Power, Safety & Accuracy,
No compromise
NSK Research & Development is a continuous evolution and materialization of ideas driven by professionals’ feedback, new treatment procedures and new production technology. VarioSurg, with LED illumination, is a fine example of the momentum achieved by NSK R&D. The latest VarioSurg system has been upgraded to further improve the ease of clinical application and integrated technology to deliver even safer minimally invasive treatment.
VarioSurg Handpieces  

A Powerful Ultrasonic Surgical System with LED

Applications
- Bone surgery
- Sinus lifts
- Periodontal surgery
- Endodontic surgery

NSK LED delivers natural daylight quality light bringing significant advantages to the way you work

Clearer : LEDs generate natural daylight quality light which assures clearer vision when compared to halogen light.

Durable : LED light sources are longer lasting and more durable than halogen bulbs.

Comfortable Grip Handpiece
Superior ergonomics of the VarioSurg handpiece, including the slim and lightweight body, ensures minimal hand fatigue and greater accessibility to difficult oral regions. The twin LEDs integrated at the head allows for outstanding visibility, thus treatment is safer and precisely accurate. Oscillation at the tip of the handpiece due to advanced ultrasonics eliminates heat at the operation site, allowing for minimally invasive procedures.

Shorter and Lighter Handpiece
A shorter and lighter NSK LED handpiece is achieved a perfect balance. Surgical procedures are easier and stress free to help you provide more precise and efficient treatment.

The Special Tip of VarioSurg made by NSK’s High Construction Accuracy
Maximizing sharpness of tips through the three-dimensionally cutting (toothing) to the blade edge.
The Advanced Ultrasonic Technology of NSK

VarioSurg is equipped with various advanced functions of ultrasonic bone surgery through its specially-made engine. The Feedback & Auto Tuning Function achieve high cutting efficiency through the automatic power control to exacting levels according to grinding surface. The Burst Function generates the "hammer effect", which adds more powerful vibration to the vibrating tip, thus improving the ability to cut hard tissue.

Advantages

Power: superior cutting capability shortens treatment time
Minimally invasive: eliminates heat generation during bone dissection
Safe: avoids damage to soft tissue even during accidental contact
Precision: cavitations effect of irrigation solution keeps surgical site blood free

Burst Mode

Burst Mode creates a hammer drill effect promoting cutting of the hardest tissues. Superior cutting capability of the burst mode facilitates cutting of hard tissue without stress, and effectively shortens treatment time.

Feedback Function

Feedback Function constantly checks the performance parameters of the ultrasonic unit during operation. Simultaneously it controls the power output, which enables to supply the power suited for bone cutting procedure.

Program No. Power Level Flow Level

Select Mode Key Memorize Key

Simple, intuitive graphic operation panel

Main Features

- 3 modes (SURG, ENDO, PERIO)
- Burst Mode
- 9 programmes
  (SURG x 5, ENDO x 2, PERIO x 2)
- Automatic Cleaning Mode
- Ergonomic Handpiece
  (LED or Non-Optic)
- Feedback Function
- Auto Tuning Function
**VarioSurg Complete Sets**

**Optic / Non-Optic**

**VarioSurg Complete Set with LED Handpiece**

- **Model:** VS80 OPT
- **Order Code:** Y1001928

Contents:
- Control Unit
- LED Handpiece with 2m cord
- FC-51 Foot Control
- Sterilisation Cassette
- Handpiece Stand
- Irrigation tube (5 pcs.) and other accessories
- Basic Kit (SG1, SG2, SG6, SG10, SG11) and tip held

**VarioSurg Complete Set with Non-Optic Handpiece**

- **Model:** VS80 120V2
- **Order Code:** Y1001939

Contents:
- Control Unit
- Non-Optic Handpiece with 2m cord
- FC-51 Foot Control
- Sterilisation Cassette
- Handpiece Stand
- Irrigation tube (5 pcs.) and other accessories
- Basic Kit (SG1, SG2, SG6, SG10, SG11) and tip held

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**Specifications**

<table>
<thead>
<tr>
<th>Control Unit</th>
<th>Foot Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency:</td>
<td>Foot Control Functions:</td>
</tr>
<tr>
<td>[28-32kHz]</td>
<td>ON-OFF Switch for Water Flow</td>
</tr>
<tr>
<td>Power Supply:</td>
<td>PROGRAM (+) Switch</td>
</tr>
<tr>
<td>[AC120V, 50/60Hz]</td>
<td>PROGRAM (-) Switch</td>
</tr>
<tr>
<td>Irrigation Flow Rate:</td>
<td>Vibration ON-OFF Switch</td>
</tr>
<tr>
<td>[9-90mL/min]</td>
<td></td>
</tr>
<tr>
<td>Programs:</td>
<td></td>
</tr>
<tr>
<td>[SURG x 5, ENDO x 2, PERIO x 2]</td>
<td></td>
</tr>
<tr>
<td>Dimensions:</td>
<td></td>
</tr>
<tr>
<td>[W268 x D230 x H103 mm]</td>
<td></td>
</tr>
</tbody>
</table>

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**Foot Control**

**Hands-free Program Adjustments Via Foot Control**

The VarioSurg Foot Control, which meets IPX8 Standards for medical foot control systems, allows perfect control during delicate surgical procedures. A bracket enables the Foot Control to be easily raised or moved without using your hands during use.

