

Mobilap grinding manual

In this document the Steps necessary for grinding a blade are described.
See also the Mobilap manual.

Step-1: Mounting the Lowerlamp en Upperclamp

Step-2: Install and poistion the template

Step-3: Install the blade

Step-4: Adjust the motor-unit

Step-5: Position the blade with respect to the template

Step-6: Grind the blade

Step-7: Next blade

Step-8: Dress the grinding stone

Hints for a good performance

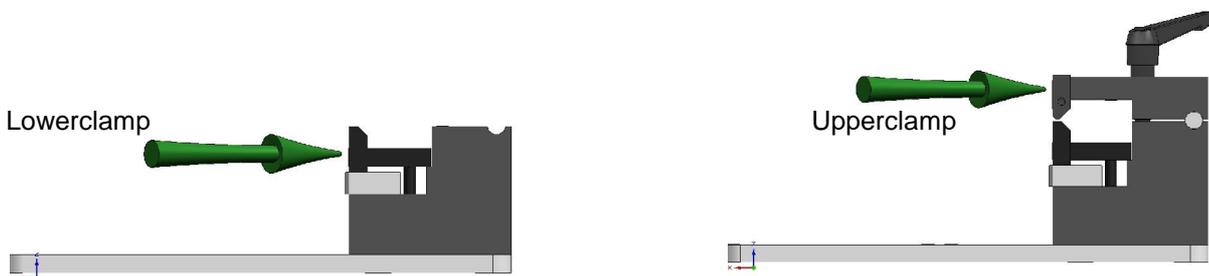
Remember

Never lift the motor while running.
Turn the motor "ON" only just before grinding.
Turn the motor "OFF" immediately after grinding.



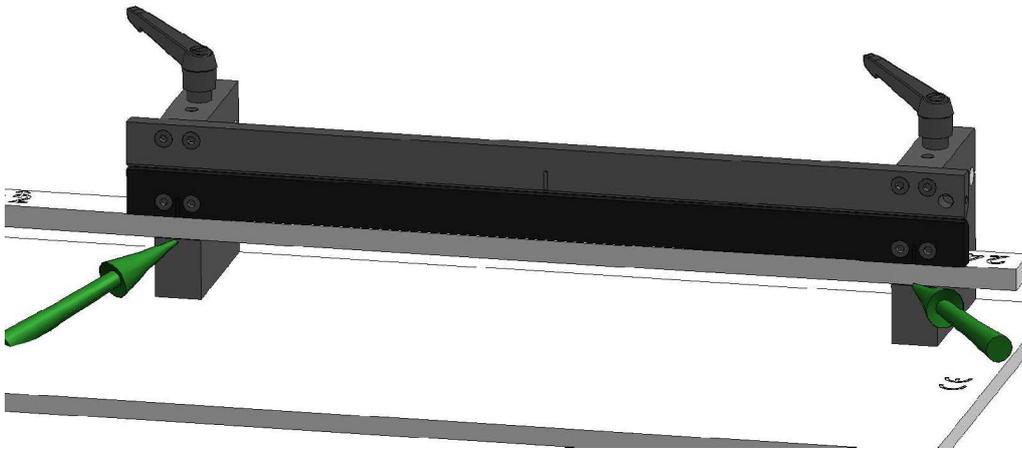
Step-1: Mounting the Lowerlamp en Upperclamp

Assemble the Lowerclamp with the two M6-screws and assemble the Upperclamp with the two handles.

