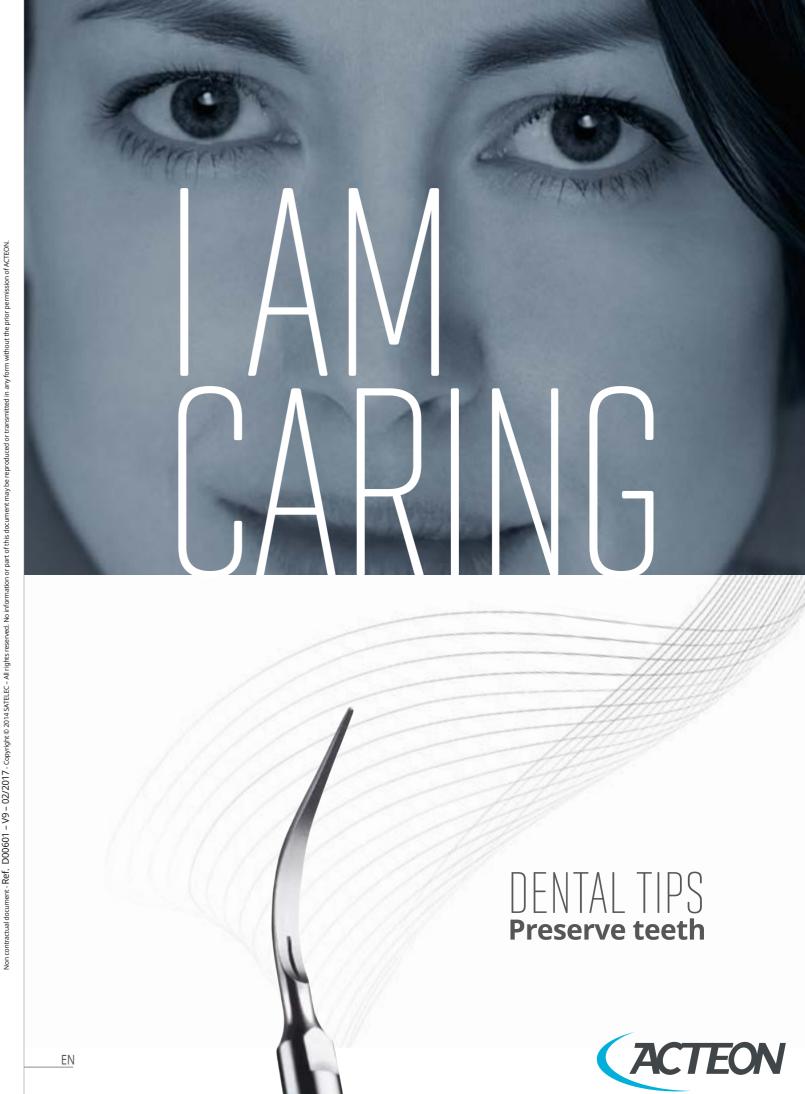
### www.acteongroup.com





To visualize our Youtube channel: <a href="https://www.youtube.com/user/acteonsatelec">www.youtube.com/user/acteonsatelec</a>





### Tips are our expertise

Since ACTEON® EQUIPMENT developed the first ever piezoelectric scaler for dentistry, 45 years ago, we have constantly innovated in new electronics and ultrasonic tips. With continuous R&D investments, and partnership with clinicians, universities and dental experts worldwide, we have been able to develop a unique, world-renowned expertise, which is marketed in more than 135 countries.

Our goal is to provide clinical and technical innovations that meet dentists' and dental hygienists' requirements, as well as clinical applications and patients expectations evolution.

Having nearly 80 different tips, ACTEON® EQUIPMENT offers the widest range of instruments covering all clinical fields: prophylaxis, periodontics, implant care, endodontics and prosthesis.

For each indication, NEWTRON® tips are designed with exclusive alloys respecting the surfaces treated: enamel, prosthesis, implants.

The Color Coding System™ CCS intuitively associates each tip with one of the 4 available power ranges, for maximum efficacy and a sustainable tip use.

Exclusive and patented, NEWTRON® technology brings to treatments more preservation, efficacy and comfort.

Only our industrial procedures and stringent quality control can guarantee perfect tip adaptation on our ultrasonic generators. The electronics module, the handpiece and the tip are designed to interact in harmony and deliver optimum performance for you and your patients.

