the Volcano on a flat and stable surface. Check to see that the main voltage corresponds to that shown on the appliance. The power cord and plug must be in perfect condition. The Volcano is only to be connected to a properly installed (grounded) socket.

### 1. Temperature Setting and Heating Up:

Select the desired temperature by turning the temperature regulator knob and switching on the heater. To activate the heater, switch on the red switch marked "HEAT". This red



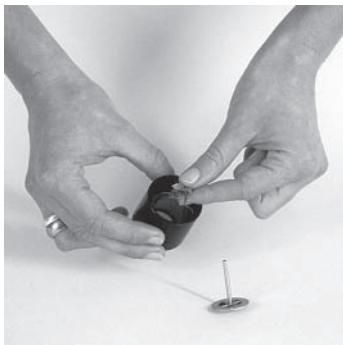
Switch on heater

switch will light up signaling that the unit is in operation now. At the same time, the yellow light will also come on signaling that the appliance is heating up now. This step can take up to 6 minutes depending upon the desired temperature. As soon as the yellow control lamp goes off, the desired temperature has been reached and heating up of the heating block is completed.



Should the temperature in the heating block drop, the heating block will automatically heat back up, which is signaled by the yellow control lamp lighting up again. This way the desired temperature will be kept, whereby the air temperature, when the compressor is on, will increase and decrease by  $\pm 5^{\circ}\text{C}$ . This degree of accuracy, for our purpose is quite adequate.

2. Filling the Filling Chamber: Remove the entire screen unit (including the pin and filling chamber disc) and fill the chamber with the desired amount of tobacco. Insert




Filling the filling chamber

the complete screen unit with the help of the pin and use this pin to lower the screen unit down onto the tobacco without the tobacco being crushed.



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

 Causes burns! Do not touch any part of the filling chamber, including the screen unit, after filling the balloon as long as they have not cooled down.

3. Connect the valve along with its affixed balloon onto the filling chamber. Set the valve onto the filling chamber from above




Connecting valve and filling chamber until both gripper elements are engaged. The valve is automatically opened now.



Setting on the balloon unit

4. Now attach the complete balloon unit (filling chamber with valve and balloon) onto the top of the exhaust vent of the Volcano and turn the compressor on. Use the green switch marked "AIR". This switch will light up signaling that the compressor is operating now. The balloon will now slowly fill with the vaporized aromas and active substances.

 It will take a few seconds until the tobacco has heated up to the point where it begins to release its substances. Only fill the balloon with the approximate amount of vapor that you intend to use within the next 5 minutes. Do not overfill the balloon (overpressure) in order to prevent the loss of active substance vapors. There is no danger whatsoever that the balloon could burst.

5. When the balloon has filled, turn the compressor off and remove the balloon unit. Grasp the valve firmly with your thumb and index finger at the designated indentation. Place the filling chamber on a heat-proof surface, for example these instructions, and separate the filling chamber from the valve by pressing the grippers together. The valve



Separating valve and filling chamber

then closes automatically so that the vapors in the balloon cannot escape.



Causes burns! Never leave the filling chamber, except when filling the balloon, on top of the exhaust vent of the Volcano as long as the heater



is on. Failure to comply with this could lead to the filling chamber overheating so that your fingers could be burned.

6. Now attach the mouthpiece to the valve. Here you must put the two pieces together. Pay attention that both grippers are engaged. To inhale, you simply need to put the mouthpiece to your lips and press lightly against the mouthpiece with your lips. By doing so, the valve is opened so that you can then inhale the vapors from the balloon. As soon as you remove your lips from the mouthpiece, the valve automatically closes.



Connecting valve and mouth piece



Application



The milder taste of the vapors, as compared to smoke, seduce you to inhale as much as possible at one time.

Recommendation: Begin slowly, and only inhale half as much as you actually could.



Take care the screens neither are bend nor are obstructed with plant material.