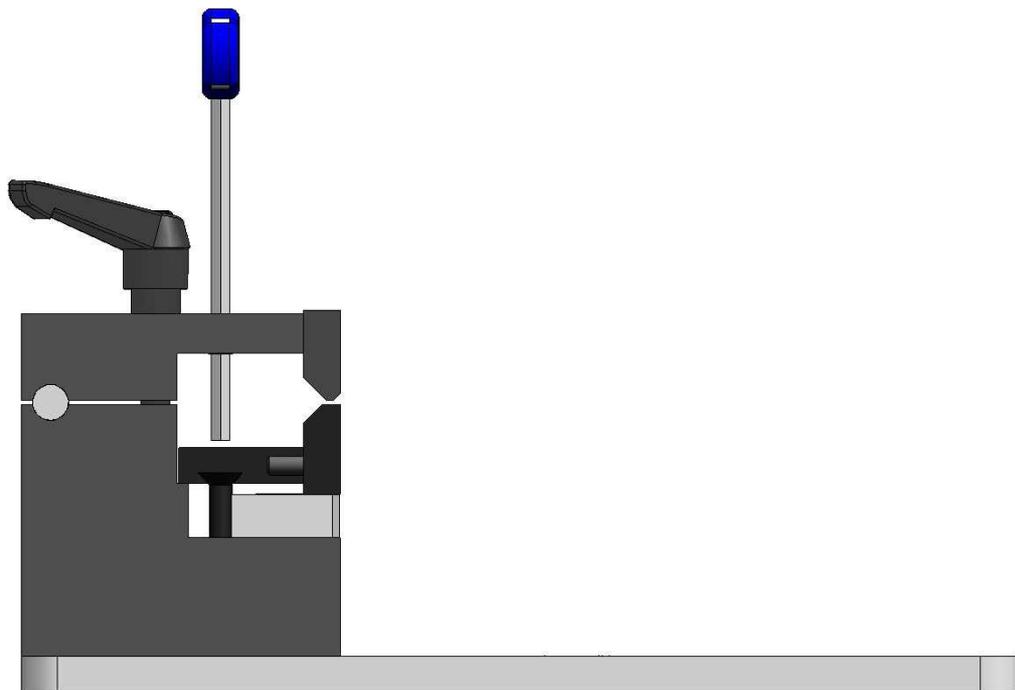


Step-2: Install and position the template

Install the template with the radius-number you want to use at the left.



At the left and right the front of the template should be flush with the front of the Lowerclampholder.

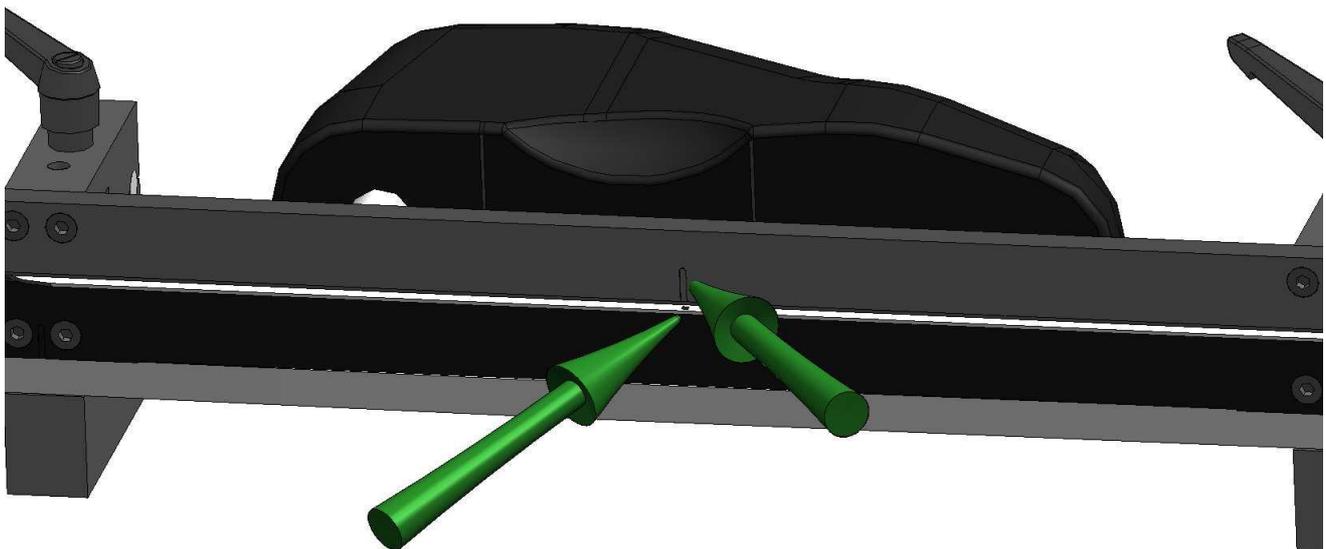
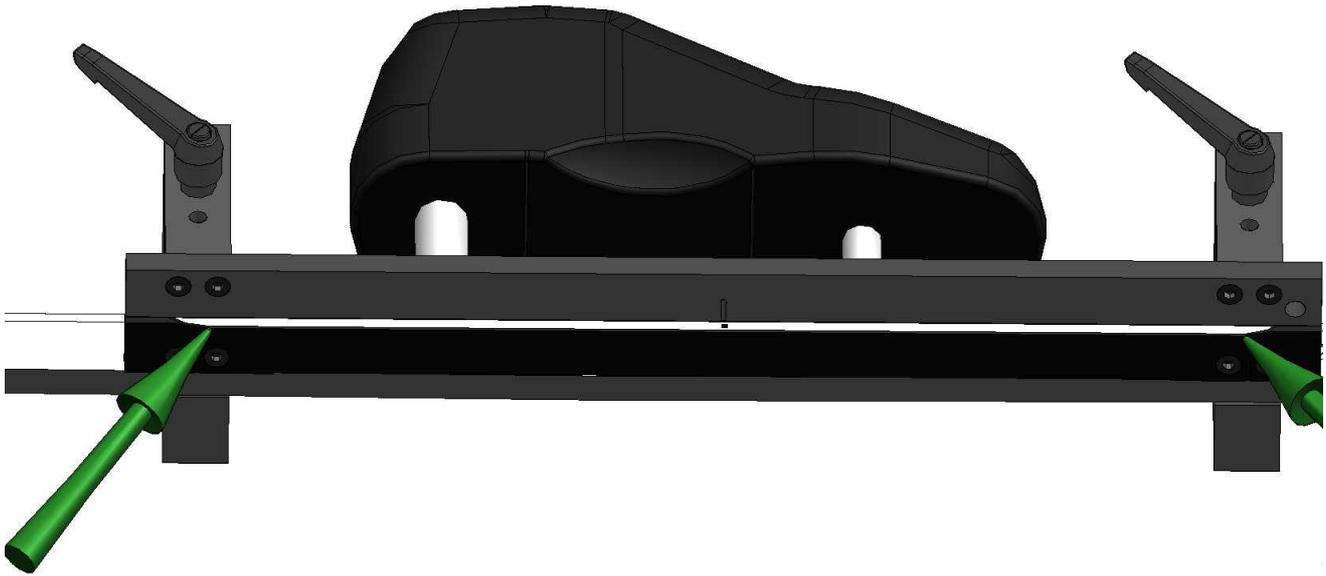