### Contents

P. 4-9 PROPHYLAXIS

P. 10-15 PERIODONTICS

P. 16-19 IMPLANT CARE

P. 20-27 ENDODONTICS

P. 28-33 PROSTHESIS AND ESTHETICS

# Preserve teeth with perfect ultrasonic vibrations and steel tip quality

NEWTRON® technology and tips respond to practitioners clinical expertise.

The ultrasonic micro-oscillations transmitted from the handpiece to the tip generate perfectly linear movement. Therefore the tip undergoes to-and-fro movements in the axis of the handpiece.

The active area of each tip is located on the distal 2-3 mm. This working section may be applied on the surface to be treated, moving progressively from the crown to the root.

The linear movement of the tip can be used in various ways which are also complementary:



- sweeping: indicated for scaling and disrupting the biofilm
- the tip must be applied tangentially on the part to be treated, and used over its entire active section (fig.1)



- hammering: used to fragment large tartar deposits and remove
- the tip must be positioned facing the element to be detached, and used without pressure on its point (fig.2)

NEWTRON® technology, a guarantee of efficacy and safety

- Preservation
  - ✓ controlled vibrations
  - ✓ steel tip quality
  - ✓ total irrigation control
- Efficacy
  - ✓ frequency adjustment
  - ✓ power regulation
  - ✓ powerful cavitation
- Comfort
  - ✓ linear and regular vibrations



The ultrasonic vibrations also cause a biological effect called cavitation, which has interesting benefits.

When a liquid is exposed to ultrasonic vibrations, the acoustic wave induces quite large pressure changes to create small bubbles of vapor called cavitation.

These bubbles are extremely unstable and burst violently, leading to the fragmentation and removal of the deposits.

In addition cavitation creates micro-bubbles of oxygen which have a cleansing, disinfectant effect\*.

<sup>\*</sup>Lea S.C. "Cavitation damage to ultrasonic scalers" - Dental Health 2008; 47:2-6



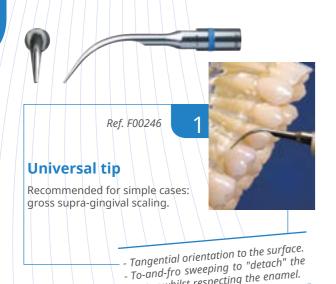
# PROPHYLAXIS Daily prevention and treatment

## First step supra-gingival scaling

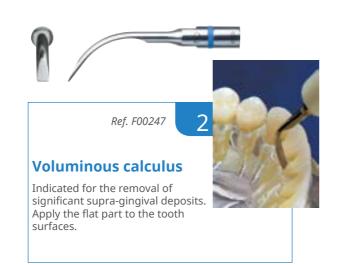
scaling

## Versatile, gentle hygiene treatment

hygiene

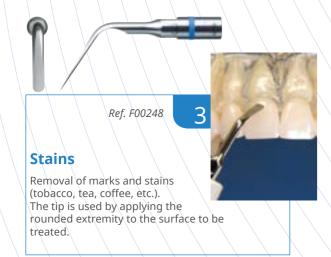


tartar whilst respecting the enamel.

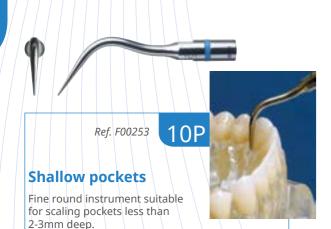




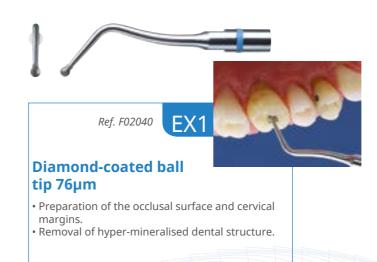




**Prophylaxis** 









### diamond-coated tip 76µm

Preparation of the mesial surface without lesions on the adjacent tooth surface.



Preparation of the distal surface without lesions on the adjacent tooth surface.



Curved 45° to the left, the EXL tip allows access to the lesion, particularly in posterior areas, without damaging adjacent teeth.

Excavus tips provide excellent abrasion quality due to the regularity of their diamond coating\*.



Curved 45° to the right, the EXR tip allows access to the lesion, particularly in posterior areas, without damaging adjacent teeth.



