

Bio RaCe™

Biologic Endodontic System

Bio RaCe™



By Your Side
in Dentistry



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DENTAL INSTRUMENTATION

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Philosophy

Research shows that the natural apical sizes of most root canals are surprisingly large and often contain biofilm (in infected cases). Biofilm is up to 1,000 times more difficult to eliminate than floating planktonic microbes.* The BioRaCe Endodontic System is designed to help the practitioner safely and efficiently meet the biologically desirable apical sizes which together with irrigation and bonded obturation result in highly successful root canal treatment.

Phase I: Microbial Control Phase

The chart below contains the Minimal Apical Preparation Sizes (MAPS) which are generally 0.05mm in diameter larger than the median apical sizes of each root canal.** Achieving these apical preparation sizes with sufficient adjunctive irrigation minimizes the number of microbes prior to obturation.

Upper Jaw	BR6 or BR7	BR6 If curved: BR4 or BR5	BR6 or BR7	B: BR4 or BR5 P: BR4 or BR5 I canal: BR6 or BR7	B: BR4 or BR5 P: BR4 or BR5 I canal: BR6 or BR7	MBs: BR4 or BR5 DB: BR4 or BR5 P: BR6 or BR7	MBs: BR4 or BR5 DB: BR4 or BR5 P: BR6 or BR7
Lower Jaw	B: BR5 L: BR5 I canal: BR6	B: BR5 L: BR5 I canal: BR6	B: BR5 L: BR5 I canal: BR6 or BR7	B: BR5 L: BR5 I canal: BR6 or BR7	MB: BR4 or BR5 ML: BR4 or BR5 D: BR6 or BR7 2 Ds: BR5 or BR6	MB: BR4 or BR5 ML: BR4 or BR5 D: BR6 or BR7 2 Ds: BR5 or BR6	

