







Root Canal Product Series

- Dental Burs
- © Endodontics
- Orthodontics

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Shenzhen PERFECT Medical Instruments Co., Ltd









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Company Profile

Shenzhen Perfect Medical Instruments Co.,Ltd, located in Shenzhen, Guangdong Province, is an integrated professional dental supplier in developing, manufacturing, and marketing. It set up in 2008 which committing to the innovation of products.

Dental Repair Products: Diamond Burs, Tungsten Carbide Burs. **Dental Pulp Products:** Stainless Steel / Nickel Titanium Endo

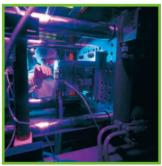
Files(Hand/Engine), Multiple Taper Files, Gates Drills, Peeso Reamers, Barbed Broaches, Paste Carriers and so on.

Dental Orthodontics Products: NITI Round Archwires / RectangularArchwires, Reserve Curve Archwires, Open / Closed Springs.

Pulp Washing Products: Ultrasonic Wave Files (U-Files)
RCT Equipment: Portable Motors, Two in one Motors, Four in one Motors, Heat gutta-percha
Instruments, Ultrasonic Vibration
Instruments.

After years of development, production equipment completed fully automated basically, greatly improved the production efficiency. Perfect is adhering to the business philosophy of "Quality First, Customer First, Service First" and insists on innovation, quality, service. We have got ISO13485, CE Certificate and FDA Certificate. Our products are now being sold to all over the world and have been obtained a good reputation from customers.







We sincerely welcome all the friends to visit us!









U.S. Food and Drug Administration ITM. Horse² Medical Desices⁴ Devolutes⁵ Establishment Registration & Device Listing New Search Each To Search Results U.S. Food and Drug Administration 10903 New Hampshire Avenue Silver Spring, ND 20993 Ph. 1-888-INFO-FDA (1-888-963-6332) Combination Products Advisory Committees Science & Research Regulatory Information Safety Emergency Preparedness International Programs News & Events Training and Continuing Education Imspections/Compliance State & Local Officials Consumers Industry Health Professionals FDA Archive

企业名称	深圳市葆丰医疗器核	就有限公司		
住 所	深圳市龙岗区南湾街	i道吉厦早禾坑工业	区3号C栋厂房-	极.
生产场所	深圳市龙岗区南湾街	f道吉厦早禾坑工业	区3号C栋厂房-	极.
法定代表人	施权章	企业负责人	施权章	
生产范围	6806 口腔科手术器	埃		
	产品名称	产品备案号	登载日期	备注
	根管锉	粤深械备 20150023 号	20150130	-
生产产品	牙用输送器	粤深械各 20150025 号	20150202 -	
	拔髓针	粤深核各 20150024 号	20150202 —	
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Material: ◂

Nickel Titanium: Stronger toughness and fracture resistance

Stainless Steel : Stronger cutting force

Root Canal Files

Feature:

- **♦** ISO color coded plastic handle with ISO tip size
- **♦** Extremely strong, flexible and durable
- **♦** Silicon stopper
- ♦ Sterilizable. Max: 150°C

ISO Size and Color









Stainless Steel/ Nickel Titanium Instruments



Hand use Files:

- Materials: Imported raw materials--dental high quality raw materials.
- Silican Stopper: Dental high quality raw materials, to confirm the position when root canal treatment
- Handle: Each file with clear sign for a ISO size accordingly

K Files
H Files
Capacitation

Length: 21mm, 25mm, 28mm, 31mm
Assorted Package: #15-40/ #45-80
Taper: .02
Packing: 6 pcs/box



Stainless Steel / NITI K Files (Hand)

- Strong and stable instruments for searching root canal, cleaning and shaping the canal walls.
- Taper: .02
- Packing: 6pcs/box



Stainless Steel / NITI H Files (Hand)

- Fasting cutting instruments for fast removal of debris.
- Taper: .02
- Packing: 6pcs/box



Stainless Steel / NITI Reamers (Hand)

- Instruments for smooth preparation of the canal walls.
- Taper: .02
- Packing: 6pcs/box





Nickel Titanium: Good flexibility and fracture resistance

Material

Stainless steel: Stronger toughness and cutting force







Engine Use Files:



Length: 21mm, 25mm, 28mm, 31mm

Assorted Package: #15-40/ #45-80

Taper: .02

Packing: 6 pcs/box



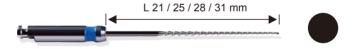
Stainless Steel / NITI K Files (Engine)

- Strong and stable instruments for searching root canal ,cleaning and shaping the canal walls.
- Taper: .02
- Recommended Rotary Speed: 250-350 rmp
- 6 pcs/box



Stainless Steel / NITI H Files (Engine)

- Fasting cutting instruments for fast removal of debris.
- Taper: .02
- Recommended Rotary Speed: 250-350 rmp
- 6 pcs/box



Stainless Steel / NITI Reamers (Engine)

- Instruments for smooth preparation of the canal walls.
- Taper: .02
- Recommended Rotary Speed: 250-350 rmp
- 6 pcs/box





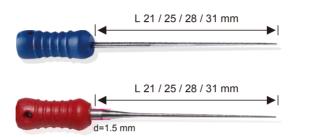
Stainless Steel/ Nickel Titanium Instruments



