



Operating instructions for SNB-25 cutting device

Please read thoroughly before using!

This H+B cutting device is for cutting stones with a height of up to 95 mm. It is used to uncover the inner beauty of the stone, to cut slices (anything from thin discs for key rings to larger slabs), or to divide the stone for the purpose of further processing.

The Motor is a 1/3PS 0,3kW 230V 50Hz one-phase alternating current motor for connection with a normal 220/230 volt power supply.

Please also read the warnings at the end of this manual.

Prior to assembly and start of operation:

The entire unit (with motor) must be screwed onto a base *. You may use an old table. If you want to keep the unit transportable, then use a thick board (for example, 35 cm wide and 58 cm long, 18-21mm thick), which should be moisture repellant due to veneer or lacquer. The device housing is designed with holes on both sides for the screws. Prior to screwing the device in place, the water drainage hose should first be put on the drain fitting. To do this, heat the hose in hot water, so that pushing it onto the drainage fitting is possible/easier. After cooling, the hose shrinks and stays firmly in place. Please ensure that the hose has a stopper. The device can now be screwed into place.

The V-pulleys on the motor and on the housing must be well aligned. You can use a long ruler or a straight slat and lay them on both V-pulleys (=guiding element) (4). If both V-pulleys across their length are in line with the slat, you have alignment.

Attach V-belts. ** After clamping or tightening the motor, the V-belt should still have a "tolerance" between 10 to 15 mm (5.6). This can be ascertained by pressing your thumb between the two v-belt pulleys.

The support rod (with internal threads on both ends) can now be attached to the housing for the V-belt cover: If the screws listed below are not pre-installed: Place the screws included in delivery (for the support rod, Fig. 7) in the intended hole from the inside of the housing toward the outer housing, and screw the support rod onto them until they are very firmly tightened. (7)

Then install the v-belt cover included in delivery (8, 9). – Also see: Inserting a saw blade. - The device, now mounted onto a board, can be fixed to a table with table clamps. For improved noise dampening, a layer of foam rubber, or similar material, can be inserted between the board and the table. After mounting the device, ensure that the cutting table is in a horizontal position.

The clamping rail

*) Attach the clamping rail to the motor (optionally available) (1.2). Then attach the motor with the clamping rail behind the unit (3) to the board or other surface (5).

Attaching the safety switch: Guide the switch with its cables from the motor to the right front corner of the board or table and fix it so that the red safety button protrudes beyond the edge of the board/table (this allows you to operate the switch without hindrance). See the last illustration of the picture instructions.

Inserting a saw blade: First remove the cutting table (= cover of the cutting tray with an opening for the saw blade) by loosening the fixing bolts at the top of the cutting table. The shaft (axel) is now exposed. Unscrew the nuts and remove both clamping flanges. The flanges and shaft must be very clean to ensure the straight positioning of the saw blade (with a machine that has been used, just a grain of dirt can cause the saw blade to produce an angled cut, i.e. "wobbling").

Now place one flange (with the slot facing right), followed by the saw blade (use caution) onto the shaft (on the smooth part of the shaft, not on the threads), taking care not to cause damage. Then, the second clamping flange is put in place (slot facing left). (This part should also be positioned on the smooth part of the shaft). Now tighten the nut by hand with the SW 22 flat key included in delivery. Do not over-tighten! While doing so, the shaft must be held in place with a SW 15 flat key, to prevent it from twisting. While directly facing the saw blade, it must run from up to down.

Before mounting to the cutting table (10, 11), turn the shaft slightly by hand (this requires the removal of the v-belt cover) and make sure the saw blade is running very straight. If you notice some latitudinal movement, this is normal. However, if the latitudinal movement of the saw blade when being turned by hand is too extreme ("wobbling"), loosen the nut again with the flat key and twist the saw blade on the shaft slightly, and then tighten the nut once again. It is important that the saw blade moves smoothly.

Now attach the spray guard behind and in front of the saw blade (12, 13).

Cooling fluid:

Only use coolants recommended by us

Now the trough can be filled with an appropriate cooling fluid until 5 mm to 1 cm of the saw blade is submersed in the fluid. More fluid is unnecessary, and will spray out. Ensure that enough cooling fluid is available for the stone. Now attach the cutting table to the device and ensure proper positioning, or that the saw blade is truly in the center for the slit and does not grind or come into contact anywhere.

Mounting the sawing table to a cooling trough: Fig. 10, 11. The device is manufactured so that the saw blade fits properly when mounted to a table. The saw blade is positioned precisely in the center of the table's slit. For safety reasons, ensure that this is the case.

Based on experience, packages are sometimes thrown during shipment or must withstand a fall from an automatic sorting device. Therefore the sawing table is delivered in an unassembled state.

The stone clamp has a transport safety screw in the upper center of the brass anti-friction bushing. Please do not remove this safety yet. Grasp the sawing table with both hands and slowly and carefully lower it onto the cooling trough with the slit above the saw blade. Now the transport safety can be removed and the stone clamp slid to the back. This exposes the front screw hole for fixing the table to the trough. The second hole is in back, to the right of the saw blade. Tighten the table in place using two countersunk screws (these are located in a small plastic bag, which is attached to the sawing table). Be sure that the saw blade is still positioned in the center of the saw table slit. The rubber seal on the cooling trough can sometimes make it difficult to find the corresponding bore hole. This requires using careful creativity (try using a nail, or toothpick).

Commissioning:

Now turn on the appliance by inserting the Schuko plug into the socket with dry hands and pressing the switch. If you hear a loud squeaking noise during initial commissioning, don't be alarmed. Proceed as follows: dismantle the saw table, put 1 drop of oil on the shaft where it rests against the black rubber seal.