Fix the position of the template by fastening gently the M6-screws in the Template-clamp with the hexagonal key.

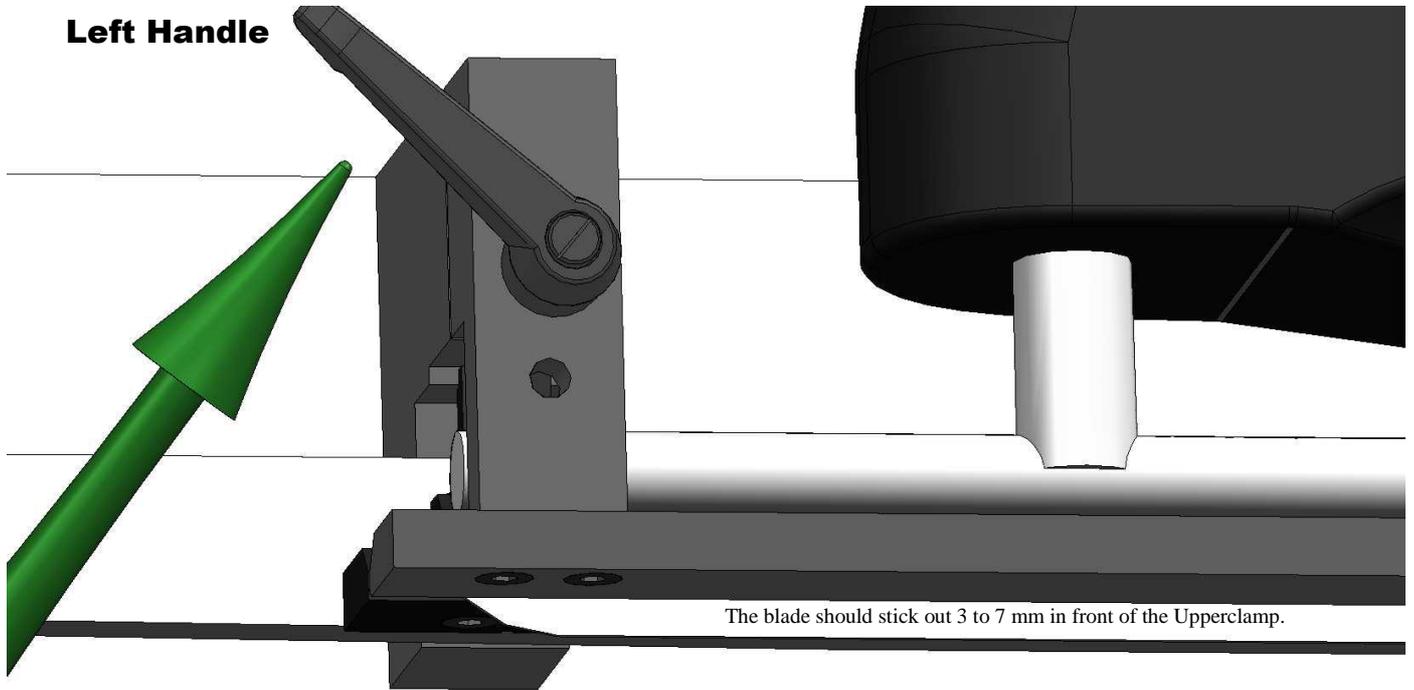
Step-3: Install the blade

First estimate the grinding length and mark the middle of the grinding length. Note: the grinding length is not the length of the blade but the distance between the position where the grinding starts and the position where the grinding ends.