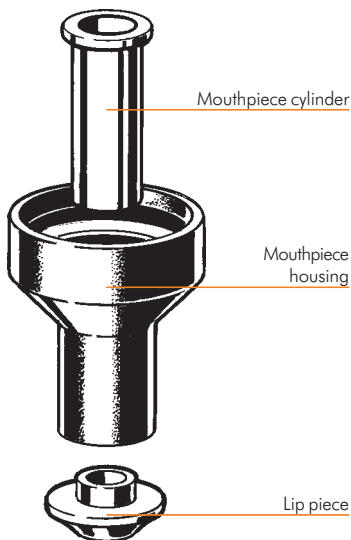
## CLEANING AND MAINTENANCE

### Mouthpiece, valve and filling chamber:

These parts should be cleaned regularly to guarantee proper functioning and a clean taste. As soon as any distinct residue is detected, it is time for cleaning. Cleaning should also be done when a different tobacco is used to insure a clean taste. For hygienic reasons cleaning should also be done when a person other than yourself use this product. Always replace the balloon after cleaning has been done. Only use spirit (ethyl alcohol) and paper or cotton towels. The mouthpiece, valve and filling chamber are easily disassembled within seconds for cleaning without the help of additional tools.

### Disassembly of the mouthpiece

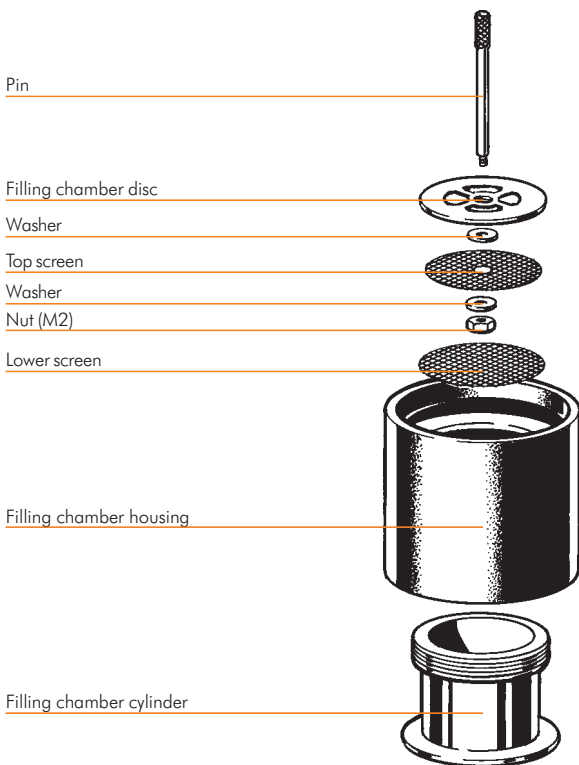
Simply pull the lip piece away from the Mouthpiece cylinder and remove the cylinder of the mouthpiece housing.



## Disassembly of the filling chamber:

The pin with the top screen and filling chamber disc can easily be removed all in together from the filling chamber. If necessary, the screen can be unscrewed from the pin. The lower screen will be pushed up

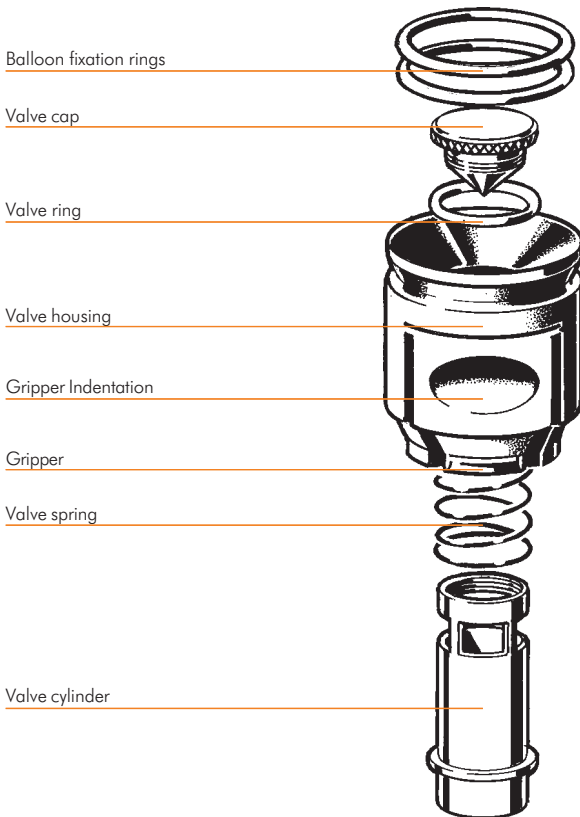
out of the filling chamber. Filling chamber housing and filling chamber cylinder do not need to be screwed apart for cleaning purposes. Reassembly in reverse sequence.



## Disassembly of the valve

Take the balloon including the fixation rings off. Insert your left index finger into the open end of the valve cylinder. Push the valve cylinder out until you can unscrew the valve cap. Remove the valve cap and valve ring.

