

## Universal Torque Ratchet – Instructions for use

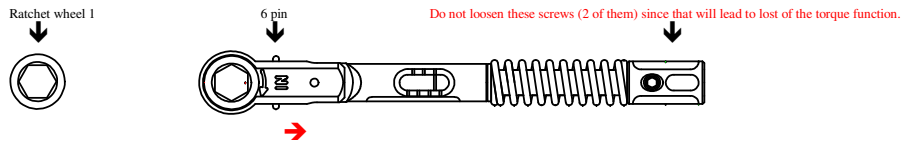
**Ratchet No. 1000201 10-35 Ncm + No. 1000202 10-45 Ncm + No. 1000500 10-50-100 Ncm**

### 1. Intended use:

- Torque ratchet for the screwing in and loosening screws with a defined torque function in the dental field. In a blocked position it is possible to transfer major torques, which are needed e.g. to screw in implants or to loosen screwed joints.
- The torque ratchet is to be used only by dentally trained persons.

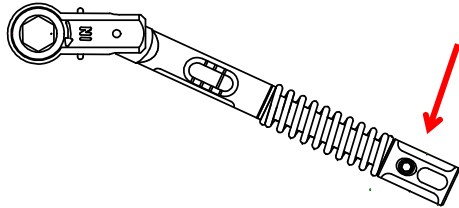
### 2. Instructions for handling:

- **Settings prosthetic – torque function:** The desired torque function can be adjusted continuously with the adjusting nut (5) via the spring (4). The setting is readable on the scale (7) of the scale capsule (3).
- **Settings surgery – blocked function:** Turn adjusting nut (5) to the graduation  $\infty$ . **Do not screw in too tightly! Store in a relaxed position!**



**3. Changing the ratchet wheel:** Draw back pin (6) in the direction of arrow on both sides with thumb and index finger and then take out or insert ratchet wheel respectively. After change let the pin (6) snap back.  
Attention: The ratchet wheel (1) can only be inserted from one side.

### 4. Correct operation release:



- Torque may be released at the head of adjusting nut (5) exclusively. See arrow.
- When reaching the adjusted torque the scale capsule (3) folds around the axis in the ratchet head (2). The release is audible and perceptible.
- **Stop pressing when the torque is released – ratchet could be damaged.**
- When loosening the adjusting nut the ratchet returns into starting position.

### 5. Treatment instructions:

#### 5.1. Attention:

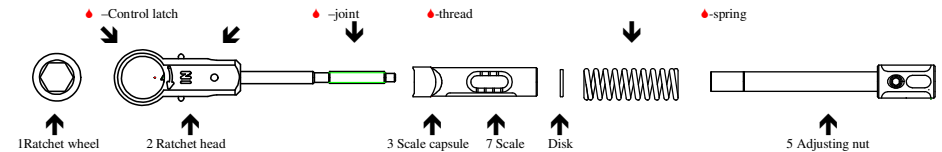
- Do not use provisional chemicals and do not apply excessive pressure.
- To avoid damages do not use any metal brushes or metal pads under no circumstances.
- Only use cleaning- and/or disinfecting solutions with pH 4.5 to 10. Please follow the instructions of manufacturer of the cleaning- and/or disinfection solutions (e.g. intended use, dosage, residence time and renewal of the solution).
- The ratchets are delivered non-sterilized and must be cleaned, disinfected and sterilized before use.

#### 5.2. Limitation of re-treating:

- Frequent but careful re-treating has little effect on the life cycle of the ratchet. The end of the product lifetime is usually determined by wear and damages from use and treatment.
- **Calibration:** We recommend an annual calibration of the ratchet. The ratchets have to be cleaned and sterilized before returning them to our service department.

### 5.3 Preparation for decontamination:

- After use, take the ratchet into pieces – this does not require any tools.



- Clean the parts under cold water with a soft disinfection brush until no residues are visible. Avoid the drying of remains of blood and other adhesions.

### 5.4 Cleaning and disinfection: Manual

#### Ultrasound cleaning bath:

Place the parts in a wire basket and avoid shadows. Clean them in an ultrasound cleaning bath (35-40kHz) with temperature of 40-50°C with cleaning solution for 3 minutes. Please take care that the parts are completely dunk into the water without bubbling.

#### Manual treatment:

Afterwards rinse them with clear cold water. If possible use deionized water for rinsing.

Dry parts with a lint free towel. Scale capsule, adjusting nut and ratchet head should be insufflated by using sterile compressed air.

### 5.5 Cleaning and disinfection: Automated

#### Washer / Disinfector:

Place the cleaned ratchet parts save on the mountings in a wire basket. Do not overload basket.

Start program. After rinsing there follows a chemical cleaning at 40° to 60°C. Residues from the cleaning process has to be removed reliably in the after-rinsing cycle. Corrosion through neutralizing reagents has to be avoided. Disinfection is reached by 90-95°C.

Afterwards the parts were treated with deionized water followed by an effectual drying.

The parts should be removed from the washer/disinfector immediately after end of program.

### 5.6 Maintenance, control and functional testing

Cool down the parts at room temperature. Inspect them visually and macroscopic on residues of protein and other contaminations. If necessary perform reprocessing process again.

♦ –marked areas should be slightly moistened with special care-oil for handpieces.

Assemble ratchet and make a functional testing.

### 5.7 Packaging

Appropriate packaging for sterilization according ISO 11607 and EN 868. Bags should be large enough for the parts. Sealings should not be under stress.

### 5.8 Recommended sterilization method

**Method:** Fractionated pre-vacuum process (according ISO 17665)

**Temperature:** Heat up to a temperature of 134°C; maximum 137°C

**Pressure:** 3 pre-vacuum phases with at least 60 millibar pressure

**Holding time:** at least 5 min

**Drying time:** at least 10 min

After sterilization check the packaging of the sterilized instruments for damage. Check the sterilization indicators.

### 5.9 Storage

Store the sterilized ratchets in a dry, dust-free, free-vented place at moderate temperature without corrosive vapour.

### 5.10 Additional information

Further information for the treatment of medical products in the internet under [www.rki.de](http://www.rki.de) or [www.a-k-i.org](http://www.a-k-i.org).

### 6. Manufacturer contact info:

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