Install the skate with the tip of the blade to the right.



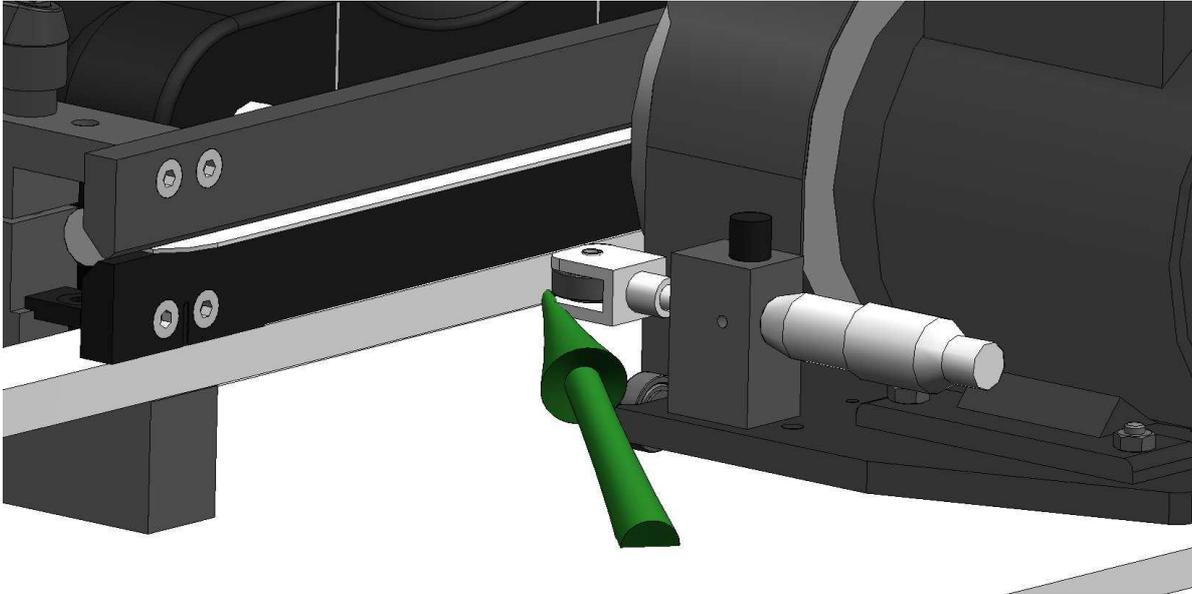
The mark on the middle of the blade (lower arrow) should coincide with the mark on the middle of the Upperclamp (upper arrow).



