

ORAL SURGERY

Create it 

ORAL SURGERY

**NSK**

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## Surgic Pro2

Go beyond.

The internationally acclaimed Surgic Pro implant and oral surgery micromotor system has evolved into "Surgic Pro2". There are 3 developments, 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.

# OPERABILITY

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

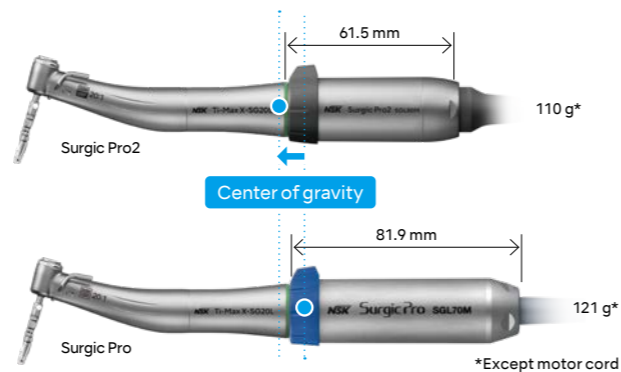


## Improved operability A more compact new motor

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 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.

## 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.

## 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

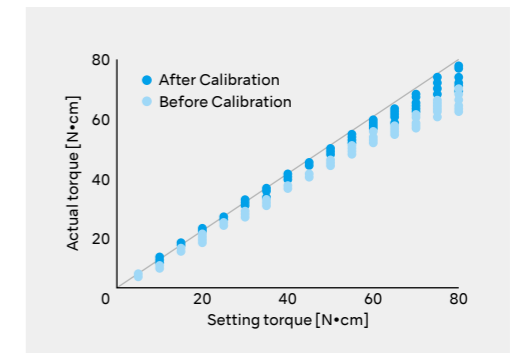
Standard White LED

# SAFETY

Synonymous with Surgic Pro safer procedures are made possible with increased torque precision combined with the Osseo 100+, measuring the stability of dental implants.

## 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 successful implant surgery. Minimizing the discrepancy between the set torque value and the actual output helps improve treatment outcomes.



## Osseo 100+ for more predictable treatment

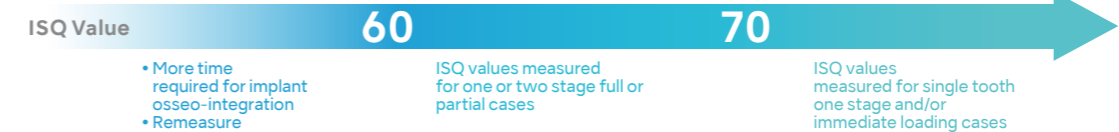
Osseo 100+ measures implant stability to support decision making about when to load. Especially important when using protocols with shorter treatment time and treating at risk patients. By connecting with the Surgic Pro2 it is possible to share and manage the measured ISQ value on external terminals.



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

## 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.



\*The below is not a clinical recommendation from NSK.  
1. Sennerby L Prof., Implantologie 2013; 21(1): 21-23 2. Kokovic V, Jung R, Feloutzis A, Todovic V, Juric M, Hammerle 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 Ostman, 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 Bragger. 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

# WIRELESS EXTENSIBILITY

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

VarioSurg 4  
Ultrasonic Bone Surgery

FOOT CONTROL  
WIRELESS

Surgic Pro2

Osseo 100+

iPad



## Linked with Osseo 100+

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+.



iPad is trademarks of Apple Inc.