Stainless Steel / NITI Pluggers

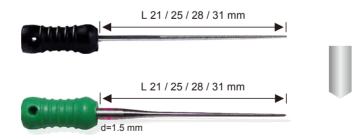
- Smooth conical shape with flat tip. Used for both vertical and lateral compacting of gutta-percha and other filling materials.
- Taper: .02
- Packing: 6 pcs/box





Stainless Steel / NITI Spreaders

- Smooth conical shape with pointed tip. Used for measuring the space between guttapercha or other filling materials, so as to increase the density of canal fillings.
- Taper: .02
- Packing: 6 pcs/box







Stainless Steel / NITI Spreaders, Pluggers

Stainless Steel / NITI Spreaders, Pluggers

- Imported raw materials, advanced technology to make the surface smooth, not stick the fillings when pressing.
- The process of heat gutta-percha can effectively prevent over-filling. To prevent the force too large when the diameter of the root tip narrow place not confirmed.
- Each instrument has two working side, large working side for stainless steel materials, while small working side for nickel titanium materials. Both side is for pressure
- New design concept, aluminum alloy handle, lightweight and stronger oxidation resistance.
- Pluggers and Spreaders can be used for cold and hot gutta-percha. The application of filling technology, such as cold gutta-percha spreaders filling technology, hot gutta-percha pluggers filling technology and heat guttapercha continuous wave filling technology can make root canal filling more closed and enriched.





U-FILE

- Materials: Imported raw materials-dental high quality medical raw materials.
- Tip with excellent tenacity is used for root canal cleaning. The usage of cleaning tooth machine into the canal, the default power is set automatically but it can adjust according to actual situation.
- Material: Stainless Steel / NITI
- Diameter: 0.8Taper: .026 pcs/box





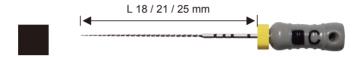
Stainless Steel Instruments



Stainless Steel / C FILES

- Materials: Imported raw materials-dental high quality raw materials.
- Silicon Stopper: Dental high quality raw materials, to confirm the position when root canal treatment
- Handle: Each file with clear sign for ISO size accordingly Used to dredge difficult or calcified root canals, cutting tip which engages dentine.
- Taper: .02
- Packing: 6 pcs/box

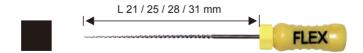




Stainless Steel / K-FLEX FILES

- Materials: Imported raw materials--dental high quality raw materials.
- Silicon Stopper: Dental high quality raw materials, to confirm the position when root canal treatment
- Handle: Each file with clear sign for ISO size accordingly
- Length: L21/25/28/31mm
- Taper: .02
- Packing: 6 pcs/box





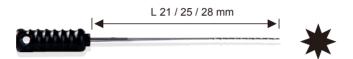


Stainless Steel Instruments

Stainless Steel/ Barbed Broaches

- Designed for fast removal of pulpal tissue
- Materials: Imported raw materials-dental high quality raw stainless steel materials.
- Handle: Each file with clear sign for ISO size accordingly
- Packing: 10 pcs/blister





Paste Carriers (Engine)

- Not easy to break used the special shape and material, spiral spring to absorb vibration of handle, turning out slowly after inserting into the root canal. Intended for opened pulp canals filling and dental processing.
- Recommended rotary speed: 250-350 rmp
- 4 pcs/box





Stainless Steel Instruments



Peeso Reamers (Engine)

- Material: Imported high quality raw materials, high corrosion resistance, by the refining production, has the equilibrium and stability of hardness.
- Head: Circular cutting edge is good to prevent the steps and impalement.
- Special process: specially designed, if broken, broken parts is closed to handle, which is easy to remove from the root canal
- Handle: Each has a ring logo to distinguish, used for preparation of upper 1/3 root canal crown; to bring out the filled material in the root canal; to prepare the post path
- Recommended Rotary Speed: 800~1200 rmp
- 6 pcs/box (single size & assortment)

SIZE / PACKING

x6	
N°1 Ø0.50mm,	N°2 Ø0.70mm,
N°3 Ø0.90mm,	N°4 Ø1.10mm,
N°5 Ø1 30mm	N°6 Ø1 50mm

X1		ISO 1-6
N°1	N°2	N°3
N°4	N°5	N°6





Gates Drills (Engine)

- Material: Imported high quality raw materials, high corrosion resistance, by the refining production, has the equilibrium and stability of hardness.
- Head: Circular cutting edge is good to prevent the steps and impalement.
- Special process: specially designed, if broken, broken parts is closed to handle, which is easy to remove from the root canal.
- Handle: Each has a ring logo to distinguish, to be applied in pulp canal protective, to establish the access to root canal's entrance; to enlarge the opening of the teeth root canal's crown part; to prepare the upper 2/3 part of molar root canal crown.
- Recommended Rotary Speed: 800~1200 rmp
- 6 pcs/box (single size & assortment)

SIZE / PACKING

х6	_
N°1 Ø0.70mm,	N°2 Ø0.90mm,
N°3 Ø1.10mm,	N°4 Ø1.30mm,

N°5 Ø1.50mm. N°6 Ø1.70mm.

N°1	N°2	N°3
N°4	N°5	N°6

ISO 1-6





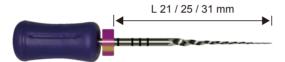




NiTi MTF (Hand)

- Materials: Imported raw materials--dental high quality NITI raw materials.
- Silicon Stopper: Dental high quality raw materials, to confirm the position when root canal treatment.
- Handle: Each file with clear sign for ISO size accordingly
- MTF is the multiple tapered instrument. With exclusive multiple taper design which is different from normal Endo Files. MTF make canal shaping easier, safer, faster, and more efficient.





