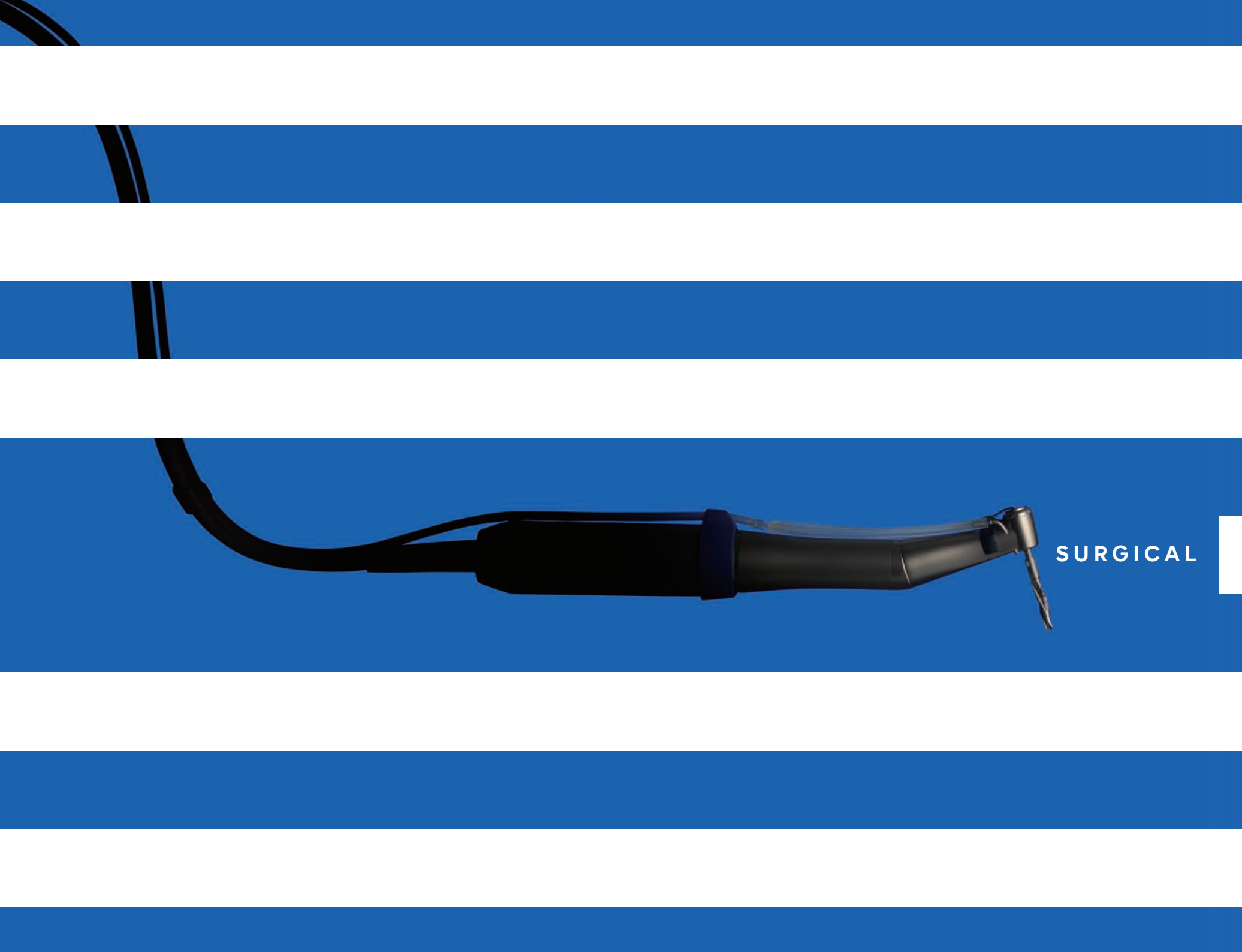

SURGICAL

Surgic Pro2 × VarioSurg 3

SYNERGY IN IMPLANTOLOGY

Link 2 Systems

Surgic Pro2 and VarioSurg 3 Generating Synergies Through Link Function

The Link function allows operation between the Surgic Pro2 oral surgery and implant micromotor system and the VarioSurg 3 ultrasonic bone surgery system using a single foot control. A common interface controls each system, allowing synergy in diverse surgical procedures and greatly streamlining treatment. Each system is available separately and is easily linked as required, making the system expandable and very affordable.

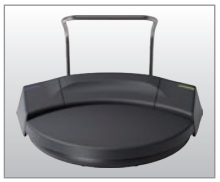
Link Function Easily Connects Two Systems

The Link function is easy to set up. Just connect the Surgic Pro2 and VarioSurg 3 units with the link cable. The two systems can be installed together using the compact Link Stand.

Link Module

Link Stand2

With the NSK link stand the two units can be safely stacked to save space.



Hands-free Program Adjustments Via Foot Control

The two systems can be operated using the single foot control which offers hands-free operation of functions such as ultrasonic wave ON/OFF, forward and reverse selection, coolant flow selection and program selection.

Large and Clear Display for Enhanced Safety

The user-friendly display clearly indicates which system is active and ensures safe and accurate operation.

Surgic Pro2

GO BEYOND

The internationally acclaimed Surgic Pro surgical micromotor system has evolved into “Surgic Pro2”.
There are 3 progress points, in operation, safety and wireless extensibility.
As well as further improving the basic performance of Surgic Pro,
its supreme adaptability in connecting to various external devices offers improved safety, efficiency and operator comfort during treatment.
Professionals depend on the reliability of their equipment on a daily basis. With Surgic Pro2 NSK have taken reliability to the next level.

3 Progress Points

OPERABILITY | SAFETY | WIRELESS EXTENSIBILITY

OPERABILITY

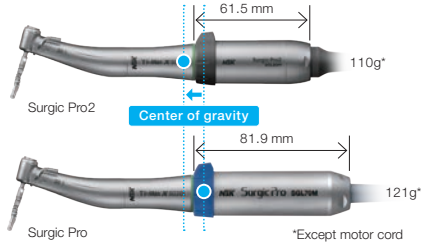
There are a range of upgrades to ensure even greater comfort during implant treatment. These specifications put the needs of professionals first.

Improved operability A more compact new motor.

Significant size and weight reductions were achieved for the motor with NSK's proprietary micro-motor technology. Operability during treatment has been greatly improved by moving the center of gravity closer to the head of the handpiece. This increases efficiency and alleviates the stress during prolonged operation for strain-free, effortless operation.

Length 24.9% DOWN

Weight 9.1% DOWN



Superb visibility and operability Large color LCD panel

Visibility is guaranteed with the large, back-lit, high-contrast, LCD panel. The display can be adjusted in 10 brightness levels. The display's intuitive and easy-to-understand icons allow for smooth operation.

Easy-clean flat screen display

The sensitivity of the touch panel can be adjusted to reliably respond when surgical gloves and surgical barrier sheets are in use. Ultra narrow bezel of the display makes cleaning easier. The new design takes into account the latest treatment and cross-infection control requirements.

Visibility is significantly improved with the high-resolution color LED.

Use of high-resolution color LED allows blood and gums to be seen as if naturally-lit, thereby providing increased visibility during treatment.
The LED light source generates a minimal amount of heat and has excellent life expectancy.

High color rendering LED

Standard White LED

Silent and Smooth Irrigation Pump

The irrigation pump provides consistent and steady flow operating quietly in the background. Irrigation tube set-up is simple and straight-forward and the pump fits seamlessly in the compact and elegant design of Surgic Pro2.

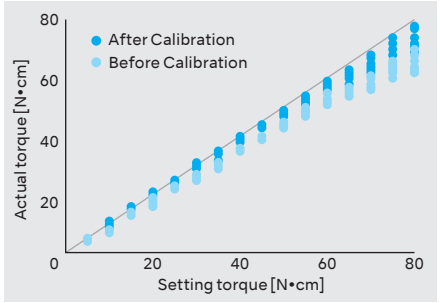
SAFETY

Synonymous with Surgic Pro safer procedures are made possible with increased torque precision combined with the "Osseointegration Monitoring Device, Osseo 100+".

