### Micro Compass Saw MSS 5000, REF 5040nou

#### Safety measures
- The Micro Saw is delivered in non sterile condition. Clean, disinfect, and sterilize the Micro Saw before the first application and immediately after each use!
- Operate the Micro Saw with a maximum speed of 15,000 rpm.
- Attach the Micro Saw to the motor only when it's standing still.
- Perform manipulations on the instrument only when the motor is at a standstill!
- Any guarantees on our part or other claims against us become void in the case of inappropriate use of the electronic motor or failure to comply with our instructions!
- Without a saw blade clamped, the Micro Saw should not be stored with the tensioning mechanism tightened.
- The instrument may only be used by competent and trained personnel.

#### Intended use / indication
The saws are intended for bone surgery. This includes ENT surgery, maxillofacial surgery, plastic surgery, neurosurgery and hand surgery. With the bone saw and clamped saw blade (standalone medical device), a piece of bone is removed to correct misalignments. In dental facilities, this is used in jaw osteotomy to create the jawbone. The saws may only be operated by expert and trained personnel. The intended use is obvious to the trained user.

#### Contraindication / Limitations
Relative or absolute contra indications arise from the general medical diagnose, or in special cases by a significantly increased risk to the patient through the use of motor-driven systems. Relevant cases in the literature must be taken into consideration.

#### Symbols
- **LOT number**
- **Manufacturer**
- **Suitable for thermal disinfection**
- **CE symbol with notified body**
- **Serial number**
- **Observe instructions for use**
- **Do not reuse**

### Technical data, Electronic motor 21

<table>
<thead>
<tr>
<th>REF 5040nou</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weight</strong></td>
</tr>
<tr>
<td><strong>Max. torque</strong></td>
</tr>
<tr>
<td><strong>Max. speed</strong></td>
</tr>
<tr>
<td><strong>Transmission ratio</strong></td>
</tr>
<tr>
<td><strong>Coping to motor</strong></td>
</tr>
<tr>
<td><strong>Saw blade shank</strong></td>
</tr>
<tr>
<td><strong>Saw blade thickness</strong></td>
</tr>
</tbody>
</table>

#### Operation

1. Remove the saw blade from the collet and replace if necessary.
2. Align grooves at handpiece with twist protection and connect handpiece with electronic motor by pressing the button. Check for proper seating.
3. Align groove at handpiece with the twist protection lock and connect handpiece with electronic motor.
4. Continue opening the nut with your fingers.
5. Press the button and decouple handpiece from electronic motor.

#### Possible combinations
- Micro Compass Saw MSS 5000, REF 5040nou
- The saws are intended for bone-working surgery. This includes ENT surgery, maxillofacial surgery, plastic surgery, neurosurgery and hand surgery. With the bone saw and clamped saw blade (standalone medical device), a piece of bone is removed to correct misalignments. In dental facilities, this is used in jaw osteotomy to create the jawbone. The saws may only be operated by expert and trained personnel. The intended use is obvious to the trained user.

#### Reprocessing instructions

<table>
<thead>
<tr>
<th>Reprocessing restrictions</th>
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</thead>
<tbody>
<tr>
<td>Frequent reprocessing has only a limited impact on the handpiece. The end of the products service life is normally determined by wear and damage through use. The instrument is designed for 250 sterilization cycles.</td>
</tr>
</tbody>
</table>

#### General handling
1. The saw blade must be thoroughly cleaned, disinfected and sterilized before initial operation (products straight from the factory) and also immediately following each use. Only a cleaned and disinfected instrument permits proper sterilization!
2. The electronic motor should always be treated with utmost care when being transported, cleaned, serviced and stored.
3. We recommend the use of mild alkaline and enzymatic cleaners with a low content of surfactant as possible in order to avoid staining (eliciting the instruments).
4. The use of products from DGHM-/VAH-listed agents may be used for cleaning and disinfection. See these agent manufacturers’ specifications for the method of use, action time and suitability of disinfection and cleaning substances.
5. Adhere exactly to the operating instructions of the devices and chemicals/agents, used during preparation.
6. Adhere exactly to the chemical dosages, action times and exposure temperatures during cleaning and disinfection.
7. The end of the product service life is determined by wear and damage through use. The micro saw is designed for 250 sterilization cycles.
8. Do not overload washer. Avoid rinsing blind spots. Pay attention to secure storage in the machine.
9. Follow the applicable regulations in your country for reprocessing medical devices.
10. Only the cooling clip may be cleaned in an ultrasonic bath. The micro saw must never be subjected to ultrasonic cleaning! This will impair the functionality.
11. NOVAG AG recommends using a screen basket with a rinsing strip from 3mach (NOUVAG REF 51401), a re-usable container for comfortable preparation at the point of use. The screen basket is suitable for use with sterilisation paper or a rigid sterilisation container. It has no barrier effect itself in order to maintain sterility.