Excavus Kit (Ref. F00739): supplied with EX1, EX2, EX3, EXL and EXR tips, a metal holder and an autoclavable universal wrench.

8

**Prophylaxis** 

<sup>\*</sup> Takanashi H. "Effect of ultrasonic diamond tip on dentin bonding of composite" IADR/ AADR/CADR-2007; poster 1509



# PERIODONTICS Gentle, non-surgical periodontal treatments



Initial periodontics, anterior sector

Ideal instrument for initial treatment, it makes treatment of the incisor-canine block possible. The guide edge is oriented parallel to the pocket.

> The H3 tip is descended into the periodontal pocket without risk of injury to the ligament. The cavitation will lift the debris out.

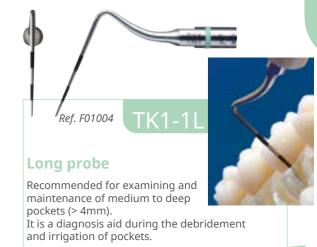


Periodontics for the premolar and molar sectors, left-oriented

First instrument in the sequence for treating all the surfaces and the furcations.

- · Maxillary: buccal and distal surfaces of sector 2, pivots at 13, then the buccal and mesial surfaces of sector 1. Mandibular: buccal and distal surfaces
- of sector 4, pivots at 43, then lingual and mesial surfaces of sector 3.





The TK1 probe tips are used without pressure following the contour of the pockets and skimming over the root Periodonti

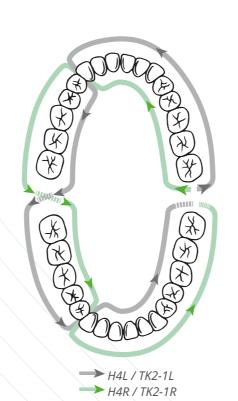


premolar and molar sectors, right-oriented

Second instrument in the sequence, it follows the use of the H4L tip.

- y: palatine and mesial surfaces of sector 2, pivots at 13, then buccal and distal surfaces of sector 1.
- ar: lingual and mesial surfaces of sector 4, pivots at 43, then buccal and distal surfaces of sector 3.

The H4L and H4R tips make it possible to treat the whole mouth in a single session.





Ref. F02161 Maintenance of the premolar and molar sectors, right-oriented It is complementary to the TK2-1L tip

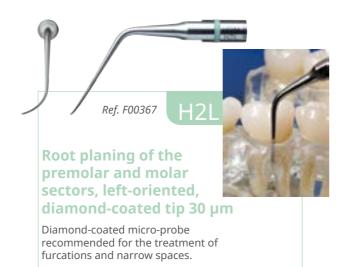
and is recommended for the maintenance of moderate to deep pockets and furcations. Equivalent to the Nabers probe.



- Diamond-coated mini-tip recommended for simple cases in the cervical area.
- · Also effective for the withdrawal of granulation tissue.

furcations and narrow spaces.

The H1 tip should be used without pressure and above the epithelial attachment because it is abrasive.





The H2 tips are also effective for the treatment of abscesses.



#### premolar and molar sectors, left-oriented

Round micro-tip recommended for periodontal debridement in the presence of a fine peridontium and in narrow areas.

- ary: buccal and distal surfaces of sector 2, pivots at 13, then the palatine and mesial surfaces of sector 1.
- Mandibular: buccal and distal surfaces of sector 4, pivots at 43, then lingual and mesial surfaces of sector 3.



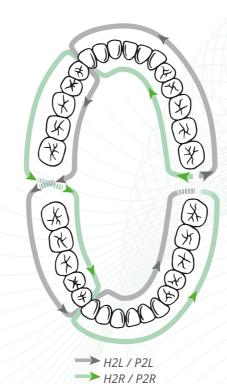
### premolar and molar sectors, right-oriented

Second instrument in the sequence, it follows the use of the P2L tip.

The double bend makes it possible to treat areas that are difficult to access (inter-radicular spaces, deep pockets).

- Maxillary: buccal and mesial surfaces of sector 2, pivots at 13, then buccal and distal surfaces of sector 1.
- lar: lingual and mesial surfaces of sector 4, pivots at 43, then buccal and distal surfaces of sector 3.

The P2 tips can also be used to remove small amounts of excess cement when bonding fixed prosthesis.





