

INSTRUCTION OF USE DENTAL ROTARY TOOLS AND SAFETY CONDITIONS ver 3.0 of 11.01.2022:

Dental rotary tools for preparing, finishing and polishing enamel and composites:

All rotary tools need to be use accordingly with instruction keeping standard work conditions like:

- rotation speed
- contact force
- mounting centricity
- use of appropriate materials for cleaning and disinfection

and physical conditions like:

- cutting speed
- strength tool for bending and torsion
- working temperature
- vibration characteristic

1.)TERMS OF USE:

- you need to use only efficient tools like FG, RA and HP
- you need to install rotary tool according to instructions for hand pieces
- you need to install rotary tool as axially as it`s possible
- you need to check recommended RPM value for tool and if this RPM value is impossible to obtain, you need to change the tool
- we recommend to use protecting glasses during work

2.)RECOMMENDED ROTATION SPEED (RPM):

- every tool need to be use following table below
- maximum rotation speed is determined not only with physically parameters but also with force of vibrations. That`s why we recommend to not cross maximum RPM value. Exceeding of recommended speed can destroy hand piece and cause major damage.

BASIC RULES:

- large-diameter tools require less rotation speed
- long tools require less contact force

Rotation speed (RPM)					
RA and HP grip	Max rotation speed	recommended rotation speed	FG grip	Max rotation speed	recommended rotation speed
ISO ø 1/10 mm	turn/min	turn /min	ISO ø 1/10 mm	turn/min	turn/min
010 -021	120.000	25.000 -75.000	008-010	450.000	100.000-220.000
023 -045	60.000	17.000- 40.000	012-014	450.000	70.000-220.000
050-060	50.000	14.000- 30.000	016-018	450.000	55.000-160.000
080-100	40.000	10.000-20.000	021-023	300.000	40.000-120.000
120-160	24.000	6.000-11.000	025-027	160.000	35.000-110.000
180-220	12.000	5.000-9.000	029-031	140.000	30.000-95.000
			033-040	120.000	25.000-75.000
			042-050	95.000	15.000-60.000

3.)RECOMMENDED CONTACT FORCE:

- contact force max. 0,3-2N
- if you use recommended contact force, tools will stay in as same shape as at the beginning and you won't damage bearings in hand piece

4.)COOLING AT WORK:

- cooling with water spray is required according the law. It concerns all tools with RA and FG shank
- cooling helps to avoid overheating in teeth and tools
- follow this instruction helps you to extend the life of tools and prevent to generating side-effects

5.)STERILIZATIONS AND CLEANING:

- you should disinfect, clean and remove all pollution from tools` surface before you start to work with. This action you should repeat after each use
- then you should put rotary tools in ultrasonic cleaner. You can repeat this action if you need to.
- after cleaning, you should carefully dry tools to avoid rust
- sterilize rotary tools in following conditions:
maximal sterilization temperature is 134°C/273,2°F
time of sterilization is min. 20 minutes in temp. 121°C/250°F or 5 minutes in temp. 134°C/273,2°F
maximum 10 sterilization cycles

6.)PRODUCT LIFE:

Decreases of following:

- loss in diamond powder
 - nickel layer
- Or any deformations qualified products to eliminated from use.

7.)DAMAGED TOOL ELIMINATION:

- don't use tools with distorted shank (possible vibrations or major damage)
- don't use tools with corrosion signs
- don't use tools which are not sharp enough

8.)HOW TO STORE IT:

- rotary tools need to be stored in dry place. Avoid direct sunlight. After remove from the original package you need to avoid contaminations and mechanical damages