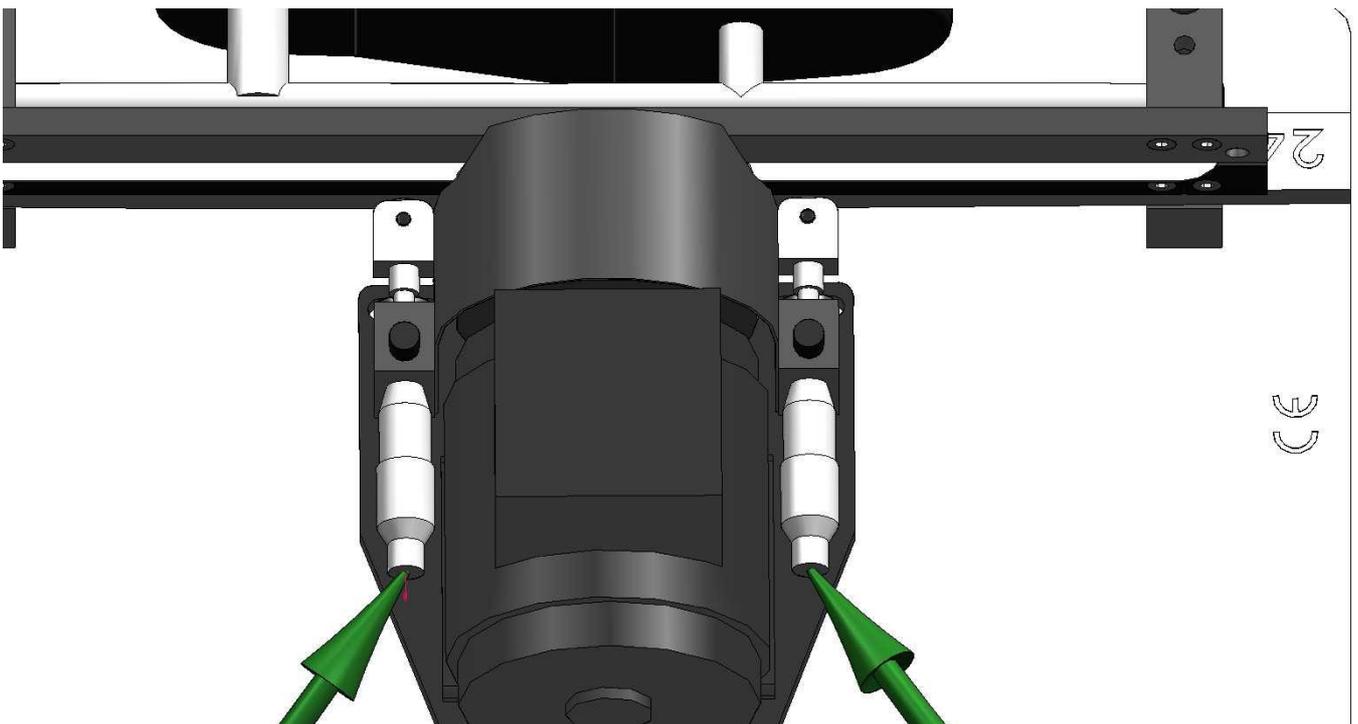
At the position of the mark the blade should stick out 3 to 7 mm in front of the Upperclamp
Gently fasten the handles at the left and the right.

Step-4: Adjust the motor-unit

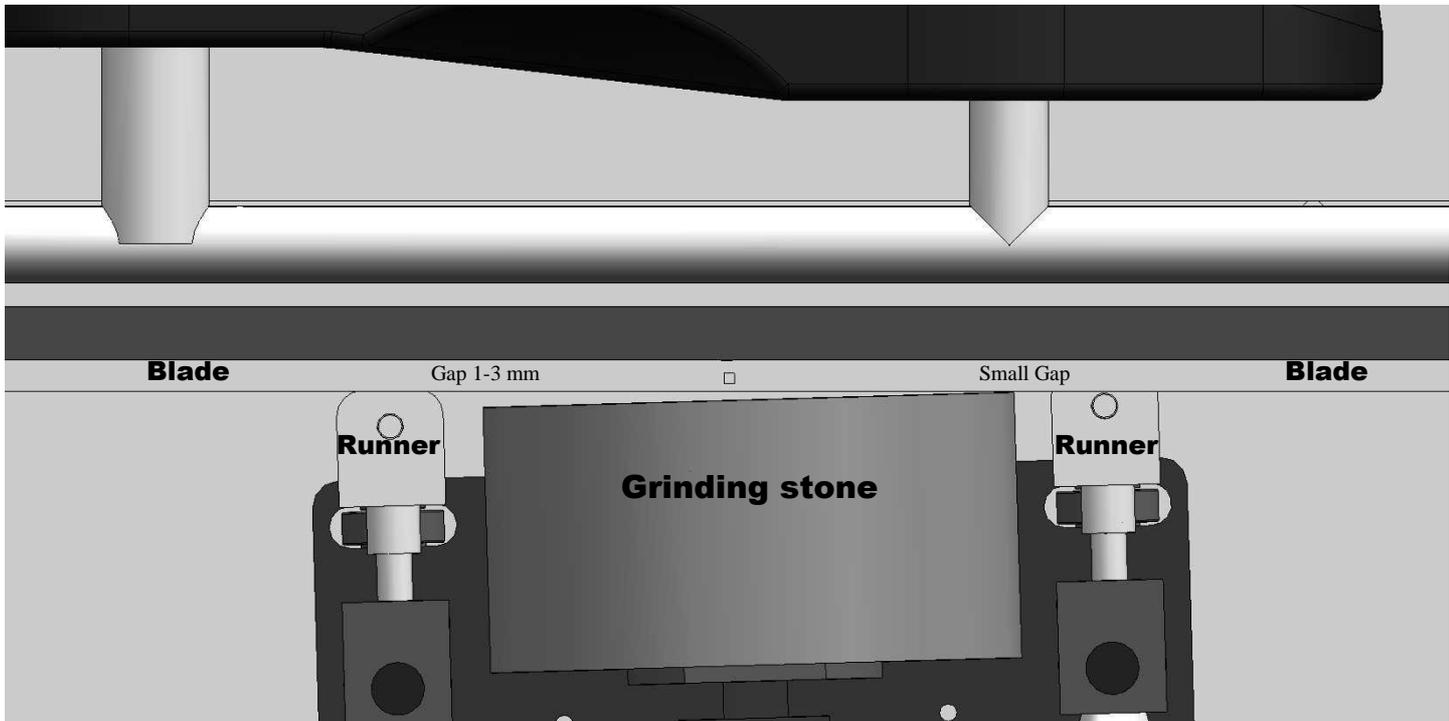
This action is only necessary once in a while.