# IMPLANT CARE Implant prevention and treatment





### Hygiene of anterior

Plastic micro-tip with universal curette shape for the treatment of the incisor/canine groups.

- Removal of the biofilm and low adherence deposits without scratching the prosthetic
- Polishing the sulcus or grooves of natural teeth.

The new material for these tips makes it possible to clean and debride faster, and gives better breakage resistance. Max. Power = 3 (start of green mode).

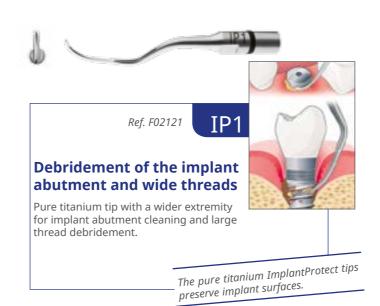


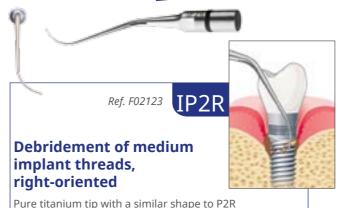
#### Hygiene of premolar and molar sectors, left-oriented

Plastic micro-tip with 13-14 curette shape for the removal of biofilm and low adherence deposits

for the treatment of the posterior groups.

- Maintenance for the screws and abutment of the implant.
- Scaling of prosthesis.





for the debridement of medium-sized implant

The approach may be non-surgical or open flap.



Pure titanium tip with a pointed extremity suitable to reach the inner-most parts of narrow implant threads.



implant threads. The bend of the tip allows

decontamination.

movement around the entire implant for total



to reach narrow implant threads. All types of implants can be treated with these different tip sizes.

> - The black ring on these tips indicates their exclusive use on titanium. Max. Power = 5 (green)



ImplantProtect Kit (Ref. F02120): supplied with IP1, IP2L, IP2R, IP3L and IP3R tips, a metal holder and an autoclavable universal wrench.



## and molar sectors, right-oriented

Plastic micro-tip with 13-14 curette shape for the removal of biofilm and low adherence deposits for the treatment of the posterior groups.

> Periosoft Kit (Ref. F00906): supplied with 4 PH1 tips, 4 PH2L tips and 4 PH2R tips, an autoclavable plastic box and 3 autoclavable black wrenches.



# All state-of-the-art ENDODONTICS

## Canal

## irrigation

Endodontics

## endosuccess irrisafe





The CAP1 tip is used with the active lateral part for:

- · Finishing walls and polishing.
- · Removing temporary cement and dentinal residues
- Removing dentin overhangs.

The CAP1 tip has a non-active end to prevent the risk of perforating the pulp chamber floor.



The CAP3 tip has a very pointed extremity indicated for:

- Locating and opening the calcified canals.
- Fragmenting calcifications or pulp stones in the pulp chamber.
- · Loosening fiber posts.
- Locating accessory canals.

Due to its very sharp point, the CAP3 tip must be handled with care (visual aids recommended).



Micro-blade tip. length 9mm, taper 5%

The CAP2 tip has active lateral part and extremity and is used by sweeping method to remove dentine bridges.

- Location of the MB2 (2nd mesiobuccal canal) and search for hidden canals.
- Preparation of the pulp chamber.
- Removal of the dentine layer which may hide the access to the MB2 canal.

The micro-blades are less aggressive than diamond and their coating makes these tips very durable.



The ET18D tip is a diamond-coated tip for:

- Finishing the access cavity.
- Removing dentine overhangs, calcifications and filling materials.



Diamond-coated ball tip for searching for canals and locating calcified canals.

IRRI 20, 25

#### Passive ultrasonic irrigation (PUI) files of different lengths and diameters

Irrisafe™ files adapt to many sizes of canal: Ø 20 length 21mm and 25mm

Ø 25 length 21mm and 25mm

Irrisafe™ files are used for irrigation once the root canal has been prepared.

- · 20ml of irrigant (NaOCl) are injected into the
- Irrisafe™ is inserted 2mm short of the working length and activated by performing withdrawal movements to flush the debris and the smear layer upwards.
- Repeated 3x 1 minute in each canal.

Irrisafe™ safely eliminates the smear layer, dentine debris and bacteria from the root canal. Its blunt tip prevents any risk of perforating the apex or the canal walls.

