Safety measures

- We deliver an unsterile Contra Angle. Clean, disinfect, and sterilize the Contra Angle before the first application and immediately after each use!
- Do not clean the Contra Angle with compressed air!
- The Contra Angles may be applied with max. 50,000 rpm!
- Do not operate the Contra Angle while the motor is running!
- Do not attempt to open the chuck while the motor is running!
- The instrument may be operated by qualified personnel only!
- Improper use or repair, or failure to observe these instructions, relieve us from any obligation arising from warranty provisions or other claims.

Symbols

Conform to EU standards
Autoclavable at 135°C
Suitable for thermal disinfection
Date of expiry
Manufacturer
Observe instruction for use
Serial number
Order number

Technical Data

<table>
<thead>
<tr>
<th>Transmission (Ref.)</th>
<th>1 : 1 (5051)</th>
<th>2 : 1 (5109)</th>
<th>16 : 1 (5200)</th>
<th>20 : 1 (5053)</th>
<th>32 : 1 (5201)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coupling standard</td>
<td>ISO 3964</td>
<td>ISO 3964</td>
<td>ISO 3964</td>
<td>ISO 3964</td>
<td>ISO 3964</td>
</tr>
<tr>
<td>Shank-Ø in mm</td>
<td>2.35</td>
<td>2.35</td>
<td>2.35</td>
<td>2.35</td>
<td>2.35</td>
</tr>
<tr>
<td>Speed range in rpm.</td>
<td>300 – 50,000</td>
<td>150 – 25,000</td>
<td>20 – 2800</td>
<td>15 – 2100</td>
<td>10 – 1200</td>
</tr>
<tr>
<td>Max. torque in Ncm</td>
<td>6</td>
<td>12</td>
<td>27</td>
<td>70</td>
<td>55</td>
</tr>
<tr>
<td>Weight in g</td>
<td>63</td>
<td>63</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Cooling, internal/external</td>
<td>*/•</td>
<td>*/•</td>
<td>*/•</td>
<td>*/•</td>
<td>*/•</td>
</tr>
</tbody>
</table>

Operation

External cooling:
A. Connect the open end of the irrigation tube set with the cooling pipe of the Contra Angle.
B. Attach white clip to the tube set.
C. Attach white clip with tube set to the Contra Angle.
D. Connect the electronic motor with the Contra Angle.
E. Attach grey clip (optional, ref. 1873) to the tube set.
F. Attach grey clip with tube set to the cable of the motor
G. Ready to use drill unit with attached external cooling system.

Internal/external cooling:
A. Attach open end of the tube set (ref. 1706) to the single out branch of the Y-connector (optional, ref. 1777).
B. Connect a 16 cm piece of tube (optional, ref. 1773) to each of the branching tubes of the Y-connector.
C. Connect one of the 16 cm pieces of tube, that branch out of the Y-connector, with the internal cooling tube of the contra angle (delivered together with the contra angle, ref. 39116).
D. Connect the second piece of tube that branches out of the Y-connector with the external cooling pipe of the contra angle (welded on laterally to the contra angle head).
E. Both 16 cm pieces of tube are now connected to the cooling system of the contra angle.
F. Secure a white tube clips (included with the contra angle, ref. 1881) to each of the short tube pieces.
G. Secure tube clips to the contra angle.
H. Contra angle with attached tube clips.
I. Fix a grey clip (optional, ref. 1873) to the tube set leading to the Y-connector.
J. Fix tube set with the grey clip to the motor cable.
K. Motor cable with ready attached tube set to the motor cable. Secure further grey clips to the motor cable if needed.
L. Tube set routing with Y-connector for internal and external cooling of the instrument.
Frequent reprocessing hardly affects the Contra Angle. The products life end is usually determined by damage, wear and tear caused by usage.

**Restrictions of treatment**

Frequent reprocessing hardly affects the Contra Angle. The products life end is usually determined by damage, wear and tear caused by usage.

**INSTRUCTIONS**

**Location of use**

Wipe dirty surfaces with an expendable cloth/tissue paper.

**Storage and transport**

No special requirements. Avoid lengthy waiting periods before preparation because of risk of drying and corrosion.

**Cleaning preparations**

Remove burr, irrigation tubing, tube clip and cooling clip from contra angle. Remove visible soiling with cold water. Don’t use ultrasonic bath.

