

RaCe™ Nickel Titanium Rotary Instruments

Instructions for Use

Technique as recommended by Chris Stock BDS MSc DGPD

Use all the RaCe instruments with a light touch at a speed of 600 rpm (speed range 500-650 rpm). Imagine that the handpiece is a paint brush and you are "painting" the walls of the canal with an in and out motion while moving circumferentially around the canal. This ensures that dentine is cut on the outstroke, which reduces the chance of instrument breakage. In multi-rooted teeth brush away from the furcation.

Always use instruments with lubricant such as Schottlander Root Canal Preparation Paste. Irrigate copiously with sodium hypochlorite solution.

Standard RaCe Instrument Technique

Step 1 Establishing a guide path

Establish a guide path to 1/2 to 3/4 estimated length using a Schottlander Hand Canal Finder #10.

Step 2 Prepare the coronal and middle portions of the root canal

Insert a RaCe taper .10 #40 (Black) into the canal using about five movements followed by taper .08 #35 (Green). Taper .08 should reach approximately 3/4 length of the canal judged from preoperative radiograph.

Step 3 Measure the working length of the canal

Use an Apex Locator to measure the working length whilst establishing a guide path to the apex with the hand canal finder #10. Larger hand instruments are only required when the canal is tight.

If there is a ledge or acute curve in the canal place a 45° curve at the tip of the hand instrument and use a light watch winding (backwards and forwards rotation) to negotiate the ledge or curve. Eliminate any ledges before commencing rotary instrumentation.

Step 4 Prepare the apical portion

Starting with a RaCe taper .02 #25 (Yellow) gradually work the instrument to working length. If resistance is encountered then immediately change to Schottlander Hand Flexible K files and widen the apical third of the canal starting with size 15 and progressing to size 20 to working length. When working length has been reached with the RaCe .02 #25 change to a taper .04 #25 (Red) and proceed to working length. Finally use taper .06 #25 (Blue) to length.

Reducing the number of instruments

1. When access is straightforward the use of the .10 #40 may be omitted. In such cases open the canal entrance and start with a taper .08 #35 (Green) and prepare to the middle third of the coronal portion of the canal. Brush the instrument lightly into any visible crevices on buccal or lingual aspect and away from the furcation of multi-rooted teeth.

NOTE: When the .10 #40 has been omitted always start obturation with a Schottlander GP Point .06/.04 #25.

2. Experienced RaCe users may, in suitable straight canals, omit the use of instruments .02 #25 and .04 #25 and then gently work the RaCe taper .06 #25 to length. If resistance is encountered then revert to the standard technique.

Irrigation and lubrication

Before application of each instrument lubricate the canal with EDTA paste and afterwards irrigate with 3ml NaOCl. On completion of the preparation, further cleaning of the canals with ultrasonic irrigation using the "IrriSafe" instrument is recommended. Once irrigation is completed it is recommended to flush the canal system with 17% EDTA for 1 minute followed by a final rinse with 3% NaOCl.

Further apical preparation

There are different opinions as to whether or not apical preparation beyond an .06 25 instrument is required. A significant advantage of the RaCe system is that it permits preparation to be carried out using rotary rather than hand instruments.

For practitioners who wish to prepare further an Apical Enlargement Kit is available which contains RaCe .04#35 .04#40 and .04#50 instruments.

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Standard RaCe Instrument Technique

Step 1



Step 2

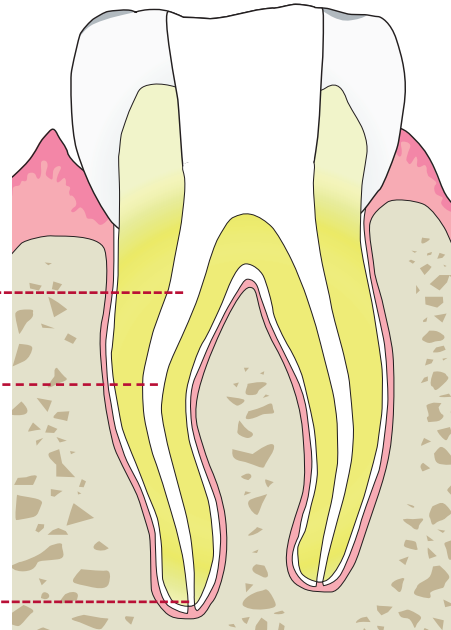
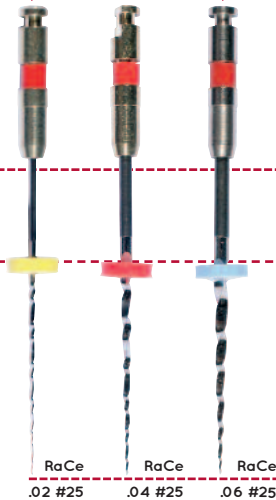


- Step 1** Establish a guide path to 1/2 or 3/4 length.
- Step 2** Prepare the coronal and middle portions of the root canal.
- Step 3** Measure the working length of the canal whilst establishing a guide path to the apex.
- Step 4** Prepare the apical portion starting with taper .02 for reduced instrument stress.

Step 3



Step 4



This product is specifically manufactured for use in dentistry

RaCe Apical Enlargement Kit available on request