\* van der Sluis L.W.M. "Passive ultrasonic irrigation of the root canal: a review of the litterature" Int. Endodont. J. 2007; 40; 4: 415-428



#### Files of different lengths and diameters, taper 2%

The K files adapt to many sizes of canal:

- Ø 10 length 21mm and 25mm
- Ø 15 length 21mm and 25mm

broken instruments.

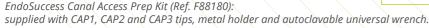
- Ø 25 length 21mm and 25mm Ø 30 length 21mm and 25mm
- The indications for K files are irrigation, withdrawal of calcified dentine and gutta percha, and the withdrawal of

For irrigation ultrasonic files are used with a disinfectant solution. To provide a final decontamination, use sodium hypochlorite until the smear layer is removed.

> K files are very sharp instruments and should be handled with precision. However they are flexible and can therefore be pre-bent.



K15-21 (Ref. F43715), K15-25 (Ref. F43717), K25-21 (Ref. F43725), K25-25 (Ref. F43727), K30-21 (Ref. F43730), K30-25 (Ref. F43732).



## Canal Retreatment

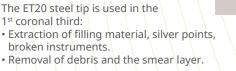
## Retreatment and obturation

Endodontics

endosuccess endodontics

Retreatment









EndoSuccess Retreatment Kit (Ref. F00737):

supplied with ET18D, ET20, ET25, ET25S, ETBD and ETPR tips,

a metal holder and an autoclavable universal wrench.

















ET40D

Ref. F88014

The SO4 tip is designed for lateral condensation of gutta percha by heating effect. It is used dry, without irrigation.

\* E.W. Collings "Applied superconductivity, metallurgy and physics of titanium alloys" 1985

Endo Kit (Ref. F00925): supplied with ET20D and ET40D tips, a blister pack of 4 K15-21 files, a blister pack of 4 K15-25 files, an autoclavable plastic box and an autoclavable universal wrench. Endodontics

endosuccess endosurgery -



The AS3D tip is intended for apical surgery of anterior teeth. It should be used without pressure, at the lowest possible effective power.



length 9mm, taper 8% The AS9D tip is for complex cases and

allows preparation of the root canal up to the coronal third. The diamond coating of the AS9D is only present on the extremity of the instrument not to over-prepare the canal.

> The AS9D tip should first be introduced into the canal and oriented in the root axis before being activated to prevent the creation of a "false route".

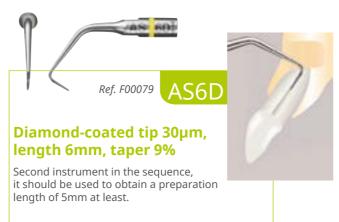


Ref. F00080

ASIC

Left-oriented tip, diamond-coated 30µm. length 3mm, taper 10%

Recommended for apical surgery of premolars and molars. This instrument should be used with very light pressure





The ASRD tip is recommended for apical surgery of premolars and molars.

> The Apical Surgery kit, with its unique 3-6-9mm concept, offers a controlled retrograde endodontic treatment with greater preservation of bone and dental



EndoSuccess Apical Surgery Kit (Ref. F00069): supplied with AS3D, AS6D, AS9D, ASLD and ASRD tips, a metal holder and an autoclavable universal wrench.



treatment of posterior areas, in canals that are difficult to access or roots with specific orientations.



treatment possible providing fast healing.



Ref. F00108 P15RD Right-oriented retro surgery tip, diamond-coated 30µm, length 5mm, taper 7%

The P15RD is recommended for the preparation of premolar and molar canals.



Micro-Retro Kit (Ref. F00912): supplied with P14, P15LD and P15RD tips, an autoclavable plastic box and 3 autoclavable yellow wrenches



# PROSTHESIS & ESTHETICS

Perfection to the limit

## Prosthetic finishing with chamfered shape

## )

## Prosthetic finishing with shoulder shape

## perfectmargin Rounded





Preparation, rounded edge, diamond-coated tip 76 µm

First instrument of the ultrasonic sequence, following the rotary phase. Intrasulcular dentin preparation and positioning of finishing line.

PerfectMargin Rounded and Shoulder tips have a laser marking at 1mm to control their penetration into the sulcus.



Ref. F02251 PM2

Finishing, rounded edge, diamond-coated tip 46 μm

Correction of irregularities in the finish line and start of polishing.

