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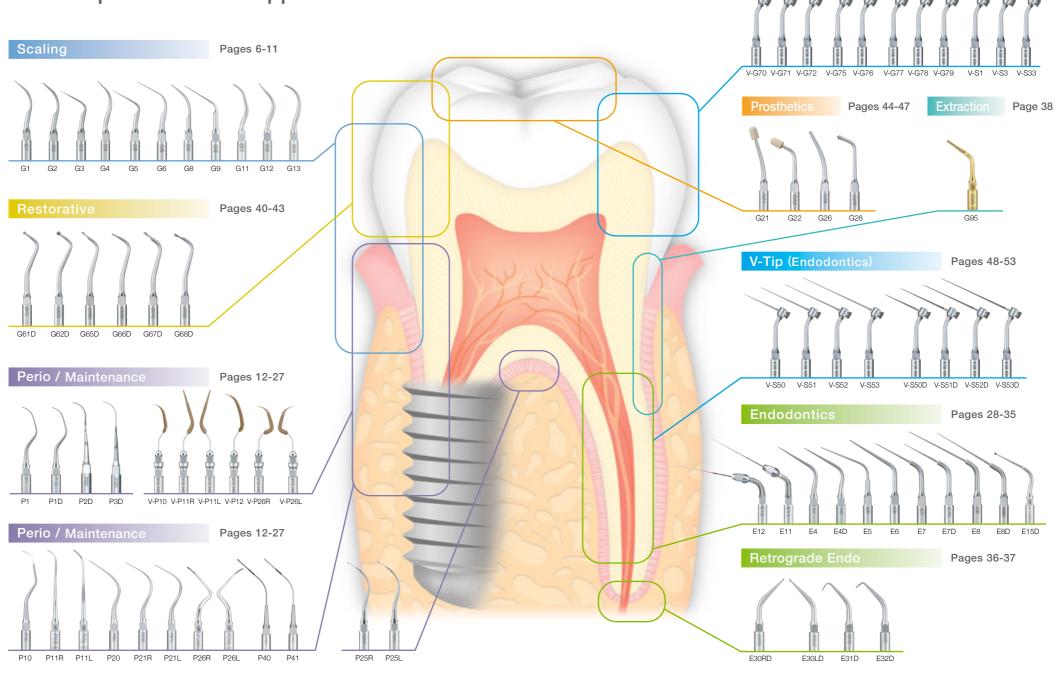
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# NSK Offers A Wide Choice of VARIOS Ultrasonic Scaler Tips For Clinical Applications.

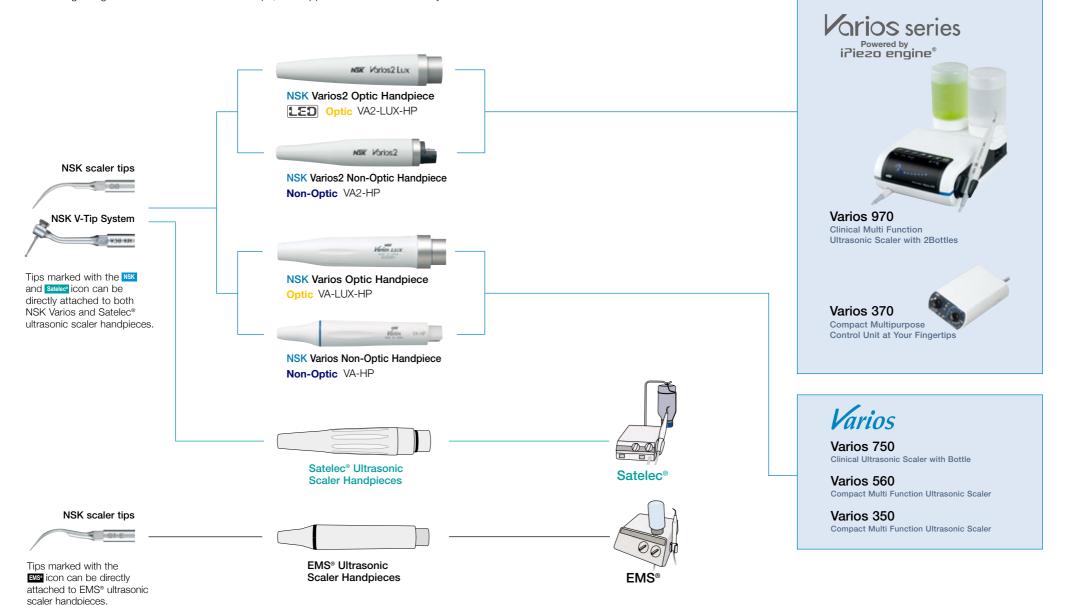


V-Tip (Restorative)

Pages 54-58

# Varios 2 / Varios Tips

NSK tips fit Varios and Varios2 ultrasonic scaler handpieces as well as Satelec® ultrasonic scaler handpieces. NSK make a number of tips which will fit on EMS® ultrasonic scaler handpieces. The following is a guide to illustrate all NSK Varios tips, their applications and connectivity.



Satelec® is registered trademarks of Acteon SA, France. EMS® is registered trademarks of Electro Medical Systems SA, Switzerland.

# INTRODUCTION

This manual aims to help you choose ultrasonic tips and advises you on their use. For decades, ultrasonics have been used in odonto-stomatogy as well as in many surgical specialities. However, this technology is still underused in treatment in comparison with its numerous clinical applications.

NSK offers a range of "non-specialised" tips and specialised micro-tips. For increased effectiveness, these micro-tips require a stand-alone generator with adjustable and reproducible power together with an independent irrigation system.

The system is broken down into 3 elements:

- The generator
- The handpiece
- The tip

The piezoelectric generator provides an accurate and reproducible power scale with 3 operating ranges. The different modes, P (perio), E (endo) and G (general) allow the power to be selected according to the tip's clinical indication.

The independent reservoirs enable irrigation by specific antiseptics at suitable temperatures.

