



FKG
swiss endo



EN

Race family
Endodontic NiTi rotary files

► Foreword

Race (Reamer with Alternating Cutting Edges)

With the appearance of nickel-titanium (NiTi) alloy, the domain of endodontic instrument production discovered a material which is flexible, extremely elastic, resistant and bio-compatible. Working in continuous rotation became possible, through which a simplicity of use and incomparable time savings were achieved.

Most conventional reaming instruments (in stainless steel) are designed like screws, having one or more cutting helices. The file design was not adapted to the new alloy, therefore, when used in continuous rotation, one main inconvenience appeared: the increased risk of screwing-in and blocking, which inevitably ends up in the instrument fracturing.

FKG Dentaire went a step ahead and developed a totally new file design to take advantage of the NiTi characteristics and to overcome the limits which are imposed by continuous rotation: the Race was born.

The Race system is the simple and advanced answer for endodontic treatments with a complete family of shaping and retreatment files with exclusive advantages and features.

Race instruments can be used in ad-hoc sequences according to the practitioner's needs and are also available in specific sequences. They come in both sterile and non-sterile packs.



► Exclusive

Elimination of screwing-in effect

Alternating cutting edges

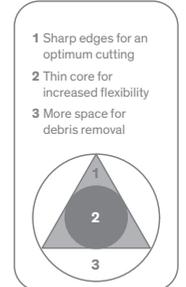
- The exclusive **patented file design** avoids screwing-in effect and allows a **better control** of the instrument's progression



Optimal cutting efficiency

Triangular cross-section with sharp edges

- **Cuts better and faster**, without any pressure (1)
- The smaller core grants a **higher flexibility** (2) and allows a better progression in curved canals
- **More space for debris removal** (3), improving debris evacuation to avoid instrument blocking



Exclusive rounded safety tip*

Perfect centering of the instrument in the canal

- Bypasses irregularities and **avoids lateral canals**
- **Less risk of perforations** and ledges

*Except for D-Race first instrument (DR1) which has an active tip



Electrochemical polishing

Enhanced resistance against fatigue and corrosion

- The treatment **eliminates surface imperfections**, reducing drastically the risk of weak points (micro-cracks)
- The resulting shiny surface **allows better cleaning and disinfection**, improving the sterilization process



► Description



New finish on metal handles for contra-angle

The aim is to provide easy identification of the ISO diameter (wide ring) and of the taper (narrow ring). The information remains visible when the instrument is inserted in the head of the contra-angle.

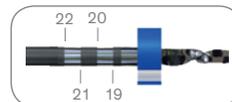
- Handle length 12 mm, stainless coating, paint marking of ISO and taper codes



Depth marks

On instruments of length 21/25/31 mm

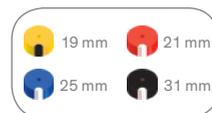
- Allow determination of the instrument's position with X-ray and control of the working length



Silicone Endo stop

To mark working length, radiopaque

- The stroke identifies the original tip direction in the root canal (stainless steel instruments)
- ISO Colours - to indicate instruments' length



► Golden rules

Optimal use of Race instruments

- Speed: 600-1'000 rpm - Torque: 1-1.5 Ncm, depending on instruments.
- Gentle back and forth strokes.
- Light touch, let the instrument do the work.
- Work for 3-4 seconds at a time, then withdraw.
- Clean the blade and irrigate the canal.

Which motors can the Race files be used with?

Unit motors, to reach the minimum recommended speed of 600 rpm:

- Air motors 20'000 rpm: use a contra angle 32:1 reducer
- Electric motors 40'000 rpm: use a contra angle 64:1, 70:1 reducer

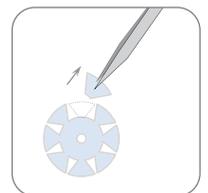
Endodontic motors, corded or cordless like the Rooter:

- Set the speed to 600-1'000 rpm and the torque to 1 to 1.5 Ncm

How many times can a Race be used?

