

Bisco

CE 0459

R.A.P.T.O.R.[®] SYSTEM

Composite/Porcelain Finishing Burs

Instructions for Use

U.S. Patent: 5,779,476

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Rev. 3/16



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CAUTION: U.S. Federal law restricts this device to sale by or on the order of a licensed Dentist.

R.A.P.T.O.R.^{®*} SYSTEM

Composite/Porcelain Finishing Burs

GENERAL INFORMATION

The **R.A.P.T.O.R. SYSTEM** has enabled dentists to overcome the challenge of sculpting and finishing many restorative materials. The **R.A.P.T.O.R. (Rapid Adapting Precision Transformer for Occlusal Resins)** burs are the keystone of a highly-defined but simplified approach to finishing Class I and Class II posterior composite restorations as well as indirect composite or porcelain restorations and denture teeth. Modeled after the 21B acorn burnisher, **R.A.P.T.O.R.** burs cut precise planes without penetrating too deep or too shallow.

The **R.A.P.T.O.R. SYSTEM** includes two **R.A.P.T.O.R.** burs; **R1**, a small **R.A.P.T.O.R.** for bicuspid, and **R2**, a large **R.A.P.T.O.R.** for molars, one 18-Flute Carbide **Needle**, one 30-Flute Carbide **Egg**, one 30-Flute Carbide **Christmas Tree** and one Diamond **Needle**. The system is provided in a convenient autoclavable bur block.

The **R.A.P.T.O.R. SYSTEM** provides the dentist complete control over the shape of the restoration and can reduce finishing time by up to 50%.

LIL' R.A.P.T.O.R.s (sold separately) are burs that are specifically designed for secondary and tertiary anatomy, allowing the dentist to create the ideal depth and width of these grooves in a single pass. Due to their small size, **LIL' R.A.P.T.O.R.s** are also recommended for use with restorations placed following air abrasion preparation.

Indications for Use:

The principle uses of the **R.A.P.T.O.R. SYSTEM** are:

1. Direct composite restorations
2. Indirect composite/porcelain restorations
3. Denture teeth

* R.A.P.T.O.R. is a registered trademark used under sublicense from American Diamond Instruments.

Warnings:

- Used burs should be considered as contaminated and appropriate handling precautions should be taken during reprocessing. Gloves, eye protection and a mask should be worn. Other measures may be required if there are specific infection or cross-contamination risks from the patient.
- Burs are supplied mechanically clean but are not sterile. They should therefore be sterilized before first use.
- Delay in cleaning/sterilization must be kept to a minimum to avoid contaminants drying thereby making cleaning more difficult.

Precautions:

- Prolonged storage in disinfectant solutions may result in corrosion and should be avoided.
- **R.A.P.T.O.R.** burs are not intended for gross reduction of composite. Useful life of the burs can be extended by creating restorations needing minimal reduction prior to light curing. The burs should be examined prior to use; discarding any damaged or corroded burs.
- It remains the responsibility of the reprocessor to ensure that the reprocessing is actually performed using the equipment, materials and personnel to achieve the required results. This may require validation and monitoring of the process. Any deviation from the cleaning and sterilization instructions should be properly evaluated for effectiveness and potential adverse results.

INSTRUCTIONS FOR USE

Standard Cleaning and Sterilization:

1. Wipe burs, then place in an ultrasonic unit for 5-7 minutes, rinse and dry.
2. Place burs into a small sterilizing packet/bag, seal and run in a chemical/autoclave for 20 minutes under 30lbs of pressure.

Direct composite restorations:

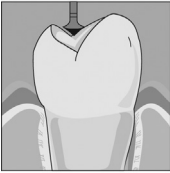
1. Remove the matrix band after the composite restoration has been light-cured. Create the planes and primary anatomy using the **R1** or **R2 R.A.P.T.O.R.** at approximately 100,000-200,000 RPM with water.
 - A. Mark planes.
 - B. Create pits.
 - C. Begin at the lowest point of the plane and work up to the zenith.
 - D. Sculpt the outside edges up to the zenith. The **R.A.P.T.O.R.** is designed to be stable; it will not "walk" as other burs have a tendency to do.

2. Use the 30-Flute Carbide **CHRISTMAS TREE** bur to smooth planes and connect the dots. Handpiece speed should be 100,000-200,000 RPM. The 30-Flute bur is smoother than an ultra fine diamond bur. The angle of the **CHRISTMAS TREE** offers maximum ease and comfort. This bur will not easily cut enamel so original anatomy can be followed.
3. Use mylar abrasive discs to shape the occlusal interproximal areas and remove flash.
4. Redefine the planar anatomy and create secondary grooves with just the tip of the **R.A.P.T.O.R.** bur or use the **LIL' R.A.P.T.O.R.s** to create secondary and tertiary anatomy.
5. Finish the surface of freshly cut anatomy with the 30-Flute Carbide **CHRISTMAS TREE** bur.
6. Remove flash and excess material from the gingival and interproximal areas. Use the diamond **NEEDLE** bur for gross reduction, then finish with the 18-Flute Carbide **NEEDLE** bur. Rubber polishing points are not necessary when using the 18-Flute **NEEDLE** bur.
7. Check the occlusion using articulating paper. Use the 30-Flute Carbide **CHRISTMAS TREE** or **EGG** bur to redefine identified areas needing occlusal adjustment.
8. Create the final polish with finishing discs and/or polishing paste using rubber cups and/or brushes.

Indirect composite/porcelain restorations and denture teeth:

1. Follow steps 4-8 above.

**SCULPTING OF OCCLUSAL ANATOMY
MANDIBULAR LEFT SECOND BICUSPID**



R.A.P.T.O.R.



A.



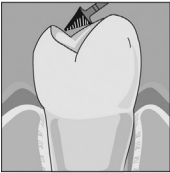
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C.



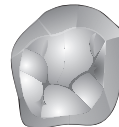
D.



30-FLUTE
CHRISTMAS TREE

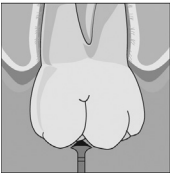


E.

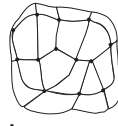


F.

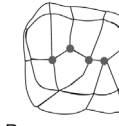
**SCULPTING OF RESIN
MAXILLARY LEFT FIRST MOLAR**



R.A.P.T.O.R.



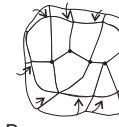
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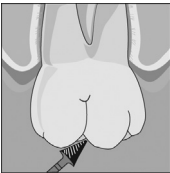
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C.



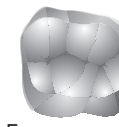
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30-FLUTE
CHRISTMAS TREE

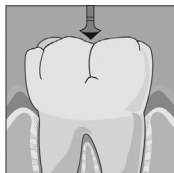


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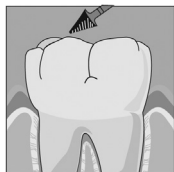


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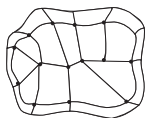
MANDIBULAR LEFT FIRST MOLAR



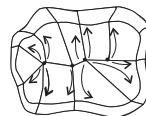
R.A.P.T.O.R.



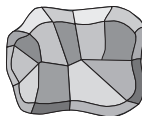
30-FLUTE
CHRISTMAS TREE



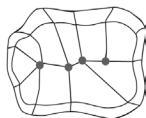
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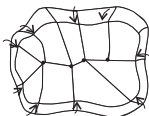
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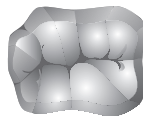
E.



B.



D.



F.

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