# **Revo-S**<sup> $\mathsf{M}$ </sup> Getting to the root of the problem!





Your Endo Specialist"

## Revo-S

04 Introduction
06 SC1 SC2 SU
12 AS30 AS35 AS40
18 Obturation



#### Revo-S<sup>™</sup> P. 4-17

Advertising + Protocol for use

#### € 0459

Year of CE-marking: 2008 Medical device class IIA according to directive 93/42/EEC Certifying body: LNE/G-MED Medical device for dental care, meant for professional dental use only. See product labelling and, where applicable, instructions for use. Maximum number of uses indicated on the product labeling.



Non-sterile devices

STERILE EO Sterile devices

Sterility guaranteed if package is unopened and undamaged.

MICRO-MEGA® 5-12, rue du Tunnel 25006 Besançon cedex - France www.micro-mega.com

#### ENDOFLARE® P. 11

#### Advertising

€ 0459

Year of CE-marking: 2001 Medical device class IIA according to directive 93/42/EC Certifying body: LNE/G-MED Medical device for dental care, meant for professional dental use only. See product labelling and, where applicable, instructions for use.

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#### G-Files™ **P. 11**

Advertising

CE 0459 Year of CE-marking: 2011 Medical device class IIA according to directive 93/42/EEC Certifying body: LNE/G-MED Medical device for dental care, meant for professional dental use only. See product labelling and, where applicable, instructions for use.

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#### MM.control P. 17

Advertising

C€ 0459 Year of CE-marking: 2014 Medical device class IIA according to directive 93/42/EEC Certifying body: LNE/G-MED Medical device for dental care, meant for professional dental use only. See product labelling and, where applicable, instructions for use.

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#### Kit MM•control + Revo-S<sup>™</sup> P. 17

Advertising

Refer to the regulatory status of each medical device included in the kit.

#### Revo-S<sup>™</sup> Paper Points Revo-S<sup>™</sup> GP Points P.18

#### Advertising

CE 0120 Year of CE-marking: 1998 Medical device class IIA according to directive 93/42/EEC Certifying body: SGS Medical device for dental care, meant for professional dental use only. See product labelling and, where applicable, instructions for use.

META BIOMED CO.LTD. 270, Osongsaengmyeong 1-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-kdo, Korea Cheongju Factory 136, Mochung-ro, Seowon-gu, Cheongju-si, Chungcheongbuk-do, Korea IECIREP Technical & General 2 Albion Place, London W6 0QT, United Kingdom

#### Revo Spreaders P. 19 Advertising

#### ĆE

Year of CE-marking: 2010 Medical device class I according to directive 93/42/EC Medical device for dental care, meant for professional dental use only. See product labelling and, where applicable, instructions for use.

MICRO-MEGA® 5-12, rue du Tunnel 25006 Besançon cedex - France www.micro-mega.com

#### Revo Condensor P. 19 Advertising

#### <€ 0459

Year of CE-marking: 2011 Medical device class IIA according to directive 93/42/EC Certifying body: LNE/G-MED Medical device for dental care, meant for professional dental use only. See product labelling and, where applicable, instructions for use. Maximum number of uses indicated on the product labeling.

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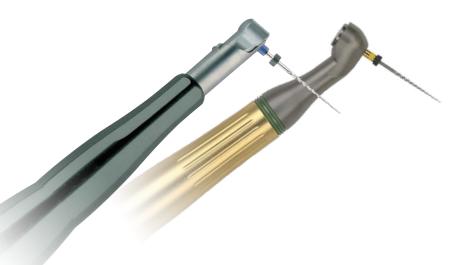
## Revo-S<sup>™</sup>, a sequence of 3 instruments with asymmetrical cross-section

This sequence with only 3 Nickel-Titanium instruments simplifies the initial endodontic treatment and optimizes the cleaning. The asymmetrical cross section of the Revo-S<sup>™</sup> facilitates penetration by a "snake-like" movement and offers a root canal shaping adapted to the biological and ergonomic imperatives. This sequence has a cutting, debris elimination and cleaning cycle which optimizes the root canal cleaning by improving the upward removal of the generated dentine debris. It also offers the choice of the apical finishing (AS30, AS35 and AS40) best suited to the anatomical and ecological criteria of the canal.

- Its asymmetrical section initiates a snake-like movement of the instrument inside the canal.
- High performance and simple to use, this sequence is adapted for most root canal anatomies.



## Revo-S<sup>™</sup> Endo Revolution!



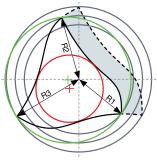
### The asymmetrical cross-section

#### An asymmetrical cross-section: more flexibility and less stress

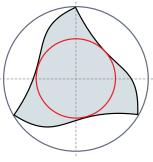
- The asymmetrical cross-section provides less stress on the instrument. The canal axis has 3 cutting edges located on 3 different radiuses: R1, R2 and R3.
- The smaller section allows more flexibility and offers a better ability to negotiate curves.
- The asymmetrical cross-section increases the available volume for upward debris elimination.