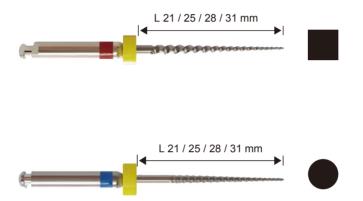
ISO Color	V0	V1	V2	T1	Т2	Т3	T4	Т5	V0-T3
Apical Diameter	0.19mm	0.18mm	0.20mm	0.20mm	0.25mm	0.30mm	0.40mm	0.50mm	
Description	Composition: 1. Shaping Files (V0, V1, V2): Using V0 to make the formation of crown and short root canal, preparation the upper 1/3 root canal with V1, V2 for middle 1/3 root canal preparation. 2. Finishing Files (T1, T2, T3): All used for the formation of 1/3 root canal apical. Taper: 0.6 Packing: 6 pcs/box (single size & assortment)								



NITI DK/DH Files (Engine)

- DK: Strong and stable instruments for cleaning and shaping the canal walls.
- DH: Fast cutting instruments for fast removal of debris.
- Taper: .04 .06
- Recommended Rotary Speed: 250~350 rmp
- 6 pcs/box (single size & assortment)





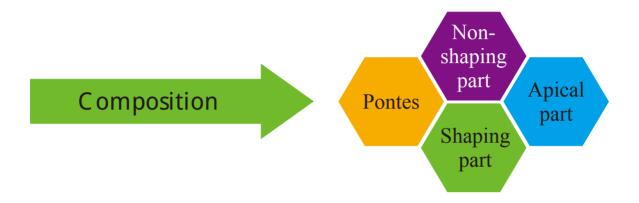
Feature: Blade portion design with the Multi-taper, which makes the good flexibility and better cutting force, which can be used in the narrow and curved root canal.

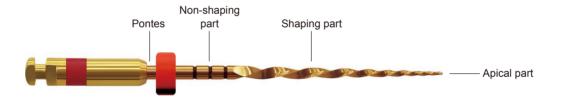
- 1. NITI material is the best material in root canal treatment, the flexibility is better than Stainless Steel material.
- 2. Designed for going thorough crown, do not need to lift repeatedly ,which can achieve consistent standards.
- 3. Greatly improved the quality of preparation, more popular.
- 4. Simple operation, do not need to change the files when preparation.



Nickel- Titanium Instruments (Engine)

- NITI: Good toughness and fracture resistance
- Be made up 56% nickel and 45% titanium. Some of them use Cobalt(less 2%) to replace Nickel for changing its flexibility.
- NITI strain is up to 6%-8%, quickly outdistanced stainless steel.





Pontes and non-shaping part is mainly reveals instrument's element (different circular mark) and provide reference to working length, it is not used to cut root canal wall.

Two types of instrument tip design:

One is cutting apical.

The other is non-cutting apical.

Most people are considered that non-cutting apical is safety, greatly reduced impale risk.

Material Improvement:

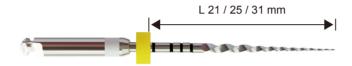
NITI Instrument's performance improvement have been the most active part in biological materials research in the past few years. Varieties of methods are applied to NiTi instrument's performance improvement, which include electrochemical polishing, surface treatment and heat activation.



NITI MTF (Engine)

- Materials: Imported raw materials-dental high quality NITI raw materials.
- Silicon Stopper: Dental high quality raw materials, to confirm the position when root canal treatment.
- MTF is the multiple tapered instrument. With exclusive multiple taper design which is different from normal Endo Files. MTF make canal shaping easier, safer, faster, and more efficient.
- Taper:.06
- Recommended rotary speed: 250-350 rmp
- 6pcs/box





ISO Color	V0	V1	V2	Т1	Т2	Т3	Т4	Т5	V0-T3
Diameter	0.19mm	0.18mm	0.20mm	0.20mm	0.25mm	0.30mm	0.40mm	0.50mm	
Torque	3.0	3.0	1.0	1.6	2.0	2.0	2.0	2.0	

Shaping Files (V0, V1, V2): Using V0 to make the formation of crown and short root canal, preparation the upper 1/3 root canal with V1, V2 for middle 1/3 root canal preparation.

Finishing Files (T1, T2, T3): All used for the formation of 1/3 root canal tip.



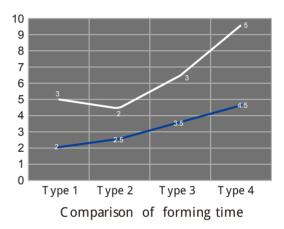
Blue: Multi-taper Files

The disadvantage of Taper .02 Hand Files and the advantages and Multi-taper Files

- Taper .02 Hand Files are adopt step-by-step retreat in root preparation.
- Disadvantages: Be hard to enter into and control; easy to get stuck, break off, debris are easy to push to root tip, hard to flush, clean debris, give rise to root tip symptom. Time-consuming and replace frequency.

9 8 7 6 5 4 3 2 1 0

Comparison Blue: Multi-taper Files



The advantages of MTF:

Forming Steps Forming time

Root canal preparation is one of the most important factor in RCT. Flexibility and shape memory of NiTi instrument, to improve preparation efficiency and reduce fatigue.