## Surgic Pro2 and VarioSurg 4 Link Function

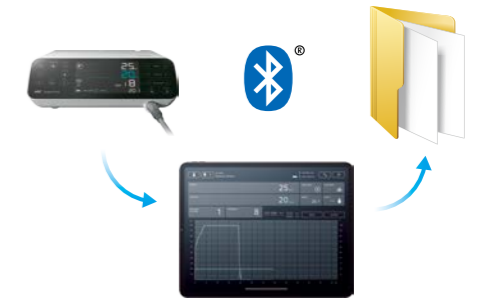
Surgic Pro2 features built-in Bluetooth® functionality, allowing it to be easily linked with the ultrasonic bone surgery system, VarioSurg 4. This enables the operation of both units with one single wireless foot control. Easily switch between the two systems, ensuring a smooth and efficient workflow.



Link Stand3

## 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.



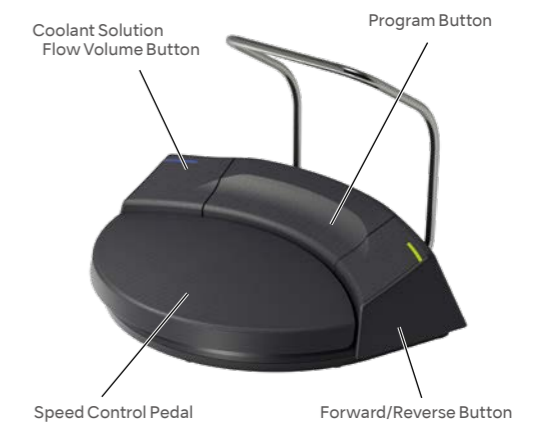
## Linked with a wireless foot control

Bluetooth® connectivity allows the flexibility of position without worrying about cable length. The foot controller is 400g lighter than the previous model (hanger 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.

Energy-Efficient Design  
(3 AAA batteries / 6 months)

A flashing light indicates when the batteries are low

Water-resistance and IPX8 compatibility



# Surgic Pro2



## Complete Set with X-SG20L

Optic	MODEL	ORDER CODE
●	<b>Surgic Pro2 OPT</b>	<b>Y1004195</b>

### 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
—	<b>Surgic Pro2 NON-OPT</b>	<b>Y1004196</b>

### 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 : AC100-240V 50/60 Hz
- Max. Pump Output : 75 mL/min
- Programs : 8 Programs / Implant Systems
- Dimensions : W 245 x D 235 x H 90 mm
- Weight : 2.1 kg

#### [Micromotor]

- Torque : 5-80 Ncm
- Motor Speed : 200-40,000 min<sup>-1</sup>
- Light Power : over 32,000 LUX (Optic Micromotor)
- Weight : 0.2 kg (with motor cord)

#### [FOOT CONTROL WIRELESS]

- Foot Control Functions :  
Coolant Solution Flow Volume Button,  
PRG(Program) Button, Forward/Reverse Button,  
Speed Control Pedal
- Dimensions : W 260 x D 185 x H 65 mm
- Weight : 1.1 kg (with hanger)
- Electric Power Source :  
Three AAA/Micro/LR03, 1.5V alkaline batteries

## FOOT CONTROL

Wireless foot control for Surgic Pro2



MODEL	ORDER CODE
<b>FC-81</b>	<b>Z1401001</b>

## Link Stand3

With the Link Stand3 the Surgic Pro2 and VarioSurg 4 can be safely stacked to save space.



MODEL	ORDER CODE
<b>Link Stand3</b>	<b>Z1623001</b>

## Sterilization Cassette

Designed for processing the NSK surgical motor/cord and surgical handpieces.

- Dimensions : W 279 x D 183 x H 34 mm



MODEL	ORDER CODE
<b>SG-CASE</b>	<b>S900040</b>

## iCart Duo

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



MODEL	ORDER CODE
<b>iCart Duo</b>	<b>S9090</b>

## Carrying Case for Surgic Pro2

Carrying case for components and accessories of Surgic Pro2

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



MODEL	ORDER CODE
<b>Carrying Case</b>	<b>Y1004219</b>

# Surgic Pro



## Unlimited Accuracy

Extremely accurate speed and torque for maximum safety during operation.