Place the motor unit on the base-plate and make sure that the runner-bearings should be in contact with the template.



Adjust the gap between the grinding stone and the blade, using the pilots at the left and the right of the motor.



Gap between grinding stone and blade.

The gap should be large (1-3 mm) at the left side of stone and small at the right side (=grinding position).

Step-5: Position the blade with respect to the template, using the motor unit

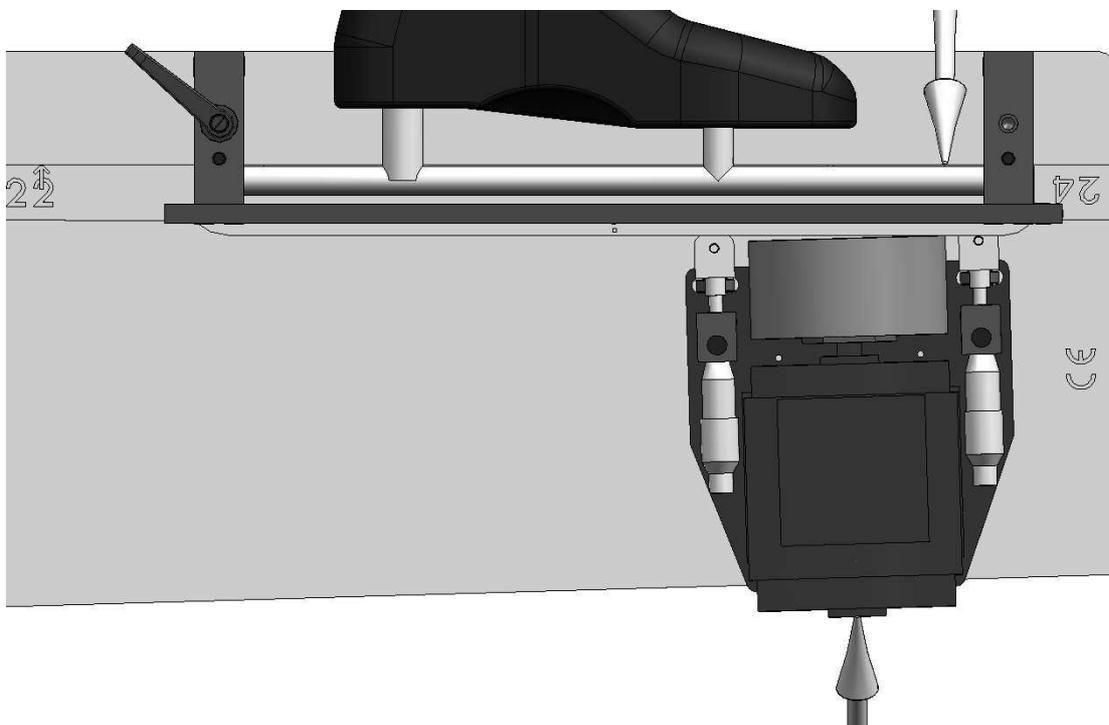
Loosen the right handle a little and position the Motor unit at the right.
Be sure that the runner-bearings are in contact with the template.

Position the tip of the blade

First check whether the left handle is fastened gently (this is the handle at the heel of the skate).

Note: the handle should not be fastened tight because the blade rotates a little, when positioning the tip of the blade.

Loosen the right handle a little.



Move the motor unit to the right side with the grinding position a few centimetre from the tip of the blade.
Make sure the two runner-bearings are in contact with the template by pushing the motor at the back with the left hand (indicated by the lower arrow).

Push the blade with the right hand (indicated with the upper arrow) against the grinding stone.