NSK handpieces, whether optic or non-optic are lightweight and easy to handle. They provide improved tactile sensitivity in areas with no visual access. The smaller diameter, particularly in the optic handpiece, gives access to even the most posterior areas of the oral cavity.

There are many tips for dealing with various clinical indications.

They are designed to provide access and thus optimise the action of the working end fitting. Tip selection is guided by the treatment objective. (ref tables)







used with NSK Varios2 utrasonic scale

Application power range for NSK varios tips when Easily interchangeable Solution bottles

Twin LED liants

# FUNDAMENTAL BASIS OF UITRASONICS

The physics of ultrasonics on the same template as the piezosurgery handbook:

Ultrasonic equipment which combines irrigation with the movement of the tip in a single area produces 6 distinct effects:

Scanning: acts on the biofilm

Hammering: acts on mineralised deposits

Abrasion: acts on mineralised deposits and granulation tissue

Washing: acts on the biofilm and mineralised deposits

Micro-streaming: acts on the biofilm

Cavitation: acts on decontaminating the pocket

Depending on the treatment objectives, these effects are sought "more or less".

It is important to understand that the vibration movement, depending on its orientation on the work surface, has 2 clinical applications. Scanning the biofilm when the tip is tangential to the root surface. Hammering tartar when the tip is perpendicular to the debris to be removed.







# SCALING



• Removal of supra gingival tartar. • Removal of tartar narrow interdental space. · Removal of marginal gingival calculus.



NSK Satelec® MODEL G1



ORDER CODE **Z217101** 





EMS® MODEL G1-E ORDER CODE Z291101 Single rooted / Multi rooted

· Removal of supra gingival tartar.







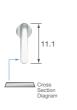
Single rooted / Multi rooted

NSK Satelec® MODEL G2 ORDER CODE **Z217102** EMS® MODEL G2-E ORDER CODE Z291102

· Removal of supra gingival tartar.









Single rooted / Multi rooted

NSK Satelec® MODEL G3 ORDER CODE **Z217103** 

EMS® MODEL G3-E ORDER CODE Z291103

• Removal of supra gingival tartar. • Removal of marginal gingival calculus.







NSK Satelec® MODEL G4 ORDER CODE **Z217104** 

EMS® MODEL G4-E ORDER CODE Z291104

Single rooted / Multi rooted

• Removal of supra gingival tartar. • Removal of tartar narrow interdental space. • Removal of marginal gingival calculus. • Removal of gingival biofilm under natural tooth.









NSK Satelec® MODEL G5 ORDER CODE **Z217105** 

NSK Satelec® MODEL G6 ORDER CODE Z217106

EMS® MODEL G6-E ORDER CODE Z291106

Single rooted / Multi rooted

Removal of supra gingival tartar.
Removal of tartar narrow interdental space.
Removal of marginal gingival calculus.
Removal of gingival biofilm under natural tooth.









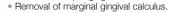
Single rooted / Multi rooted

<sup>\*</sup>Cross section diagram is the image of a point 1 mm from the end. The illustrated tip diagram is four times bigger than the actual size.

# SCALING



• Removal of supra gingival tartar. • Removal of tartar narrow interdental space.









NSK Satelec® MODEL G8 ORDER CODE **Z217108** 

Single rooted / Multi rooted

Removal of supra gingival tartar.
Removal of tartar narrow interdental space.
Removal of marginal gingival calculus.
Removal of gingival biofilm under natural tooth.







Single rooted / Multi rooted

· Removal of supra gingival tartar.









Single rooted / Multi rooted

Removal of supra gingival tartar.







NSK Satelec® MODEL G12 ORDER CODE Z217412

Single rooted / Multi rooted

Removal of supra gingival tartar.

NSK Satelec\* MODEL G13 ORDER CODE Z217413









NSK Satelec® MODEL G11 ORDER CODE Z217411











# THE PHILOSOPHY OF ULTRASONIC TREATMENTS IN PERIODONTICS

Since the beginning of time, man has continually sought to push his boundaries. The desire for progress and the use of new technologies is particularly challenging for dentists who must now be able to integrate periodontics into their general practice.

While conventional, non-surgical treatment is considered as the "Gold Standard", the fact remains that if access to a certain site is difficult, disinfection is not comprehensive and the quality of the curettage is still sometimes insufficient. These manual treatments are often tedious for the dentist and uncomfortable for the patient.

Knowledge and understanding of ultrasonics and advances in the design of micro-tips are just some of the elements which mark the superiority of the ultrasonics treatment (Kocher, 1997 Gagnot et al in 1999 Gagnot, JPIO 2002) and push the boundaries of periodontal surgery. (Brent Scott et al 1999, Himeno 1994)(Ishikawa and Baehni, 2004; Heitz-Mayfield 2005) We understand that the chances of reattachment and regeneration are related to the biocompatibility of tissues (cementum, gingival wall, periodontal ligament). Therefore the clinical challenge lies in the disruption of the biofilm and plaque retention elements (mineralised debris), while protecting tissues vital to healing (Goncalves and coll, 2008) (Fuzaka and Nishimura 1994. Smart et al 1990).

Unlike other systems, the piezoelectric system provides a tip movement in the spindle of the handpiece. This movement controls the tip and allows the status of the surfaces to be respected by limiting iatrogenic effects. (Joki Kasthira et al 92)

The preserved tissues will allow the formation of a new attachment.

This control of ultrasonics and the movement of the tip allows us to tackle the idea of "tissue ecology", preserving the periodontal environment in order to permit long-term healing.

# RECOMMENDATIONS FOR THE USE OF MICRO-TIPS IN PERIODONTICS

These usage recommendations aim to increase the effectiveness of the vibrating action and develop tactile sensitivity. These concepts are fundamental in optimising the effectiveness of the debridement.

#### **ERGONOMICS**

Adjustment in perio mode at low speed Micro-irrigation adjustment.

Rrush socket of the handniese with three fine.

