

DIRECTIONS FOR USE

EDGEFILE®XR Heat Treated Fire-Wire™

Intended Purpose

Endodontic files and reamers are single use surgical instruments used for performing root canal treatment to mechanically shape and prepare the root canals during endodontic therapy or to remove the root canal obturating material when performing retreatment. The device is intended to be used sterile and single use only.

COMPOSITION

The instrument is made of a nickel-titanium blade, handle, the stop, and the color-coded band.

Contraindications

- Mechanically driven endodontic instruments should not be used in cases with very severe and sudden curvatures.
- This product contains nickel and should not be used for individuals with known allergic sensitivity to this metal.

Warnings

- A rubber dam system should be used.
- Endodontic files are sharp, and caution should be used if touching the blade directly.
- The endodontic files must be sterilized before patient use.
- Endodontic files are for single use only, in order to avoid file separation.
- This device is intended for single patient use only.
- Used files should be disposed of in a Biohazard Sharps container in accordance with local regulations.
- After use, this product may be a potential biohazard. Handle and dispose of in accordance with accepted medical practice and applicable local, state, and federal laws and regulations.

Precautions for Use

As with all products, use carefully until you become proficient with use. Always determine working length using radiographs and/or apex locator to properly use endodontic files. Important points to remember:

1. Use only in an electric motor and hand piece designed for endodontic (rotary/reciprocating) files.
2. Straight-line access is imperative for proper file use and endodontic treatment.
3. Do not force the files down canals, use minimal apical pressure.
4. Clean the flutes frequently and at least after removing the files from the canal.
5. Irrigate and lubricate the canal frequently throughout the procedure.
6. Take each file to length only one time and for no more than one second.
7. In apical areas and curved canals exercise caution.
8. Endodontic files are single patient use devices.
9. Once file is used do not reuse. If file is reused and used on a different patient infection can be introduced. Performance of the file can also be reduced.
10. When instrumenting the canal, do not over enlarge the coronal portion of the canal.

11. Too large a file taken to length increases the risk of canal transportation and file separation.
12. Do not exceed the handpiece recommended maximum torque or speed. Exceeding settings may cause the device to fail.
13. Endodontic files undergo our proprietary Annealed Heat Treatment (AHT) forming our branded Fire-Wire™ NiTi which increases cyclic fatigue resistance and torque strength. With this proprietary processing, the files may be slightly curved. This is not a manufacturing defect. While the file can be easily straightened with your fingers, it is not necessary as once they are inside the canal, endodontic files will follow and conform to the natural canal anatomy and curvatures.

Adverse Reactions

- Device fracture/breakage
- Complications usually associated with endodontic procedures including:
 - Pain
 - Instrument fracture/breakage
 - Soft tissue damage/bleeding

Safe Unwinding

- As a safety feature the files are designed to unwind. They may be used until the files unwind backwards.

INSTRUCTIONS FOR USE

Sterilisation

- Files must be cleaned and sterilised before use.
- Scrub the instruments with a long-handled bristle brush in water and a suitable detergent (specified for the purpose).
- Rinse thoroughly with distilled, deionized, or RO water.
- Allow to air dry.
- Place the instruments, wrapped, or unwrapped, in an autoclave tray.
- Use fresh distilled or deionized water.
- Insert in a steam gravity cycle autoclave at 134°C-137°C with a max temp of 140°C for a minimum 3 minutes.

EDGEFILE®XR Retreating Endodontic Cases

1. Flood the chamber with a root filling solvent.
2. Keeping the chamber flooded, use the following crown-down sequence: R1 (25/12) to R2 (25/08) to R3 (25/06) then to R4 (25/04). Use light to medium pressure moving each instrument down the canal only about 2-4 mm, then go to the next instrument. Repeat the sequence R1 to R2 to R3 to R4 until the R4 (25/04) is to the working length. If you desire a larger file size then the R4 (25/04), use either a 04 or 06 taper file from the **EDGEFILE®X7** series and take the next tip size up to the working length. Repeat taking the next tip size up to the working length until you have the desired tip size.

