

## Important instructions and warning notes:

1. *For your own safety, please read the operating manual before putting an appliance into operation.*
2. *Pay attention to the safety and work regulations of the employers mutual insurance association.*
3. *Provide good lighting, safety glass shields, eye protection and an effective extraction system at the workplace.*
4. *Check before starting up an electrical appliance if the mains voltage corresponds to the data on the type plate.*
5. *Remove the collet chuck and service tools before switching the device on.*
6. *Motor handpieces are intended exclusively for dry machining.*
7. *Check before using the motor handpiece if the tool is seated firmly and cannot be pulled out.*
8. *Use exclusively functional, certified tools (drill bits, milling bits, cutting disks, polishing tools, grinding tools, etc.) and observe the tool manufacturer's instructions for use, e.g. maximum permissible speed of rotation, and that the tools are clamped over their entire length.*
9. *Make sure that the motor handpiece does not start unintentionally or run on unsupervised.*
10. *Operate the motor handpiece only with a clamped tool or pin.*
11. *Do not turn the collet chuck lock while the handpiece is rotating.*
12. *Clean the collet chuck regularly according to the instructions (never blow compressed air into the motor handpiece).*
13. *Use only rotating tools that are intended for use in dental laboratories and with the corresponding materials.*
14. *Set the handpiece to the desired speed before applying it to the workpiece to be machined.*
15. *When working with rotary tools, avoid levering or applying excessive working pressure (risk of overheating or tool breakage).*
16. *It is essential to keep to the working speeds specified by the manufacturer.*
17. *Avoid overheating of the material that you are machining.*
18. *Place the motor handpiece in the handpiece holder after use. In this way you can protect the tools against breakage and yourself against injury.*
19. *Clean the rotary tools regularly in accordance with the manufacturer's recommendations.*
20. *Repair and maintenance work on the electrical part of the appliance may be carried out only by qualified technical personnel.*
21. *Electrical appliances may not be used in a damp or wet environment.*
22. *Appliances must be secured against unintentional use in case of defects or damage where safe operation is no longer ensured.*



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**WORK SAFETY**  
when using rotary tools



## Work Safety



# Instructions for use and notes on safety when using rotary tools in the dental laboratory

Their daily use involves a lot of risks and hazards. The measures listed below will help to avoid accidents, support you in your daily work and prolong the service lives of your drilling and grinding tools.

## Inspection:

Inspect all rotary instruments on a regular basis, ideally using a magnifying glass with 10x magnification, and use them only if they are in perfect working order.



Chuck damaged or dirty.  
The tool slips.



Test the concentricity  
by rolling on  
a level surface.



Gearing damaged.



Elimination  
of instruments  
with imbalance.

## Typical errors when using rotary tools:

The maximum speed specified by the manufacturer must not be exceeded. The correct working pressure prolongs the service life of rotary tools and optimises the grinding performance.



**Breakout  
on a sintered diamond wheel**  
Cause: jamming,  
incorrect setting down,  
negligent care.



**Tool shaft bent**  
Cause: tool not inserted deep enough  
into the collet chuck,  
speed too high.  
**Caution: risk of injury!**



**Diamond wheel  
broken**  
Cause: incorrect setting down  
of the motor handpiece  
on the workbench,  
working without handpiece holder.



**Polishing tool  
broken**  
Cause: incorrect setting down of the  
motor handpiece on the workbench,  
working without handpiece holder.



**Milling bit broken**  
Cause: motor handpiece  
fell down.



**Milling bit not held firmly enough  
in the collet chuck**  
Cause: milling bit was not inserted  
deep enough into the collet chuck.



**Chuck cleaning**  
Regular cleaning of the collet chuck  
with a small brush prolongs  
the service life of the collet chuck  
and the motor handpiece.



**Chuck cleaning**  
Regular cleaning of the collet chuck  
with a small brush helps  
to prevent accidents.

## Inspection and care of motor handpieces

The service lives of your motor handpieces and tools are prolonged by the following measures:

- Service your motor handpieces on a weekly basis. Above all, the collet chuck must be removed and cleaned regularly.
- Dirty collet chucks close inadequately and the tools used cannot be clamped along their full length as is necessary (see photo).
- When working, the tools „wander“ out of the collet chuck, can break or are flung in an uncontrolled manner through the room.
- Check the functionality of the collet chuck and always close it using a tool or a protection pin.



Milling bit is not inserted deep enough into the collet chuck.  
**Caution: risk of injury!**



Milling bit correctly clamped.

