# Contra angle 20:1 with LED



Article No. 31603, Vo3/17

# Safety measures



- The maximum permitted torque of the drive of this contra angle is 7.5 Ncm (risk of damage)!
- The operation of the contra angle is only permitted on dental units, which correspond to the medical device directive!
- Always ensure the correct operating conditions and cooling functions!
- Check the contra angle for damage and loose parts prior to use (e.g. press button)!
- Do not touch the soft tissue with the LED (risk of burnings)!
- Do not use the contra angle as light sensor!
- Do not look directly into the optic outlet!
- The contra angle is not suitable for use in potentially explosive atmospheres or with potentially explosive mixtures of anaestetic substances containing oxygen or nitrous oxide!
- Prior to initial use lubricate the contra angle and sterilize all included parts!
- · Do not assemble or remove contra angle during operation, change burr only with motor switched off!

### Symbols



Conform to EU



Autoclave at 135°C



Suitable for thermal disinfection

#### **Technical Data**

Article No.	5052	
Transmission ratio	20:1	
Coupling motor side, standard according to	ISO 3964	
Shank-Ø (mm)	2.35	
Min. clamping length (fixed)	click into place	
Approved length of burrs (mm)	45	
Max. working diameter of rotating instruments	*	
* According to the manufacturer's data of rotating instruments in connection with the working speed		

Chucking system	Hexagon
Max. torque at bur (Ncm)	70**
Max. motor speed (rpm)	50,000
Max. torque from motor (Ncm)	7.5
Weight (g)	100
Length (mm)	110
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 $<sup>^{**}</sup>$ Use burrs of hardened steel (> 50 HRC, > 520 HV) if the torque is greater than 30 Ncm.

### Operation



#### Disassemble/assemble contra angle

- 1. Hold contra angle head with one hand.
- 2. Gently press sheat **4** against contra angle head and release by twisting it.
- 3. Pull knee **9** out of the contra angle head.
- Pull middle gear ② out of knee.



### Disassemble/assemble cooling unit

- For internal burr cooling put the coolant pipe 1 through the burr release press button.
- Attach the clip 2 to the contra angles head.
- 3. Press coolant pipe **1** into the slot of the clip.
- 4. Connect the tubes of the Y-manifold **3** with the coolant pipes of the clip.
- 5. Attach the tube set to the Y-manifold (not shown on the picture).



#### Couple contra angle to motor

- Press contra angle **1** firmly onto motor **2** until it snaps into place.
- 2. Check fitting with slight counter motion.

## **Preparation instructions**

Restrictions of treatment	Frequent reprocessing hardly affects the contra angle. The product's 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	No special requirements. Avoid lengthy waiting periods before preparation because of danger of drying and corrosion.

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 danger of drying and corrosion.
Cleaning preparations	<ol> <li>Remove bur, clip and irrigation tubing from contra angle.</li> <li>Unlock contra angle by pressing sheat against contra angle head while you twist them against each other.</li> <li>Pull knee out of contra angle head.</li> <li>Pull middle gear out of knee.</li> </ol>
Automatic cleaning and disinfection	Equipment: Washers and disinfectors with a special loading rack, which ensures handpiece connection to the washer/disinfector and channel irrigation. A fine-mesh 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.
	<ol> <li>Load contra angle in the load carrier (irrigation of the channels must be ensured).</li> <li>Place small parts into fine-meshed basket and close it.</li> <li>Set cleaning cycle with effectual rinsing and cleaning. Carry out rinse cycle with demineralized water.</li> <li>For thermal disinfection rinse with demineralized water at 93°C for 10 minutes.</li> <li>By taking the contra angle out, check whether there is still visible dirt in gaps. If necessary, repeat cycle or clean manually.</li> </ol>
Manual cleaning	Equipment: Neutral cleaning agent, soft brush, running water < 38°C, nozzle cleaner.  Procedure:  1. Rinse and brush surface dirt off the contra angle and small parts using running water. Detachable coolant tubes, the y-manifold and the clip may be cleaned in a ultrasonic bath.  2. Clean openings of coolant tubes and y-manifold from deposits and smut, and rinse after with demineralized water.
Manual disinfection	For manual disinfection, wipe the contra angle and small parts with a cloth soaked in a disinfectant solution on an ethyl alcohol basis. Protect optic outlet from scratches using soft cloth. Use chlorine-free disinfectant.
Drying	If the drying/disinfection equipment does not provide any drying program, dry contra angle and small parts with an absorptive cloth and blow dry with compressed air.
Inspection, assembly and maintenance Art. no.: 1958	<ol> <li>Check for visual damage, corrosion, and wear after each cleaning cycle.</li> <li>Insert middle gear in knee.</li> <li>Position knee and contra angle head with golden contacts against each other and connect them until there is no gap between contra angle head and knee. Check chucking system and driveshaft for a free rotation by turning the driveshaft and observing the movement of the hexagon chuck.</li> <li>Connect sheat with contra angle head and lock it with a rotary movement until it snaps in.</li> <li>Spray contra angle for about 3 seconds with NouClean spray. After, wipe with a damp cloth (See instructions on spray can).</li> <li>Maintenance cycle: Perform maintenance cycle each time after 30 min. of use, after each interior cleaning and before every sterilization.</li> <li>Test run after maintenance cycle: Start contra angle head down with lowest speed and increase to maximum speed within 30 seconds. Should there be any dirt in spilling oil repeat the complete maintenance and care process.</li> </ol>
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*. If several instruments are sterilized during the sterilization cycle, make sure that the maximum load of the sterilizer is not exceeded. 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, add a sterilization indicator with the packing and mark it with the date. Store it in a dust free, dry place.

The above-mentioned instructions were validated as suitable from NOUVAG AG. The person accomplishing the treatment is responsible that the treatment that actually took place leads to the desired results in the treatment facility with the available equipment, materials, and personnel. To ensure this it is normally necessary to validate and supervise the process. Each deviation from the instructions provided should be evaluated carefully with regard to effects and negative consequences.

# **Troubleshooting**

Problem	Cause	Solution
Motor is running, but tool does not turn	Contra angle is not connected properly to the Motor	Press contra angle firmly on Motor, until contra angle snaps in. Check fitting
Tool functions irregularly	Tool is not clamped properly to the contra angle	Fix tool and tighten chuck
Contra angle is noisy	Ball bearings are not lubricated or dirty	Spray the contra angle interior with NouClean-Spray

### Spare parts

Art. No.	Description	Units
39152	Y-connector with cooling tubes	3
39150	Coolant pipe, internal cooling	1
39149	Clip with cooling pipe	1
1882	-Oil bottle	1
1940	Cleaning pin	1
1984	-NouClean-Spray	1
1958	-Nozzle for NouClean-Spray	1

# Service centers

#### Switzerland

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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.