Brush socket of the handpiece with three fingers: thumb on the NSK handpiece of the handpiece



Easing the weight of the cord Perioral pressure points



# **USING** the tips

Light lateral pressure against the cemental surface

Work on the last two mm

Put in the salient line on the root surface (Viguier photos: file position 2mm from the tip)

Always remain in contact with the surface

Remember the concept of methodical, slow, limited scanning

Coronary access and lateral access of hard deposits.

P4,5, P14~P17 writing by Drs Solenn HOURDIN(Ms) and Dominique GLEZ(Mr)

# PRESENTATION OF THE RANGE OF MICRO-TIPS IN PERIODONTICS

The micro-tips used in the treatment of periodontitis (reference P) are different from the non-specialised tips (reference G) used on enamel for scaling. The P micro-tips are used at low speeds in order to reduce iatrogenic effects on the cementum and to develop the dentist's tactile sensitivity.

#### ■ Scaling Tips → P.8-11

The profile of the tip's active area, located in the last 2mm, allows us to differentiate between them. A suitable profile makes it possible to work effectively at low speeds in deep pockets without injected anaesthetic.

There are three main families of micro-tip: Curette micro-tips, round micro-tips and diamond micro-tips (ref Gilles Gagnot book). These tips are used carefully and methodically. (ref tables)

Curette micro-tips (P10, P26R, P26L) are used in the initial stages of treatment. Round (P1, P20, P21R, P21L, P25R, P25L) and composite (V-P10) micro-tips are appropriate for the maintenance stage and diamond micro-tips (P1D, P2D, P3D) are kept for the treatment of abscesses, persistent inflammatory and furcation areas. ■Perio Tips → P.18-27

The table presents the different indications for each of the tips and their usage speed.

This guide gives details of the tips in combination with clinical videos in order to improve the learning curve.

The equipment offered by NSK is suited to the implementation of current cleaning techniques by fully meeting the specifications.

	Scaling tip									
TIP No.	G1	G2	G3	G4	G5	G6	G8	G11	G12	G13
Mode selection	G	G	G	G	G	G	G	G	G	G
Single rooted	•	•	•	•	•	•	•	0	•	•
Multirooted	•	•	•	•	•	•	•	•	•	•
Removal supra gingival tartar	•	•	•		•	•	•	•	•	•
Removal tartar interdental narrow space	•				•	•	•			
Removal marginal gingival calculus	•			•	•	•	•			
Removal tartar in deep gingival										
Removal gingival biofilm					•	•				
Removal on Biofilm furcation area										
Removal of Implant Biofilm										
Removal on junction biofilm prosthetic tooth										
Removal on biofilm dental erosion										
Incising of furcations										
Incising of abscess										
Peeling internal wall of pocket										

	Micro tip round			Micro tip Curette			Micro tip diamonded			
TIP No.	P1	P20	P21R/L	P25R/L	V-P10	P10	P11R/L	P26R/L	P1D	P2D/3D
Mode selection	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р
Single rooted	•	•	•	•	•	•	•	•	•	•
Multirooted		•	•	•	•	•	•	•	•	
Removal supra gingival tartar						•				
Removal tartar interdental narrow space	•					•	•	•	•	•
Removal marginal gingival calculus						•				
Removal tartar in deep gingival							•	•	•	•
Removal gingival biofilm	•	•	•	•		•	•	•		
Removal on Biofilm furcation area				•			•	•		
Removal of Implant Biofilm					•					
Removal on junction biofilm prosthetic tooth					•					
Removal on biofilm dental erosion					•					
Incising of furcations							•	•		•
Incising of abscess									•	•
Peeling internal wall of pocket									•	•

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How effective is surgical therapy co Periodontol 2000. 2005;37:72-87.

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Periodontol 2000, 2004;36:9-13.

# PERIO



• Removal of tartar narrow interdental space. • Removal of gingival biofilm.







Single rooted

NSK Satelec® MODEL P1 ORDER CODE **Z217404** 

- Removal of tartar narrow interdental space. Removal of tartar in deep gingival.
- Debridement of abscess. Peeling wall internal pocket.







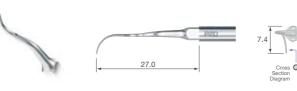


NSK Satelec® MODEL P1D ORDER CODE Z217405 • Diamond coated



Single rooted / Multi rooted

- Removal of tartar narrow interdental space. Removal of tartar in deep gingival.
- Debridement of furcations. Debridement of abscess. Peeling wall internal pocket.





NSK Satelec® MODEL P2D ORDER CODE Z217402

 Diamond coated · Right curved type

Single rooted / Multi rooted

- Removal of tartar narrow interdental space. Removal of tartar in deep gingival.
- Debridement of furcations. Debridement of abscess. Peeling wall internal pocket.







NSK Satelec® MODEL P3D ORDER CODE Z217403

• Diamond coated Left curved type

Single rooted / Multi rooted

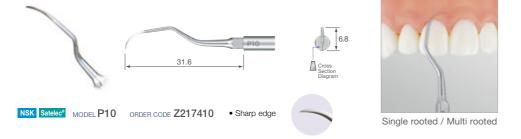
#### P2D / P3D (From above)



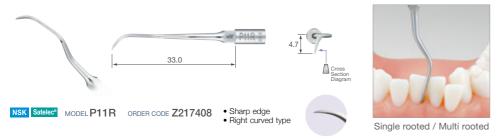
# PERIO



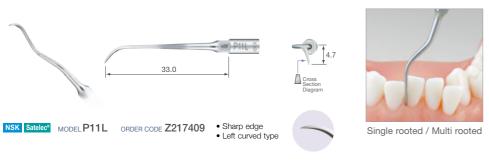
• Removal of supra gingival tartar. • Removal of tartar narrow interdental space • Removal of marginal gingival calculus. • Removal of gingival biofilm.



