

Restoring and reinforcement of a tooth crown including highly aesthetic restorations

The Jen-Esthe Posts are made of transparent quartz fibers bonded with a high-strength epoxy under pressure. The Jen-Esthe Posts have elasticity and thermal expansion indices similar to the parameters of tooth dentin. The refractive indices of epoxy resin and quartz fibers are carefully chosen and are very close, thus allowing the post to be amazingly masked in composite materials

The Jen-Esthe Posts create high-strength compound with a composite material and provide superior aesthetic restorations, i.e. do not need masking, one must mask the darker end portion of the post only. Thanks to transparency of the Jen-Esthe posts, the light cure can be carried deep in the canal ("light guide effect"). Unlike posts of other manufacturers with cone ends, the end of the Jen-Esthe Post has a special hemispherical shape. This prevents excessive concentration of stress in the tooth root: while the tapered end of the pin acts as a wedge, i.e. under load there is a stress directed to split the tooth root, a post with a spherical end optimally

Mechanical properties of the Jen-Esthe Posts:

- Fiber type - quartz glass
- Matrix - epoxy resin
- Fiber content (by weight) - 80%
- Resin content (by weight) - 20%
- Tensile strength > 1.25 GPa
- Elasticity modulus > 50 GPa
- Flexural modulus > 25 GPa
- Elongation at break > 2.5%

The unique optical properties of the Jen-Esthe posts allow reinforcement of restoration up to transparent enamel areas without compromising the aesthetic component. Such a clinical solution makes the restoration more resistant to mechanical stresses in oral cavity, and hence, increases its reliability and durability

Posts	Post size (inches = mm)	Drill	Drill size (inches = mm)
Jen-Esthe Post # 1	0.039" = 0.9906	J-EndoDrill # 1 blue	0.042" = 1.0668
Jen-Esthe Post # 2	0.048" = 1.2192	J-EndoDrill # 2 green	0.050" = 1.2700
Jen-Esthe Post # 3	0.052" = 1.3208	J-EndoDrill # 3 blue	0.055" = 1.3970
Jen-Esthe Post # 4	0.059" = 1.4986	J-EndoDrill # 4 black	0.061" = 1.5494

Drill J-EndoDrill

The J-EndoDrill drill also significantly differs from our usual reamers. It is a miniature drill with passive, non-cutting side surface. The J-EndoDrill drill allows carrying out a cylindrical canal dissection for precise post placement.

Length of the working part of the tool is 16 mm.

For the convenience, the reamer surface has three marks that correspond to the distance of 14, 12 and 10 mm from the tip of the tool. These marks are well distinguishable in the rotational movement of the tool, and allow controlling the depth of the reamer penetration into canal. For a dentist's convenience, the reamers also have color codes.

Maximum rotational speed is 500 - 1000 rpm.

HOW TO USE:

Attention:

The Jen-EsthePosts and drills are supplied in a non sterile packaging and must be sterilized before use.

1. Determine the size of a post by comparing the drill with X-ray image.
2. Use spherical dental bur for removing intracanal material from the canal orifice and for creation of a guide (pilot hole) for the J-EndoDrill drill.
3. Place a rubber stopper onto the drill at the desired depth in accordance with X-ray image.

Note:

If you use posts analogs, set the rubber stopper or hold an analog with forceps at the same place that corresponds to a specific size of the drill.

4. At a set speed put the drill tip into the pilot hole. By applying a light pressure remove the intecanal material to the desired depth indicated by the stopper. Holding the drill at the specified speed, pull it out of the canal. To prevent damage of apical plug do not stop drill at its introduction or extraction from the canal.
5. Determine the correct preparation of the post bed by setting a post that is same to the size of the drill.

Note:

You can use posts analogs to test the prepared bed. This eliminates the use of the main post before seating. Use a rubber stopper or tongs to check the post insertion depth. To determine the correct preparation of the bed cone use X-ray image, as the posts analogs are radiopaque.

6. Cut the post to the desired length using a high-speed diamond bur or a disc. If you use a finish post to determine the quality of the bed preparation, clean the post with alcohol or chlorhexidine and dry thoroughly.

Note:

You can avoid the post cleaning step if you use an analog to test the quality of the bed preparation. The post will remain pure until its fixation.

7. Etch the canal and the cavity. Use a bonding system that is compatible with dual-cure cements. Follow the manufacturer's instructions. Jen-Unibond and Jen-DuaCem are recommended for use.

8. Introduce the dual-cure cement into the canal. Fill the canal in upward direction. Keep the tip into the cement to prevent formation of air bubbles.

9. Immediately insert the post into the canal. Excess cement can be lightly squeezed out and distributed around the post protecting it from excessive impurities.

10. Place the polymerization lamp above the post. Light cure for 40 seconds. The focus head on the light guide will help focus the light precisely on the post.

11. Immediately proceed to the restoration of the tooth stump.

STORAGE & SHELF LIFE:

No special restrictions. Shelf life is unlimited.

PACKING:

1. 6 posts of a specific size;
2. 1 drill of specific size;
3. Jen-Esthe Post Kit.

Kit components:

Jen-Esthe Post # 1 - 6 pieces;

J-EndoDrill No. 1 - 1 pc

Jen-Esthe Post # 2 - 6 pieces;

J-EndoDrill No. 2 - 1 pc

Jen-Esthe Post # 3 - 6 pieces;

J-EndoDrill No. 3 - 1 pc

FOR PROFESSIONAL USE IN DENTISTRY ONLY

The logo for JenD, featuring the letters 'JenD' in a bold, stylized, sans-serif font. The 'J' and 'D' are significantly larger and more prominent than the 'e' and 'n'. The 'e' and 'n' are smaller and positioned between the 'J' and 'D'. The logo is rendered in a dark grey or black color.