NSK's Drive for Accuracy Ensure Safe Treatment through Accurate Torque Correction

The displayed torque value accuracy is dependent on the state of handpiece bearings and gear abrasion. Surgic Pro2 torque calibration allows for this to be taken into account to display more accurate values.

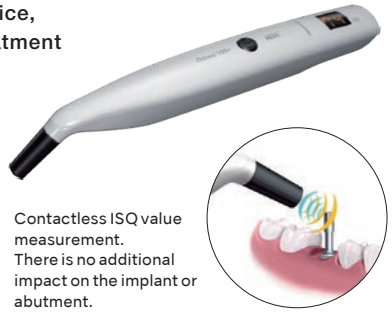
NSK's 'Advanced Handpiece Calibration' (AHC) function corrects the differences in actual handpiece condition using automatic calibration with no load current and load-bearing calibration to achieve accurate torque values for succesful implant surgery.



Minimizing the discrepancy between the set torque value and the actual output helps improve treatment outcomes.

The Osseointegration Monitoring Device, Osseo 100+ for more predictable treatment

Osseo 100+ measures implant stability and osseointegration to enhance decisions about when to load. Especially important when using protocols with shorter treatment time and treating risk patients.
By connecting with the Surgic Pro2 it is possible to share and manage the measured ISQ value on external terminals.



Contactless ISQ value measurement.
There is no additional impact on the implant or abutment.

WIRELESS EXTENSIBILITY

Wireless connection with multiple devices significantly broadens the scope of implant treatment.

Linked with Osseointegration Monitoring Device, Osseo 100+

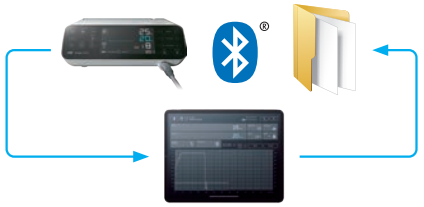
The Osseointegration Monitoring Device,"Osseo 100+" measures the implant stability quotient contactlessly and can be connected using Bluetooth®, permitting ISQ confirmation over a shared interface. You can share and manage the data of those measured ISQ scores on other terminals through Surgic Pro2.Surgic Pro2 itself offers such high extensibility as like this ISQ function is already equipped inside. It only takes 3 easy steps to use the Osseo 100+.

Linked with the "VarioSurg 3" ultrasonic bone surgery system

Surgic Pro2 can easily be linked with the NSK ultrasonic surgical system VariosSurg 3 by adding our bluetooth link module.

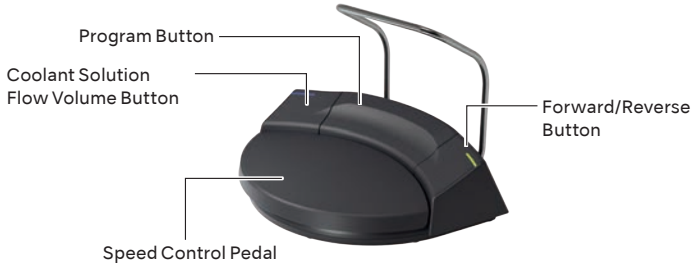
Linked with iPads

Installing a dedicated application and connecting an iPad to the control unit enables real-time display of detailed procedural data, such as the rotation speed and the torque range. Procedural data can also be saved. Data can also be displayed and saved when connecting with Osseo 100+. Traceability data management of procedural details allows implant treatment to be tailored to individual patients.



Linked with a wireless foot control

Bluetooth connectivity allows selection of the optimal position without worrying about cable length. The foot controller is 400g lighter than the previous model (hangar included) making it easy to reposition. You can keep your focus on the treatment. The "Coolant Solution Flow Volume Button", "Program Button" and "Forward/Reverse Button" may be customized using the 3 installed buttons allowing the operator to choose their preferred mode of operation. The energy-efficient power supply uses 3 AAA batteries, which last about 6 months.
A flashing light indicates when the batteries are running low.



Surgic Pro2

Complete Set with X-SG20L

Optic	MODEL	ORDER CODE
●	**Surgic Pro2 OPT**	**Y1004195**

Contents
- Control Unit
- SGL80M Optic Micromotor
- X-SG20L Optic Handpiece (20:1 Reduction)
- FOOT CONTROL WIRELESS
- Irrigation tube (Pack of 3) and other accessories

Complete Set with SG20

Optic	MODEL	ORDER CODE
–	**Surgic Pro2 NON-OPT**	**Y1004196**

Contents
- Control Unit
- SG80M Non-Optic Micromotor
- SG20 Handpiece (20:1 Reduction)
- FOOT CONTROL WIRELESS
- Irrigation tube (Pack of 3) and other accessories

Specifications :

Control Unit with AHC
- Power Supply: AC 100-240V 50/60 Hz
- Max. Pump Output: 75 mL/min
- Programs: 8 Programs / Implant Systems
- Dimensions: W 245×D 235×H 90 (mm)

Micromotor
- Torque: 5-80 Ncm
- Motor Speed: 200-40,000 min^{-1}
- Light Power: over 32,000 LUX (Optic Micromotor)

FOOT CONTROL WIRELESS
- Foot Control Functions: Coolant Solution Flow Volume Button, PRG(Program) Button, Forward/Reverse Button, Speed Control Pedal

OPTION

Wireless Link Tools
(Surgic Pro2 x VarioSurg 3)

Connecting via the compact Wireless Link Set allows for operation of 2 surgical systems with a single wireless foot control.
- Link Box
- Link Cable

MODEL	ORDER CODE
Link Module	**Z1402001**

MODEL	ORDER CODE
Link Stand2	**Z1452001**

iCart Duo

The Surgic Pro2 and VarioSurg 3 surgical systems and their accessories are efficiently and functionally housed in specialist carts.

MODEL	ORDER CODE
iCart Duo	**S9090**

Osseo 100+
(implant Stability Measurement System)

The implant stability level can be set, facilitating safer implant treatment.
Manufacturer
Integration Diagnostics Sweden AB

MODEL	ORDER CODE
Osseo 100+	**Y1004176**

Sterilization Cassette

The sterilization Cassette is designed for the safe processing and storage of Surgic Pro2 components.
- Dimensions : W 279x D 183x H 34 (mm)

MODEL	ORDER CODE
SG-CASE	**S900040**

Carrying Case for Surgic Pro2

Carrying case for componets and accessories of Surgic Pro2
- Dimensions : W 534 x D 427 x H 207 (mm)

MODEL	ORDER CODE
Carrying Case	**Y1004219**

Surgic Pro+ × VarioSurg 3

SYNERGY IN IMPLANTOLOGY

Two linked surgical systems that use a single foot control.
A brand new approach to implant and surgical treatment.

Link 2 Systems

Surgic Pro and VarioSurg 3 Generating Synergies Through Link Function

The Link function allows operation between the Surgic Pro oral surgery and implant micromotor system and the VarioSurg 3 ultrasonic bone surgery system using a single foot control. A common interface controls each system, allowing synergy in diverse surgical procedures and greatly streamlining treatment. Each system is available separately and is easily linked as required, making the system expandable and very affordable.

Link Function Easily Connects Two Systems

The Link function is easy to set up. Just connect the Surgic Pro and VarioSurg 3 units with the link cable. The two systems can be installed together using the compact Link Stand.

Hands-free Program Adjustments Via Foot Control

The two systems can be operated using the single foot control which offers hands-free operation of functions such as ultrasonic wave ON/OFF, forward and reverse selection, coolant flow selection and program selection.

Large and Clear Display for Enhanced Safety

The user-friendly display clearly indicates which system is active and ensures safe and accurate operation.

Surgic Pro+

The Professional Choice

NSK offers advanced technology to greatly enhance clinical performance. Surgic Pro is compact, lightweight and powerful to reliably deliver everything that professionals demand.