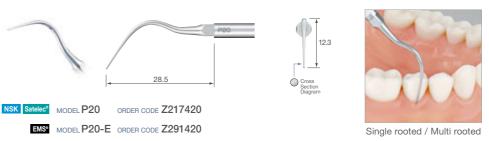
P11R • Removal of tartar narrow interdental space. • Removal of tartar in deep gingival. • Removal of gingival biofilm. • Removal of Biofilm furcation area. • Debridement of furcations.



P11L • Removal of tartar narrow interdental space. • Removal of tartar in deep gingival. • Removal of gingival biofilm. • Removal of Biofilm furcation area. • Debridement of furcations.



P20 • Removal of gingival biofilm.



P71R • Removal of gingival biofilm.





Single rooted / Multi rooted

• Removal of gingival biofilm.

EMS® MODEL P21L-E ORDER CODE Z291421





# PERIO



P95R • Removal of gingival biofilm. • Removal of Biofilm furcation area.



Single rooted / Multi rooted

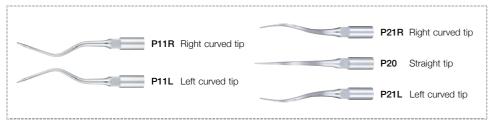
• Removal of gingival biofilm. • Removal of Biofilm furcation area.



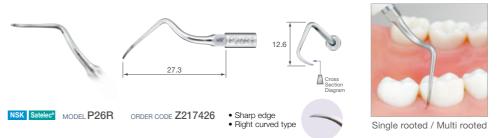


Single rooted / Multi rooted

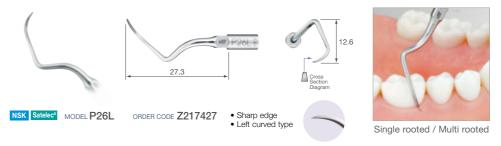
#### P11R / P11L / P21R / P20 / P21L (From above)



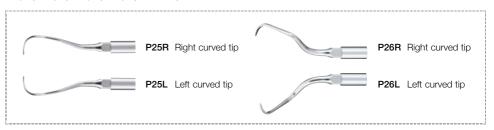
P26R • Removal of tartar narrow interdental space. • Removal of tartar in deep gingival. • Removal of gingival biofilm. • Removal of Biofilm furcation area. • Debridement of furcations.



P26L • Removal of tartar narrow interdental space. • Removal of tartar in deep gingival. • Removal of gingival biofilm. • Removal of Biofilm furcation area. • Debridement of furcations.



#### P25R / P25L / P26R / P26L (From above)



# Perio-Control (Maintenance Tip)

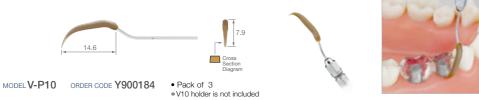
■ V-Tip System → Pages 48-51



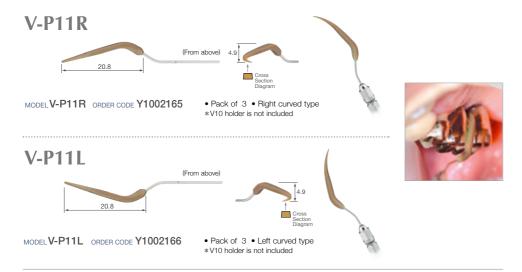


- Includes E-Tip replacement wrench
- \* Plastic Tip is not included

For the maintenance of prostheses and implants. Produced from special material to allow safe debridement without causing damage to metals and implants.



V-P11R/L left and right are double bent tips. This tip is extra long to easily access difficult to reach areas and to avoid interference with neighbouring teeth or contours. Its shape was designed to best fit different tooth morphologies, making this a versatile tip for a wide range of uses from anterior teeth to premolars.





V-P12 is a longer version of the popular V-P10 tip. It serves a wide range of applications, including the maintenance of implants and other prosthetic devices. Its shape offers easy access to all treatment areas.



V-P26R/L is a double-bent tips. The wide angles offer access to areas that cannot be reached with V-P11R/L tips or other conventional instruments. These tips are ideally suited to access the distal surfaces of molars and corner areas as, the end of the tip fits tooth morphology very closely.



# **Starter Kit**



NSK Satelec® MODEL Perio-Control Tips ORDER CODE Y1002606 Starter Kit

- V10 holder: 1 pc.
- V-P11R, V-P11L, V-P12, V-P26R, V-P26L : 1 pc. each
- Includes E-Tip replacement wrench

# PERIO (Irrigation and Cleaning)

For effective cleaning following debridement or scaling.

\*No scaling effect

**P40** 

 Safe to use regardless of the pocket condition due to the marking guideline of 3 mm from the position of 6 mm.



# P41



#### **Dual irrigation points**



- Irrigation from dual points on lateral areas of the apex.
- Effective cleaning regardless of the insertion angle.
- The rounded apex shape for safety in periodontium.



# Perio Kit A



NSK Satelec® MODEL Perio Kit A ORDER CODE Y900144

- P1D, P2D, P3D, P10 : 1 pc. each
- Tip holder: 1 pc.

# Perio Kit B



NSK Satelec® MODEL Perio Kit B ORDER CODE Y900145

- P20, P25R, P25L : 1 pc. each
- Tip holder : 1 pc.



# **ENDODONTICS**



• Application for root canal cleaning and removal of foreign particles.



· Removal of filling and foreign material.



· Removal of filling and foreign material.



• Application for root canal cleaning and root canal enlargement.



· Enlargement of root canal wall.

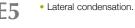


• Enlargement of root canal wall.



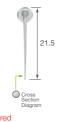
# **ENDODONTICS**













NSK Satelec® MODEL E5

ORDER CODE Z217305

Water not required

**E6** · Lateral condensation.



NSK Satelec® MODEL E6







E15D • For locating root canals and removal of calcifications.



NSK Satelec® MODEL E15D ORDER CODE Z217319





Diamond coated









\*Cross section diagram is the image of a point 1 mm from the end.

