

***TRU* *Shape***<sup>®</sup>  
ENDODONTIC SYSTEM

Preserving What Matters.

**TECHNIQUE REFERENCE GUIDE**

**DENTSPLY**  
TULSA DENTAL  
SPECIALTIES

## TREATMENT TECHNIQUE

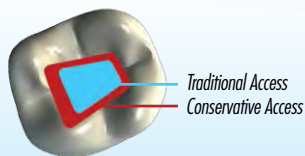


FIG. 1



FIG. 2



FIG. 3



FIG. 4

PathFile  
#13 #16



FIG. 5

1. Estimate the working length using well-angulated preoperative radiographs.
2. Prepare an appropriately conservative access cavity. **FIG. 1**
3. Scout canals with a #10 K-file or appropriate K-files in the presence of ProLube® Root Canal Conditioner. **FIG. 2**
  - a. If the file advances easily to estimated working length (WL), confirm patency and determine WL using an electronic apex locator. **FIG. 3**
  - b. If the file meets resistance and the file does not progress gently to WL, use the TRUShape® Orifice Modifier to open the coronal segment to create a coronal receptacle for the subsequent TRUShape 3D Conforming File. **FIG. 4** The TRUShape Orifice Modifier can be used at 300 RPM (500 RPM in highly calcified canals) and Torque 300 g-cm. Negotiate with a #10 K-file, confirm patency and determine WL.
4. Create a reproducible glide path to WL with PathFile® Root Canal Drills #13 and #16. **FIG. 5**
5. Irrigate with sodium hypochlorite, activate the irrigant and re-irrigate to remove debris. Confirm patency throughout the shaping procedure.
6. Choose the appropriate preprogrammed torque-controlled electric motor setting (300 RPM and 300 g-cm) for the selected TRUShape 3D Conforming File.
7. Advance the selected TRUShape 3D Conforming File (based on canal anatomy) passively in the presence of sodium hypochlorite. Use smooth 2-3 mm amplitude in-and-out motions towards the apex. Avoid abrupt pecking motions. When shaping canals that have a larger buccal-lingual dimension, consider shaping as two canals.
8. Upon removal of the TRUShape 3D Conforming Files, remove debris with alcohol moistened 2x2 gauze. **FIG. 6**
9. Inspect cutting flutes routinely upon removal. If elongation or deformation is observed, discard and use a new TRUShape 3D Conforming File. Reconfirm file working length setting.
10. If the selected TRUShape 3D Conforming File does not progress easily, reconfirm that the TRUShape Orifice Modifier has been used in the coronal segment. If the TRUShape 3D Conforming File still does not progress passively, move to the next smaller TRUShape 3D Conforming File.
11. Advance the TRUShape 3D Conforming File towards WL in a gentle passive motion as described above.
12. Use copious irrigation and re-verify canal patency throughout the procedure. Upon completion of shaping, gauge the size of the foramen with an appropriate hand file. If the gauging file is snug at length, the preparation is finished. If the gauging file is loose at length, use a larger TRUShape 3D Conforming File to finish the preparation.
13. Confirm master cone fit in a wet canal, prior to final disinfection process.
14. Irrigate the canal using sodium hypochlorite with activation. Rinse with sterilized saline or de-ionized water. Irrigate with QMix® 2in1 Irrigating Solution for 60-90 seconds per the QMix® 2in1 Irrigating Solution protocol and activate.
15. Dry the canal thoroughly and obturate with a technique that promotes a three-dimensional fill.
16. Restore the endodontically treated tooth in a timely manner.