Pull the valve cylinder along with the valve spring out of the valve housing. Reassembly in reverse sequence.



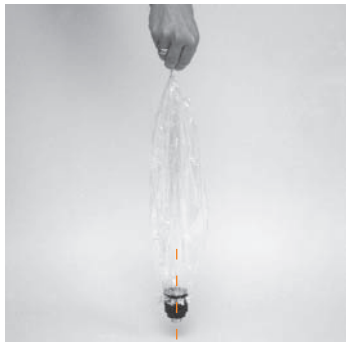
## Attachment of the balloon to the valve

Cut a piece approximately 50-60 cm long and tie it closed at one end using the polyester band included in the package of oven tubes. As the opening of the tube is much wider than the diameter of the valve housing, the oven tube must be folded. To do this pull one of the balloon fixation rings approximately 3 cm over the open end of the oven tube and then pull the first balloon

fixation ring with the oven tube over the collar of the valve until it fits into the intended notch. Adjust the folds around the valve collar equally making certain that the valve hangs straight down when the oven tube is held at the end. Bend the remaining end of the tube back. Secure the oven tube by rolling the second balloon fixation ring over both the valve and the first balloon



Attaching the oven tube to the valve



Valve shall hang vertical



Securing the oven tube with the second ring



Trimming the excess of the oven tube

fixation ring so that the first balloon fixation ring is no longer visible and the remaining end of the oven tube is towards the back. If needed, the excess oven tube material can be trimmed away using a pair of scissors, making certain that a hole is not poked into the balloon.



Always use a tasteless, heatproof and foodsafe oven bag, as is used in the food industry, and as is available in nearly every drug store and supermarket. Recommendation: Melitta Toppits® Oven tube type

“Extra Wide” or Reynolds® oven bags “Large”

Should you not be able to find such oven tubes, they can of course be ordered directly from us. If you take care of it, the balloon could be used more than 100 times. We recommend though to replace the balloon with a new one after a maximum of 50 uses, respectively after one week at the latest, due to taste reasons.

## The hot air generator (Volcano)

The hot air generator (Volcano) is maintenance-free and should only be wiped with a damp cloth when dirty. Do not use any harsh cleaning agents or scouring powder.



Do not attempt to open the Volcano! Without the special tools, any attempts to do so will cause damage to this product and invalidate the warranty.



Remove the plug from the socket before cleaning. Do not spray fluids into the ventilation slots! Should fluid penetrate into the product, allow sufficient time for it to dry out before use.

## TECHNICAL DATA

Important! Before startup make sure that the correct voltage is used! The voltage specified on the appliance must conform to the supply voltage.

Voltage:	220-240 V / 50 Hz or 110-120 V / 50-60 Hz
Heat Output:	125 W
Compressor Output:	6 W
Air Temperature:	Adjustable between approximately 130°C to 230°C.
Air Flow:	9 l/minute
Weight:	1650 grams (complete with cable, valve, mouthpiece and filling chamber)

Safety Category 1 Device

Please unplug to disconnect from the main current.

Subject to technical changes.

Patents: DE Pat. 198 03 376; US Pat. 6,513,524; further international patents pending.

## DECLARATION OF CONFORMITY



This device complies with the following EC Directives:

Low Voltage Directive 73/23/EWG

Electromagnetic Compatibility 89/336/EWG

# WARRANTY

## Warranty

We offer a three year warranty on this product. The warranty period begins with the date of purchase. During the warranty period we or an authorized repair shop will make good by repair or if necessary replacement, any defects in the appliance free of charge, where such defects occur under proper usage of this product in accordance with the directions given in this instruction booklet and arise solely from faulty design, materials or workmanship provided always that the defective product has been returned to Storz & Bickel or one of our authorized repair shops. Damage, or defects that occur due to improper handling or maintenance of this product are not covered under warranty. The foregoing shall constitute our sole liability under this warranty. There is no entitlement to any refund of the purchase price whether

## 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. 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,

in whole or in part and we shall not be liable under this warranty for any damage, direct or indirect caused by the product during usage or otherwise. This warranty does not affect or in any way limit your statutory rights. Wear parts are excluded from the warranty. Claims under this warranty will only be granted if the product, not disassembled, along with the sales slip or invoice stating the date of purchase and dealer's stamp is sent, well packaged either to us or one of our authorized repair shops.

## Repair Service

Our Customer Service Department or one of our authorized repair shops will repair faults not covered by the warranty or after said warranty has expired.

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.



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