

#### BRASSELER USA DIAMOND Burs and Discs

BRASSELER USA DIAMOND Burs and Discs are available in Sterile and Non-Sterile models under various trade names with numerous head diameters and working lengths. The devices can be sterilized using steam sterilization in a gravity or prevacuum cycle.

### Description

The BRASSELER USA DIAMOND Dental Bur and Disc family includes Operative Diamond Burs, Brazed Diamond Burs, Laboratory Diamond Burs and Diamond Discs. A diamond dental bur or disc is a rotary abrading device made of stainless steel which is coated with diamond particles on the working end, and which is designed to fit into a dental handpiece.

#### Intended Use

BRASSELER USA DIAMOND burs and discs fit into a dental handpiece, which provides the rotation, allowing the user to abrade hard structures in the mouth, e.g., teeth or bone. They can also be used to abrade plastics, ceramics, and similar materials.



# → Warnings

- The devices are single-patient use, do not reuse.
- In a laboratory setting, diamonds can be used multiple times. In a clinical setting, they are single-patient use.
- The device is to be used on the instruction of, or by a dentist or other licensed practitioner.
- Diamond discs with a diameter greater than 18mm must not be used intraorally.
- Intraoral use of diamond discs must be accompanied by a disc guard and used with extreme caution.
- Coated diamonds must not be used to abrade metal alloys.
- Attention should be paid to the speed of work (RPM).
  - o Always refer to the product packaging for the Maximum RPM. Use of the bur or disc beyond the RPM range may cause the part to break and result in patient or user harm.
  - o Operating a bur or disc at too high of an RPM may generate undesirable heat and cause patient discomfort, tooth or tissue necrosis, or patient burns.
- Proper irrigation is required while using the device. Inadequate use of irrigation may generate undesirable heat and cause patient discomfort, tooth or tissue necrosis, or patient burns.
- Do not apply excessive pressure on the bur or disc as this could cause undesirable heat or may cause the part to fail and cause patient or user injury.
- Non-sterile Diamond Burs and Discs must be thoroughly cleaned and steam sterilized prior to use.
- Do not use chemical or dry heat to sterilize BRASSELER USA Diamond Burs or Discs, as these processes have not been validated for use. Use of these processes may be corrosive to the device and could result in premature device failure.
- Use a rubber dental dam while using Diamond Burs and Discs to avoid possible aspiration or swallowing of the device.
- Carefully read package labels to ensure use of the appropriate device. Failure to do so may cause patient or user injury.
- Failure to follow these instructions may cause the following: preparation site damage, injury to the patient or user, or possible aspiration or swallowing of the Diamond Bur or Disc.

### **Product Disposal**

Dispose of product or recycle in accordance with local laws and regulations.

#### Contraindications

 DIAMOND Burs and Discs contain nickel and should not be used for individuals with known allergic sensitivity to this metal as it may cause hypersensitivity.

#### **Precautions**

- Always inspect the burs and discs during use. Over-used burs or discs could cause undesirable heat or may cause the device to fail.
- Move the bur or disc continuously when in use to avoid localized heating and/or damage to the part. Undesirable heat generation can cause patient discomfort, tooth or tissue necrosis, or patient burns.
- Avoid heavy pressure on the diamond device to prevent bending or breakage which could cause patient or user injury.
- Maintain handpieces in good working condition to ensure maximum effectiveness of the device. Failure to properly maintain handpieces may lead to injury of the patient or user, aspiration or swallowing of the device or damage to the preparation site due to vibration of a worn chuck or turbine.

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- Ensure the bur or disc is fully seated and securely gripped in the handpiece collet prior to use. Failure to do so may cause the device to "walk out" of the handpiece and may lead to injury of the patient or user or aspiration or swallowing of the device.
- Never force a bur or disc into a handpiece as this could cause damage to the handpiece collet.
- Eye protection must be worn to protect against ejected particles.
- Surgical masks must be worn to avoid inhalation of any aerosol or dust generated.
- BRASSELER USA Bur Blocks used to hold the devices for storage and steam sterilization are not intended to maintain sterility of the device.

# **General Instructions**

- Clean and sterilize all non-sterile burs and discs and any sterile burs and discs with an open or damaged package in accordance with the validated procedures provided below prior to first use.
- Do not force bur or disc into the handpiece. In case of difficult access, check both handpiece turbine and part and refer to handpiece instructions for troubleshooting.

