

INSTRUCTIONS FOR USE

Medical devices according to MDD 93/42/EC

All instruments are developed and designed for a specific application. Improper use can lead to tissue injuries, premature wear, destruction of the instruments and danger to the user, the patient or a third party.

Rotary instruments for medical applications may only be employed by dentists or by other persons who are familiar with the use of such instruments as a result of their education or training and their particular experience.

Proper application

- Care must be taken that only technically and hygienically serviced and cleaned turbines, hand pieces and contra-angles are employed.
- Insert instruments as deeply into the chuck as possible.
- Before placing the instruments on the object, be sure that the desired speed has been reached.
- Avoid tilting or leveraging because of an increased danger of breakage.
- Depending on the particular application, the use of protective goggles may be recommended.
- Users must avoid handling the instruments without wearing protective gloves.
- Improper application leads to poor working results and increases the risk of injury.

Recommended speed

- Failure to observe the recommended speed may lead to increased safety risk.
- When exceeding the maximum recommended speed, long and pointed instruments tend to vibrate, which may lead to damage to the instrument and the handpiece.
- Strong centrifugal forces can appear when using tools with a head diameter larger than the shank diameter leading to bending of the shank and/or to the breaking of the instrument. The maximum recommended speed should by no means be exceeded.

Contact pressure

Avoid excessive contact pressure since this may damage blades when using cutting instruments. At the same time increased heat may be experienced.

- Excessive contact pressure in grinding instruments leads to excessive wear and/or to an excessive generation of heat damaging the dental pulp.
- Excessive contact pressure may result in fractured blades and undesirably rough surfaces. The breakage of an instrument is possible.

Cooling

- In order to avoid the undesirable development of heat, it is necessary to cool sufficiently using an air/water spray (with a minimum of 50 ml/min).
- For FG instruments, with a total length of over 19 mm or a head diameter of over 1.8 mm, additional external cooling is necessary.
- Insufficient water cooling can lead to irreversible damage of the tooth and the surrounding tissues.

Discarding of tools

- Fractured and irregular blades lead to vibrations. High contact pressure leads to fracturing of the preparation edges and to rough surfaces.
- Worn surfaces on diamond instruments can be an indication for a blunt instrument. This leads to excessive heat and results in damage to the dental pulp.
- Bent or worn instruments, or instruments which do not run smoothly, must be discarded immediately.
- Instruments need to be sterilized before disposal and disposed of according to clinical procedures.

Cleaning and hygiene

For disinfection and sterilization, care must be taken that the selected procedure is suitable for the respective instrument.

- Before using a tool on a patient for the first time, and immediately after each use, rotaries must be disinfected, cleaned and sterilized. We recommend storing them in the original package at room temperature, free from dust and moisture until their first use.
- Rotaries should be stored in hygienically-serviced stands, bowls or in other suitable containers.
- All packaged instruments are non-sterile and must therefore be sterilized before use on the patient. The sterilization is to be carried out using a validated process. Cleaning and sterilization of the instruments according to non-suitable procedures may lead to an infection in the patient involving dangerous pathogens.
- We recommend using disinfectants and cleaning agents with corrosion prevention for instruments which are not corrosion-resistant.
- All suitable materials must be sterilized in an autoclave with damp heat according to EN ISO 17665-1 (we recommend 134°C at 2.2 bar pressure for a minimum of 5 min).
- Contact with H₂O₂ (hydrogen peroxide) must be avoided since this will cause damage to carbide components.
- Felts are for single use only and cannot be sterilized but must be disinfected prior to use and disposed of after use.

- Avoid temperatures over 180°C. Exceeding this temperature leads to a reduction in the lifetime of the instrument.
- Carbide rotary instruments and instruments which are not corrosion-resistant corrode in the thermoisinfector. This leads to discolorations and a reduced lifetime.
- We recommend wearing suitable protective gloves when handling contaminated instruments.
- All parts must be cleaned and disinfected sufficiently prior to sterilization. In the event of manual cleaning, blood and tissue parts must be removed from the instruments using a suitable brush.
- Please refer to the instructions for use of the manufacturers of disinfectants and cleaning agents for specific instruments regarding handling, duration and suitability.

Storage

- Store instruments in a dry place.
- Protect instruments from sunlight, heat and dust.

POLISHERS/BRUSHES/FELTS

Instructions for use

- To minimize the development of heat, only polish using gentle, intermittent pressure.
- Always polish in circular movements.
- To achieve highshine, and when using a multi-stage polishing system we recommend using all stages successively.
- Felts cannot be sterilized and are consequently only for single use.
- Polishers and brushes are to be cleaned with suitable disinfectants and cleansers.

Disinfection and cleaning

- Brushes and polishers must be treated differently from other rotary instruments. Brushes and polishers are damaged by classical chemical cleaning solutions, they become soft, swell and may detach from the shank.
- Use only disinfectants and cleaners which are suitable for polishers. Be sure to use the prescribed concentration when mixing the fluids.

Thermoisinfector

- The thermoisinfector is suitable neither for brushes nor polishers, nor for other rotaries! The instruments may undergo corrosion and suffer damage.

Sterilization

- Polishers can be sterilized in the autoclave. The sterilization in a chemiclave sterilizer or using hot air however may lead to permanent damage.
- Felts cannot be sterilized.

ENDODONTIC INSTRUMENTS

Instructions for use

- Use instruments sequentially from smaller to larger.
- We recommend not to skip a size.
- Larger sizes are not suitable for canals with greater curvatures (danger of breakage and perforation).
- Carefully examine instruments after every treatment for wear and deformation.
- Protect patients from aspiration. Secure instruments using a rubber dam, chain or thread (in case of manual instruments).
- Regular removal of dentine debris prevents its accumulation; regularly rinse with 2.5 % NaOCl solution after each application.
- Instruments used for working on highly curved canals should be exchanged after each application.

Electronic instructions for use are available at www.diaswiss.ch.

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(manual instruments CE)



DIASWISS S.A.
Rte de St Cergue 293
CH-1260 Nyon
Switzerland

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