To know NiTi feature and cross section design well ,which can get a better understanding about instrument performance and do the best choice.

Nickel- Titanium Instruments



TG-6 / Topmost Gold (Engine)

- New generation material, advanced Heat-treatment technical process, shocked toughness, 200%-500% fracture resistance improved.
- Materials: Imported raw materials-dental high quality raw materials.
- Taper: .06
- Recommended Rotary Speed: 300~375 rmp
- 6 pcs/box

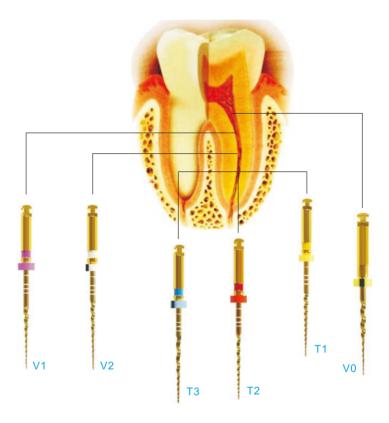
SIZE	/ PACKING
x6 V0 V1 V2 T1 T2 T3 T4 T5	X1 V0 V1 V2 T1 T2 T3

ISO Color	V0	V1	V2	T1	Т2	Т3	Т4	Т5	V0-T3
Apical diameter	0.19mm	0.18mm	0.20mm	0.20mm	0.25mm	0.30mm	0.40mm	0.50mm	
Torque	3.0	3.0	1.0	1.6	2.0	2.0	2.0	2.0	

Topmost Gold is your best choice! New material, different technology







- ① Shaping Files (V0, V1, V2): Using V0 to make the formation of crown and short root canal, preparation the upper 1/3 root canal with V1, V2 for middle 1/3 root canal preparation.
- ② Finishing Files (T1、T2、T3): All used for the formation of 1/3 root canal tip.

Usage

- 1. Establishing linear channel, cleaning the canal with sodium hypochlorite
- 2. Detect the root canal Using #10, #15 SSK file
- 3. Makes the formation of crown with V0 and create the canal path (cleaning with Sodium Hypochlorite)
- 4. Preparation the upper 1/3 crown with V1, flush canal with sodium hypochlorite solution (STDN) after getting it out
- 5. Using the same rotary method to the working length with V2 , and flush canal with sodium hypochlorite solution (STDN) $\,$
- 6. Using T1 to the working length, which could make a smooth connect between the 1/3 canal tip and middle 1/3 canal
- 7. T2 to the working length and using #25 K files to measure the diameter of apical foramina, which indicating finished the preparation and it could be filled if it is loose
- 8. Using the T3 to the working length if you didn't feel loose when using the #25 K files.

Nickel- Titanium Instruments



HA-6 / Heat Activation (Engine)

- Eliminating Root Canal perforation, improving 300%-500% fracture resistance, optimizing recovery of unique Monel Alloy.
- Packing: Single size & Assortment
- Taper: .06
- Torque: 2.0~3.0 N/cm
- Recommended Rotary Speed: 300~375 rmp
- 6 pcs/box



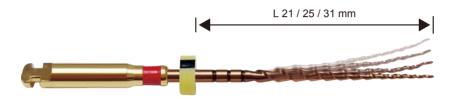




Mono File (Engine)

- Mono file has a gradient cross-section, work in the different area of root canal with the best cutting effect.
 To complete the operation only with single file, more convenient and cost effective.
- Taper: .04, .06, .08
- Recommended Rotary Speed: 250-350 rmp
- 6 pcs/box





Operation Guide:

- Open the crown: Taking X-ray film before operation, dissecting shape of root canal, evaluating working length, open the crown to establish straight pathway for dental treatment.
- 2. Smooth the root canal: Using 10 # K file directly determination the root length if it could, and then preparation to WL smoothly with hand file 15 # .
- 3. Root canal preparation: Flushing the canal with sodium hypochlorite then use EDTA to preparation:
- (1) Using Mono file preparation of 2/3 canal apical narrow area, slightly pull up and down. After that exploration by using 10 # K file.
- (2) Using Mono file preparation of 3mm part apical narrow area, preparation without pressure, then exploration by using of 10 # file.



Nickel- Titanium Instruments

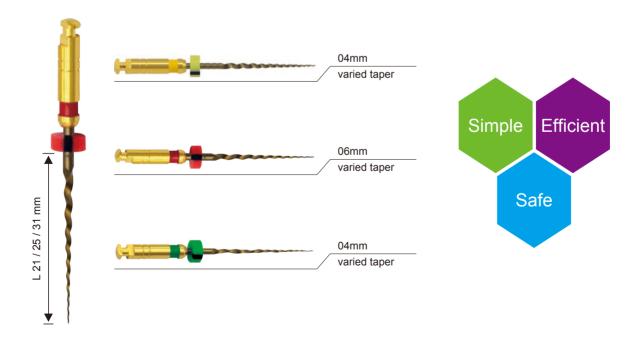


MTF-G3 (Engine)

- MTF-G3, multivariable tapered instrument based on MTF, only need three files, which makes it work efficiently and safely. What is more, it can clean debris faster due to high-quality material and international complex processing technology and multivariable taper technology.
- Recommended Rotary Speed: 250~350 rmp
- 4pcs/box / 6pcs/box

SIZE /	PACKING	
x3	x1 020 025	ISO 015-025

Size	starter	G1 / 20#	G2 / 25#	G3 /35#	P1 / 16#	P2 / 19#
Taper	12	4	6	4	2	2
Picture		((X COLOR DE LA COL		((Land
Recommended Rotary Speed/ Torque	350rmp/3.0	350rmp/2.0	350rmp/2.0	350rmp/2.0	350rmp/2.0	350rmp/2.0







It is not easy to break compared with other files because of the advance heat-activation technique and NM gold-plating technic to eliminate slight cracking. After gold plating, its body can maintain cutting effectively and increasing using times.