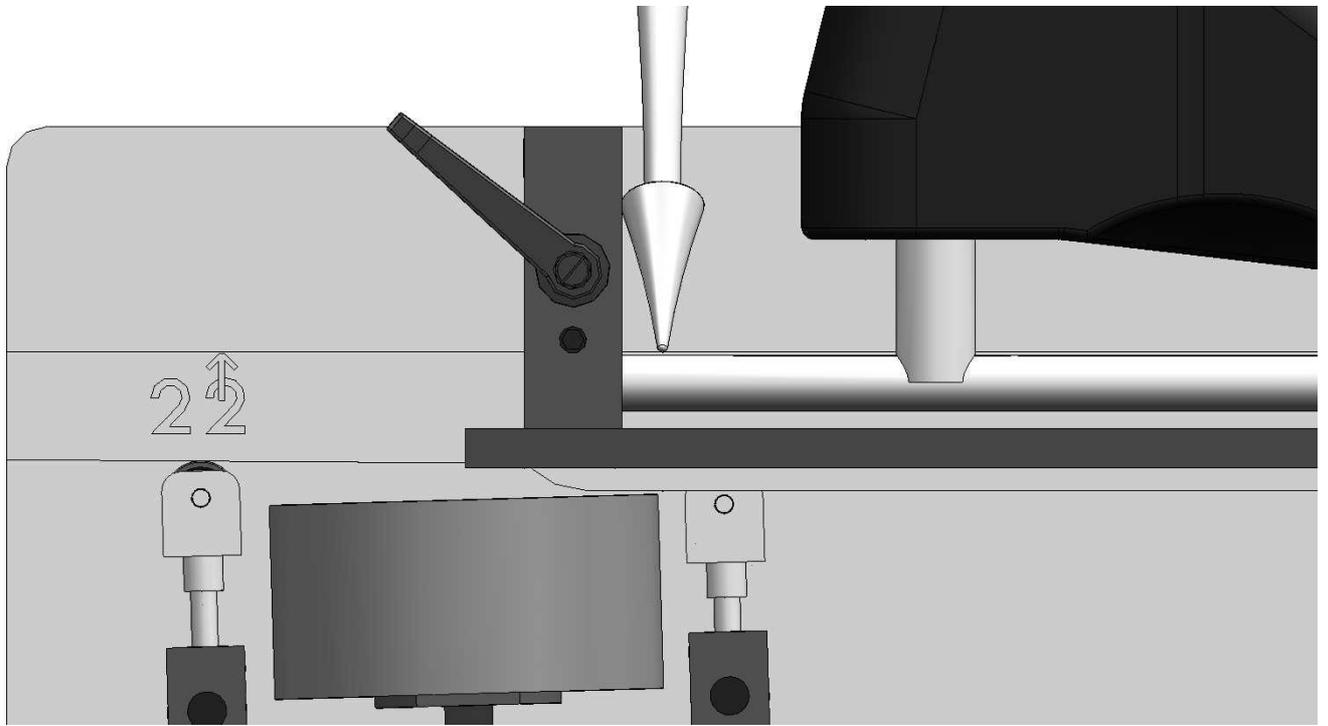
Fasten the right handle gently.

Position the heel of the blade

First check whether the right handle is fastened gently (this is the handle at the tip of the skate).

Note: the handle should not be fastened tight because the blade rotates a little, when positioning the heel of the blade.

Loosen the left handle a little.



Move the motor unit to the left side with the grinding position a few centimetre from the heel of the blade. Make sure the two runner-bearings are in contact with the template by pushing the motor at the back with the right hand).

Push the blade with the left hand (see arrow) against the grinding stone.

Fasten the right and left handle gently.

Check the result: the blade should just touch the grinding stone at the tip and the heel.

If not: repeat the procedure.

Fasten the left and right handles.

Step-6: Grind the blade

Preparation

Turn the right pilot a little bit clockwise while moving the motor a few times: from left to right to left to right. Repeat this procedure until the grinding stone does not touches the blade at any position.

Finally move the motor unit to the last left position.

Turn “ON” the motor

Grind the blade

Use the two pilots for moving the motor unit.

While turning the right pilot **counter clockwise**, move the motor from left to right to left to right etc.

The result is that the stone gradually starts grinding.

For increasing the grinding-length continue slowly turning the right pilot counter clockwise.

The blade is ready when the stone scarcely touches the blade over the whole length of the blade.

Note: for proper grinding the motor must be moved in about 8 seconds from one side to the other

Turn “OFF” the motor

Step-7: Next blade

Install the blade (Step-3) and proceed with Step-5.