### 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.

### 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

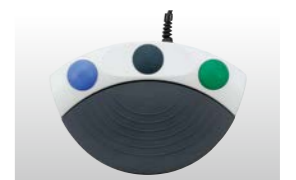
### Data Management

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.



### 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.



# Surgic Pro



## Surgic Pro+ Complete Set with X-DSG20L

Optic	MODEL	ORDER CODE
●	<b>Surgic Pro+ OPT-D</b>	<b>Y1003585</b>

### Contents

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

## Surgic Pro Complete Set with X-SG20L

Optic	MODEL	ORDER CODE
●	<b>Surgic Pro OPT</b>	<b>Y1003586</b>

### Contents

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

## Surgic Pro Complete Set with SG20

Optic	MODEL	ORDER CODE
—	<b>Surgic Pro NON-OPT</b>	<b>Y1003587</b>

### Contents

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

### Specifications

#### [Control Unit with AHC]

- Power Supply : AC 230V 50/60 Hz
- Max. Pump Output : 75 mL/min
- Programs : 8 Programs / Implant Systems
- Dimensions : W 265 x D 220 x H 100 mm
- USB I/F : 1 Port (Surgic Pro+ Only)
- Built in Memory : 100 min (Surgic Pro+ Only)

#### [Micromotor]

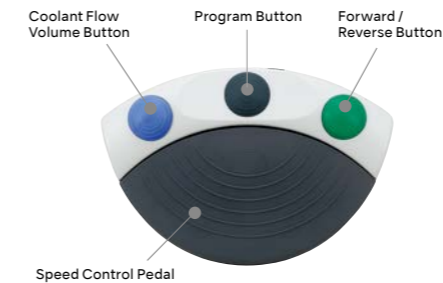
- Torque : 5-80 Ncm
- Motor Speed : 200-40,000 min<sup>-1</sup>
- Light Power : over 32,000 LUX (LED Micromotor)

#### [Foot Control]

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

## ACCESSORIES

### Foot Control



MODEL	ORDER CODE
<b>FC-78</b>	<b>Z1102001</b>

- With 2 m cord

### Handle Set (Optional Extra)

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



MODEL	ORDER CODE
<b>Handle Set</b>	<b>Z1027001</b>

### Sterilization Cassette (Optional Extra)

The sterilization Cassette is designed for the safe processing and storage of Surgic Pro components.



MODEL	ORDER CODE
<b>SG-CASE</b>	<b>S900040</b>

- Dimensions : W 279 x D 183 x H 34 mm

### Carrying Case (Optional Extra)

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



MODEL	ORDER CODE
<b>Carrying Case (Surgic Pro)</b>	<b>Y1001952</b>

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

### iCart Duo (Optional Extra)

Install the control unit and accessories on the cart.



MODEL	ORDER CODE
<b>iCart Duo</b>	<b>S9090</b>

- Dimensions : H 101.65 cm • Weight : 16.5 kg



# Implant Contra Angles

## Implant Contra-angles



### Dismantable Contra-angle

Gear Ratio	Optic	MODEL	ORDER CODE
20:1 Reduction	●	X-DSG20L	C1068
20:1 Reduction	—	X-DSG20	C1067

- Max. Torque : 80 Ncm • Max. Speed : 2,000 min<sup>-1</sup>
- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics (X-DSG20L) • Double Sealing System
- Push Button Chuck • External and internal cooling



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

- Max. Torque : 80 Ncm • Max. Speed : 2,000 min<sup>-1</sup>
- Titanium Body with Scratch Resistant DURADRIP
- Cellular Glass Optics • Double Sealing System • Push Button Chuck
- External and internal cooling



Gear Ratio	Optic	MODEL	ORDER CODE
20:1 Reduction	—	SG20	C1010

- Max. Torque : 80 Ncm • Max. Speed : 2,000 min<sup>-1</sup>
- Stainless Steel Body • Double Sealing System • Push Button Chuck
- External and internal cooling