The illustrated tip diagram is four times bigger than the actual size.

# **ENDODONTICS**









- For U files (Shank dia: 0.8 mm)
- · For root canal cleaning
- For anterior teeth
- · Includes E Tip replacement wrench
- \*File is optional



NSK Satelec® MODEL E11 ORDER CODE Z217031

• 95° Angle Holder for U files







- For U files (Shank dia: 0.8 mm)
- · For root canal cleaning
- · For posterior teeth
- Includes E Tip replacement wrench
- \*File is optional





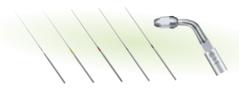
-	MODEL U files 33 mm / #15	ORDER CODE Y900062
<b>-</b>	MODEL U files 33 mm / #20	ORDER CODE Y900063
<b>-</b>	MODEL U files 33 mm / #25	ORDER CODE Y900064
=	MODEL U files 33 mm / #30	ORDER CODE Y900065
, -	MODEL U files 33 mm / #35	ORDER CODE Y900066

Always refer to this reference chart to ensure correct and accurate proper file length to avoid file breakage.

	#15	#20	#25	#30	#35
E11	22 mm	24.5 mm	22 mm	22 mm	22 mm
E12	22 mm	24.5 mm	24.5 mm	24.5 mm	22 mm



# Endo Kit E11 For anterior teeth



NSK Satelec® MODEL Endo Kit E11 ORDER CODE Y900146

- E11 : 1 pc. 120° angle holder for anterior teeth
- E Tip replacement wrench : 1 pc.
- U files 33 mm #15, #20, #25, #30, #35 : Pack of 6 each size

# Endo Kit E12 For posterior teeth



Satelec® MODEL Endo Kit E12 ORDER CODE Y900147

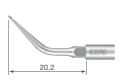
- E12: 1 pc. 95° angle holder for posterior teeth
- E Tip replacement wrench: 1 pc.
- U files 33 mm #15, #20, #25, #30, #35 : Pack of 6 each size

# RETROGRADE ENDO

The microscopic diamond coated tip allows effective removal of dentin at the apex. 2 types of angled tips (90°, 70°) are available for anterior teeth and another 2 types of curved tips (right and left) are available for molar teeth.

• Diamond coated tip allows efficient cavity preparation.











NSK Satelec\* MODEL E30RD ORDER CODE Z217212 • Diamond coated • For posterior teeth (right angled)

• Diamond coated tip allows efficient cavity preparation.









NSK Satelec® MODEL E30LD ORDER CODE Z217213

Diamond coated
 For posterior teeth (left angled)





• Diamond coated tip allows efficient cavity preparation.









NSK Satelec® MODEL E31 D

ORDER CODE **Z217210** 

Diamond coated
 For anterior and posterior teeth (70°)

• Diamond coated tip allows efficient cavity preparation.









NSK Satelec® MODEL E32D

ORDER CODE **Z217211** 

• Diamond coated • For anterior teeth (90°)

# Retro Kit



NSK Satelec® MODEL Retro Kit ORDER CODE Y900149

• E30RD, E30LD, E31D, E32D : 1 pc. each

• Tip holder : 1 pc.

# **EXTRACTION**

Periodontal membrane removal Tip



Tooth extraction is possible without excessively cutting the alveolar bone around the remaining root, retaining the morphology of the alveolar bone retaining the morphology of the alveolar bone.







NSK MODEL G95

ORDER CODE **Z217705** 

- TiN coating 0.7mm thick
- A double edge, which is sharp in three directions

Root extraction (upper left No. 2 tooth removal)





Impacted tooth (lower left No. 8 tooth removal)





Be careful not to apply excessive force, as in cases of using elevators.

### **Caution**



Move not only in the mesiodistal and buccolingual directions but also up and down as if delivering water to the apex (light pumping action). At that time pay particular attention to the flow of water irrigation.



To prevent damage to the alveolar bone, move tip apex along the contour of the tooth.

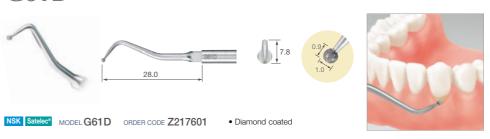
- Use of irrigation enhances performance.
- ■When used with Varios 970 choice of irrigation.
- ■Tip can be used on NSK ultrasonic units.

# RESTORATIVE

# **RESTORATIVE**



**G61D** • Use the tip with the spherical diamond at the top. Bleeding occurs rarely.



**G62D** • Use the tip with the spherical diamond at the top. Bleeding occurs rarely.



NSK Satelec® MODEL G62D ORDER CODE Z217602

Diamond coated

# **RESTORATIVE**



• For molar, interdental proximal caries. The hemispherical top of the tip does not allow cutting of









NSK Satelec® MODEL G65D ORDER CODE Z217605

Diamond coated

• For anterior proximal caries. Only decayed dentin can be removed as per for molars.











• For molar, interdental proximal caries. The hemispherical top of the tip does not allow cutting of









NSK Satelec® MODEL G67D ORDER CODE Z217607

Diamond coated

**G68D** 

• For anterior proximal caries. Only decayed dentin can be removed as per for molars.









NSK Satelec® MODEL G66D ORDER CODE Z217606

Diamond coated

NSK Satelec® MODEL G68D ORDER CODE Z217608

Diamond coated



# **PROSTHETICS**

Condensation / Loosening / Plugging



• For cementing a small prosthesis such as an inlay for anterior teeth.









- NSK Satelec® MODEL G21 ORDER CODE Z217010 For anterior teeth Water not required
  - 3 caps supplied

• For cementing a large prosthesis such as an onlay or a crown for molar teeth.









NSK Satelec® MODEL G22 ORDER CODE Z217020 • For posterior teeth • Water not required

• 3 caps supplied

# Tip Cap



MODEL Tip Cap ORDER CODE Y140751

- For G21 / G22
- Pack of 10



**G26** • Post removal. (ø1.3 mm thickness)









NSK Satelec® MODEL G26 ORDER CODE Z217206



· Amalgam condensation.