- 1. The advantages of cross section Improve keenness efficiently, which gets better and faster shaping. Be easier to operate in curve root canal. Removal of debris more completely.
- The advantages of material
 New generation of durable material and processing technique
 High-efficiency clinic operation
 Lasting flexibility and cutting
 300%-500% fracture resistance improved.

Operating Instruction For Simple Root Canals



Operating Instruction For Complex Root Canals





TF-3 (TO&Fro) (Engine)

- Reciprocating system for root canal, unique double-edge design, strongly increase operating safety and life time.
 Reverse cutting design improves the flexibility and safety of the device.
- Recommended Rotary Speed and torque: default the reciprocating system motor
- 3 pcs / box





Double-edged design?

In the clinical operation of medical the usage of TF-3 reciprocating system, which will be carried out by clockwise rotation rotation with obtuse angle blade, followed by counter-clockwise rotation with the blade of sharp cutting angle.





The concept of balance force?

In the reciprocating movement, the usage of TF-3 clockwise rotation with obtuse angle blade, followed by counter-clockwise rotation with the blade of sharp cutting angle, alternating like this, the angle of rotation determines the amplitude of the reciprocating motion. When CW rotation angle greater than the CCW, instruments move to the depth of root canal. According to the concept of balance force, this mode is designed for evolving forward into the root canal in the CW movement, which can reduce effectively the possibility of files fracture by metal fatigue, longer the life time!

TF-3 Operation Guide:

X-ray film is needed for apical root canal before preparation, which could display the thickness, length, quantity and curved situation of root canals. The usage of K file help to select the appropriate size of TF-3 as follows.

1.Using the 10 # K file to the apical of root canal if feel slight friction sense, please choose T20 # when preparation .



2.Using the 10 # K file could easily to the apical of root canal without any sense of friction, please choose T25 # when preparation .



3.Using 20 # K file to the apical of root canal if any slight friction sense, please choose T40 # when preparation.





TF-3 Gold (Engine)

- Reciprocating root canal file, unique double-edged design, improved the security and life time in clinical operation. Reverse cutting design improved the flexibility and safety of the instruments.
- Recommended Rotary Speed and torque: default the reciprocating system motor.
- Length: L21 / 25 / 31mm
- 3 pcs / box



TF-3 Gold
Reciprocating system





Improvements of Material and Performance:

In recent years, the performance improvement of nickel-titanium instruments has become one of the most active fields in biomaterials research. Several methods have been applied to the improvement of nickel-titanium instruments, including electrochemical polishing, surface treatment and heat treatment.

Profundity can be found in triviality?

The micro-cracks and debris will be produced on the surface of instrument during the cutting process, and the surface micro-cracks is one of the main reasons for the fracture of NiTi instruments. To create a functional coating in the instrument surface by using physical and chemical processes in the gas phase. The primary purpose of the surface treatment is to increase the nitrogen atoms on the metal surface to form a nitrided surface. With better surface hardness, anti-wear and anti-corrosion ability , high cutting efficiency , it will not easy to produce micro-cracks after reusing .

TF-3 Gold Operation Guide:

X-ray film is needed for apical root canal before preparation, which could display the thickness, length, quantity and curved situation of root canals. The usage of K file help to select the appropriate size of TF-3 as follows:

- 1.Using the 10 # K file to the apical of root canal if u could feel slight friction sense, please choose T20 # when preparation.
- 2. Using the 10 # K file could easily to the apical of root canal without any sense of friction, please choose T25 # when preparation.
- 3.Using 20 # K file to the apical of root canal if any slight friction sense, please choose T40 # when preparation.

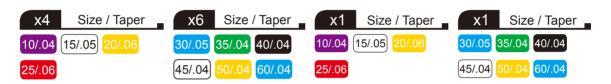
Nickel- Titanium Instruments



MT (Engine)

- S-type design, cutting efficiency, high chip removal ability, high flexibility, and suitable for small root canal preparation. Four files to complete the dental treatment, cost effective. Be better to maintain the original shape of the root canal. Single-length preparation, simple operation. Strong in anti-fracture.
- Taper: .04, .05, .06
- Recommended Rotary Speed: 250-350rmp best in 280rmp
- 4pcs/pack, 6pcs/pack, blister and pack

SIZE / PACKING





MT File	10#/.04	15#/.05	20#/.06	25#/.06	30#/.05	35#/.04	40#/.04	25#/.07
R ecommended R otary Speed	280-300	280-300	280-300	280-300	280-300	280-300	280-300	280-300
R ecommended T orque	1.5-2.0 N/cm							



Physical performance

Ni-Ti instrument fabrication technology. the main technology of traditional Ni-Ti instrument by using cutting, which usually bring about defect areas in the surface, such as cave, metal streaks. This defective equipment has potential weaknesses, which will lead to the unexpected fracture in dental instrument.