Cutting the stone:

Now switch the device on by inserting the Schuko plug into the power supply with dry hands, and place the stone to be cut approximately 10 mm in front of the saw blade. The stone can be guided by hand without the stone clamp for very small stones which can be cut quickly and easily.

For larger stones (starting at approx. 50 mm), it is necessary to clamp the stones in the included and pre-installed stone clamp, so that the saw blade cannot be bent by unintentional hand movement. This could cause the lifespan of the saw blade to be reduced. Slowly guide the clamped stone toward the saw blade.

Allow the saw blade to "bite" the stone. Once the initial cut has been made, it becomes easier. Always guide the stone with steady and gentle pressure. You do not determine the cutting speed, the saw blade does. Irregular pressure causes uneven wear and therefore a non-circular saw blade. This has a visible result by causing uneven grooves on the cutting surface of the stone. These grooves are not serious, but they must be subsequently ground smooth with much effort. A clean cut requires less time for grinding.

You can grind a non-circular saw blade back into a circular shape yourself, by holding a piece of silicon carbide with the coarsest grain size against a running saw blade, similar to adjusting a grinding wheel (a grinding wheel with a grain size of 80 can also be used). Afterwards, use the saw blade to cut the cleaning/sharpening stone, to expose the diamond again.

Please remember/ Cleaning: Always have adequate cooling fluid in the trough. This can be determined by observing whether the fluid drips from the running saw blade. From time to time, the cooling fluid should be replaced and the trough cleaned. Stone dust accumulates and adheres to the floor of the trough during cutting. After a reasonable time, this must be removed so that the saw blade does not come into contact with the stone sludge. To do this, unscrew the cutting table and remove the saw blade. Point the drainage hose downward into a bucket or other receptacle and pull the stopper out of the hose. The fluid will drain and the sludge stays adhered to the floor of the trough. This can be removed with a spoon. It can also be rinsed with water, and drained. After cleaning the trough, new fluid can be added.

Warnings: Before cleaning, pull the plug out of the socket with dry hands. After cleaning or when using it again, only put the plug back into the socket with dry hands

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Disposal:

The device is long life. If the motor is defective, it can be replaced.
Disposal of electronic devices.

We hope you have a lot of fun working with this device!
Your H+B –Team

Warnings:

- Read the operating instructions carefully and observe all safety instructions!
- Check that the information on the label matches your power supply.
- The machine / equipment must not be exposed to the weather or stand in a damp room and must not stand/run with flammable liquids or gases.
- Do not install the machine and cable at heat sources (e.g. stove, heater).
- Remove the plug from the socket when the machine is not in use before
- Mount them on the machine and before cleaning.
- Do not leave the running machine unattended.
- If it smells burnt, unplug it immediately. Determine if the smell comes from this device or if it is due to the socket. Have it checked by a specialist (electrician).
- Do not use multiple sockets.

- Do not use extension cables.
- Plug into grounded socket only.
- Keep your workplace and the machine clean and dry
- Do not pull the machine by the cable, never unplug the plug from the socket by the cable.
- Never operate the machine if the electric cable or plug is damaged, the machine malfunctions, has been dropped or in any other way is damaged.
- We recommend a DI personal protection adapter plug, which switches off the current in fractions of milliseconds in the event of a short circuit, for example.
- Wear tight-fitting clothing. Remove loose clothing, ties, rings, bracelets or anything else
- Do not wear jewelry as it may get caught in the moving parts of the machine.
- Sturdy shoes with non-slip soles are required.
- A hair band or hair net is recommended for long hair.
- Use safety goggles. Note: Everyday glasses with non-impact resistant glass are not suitable as protective goggles.
- Wear an apron for dry clothes
- Wear hearing protection while cutting.
- Set up the machine so that it is upright, securely mounted and cannot tip over.
- Only use our quality diamond cutting discs.
- Do not cut dry.
- Do not modify the machine and only use it for the recommended objects, such as semi-precious stones.
- This machine is not suitable for construction work
- When inserting or removing the Schuko plug from the power supply, the hands must always be dry.
- Before connecting your machine to the power supply, check the (technical) information from your device and from the motor, and ensure that the connection to the power supply is possible / permissible.
- Do not cover the engine. The engine always needs air circulation.
- In case of unknown / disturbing noises that you cannot assign: Switch off the machine and use it again only after clarification.
- Use only suitable tools and do not make do with unsuitable or sharp aids. These could cause accidents or injuries.
- Use the machine out of the reach of pets.
- Do not allow minors, course participants or groups to work on the machine unsupervised

If it should ever be necessary to readjust the table, so that the saw blade is (once again) in the center of the slit, proceed as follows:

For firmly installed saw blades on loose saw tables (without both inserted bolts), insert an awl or thin screwdriver from above into the respective screw hole on the table and search (through the rubber) for the hole in the movable nut. Then also insert the awl (or the tool you previously used) through the seal into the hole. Using a hammer, you can tap the awl from the side and adjust the position of the nut (front and back) until the saw blade is again positioned in the center of the slit.

CE– Certificate Of Conformity



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SNB-25

saw-machine for gemstones, semi-precious-stones

with asynchronous single phase motor,

KW 0,3. 4 Poles V.230/50Hz, frame size 71.

65db

2014/30/EU on the approximation of the laws of Member States relating to electromagnetic compatibility.

2014/35/EU on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits.

2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment, RoHS

The machine is herewith declared to conform with the following guidelines

Machine guidelines 98/37/EWG, 2006/42/EU

Kirschweiler, 2018

Kitty Homberg, Owner