Step-8: Dress the grinding stone

When the stone contains grinding dust, the cutting properties of the grinding material declines and the stone must be dressed.

Preparation

Do not remove the template.

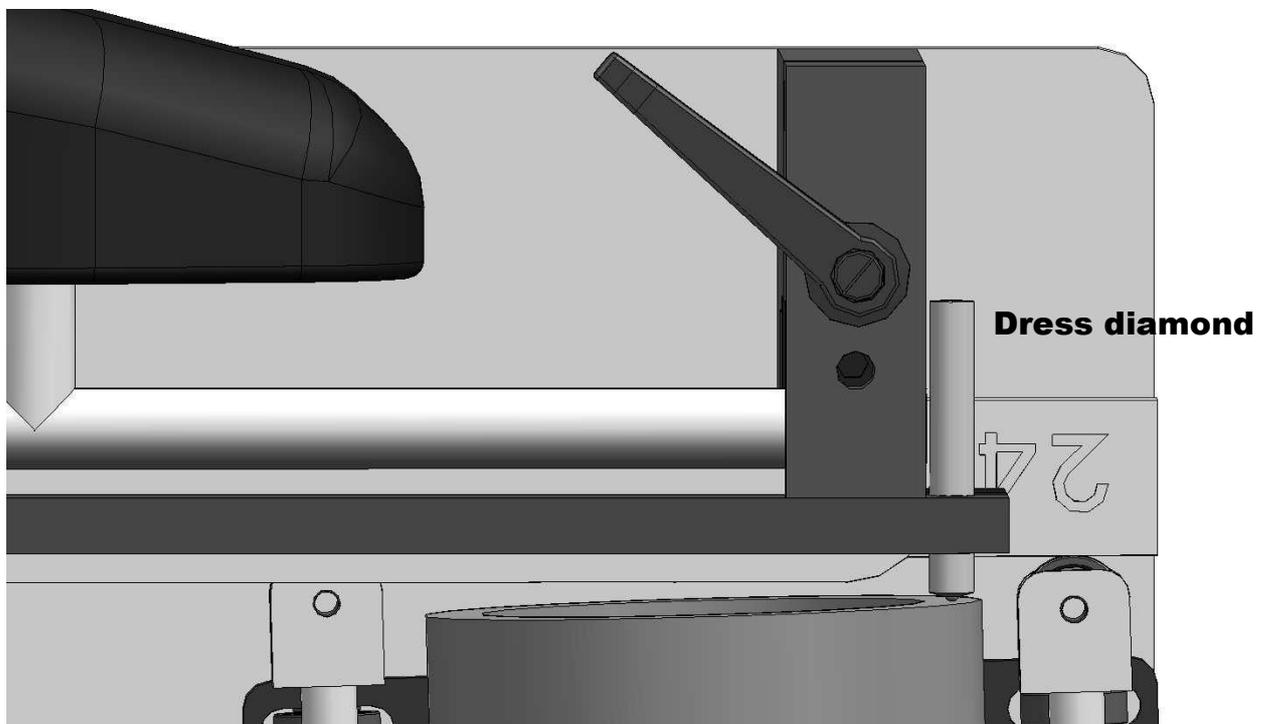
To prevent the stone from touching the blade, the blade should stick out 2 mm less than usual. Move the motor to the right so that the grinding position meets the 8mm hole at the right of the Upperclamp.

Make sure the two runner-bearings are in contact with the template by pushing the motor at the back with the left hand.

Insert the dress diamante in the 8 mm hole and press the tip against the grinding stone.

Lock the position of the dress diamond with the M5 set-screw at the face side of the Upperclamp.

Rotate the pilot (right) half a turn clockwise.



Turn on the motor

Dress

Slowly move grinding stone to and fro along the dress diamond.

While doing this, slowly turn the pilot counter clockwise, until the diamond touches the grinding stone.

Turn the motor "OFF" and check if the stone is "clean".

If not: turn the motor "ON" and, while moving the grinding stone, slowly turn the pilot counter clockwise.

Hints for a good performance

- Always put the tip of the skate to the right!
- Place the machine on a flat table.
- Mount the blade with the tip to the right.
- Tighten the clamp handles gently, just enough to clamp the blade.
- Use the pilot-grips to traverse the motor unit.
- Don't press on the topside of the motor.
- Move the motor unit in about 8 sec along the skate. "Feel" the bearings running over the template.
- Clean the running surfaces of template and base-plate after grinding.
- Dress the stone regularly.
- If grinding gives a shrieking sound, change the skewness of the grinding stone, by reducing the distance between the stone and the blade at the "left-runner".