NSK Satelec® MODEL G28 ORDER CODE Z217208 • Water not required



# V-TIP SYSTEM

NSK Varios V-Tip holder system is innovative, multi-functional and economical. The V-Tip holder is a separate component to the actual cutting tips and can be easily and inexpensively replaced. NSK V-Tip holder system offers the flexibility and expandability to meet the wide requirements for multi-purpose clinical applications.

# 3 Features

# Safety Minimal damage to soft tissue Less risk of bleeding Cutting with ultrasonic instruments is minimally invasive Safety Economical Ease of Use

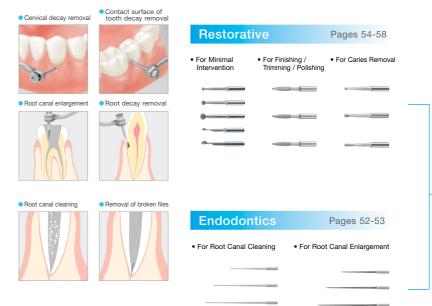
# **Economical**

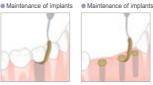
- One tip Replaceable inserts
- Inserts are inexpensive

# Ease of Use

- Small tip head guarantees excellent visibility
- Small head enables great access to distal sides of molar teeth and buccal area
- One tip meets the wide requirements of many clinical applications

# V-TIP System Line Up





Cleaning of pontic basal surface

Maintenance Pages 24-25
Perio-Control • For Prostheses or Implant Maintenance



V10

Straight

V30
120° Angle type

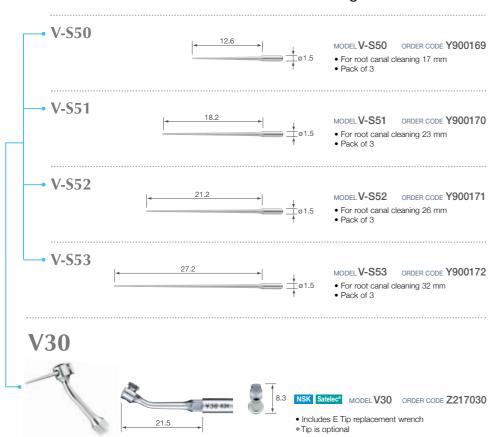
50 V-Tip System V-Tip System 51

# V-TIP SYSTEM (Endodontics)

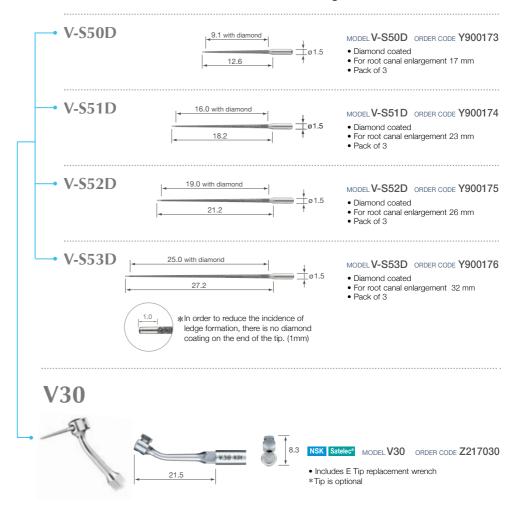




# For Root Canal Cleaning



# For Root Canal Enlargement

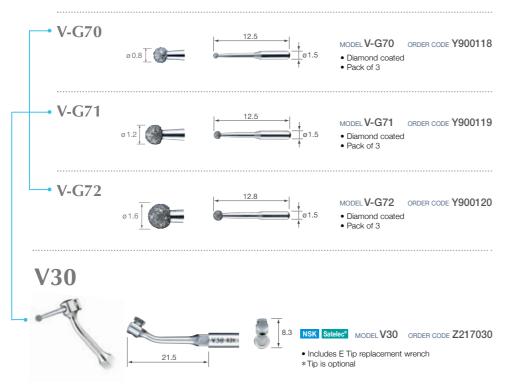


# V-TIP SYSTEM (Restorative)



The advantage of ultrasonic cutting is that tip movement is minute allowing only decayed dentine to be removed, while sound dentine is preserved. Cervical decay can be treated with minimum bleeding enabling quicker recovery.

#### For Minimal Intervention







# For Minimal Intervention





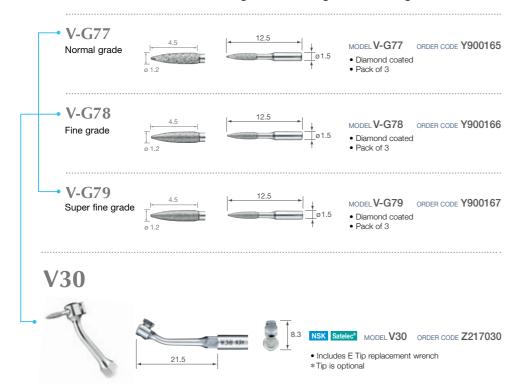
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# V-TIP SYSTEM (Restorative)



The NSK Varios V-Tip System has been developed to carry out "Minimally Invasive" dental procedures. As an altenative to rotary cutting, the Varios V-Tip offers precise and effective ultrasonic technology

# For Finishing / Trimming / Polishing





# For Caries Removal



Satelec® is registered trademarks of Acteon SA, France. V-Tip System 57 Refer to the power guide on pages 64-65.

