

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 are reusable and 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. BRASSELER USA Diamond Burs and Discs are reusable instruments.

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 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).
 - 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.
 - 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 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 and each subsequent reuse to prevent the risk of infection or cross-contamination.
- 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.
- Proper cleaning is required after use of device to prevent cross-contamination. Failure to properly remove accumulated debris may cause device to break causing patient or user harm or may generate undesirable heat and cause patient discomfort, tooth or tissue necrosis, or patient burns.
- 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.

BRASSELER USA DIAMOND Burs and Discs Instructions for Use

- 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

1. 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 and prior to each reuse.
2. 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.

Cleaning and Sterilization Instructions

Scope	These instructions are applicable to all BRASSELER USA Diamond Dental Burs and Discs. There are applicable before initial use and after each subsequent use. Diamond burs and Discs are provided mechanically clean but are not sterile. Therefore, Diamond Burs and Discs should be sterilized before first use.
Warnings	<p>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.</p> <p>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.</p>
Reprocessing Limitations	The end of life is determined by wear and damage in use and Diamonds Burs and Discs should be inspected for defects (i.e., broken tips missing diamond particles, etc.) during the cleaning the process.
Point of Use	Delay in reprocessing must be minimized to avoid contaminants drying thereby making cleaning more difficult.
Containment/ Transportation	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.
Manual Cleaning Procedure	<p>If hand cleaning is the only available option, Diamond Burs and Discs should be cleaned in a sink reserved for cleaning instruments.</p> <p><i>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.</i></p> <p>Rinse Diamond Bur or Disc (and dedicated instrument block, if applicable) under cool running water for at least one (1) minute.</p> <p>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.</p> <p>After soaking, and keeping it immersed, brush thoroughly away from the body using the neutral cleaning agent for at least one (1) minute. Care should be taken to avoid spreading contaminants by spraying or splashing during the brushing process. Use wire brushes with caution as brass particles may result in galvanic corrosion and steel particles may cause discoloration of stainless steel.</p> <p>Special care should be taken to clean crevices and other hard-to-reach area thoroughly. Visually inspect to confirm the removal of debris. Repeat the cycle if needed.</p> <p>Thoroughly rinse the Diamond Bur or Disc (and instrument block) under running warm water for at least one (1) minute and until visibly clean.</p>

Ultrasonic Cleaning Procedure	<p>Dry the device using a non-shedding wipe or clean compressed air or allow to air dry.</p> <p>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.</p> <p>Perform a final thorough rinse of device and instrument block (if applicable) using running tap water (temperature to not exceed 45°C) for a minimum of one (1) minute.</p>
Inspection Testing	<p>Visually inspect to confirm the removal of debris. Repeat the cycle is needed.</p> <p>Dry the device using a non-shedding wipe or clean compressed air or allow to air dry.</p> <ol style="list-style-type: none"> 1. Carefully inspect each device to ensure all debris has been removed. 2. Visually inspect the device for damage that would prevent proper operation. <ol style="list-style-type: none"> 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	<p>Singly: Pack the Diamond Bur or Disc in pouches validated for sterilization.</p> <p>In Sets: Place the Diamond Bur or Disc in the dedicated instrument block.</p>

Sterilization	Use the following cycle for steam sterilization:			
	Cycle Type	Minimum Sterilization Exposure Time (minutes)	Minimum Sterilization Exposure Temperature	Minimum Dry Time (minutes)
	Gravity	10	135°C (275°F)	30
	Pre-vacuum (4 Pulses)	3	134°C (273°F)	30
	<p>Ensure that the sterilizer manufacturer's maximum load is not exceeded.</p> <p>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 devices that could result in corrosion.</p>			
Storage	Diamond Bur or Disc should be stored in sterilization pouch or instrument block in a sterilization pouch until required.			
Additional Information	These processes have been validated as being capable of preparing Diamond Burs and Discs for reuse. Any deviation from these instructions should be properly validated for effectiveness and potential adverse results.			

Glossary of Symbols:
Brasselerusadental.com/resources/



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