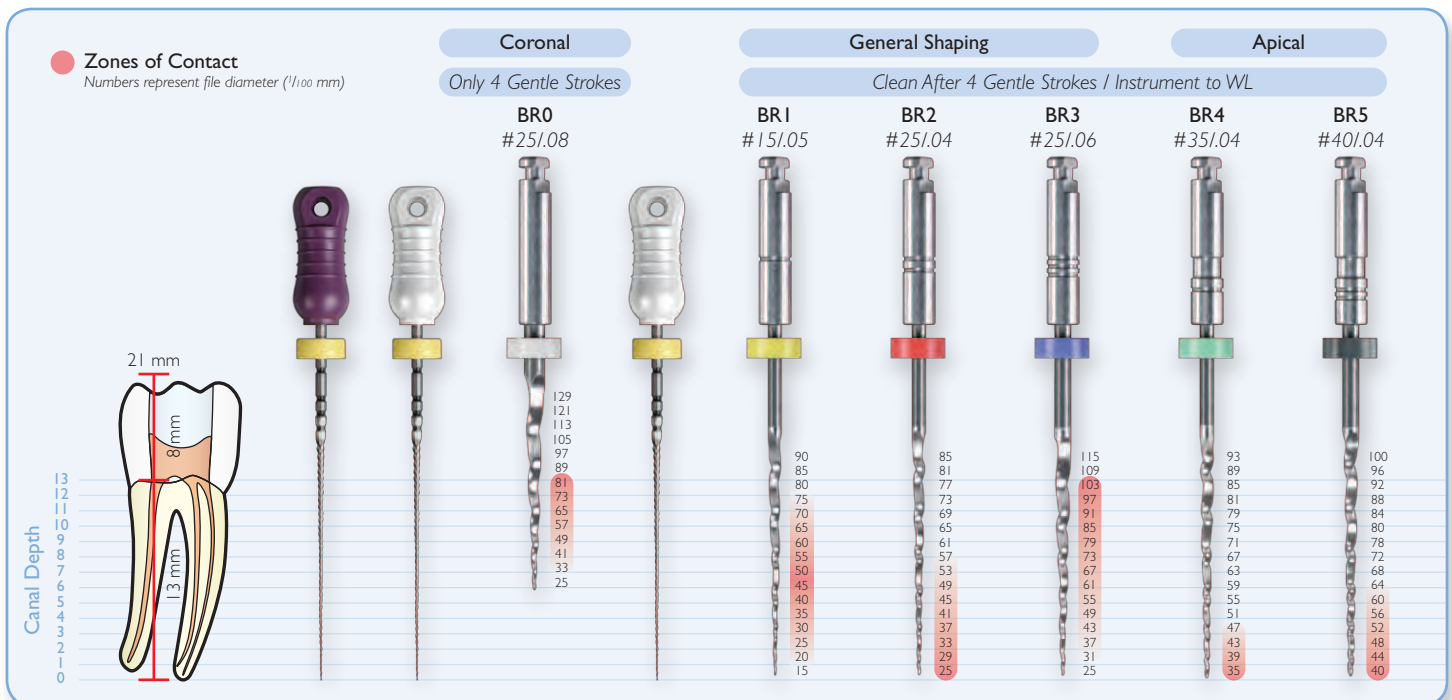
BR4 - #35/.04

BR5 - #40/.04

BR6 - #50/.04

BR7 - #60/.02

The BioRaCe Rotary File system utilizes a modified crown down technique, which varies both the tip size and taper throughout the sequence. File stress and the subsequent probability of file separation is limited because each file is only engaged in a third of the canal during use.

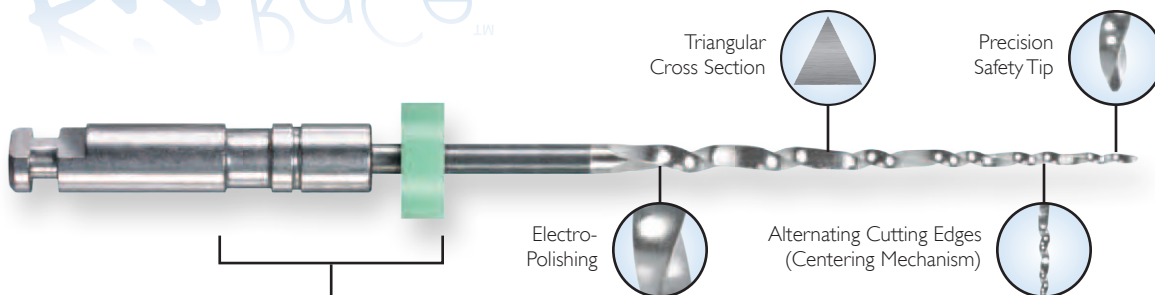


* Chávez de Paz L., JOE. Volume 33, Number 6, June 2007: 652-662.

** Card, Sigurdsson, Ørstavik, Trope. JOE. Volume 28, Number 11, November 2002: 779-783.
Baugh, Wallace. JOE. Volume 31, Number 5, May 2005: 333-340.

Weiger. OOOOE. Volume 102, Number 5, November 2006: 686-691.

Bio RaCe™ Features, Sequence & Technique



File Identification System

Basic set

- BR0 - #25/.08 - 19 mm
- BR1 - #15/.05 - 21 and 25 mm
- BR2 - #25/.04 - 21 and 25 mm
- BR3 - #25/.06 - 21 and 25 mm
- BR4 - #35/.04 - 21 and 25 mm
- BR5 - #40/.04 - 21 and 25 mm

Extended set

- BR6 - #50/.04 - 21 and 25 mm
- BR7 - #60/.02 - 21 and 25 mm
- BR4C - #35/.02 - 21 and 25 mm
- BR5C - #40/.02 - 21 and 25 mm

