Technique Microbrush® X

Extended-reach applicator.

Features

- Allows access to hard-to-reach areas
- Brush fibers allow uniform application of materials
- Brush designed to prevent chemical dissolution of the fibers in the presence of bonding agents and other commonly used dental materials
- Thin, long tip simplifies procedures in confined spaces
- Extra-short, stiff, non-linting, non-absorbent brush fibers minimize waste and control application
- Stiffer fibers allow scrubbing
- Slightly cone-shaped design extends reach into confined canals without weakening the tip
- Shorted bending portion bendable up to 90°
- Dispenser kit includes countertop refilling dispenser that dispenses applicators one at a time to reduce cross-contamination

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Extended-reach applicator

Accessing confined spaces using the Microbrush X

By Dr. Ian E. Shuman. Information provided by Microbrush International.

The ability to access narrow, confined spaces for various dental applications has become increasingly critical with the increasing use of chemistry-based applications. The growing of canal spaces, axial walls, and periodontal pockets are just some of the clinical situations that can be difficult to access.

Because minimally invasive preparations and the use of bonding agents, composite resins, and other materials are so prevalent, dentists are in need of applicators that can access a variety of spaces.

The following are step-by-step procedures for accessing various confined spaces using the Microbrush X extended-reach applicator.

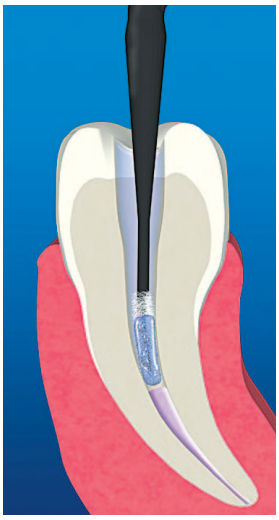
Bonded posts

Use the Microbrush X extended-reach applicator to access canal spaces and post preparations. (Fig. 1).

1. Etch and blot dry the prepared post space.
2. Evenly apply a dual-cure resin-bonding agent within the post space using the extended-reach applicator (Fig. 2). *Note:* This permits a more uniform resin/dentin interdiffusion zone and improved resin tag formation along the entire length of the canal.
3. Lute CF fiber posts (J. Morita USA) within the post preparation spaces using a dual-cure resin cement followed by a core buildup.

Prior to crown lengthening, a radiograph of the temporized case demonstrates an intimate bond between the posts and the canal walls (Fig. 3).

Fig. 1 The thin, long brush tip allows complete access into narrow, confined canal spaces. A handy dispenser (above) is available with the Microbrush X.



Onlay cementation

Using the extended-reach applicator, apply bonding agent to axial walls and pulpal floor of inlay and onlay preps in continuous, even amounts (Fig 4).

1. Remove any existing restorations and decay.
2. Further prepare the tooth with divergent walls and cusp reduction as needed in preparation for an indirect ceramic-polymer onlay restoration.
3. Take an impression and temporize the tooth.
4. Try-in and verify fit of the definitive laboratory-fabricated restoration.
5. Etch, rinse, and dry the tooth preparation.
6. Use the extended-reach applicator to apply a bonding agent to the axial walls and pulpal floor in broad, even applications (Fig. 5).
7. Bond the indirect onlay to the tooth preparation, using a dual-cure resin bonding cement.

Bonded porcelain veneers

1. Try-in and verify satisfactory fit and esthetics of the lab-fabricated porcelain veneers.
2. Isolate the teeth, acid-etch, rinse, and blot dry.
3. Apply a dual-cure bonding agent over the entire prepared facial surfaces evenly and rapidly, using the extended-reach applicator in a wand-like motion (Fig. 6).
4. Prepare the veneers and cement into place using a dual-cure bonding cement.

Class II direct composite bonding

1. Under rubber dam isolation, remove defective amalgam and associated caries

Fig. 2 Apply a bonding agent evenly and completely in a post-space preparation.

Fig. 3 A radiograph demonstrates an intimate bond between the posts and dentinal walls.

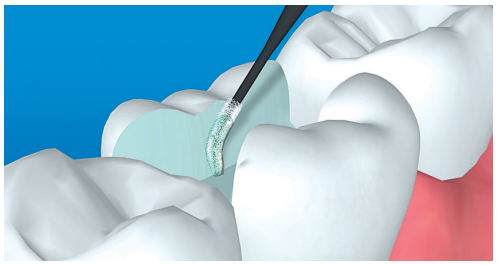


Fig. 4 The applicator is able to apply uniform coats of bonding agent to an inlay preparation.

Fig. 5 Distribute the bonding agent evenly along the entire area of onlay preparations.

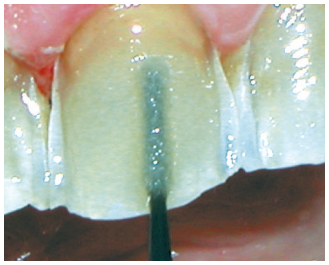


Fig. 6 Using a wand-like motion, the applicator can apply a bonding agent to a porcelain veneer preparation.

Fig. 7 In a Class II preparation, treat entire cavity walls in a single application.

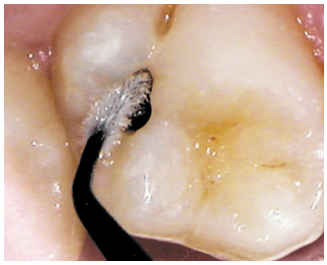


Fig. 8 Apply bonding agent to a traditional Class I preparation.

Fig. 9 In the same tooth, the applicator can access highly conservative micropreparations.

from a lower-left second premolar.

2. Position a clear matrix band and wood wedges for a Class II restoration.
3. Acid-etch, rinse, and blot dry the preparation.
4. Using the extended-reach applicator, apply bonding agent to all aspects of the preparation, and light-cure (Fig. 7).
5. Restore the tooth using flowable and paste form composite resins.

Class I micropreparation

1. Remove a defective amalgam and sealant from the occlusal surface of a maxillary molar.
2. Complete minimally invasive preparation of the decayed lingual groove.
3. Acid-etch, rinse, and blot dry the preps.
4. Apply a light-cured bonding agent to the occlusal preparations, using the extended-reach applicator (Fig. 8).
5. Use the extended-reach applicator to access the micropreparations of the narrow lingual channel, and apply bonding agent (Fig. 9). DPR

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