Calibration

NSK's Drive for Accuracy Ensures Safe Treatment Through Accurate Torque Correction

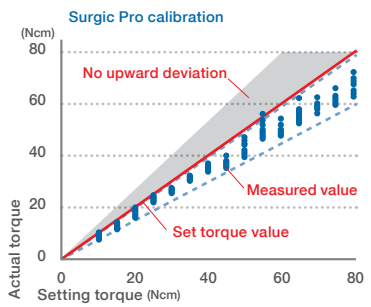
Maintaining Accurate Torque with AHC

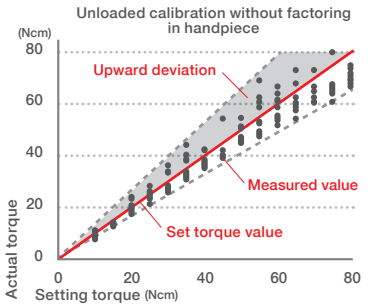
NSK's proprietary Advanced Handpiece Calibration (AHC) ensures the correct torque value required for specific treatments.
There is normally a small misalignment between pre-set and actual torque values owing to friction between bearings and contra-angle gear. AHC corrects this misalignment to guarantee accurate torque values.

High-precision Calibration

Unloaded, loaded and speed level adjustments improve the precision of calibration, which can be according to handpiece usage.

NSK's Safe Calibration Approach Factors in Handpiece Usage Conditions





An Advanced Surgical Motor for Demanding Clinical Environments

NSK developed the Surgic Pro SGL70M by analyzing feedback from clinicians to ensure that this 5th generation surgical micromotor satisfies professional requirements. The light and compact Surgic Pro SGL70M features an LED light for high visibility, with up to 80 Ncm of torque for diverse surgical procedures, paving the way for an advanced treatment environment.

SGL70M / 81.9 mm, 280 g*

SGL50M / 98.1 mm, 322 g*

*Including motor cord

Well-balanced, with a Compact and Lightweight Micromotor

Streamlining efforts reduced the size by 16.2 mm and the weight by 42 g to improve balance during use the Surgic Pro motor, greatly reducing any strain on clinicians.

LED Optics for Safer, More Accurate Treatment

NSK LEDs generate natural daylight-quality light to illuminate the treatment area, enabling more precise surgery and shortened operation times. The lights increase safety because they do not overheat and are long-lasting.

Optic	MODEL	ORDER CODE
●	**SGL70M**	**E1023**
–	**SG70M**	**E1025**

- Solid titanium body
- with Cord 2 m

Compact Body and Large LCD Display

The compact control unit features a sophisticated design including a large, high visibility backlight LCD panel and intuitive control buttons to contribute a safer and user friendly working environment.

Advanced Irrigation Pump

The pump allows easy set-up of irrigation tubes and is extremely quiet during operation.

Memorises Eight Different Implant Systems

The Surgic Pro memorises eight different implant systems and a total of 64 programs. The programmable parameters are gear ratio, speed, rotation direction, torque limit, coolant solution volume and illumination intensity. This is extremely useful when using two or more implant brands. Once you complete programming, simply push a button to call procedures up.

Data Log Function

The Surgic Pro's data log function can record and store speed, torque values, and other patient treatment data. Such efficient data management helps ensure safe clinical practices.

*Maximum internal memory capacity is 100 minutes

Data Management

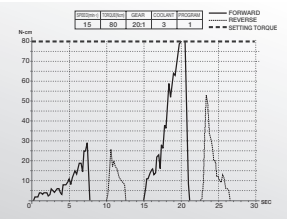
Treatment data can be easily accessed and downloaded using a USB stick. Files can be transferred and added to patient records.

*USB memory stick not included.

Easy Treatment Data Handling

No specific software is required to display CSV or bitmap files.

*File formats : csv or bmp



Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Surgic Pro+

Surgic Pro+ Complete Set with X-DSG20L Optic Handpiece

Optic	MODEL	ORDER CODE
●	**Surgic Pro + OPT-D**	**Y1003585**

Contents
- Control Unit with data storage facility
- SGL70M LED Micromotor
- FC-78 Foot Control
- X-DSG20L Optic Handpiece (20:1 Reduction)
- Irrigation tube (5 pcs.) and other accessories

Surgic Pro Complete Set with X-SG20L Optic Handpiece

Optic	MODEL	ORDER CODE
●	**Surgic Pro OPT**	**Y1003586**

Contents
- Control Unit without data storage facility
- SGL70M LED Micromotor
- FC-78 Foot Control
- X-SG20L Optic Handpiece (20:1 Reduction)
- Irrigation tube (5 pcs.) and other accessories

Surgic Pro Complete Set with SG20 Handpiece

Optic	MODEL	ORDER CODE
–	**Surgic Pro NON-OPT**	**Y1003587**

Contents
- Control Unit without data storage facility
- SG70M Non-Optic Micromotor
- FC-78 Foot Control
- SG20 Handpiece (20:1 Reduction)
- Irrigation tube (5 pcs.) and other accessories

Specifications

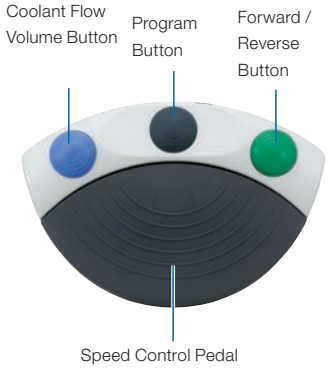
Control Unit with AHC
- Power Supply : AC 230 V 50/60 Hz
- Max. Pump Output : 75 mL/min
- Programs : 8 Programs / Implant Systems
- Dimensions : W 265 x D 220 x H 100 (mm)

Micromotor
- Torque : 5-80 Ncm
- Motor Speed : 200-40,000 min^{-1}
- Light Power (LED Micromotor) : over 32,000 LUX

Foot Control
- Foot Control Functions : Program Button, Speed Control Pedal
  Coolant Flow Volume Button
  Forward / Reverse Button

Foot Control

The Foot Control is user friendly and allows operation of all functions within the preset parameters without touching the control panel to avoid accidental activation of the micromotor outside the preset limits. The Surgic Pro/Surgic Pro+ is certificated according to IPX8.



MODEL	ORDER CODE
FC-78	**Z1102001**

- With 2 m cord

Handle Set (Optional)

Easy to attach foot control handle. Hanger can easily be moved with the foot control.

MODEL	ORDER CODE
Handle Set	**Z1027001**

Optional

Carrying Case

The NSK Carrying Case can accommodate all Surgic Pro components as well as the optional sterilization cassette.

MODEL	ORDER CODE
Carrying Case (Surgic Pro)	**Y1001952**

- Dimensions : W 534 x D 427 x H 207 (mm)

iCart Duo

Install the control unit and accessories on the cart.

MODEL	ORDER CODE
iCart Duo	**S9090**

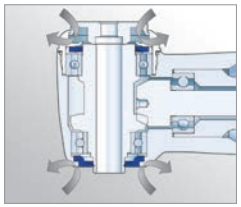
- Dimensions : H 101.65 cm
- Weight : 16.5 kg

Implant Handpieces

Dismantlable Contra-angle Handling up to 80 Ncm of Torque

Easy to Disassemble and Clean

The DSG20 contra-angle can be disassembled with a simple twist for easy internal cleaning.
NSK's unique locking mechanism prevents accidental disassembly during operation.



Double Sealing System

NSK's unique double sealing system prevents blood and other contaminants from entering the instrument head to ensure longevity of the instruments.

Ti-Max X-DSG20L

Dismantling Surgical Handpiece

- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics
- Push Button Chuck
- External and internal cooling (Kirschner and Meyer)
- Double Sealing System
- Max. Torque : 80 Ncm
- Max. Speed : 2,000 min^{-1}

	Optic	MODEL	ORDER CODE
20:1 Reduction	●	X-DSG20L	C1068
	–	X-DSG20	C1067

Ti-Max X-DSG20Lh

Dismantling Surgical Handpiece Hexagon Chucking System

Hexagon Chucking System
Hexagon chucking system maintains high bur holding power at a high torque, enabling safe and stable operation. Can be used with regular burs as well.

- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics • Push Button Chuck
- External and internal cooling (Kirschner and Meyer)
- Double Sealing System
- Max. Torque : 80 Ncm
- Max. Speed : 2,000 min^{-1}

	Optic	MODEL	ORDER CODE
20:1 Reduction	●	X-DSG20Lh	C1076
	–	X-DSG20h	C1075

- This handpiece is used only for the NSK Surgical Unit with torque calibration. (eg. Surgic Pro series)

80N Can be use up to 80 Ncm
Washable in the thermodisinfector
135°c Autoclavable up to 135°C

Implant Handpieces

Ti-Max X-SG20L

- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics
- Push Button Chuck
- External and internal cooling (Kirschner and Meyer)
- Double Sealing System
- Max. Torque : 80 Ncm
- Max. Speed : 2,000 min^{-1}

	Optic	MODEL	ORDER CODE
20:1 Reduction	●	**X-SG20L**	**C1003**

S-Max SG20

- Stainless Steel Body
- Push Button Chuck
- External and internal cooling (Kirschner and Meyer)
- Double Sealing System
- Max. Torque : 80 Ncm
- Max. Speed : 2,000 min^{-1}

	Optic	MODEL	ORDER CODE
20:1 Reduction	–	**SG20**	**C1010**

- This handpiece is used only for the NSK Surgical Unit with torque calibration. (eg. Surgic Pro series)

Ti-Max nanoSG20LS

- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics
- Push Button Chuck
- External and internal cooling (Kirschner and Meyer)
- Double Sealing System
- Max. Torque : 80 Ncm
- Max. Speed : 2,000 min^{-1}

	Optic	MODEL	ORDER CODE
20:1 Reduction	●	**nanoSG20LS**	**C1103**

nano Series instruments are compatible with NSK motor line up (NLX nano, NLX plus, M40LED, NBX, NBX N, X205L, M205LG and SGL70M micromotors) and other motors with insert less than 23 mm.

SGX-E20R

- Stainless Steel Body
- Max. Speed : 2,000 min^{-1}
- Max. Torgue : 50 Ncm
- Twist Chuck
- Angle Handpiece
- External cooling
- For Osteotomy preparation / insertion of Zygoma implants for Maxillofacial / oral surgery

	Optic	MODEL	ORDER CODE
20:1 Reduction	–	**SGX-E20R**	**HA1200**

Implant Handpieces

Ti-Max X-SG93L

Triple Spray

- Titanium Body with Scratch Resistant DURACOAT
- For FG burs (ø1.6)
- Cellular Glass Optics (X-SG93L)
- Clean Head System
- Push Button Chuck
- External cooling
- Max. Speed : 120,000 min^{-1}

	Optic	MODEL	ORDER CODE
1:3 Increasing	●	**X-SG93L**	**C1004**
	–	**X-SG93**	**C1007**

Ti-Max X-SG65L

Straight Handpiece

- Titanium Body with Scratch Resistant DURACOAT
- For HP burs (ø2.35)
- Cellular Glass Optics (X-SG65L)
- Clean Head System
- External cooling
- Max. Speed : 40,000 min^{-1}

	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	**X-SG65L**	**H1009**
	–	**X-SG65**	**H1038**

Ti-Max X-SG25L

- Titanium Body with Scratch Resistant DURACOAT
- For CA burs (ø2.35)
- Cellular Glass Optics
- Clean Head System
- Push Button Chuck
- External cooling
- Max. Speed : 40,000 min^{-1}

	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	**X-SG25L**	**C1011**

Ti-Max Z-SG45L

Triple Spray

- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics (Z-SG45L)
- Ceramic Bearings
- Clean Head System
- Push Button Chuck
- External cooling
- For FG burs (ø1.6 / 20-25 mm)
- Anti Heat System
- DLC Coating
- Max. Speed : 120,000 min^{-1}

	Optic	MODEL	ORDER CODE
1:3 Increasing	●	**Z-SG45L**	**C1107**
	–	**Z-SG45**	**C1108**

Washable in the thermodisinfector
135°c Autoclavable up to 135°C

Washable in the thermodisinfector
135°c Autoclavable up to 135°C

Implant Handpieces

SGM-ER20i

- External and internal cooling (Kirschner and Meyer)
- with Wrench for handpiece attachment
- Max. Speed : 2,000 min^{-1}

	MODEL	ORDER CODE
20:1 Reduction	**SGM-ER20i**	**Y110127**

SGMS-ER20i With Depth Indicator

2 types of Depth Indicators are available. Both are easy to attach and detach for smooth operation.

- External and internal cooling (Kirschner and Meyer)
- with two Depth Indicators, Wrench for handpiece attachment, Ruler
- Max. Speed : 2,000 min^{-1}

	MODEL	ORDER CODE
20:1 Reduction	**SGMS-ER20i**	**Y110147**

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Micro Surgery Handpieces

Straight Handpieces

- For surgical burs (ø2.35)
- Twist chuck
- Max. Speed : 40,000 min^{-1}

	MODEL	ORDER CODE
1:1 Direct Drive	**SGS-ES**	**H264**

- For surgical burs (ø2.35)
- Twist chuck
- Max. Speed : 80,000 min^{-1}

	MODEL	ORDER CODE
1: 2 Increasing	**SGS-E2S**	**H266**

20˚ Angle Handpieces

- For surgical burs (ø2.35)
- Twist chuck
- Max. Speed : 40,000 min^{-1}

	MODEL	ORDER CODE
1:1 Direct Drive	**SGA-ES**	**H263**

- For surgical burs (ø2.35)
- Twist chuck
- Max. Speed : 80,000 min^{-1}

	MODEL	ORDER CODE
1: 2 Increasing	**SGA-E2S**	**H265**

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Micro Saw Handpieces

- 1.8 mm Reciprocating
- With External Spray Nozzle

	MODEL	ORDER CODE
3.2:1 Reduction	**SGR2-E**	**SH162**

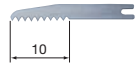
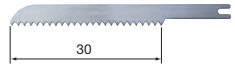
- 17° Oscillating
- With External Spray Nozzle

	MODEL	ORDER CODE
3.5:1 Reduction	**SGO2-E**	**SH164**

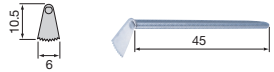
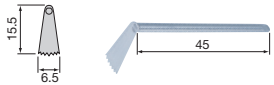
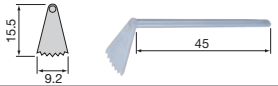
- 3° Sagittal
- With External Spray Nozzle

	MODEL	ORDER CODE
3.2:1 Reduction	**SGT2-E**	**SH163**

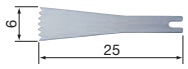
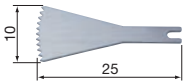
SGR2-E Blades for Reciprocating

MODEL			ORDER CODE
SGR-1		• **Blade thickness 0.35 mm** • **Pack of 10 blades**	**Y900072**
SGR-2		• **Blade thickness 0.35 mm** • **Pack of 10 blades**	**Y900073**
SGR-3		• **Blade thickness 0.35 mm** • **Pack of 10 blades**	**Y900074**

SGO2-E Blades for Oscillating

MODEL			ORDER CODE
SGO-1		• **Blade thickness 0.3 mm** • **Single blade**	**H174034**
SGO-2		• **Blade thickness 0.3 mm** • **Single blade**	**H174044**
SGO-3		• **Blade thickness 0.3 mm** • **Single blade**	**H174031**
SGO-4		• **Blade thickness 0.3 mm** • **Single blade**	**H174041**
SGO-5		• **Blade thickness 0.35 mm** • **Single blade**	**H174032**
SGO-6		• **Blade thickness 0.35 mm** • **Single blade**	**H174042**

SGT2-E Blades for Sagittal

MODEL			ORDER CODE
SGT-1		• **Blade thickness 0.35 mm** • **Pack of 10 blades**	**Y900075**
SGT-2		• **Blade thickness 0.35 mm** • **Pack of 10 blades**	**Y900076**

* Blades are sold separately.