Benefits after surface treatment?

Advanced technology, makes file surface more smooth, strong in anti-fracture. Advanced heat treatment technology makes file surface more smooth, strong in anti-fracture, maintain a better shape of root canal. More smoothly when cutting, better ability to resistant corrosion of Sodium hypochlorite and EDTA.

Operation Guide:

Operating sequences of MT file :10 #, 15 #, 20 #, 25 #; (for the simple root canal) Speed : 280-300rpm, Recommended : 280rpm

- 1. Open pulp, determine the root canal length with hand use C file 10# ,15# .
- 2. If it couldn't reach the WL, open the 1/3 upper root canal to 1/3 middle root canal with starter (If it could reach the WL, please use stainless steel C file 10 # and 15 # to the working length and flush)
- 2.10 # taper 0.4 ready to work length, flushing
- 3.15 # taper 0.5 ready to the working length, flushing
- 4.20 # taper 0.6 ready to the working length, flushing
- 5.25 # taper 0.6 ready to the working length, flushing



ET file

- ET file: flexible, anti-resistant to rotation fatigue. Compared with hand instruments, this new file has more advantages. A new method for crown expanding and canal smooth.
- Recommended speed: 300rmp torque: 2.0-3.0 N/cm
- Length: L21, 25, 31mm
- Taper: .02
- 6 pcs/ box





Operation sequence:

Using hand K file 10 # to search and clear the root canal, until the file can move smoothly in the root canal, determine the working length.

Using ET file 13 # to the working length

Using ET file 16 # to the working length

Using ET file 19 # to the working length

Then could use any nickel-titanium instruments to make the root canal.



Performance and Advantages of ET file

Test Methods:

- Engine pre-expansion: Using ET file 13 #, 16 #, 19 # to the working length.
- Hand pre-expansion: Using hand K file 8 #, 10 #, 15 #, 20 # to the working length.

Group	Operator	Instruments
1	specialist	Engine use ET file
2	specialist	Hand use K file
3	non-specialist	Engine use ET file
4	non-specialist	Hand use K file

First, After analysing the image of overlap root canal and curved situation, results are as follows:

- 1. Compared with the stainless steel hand use K file, ET file can better maintain the original anatomic situation of the root canal.
- 2. Whether the specialist or non specialist in endodontics, ET file would be more effective than the hand use file.

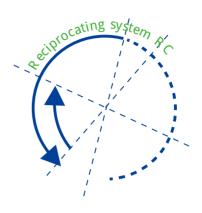
Second, the results from non-specialist dentist are as following:

- 1. Obtain the better ideal smooth path than the specialist who uses the hand K file, also lower the rate of offset canal.
- 2. Compare with specialist, both could obtain the similar result when creating the smooth path. Reduce the operation time.



RC File (Engine)

Reciprocating system of RC file also known as single file, which processed by new nickel-titanium material, non blade of the safety circular apical, file needle with flexibility, better antifatigue ability for cyclical use, more safety in clinical operation











Reciprocating movement pattern

- Preparation the root canal with single file, convenient and quick
- Less working steps, more efficient and less time-consuming
- Suitable for curved and narrow root canal preparation
- New NiTi material enhances the flexibility and ability of anti-fracture
- Three sizes are available for different types of root canals

Size	Apical Taper	Picture	Length
R25	.08	H	
R40	.06		L21 / 25 / 31mm
R50	.05		

What files should be used accordingly?

- 1. Hand K file 10 # reach the apical and feel sense of tightness, please choose R25 #
- 2. Hand K file 20 # reach the apical and feel sense of tightness, please choose R40 #
- 3. Hand K file 30 # reach the apical and feel sense of tightness, please choose R50 # The RC file moves alternative in the pattern of 150° CCW and 30° CW. Mainly on counter-clockwise rotation , first do CCW rotation by a large margin and then CW rotation by small margin. Time-saving, efficient, high ability of anti-fatigue , not easy to break, safe, better cleaning and forming ability in root canal .

Nickel- Titanium Instruments



ISO 015-040

SIZE / PACKING

EX File

- U-shaped cross-section of the instruments, which helps to remove tooth debris in the root canal. The cutting edge touch the root wall with a radial plane, which prevents the instrument from embedding in the root canal wall. Guiding effect for the round apical without cutting force.
- Taper: .04, .06
- Recommended speed: 200~3500 rmp
- 6pcs/box



x6

040

015 020 025 030 035

Compositions and features:

EX file .06 taper, there are two color rings in the handle, mainly for the middle of the root canal preparation, also for preparing to apical in curved and thick root canal. EX file .04 taper, there are one color ring in handle, mainly for the apical preparation. Forming device of canal orifice, there are three color rings in the handle, mainly for the preparation of the crown.

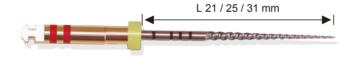


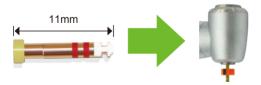
Keen file (Engine)

- Safety: nickel titanium instruments, good flexibility, less prone to broken and form steps.
- Simple: Easy to control the equipment into depth when cutting root canal without inhalation.
- Efficient: positive knife angle, cutting efficiency.
- Economy: Cost saving in per treatment.
- Taper: .02, .04, .06, .08, .10, .12
- Recommended speed: 250-350rmp
- 6pcs / box



Keen file have six different tapers, from 0.02 to 0.12, and each taper has different length. There are two color rings and two numbers in the handle, which indicate the taper and apical diameter of the file respectively. Taper 0.08, 0.10, 0.12 apical diameter is 0.25mm, mainly for preparation the upper middle root canal; Taper 0.02, 0.04, 0.06 have different of apical diameter, mainly for the lower middle root canal preparation.