FIG. 6

# SHAPING TECHNIQUE



=



IRRIGATE



ACTIVATE



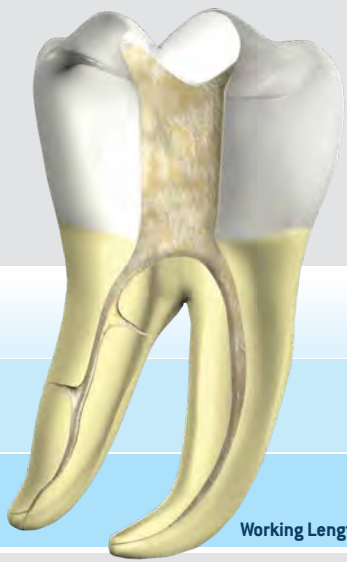
IRRIGATE



RECAPITULATE

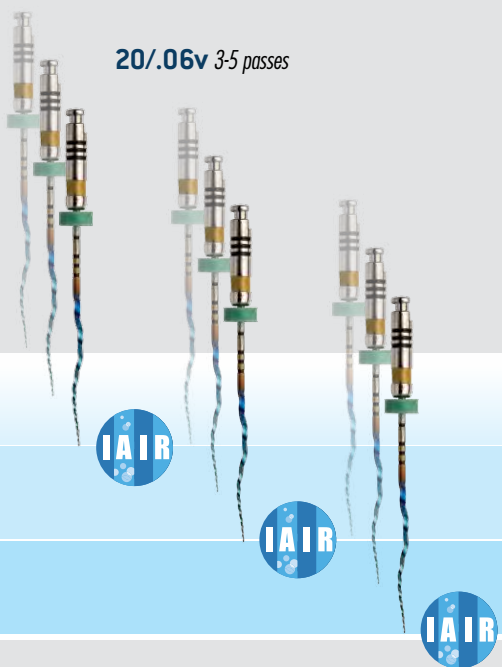


300 RPM / TORQUE 300 g-cm



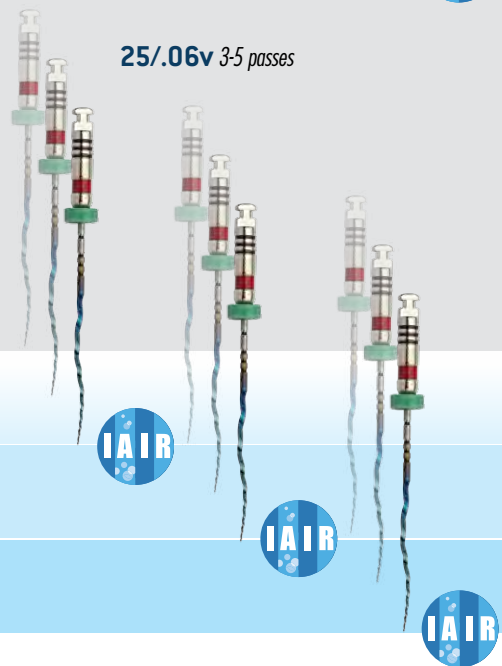
Working Length

20/.06v 3-5 passes



Working Length

25/.06v 3-5 passes



30/.06v 40/.06v



As needed.

## ACTIVE IRRIGATION

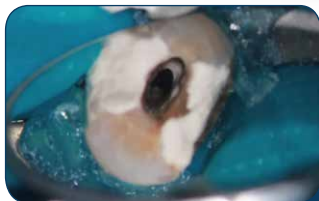


FIG. 1

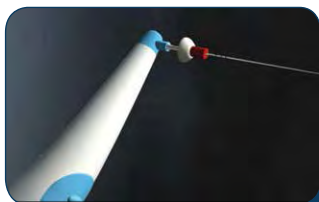


FIG. 2



FIG. 3



FIG. 4

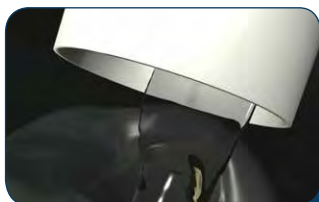


FIG. 5

### TECHNIQUE\*

1. Use throughout the shaping process.
2. Fill pulp chamber with NaOCl, or other preferred irrigation solution. **FIG. 1**
3. Select the EndoActivator® System tip that manually fits loosely within 2 mm short of your previous instrument length. (Tips should not be taken closer than 2 mm from working length.) **FIG. 2**
4. Use a barrier sleeve to protect the handpiece.
5. Place the attached EndoActivator tip into the prepared root canal. **FIG. 3**
6. Depress the ON/OFF switch to activate solution. (Note: Switch defaults to high speed, as indicated for cleaning procedures.)
7. Use a slow pumping motion in short, 2-3 mm vertical strokes.
8. Hydrodynamically agitate the irrigation solution for 30-60 seconds. **FIG. 3**
9. Use intracanal suction to remove loose debris.
10. Irrigate with saline.
11. Repeat technique using QMix® 2in1 Irrigating Solution as the final irrigant to remove the smear layer and disinfect the root canal system. **FIG. 4**
12. Place QMix 2in1 solution into the canal using a syringe and ProRinse® side vented needle. Place needle no more than 2 mm from the apex and express solution (approximately 2-3 mL per canal).
13. Irrigate for 60-90 seconds, then use clean intracanal suction to remove loose debris and smear layer. **FIG. 5**

\* Refer to the EndoActivator System and QMix 2in1 Irrigating Solution Directions for Use for more detailed instructions.