**Automatic cleaning and disinfection**

Equipment: Cleaning/disinfection device with a special loading carrier, which ensures Handpiece connection to the cleaning/disinfection device and channel irrigation. A fine-meshed basket shall be used for the small parts. Rinse the Contra Angle from the rear. Use a neutral or alkaline cleaning agent in the recommended concentration.

1. Load Contra Angle in the load carrier (irrigation of the channels must be ensured).
2. Place small parts into fine-meshed basket and close it.
3. Set cleaning cycle with effectual rinsing and cleaning. Carry out a rinse cycle with demineralized water.
4. For thermal disinfection rinse with demineralized water at 93°C for 10 minutes.
5. By taking the Contra Angle out check whether there’s still visible dirt in gaps. If necessary repeat cycle or clean manually.

**Manual cleaning**

Equipment: Neutral cleaning agent, soft brush, running cold water

**Procedure:**

1. Rinse surface dirt off the Contra Angle and small parts under running water.
2. Apply cleaning agent with brush on all surfaces as well as gaps.
3. Thoroughly rinse the Contra Angle under running water.

**Manual disinfection**

For manual disinfection, wipe the Contra Angle and small parts with a cloth soaked in disinfectant solution on an ethyl alcohol basis.

**Drying**

If the drying/disinfection equipment does not provide any drying program dry Contra Angle and small parts manually or in a drying chamber.

**Inspection and maintenance**

Check for visual damage, corrosion, and wear. After disinfection spray the Contra Angle with NouClean spray thoroughly and briefly, wipe with a moistened cloth (see instructions on the spray can).

**Packaging**

Single: Pack the Contra Angle in an individual sterile supply package. The bag must be large enough that the seal is not under tension.

Sets: Arrange the Contra Angles into the foreseen trays or put onto an all-purpose sterilization tray.

**Sterilization**

Autoclave in vacuum autoclaves at 135°C for at least 5 minutes*. Do not exceed the maximum load of the sterilizer, if several instruments are sterilized during one sterilization cycle. Observe a drying phase for autoclaves without post-vacuum. Allow the Contra Angle to dry in the bag with the paper side upwards.

*The temperature hold times must comply with the local guidelines and standards.

**Storage**

No special requirements. If the sterilized Contra Angle is not used immediately after sterilization the package must be marked with the sterilization date. Nouvag AG recommends to add a sterility indicator to the package.

**Troubleshooting**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor is running, but tool does not turn</td>
<td>Contra Angle is not connected properly to the Motor</td>
<td>Press Contra Angle firmly on Motor, until Contra Angle snaps in. Check fitting</td>
</tr>
<tr>
<td>Tool functions irregularly</td>
<td>Tool is not clamped properly to the Contra Angle</td>
<td>Fix tool and tighten chuck</td>
</tr>
<tr>
<td>Contra Angle is noisy</td>
<td>Ball bearings are not lubricated or dirty</td>
<td>Spray the Contra Angles interior with Nou-Clean spray</td>
</tr>
</tbody>
</table>

**Spare parts**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1777</td>
<td>Y-connector</td>
<td>1 piece</td>
</tr>
<tr>
<td>1773</td>
<td>Tubing Y-connector (160 mm)</td>
<td>20 pieces</td>
</tr>
<tr>
<td>1881</td>
<td>Clip-Set complete (3 Clips)</td>
<td>1 piece</td>
</tr>
<tr>
<td>1969</td>
<td>Wrench for Contra Angle</td>
<td>1 piece</td>
</tr>
<tr>
<td>1882</td>
<td>Oil bottle</td>
<td>1 piece</td>
</tr>
<tr>
<td>1940</td>
<td>Cleaning pin</td>
<td>1 piece</td>
</tr>
<tr>
<td>1984</td>
<td>Nou-Clean Spray</td>
<td>1 piece</td>
</tr>
<tr>
<td>1958</td>
<td>Nozzle for Nou-Clean Spray</td>
<td>1 piece</td>
</tr>
</tbody>
</table>

**Service centers**

**Switzerland**
Nouvag AG • St.Gallerstrasse 23–25 • CH-9403 Goldach
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paul@nouvagusa.com • www.nouvag.com

For service, maintenance, spare parts and general inquiries please contact your local dealer or representative.

**Disposal:**
Disposal of device, components and accessories must strictly conform to local laws and regulations as set out by the relevant authorities.