

Manufacturer:

G & Z Instruments GmbH
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**Product:**

This information applies to all rotating dental and surgical instruments that G & Z manufactures itself. Information on merchandise that is not delivered by us as the manufacturer must be requested from the respective manufacturer.

G&Z products are: Diamond Instruments, Carbide Burs, Finishers and maxillofacial surgery instruments

Indication:

The application possibilities of the rotating Instrumente lie in the dental practice for restorative and cosmetic preparation:

- Cavity and crown stump preparation (hard tooth substance)
- Crown removal, hard non-tough filling materials,
- Finishing/contouring of composite materials
- smoothing of fillings.
- periodontitis
- peri-implantitis
- jaw surgery
- drilling out of old fillings
- filling treatment
- root smoothing
- prophylaxis
- crown cutting
- orthodontia
- milling technology
- preparing and remove of tooth substance
- remove of dentures and filling materials
- milling/grinding of composite
- smoothing/polishing of fillings and dentures
- surgical procedures on the bone

General instructions for use of rotating dental and surgical instruments:

- Before first use on the patient and after each treatment, the rotating instruments must be disinfected, cleaned, dried and sterilized.
- The selection of instruments (shape, size, grain size) depends primarily on the preparation goal. Unfavorable instrument forms cause incorrect forms of preparation.
- Ergonomic principles must be taken into account in the workflow.
- Drives (turbine, contra-angle handpiece) of rotating instruments must be in technically perfect condition.
- The instruments shall be carefully and completely clamped into the turbine or contra-angle handpiece without force and checked for their firm fit.
- By choosing the right working speed, effective performance and service life is achieved
- The information on maximum permissible speeds must be observed.
- The instrument must bring the optimum working speed and check the cooling mechanism before attaching it to the object to be processed. After preparation, let leak again without contact with the object.
- Prepare carefully and pressure-free. The contact pressure (0.3 N - 2 N) should be selected in such a way that the speed is not significantly reduced. The dosing of the contact pressure (gentle work) is decisive for the workflow and the preparation success. Tilting and leveraging of the instrument should be avoided. (increased risk of breakage).
- With extremely pointed instruments, the wear in the front area is higher due to the smaller circumference. With these instruments, a particularly sensitive preparation with lower contact pressure is recommended in order to prevent a reduction in service life.
- Rough depths produced with a diamond coating of >ISO 524 must be finished.

- Instruments with damage and bending or instruments without concentricity must be sorted out immediately and may no longer be used.
- Wearing safety glasses is recommended
- Rotating instruments can be safely disposed of in household waste

To protect the hard tooth substance, the pulp and the adjacent fillings, sufficient water spray cooling must be ensured. Turbines with three cooling jet nozzles are recommended, which distribute the cooling medium over the total length of the grinding surface of the instrument. A preparation without sufficient coolant quantity of min. 50ml/min and an unfavorable coolant application (spray deflection, unclear extraction technology) can have a negative effect on the work result.

For extra-long instruments (>19 mm) and for instruments with working part diameters above 1.8 mm, additional external cooling is required.

Maximum permissible speeds

Head diameter in 1/10 mm	Maximum speed (min-1)
Head diameter in 1/10 mm	Maximum speed (min-1)
008 – 010	450000
012 – 014	450000
016 – 018	450000
021 – 023	300000
025 – 027	160000
029 – 031	140000
033 – 040	120000
042 – 050	95000
055 – 060	80000
065 – 080	60000
085 – 100	58000
120 – 140	35000
160 – 180	27000
200 – 220	27000

Notice to users and distributors: All serious incidents related to the product must be reported to G&Z Instrumente GmbH and the competent authority of the member state in which the user is established.