## Speed Increasing Oral Surgery Contra-angles



Gear Ratio	Optic	MODEL	ORDER CODE
1:3 Increasing	●	X-SG93L	C1004
1:3 Increasing	—	X-SG93	C1007

- Max. Speed : 120,000 min<sup>-1</sup>
- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics (X-SG93L) • Clean Head System
- Push Button Chuck • External cooling • For FG burs (ø1.6)



Gear Ratio	Optic	MODEL	ORDER CODE
1:3 Increasing	●	Z-SG45L	C1107
1:3 Increasing	—	Z-SG45	C1108

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

## Direct Drive Oral Surgery Contra-angles and Straight



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

- Max. Speed : 40,000 min<sup>-1</sup>
- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics • Clean Head System
- Push Button Chuck • External cooling • For CA burs (ø2.35)



Gear Ratio	Optic	MODEL	ORDER CODE
1:1 Direct Drive	●	X-SG65L	H1009
1:1 Direct Drive	—	X-SG65	H1038

- Max. Speed : 40,000 min<sup>-1</sup>
- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics (X-SG65L) • Clean Head System
- External cooling • For HP burs (ø2.35)

# Implant Handpieces

## Zygomatic Implant Handpiece



Gear Ratio	Optic	MODEL	ORDER CODE
<b>20:1 Reduction</b>	—	<b>SGX-E20R</b>	<b>HA1200</b>

- Max. Torque : 50 Ncm • Max. Speed : 2,000 min<sup>-1</sup> • Stainless Steel Body
- Angle Handpiece • Twist Chuck • External Cooling
- For Osteotomy preparation / insertion of Zygoma implants for Maxillofacial / oral surgery

# Micro Surgery Handpieces



Gear Ratio	MODEL	ORDER CODE
<b>1:1 Direct Drive</b>	<b>SGS-ES</b>	<b>H264</b>

- Max. Speed : 40,000 min<sup>-1</sup> • Twist chuck • Straight Handpiece
- For surgical burs (ø2.35)



Gear Ratio	MODEL	ORDER CODE
<b>1:2 Increasing</b>	<b>SGS-E2S</b>	<b>H266</b>

- Max. Speed : 80,000 min<sup>-1</sup> • Twist chuck • Straight Handpiece
- For surgical burs (ø2.35)



Gear Ratio	MODEL	ORDER CODE
<b>1:1 Direct Drive</b>	<b>SGA-ES</b>	<b>H263</b>

- Max. Speed : 40,000 min<sup>-1</sup> • Twist chuck • 20° Angle Handpiece
- For surgical burs (ø2.35)



Gear Ratio	MODEL	ORDER CODE
<b>1:2 Increasing</b>	<b>SGA-E2S</b>	<b>H265</b>

- Max. Speed : 80,000 min<sup>-1</sup> • Twist chuck • 20° Angle Handpiece
- For surgical burs (ø2.35)