Shorter handle, increased operating range; security apical design, reducing the apical woot canal offset.



NiTi Archwires

Super Elastic NiTi Archwires

	Size (inch) Square Form		Ovoid Form		Natural Form		
		上鄂 Upper	下鄂 Lower	上鄂 Upper	下鄂 Lower	上鄂 Upper	下鄂 Lower
	0.012	NS0112U	NS0112L	NS0212U	NS0212L	NS0312U	NS0312L
	0.014	NS0114U	NS0114L	NS0214U	NS0214L	NS0314U	NS0314L
Round	0.016	NS0116U	NS0116L	NS0216U	NS0216L	NS0316U	NS0316L
1100110	0.018	NS0118U	NS0118L	NS0218U	NS0218L	NS0318U	NS0318L
	0.020	NS0120U	NS0120L	NS0220U	NS0220L	NS0320U	NS0320L
	0.016x0.016	NS011616U	NS011616L	NS021616U	NS021616L	NS031616U	NS031616L
	0.016x0.022	NS011622U	NS011622L	NS021622U	NS021622L	NS031622U	NS031622L
	0.017x0.022	NS011722U	NS011722L	NS021722U	NS021722L	NS031722U	NS031722L
	0.017x0.025	NS011725U	NS011725L	NS021725U	NS021725L	NS031725U	NS031725L
Rectangular	0.018x0.022	NS011822U	NS011822L	NS021822U	NS021822L	NS031822U	NS031822L
	0.018x0.025	NS011825U	NS011825L	NS021825U	NS021825L	NS031825U	NS031825L
	0.019x0.025	NS011925U	NS011925L	NS021925U	NS021925L	NS031925U	NS031925L
	0.021x0.025	NS012125U	NS012125L	NS022125U	NS022125L	NS032125U	NS032125L

10pcs / bag



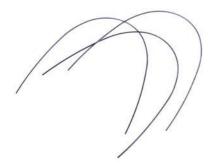




Ovoid



Natural

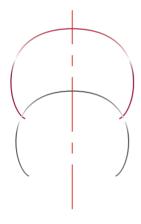


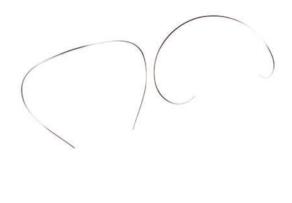


NiTi Reverse Curve Archwires

	尺寸(英寸) Size (inch)	上鄂 Upper	下鄂 Lower
	0.012	NR12U	NR12L
	0.014	NR14U	NR14L
Round	0.016	NR16U	NR16L
Round	0.018	NR18U	NR18L
	0.020	NR20U	NR20L
	0.016x0.016	NR1616U	NR1616L
	0.016x0.022	NR1622U	NR1622L
	0.017x0.022	NR1722U	NR1722L
	0.017x0.025	NR1725U	NR1725L
Rectangular	0.018x0.022	NR1822U	NR1822L
	0.018x0.025	NR1825U	NR1825L
	0.019x0.025	NR1925U	NR1925L
	0.021x0.025	NR2125U	NR2125L

2pcs / bag





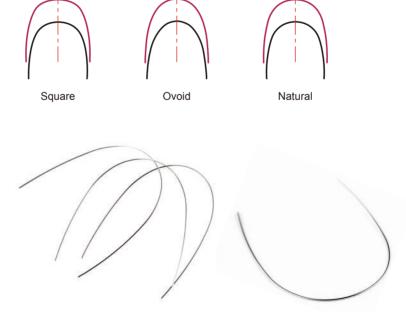




Heat-activated NiTi Archwires

	Size (inch)	Square	Form	Ovoid	Form	Natura	l Form
		上鄂 Upper	下鄂 Lower	上鄂 Upper	下鄂 Lower	上鄂 Upper	下鄂 Lower
	0.012	NH0112U	NH0112L	NH0212U	NH0212L	NH0312U	NH0312L
	0.014	NH0114U	NH0114L	NH0214U	NH0214L	NH0314U	NH0314L
Round	0.016	NH0116U	NH0116L	NH0216U	NH0216L	NH0316U	NH0316L
	0.018	NH0118U	NH0118L	NH0218U	NH0218L	NH0318U	NH0318L
	0.020	NH0120U	NH0120L	NH0220U	NH0220L	NH0320U	NH0320L
	0.016x0.016	NH011616U	NH011616L	NH021616U	NH021616L	NH031616U	NH031616L
	0.016x0.022	NH011622U	NH011622L	NH021622U	NH021622L	NH031622U	NH031622L
	0.017x0.022	NH011722U	NH011722L	NH021722U	NH021722L	NH031722U	NH031722L
	0.017x0.025	NH011725U	NH011725L	NH021725U	NH021725L	NH031725U	NH031725L
Rectangular	0.018x0.022	NH011822U	NH011822L	NH021822U	NH021822L	NH031822U	NH031822L
	0.018x0.025	NH011825U	NH011825L	NH021825U	NH021825L	NH031825U	NH031825L
	0.019x0.025	NH011925U	NH011925L	NH021925U	NH021925L	NH031925U	NH031925L
	0.021x0.025	NH012125U	NH012125L	NH022125U	NH022125L	NH032125U	NH032125L

