

## Warnings

Each and every precision instrument manufactured by Micerium for use in dental surgeries is produced and monitored with the utmost care by highly-skilled technicians. In order to guarantee the maximum efficiency and service life of these instruments, it is necessary to use them with care and solely for the purpose for which they are designed.

Special care must be taken when cleaning and sterilizing the instruments:

- Only specific products should be used; any chemical-based products must be used in the recommended concentrations and according to the manufacturer's instructions.
- Temperatures must not exceed 175°C – 347°F

It is important to underline that certain types of damage (corrosion, rust spots and similar) may be caused to the instrument by simple contact. Failure to observe these fundamental rules may result in irreparable damage to the instrument and would render null and void any warranty and/or claim against Micerium. **Important:** The instruments are supplied UNSTERILIZED, and must be inspected, cleaned and sterilized before use. After using the instrument, it must be inspected for corrosion, rust spots, broken, loose or bent parts, wear of the blade edge or other damage. Any instrument which is not in perfect condition must immediately be removed from service and conserved separately. Disposable instruments must never under any circumstances be sterilized and re-utilized, but must be removed from service and separated immediately after use.

## Cleaning and maintenance (ISO 17664)

Brief recommendations concerning the cleaning and sterilization of our instruments, which are supplied UNSTERILIZED, and must always be washed and sterilized before use.

The instruments used must be rinsed under hot running water immediately after use, and any organic residue must be carefully removed. The instruments must be cleaned immediately after rinsing. If this is not possible, they must be immersed in a solution of water and a neutral pH detergent. The instruments may be cleaned using a washing machine, by immersion in an ultrasonic tank, or by hand. The following general guidelines should be followed:

### Cleaning in a washing machine

Follow the manufacturer's instructions. Ensure that hinged and jointed instruments are correctly lubricated before the sterilization cycle.

### Cleaning in an ultrasonic tank

Immerse the instruments completely in the washing solution and observe the times recommended by the manufacturer (generally 5 – 10 minutes).

Ensure that instruments featuring hinges or joints are placed in the open position in the tank. Instruments with blades – scissors, scalpels, curettes etc. – must never be placed in contact with each other or other instruments. Instruments made of different metals should not be washed together. Do not use the washing solution for too many washing cycles. Follow the manufacturer's instructions and replace the solution frequently. At the end of the washing cycle, eliminate any washing solution residue by rinsing thoroughly under running water.

## Manual cleaning

If it is not possible to clean the instruments in a washing machine or ultrasonic tank – which are the strongly recommended methods – the instruments may be washed by hand. In this case:

- Use brushes in rigid nylon, plastic or similar.
- Never use metal brushes or steel wool.
- Always use neutral pH detergents.
- Brush the instruments carefully and, where possible, rinse, clean and sterilize them separately.

Ensure that the entire surface is completely clean. Rinse the instruments under running water after brushing. Open and close hinged or jointed instruments while rinsing in order to ensure that the hinged sections, too, are perfectly clean.

When the instruments are perfectly clean and rinsed, they must be carefully dried.

All hinged or jointed instruments must be lubricated using lubricants designed specifically for surgical instruments. Never use household or industrial oils and lubricants.

Check the condition of each instrument and that it functions correctly.

Only now can the instruments proceed to the sterilization phase, which may be carried out either in batches or individually.

### **Sterilization in autoclave**

Autoclave can work with steam and also with gas. Minimum 3 minutes at 134°C.

**HIGH-TEMPERATURE STERILIZATION IN BATCHES:**The instruments are placed in the special trays and/or baskets and placed in the autoclave. All hinged or jointed instruments must be introduced in the open position. (A closed instrument will never be sterile, since the steam cannot penetrate between the parts in contact)

**HIGH-TEMPERATURE STERILIZATION OF INDIVIDUAL INSTRUMENTS:** The instruments are placed individually in special disposable bags. Hinged or jointed instruments must be introduced into the bags in the open position.

### **Cold sterilization:**

The instruments are sterilized by immersion in a sterilization solution (not sodium hypochlorite) for a specific period of time as specified by the manufacturer of the solution. The manufacturer's instructions must be followed carefully.

### **Guarantee**

- *The stainless steel we use respect the DIN 1.4021 (x20 Cr13)*
- *The range of hardness our stainless steel, where required, is between 48-52 Rockwell- (According to DIN ISO 9001 – DIN 58298 Rockwell Hardness Standards)*
- *The quantities of impurities included on the stainless steel are as from the Standard Characteristics.*
- *Our instruments are manufactured according to UNI CEI EN ISO 13485 Medical Devices,*
- *Our instruments are covered by guarantee against corrosion, oxidation and fractures caused by defects of manufacture for 5 (five) years. This guarantee do not cover logically every improper use*
- *Test of corrosion made by us; Boiling in distilled water for 1 hour and drying in air. This 2 or 3 times. After it we control with optical instrument. The only acceptable result of this test is the absolute absence of rust.*



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