# Micro Saw Handpieces



Gear Ratio	MODEL	ORDER CODE
<b>3.2:1 Reduction</b>	<b>SGR2-E</b>	<b>SH162</b>

- 1.8 mm Reciprocating • With External Spray Nozzle



Gear Ratio	MODEL	ORDER CODE
<b>3.5:1 Reduction</b>	<b>SGO2-E</b>	<b>SH164</b>

- 17° Oscillating • With External Spray Nozzle



Gear Ratio	MODEL	ORDER CODE
<b>3.2:1 Reduction</b>	<b>SGT2-E</b>	<b>SH163</b>

- 3° Sagittal • With External Spray Nozzle

## Blades for Reciprocating

MODEL	ORDER CODE
-------	------------

- SGR-1** **Y900072**  
• Blade thickness 0.35 mm • Pack of 10 blades



- SGR-2** **Y900073**  
• Blade thickness 0.35 mm • Pack of 10 blades



- SGR-3** **Y900074**  
• Blade thickness 0.35 mm • Pack of 10 blades



## Blades for Sagittal

MODEL	ORDER CODE
-------	------------

- SGT-1** **Y900075**  
• Blade thickness 0.35 mm • Pack of 10 blades



- SGT-2** **Y900076**  
• Blade thickness 0.35 mm • Pack of 10 blades



## Blades for Oscillating

MODEL	ORDER CODE
-------	------------

- SGO-1** **H174034**  
• Blade thickness 0.3 mm • Single blade



- SGO-2** **H174044**  
• Blade thickness 0.3 mm • Single blade



- SGO-3** **H174031**  
• Blade thickness 0.3 mm • Single blade



- SGO-4** **H174041**  
• Blade thickness 0.3 mm • Single blade



- SGO-5** **H174032**  
• Blade thickness 0.35 mm • Single blade



- SGO-6** **H174042**  
• Blade thickness 0.35 mm • Single blade



\*Blades are sold separately.

# Osseo 100+

## Removes Doubt

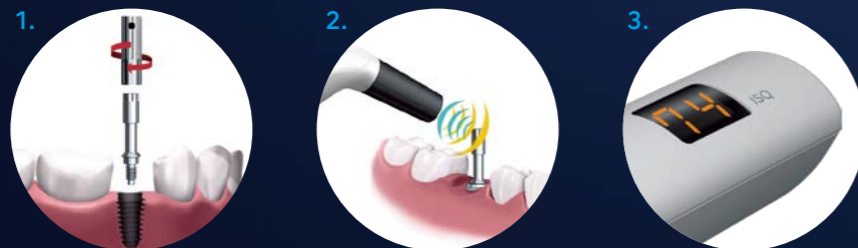
Osseo 100+ measures implant stability and osseointegration. This supports the decision on when to load an implant. Especially important when working with shorter treatment time or managing risk patients.

**Reduce treatment time**  
One stage, immediate loading, early loading.



### 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 responding 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.



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.



## Reusable 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

MODEL	REF
Osseo 100+	Y1004176

#### Contents

- Osseo 100+ Instrument
  - Multipeg Driver
  - Mains adapter and plugs
- Multipeg™ is not included, sold separately.

#### Specifications

- Power input : 5VDC, 1 VA
  - Charger input : 100-240 VAC, 5VA
  - Instrument weight : 78 g
  - Battery full charge time : appx. 3 hours.\*
  - Battery continuous drive time : appx. 1 hour.\*
- \*Varies depending on usage situations.



# iSD900

## Faster and Safer

### Faster and Safer Implant Treatments

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



#### 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

#### 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.



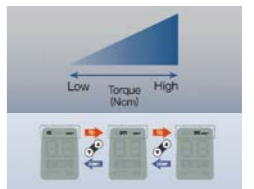
#### Torque calibration system to guarantee safety

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<sup>-1</sup>, 20 min<sup>-1</sup>, and 25 min<sup>-1</sup> speeds according to procedure requirements.



#### Ergonomic extension ON/OFF switch lever

The extended ON/OFF switch lever makes work easier inside the oral cavities and is removable if necessary. The lever can be autoclaved and thermo-disinfected.

#### Advanced non-contact quick charger

The advanced non-contact quick charger charges the instrument in just 90 minutes.