#### Ambient conditions

<table>
<thead>
<tr>
<th>Relative humidity</th>
<th>Max. 90 %</th>
<th>Max. 80 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>0 – 60°C</td>
<td>10 – 30°C</td>
</tr>
<tr>
<td>Atmospheric pressure</td>
<td>700 – 1060 hPa</td>
<td>800 – 1060 hPa</td>
</tr>
</tbody>
</table>

#### Attention
In relation to patients with CreutzfeldtJakob disease or its variant (vCJD) no responsibility can be assumed for re-use of the micro saw. The Swiss Radical Institute recommends removing used products from circulation after use in order to avoid infecting other patients, users and third parties.

#### Preparation at the point of use
After surgery immediately remove blood, secretion, tissue and bone residue with a disposable cloth/paper towel, do not allow to dry! Dried residues cause corrosion.

#### Safekeeping and transport
Contaminated products must be stored and transported to the preparation site in a closed container to avoid damaging the products and the contamination of the environment.

#### Cleaning and disinfection, pre-cleaning
1. Remove saw blade, cooling tube, clips for the cooling tube attachment and cooling clip from the micro saw handpiece.
2. Do not reuse.

#### Sterilisation
- Only the cooling clip may be cleaned in an ultrasonic bath. The micro saw must never be subjected to ultrasonic cleaning! This will impair the functionality.

#### Operating instructions
Cleaning
Mechanical cleaning
1. After pre-cleaning place the micro saw and its accessories in the strainer basket.
2. Mechanical cleaning is only successful if the pre-cleaning described, above, is adhered to.
3. Cleaning is done using the Vario TD programme in the cleaning and disinfection unit (CDU). For the cleaning process it is advisable to use DI water (fully desalinated water).
4. After completing the cleaning programme (inc. Thermal disinfection) check the micro saw, the nut and the cooling clip for visible contamination in grommets and pores. Repeat the cleaning cycle, if necessary.

Automatic cleaning process (Vario TD programme)
1. Pre-clean with cold water for 5 minutes at 40°C with 0.5 % alkaline or at 60°C with 0.5 % enzymatic cleaner.
2. Sterilise with DI water for at least 15 minutes, or at 60°C with 0.5 % alkaline cleaner.
3. Neutralise with DI water for 5 minutes.
4. Dry with suitable compressed air in accordance with the RKI recommendation. Pay particular attention to the drying of hard-to-access areas.

Disinfection
Mechanical disinfection
The cleaning/disinfection unit has a thermal disinfection programme which follows after the cleaning. When performing mechanical thermal disinfection, give due consideration to the national requirements relating to the Azo value (see DIN EN ISO 15889-3). We recommend an Azo value of 0.01 for this disinfection process. Disinfection must be carried out with DI water.

Drying
Mechanical drying
Dry the micro saw using the cleaning/disinfection unit’s (CDU) drying cycle. If required, manual drying can also be achieved by using a lint-free cloth. When drying manually, take particular care with the grommets and gaps of the instrument. Then spray the instrument again with NouClean spray.

Manual drying
Set up the micro saw in an upright position without the nut and the cooling clip attached. Dry the instrument for at least 5 minutes. Then spray it with NouClean spray.

Manual cleaning and disinfection
1. Immerses the micro saw handpiece after pre-cleaning for 5 minutes in a bath with enzymatic cleaner (for example 2 % ID 212, Dürr Dental). Clean accessories such as e.g. the cooling clip and the nut for 15 minutes in an ultrasonic bath (40°C).
2. Perform a complete post clean of the product under running drinking water, using a soft brush. Intensively rinse, if there are any cavities and lumina existing, with a water pressure gauge (air pressure) for at least 30 seconds.
3. To remove the detergent, rinse the products under running city water (drinking quality) for at least 30 seconds.
4. After spraying the saw handpiece, re-install the cooling clip on the saw handpiece and screw the union nut back on securely.

Sterilisation
Sterilisation of the micro saw handpiece is performed with a fractional pre-vacuum steam sterilisation technique (in accordance with DIN EN ISO 17665-1) giving due consideration to the respective national requirements.

