

## Safety Instructions

All our instruments are carefully developed and manufactured for their respective tasks. Improper usage may endanger the user and the patient and possibly also third parties, and may damage or destroy the instrument or the hand piece.

### Precautions before use:

1. Make sure that only technically and hygienically flawless hand and right angle pieces are used.
2. Please clamp in the shaft of the instrument as deeply as possible. Instruments that are loose or protrude too far may detach or break and cause injury.
3. Please select the speed so that the maximum permissible can not be exceeded (see «Maximum RPM»). Exceeding the maximum speed increases the safety risk, reduces the quality of work and generates heat.
4. Ensure sufficient air / water cooling (at least 50 ml / min).
5. Do not continue using blunt or damaged instruments! Please check the instruments before each use! In diamond tools, danger signals include bare spots on the working piece, warped instruments that cause vibrations at start-up and changes of the original shape. Carbide cutting tools show damaged and deformed blades or breaks.
6. Please bring the instrument to working speed outside the mouth or before contact with the work piece, respectively. If any vibrations occur, the instrument is warped and therefore may not be used anymore!
7. For a stuck instrument, please stop turbine, remove instrument carefully without tilting and check for damage before inserting it again.
8. Long instruments are not suitable for curved canals because of the risk of breakage!
9. Please follow the instructions of the hand piece manufacturer!

**Failure to comply with the safety advice may lead to damage to teeth and surrounding tissue or to the work piece, and may pose a danger to user, patient and third parties.**

### Maximum r.p.m.

Diamant-Schleifinstrumente DIAMOND INSTRUMENTS INSTRUMENTS DIAMANTES INSTRUMENTOS DIAMANTADOS			Sinter-Diamanten SINTERED DIAMONDS DIAMANTS FRITTES DIAMANTADOS SINTERIZADOS		Hartmetall-Instrumente TUNGSTEN CARBIDE INSTRUMENTS INSTRUMENTS EN CARBURE DE TUNGSTENE INSTRUMENTOS DE CARBURO DE TUNGSTENO		
ISO Ø [ $\frac{1}{10}$ mm]	- FG, W, RA, CA - [UPM - RPM - TPM]	- H, HP, PM - [UPM - RPM - TPM]	ISO Ø [ $\frac{1}{10}$ mm]	- H, HP, PM - FG - [UPM - RPM - TPM]	ISO Ø [ $\frac{1}{10}$ mm]	- FG - W, RA, CA - [UPM - RPM - TPM]	- H, HP, PM - [UPM - RPM - TPM]
007-014	450 000	250 000			003-027	200 000	50 000
016-023	300 000	120 000	016-070	25 000	031	120 000	50 000
025-045	120 000	80 000			040	70 000	50 000
047-065	80 000	60 000			045	65 000	50 000
066-093	60 000	40 000			050	60 000	40 000
100-127		30 000	080-220	15 000	060	50 000	35 000
130-300		25 000			070	30 000	30 000
450		20 000					

➔ **The optimal r.p.m recommended by HORICO is approximately 50% of the maximum permissible velocity!**

## Reprocessing Instructions

(In compliance with Robert-Koch-Institute (RKI), recommendation of the commission on hospital hygiene and infection prevention dated 10.4.2006 „Infektionsprävention in der Zahnheilkunde Anforderungen an die Hygiene“)

The following instructions are valid, if not mentioned otherwise, for all offered Horico separating strips, diamond and tungsten carbide instruments.

### Processing of new instruments

New instruments are not packed sterile and have to be disinfected and sterilized before use, according to the following instructions.

### Processing of used instruments

According to the RKI's recommendations separating strips, diamond and tungsten carbide instruments are to be classified as semi-critical B and after every use they need 1. cleaning, 2. disinfection and 3. sterilization. Besides they should be 4. release and 5. storage should be done appropriately.

During the processing protective gloves should be used.

### 1. Cleaning

Manually: Rinse instruments under running water. Remove any tissue with the help of a brush or a cleaning stone DIACLEAN (use only for abrasive diamond instruments). Rinse instruments under running water again. Examine instruments with magnifier and repeat brushing and rinsing if necessary.

### 2. Chemical disinfection

All strips, tungsten carbide and diamond instruments can be disinfected chemically in a disinfection bath. Use disinfectants with a corrosion protection only and apply the manufacturer's specified contact times and concentrations.

Diamond and tungsten carbide instruments can also be cleaned with a disinfection solution in ultrasonic baths (max. 45°C), if appropriate holding devices are used, which prevent heads from touching surrounding material, to avoid damage.

After disinfection all instruments have to be rinsed with distilled water and be dried thoroughly, e.g. with compressed air.

We do not recommend the use of cleaning and disinfection machines or chemo-thermal disinfection machines!

### Control

Before sterilization all instruments have to be checked for cleanliness and proper functioning, best with a magnifying glass or microscope. Outworn, bent or damaged instruments have to be sorted out. If necessary, repeat the cleaning and disinfection cycle.

### 3. Sterilization

All instruments, which had contact to a mucous membrane, blood or other tissues in the mouth, have to be sterilized after disinfection. Put instruments into suitable trays or posts and then into an autoclave. Use the adequate program to sterilize instruments at 134°C / 2.1 bar pressure and an exposure time of 5 minutes.

Tungsten carbide instruments shall not be exposed to hydrogen peroxide, sodium hypochlorite or strong acids.

At steel posts galvanical erosion might be found in an autoclave. This may cause flash rust on the stainless steel shanks of the instruments. To avoid flash rust please check all clamps and the interior of the autoclave regularly for rust.

Our instruments are not suitable for a chemiclave or hot air sterilization.

Please follow the instructions of the manufacturers!

## Reprocessing of surgical instruments

All our instruments, which are used in surgical interventions, have to be prepared like any other surgical instrument. The processing has to be done by educated personally. For storage a sterile packaging is stipulated. For more details please ask the respective authorities responsible for hygiene.

## 4. Release

If you work with a QM-system, the preparation has to be documented and instruments have to be released for use or re-restore.

## 5. Storage

Please store all packed instruments clean, dry and at room temperature. Please store used instruments so that the risk of contamination by humans and other instruments is excluded. Before use, repeat the cleaning and sterilization cycle.

The manufacturer has validated that the instructions for preparation of a machine listed above are suitable for its reuse. It is the responsibility of the person concerned with processing to ensure that the actual, completed reprocessing with the equipment, material and personnel in the reprocessing facility used achieves the required results. Generally, validation and routine monitoring of the procedure are required for this so that the recommended guidelines of the appropriate bodies (e.g. Robert-Koch Institute) are maintained.

Deviations from the instructions provided by the person concerned with processing should be carefully evaluated for their effectiveness and possible adverse consequences.

## Contact to manufacturer:

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