SafetyMemoDiscs (SMD) come fixed to Race files. When the recommendations below are followed, SMD enables optimal use of the instruments and control over metal fatigue. Between one and four petals are removed from the flange after each treatment. The number of petals remaining indicates which types of treatment are still possible:

- One petal corresponds to simple cases (S), i.e., straight, slightly curved or wide canals.
- Two petals correspond to moderately complex cases (M), i.e., more curved or narrow canals.
- Four petals correspond to difficult cases (D), i.e. canals that are, S-shaped, very narrow, calcified or with extreme curvature.



- ◉ Although Race instruments can be sterilised and reused several times, it is recommended to use them according to the "single patient" principle to avoid the risk of cross-contamination.



► Available sequences

Glide path

ScoutRace, for mechanised glide path preparation
 Sequence of 3 instruments with .02 taper and with ISO sizes of 10, 15 and 20. Designed to mechanically prepare the glide path of root canals: straight, with severe curvature or «S» type.

Race ISO 10, for preparation of calcified or narrow canals
 3 instruments all with a size of ISO 10 and with .02, .04 and .06 taper. Designed to permeabilize calcified or very narrow canals when manual K files of ISO 06 or 08 cannot progress further.

Root canal preparation

BT-Race, biological and conservative
 The ready to use BT-Race sequence is sterile-packed and single-use. The sequence, with 3 files, is suitable for most types of canals and allows to reach a final apical size of ISO 35/.04*

iRace, quick, effective and safe
 Only 3 iRace files are needed to treat most cases. iRace sequence is easy to learn and to use, meaning considerable time saving and allows a final apical size of ISO 30/.04*

BioRace, reliable and biological
 BioRace has been specially designed to achieve the biological aim of the root canal treatment without compromising efficiency. The sequence - 6 files - is made to reach apical size of ISO 40/.04*

Retreatment

D-Race, root filling removal
 D-Race files are intended to remove different filling materials - up to working length with only 2 instruments - such as gutta-percha, carriers, paste and resin-based materials.

*For larger apical size preparations, please refer to availability chart hereafter

► Availability

The Race instruments are also available in individual sizes:
 - ready to use sterile products in blisters
 - non-sterile products in blisters or conventional plastic boxes
 BT-Race sequence is exclusively available in sterile blisters and intended to single-use. Only additional BT-Race 40 and BT-Race 50 files are proposed in individual sizes.

		Ø ISO (wide ring)												
		10	15	20	25	30	35	40	45	50	55	60	70	80
PreRace 19 mm	.06					•		•						
	.08						•							
	.10							•						
Race 21/25/31 mm	.02	•	•	•	•	•	•	•	•	•	•	•		
	.04	•	•	•	•	•	•	•		•				
	.06	•	•	•	•	•	•	•						
Race + BT-Tip 21/25/31 mm	.04						•		•					

N.B. PreRace 35/.08 and 40/.10 are also proposed in stainless steel

For more information, FAQ or videos on Race instruments, please visit www.fkg.ch



FKG Dentaire SA

Founded in Switzerland in 1931, FKG Dentaire SA gained a new momentum in 1994, the year Jean-Claude Rouiller took over the reins of the company.

He propelled FKG to the forefront in the development, manufacturing and distribution of dental products destined for general practitioners, endodontists and laboratories.

The FKG strategy is centered on innovative high-precision products and the creation of machines designed specifically for the dental field. Its aim is to offer solutions that meet the most demanding needs of end users.

In 2011 the son of Jean-Claude Rouiller, Thierry, succeeded to the head of the company. Through his

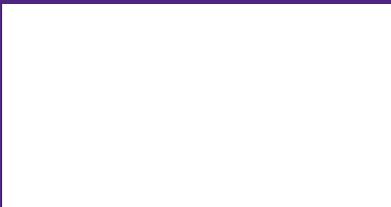
incentive, the network of distributors has expanded significantly and allowed FKG to make its products available in over 100 countries worldwide.

In 2012, the Swiss Venture Club rewarded FKG for its dynamism, high product quality, and its continuing innovation.

Equipped with a clean room since 2013, FKG is now developing a range of sterile products.

In 2013 and 2014 the company unveiled state-of-the-art training centers in La Chaux-de-Fonds, Dubai, and Oslo.

FKG Dentaire is certified according to international norms and regulations.



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