Washable in the thermodisinfector

Autoclavable up to 135°C

Osseo 100+

Removes Doubt

Osseo 100 measures implant stability and osseointegration to support decision on when to load an implant.
Especially important when working with shorter treatment time or managing risk patients.

The uncomplicated procedure that measures ISQ allows the implant loading period to be planned in advance. The reconstruction of crowns and bridges can be monitored to optimize timing to decrease the risk for failures. Measurements can be made without unnecessary impact since the equipment does not come into physical contact with the implant or abutment.

Wireless connection with Surgic Pro2

Osseo 100+

Connectivity with Surgic Pro2
The ISQ value is transferred automatically when connected with Surgic Pro2. The Bluetooth® connection means that clinical procedures will be undisturbed.

Wireless data management
The measured ISQ can be shared and processed with data on external terminals via Surgic Pro2.

Stand-alone

Osseo 100

By mounting a MulTipeg™ the measurement is made in a second. A numerical result appears on an LED screen and that indicates how well the implant has integrated.

3-step procedure

1. The MulTipeg™ is attached to the implant. It screws effortlessly into the implant's internal threads. (approximately 6-8 Ncm of torque).
2. Just aim for the magnet on top of the MulTipeg™. Non-invasive, objective, accurate and repeatable. The peg is excited by magnetic pulses and vibrates due to the stiffness in the contact area between the bone and the implant surface.
3. An ISQ value is generated and shown on the display. This reflects the level of stability on the universal ISQ scale – from 1 to 99. The higher the ISQ value, the more stable the implant.

About ISQ

*The below is not a clinical recommendation from NSK.

Decreasing micro mobility with increasing ISQ values.

By taking a baseline value at implant placement and another before loading, the degree of osseointegration can be measured.

- **More time required for implant osseo-integration**
- **Remeasure**

ISQ values measured for one or two stage full or partial cases

ISQ values measured for single tooth one stage and/or immediate loading cases

1 . Sennerby L Prof., Implantologie 2013; 21(1): 21-23
2 . Kokovic V, Jung R, Feloutzis A, Todovoric V, Jurisic M, Hämmerle C. Clinical Oral Implants Research, 00, 2013, 1-6
3 . M Bornstein, C Hart, S Halbritter, D Morton, D Buser, Prof. Dr. med. dent. Clin Implant Dent Relat Res 2009
4 . Serge Baltayan, Joan Pi-Anfruns, Tara Aghaloo, Peter Moy. J Oral Maxillofac Surg 74:1145-1152, 2016
5 . P O Östman, Private practitioner, Falun- and Biomaterial Group, Sahlgrenska Academy Gothenburg. Clinical Implant Dentistry and Related Research, Volume 7, Supplement 1, 2015
6 . Daniel Rodrigo, Luis Aracil, Conchita Martin, Mariano Sanz. Clin. Oral Impl. Res. 21, 2010; 255-261
7 . Pagliani L, Sennerby L, Petersson A, Verrocchi D, Volpe S & Andersson P. Journal of Oral Rehabilitation 2012
8 . P Trisi Phd, T Carlesi DDS, M Colagiovanni DDS, G Perfetti MD, DDS. Journal of Osteology and Biomaterials, Volume 1, Number 3, 2010
9 . S Hicklin, E Schneebeli, V Chappuis, S Francesco, M Janner, D Buser, U Brägger. Clin. Oral Impl. Res. 00, 2015; 1-9
10. L. Milillo, C. Fiandaca, F. Giannoulis, L. Ottria, A. Lucchese, F. Silvestre, M. Petruzzi. Oral & Implantology - anno IX - n. 3/2016

REUTILIZABLE MulTipeg™

- For all major implant systems*
- Tissue friendly, durable titanium
- Autoclavable appx. 20 times
- Optimal platform fit
- ISQ Standard Calibrated

*There are different MulTipegs™ available made to fit different implant system and types.
Please refer to the updated list from the supplier.

Wireless connection with Surgic Pro2
Osseo 100+

Contents

- Osseo 100+ Instrument
- MulTipeg Driver
- Mains adapter and plugs

MulTipeg™ is not included, sold separately.

Stand-alone
Osseo 100

Contents

- Osseo 100 Instrument
- MulTipeg Driver
- Mains adapter and plugs

MulTipeg™ is not included, sold separately.

MODEL	ORDER CODE
Osseo 100+	**Y1004176**
Osseo 100	**Y1004175**

Specifications

- Power input : 5VDC, 1 VA
- Charger input : 100-240 VAC, 5 VA
- Instrument weight : 100 g
- Battery full charge time : appx. 3 hours.*
- Battery continuous drive time : appx. 1 hour.*

*Varies depending on usage situations.

iSD900

Advantages

- Universal to major implant systems
- Reliable and durable contra-angle handpiece with excellent accessibility
- Audible beeping noise to indicate reverse rotation
- Standard battery (AAA Ni-MH) is easily replaced on site
- LCD control panel offering outstanding visibility and operability

Faster and Safer Implant Treatments

NSK's iSD900 cordless screwdriver helps to safely place and remove cover screws, healing caps and abutments during dental implant procedures, making treatment up to 50% faster.

Faster Treatment

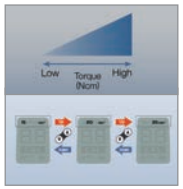
NSK's iSD900 cordless screwdriver safely inserts and removes cover screws, healing caps and abutments during implant procedures, making treatment up to 50% faster.

Accommodating Diverse Operative Fields

It can be difficult to maintain good visibility of the operating field when retracting the buccal mucosa when using a conventional ratchet wrench with both hands. The iSD900 allows single-handed operations to ensure better visibility across the whole operating field.

Torque Calibration System to Guarantee Safety

The unique torque calibration system (TCS) of the iSD900 ensures accurate torque values at all times.



Torque Range Accommodating Diverse Procedures and Three Rotation Speeds

NSK's iSD900 has a torque range of 10 Ncm to 40 Ncm to ensure precise torque adjustments and settings in 1 Ncm or 5 Ncm increments according to procedures. The iSD900 offers 15 min^{-1}, 20 min^{-1}, and 25 min^{-1} speeds according to procedure requirements.

Torque Calibrator

iSD900 Complete Set

MODEL	ORDER CODE
iSD900	**Y1001358**

- iSD900 Motor • iSD-HP
- Quick Charger for iSD900
- Torque Calibrator
- On/Off Switch Lever