Canal Cleansing

1. Use your own technique or rinse with **EDGELUBE™** Liquid for 1 minute in each canal.
2. Rinse with NaOCl for five minutes
3. Obturate canal with the **X7 EDGECORE™**, **EDGEFILL™** OR **EDGEPOINTS™**, or your current obturation technique.

Obturation of Canal Systems

DFU-EFXR-EU Rev A

- When using thermal carriers such as EdgeCore™ X7 or EdgeFill™ X7, use size verifiers to determine the proper sized carrier.
- When using a master gutta percha cone that matches the largest file taken to length, remember sometimes you may need to drop down in cone tip size if the corresponding gutta percha to your final rotary file does not go to length.

Motor Settings

Speed and Torque

Use the same hand piece with the same speed and torque settings you are currently using with your rotary system. Or if you wish, you can use for all **EDGEFILE®XR** rotary files the following speed and torque settings for all files.

- Speed: 300-500 rpm
- Torque: 2.94 N-cm/300 g-cm

Reciprocating motors

The XR can be used in a clockwise reciprocating motor but not in the WaveOne reciprocating motor which moves in the counter-clockwise direction. The X1 is designed specifically for use in only the WaveOne reciprocating motor and setting.

Disinfecting

- After each canal is fully shaped, rinse the canals for 1 minute with 17% Liquid EDTA to remove the canal Smear Layer.
- Rinse the canals for 5 minutes with 5% NaOCl to remove debris and bacteria.
- Rinse the canals for 1 minute with 17% Liquid EDTA to rinse out the 5% NaOCl.
- Rinse the canals for 5 minutes with 2% chlorohexidine or EDTA to kill bacteria.

Obturation of Canal Systems

- When using thermal carrier system use size verifiers to determine the proper sized carrier.
- When using a master gutta percha cone that matches the largest file taken to length, remember sometimes you may need to drop down in cone tip size if the corresponding gutta percha to your final rotary file does not go to length.

Storage Conditions

- Store at room temperature of 10°C~37.8°C, away from any sunlight. Recommended File Disposal Place used files in Biohazard Sharps container.

Reporting of Incidents to manufacturer and competent authorities

- In case any patient/user faces a serious incident, the entirety of the incident will be reported to the following:
 - The manufacturer of the device: US ENDODONTICS
 - The competent authority of the country where the user/patient resides

Symbol Table

Symbol	Meaning (Standard, if Applicable)
	Manufacturer: Indicates the medical device manufacturer (ISO 15223-1)
	Authorized Representative: Indicates the AR in the EU
	Importer: Indicates the entity importing the medical device into the locale (ISO 15223-1)
	Conformité Européene. EU mandatory conformity marking.
	Translation: Indicates that the original information has been translated and replaced (ISO 15223-1)
	Medical Device: Indicates the item is a medical device (ISO 15223-1)
	Catalogue number: indicates the Medical Device SKU (ISO 15223-1)
	Batch Code: Manufacturer's batch code so batch or lot can be identified (ISO 15223-1)
	Do not reuse: Indicates a medical device that is intended for one single use only (ISO 15223-1)
	Non-Sterile: medical device that has not been subjected to a sterilization process (ISO 15223-1)
	Consult IFU: consult the Instructions For Use, and eIFU website listed (ISO 15223-1)
	Caution is necessary when operating device. Align cautions (ISO 15223-1)
	Temperature limit to which the medical device can be safely exposed (ISO 15223-1)
	Unique Device Identifier: Indicates a carrier that contains UDI information (ISO 15223-1)
	Date and Country of Manufacture: To identify the country of manufacture of products next to date of manufacture (ISO 15223-1)
	Prescription Use Only: Caution: Federal law restricts this device to sale by or on the order of a dentist (21CFR 801.109)