# V-TIP SYSTEM (Restorative)





Assorted Tip Kit (For Minimal Intervention)



MODEL Assorted Tip Kit ORDER CODE Y900158 • V-G70, V-G71, V-G72, V-G75, V-G76 : 1 pc. each

Assorted Tip Kit (For Finishing / Trimming / Polishing)



MODEL Assorted Tip Kit ORDER CODE Y900168 • V-G77, V-G78, V-G79 : 1 pc. each

Assorted Tip Kit (For Caries Removal)



MODEL Assorted Tip Kit ORDER CODE Y900164 • V-S1, V-S3, V-S33 : 1 pc. each

# Varios 970 Optic / Non-Optic i?iezo engine®

# Multifunction Portable Unit for Extreme Versatility

Periodontic, Endodontic, Scaling, MI applications and Implant maintenance. The all new Varios features the latest developments in piezo technology; The iPiezo engine from NSK assures stable output by automatically adjusting to the optimum frequency depending on the loading of the tip.

# Advantages

- Slimmest and lightest\* handpiece with LED illumination
- Extensive tip range for a wide range of applications
- Easily Interchangeable Solution Bottles
- Simple Unit Design for Clean Maintenance

\* as of Nov. 2009

# Specifications

- Power Supply: AC 120V or 230V 50/60 Hz
- Dimensions : W160 x D270 x H190 (mm)
  - (Including Bottle)
- Bottle volume: 400 mL (x 2 bottles)

# All-in-one - Stylish compact all-in-one unit for



# • Frequency : 28-32 KHz

- Max. output : 11 W (G mode)
- Unit weight : 2.1 kg (Except attachment)

# Varios 970 Complete Sets



#### Optic Varios 970 Optic Complete Sets

MODEL VA970 LUX (120V) ORDER CODE Y1001166 MODEL VA970 LUX (230V) ORDER CODE Y1001168

#### Non-Optic Varios 970 Non-Optic Complete Sets

MODEL VA970 (120V) ORDER CODE Y1001174 MODEL VA970 (230V) ORDER CODE Y1001175

- Control unit Handpiece Handpiece cord 3 Scaling tips (G4, G6, G8) Foot control (FC-70)
- 2 x Irrigation bottles 3 x Tip wrench with torque limiter AC power cord Sterilization case

# Varios 370 Optic / Non-Optic i7iezo engine®



# Compact Multipurpose Control Unit at Your Fingertips

Varios 370 has been especially developed to offer a compact, portable control unit allowing easy installation into any dental unit. It is simple to operate and suitable for a variety of clinical procedures.

#### Advantages

- Powered by iPiezo engine
- Potable ultra compact body
- Simple and intuitive operation control panel
- · Large water adjustment and power knob for easy operation
- Holders are available for various installation
- Handpiece is washable in the thermodisinfector and autoclavable up to 135°C



#### Specifications

• Power Supply : 100-240V AC 50/60 Hz

• Frequency : 28-32 KHz Max. output : 11 W (G mode)

• Dimensions : W80 x D115 x H32 (mm) (with out knob and cord) • Unit weight : 0.43 kg (without attachment)



On the dental console arm with Stand (optional). On/Under the dental bracket table with



#### Varios 370 Complete Sets



#### Optic Varios 370 Optic Complete Sets

MODEL VA370 LUX (120V) ORDER CODE Y1001956 MODEL VA370 LUX (230V) ORDER CODE Y1001343

#### Non-Optic Varios 370 Non-Optic Complete Sets

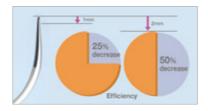
MODEL VA370 (120V) ORDER CODE Y1001958 ORDER CODE Y1001340 MODEL VA370 (230V)

- Control unit with handpiece cord Control unit holder AC adaptor Handpiece Handpiece holder
- Water filter set Water supply connector (120V only) Foot control (FC-71)
- 3 Scaling tips (G4, G6, G8) Tip wrench with torque limiter

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# The Varios Tip Card - Easy to use guide to assess tip wear

Ultrasonic scaler's tips wear through repeated use. Worn tips swing differently to new tips and do not perform as effectively. To check the condition of the tip, use the Varios Tip Card.



# How to use the Varios Tip Card

- 1. Place the neck of the tip in the cut out.
- 2. Check wear of the tip.
- 3. See the green, yellow and red line to check wear of the tip. \*See below what each color means.

At NSK we recommend to replace a tip when the tip meets the yellow line (wear of 1mm) to guarantee safe and effective use.

#### Green: No wear - Tip is OK

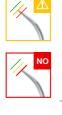
Tip replacement is not necessary

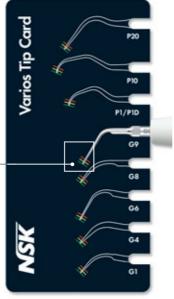


Yellow: Wear of 1mm - Tip is showing some wear

Tip replacement is recommended







\*The Tip Card can be used to check the following tips: G1, G4, G6, G8, G9, P1/P1D, P10, and P20

#### Tip Replacement Wrench with **Torque Limiter**

For tips G1- G68D, G95, P1- P41, E4, E4D, E15D, E30RD, E30LD, E31D, E32D and V-tip replaceable insets.

\*Please tighten the tip until it clicks.

#### E Tip Replacement Wrench

For V10 (V-tip holder), tips E5, E6, E7, E7D, E8, E8D, E11, E12 and the inserts of V30 (V-tip holder).

# The Varios Tip Videos

Please watch the videos about the Varios tip range at the below websites to experience the precision and quality that is synonymous with NSK.





Varios 970 product description Features of the Varios 970 Varios series

Maintenance

Tip variations ■Choose according to the case ■Choose according to the tip



**Doctors Comments** 

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# Power Guide According to Clinical Applications

Please always select and do not exceed correct power setting for each tip. Power level setting should not be more than indicated.