Specifications

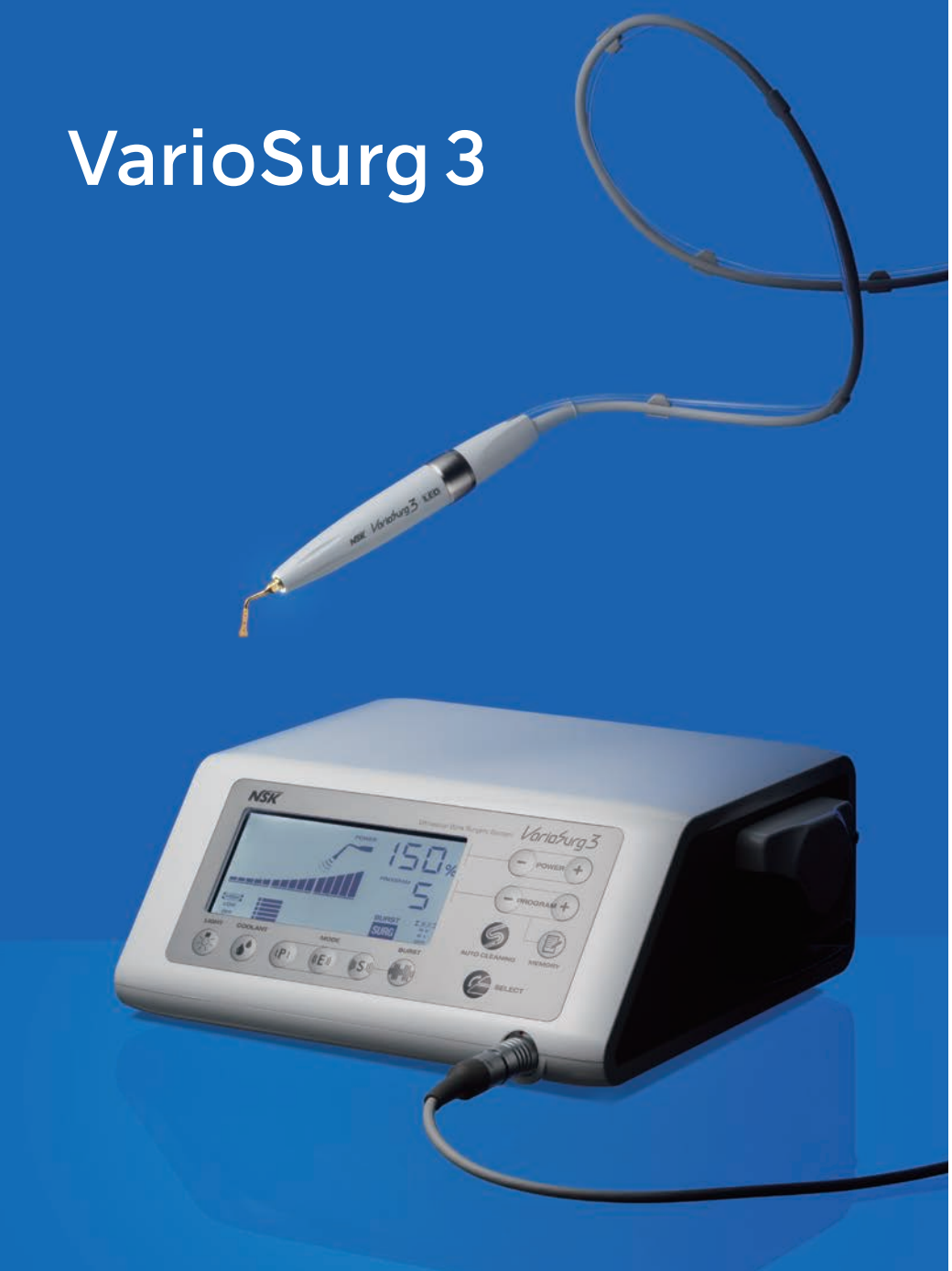
- Torque: 10 – 40 Ncm in 1 or 5 Ncm increments
- Speed: 15, 20, 25 min^{-1}
- Weight: 148 g (iSD900 Motor + iSD-HP)
- Charging Time : Around 90 min*
- Continuous Operation Time : Max 72 min*

*these may change according to the usage environment.

The heads can be washed in the thermodisinfector

135°c The heads are autoclavable up to 135°C

VarioSurg 3



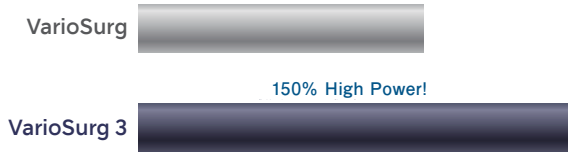
Trinity

Out Standing Ultrasonic Performance

Wattage is not the only factor determining cutting efficiency and performance in ultrasonic surgery. What is important is the power factor between three elements: control unit frequency, handpiece vibration characteristics and tip design for handling high power and cutting efficiency. The VarioSurg 3 effortlessly balances these three elements for the ultimate in ultrasonic performance.

Stabilizing the Power Balance for More Efficient Procedures

The VarioSurg 3 offers a 50% increase in power in SURG mode compared to previous models, for more effective procedures and shorter treatment times.
(Select tips according to clinical and power requirements)
*For more than 100% power, you must use the relevant tips.



Stable Cutting Through Feedback and Auto-tuning Functions

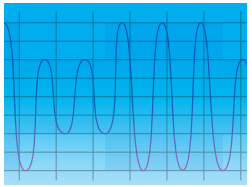
Feedback function
This function constantly checks the performance parameters of the ultrasonic unit during operation. It simultaneously controls power output to optimize the level of power depending on the procedure.

Auto-Tuning function
The oscillating frequency is automatically controlled to ensure the set output values are always accurately delivered at the tip to maintain ideal vibration.

Control Unit

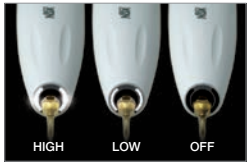
Compact Body and Large LCD Panel

The compact control unit features a sophisticated design including a large, high visibility backlight LCD panel and intuitive control buttons to contribute to a safe and user-friendly working environment.



Advanced BURST Mode

Switching from SURG mode to BURST mode during procedures creates a hammer drill effect capable of cutting through the hardest of tissues. Select from one of three BURST mode levels according to the procedure or density or hardness of the bone.



Illumination Intensity Adjustable LED Light

LED handpiece illumination can be adjusted at the push of a button, with a choice of three intensity levels to suit the procedure.

Three Modes

There is a choice of P (PERIO), E (ENDO) and S (SURG) modes to cover a wide range of applications, from bone cutting to post-surgical maintenance.

Adjustable Irrigation Flow Rate

You can choose from five coolant flow levels with a maximum output of up to 75 mL per minute, to suit operating requirements and tips. Effective irrigation protects bone cells by controlling tip heat.

Memory Functions for Treatment Procedures and Program Setting

Specific treatment parameters can be stored using the unit's memory function, and are easily accessed using the program button.

Handpiece

Super-slim Ergonomic Handpieces

NSK's super-slim LED handpiece offers superior access and outstanding visibility. Excellent balance and ergonomic design facilitate the most accurate procedures and minimise hand and finger fatigue, especially during long procedures.

Effective Power Transmission with Minimal Heat Generation

By using innovative materials, the VarioSurg 3 handpiece delivers appropriate power from the generator to the tip without loss while minimising heat generation.

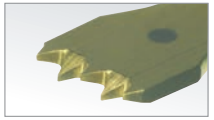
LED Illumination for More Precise Treatments

NSK LEDs generate natural daylight-quality light to perfectly illuminate the treatment area, enabling more precise treatments and shortening treatment times. LEDs are safe and do not overheat, even during extended use, and are economical due to their long life. Proprietary twin LED lights eliminate shadows in the treatment area, allowing excellent visibility.

Optic	MODEL	ORDER CODE
●	**VS3-LED-HPSC**	**E1133**

• with 2 m cord

The tips are designed to preserve tissue, maintain cutting speed and easily cut into bone. Saw like teeth on an uneven blade edge enhances bone cutting. This also reduces clogging to maintain cutting speed.



Washable in the thermodisinfector

135°c Autoclavable up to 135°C

VarioSurg 3

VarioSurg 3 Complete Set

Optic	MODEL	ORDER CODE
●	**VarioSurg 3**	**Y1002726**

Contents

- Control Unit
- LED Handpiece with 2 m cord
- FC-78 Foot Control
- Sterilization Cassette
- Handpiece Stand
- Irrigation tube (5 pcs.) and other accessories
- Basic H-S Kit (H-SG1, SG3, SG5, SG6D, SG7D, SG11 and Tip holder)

VarioSurg 3 Complete Set without Foot Control

Optic	MODEL	ORDER CODE
●	**VarioSurg 3 Non FT**	**Y1002248**

Contents

- Control Unit
- LED Handpiece with 2 m cord
- Sterilization Cassette
- Handpiece Stand
- Irrigation tube (5 pcs.) and other accessories
- Basic H-S Kit (H-SG1, SG3, SG5, SG6D, SG7D, SG11 and Tip holder)

Specifications

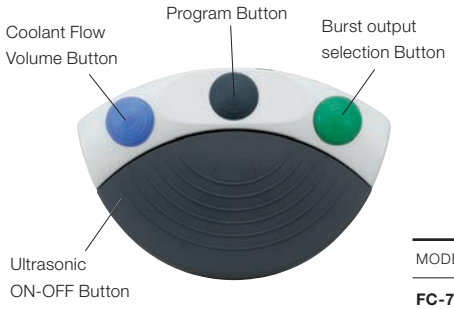
Control Unit

- Frequency : 28-32 kHz • Power Supply : AC 230 V 50/60 Hz • Irrigation Flow Rate : 10-75 mL/min
- Programs : SURG x 5, ENDO x 2, PERIO x 2 • Dimensions : W 265 x D 220 x H 100 (mm)

Foot Control

Hands-Free Program Adjustments Via Foot Control

The VarioSurg 3 foot control conforms with the IPX8 standard for medical foot control systems. All functions are clearly marked and allow accurate and hands-free operation of the unit within the pre-set parameters. Using the metal bar the foot control can easily be re-positioned at any time.

