Instructions for Use - EMS thread style
Tün ® Non-Surgical Ultrasonic Endodontic Instruments

Function and Uses:
Tun instruments have been designed to function on most brands of Piezo-Electric type dental ultrasonic Scalers that use an M3x0.5 thread. Refer to your ultrasonic machine owner's manual for further details on the use of these types of devices. The operator should be aware that ultrasonic tips with small diameters are subject to breakage at any time. In order to reduce the incidence of premature breakage or failure, only very light pressure should be applied by the operator, and the suggested intensity settings should be followed. All Tun instruments incorporate a fork design allowing for low power to be used while still performing at a power level. This design is unique to Tun tips and the clinical should test various power levels to find the optimum setting for each case. The following are guidelines for the various uses of Tun Instruments.

Tun-E1 Intensity Setting – Medium
The Tun-E1 tip can be used for gross dentin removal, moving access line angles, cutting a groove in the mesial access wall to drop into MB2 canals, and for quickly and carefully unroofing pulp chambers. Its radiused tip geometry also allows effortless entry into each canal orifice and facilitates the creation of a smoothly troughed surface, which is helpful in finding reclusive MB2'sThe Tun-E1tip has the same radiused tip geometry as theTun-E2, only with diamond.

Tun-E2 Intensity Setting – Medium
The Tun-E1 tip can be used for gross dentin removal, moving access line angles, cutting a groove in the mesial access wall to drop into MB2 canals, and for quickly and carefully unroofing pulp chambers. Its radiused tip geometry also allows effortless entry into each canal orifice and facilitates the creation of a smoothly troughed surface, which is helpful in finding reclusive MB2's. It can be used to remove post cement and fine dentin removal. The Tun-E1tip has the same radiused tip geometry as theTun-E2 tip, only without diamond.

Tun-E3 Intensity Setting – Medium to High
The Tun-E3 tip, with its Ball tip tip, can be used to remove larger quantities of dentin then the E1 or E2 tips. It can also be used where larger shaping needs to take place.

Tun-E4 Intensity Setting – Medium to High
The Tun-E4 tip with its football shape can be used like the Tun-E3 tip for larger dentin removal along the sidewalls of the tooth.

Tun-E5 Intensity Setting – Meduim to High
The Tun-E5 tip with its disc like shape can used to smoothly and safely plane attached pulp stones from the pulp chamber floor without scoring it. In molars, it can be used to horizontally smooth the pulp chamber floor without cutting past it to get to the darker colored dentin. In molars, it can be used to horizontally smooth the pulp chamber floor without cutting past it to get to the darker colored dentin

Tun-E6 Intensity Setting – Medium to High
The Tun-E6 tip can be used for the removal of posts. With its short, robust shape the tip can be used at higher power settings.

Contra-Indications

There are no known contra-indications when used as recommended.

Warnings

Please refer to the instructions for use of the manufacturer of the piezoelectric ultrasonic unit. It is important to note that the different operating power settings must be used for different clinical applications and circumstances.

Precautions

• Do not start the piezoelectric ultrasonic generator with damaged ultrasonic tips.

• For best results, and your safety, the use of a visual aid is recommended.

• Do not heat above 275^{o} F/135^{o} C.

• Tips that have been distorted in any fashion should be discarded.

• To avoid overheating the dentin structures, do not apply continuous contact for more than 30 seconds.

• The tip must be tightened onto the ultrasonic handpiece prior to use. Please pay attention not to over tighten nor under tighten.

Adverse reactions

To date, no adverse reactions have been reported.

Instructions

To maximize clinical performance and safety, and to reduce the potential of instrument breakage, start with lower power settings and only increase the power as required to accomplish the clinical task. All tips should be used with minimal pressure and a light brushing motion.

Sterilization Instructions

tün ultrasonic tips are not sold sterile and must be cleaned and sterilized prior to each use.

A. Wipe tips with a cleaning disinfectant.

B. Cleaning –
Pre-clean using a high-quality, pH neutral, ultrasonic cleaning solution. Follow solution manufacturer's instructions.
Dry thoroughly with a towel and compressed air.

C. Steam Sterilization –
Place the tips to be sterilized in an autoclave pouch prior to sterilization.

Sterilization Parameters for Tips

Gravity Steam Sterilizer:
• Temperature: 250^{o} F/121^{o} C.
• Cycle Time: 30 minutes
• Maximum Dry Time: 30 minutes

Prevacuum Steam Sterilizer:
• Temperature: 270^{o} F/132^{o} C.
• Cycle Time: 4 minutes
• Maximum Dry Time: 30 minutes

Disclaimer: Engineered Endodontics does not assume any responsibility or liability for incorrect diagnosis or failed procedures due to operator error or equipment malfunction. Clinicians who are not familiar with the techniques and uses of this product should attend courses and receive training on the subject prior to use. Warranty: Ultrasonic instruments are covered by a limited 30

day warranty and will be replaced or repaired at our option if returned, shipping prepaid, to the point of purchase. Warranty is void if used incorrectly, or on improper equipment.

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Australian Patent Nos. 354888, 355131

European Patent Nos.
002408930-0001, 002408930-0002, 002408930-0003, 002408930-0004,002408930-0005, 00240 8930-0006, 002408930-0007, 002408930-0008, 002408930-0009, 002408930-0010, 002408930-0011, 002408930-0012

US & Additional patents pending.