Cleaning and Sterilization for Burs, accessories and filling material

FOR DENTAL USE ONLY

CLEANING AND STERILIZATION PROCEDURE FOR BURS, ACCESSORIES AND FILLING MATERIAL

1) FOREWORD
For hygiene and sanitary safety purposes, all devices must be cleaned, disinfected and sterilized before each usage to prevent any contamination. This concerns the first use as well as the subsequent ones.

Devices which are marked as “sterile” do not require any specific treatment before the first use, but have to follow this procedure for all subsequent use if not labelled as “single use”.

2) AREA OF APPLICATION
Disinfection and sterilisation before each use (except for the first use of sterile instruments) and reprocessing procedures concerning:

DESINFECTION and STERILIZATION
A. Device
A1. Burs:
Tungsten carbide burs, carbon steel Burs and Diamond Burs.
A2. Accessories:
Supports, kits, instrument organisers and other accessories.

DESINFECTION ONLY
B. Filling material: Only chemical disinfection (no sterilisation) Gutta percha and Obturators.
3) **GENERAL RECOMMENDATION**

1) Use only a disinfecting solution which is approved for its efficacy (VAH/DGHM-listing, CE marking, FDA approval) and in accordance with the DFU of the disinfecting solution manufacturer. For all metal instruments, it is recommended to use anticorrosion disinfecting and cleaning agents.

2) For your own safety, please wear personal protective equipment (gloves, glasses, mask).

3) The user is responsible for the sterilization or disinfection of the product for the first cycle and each further usage as well as for the usage of damaged or dirty instruments where applicable after sterilization.

4) It is safest for the practitioner to use our instruments only once. Should our instruments be reused, we recommend to always carefully inspect them before use: the appearance of defects such as cracks, deformations (bent, unwound), corrosion, loss of color coding or marking, are indications that the devices are not able to fulfil the intended use with the required safety level and must therefore be discarded.

5) Single use marked devices are not approved for re-use.

6) The water quality has to be convenient to the local regulations especially for the last rinsing step or with a washer-disinfector.

7) Tungsten carbide burs and plastic supports are degraded by Hydrogen Peroxide (\(\text{H}_2\text{O}_2\)) solution.

8) Do not use acid (\(\text{pH} < 6\)) or alkaline (\(\text{pH} > 8\)) solutions with aluminium devices. These types of devices are degraded in presence of caustic soda solutions with mercury salt.

9) The washer-disinfector is not recommended for devices made of aluminium, tungsten carbide or carbon steel.
## 4) STEP-BY-STEP INSTRUCTIONS