### The instrument works in a cyclic way (3C Concept):

- 1) Cutting
- 2) Clearance (debris elimination)
- 3) Cleaning



Asymmetrical section



Symmetrical section



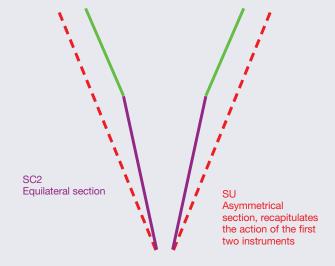
### $\text{Revo-S}^{\text{\tiny M}}$ sc1 sc2 su

### A customized treatment using 3 instruments

- Inactive tip.
- The extended helical machining up to the coronal region increases the instrument's flexibility.
- Reduction of the contact lengths of the blade on the dentine: reduction of stress.
- Better debris elimination and more efficient cleaning owing to the asymmetrical cross section of the SC1.
- The SC2 instrument has a symmetrical cross section, with a .04 taper allowing better penetration. Its equilateral section (3 identical edges) ensures a perfect guidance of the instrument up to the apical region of the canal, owing to the balance of the forces.
- Respect of the canal anatomy to the apical region is guaranteed by the equilateral section of the SC2: no zipping.
- The excellent upward debris removal minimises debris packing in the apical region and beyond.
- The progressive pitch avoids screwing effects.
- SU smoothes the root canal walls. Due to its asymmetrical section, it recapitulates the action of the first two instruments SC1 and SC2, thus respecting the tapered shape of the canal. It performs excellent upward removal of the dentine debris and an improved cleaning.
- → An adequate canal preparation with an apical finishing of .06.
  - Optimal cleaning.
  - Adapted active length.
  - The extended cutting part in the coronal region increases instrument flexibility.
  - Optimal upward removal of dentine debris.

#### Root canal cleaning and shaping Root canal finishing







### Root canal cleaning and shaping



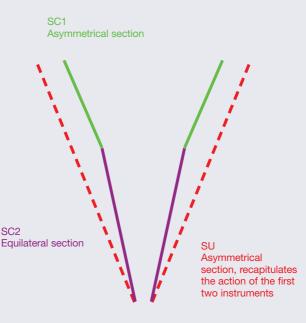


#### **Root canal finishing**





Root canal cleaning and shaping Root canal finishing





### $\text{Revo-S}^{\text{\tiny TM}}$ sc1 sc2 su

A simple protocol for efficient treatments

#### Basic sequence with only 3 instruments



Speed of rotation: 250 - 400 rpm

#### Advice and recommendations

#### **Initial penetration**

- The first step consists of an initial penetration of the canal using a conventional stainless steel hand instrument (usually a K file N°10 MMC n°10 L21 mm) which provides information about the canal anatomy complementary to that obtained by the pre-operative X-rays.
- The use of ENDOFLARE® is recommended (The MICRO-MEGA® +).
- The G-Files<sup>™</sup> safely enlarge the glide path in preparation for RCT with rotary instrumentation system (The MICRO-MEGA<sup>®</sup> +).
- The instruments should be removed frequently from the canal and cleaned using a compress in order to eliminate the dentine debris.

#### **Operative dynamics**

- Revo-S<sup>™</sup> instruments should be used with a rotation speed ranging between 250 and 400 rpm.
  - Use SC1 with slow and unique downward movement in a free progression and without pressure.
  - Use SC2 with a progressive 3 wave movement (up and down movement).
  - Use SU with a slow and unique downward movement in a free progression and without pressure. Then check apical patency and if necessary, perform an upward circumferential filing movement.

#### Irrigation

The canal should be thoroughly irrigated using sodium hypochlorite (2.5% to 5%) between the use of each instrument. The use of a chelating colloid (gel) (for example MM-EDTA Cream) is advised for instrument lubrication and dentine debris removal.



#### The MICRO-MEGA® +: ENDOFLARE®

The use of ENDOFLARE<sup>®</sup> is recommended: It eliminates coronal strains, improves the access to canal entrances and facilitates the insertion of shaping instruments such as Revo-S<sup>™</sup>.



#### The MICRO-MEGA® **+**: G-Files™

The G-Files<sup>™</sup> are new rotary NiTi files that safely enlarge the glide path in preparation for RCT with rotary instrumentation system. The G-Files<sup>™</sup> can be used in combination with Revo-S<sup>™</sup> or any other NiTi system.

### $\mathsf{Revo-S}^{\scriptscriptstyle{\mathrm{M}}}$ asso asso as40

#### Apical finishing

For a successful canal preparation, apical finishing is essential: MICRO-MEGA® offers an optional adapted solution with specific instruments: AS30, AS35, AS40.

These instruments enable efficient widening of the apical preparation to .06 taper respecting the preparation performed with SC1, SC2 and SU. This finishing enables an improved flow of the irrigating solution promoting efficient disinfection and facilitated obturation.

- Shaping down to the working length: more accurate finishing of the apical 1/3.
- Efficient disinfection: The irrigating solution penetrates to the apical 1/3.
- Optimal cleaning.
- The instruments dedicated to the apical area are tapered at .06.
- Asymmetrical cross-section.
- The extended helical machining up to the coronal region enables a continuous bending of the instrument.