	NS	SK	Satelec®	EMS®	
Tip No.	Varios2 970/370	Varios 750/560/350	P-Max XS P5 XS	Piezon Master 600 (miniMaster)	
SCALI	NG				
G1	<b>©</b> 7	<b>©</b> 3	15	₽ 6	
G2	<b>©</b> 7	@ Max	15	P 6	
G3	<b>©</b> 7	<b>©</b> 3	15	₽ 3	
G4	<b>©</b> 5	<b>©</b> 3	15	P 3	
G5	<b>©</b> 6	<b>©</b> 3	15	_	
G6	<b>©</b> 8	<b>©</b> 1	15	P 6	
G8	<b>©</b> 7	<b>©</b> 3	15	_	
G9	<b>©</b> 5	<b>©</b> 1	15	_	
G11	<b>©</b> 6	<b>©</b> 3	15	_	
G12	<b>©</b> 7	<b>©</b> 3	15	_	
G13	<b>©</b> 6	<b>©</b> 3	15	_	
PERIO	/ MAIN	ITENAN			
P1	P 6	P 2	5	_	
P1D	P 10	P 2	5	_	
P2D	P 8	P 4	5	_	
P3D	P 8	P 4	5	_	
P10	P 10	P Max	5	_	
P11R	P 10	P Max	5	_	
P11L	P 10	P Max	5	_	
P20	P 8	P 4	5	P 6	
P21R	P 8	P 4	5	P 6	
P21L	P 8	P 4	5	P 6	
P25R	P 10	P 4	5	P 6	
P25L	P 10	P 4	5	P 6	
P26R	P 6	P 3	5	_	

<b>_</b>	NS	SK	Satelec®	EMS®
Tip No.	Varios 2 970/370 Varios 750/560/350		P-Max XS P5 XS	Piezon Master 600 (miniMaster)
P26L	P 6	P 3	5	_
P40	P 3	P 1	5	_
P41	P 3	P 1	5	_
V-P10	P 6	P 3	5	_
V-P11R	P 6	P 3	5	_
V-P11L	P 6	P 3	5	_
V-P12	P 6	P 3	5	_
V-P26R	P 6	P 3	5	_
V-P26L	P 6	P 3	5	_
ENDO	OONTIC	s		
E4	E 6	E 3	10	_
E4D	E 7	E 3	10	_
E5	E 10	E 3	10	_
E6	E 10	<b>E</b> 4	10	_
E7	E 6	E Max	10	_
E7D	E 6	© Max	10	_
E8	E 2	<b>E</b> 4	10	_
E8D	E 2	<b>E</b> 4	10	_
E15D	E 6	<b>E</b> 3	10	_
E11	<b>E</b> 4	<b>E</b> 3	10	_
E12	E 3	<b>E</b> 3	10	_
E30RD	E 6	<b>E</b> 3	10	-
E30LD	<b>€</b> 6	<b>E</b> 3	10	_
E31D	E 6	E 3	10	_
E32D	E 6	<b>E</b> 3	10	_

N	NS	SK	Satelec®	EMS®				
Tip No.	Varios2 970/370	Varios 750/560/350	P-Max XS P5 XS	Piezon Master 600 (miniMaster)				
EXTRA	CTION							
G95	<b>©</b> 10	@ Max	_	_				
RESTO	RESTORATIVE							
G61D	<b>©</b> 2	<b>@</b> 2	15	_				
G62D	<b>©</b> 2	<b>©</b> 3	15	_				
G65D	<b>©</b> 2	<b>©</b> 2	15	_				
G66D	<b>©</b> 2	<b>©</b> 2	15	_				
G67D	<b>©</b> 2	<b>©</b> 3	15	_				
G68D	<b>©</b> 2	<b>©</b> 3	15	_				
PROST	HETIC							
G21	<b>G</b> 4	<b>©</b> 2	20	_				
G22	<b>G</b> 4	<b>©</b> 2	20	_				
G26	<b>©</b> 10	@ Max	20	_				
G28	<b>©</b> 10	<b>©</b> 2	20	_				
V-TIP (	ENDOD	ONTIC						
V-S50	<b>E</b> 5	<b>E</b> 3	10	_				
V-S50D	<b>E</b> 5	<b>E</b> 3	10	_				
V-S51	E 3	<b>E</b> 1	10	_				
V-S51D	E 3	<b>E</b> 1	10	_				
V-S52	E 5	<b>E</b> 2	10	_				
V-S52D	E 5	<b>E</b> 2	10	_				
V-S53	<b>E</b> 5	E 2	10	_				
V-S53D	€ 5	E 2	10	_				
V-TIP (	RESTO	RATIVE						
V-G70	<b>©</b> 6	<b>©</b> 3	15	_				
V-G71	<b>©</b> 6	<b>©</b> 3	15	_				
V-G72	<b>G</b> 6	<b>©</b> 3	15	_				

	NIC	NZ.			
T. N.	INS	SK	Satelec®	EMS®	
Tip No.	Varios2 970/370	Varios 750/560/350	P-Max XS P5 XS	Piezon Master 600 (miniMaster)	
V-G75	<b>©</b> 6	<b>©</b> 1	15	_	
V-G76	<b>G</b> 6	<b>©</b> 3	15	_	
V-G77	<b>©</b> 6	<b>©</b> 3	15	_	
V-G78	<b>©</b> 6	<b>©</b> 3	15	_	
V-G79	<b>G</b> 6	<b>©</b> 3	15	_	
V-S1	<b>©</b> 6	E 3	15	_	
V-S3	<b>©</b> 4	E 3	15	_	
V-S33	<b>G</b> 6	E 3	15	_	

Applicable power range for NSK Varios tips when used with NSK Varios and Varios2 ultrasonic scaler.

#### Varios2



# **Varios**



- Always consult the operating manual and attached sheets before use.
- Always use with correct power mode and power range for each individual tip. Always use with sufficient irrigation to prevent excessive heat generation
- during treatment. • Always start out with lower power setting and then adjust to higher setting if necessary.
- · Always make sure that tips are securely tightened with the appropriate wrench and the power is set to and does not exceed the appropriate level before use.
- \*Incorrect operation may cause tip breakage even if tip is used within the recommended power range. Consult the operating manual before use.



Figures in the power guide indicate the appropriate power laximum power G 3 range and maximum power level for each tip. Do not exceed the maximum power level to avoid possible tip breakage.