Extended Set

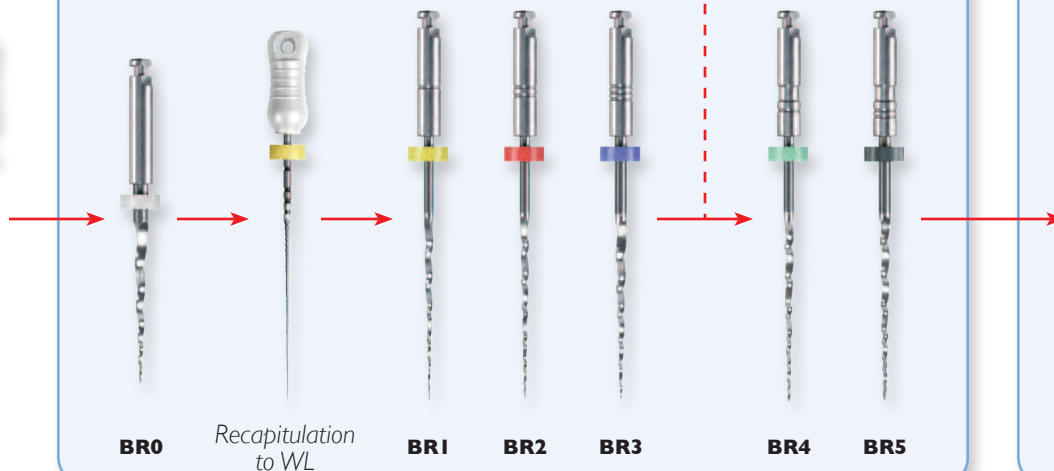


BR4C BR5C

Basic Set



SS Hand File
to WL



1. Establish straight-line access to the canal orifices. This is verified by seeing all orifices at once with one eye (with or without a clinical mirror).
2. Establish your preliminary working length (WL) with an apex locator. Use a file that fits firmly in the apical region (normally a hand SS file #06 to #15) when using the apex locator. If needed verify radiographically with a SS hand file #15 or higher.
3. Copious irrigation with NaOCl. Instrument the canals to WL at least to a #15 with SS hand files or NiTi ScoutRaCe™ rotary files.
4. Adjust the motor to 500-600 rpm, maximize the torque and place the first file (BR0) into the contra-angle.
5. All files from BR0-BR7 should be used with 4 gentle strokes. The desired length may be achieved before 4 strokes. If not achieved in 4 strokes, wipe the file and repeat until the desired length is achieved.
6. BR0 should be used for 3 mm (curved canals) to 5 mm (straight canals) from the first engagement point. Irrigate the canal orifice and change the file.
7. FOR SEVERE CURVATURES USE BR3 WITH 3, 2 and 1 GENTLE STROKES to WL. If this WL is not reached, consider BR4C and BR5C.
8. IRRIGATE COPIOUSLY WITH NaOCl BETWEEN INSTRUMENTS.
9. The sequence ending in BR4 (#35) and BR5 (#40) will always be used. Depending on the canal anatomy (see anatomical chart), two additional instruments maybe required - BR6 (#50) and BR7 (#60).
10. Final rinse with NaOCl followed by EDTA (or other appropriate irrigating solution).
11. Use the obturation master point corresponding to the final apical size BR4 (#35), BR5 (#40), BR6 (#50) and BR7 (#60). Complete with passive lateral condensation.

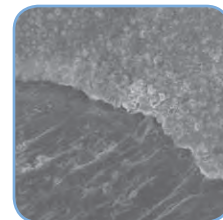
Phase 2: Bonded Obturation Phase

It is universally accepted that microbes require food and space to survive and multiply. Therefore, the primary goal of obturation should be to completely fill and seal the canal thereby eliminating any gaps and the opportunity for microbial recolonization (this includes the gap between the sealer and the filling material). The BioRaCe system utilizes a revolutionary premixed bioceramic sealer (BC Sealer™) which chemically bonds to both dentin and to the filling material (BC Points™)! BC Sealer is highly radiopaque, hydrophilic, antibacterial and unlike other sealers, BC Sealer forms hydroxyapatite upon setting and exhibits absolutely zero shrinkage!*

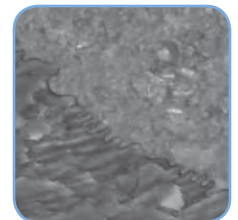


Never before has an obturation system been able to make these claims.*
How does your current system compare?

	BC Sealer and Points	Your Current System
Biocompatible and Osteogenic	✓	?
Chemical Bond of Sealer to Dentin	✓	?
Chemical Bond of Sealer to Filling Material	✓	?
Cost Effective (Considerably Less Expensive Than Carriers)	✓	?
Highly Antibacterial (12.5+ pH upon setting)	✓	?
Highly Radiopaque	✓	?
Hydrophilic	✓	?
Hydroxyapatite Producing	✓	?
Ideal Working and Setting Time	✓	?
User Friendly (Premixed Syringable Sealer)	✓	?
Zero Shrinkage of Sealer and Filling Material	✓	?
3-D Bonded Obturation at Room Temperature	✓	?



EndoSequence BC Sealer / BC Point Interface



EndoSequence BC Sealer / Dentin Interface



Radiograph courtesy of Dr. Gilberto Debelian, DMD, PhD, Adjunct Associate Professor, Dept of Endodontics at Universities of North Carolina and Pennsylvania



Micro CT Courtesy of Dr. Adam Lloyd, Chair of Department of Endodontics, UTHSC

*Research and other support materials available at www.BrasselerUSA.com/Bioceramics

Procedure Systems



K0218
BioRaCe
Access Kit



K0220
BioRaCe
Starter Kit



K0219
BioRaCe
Chairside
Procedure
Block