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**Sterilization Cassette**

The Sterilization Cassette is designed for the safe processing and storage of VarioSurg components.

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**Carrying Case (Optional)**

The NSK Carrying Case can accommodate all VarioSurg components.

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**Contents**

**VarioSurg Complete Set with LED Handpiece**

- Control Unit
- LED Handpiece with 2m cord
- FC-51 Foot Control
- Sterilisation Cassette
- Handpiece Stand
- Irrigation tube (5 pcs.) and other accessories
- Basic Kit (SG1, SG2, SG6, SG10, SG11) and tip held

**VarioSurg Complete Set with Non-Optic Handpiece**

- Control Unit
- Non-Optic Handpiece with 2m cord
- FC-51 Foot Control
- Sterilisation Cassette
- Handpiece Stand
- Irrigation tube (5 pcs.) and other accessories
- Basic Kit (SG1, SG2, SG6, SG10, SG11) and tip held

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**Order Codes**

- **FC-51:** Order Code Z316001
- **VA-SG-CASE:** Order Code Y1001907
- **VSRG 120V2:** Order Code Y1001939
- **VSRG OPT:** Order Code Y1001928

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**Dimensions**

- **Carrying Case (VarioSurg):** 200 x 135 x 50 mm
- With appropriate compartments for handpiece, cord, tip replacement wrench and tip holders

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**Dimensions:**

- [W469 x D344 x H180 mm]

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**Detailed Specifications**

- [28-32kHz]
- [AC120V, 50/60Hz]
- [9-90mL/min]
- [SURG x 5, ENDO x 2, PERIO x 2]
- [W268 x D230 x H103 mm]
**VarioSurg Ultrasonic Tips**

### Bone Surgery

**MODEL: S01**  
ORDER CODE: Z305101  
- TiN coating  
- Dots mark 3, 6 and 9mm from top of tip  
- Five teeth; 0.6mm thick

**MODEL: S01A**  
ORDER CODE: Z305138  
- TiN coating  
- Dots mark 3, 6, 9 and 12mm from top of tip  
- Five teeth; 0.6mm thick

**MODEL: S02R**  
ORDER CODE: Z305102  
- TiN coating  
- Right curved tip  
- Three teeth; 0.6mm thick

**MODEL: S02L**  
ORDER CODE: Z305103  
- TiN coating  
- Left curved tip  
- Three teeth; 0.6mm thick

**MODEL: S08**  
ORDER CODE: Z305109  
- TiN coating  
- Dots mark 3, 6 and 9mm from top of tip  
- Three teeth; 0.6mm thick

**MODEL: S08A**  
ORDER CODE: Z305139  
- TiN coating  
- Dots mark 3, 6, 9, 12 and 15mm from top of tip  
- Three teeth; 0.6mm thick

**MODEL: S014R**  
ORDER CODE: Z305122  
- TiN coating  
- Right curved tip  
- Five teeth; 0.6mm thick

**MODEL: S014L**  
ORDER CODE: Z305123  
- TiN coating  
- Left curved tip  
- Five teeth; 0.6mm thick

### Scraper

**MODEL: S03**  
ORDER CODE: Z305104  
- TiN coating  
- Triple sided edge spatula tip

**MODEL: S04**  
ORDER CODE: Z305105  
- TiN coating  
- Edge spatula tip

**MODEL: S05**  
ORDER CODE: Z305106  
- TiN coating  
- Round edge spatula tip

### Sinus Lift

**MODEL: S060**  
ORDER CODE: Z305107  
- Diamond coating

**MODEL: S07D**  
ORDER CODE: Z305108  
- Diamond coating

*The direction of the tip's curve is defined by the tip's anterior view.*
### VarioSurg

#### Implant Preparation

**Sinus Membrane Tool**

<table>
<thead>
<tr>
<th>Model</th>
<th>Order Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG9</td>
<td>Z305110</td>
<td>Flat circular convex elevator, Angled at 90°</td>
</tr>
<tr>
<td>SG10</td>
<td>Z305111</td>
<td>Flat circular convex elevator, Angled at 135°</td>
</tr>
<tr>
<td>SG11</td>
<td>Z305112</td>
<td>Cone compressor</td>
</tr>
</tbody>
</table>

**Extraction**

<table>
<thead>
<tr>
<th>Model</th>
<th>Order Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG17</td>
<td>Z305122</td>
<td>TiN coating, Diameter of the tip end: 0.7mm</td>
</tr>
<tr>
<td>SG18R</td>
<td>Z305133</td>
<td>TiN coating, Right angled tip, Diameter of the tip end: 0.7mm</td>
</tr>
<tr>
<td>SG18L</td>
<td>Z305134</td>
<td>TiN coating, Left angled tip, Diameter of the tip end: 0.7mm</td>
</tr>
</tbody>
</table>