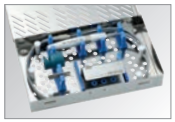


MODEL	ORDER CODE
FC-78	**Z1102003**

- With 2 m cord

Sterilization Cassette

The Sterilization Cassette is designed for the safe processing and storage of VarioSurg 3 components.



MODEL	ORDER CODE
VA-SG-CASE	**Z313102**

- Dimensions : W 281 x D 171.5 x H 47 (mm)
- Has dedicated compartments for handpiece, cord, tip replacement wrench and tip holders

135°c

Carrying Case (Optional)

The Carrying Case neatly stores all VarioSurg 3 components.

MODEL	ORDER CODE
Carrying Case(VarioSurg 3)	**Y1002768**

- Dimensions : W 534 x D 427 x H 207 (mm)

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Ultrasonic Surgery Tips

Choose from over 50 ultrasonic tips according to the clinical procedure.

Bone Surgery

Extraction

Scraper

Socket Lift (Crestal Approach)

Sinus Lift

Implant Preparation

Sinus Membrane Detachment

Perio (Root Planing)

Scaling

Endodontics

Maintenance (V-Tip)

Perio-Control

Bone Surgery (TIN coating)

POWER LEVEL	MODEL	ORDER CODE
–	**SG1**	**Z305101**
SURG 150%	**H-SG1**	**Z305151**

• Dots mark 3, 6 and 9 mm from top of tip
• Five teeth; 0.6 mm thick

POWER LEVEL	MODEL	ORDER CODE
–	**SG1A**	**Z305138**

• Dots mark 3, 6, 9,12 and 15 mm from top of tip
• Five teeth; 0.6 mm thick

POWER LEVEL	MODEL	ORDER CODE
–	**SG2R**	**Z305102**

• Right curved tip*
• Three teeth; 0.6 mm thick

POWER LEVEL	MODEL	ORDER CODE
–	**SG2L**	**Z305103**

• Left curved tip*
• Three teeth; 0.6 mm thick

POWER LEVEL	MODEL	ORDER CODE
–	**SG8**	**Z305109**
SURG 150%	**H-SG8**	**Z305155**

• Dots mark 3, 6 and 9 mm from top of tip
• Three teeth; 0.6 mm thick

POWER LEVEL	MODEL	ORDER CODE
–	**SG8A**	**Z305139**

• Dots mark 3, 6, 9,12 and 15 mm from top of tip
• Three teeth; 0.6 mm thick

POWER LEVEL	MODEL	ORDER CODE
SURG 150%	**H-SG8R**	**Z305156**

• Marking every 2 and 4 mm from top of tip (Single side)
• Right curved tip* • Three teeth; 0.6 mm thick

POWER LEVEL	MODEL	ORDER CODE
SURG 150%	**H-SG8L**	**Z305157**

• Marking every 2 and 4 mm from top of tip (Single side)
• Left curved tip* • Three teeth; 0.6 mm thick

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

Washable in the thermodisinfector
135°C Autoclavable up to 135°C

Bone Surgery (TIN coating)

MODEL	ORDER CODE
SG14R	**Z305122**

- Right curved tip*
- Five teeth; 0.6 mm thick

MODEL	ORDER CODE
SG14L	**Z305123**

- Left curved tip*
- Five teeth; 0.6 mm thick

MODEL	ORDER CODE
SG19	**Z305135**

- Dot mark 3 mm from top of tip
- Five teeth; 0.8 mm thick

MODEL	ORDER CODE
SG30	**Z305137**

- Sharp edge
- 0.5 mm thick

MODEL	ORDER CODE
SG58	**Z305141**

- Dots mark 3, 6 and 9 mm from top of tip
- Three teeth; 0.6 mm thick

MODEL	ORDER CODE
SG68	**Z305143**

- Marking every 2 and 4 mm from top of tip (Single side)
- Three teeth; 0.6 mm thick

Scraper (TIN coating)

MODEL	ORDER CODE
SG3	**Z305104**

- Triple sided edge spatula tip

MODEL	ORDER CODE
SG4	**Z305105**

- Edge spatula tip

MODEL	ORDER CODE
SG5	**Z305106**

- Rounded edge spatula tip

Extraction (TIN coating)

MODEL	ORDER CODE
SG17	**Z305132**

- 0.7 mm thick

MODEL	ORDER CODE
SG18R	**Z305133**

- Right angled tip* • 0.7 mm thick

MODEL	ORDER CODE
SG18L	**Z305134**

- Left angled tip* • 0.7 mm thick

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

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

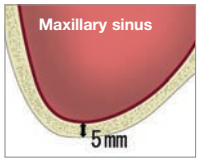
Specialty Tips Exclusively for Sockets

Used as part of the socket lift method to swiftly perform sinus lift procedures, NSK's new tip lineup is designed for minimal surgical invasiveness.

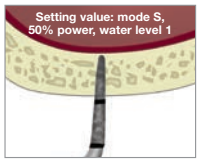
Process example for elevation of maxillary sinus membrane

A type of implant preparation site for a regular size implant ø4.0 mm.

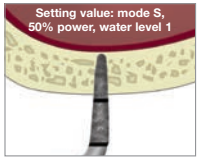
At the case of using VarioSurg



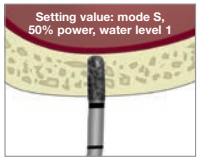
*A case of around 5 mm from the base of cortical bone to maxillary sinus.
*Bone tissue is type 3 and good condition.
*In addition to positive diagnosis by CT image, the vertical bone width should be diagnosed well and the implant preparation site could be formed until the base of maxillary antrum.



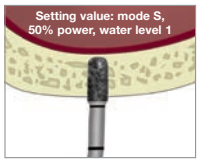
1. Bone cutting to within 1 mm to the base of maxillary antrum by using SG15A tip.Please be careful not to push the tip too much.



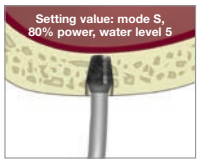
2. Repeat bone cutting using SG15B tip to increase width.
Please be careful not to push the tip too much.



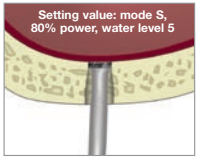
3. Bone cutting by using SG16A tip.
The implant preparation site is formed until little of the base of cortical bone remains.



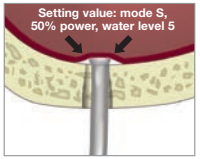
4. Repeat bone cutting by using SG16B tip.
The implant preparation site is formed until little of the base of cortical bone remains.



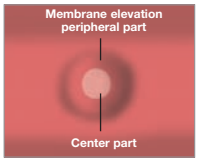
5. Using sufficent water irrigation, the implant preparation site is formed by using SCL2D tip.
The water level is set to 5.
Please be careful not to force the tip into the implant preparation site. Too much water pressure may exert on the maxillary antrum membrane.
At the case of using drilling, this step is excluded.



