



## Instructions for Use –Diamond Burs

### Intended use

**Strauss Diamond Dental Burs** are intended to drill or cut hard structures in the mouth such as teeth or surrounding tissue. They are also intended to cut hard Metals, Plastics, Porcelain and similar materials and are intended for fabrication of dental devices. These uses also include applications in dental laboratories.

### Cautions and Precautions

- Please read instructions carefully on the instructions for use leaflet before using the device.
- The device is intended for laboratory and dental applications in dental clinics and dental health facilities by licensed dentist or technicians when used in laboratories. The device is **Rx only**.
- For the safety of both user and patient, only qualified dentists should work with the dental Diamond burs.
- During clinical use, wear gloves and eye protection at all times. Do not make contact with a contaminated instruments or the patient's tissue without gloves protection.
- Use a surgical mask in order to avoid inhalation of Aerosol or dust generated during application.
- Attention should be paid to operating speed (RPM – Rounds Per Minute). In particular when working with a large head diameter and coarse or super coarse grit sizes. Using a bur at a higher RPM level than recommended could generate undesirable heat. Please note the **FG mark** on the package, indicating the use in high speed turbine. - See Max RPM table in the **instructions section below**.

- Do not keep the bur still on one spot - maintain constant movement during use.
- Do not force a bur into the turbine. In case of difficult access, check both turbine and bur.

**Remember!** Strauss Diamond dental Diamond burs are guaranteed and shall be replaced if found incompatible. However, special attention should be paid to instructions of use and maintenance of the turbine.

- **Note:** Single use labeled devices are **NOT** approved for re-use and are intended for single use only.
- Make sure to clean and sterilize non-sterile burs provided in accordance with the directions provided in Cleaning & Sterilization Instructions section below, before **first use and before each reuse**. **Note:** Sterile and single-use provided burs **Do Not** require cleaning and sterilization beforehand.
- Do not apply excessive force on the device. A feather touch (up to 150 gram) would be sufficient while working with the bur for proper use and reaching desirable optimum results.

Page 2 of 4

**Please notice that there are separate instructions for use for Magic Touch and for Sterile provided burs.**

### Warnings

- Used burs are considered to be contaminated. In order to avoid injuries associated with contamination, appropriate handling precautions should be taken during handling and / or reprocessing. Use gloves, mask and eye protection. Other measures may be required if there are

Strauss Diamond Instruments Inc. | 9 Florida Park Drive N., Palm Coast, FL 32137 | Tel: 386-597-7523

Email: [Info@Straussdiamond.com](mailto:Info@Straussdiamond.com) | [www.Straussdiamond.com](http://www.Straussdiamond.com)

specific infection or cross-contamination risks from the patient. These precautions are also necessary to avoid physical damage due to ejected particles during procedure.

- Used dental burs are considered as biohazard and need to be discarded as biohazard waste, according to applicable local laws and regulations, unless reprocessing instructions have been performed by the user.
- Use eye protection to protect against ejected particles.
- In order to prevent generating undesirable local heating and general overheating during drilling friction, use the bur with sufficient water coolant.
- Constant movement while bur is in use is required in order to prevent overheating during drilling and burning of the bur.

### Contraindication

This product may contain nickel and should not be used on or by persons with known allergic reactions to Nickel or Nickel alloys.

### General burs' operation instructions

The Diamond rotary dental burs are made of stainless steel which are coated with Diamond particles on the active working portion, in different roughness and shapes and are designed to fit into a dental handpiece. During cutting or drilling, the burs are exposed to friction.

The burs rotation is generated using the handpiece connection, which allows the user to apply it on hard structures like teeth, bone, metal, plastics, porcelain and similar materials in the dental applications.

- Performance of bur: Before use of the burs, consult the Max RPM (Rounds Per Minutes) for each bur type and always work within speed of work limits presented in the table below:

Max . RPM		
ISO Ø (1/10 mm)	FG (RPM)	HP (RPM)
007-014	450,000	250,000
016-023	300,000	120,000
025-045	120,000	80,000
047-065	80,000	60,000
066-093	60,000	40,000

- Before drilling or cutting, verify a firm connection between the bur and hand piece.
- Use the bur with sufficient water coolant.
- Apply no more than feather-like touch (up to 150 gram) while working with the bur.
- These Strauss Diamond reusable dental Diamond burs can be used between **3 to 5 times**, depends

on several parameters such as:

- Grits condition and shape. Do not use if wear signs or damage are seen.
- The user. Extra pressure or angulated drilling, might expedite the bur wear.
- The patient reaction. If the patient shows pain or discomfort.
- The handpiece connection (bad connection might affect bur wear).