**Implant Preparation**

<table>
<thead>
<tr>
<th>Model</th>
<th>Order Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG15A</td>
<td>Z305124</td>
<td>Diamond coating, Diameter of the tip end: 0.7mm</td>
</tr>
<tr>
<td>SG15B</td>
<td>Z305125</td>
<td>Diamond coating, Diameter of the tip end: 0.9mm</td>
</tr>
<tr>
<td>SG15C</td>
<td>Z305126</td>
<td>Diamond coating, Diameter of the tip end: 1.3mm</td>
</tr>
<tr>
<td>SG16A</td>
<td>Z305128</td>
<td>Diamond coating, Diameter: 2.0mm</td>
</tr>
<tr>
<td>SG15D</td>
<td>Z305127</td>
<td>Diamond coating, Diameter of the tip end: 1.3mm</td>
</tr>
<tr>
<td>SG16B</td>
<td>Z305129</td>
<td>Diamond coating, Diameter: 2.6mm</td>
</tr>
</tbody>
</table>

**Conical preparations for implant osteotomies**

<table>
<thead>
<tr>
<th>Model</th>
<th>Order Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG11A</td>
<td>Z305112</td>
<td>Flat circular convex elevator, Angled at 90°</td>
</tr>
<tr>
<td>SG11B</td>
<td>Z305113</td>
<td>Flat circular convex elevator, Angled at 135°</td>
</tr>
</tbody>
</table>

*The direction of the tip's angle is defined by the tip's anterior view.*

**Extractable in the thermal disinfectant**

**Auto-sterilizable up to 135°C**
**VarioSurg Tip Kits**

**Basic-S Kit**
- Contents: SG1, SG2R, SG4, SG2L, SG6D
- Tip holder

**Bone Cut Kit**
- Contents: SG1, SG3, SG9, SG10, SG11
  - Tip holder

**Sinus Lift Kit**
- Contents: SG15A, SG15B, SG16A, SG16B
  - Tip holder

**Implant Preparation Kit**
- Contents: SG15A, SG15B, SG16A, SG16B
  - Tip holder

**Endo-S Kit**
- Contents: SG15A, SG15B, SG16A, SG16B
  - Tip holder

**Scaling**

**Perio (Root Planing)**

- **Model:** G1-S  ORDER CODE: Z305113
  - Tip holder

- **Model:** P20-S  ORDER CODE: Z305114
  - Straight tip

- **Model:** P25R-S  ORDER CODE: Z305115
  - Right curved tip

- **Model:** P25L-S  ORDER CODE: Z305116
  - Left curved tip

**Maintenance (V-Tip)**

- **Model:** V10-S  ORDER CODE: Z305117
  - Tip wrench is not included

- **Model:** V-P10  ORDER CODE: Y900184
  - Tip wrench is not included
  - Pack of 5

- **Model:** V10-S Tip wrench set
  ORDER CODE: Y1001918
  - Tip wrench

**Retrograde Endo**

- **Model:** E30RD-S  ORDER CODE: Z305118
  - Diamond coated
  - For posterior teeth (right angled)

- **Model:** E30LD-S  ORDER CODE: Z305119
  - Diamond coated
  - For posterior teeth (left angled)

- **Model:** E31D-S  ORDER CODE: Z305120
  - Diamond coated
  - For anterior and posterior teeth (70°)

- **Model:** E32D-S  ORDER CODE: Z305121
  - Diamond coated
  - For anterior teeth (90°)

**Tip Kits**

- **tip wrench is not included • Pack of 3**

- **E Tip Replacement Wrench**

*The direction of the tip’s curve is defined by the tip's anterior view.*
## Spare Parts

<table>
<thead>
<tr>
<th>Model</th>
<th>Order Code</th>
<th>Model</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>VS-LED-HPSC</td>
<td>E1084</td>
<td>VA-SGN-HPSC</td>
<td>E377</td>
</tr>
<tr>
<td>(LED Handpiece)</td>
<td></td>
<td>(Non-Optic Handpiece)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(with Cord 2m)</td>
</tr>
<tr>
<td>E Tip Replacement</td>
<td>Z217399</td>
<td>Handpiece Stand</td>
<td>Z1029201</td>
</tr>
<tr>
<td>Wrench</td>
<td></td>
<td></td>
<td>(for SG1A)</td>
</tr>
<tr>
<td>VS Tip Wrench</td>
<td>Z305350</td>
<td>Irrigation Tube</td>
<td>V900113</td>
</tr>
<tr>
<td>(for SG1A, SG8A)</td>
<td></td>
<td></td>
<td>(Pack of 5)</td>
</tr>
<tr>
<td>Tip Wrench</td>
<td>10000977</td>
<td>Tube Holder</td>
<td>V900767</td>
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<td></td>
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<td>(Pack of 7)</td>
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<tr>
<td></td>
<td></td>
<td>VA-SG-CASE</td>
<td>20001326</td>
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<tr>
<td>Sterilization Cassette</td>
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