# d Starilization Instruction

	Clean and sterilize all non-sterile burs and discs and any sterile burs and discs with an open or damaged package in
	accordance with this validated procedure prior to use.
	1. Cleaning agents with chlorine or chloride as the active ingredient are corrosive to stainless steel and must not be used. Cleaning agents with neutral pH are recommended.
	2. Do not use Cold Sterilizing Methods for the sterilization of Diamond Burs or Discs. These agents often contain strong oxidizing chemicals that may attack the substrate that bonds the diamond particles to the steel blanks.
	3. The devices are single-patient use, do not reuse.
	Diamond Burs and Discs can be transported wet or dry and should be protected from damage. If transported wet there is an increased chance of staining or corrosion. Prolonged storage in disinfectant solutions may result in degradation of the product and must be avoided.
Cleaning	If hand cleaning is the only available option, Diamond Burs and Discs should be cleaned in a sink reserved for cleaning instruments.
	Optional step: Insert the Diamond part into a handpiece and operate at the Maximum RPM. Insert the Diamond part head fully into a wet diamond cleaning stone for at least 2 seconds. Remove Diamond part from handpiece.
	Rinse the Diamond Bur or Disc (and dedicated instrument block, if applicable) under cool running water for at least one (1) minute.
	Prepare a fresh bath of neutral-pH, enzymatic cleaning solution (i.e. Enzol). Follow the cleaning agent's manufacturer's instructions. Immerse the Diamond Bur or Disc (and instrument block) in the prepared Enzol solution and soak for at least ten (10) minutes.
	Thoroughly rinse the Diamond Bur or Disc (and instrument block) under running warm water for at least one (1) minute and until visibly clean.
	Dry the device using a non-shedding wipe or clean compressed air, or allow to air dry.
Cleaning	Prepare a fresh pH-neutral, enzymatic cleaning solution (i.e. Enzol); place the Diamond Bur or Disc in the dedicated instrument block (if applicable) and then place in a sonication unit. Follow the cleaning agent manufacturers' instructions for correct concentration, exposure time, temperature, and water quality. Completely submerge the device in the cleaning solution and sonicate for at least fifteen (15) minutes.

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Perform a final thorough rinse of the device and instrument block (if applicable) under running warm tap water for at least (1) minute.

Dry the device using a non-shedding wipe or clean compressed air, or allow to air dry.

Inspection Testing

- 1. Visually inspect the device for damage that would prevent proper operation.
  - a. Do not use if the tip is broken.
  - b. Do not use if there are missing diamond particles.
  - c. Do not use if there is evidence of corrosion.

Packaging

Singly: Pack the Diamond Bur or Disc in pouches validated for sterilization

In Sets: Place the Diamond Bur or Disc in the dedicated instrument block.

Sterilization	Use the following cycle for steam sterilization
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Cycle Type	Minimum	Minimum	Minimum Dry Time
	Sterilization	Sterilization	(minutes)
	Exposure Time	Exposure	
	(minutes)	Temperature	
Gravity	10	135°C (275°F)	30
Pre-vacuum (4 Pulses)	3	134°C (273°F)	30

Ensure that the sterilizer manufacturer's maximum load is not exceeded.

The minimum dry time has been validated to ensure that the devices will not be left wet. Failure to achieve the minimum dry time may cause moisture to remain on the files that could result in corrosion.

Storage The Diamond Bur or Disc should be stored in the sterilization pouch until required.

Additional Information

These processes have been validated as being capable of preparing Diamond Burs and Discs for use. Any deviation

from these instructions should be properly validated for effectiveness and potential adverse results.

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# **Glossary of Symbols**

Symbol	Meaning	Standard
REF	Catalogue Number	ISO 15223-1
LOT	Batch Code	ISO 15223-1
QTY	Quantity	N/A
U	Revolution (RPM)	ISO 21531
Ţi	Consult instructions for use	ISO 15223-1
$\triangle$	Caution	ISO 15223-1
NON	Non-sterile	ISO 15223-1
STERILE R	Sterile	ISO 15223-1
$\Sigma$	Use-by Date	ISO 15223-1
Rx Only	Caution: Federal law restricts this device to sale by or on the order of a "dentist/physician" licensed by the law of the State in which he/she practices to use or order the use of the device.	FDA 21 CFR Part 801.109 (b)(1)
Made in	Made in	N/A
444	Manufacturer/Legal Manufacturer	ISO 15223-1
2	Do not reuse – Single Patient Use	ISO 15223-1



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