- 1. After pre-cleaning place the micro saw handpiece into the CDU’s preparation basket.
- 2. First unscrew the union nut and remove the cooling clip.
- 3. Clean for 5 minutes at 55°C with 0.5 % alkaline or at 60°C with 0.5 % enzymatic cleaner.
- 4. Neutralise with DI water for 5 minutes.
- 5. Holding time: At least 5 minutes (full cycle).
- 6. Drying: At least 30 minutes (max. 60 minutes).
- 7. Inter-rinse for 2 minutes with cold water.
- 8. Fill the autoclave.

Storage
The sterile product must be stored away from dust, humidity and contamination. During storage, direct sunlight should be avoided. After the expiry date has passed, the product may not be used any longer.

Information for validating the preparation
The above preparation process has been verified by a validated procedure. The following materials and machines were used:

- 1. Atelica cleaner: Needo®/Medicein, Chemische Fabrik Dr. Weigert GmbH & Co. KG
- 2. Enzymatic cleaner: Needo®/Medicein, Chemische Fabrik Dr. Weigert GmbH & Co. KG
- 3. Cleaning and disinfection unit: Miele G 7836 CD
- 4. Rack tray: Möwe Easy
- 5. Sterilizer basket: flash basket; 2 x 330 (NOUVAG REF 5400)
- 6. Autoclave: Selectomat 666-HP (MMM)
- 7. Sterile packaging: Sterisheet 100; Broemeda Amcor Flexibles GmbH & Co. KG
- 8. Chemicals and machines other than those mentioned can also be used. In such a case consult the manufacturers or suppliers to find out whether the respective sterilisation process is validated.

Note
If you should opt for a different procedure for reprocessing to the one given above, you are required to correspondingly establish the suitability of the process. When performing other sterilisation procedures, please provide documentation on the suitability or effectiveness of the sterilisation procedure, etc. Users bear full responsibility if they use a procedure which differs from the validated sterilisation procedure described!

Attention
Please also comply with the applicable legislation in your country and the medical practice or hospital’s hygiene rules. This especially applies to the disinfection and disinfection of the micro saw handpiece.

Accessories and spare parts
<table>
<thead>
<tr>
<th>Saw blades</th>
<th>Cutting depth</th>
<th>Form/Field</th>
<th>PU*</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 mm RH 1</td>
<td>1</td>
<td>5126nou</td>
<td></td>
</tr>
<tr>
<td>6 mm straight</td>
<td>6</td>
<td>5040nou</td>
<td></td>
</tr>
<tr>
<td>14 mm straight</td>
<td>6</td>
<td>5040nou</td>
<td></td>
</tr>
<tr>
<td>18 mm straight</td>
<td>6</td>
<td>5040nou</td>
<td></td>
</tr>
<tr>
<td>21 mm straight</td>
<td>6</td>
<td>5040nou</td>
<td></td>
</tr>
<tr>
<td>24 mm straight</td>
<td>6</td>
<td>5040nou</td>
<td></td>
</tr>
<tr>
<td>26 mm straight</td>
<td>6</td>
<td>5040nou</td>
<td></td>
</tr>
<tr>
<td>28 mm round</td>
<td>6</td>
<td>5150nou</td>
<td></td>
</tr>
<tr>
<td>30 mm round</td>
<td>6</td>
<td>5150nou</td>
<td></td>
</tr>
<tr>
<td>31 mm round</td>
<td>6</td>
<td>5150nou</td>
<td></td>
</tr>
</tbody>
</table>

A full list of all Nouvag-authorised service points worldwide can be found on our Website, under: www.nouvag.com/service/service provider

Troubleshooting
Problem
cause
Solution
Saw blade is not moving regularly
Saw blade is not correctly clamped
Clamp saw blade correctly and tighten nut with the end wrench.

Automated cutting process (Vario TD programme)
1. Pre-clean with cold water for 5 minutes at 40°C with 0.5 % alkaline or at 60°C with 0.5 % enzymatic cleaner.
2. Sterilise with DI water for at least 15 minutes, or at 60°C with 0.5 % alkaline cleaner.
3. Neutralise with cold water for 5 minutes.
4. Dry for 5 minutes with cold water.
5. Empty
6. Inter-rinse for 2 minutes with cold water.
7. Dry.

Material handling
Set up the micro saw in an upright position without the nut and the cooling clip attached. Dry the instrument for at least 5 minutes. Then spray it with NouClean spray.

Disposal
When disposing of instruments, local laws must be observed. When disposing of instruments with household waste. Observe the national regulations for the disposal of infectious waste.

Manufacturer and Service points
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