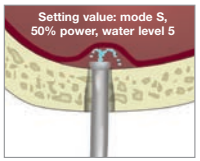
6. Using sufficent water irrigation, the implant preparation site is continued to be formed by using SCL1D tip. The water level is set to 5. The cavity floor of the implant preparation site is cut by using the edge of the top of the tip. Please be careful not to force the tip into the implant preparation site. Too much water pressure may exert on the maxillary antrum membrane.



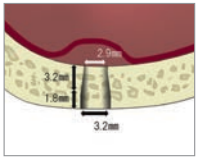
7. The maxillary antrum membrane is exfoliated by using SCL1 tip.
The water level is set to 5.
Slowly insert the top of the tip between the membrane and bone. Moving the tip along the wall of the implant preparation site will exfoliate the membrane. Please be careful, since the membrane can be torn at the edge (arrow part) between the bone and the membrane.



This image shows the elevated membrane which you will see from the maxillary antrum side. Please check the condition of maxillary antrum membrane using the endoscope.



8. The Maxillary antrum membrane can now be elevated by using SCL1 tip.



9. The completed formation of the implant preparation site.
At the case of using drilling, the straight implant preparation site of 3.2 mm is formed.

Socket Lift (Crestal Approach)

MODEL	ORDER CODE
SCL1	**Z305170**

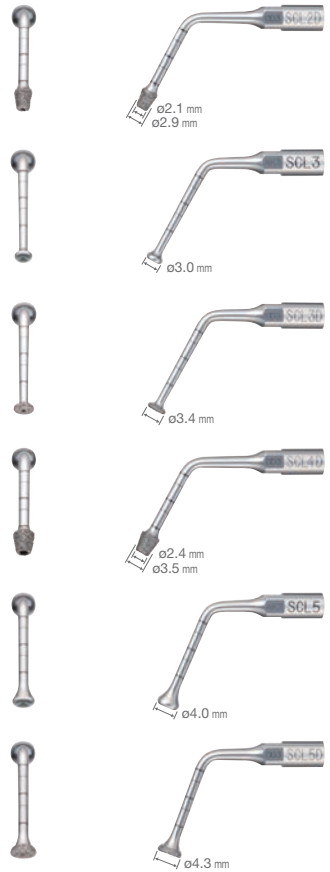
• Internal irrigation

MODEL	ORDER CODE
SCL1D	**Z305171**

• Internal irrigation • Diamond coating

Washable in the thermodisinfector
135°c Autoclavable up to 135°C

Socket Lift (Crestal Approach)



MODEL	ORDER CODE
SCL2D	**Z305182**

- Internal irrigation
- Diamond coating

MODEL	ORDER CODE
SCL3	**Z305172**

- Internal irrigation

MODEL	ORDER CODE
SCL3D	**Z305173**

- Internal irrigation
- Diamond coating

MODEL	ORDER CODE
SCL4D	**Z305184**

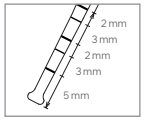
- Internal irrigation
- Diamond coating

MODEL	ORDER CODE
SCL5	**Z305174**

- Internal irrigation

MODEL	ORDER CODE
SCL5D	**Z305175**

- Internal irrigation
- Diamond coating



The estimated depth of the implant preparation site can be measured with the scale on the Tip.

Sinus Lift

MODEL	ORDER CODE
SG6D	**Z305107**

MODEL	ORDER CODE
SG7D	**Z305108**

Sinus Membrane Detachment

MODEL	ORDER CODE
SG9	**Z305110**

- Flat circular convex elevator
- Angled at 90°

MODEL	ORDER CODE
SG10	**Z305111**

- Flat circular convex elevator
- Angled at 135°

MODEL	ORDER CODE
SG11	**Z305112**

- Cone compressor

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Implant Preparation

MODEL	ORDER CODE
SG15A	**Z305124**

• Diameter of the tip end; 0.7 mm

MODEL	ORDER CODE
SG15B	**Z305125**

• Diameter of the tip end; 1.3 mm

MODEL	ORDER CODE
SG15C	**Z305126**

• Diameter of the tip end; 0.9 mm

MODEL	ORDER CODE
SG15D	**Z305127**

• Diameter of the tip end; 1.3 mm

MODEL	ORDER CODE
SG16A	**Z305128**

• Diameter; 2.0 mm

MODEL	ORDER CODE
SG16B	**Z305129**

• Diameter; 2.6 mm

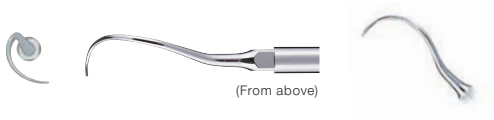
Scaling

MODEL	ORDER CODE
G1-S	**Z305113**

Perio (Root Planing)

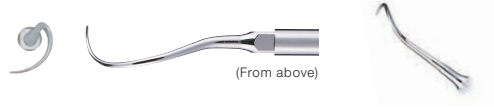
MODEL	ORDER CODE
P20-S	**Z305114**

• Straight tip


(From above)

MODEL	ORDER CODE
P25R-S	**Z305115**

• Right curved tip*


(From above)

MODEL	ORDER CODE
P25L-S	**Z305116**

• Left curved tip*

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

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Washable in the thermodisinfector

135°c Autoclavable up to 135°C

Maintenance (V-Tip)

Perio-Control

V-Tip Holder

MODEL	ORDER CODE
V10-S	**Z305117**

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

MODEL	ORDER CODE
V-P10	**Y900184**

- Pack of 3
- V10-S holder is not included

MODEL	ORDER CODE
V-P12	**Y1002167**

- Pack of 3
- V10-S holder is not included

MODEL	ORDER CODE
V-P11R	**Y1002165**

- Right curved type* • Pack of 3
- V10-S holder is not included

MODEL	ORDER CODE
V-P11L	**Y1002166**

- Left curved type* • Pack of 3
- V10-S holder is not included

■ V-P11R, V-P11L, V-P12 can be used only for VarioSurg 3.

Endodontics

MODEL	ORDER CODE
E30RD-S	**Z305118**

- For posterior teeth (right angled)

MODEL	ORDER CODE
E30LD-S	**Z305119**

- For posterior teeth (left angled)

MODEL	ORDER CODE
E31D-S	**Z305120**

- For anterior and posterior teeth (70°)

MODEL	ORDER CODE
E32D-S	**Z305121**

- For anterior teeth (90°)

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

Washable in the thermodisinfector

Autoclavable up to 135°C

Washable in the thermodisinfector

Autoclavable up to 135°C

Tip Kits

•Bone Surgery •Scraper •Sinus Lift
•Sinus Membrane Detachment

MODEL	ORDER CODE
Basic H-S Kit	**Y1002775**

Contents
• H-SG1, SG3, SG5, SG6D, SG7D, SG11
• Tip holder

•Bone Surgery

MODEL	ORDER CODE
Bone Cut Kit	**Y900688**

Contents
• SG1, SG2R, SG4, SG2L, SG6D
• Tip holder

•Sinus Lift

MODEL	ORDER CODE
Sinus Lift Kit	**Y900689**

Contents
• SG1, SG3, SG6D, SG9, SG10, SG11
• Tip holder

•Endodontics

MODEL	ORDER CODE
Endo-S Kit	**Y900691**

Contents
• G1-S, E30RD-S, E30LD-S, E31D-S, E32D-S
• Tip holder

Washable in the thermodisinfector
Autoclavable up to 135°C

Tip Kits

•Implant Preparation

MODEL	ORDER CODE
Implant Preparation Kit	**Y900774**

Contents
• SG15A, SG15B, SG16A, SG16B
• Tip holder

•Socket Lift Tips (Crestal Approach)

MODEL	ORDER CODE
Socket Lift Kit for Regular Size Implant	**Y1002841**

Contents
• SCL1D, SCL2D, SCL1
• VS Tip Wrench • Tip holder • Manual

•Socket Lift Tips (Crestal Approach)

MODEL	ORDER CODE
Socket Lift Kit for Wide Size Implant	**Y1002842**

Contents
• SCL2D, SCL3D, SCL4D, SCL3
• VS Tip Wrench • Tip holder • Manual