### A. Devices

<table>
<thead>
<tr>
<th>Operation</th>
<th>Operating mode</th>
<th>Warning</th>
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<tbody>
<tr>
<td>1. Disassembling</td>
<td>- Disassemble the device, if required.</td>
<td>None</td>
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<tr>
<td>2. Pre-Disinfection</td>
<td>- Soak all instruments immediately after use in a detergent and disinfecting solution combined with proteolytic enzyme if possible.</td>
<td>- Follow instructions and observe concentrations and immersion times given by the manufacturer (an excessive concentration may cause corrosion or others defects on instruments). - The disinfecting solution should be aldehyde free (to avoid blood impurities fixation) and without di- or triethanolamines as corrosion inhibitor. - Do not use disinfecting solutions containing Phenol or any products which are not compatible with the instruments (see general recommendations). - For visible impurities observed on instruments a pre-cleaning is recommended by brushing them manually with soft material.</td>
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<tr>
<td>3. Rinsing</td>
<td>- Abundant rinsing (at least 1 min).</td>
<td>- Use quality water in accordance with local regulations.</td>
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<tr>
<td>4a. Automated Cleaning with washer-disinfector</td>
<td>- Place the devices in a kit, support or container to avoid any contact between instruments - Put them in the washer-disinfector (Ao value &gt; 3000 or, at least 5 min at 90 °C).</td>
<td>- Discard any instruments with large obvious defects (broken, bent). - Avoid any contact between instruments when placing in the washer-disinfector use kits, supports or container. - Follow instructions and observe concentrations given by the manufacturer (see also general recommendations). - Use only approved washer-disinfector according to EN ISO 15883, maintain and calibrate it regularly.</td>
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<tr>
<td>4b. Manual Cleaning and assisted by an ultrasonic device</td>
<td>- Place the devices in a kit, support or container to avoid any contact between instruments. - Immerse in the disinfecting solution with cleaning properties, assisted by an ultrasonic device if suitable.</td>
<td>- No visible impurities should be observed on the instruments. - Discard any instruments with large obvious defects (broken, bent, and twisted). - Follow instructions and observe concentrations and time given by the manufacturer (see also general recommendations). - The disinfecting solution should be aldehyde free and without di- or triethanolamines as corrosion inhibitor.</td>
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<tr>
<td>5. Rinsing</td>
<td>- Abundant rinsing (at least 1 min).</td>
<td>- Use quality water in accordance with local regulations. - If a disinfecting solution contains a corrosion inhibitor, it is recommended to rinse the instruments just before the autoclaving. - Dry on a single use non-weaved cloth, or with a drying machine or filtered compressed air.</td>
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<tr>
<td>6. Inspection</td>
<td>- Inspect devices and sort out those with defects. - Assemble the devices (stops).</td>
<td>- Dirty instruments must be cleaned and disinfected again. - Discard instruments which show any defect as described in the General Recommendation above. - Protect carbon steel bur with corrosion inhibitor before packaging.</td>
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<td>Packaging</td>
<td>Sterilization</td>
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<td>7</td>
<td>- Place the devices in a kit, support or container to avoid any contact between instruments and pack the devices in “Sterilisation pouches”.</td>
<td>- Avoid any contact between instruments during sterilization. Use kits, supports or containers.</td>
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<td>- Avoid any contact between instruments during sterilization. Use kits, supports or containers.</td>
<td>- Check the validity period of the pouch given by the manufacturer to determine the shelf life.</td>
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<td>- Use packaging which are resistant up to a temperature of 141°C (286°F) and in accordance with EN ISO 11607.</td>
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<tr>
<td>8</td>
<td>- Avoid any contact between instruments during sterilization. Use kits, supports or containers.</td>
<td>- The instruments, posts and the plastic supports must be sterilized according to the packaging labelling.</td>
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<td>- Check the validity period of the pouch given by the manufacturer to determine the shelf life.</td>
<td>- Use only autoclaves that are matching the requirements of EN 13060, EN 285.</td>
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<td>- Use packaging which are resistant up to a temperature of 141°C (286°F) and in accordance with EN ISO 11607.</td>
<td>- Use a validated sterilisation procedure according ISO 17665.</td>
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<td>- Respect the maintenance procedure of the autoclave device given by the manufacturer.</td>
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<td>- Use only this recommended sterilization procedure.</td>
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<td>- Control the efficiency (packaging integrity, no humidity, colour change of sterilisation indicators, physico-chemical integrators, digital records of cycles parameters).</td>
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<td>- Traceability of procedure records.</td>
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<td>9</td>
<td>- Keep devices in sterilization packaging in a dry and clean environment.</td>
<td>- Sterility cannot be guaranteed if packaging is open, damaged or wet.</td>
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<td>- Sterility cannot be guaranteed if packaging is open, damaged or wet.</td>
<td>- Check the packaging and the medical devices before using them (packaging integrity, no humidity and validity period).</td>
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### B. Filling material

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<tr>
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<tr>
<td>1. Disinfection</td>
<td>- Immerse the obturation devices in NaOCl (2.5 % at least) during 5 min. at ambient temperature.</td>
<td>- Do not use disinfecting solutions containing Phenol or any products which are not compatible with the treated filling material. (See general recommendation).</td>
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