**SMALL**  
(15/02)

**MEDIUM**  
(25/04)

**LARGE**  
(35/04)



# FITTING A TRUSHAPE PRECISION MACHINED GUTTA-PERCHA MASTER CONE



FIG. 1

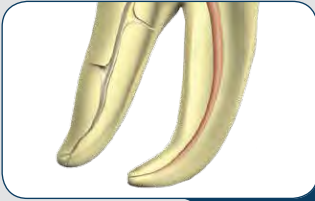


FIG. 2



FIG. 3



FIG. 4

The TRUSHape® gutta-percha master cones combine a TRU apical shape with a parallel mid root and coronal design. This provides the clinician a master cone adaptable to irregular geometries for a variety of clinical situations.

When using Warm Vertical Compaction Techniques

1. Complete cleaning and shaping.
2. Select the appropriate 20, 25, 30 or 40 TRUSHape master cone. **FIG. 1**
3. Place the master cone to length until apical tugback is achieved. (Determine in wet canal.) **FIG. 2**
4. Confirm radiographically (if desired).
5. Remove master cone and disinfect it. **FIG. 3**
6. Select/fit appropriate pluggers into canal.
7. Clean and disinfect canals. (Refer to the Active Irrigation section.)
8. Dry canals. (Use sterile absorbent points.) **FIG. 4**
9. Apply thin layer of sealer to master cone or sterile absorbent point and gently insert to working length. (Place gutta-percha cone two-thirds of the way down canal, pullback 2-3 mm and slowly advance to desired length.) **FIG. 5**
10. Perform preferred warm vertical compaction technique. (Refer to the Warm Vertical Compaction section.)

*Note: Irregular geometries may require an additional gutta-percha master cone or accessory cones to build up gutta-percha mass in the midroot-coronal aspect of the canal prior to performing warm vertical compaction.*