Strauss Diamond Instruments Inc. | 9 Florida Park Drive N., Palm Coast, FL 32137 | Tel: 386-597-7523

Email: [Info@Straussdiamond.com](mailto:Info@Straussdiamond.com) | [www.Straussdiamond.com](http://www.Straussdiamond.com)

- The coolant. Lack of coolant might increase friction and expedite bur wear.

## Cleaning & Sterilization Instructions

### General Instructions:

- Strauss Diamond dental Diamond burs are designed for several uses and are eligible for both cleaning and autoclave sterilization.
- Clean and sterilize the burs before first use and before each reuse
- Use only a natural pH cleaning / disinfecting solution which is approved for this use (through CE Marking or FDA approval/clearance) and compatible with Stainless-Steel and Nickel.
- The cleaning/disinfecting solution should be aldehyde free (to avoid blood impurities fixation) and without di- or triethanolamines as corrosion inhibitor.

☒ Do not use disinfecting solutions containing Phenol or any products which are not compatible with the instruments.

- Cleaning may be performed using manual cleaning or automated cleaning. Sterilization should be conducted using steam sterilization, per the instructions below for each method.

### Manual Cleaning:

- Immediately after use, immerse all instruments in a disinfection solution compatible with Steel and Nickel, according to manufacturer's instructions (this product has been validated by Strauss using Cidex OPA in concentration of 0.3%). Use the lowest recommended concentration and lowest recommended temperature (an excessive concentration may cause corrosion or others defects on instruments).

- Immerse the products for 5 minutes.
- While soaked scrub the device thoroughly with a soft nylon brush for 5 minutes.
- Allow drying for at least 10 minutes. Make sure that the product is completely dry.
- Observe the device to assure that no discoloration or corrosion signs or other visual contamination

appeared.

- Move forward to the steam sterilization process.

### Automated Cleaning:

- As **manual pre-cleaning**, soak all instruments immediately after use in a detergent and disinfecting natural pH solution combined with proteolytic enzyme for 5 minutes or as specified by the cleaning agent manufacturer. Use the lowest recommended concentration by the manufacture. Endozime® Premium with APA (Advanced Proteolytic Action) detergent was utilized for this product's validation by Strauss Diamond at 0.1% equal to 1ml/liter in lukewarm water.

- Follow instructions and observe concentrations and immersion times given by the specific cleaning agent's manufacturer (an excessive concentration may cause corrosion or others defects on instruments).

- Under running water, scrub the device thoroughly with a soft nylon brush to remove any remaining blood or debris.

Strauss Diamond Instruments Inc. | 9 Florida Park Drive N., Palm Coast, FL 32137 | Tel: 386-597-7523

Email: [Info@Straussdiamond.com](mailto:Info@Straussdiamond.com) | [www.Straussdiamond.com](http://www.Straussdiamond.com)

- Rinse under tap water for one (1) minute.
- Place the burs in the automatic washer (until they are placed in the washer avoid contact between

them.

- **Utilize the automated process:** Run the automatic wash cycle according to automated washer manufacturer's instructions.

- **The following parameters were utilized to validate this product:**

- Two (2) Minutes prewash at 30±5°C (86±41°F) with tap water.
- Ten (10) Minutes main wash with the natural pH detergent and tap water at 45±5°C (113±41°F).
- One (1) Minute rinse with tap water at 30°C (86°F).
- Ten (10) Minutes distilled water rinse at 30°C (86°F).
- Twenty (20) Minutes air drying phase at high temperature of 100°C (212°F).
- Observe the device to assure that no discoloration or corrosion signs or other visual contamination

appeared.

- Move forward to the steam sterilization process.

#### **Steam Sterilization Instructions:**

- Follow the Autoclave manufacturer's instruction to sterilize the products. Do not exceed the maximal load allowed by the manufacturer.

- **Note:** *Local infection control practice may recommend a different combination of holding time and*

*temperature.*

- Place the products into the steam sterilizer into a sterile barrier pouch.

**Note:** Use microbial barrier pouch that is cleared by the US FDA (US users) and CE-Marked approved (EU users).

- Use an Autoclave that is cleared by the US FDA (US users) and CE-Marked approved (EU users)

**Note:** Consult the Autoclave's manufacturer instructions for use.

- Method validated by Strauss Diamond:
- Wrapped instruments, Gravity Displacement.
- Temperature: 135°C/275°F.
- Exposure Time: 10 minutes.
- Drying Time: 30 minutes.
- After drying, make sure the product is completely dry.
- Use maximal loaded autoclave with wrapped products.

#### **Storage**

- After sterilization, keep the devices in sterilization packaging in a dry and clean environment.