#### iSD900 Complete Set

MODEL	ORDER CODE
iSD900	Y1001358

#### Contents

- 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<sup>-1</sup>
- Weight : 148 g (iSD900 Motor + iSD-HP)
- Charging Time : Around 90 min\*
- Continuous Operation Time : Max 72 min\*

\*May change according to usage environment



Torque Calibrator

The heads can be washed in the thermidisinfector

The heads are autoclavable

# VarioSurg 4

## The Essential Ultrasonic Bone Surgery System

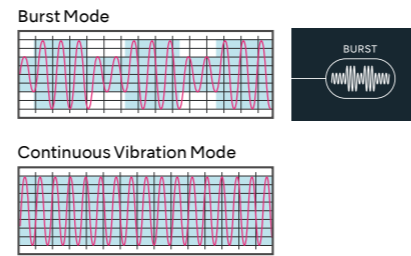
The VarioSurg ultrasonic bone surgery system has evolved with the introduction of the VarioSurg 4. With pioneering high power ultrasonic technology and a diverse lineup of tips for various procedures, the VarioSurg 4 allows for swift and intricate bone removal and shaping.

The technique is minimally invasive limiting damage to surrounding soft tissue compared to traditional procedures. With new practical advantages like wireless foot control, integration and compatibility with Surgic Pro2, and a refined, stylish design, the VarioSurg 4 is set to exceed clinicians' expectations while creating a stress-free environment



### Burst Mode With Three Different Frequency Levels

Burst Mode delivers small, periodic vibrations in response to a consistent vibration, creating a suitable 'hammer effect' for cutting hard cortical bone by introducing variations in vibration. This mode is switchable during procedures, and with three adjustable Burst Mode levels, it allows for easy mode and level selection based on the needs of the surgical procedure and bone conditions.



### Feedback & Auto-Tuning Functions for Consistent Cutting Performance and Stability

Optimal power is supplied to the tip as it automatically senses the condition of the surgical site. Oscillation frequency is also automatically controlled, maintaining the specified output value at the tip and sustaining the vibration state. These features ensure a stable, consistent power supply and enhance the efficiency of the procedure.

### Adjustable Light Intensity

Switch effortlessly between three levels of light intensity.



### Silent and Smooth Irrigation Pump

The quiet irrigation pump provides a consistent and steady flow of coolant. Setting-up the NSK irrigation tubing is simple, fitting seamlessly into the elegantly designed VarioSurg 4.



### Variable Water Levels

Operate from the screen or foot control five water volume levels to suit the procedure, while keeping the the selected tip cool to prevent tissue damage. Maximum water flow is at 76ml per minute.

### Smart and Intuitive Control Panel

Excellent screen visibility with smooth operation thanks to the introduction of a large, backlit LCD screen and touch panel with intuitive icon buttons, ensures excellent visibility and smooth operation.



### High power handpiece with super-slip design

This super-slim, lightweight handpiece with twin LEDs provides exceptional accessibility and visibility. It's well-balanced ergonomic design minimises hand fatigue during extended treatments.

Optic	MODEL	ORDER CODE
●	VS4-LED-HPSC	EA1417001

• with 2m cord



### NSK's twin LEDs deliver natural daylight-quality illumination, adding significant advantages to the way you work

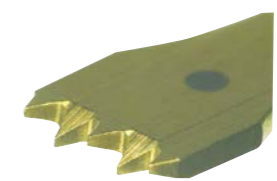
Clearer : LEDs generate natural daylight-quality, which ensures clearer vision than halogen light sources.  
 More Durable : LED light sources are longer lasting than halogen bulbs



Twin LED lights

### Tips - The result of NSK's Precision Manufacturing

We maximize the sharpness of our tips through three-dimensional-cutting (toothing) of the blade's edge.



### A Wide and Versatile Range of Tips

We offer an extensive lineup of specialized tips for bone surgery, plus tips for periodontal and endodontic procedures.



