Clinical case
Dentistry and photography courtesy of: Dr. Alejandro Bertoldi Hepburn / Dr. Claudio Sumonte Hernández - Universidad del Desarrollo (Concepción, Chile)

Why place a round post in an oval space?

Macrolock Oval
Round-Flared-Oval Fiber Post

Intro kit A
Content:
- 5 MACRO-LOCK OVAL™ Post size 1,
- 5 MACRO-LOCK OVAL™ Post size 3,
- 2 starter drills (#1, #2),
- 2 finishing drills (size 1, size 3).

Intro kit B
Content:
- 5 MACRO-LOCK OVAL™ Post size 2,
- 5 MACRO-LOCK OVAL™ Post size 4,
- 2 starter drills (#1, #2),
- 2 finishing drills (size 2, size 4).

POSTS
4690001 Refill of 5 MACRO-LOCK OVAL™ POST # 1
4690002 Refill of 5 MACRO-LOCK OVAL™ POST # 2
4690003 Refill of 5 MACRO-LOCK OVAL™ POST # 3
4690004 Refill of 5 MACRO-LOCK OVAL™ POST # 4

DRILLS
4520119 1 Starter Drill # 2
4520120 1 Starter Drill # 1
4520121 1 Finishing Drill MACRO-LOCK® size 1
4520122 1 Finishing Drill MACRO-LOCK® size 2
4520123 1 Finishing Drill MACRO-LOCK® size 3
4520124 1 Finishing Drill MACRO-LOCK® size 4

RTD
3, rue Louis Néel
38120 St-Égrève - France
Tel.: +33 (0)4 76 56 56 66
Fax: +33 (0)4 76 56 11 77
E-mail: rtd@rtd.fr - www.rtddental.com

Distributed by

Clinical case
Dentistry and photography courtesy of: Dr. Alejandro Bertoldi Hepburn / Dr. Claudio Sumonte Hernández - Universidad del Desarrollo (Concepción, Chile)

Why place a round post in an oval space?

Macrolock Oval
Round-Flared-Oval Fiber Post

Intro kit A
Content:
- 5 MACRO-LOCK OVAL™ Post size 1,
- 5 MACRO-LOCK OVAL™ Post size 3,
- 2 starter drills (#1, #2),
- 2 finishing drills (size 1, size 3).

Intro kit B
Content:
- 5 MACRO-LOCK OVAL™ Post size 2,
- 5 MACRO-LOCK OVAL™ Post size 4,
- 2 starter drills (#1, #2),
- 2 finishing drills (size 2, size 4).

POSTS
4690001 Refill of 5 MACRO-LOCK OVAL™ POST # 1
4690002 Refill of 5 MACRO-LOCK OVAL™ POST # 2
4690003 Refill of 5 MACRO-LOCK OVAL™ POST # 3
4690004 Refill of 5 MACRO-LOCK OVAL™ POST # 4

DRILLS
4520119 1 Starter Drill # 2
4520120 1 Starter Drill # 1
4520121 1 Finishing Drill MACRO-LOCK® size 1
4520122 1 Finishing Drill MACRO-LOCK® size 2
4520123 1 Finishing Drill MACRO-LOCK® size 3
4520124 1 Finishing Drill MACRO-LOCK® size 4

RTD
3, rue Louis Néel
38120 St-Égrève - France
Tel.: +33 (0)4 76 56 56 66
Fax: +33 (0)4 76 56 11 77
E-mail: rtd@rtd.fr - www.rtddental.com

Distributed by
A SUCCESSFUL PRODUCT WITH A REVOLUTIONARY NEW ANGLE

RTD announces a new “hybrid” post design for the restoration of wide, flared canals. Keeping the illusion technology, advanced X-RO fiber, and the Macro-Lock drill system, the new Macro-Lock Oval simplifies these restorations: round and slightly tapered at the apical end, it flares profoundly and becomes oval.

Innovative, sophisticated new design
- Root canals are rarely round. Oval spaces are more common than round ones.
- Thorough treatment and re-treatment often leaves an over-prepared, compromised tooth with an oval and tapered space.
- Circular post systems are only effective in the most apical zone, because of considerable flare in the occlusal half.
- A parallel post will not be effective in an elliptical canal unless the canal is considerably enlarged.
- Adapting an oval space to accommodate a round post often requires the sacrifice of sound dentin tissue.
- Study data suggests that these restorations with accessory posts and non-circular (oval) fiber posts have a higher survival rate than round fiber posts.

Extracted tooth comparing the “fit” of a round post and the Macro-Lock OVAL from the facial aspect the posts are about the same. From the distal, they are remarkably different.

References:
4. Sahin Yildirim, K. Stress distribution of oval and circular fiber posts (ISO 4049) (Fig. 1) and fracture resistance to help protect the tooth.

Small Fiber Post
Large Fiber Post
OVAL Fiber Post

From the distal, they are remarkably different.

MACRO-LOCK Oval

The unique oval shape provides anti-rotation benefit, while replacing weaker cement with high strength fiber composite. Oval fiber posts are preferable to circular fiber posts in oval-shaped canals, given the stress distribution at the post - dentin interface.

Macro retentive serrations interlock with the cement & core material to increase retention.

The additional bulk of fibers in this critical zone offers maximum strength and fracture resistance to help protect the tooth.

Passive grooves lock into the cement in the ROUND apical portion, which is a conservative 0.04 taper.

Diameters in millimeters

Other benefits
- As always, the elastic modulus is close to dentin (15GPa @ 30°), producing no clinical root fractures.
- High translucency provides aesthetics, and expedites the dual cure cementation procedure.
- Corrosion-free and bicompatible, X-RO has passed the common test of cytotoxicity, but also intra-device reactivity, systemic toxicity, genotoxicity and hypersensitivity, in order to ensure complete biocompatibility and safety.
- Like all of our fiber posts, these are atraumatically removable if removal ever becomes necessary.

PATENTED X-RO Color-On-Command TECHNOLOGY

- Color-coding for easy identification; posts colors match the drills.
- Intrinsic color-coding disappears when seated, re-appears on demand if removal ever becomes necessary.

Other benefits
- As always, the elastic modulus is close to dentin (15GPa @ 30°), producing no clinical root fractures.
- High translucency provides aesthetics, and expedites the dual cure cementation procedure.
- Corrosion-free and biocompatible, X-RO has passed the common test of cytotoxicity, but also intra-device reactivity, systemic toxicity, genotoxicity and hypersensitivity, in order to ensure complete biocompatibility and safety.
- Like all of our fiber posts, these are atraumatically removable in minutes

* X-RO patent N°US2929873 et EP 2 181 074
** Illusion patent N°US7729871 et EP 1 776 933