5pcs/bag





NiTi Springs

Closed Spring

Length (mm)	Wire Diametre (inch)	
	0.010	0.012
6	CS1006	CS1206
9	CS1009	CS1209
12	CS1012	CS1212



Closed

10pcs/bag

Open Spring

Length (mm)	Wire Diametre (inch)	
	0.010	0.012
170	OS10170	OS12170

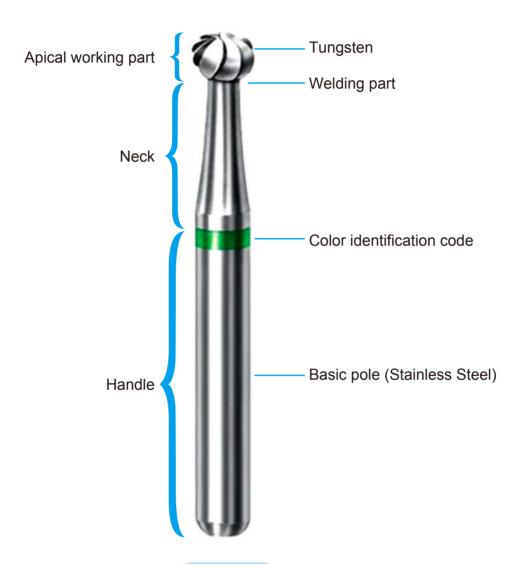


2pcs/bag





Tungsten burs



Tungsten burs

According to clinical needs and international standards, working part generally includes the flat edge, saw blade edge and cross cutting edge. The flat cutting edge has low cutting effect but long service life. The surface keeps smooth after cutting. The saw cutting edge has high cutting effect but short life time, worse fineness than previous one. Cross-cutting edge stable is for cutting metal, extremely sharp, durable.



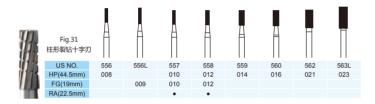


Tungsten carbide burs

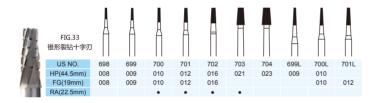
Tungsten burs features: Process with the high toughness, fine tungsten and the international advanced CNC machine, precision tooth profile, high concentricity, strict quality testing, combined with the actual needs of clinical .Use safety, high hardness, which twice the hardness compared with diamond burs, six times hardness compared with (dental) enamel. Tungsten burs are more smooth than diamond burs, less heat generation as it is cutting rather than grinding. The debris better to remove, higher wear-resistant and durable.

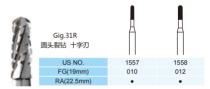


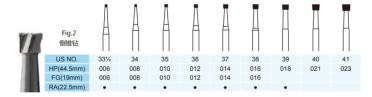
5pcs / blister



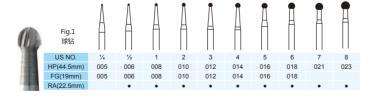


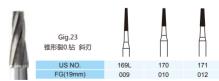


















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Tungsten carbide burs



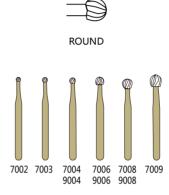
FINISHING BURS

US NO.

- Round: polished trimming restorations, smooth the root surface, polish tooth surface
- Egg-shaped: repaired polished surface, tongue surface and the filling material surface
- Needle shape: repaired adjoining tooth surface, occlusal surface, lip-cheek surface and filling material surface Head 12 blade (7000 series) Head 30 blade (9000 series)
- 7000 Series: ideal tools for shaping and polishing, tooth adhesive removal, tooth surface smooth, bone repair and a variety of repair materials.
- 9000 Series: for refine and fine polishing to achieve the effect of satin.



COMPOSITE F&T















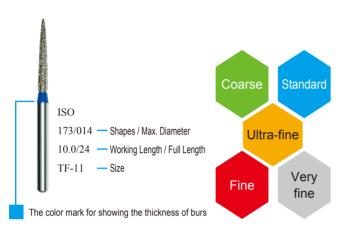








Graphic diamond burs



Apical diameter (1/10mm)	Rotary speed (turn / per minute)	Maximum speed (turn / per minute)
008-010	75.000-150.000	450.000
012-014	60.000-110.000	450.000
016-018	45.00-88.000	450.000
021-023	40.000-75.000	300.000
025-027	30.000-65.000	160.000
029-031	25.000-56.000	140.000
033-040	22.000-45.000	120.000
042-050	20.000-37.000	95.000
055-060	17.000-32.000	80.000
065-080	13.000-26.000	60.000

Color standard from fine to coarse: white, yellow, red, blue, green, black:

General blue marked ring or unmarked commonly taken as standard size of the burs, size medium in higher cutting effective. The coarse burs strong in cutting but rough in cutting surface with obvious texture, poor adhesion between the crown and the prefabricated tissue surface. Fine particles burs can be used to refine .

The usage of natural diamond powder, which makes diamond has a very high hardness excellent physical and chemical features. It made as diamond burs finally with certain cutting tissue adhesion or plating them with a certain angle of diamond particles, according to a certain direction, distance to the center of the stainless steel burs.