**MICRONIZED FORMULA DELIVERS WARM GUTTA-PERCHA > 4 MM BEYOND THE HEAT SOURCE**

Working temperature of 105-180°C

**PRECISION MACHINED GUTTA-PERCHA MASTER CONE**

TRU Apical design to predictably fit the shaped root canal

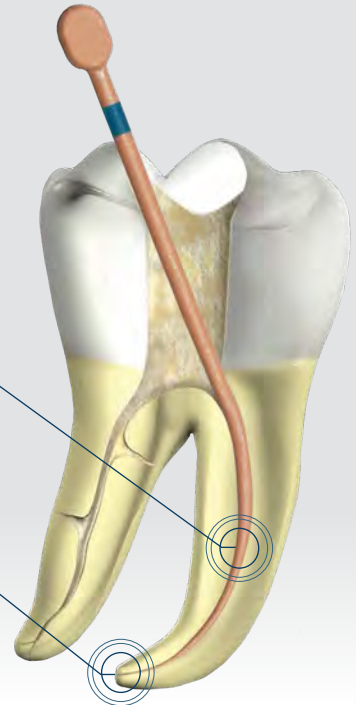


FIG. 5



## WARM VERTICAL COMPACTION

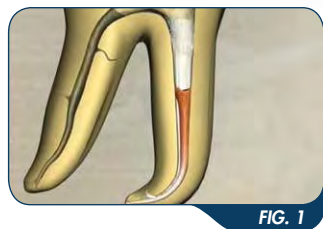


FIG. 1

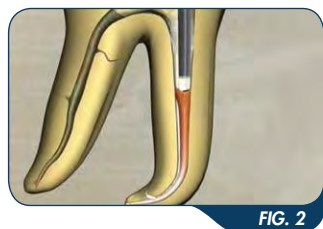


FIG. 2

### VERTICAL COMPACTION

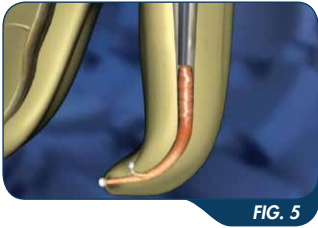
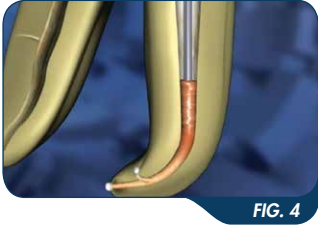
1. Place sealer and fit the gutta-percha master cone to working length and use a heated plugger to sever master cone at the canal orifice. Use the appropriate prefit manual plugger and compact at the canal orifice. Activate a heated plugger, advance apically 3-4 mm into the master cone. Deactivate, apply apical pressure for 1 second. Activate the heated plugger for 1 second and move the heat tip laterally across the gutta-percha to the canal wall and then remove the plugger with a segment of gutta-percha. **FIG. 1**
2. Select the appropriate prefit manual plugger and condense gutta-percha circumferentially off canal walls and compress apically. **FIG. 2** Press and hold the manual plugger for 5 seconds to compact warm gutta-percha into this region of the root canal system.
3. Activate the heated plugger and advance another 3-4 mm apically into the gutta-percha. Deactivate, apply apical pressure for 1 second. Activate the heat plugger for 1 second and move the heat tip laterally across the gutta-percha to the canal wall and then remove the plugger with a segment of gutta-percha.
4. Select the appropriate prefit manual plugger and condense gutta-percha circumferentially off canal walls and compress apically. Repeat steps 3-4 until apical depth is obtained.
5. Condense and hold apical pressure for approximately 5 seconds to deliver warm gutta-percha into the apical one-third of the root canal system and to offset shrinkage during the cooling phase.
6. Prepare to backfill the canal. (See below.)

### CONTINUOUS WAVE DOWNPACK

1. Place sealer and fit the gutta-percha master cone to working length and use a heated plugger to sever master cone at the canal orifice. Use the appropriate prefit manual plugger and compact at the canal orifice.
2. Set working length of the heated plugger. Activate, and, in one deliberate and continuous motion, firmly press the heated plugger through the thermosoftened gutta-percha until the silicone stop is 2 mm from the reference point. This procedure must be limited to 2-3 seconds to prevent thermal injury.
3. Deactivate the heated plugger and continue to maintain firm apical pressure.
4. Maintain firm apical pressure for 5 seconds to compact the mass of warm gutta-percha into the apical one-third of the root canal system and to offset shrinkage during the cooling phase.
5. Activate the heated plugger for 1 second and move the heat tip laterally across the gutta-percha to the canal wall and then remove the plugger with a segment of gutta-percha. This procedure separates and removes gutta-percha from the coronal two-thirds of the canal without disturbing the gutta-percha in the apical one-third.
6. Select the appropriate prefit manual plugger and condense gutta-percha circumferentially off the canal walls and compress apically. Prepare to backfill the canal. (Next page.)

## BACKFILL

1. Reapply sealer to the canal wall with a sterile absorbent point. Activate and prime the gutta-percha contained in the backfill handpiece. Deactivate. Place tip of gutta-percha backfill handpiece against the previously condensed gutta-percha material. Hold for approximately 3-5 seconds before backfilling with warm gutta-percha. Activate. Hold the backfill handpiece lightly so it will back out of the canal during use. Dispense a small 2-3 mm segment of warm gutta-percha into this region of the canal. **FIG. 3, 4**
2. Select the appropriate prefit manual plugger and condense gutta-percha circumferentially off the canal walls and compress apically. **FIG. 5**
3. Use the same manual plugger and press for 5 seconds to three-dimensionally compact warm gutta-percha into this region of the canal and to offset shrinkage during the cooling phase.
4. Position the tip of the warm cannula against the previously packed filling material for approximately 3-5 seconds. Dispense a longer, 3-4 mm, segment of warm gutta-percha into this region of the canal.
5. Select the appropriate prefit manual plugger and condense gutta-percha circumferentially off the canal walls and compress apically. Use the manual plugger and press for 5 seconds to three-dimensionally compact warm gutta-percha into this region of the canal and to offset shrinkage during the cooling phase.
6. Continue the backfill technique in the manner described, until the canal is completely filled or to the required level if accommodating a post for restorative needs. **FIG. 6**



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**DENTSPLY**  
TULSA DENTAL  
SPECIALTIES

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