Its diamond coating, less dense than on the PM1, makes it possible to obtain a cutting edge finish.



Preparation, shoulder shape, diamond-coated tip 76 µm

First instrument of the ultrasonic sequence, after the rotary phase.

PMS1

Penetration of the sulcus to continue preparation the dentine, in order to correct the "lip" of the preparation and obtain a shoulder-shape finishing line.



Finishing, shoulder shape, diamond-coated tip 46 µm

Shoulder shape finishing line without risk of a lesion in the attachment system, and beginning of polishing thanks to its lower grit diamond-coating.

When the yellow setting of the ultrasonic generator is used, PM2 and PMS2 can be used for polishing the dentine.



This entirely smooth instrument is last in the finishing sequence, improving the condition of the surface at the cervical limit before impression taking.



Ref. F02253 PM4



After the rotating phase the PM4 tip is used to:

- Prepare the upper 1/3 of canal chamber.
- Shape anatomically the connection cone.
- Clean the root walls.
- Smooth the entry cones for the anatomical

The PM4 tip is available in both PerfectMargin kits.











PerfectMargin Shoulder Kit (Ref. F00736): supplied with PMS1, PMS2, PMS3 and PM4 tips, a metal holder and an autoclavable universal wrench.

Esthetics

Prosthesis &

## Ceramic veneers finishing

## **D**erfectmargin

# Diamond-coated ball

Perform cuts on the incisal edge, by controlling the depth with the round tip radius. Then join the depth cuts to obtain an homothetic reduction of 1.5mm. Complete the vestibular reduction.

107 µm



Place the incisal margins in butt-margin using the PMV3 tip, perpendicular to the prepared surface. Then join the incisal and proximal finish lines with the PMV2/3.

The positioning of interproximal finishing lines with the PMV2 and 3 tips enables to establish a rotational path of insertion for veneers.



Ref. F02025

#### Smooth internal spoon

Polish the interproximal and gingival finishing lines with PMV4 and 5 tips, with chuck maintained perpendicular on the surface.



After gingival retraction with Expazyl®\*, place the gingival finishing lines margins using the PMV2 tip parallel to the surface to be prepared. Place the interproximal finishing lines using the PMV2 and 3 tips, with chuck maintained perpendicular on the surface.



PMV4

#### Smooth external spoon

Polish the interproximal and gingival finishing lines with PMV4 and 5 tips, with chuck maintained perpendicular on the surface.



Ref. F02026

#### **Smooth ball**

Polish the vestibular surface and the incisal



PerfectMargin Veneers Kit (Ref. F02020): supplied with PMV1, PMV2, PMV3, PMV4, PMV5 and PMV6 tips, a metal holder and an autoclavable universal wrench.

### Loosening and condensation



Recommended for the loosening of root canal posts, in combination with endodontic retreatment tips, and crowns.

Apply the 5AE tip on the lingual or palatine surface and the buccal surface, before finishing with the occlusal surface. Use the flat extremity of the instrument held firmly against the tooth.

> This tip has a spray orifice, making it possible to cool the operative field to compensate the heating effect transmitted to the prosthetic structure on the underlying tooth.

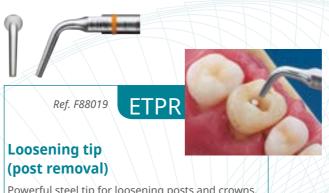


Piezocem

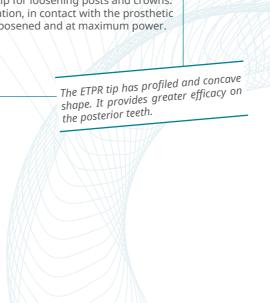
Condensation tip for inlays or onlays on posterior

The application is performed by sequences of ten seconds each time, until the prosthesis is perfectly integrated into the cavity.

In general two to three sequences are sufficient; after each sequence the excess cement is removed from the margin edges.



Powerful steel tip for loosening posts and crowns. Used with irrigation, in contact with the prosthetic element to be loosened and at maximum power.