Flexibility and efficiency of the instruments for a successful apical finishing.





#### **Apical finishing**













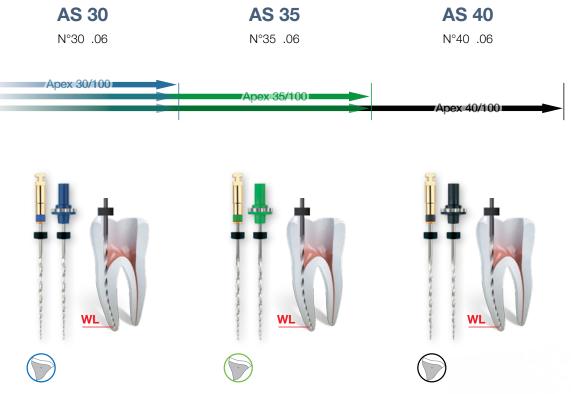
(Apical Shaper<sup>®</sup> 40) N°40 .06





### $\mathsf{Revo-S}^{\mathsf{TM}}$ asso asso as40

AS protocol: for a perfectly safe finishing



#### Advice and recommendations

- The AS instruments should be used without apical pressure, after using the SU.
- If necessary and according to the root canal anatomy, use the AS30, AS35 and AS40 to enlarge the apical region.
- Their penetration depth corresponds to the working length. This length is shortened in thin root canals or with a marked curvature. They are then used in a step back motion (AS30 at WL, AS35 at WL -0.5 mm, AS40 at WL -1 mm if necessary).
- For a perfect apical finishing, use the sequence:
  - AS30 only for an apical finishing at 30/100.
  - AS30 then AS35 for an apical finishing at 35/100.
  - AS30 then AS35 and finally AS40 for an apical finishing at 40/100.
- If an AS instrument fails to reach the working length, continue the preparation using the former instrument in order to work without any apical pressure.



Kit MM∙control + Revo-S™	5 7/1
Ref. 51400103	MM + control + Revo-S' Solution

- 1 MM control
- 5 pack MMC ass 08-10-15
- 1 pack ENDOFLARE<sup>®</sup>
- I pack G-Files<sup>™</sup> G1
  - + 1 pack G-Files<sup>™</sup> G2
  - 3 pack Revo-S<sup>™</sup> SC1
  - + 3 pack Revo-S<sup>™</sup> SC2
  - + 3 pack Revo-S<sup>™</sup> SU
  - 1 pack Revo-S<sup>™</sup> AS30
    - + 1 pack Revo-S<sup>™</sup> AS35
    - + 1 pack Revo-S<sup>™</sup> AS40
    - I box Gutta Percha Revo-S<sup>™</sup> SU
      - 1640-0 00
      - 1 box Paper Points
        - Revo-S<sup>™</sup> SU

### Revo-S<sup>™</sup> Obturation

#### Revo-S<sup>™</sup> Paper Points

#### Gain in simplicity:

**One file = one paper point!** 

Improved efficiency owing to the Revo-S<sup>™</sup> Paper Points! Their taper perfectly matches canals shaped with Revo-S<sup>™</sup> files and thus guarantees quick, efficient and safe drying.

- Four paper point sizes, perfectly adapted to any root canal prepared with the Revo-S<sup>™</sup> files.
- Quick and efficient drying.
- Cost saving: Less paper points are needed to dry the canals thanks to their adapted tapers.
- Easy-to-identify owing to the Revo-S<sup>™</sup> colour code.
- Shaped for easy and reliable penetration to the apex.



#### Revo-S<sup>™</sup> GP Points

### Designed for every filling method!



The new Revo-S<sup>m</sup> GP Points have been designed with specific tapers and diameters perfectly matching the Revo-S<sup>m</sup> files.

- Specific tapers and diameters for obturation after treatment performed with Revo-S<sup>™</sup>.
- Easy-to-identify thanks to the same colour code as Revo-S<sup>™</sup>.
- Flexible for perfect adjustment to all root canal anatomies without bending.
- Manufactured without cadmium using only the finest high quality material.
- Optimum tissue tolerance.
- Highest precision for all filling techniques: cold, warm or thermomechanical condensation techniques.

#### **Revo Spreaders**

#### **NiTi Spreaders**

The Revo Spreaders have an excellent gutta percha plugging ability and are meant for lateral condensation obturation technique after use of the Revo-S<sup>m</sup> files.

- High flexibility and excellent root canal curve negotiation owing to NiTi = more safety!
- .04 taper for optimal sliding of the spreader along the gutta percha cone.
- 90° point for optimum gutta percha plugging.



#### Revo Condensor

#### **NiTi Thermocompactor**

The Revo Condensor is the ideal instrument for thermomechanical condensation technique: The gutta percha is heat plastified through friction. The Revo Condensor's inverted H-type file profile guarantees an efficient transport of the gutta percha inside the root canal.

- More safety and flexibility thanks to NiTi.
- Simple to use: Only one instrument is used whatever the root canal preparation and apical finishing might be.
- Increased taper for more safety and less risk of breakage.





#### **MICRO-MEGA®**

MEGA

MICRO

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