#### SETTINGS RECOMMANDATIONS

NEWTRON	POWER	IRRIGATION
Tips	_	
PROPHYLAXIS		
1/2/3/1S	14	$\bigwedge$
10P	14	<b>/</b>
10X / 10Z	12	<b>(</b>
EX1 / EX2 / EX3 / EXL / EXR	12	<b>(</b>
PERIODON	TICS	

FERIODONTICS			
H1 / H2L / H2R / H3 / H4L / H4R	2	· ·	
P2L / P2R	3	·.	
TK1-1S	2	·.	
TK1-1L / TK2-1L / TK2-1R	2	$\bigcap$	

TK1-1L / TK2-1L / TK2-1R	2	\\\
IMPLANT CARE		
PH1 / PH2L / PH2R	2	
IP1	3	, ,
IP2L / IP2R / IP3L / IP3R	5	Ç
ENDODONTICS		
CAP1	10	<u> </u>
CAP2 / CAP3	10	$\bigwedge$
ET18D	10	
ET20 / ET25 / ET25S / ETBD	7	$\wedge$

/ TK2-1L / TK2-1R	2	$\wedge$
IMPLANT (	CARE	
PH2L / PH2R	2	· ·
	3	· ·
P2R / IP3L / IP3R	5	· ·
ENDODON	TICS	
	10	<u></u>
CAP3	10	$\frac{1}{\sqrt{2}}$
	10	
ET25 / ET25S / ETBD	7	$\left  \begin{array}{c} \left( \cdot \right) \right  = \left( \cdot \right)$
	drop-by-drop	/\ medium spray

NEWTRON	POWER	IRRIGATION	
Tips	I OWER	111111111111111111111111111111111111111	
ENDODONTICS			
ET20D / ET25L / ET40 / ET40D	7	<b>/</b>	
IRR20-21/ IRR20-25 / IRR25-21 / IRR25-25	9	Á	
K10 / K15 / K25 / K30	6	<b>,</b>	
AS3D / AS6D	7	,	
AS9D	6	÷.	
ASLD / ASRD	7	$\int$	
P14D / S12-70D	7	·	
P15LD / P15RD	7		
SO4	7	×	

<b>PROSTHESIS &amp; ESTHETICS</b>			
PM1 / PMS1	15	$\bigwedge$	
PM2 / PMS2	10	$\bigwedge$	
PM3 / PMS3	8	$\bigwedge$	
PM4	15	$\bigwedge$	
PMV1 / PMV2 / PMV3	15	<u> </u>	
PMV4 / PMV5 / PMV6	10	<b>/</b>	
5AE / ETPR	20		
C20	11	X	

#### ADJUSTMENT OF THE IRRIGATION FLOW IS ESSENTIAL

In order to obtain good drop-by-drop suitable for periodontal treatments, and a spray that does not create aerosol, the adjustment of the irrigation must be adapted to each tip:



1/ Set the irrigation flow rate to 0 and the power to 3 on the ultrasonic generator.



2/ Hold the handpiece with the tip pointing upwards.

3/ Adjust the spray by progressively increasing the flow rate so that the irrigation sprays the tip point with drop-by-drop.



4/ Set the machine to the



5/ Start working with aspiration close to the tip.

## NON GENUINE ACTEON® EQUIPMENT TIPS MAY COST YOU A LOT MORE

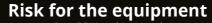


ACTEON® EQUIPMENT has always designed tips that respect the tooth's anatomy and vibrate in perfect harmony with the handpiece.

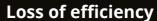
The potential imperfections in compatibility of brand x tips, both physical and electronic, may cause risks and premature wear of equipment.

#### Risks for the patient

- Risk of damaging patient's tissues (enamel, cement, etc.).
- Risk of breaking the tip, possibly with the broken piece being swallowed or inhaled by the patient, or lost in the tissues.



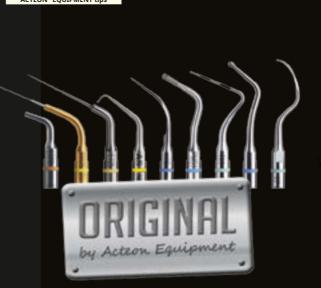
Risk of handpiece heating (meaning a loss in electromechanical output), which could lead to handpiece damage.



Tip wear alters its efficiency (-2mm = -50% efficiency), reduces its roughness, vibration and movement.

Understandably, ACTEON® EQUIPMENT's liability - both legal and with regard to warranty of parts and accessories - cannot be engaged for damages that arise from the use of any other than genuine accessories.





The only way to make real savings and not damage teeth.