# VarioSurg 4



## Variosurg 4 Complete Set

Optic	MODEL	ORDER CODE
●	VarioSurg 4 (230V)	Y1500706

### Contents :

- Control Unit
- LED Handpiece with 2m cord
- FC-86 Foot Control (cordless)
- Sterilization Cassette
- Handpiece Stand
- Irrigation tube (3 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 : AC100 - 240V 50/60 Hz
  - Max. Pump Output : 76 mL / min
  - Programs : SURG x 5, ENDO x 2, PERIO x 2
  - Dimensions : W 245 x D 235 x H 90 mm

## Variosurg 4 Complete Set without Foot Control

Optic	MODEL	ORDER CODE
●	VarioSurg 4 w/o FC (230V)	Y1500712

### Contents :

- Control Unit
- LED Handpiece with 2m cord
- Sterilization Cassette
- Handpiece Stand
- Irrigation tube (3 pcs.) and other accessories
- Basic H-S Kit (H-SG1, SG3, SG5, SG6D, SG7D, SG11 and Tip holder)

## Surgic Pro2 and VarioSurg 4 Link Function

VarioSurg 4 features built-in Bluetooth® functionality, allowing it to be easily linked with the implant and oral surgery micromotor system, Surgic Pro2. This enables the operation of both units with one single wireless foot control. Easily switch between the two systems, ensuring a smooth and efficient workflow.



## Foot Control



MODEL	ORDER CODE
FC-86	ZF16040001



MODEL	ORDER CODE
FC-78	Z1102003

• with 2m cord

## Link Stand



MODEL	ORDER CODE
Link Stand3	ZA16230001

## Sterilization Cassette



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

## Carrying Case



MODEL	ORDER CODE
Carrying Case (VarioSurg 4)	Y1500783

• Dimensions : W 534 x D 427 x H 207 mm

## iCart Duo









MODEL	ORDER CODE
iCart Duo	S9090

• Dimensions : H 101.65 cm • Weight : 16.5 kg

# Spare Parts and Accessories

## Surgic Pro2

MODEL	PRODUCTS	ORDER CODE
<b>SGL80M</b> Optic Motor & Cord		<b>Y1004211</b>
<b>SG80M</b> Non-Optic Motor & Cord		<b>Y1004212</b>
<b>Tube Holder</b>		<b>E1198105</b>
<b>FC-81</b> FOOT CONTROL WIRELESS		<b>Z1401001</b>





MODEL	PRODUCTS	ORDER CODE
<b>Coolant Solution Hanger Post</b>		<b>U370152</b>
<b>Irrigation Tube (Pack of 5)</b>		<b>Y900113</b>
<b>AC Power Cord</b>		<b>U260414</b>
<b>Handpiece Stand</b>		<b>Z1402110</b>

MODEL	PRODUCTS	ORDER CODE
<b>Calibration Bur</b>		<b>Z1057101</b>
<b>Tube Holder (Pack of 7)</b>		<b>Y900083</b>
<b>Protection Plug Sterilization Cassette</b>		<b>10001595</b>
<b>SG-CASE Sterilization Cassette</b>		<b>S900040</b>

## Surgic Pro2 / VarioSurg 4

MODEL	PRODUCTS	ORDER CODE
<b>Link Stand3</b>		<b>ZA16230001</b>


## Surgic Pro

MODEL	PRODUCTS	ORDER CODE
<b>SGL70M</b> Optic Motor & Cord		<b>E1023</b>
<b>SG70M</b> Non-Optic Motor & Cord		<b>E1025</b>
<b>Tube Holder</b>		<b>E295105</b>
<b>FC-78</b> Foot Control		<b>Z1102001</b>

MODEL	PRODUCTS	ORDER CODE
<b>Handle Set</b>		<b>Z1027001</b>
<b>Coolant Solution Hanger Post</b>		<b>U370152</b>
<b>Irrigation Tube (Pack of 5)</b>		<b>Y900113</b>
<b>Handpiece Stand</b>		<b>Z1029201</b>


MODEL	PRODUCTS	ORDER CODE
<b>Calibration Bur</b>		<b>Z1057101</b>
<b>Tube Holder (Pack of 7)</b>		<b>Y900083</b>
<b>Protection Plug</b>		<b>10001595</b>
<b>SG-CASE Sterilization Cassette</b>		<b>S900040</b>

## Zygomatic Implant Handpiece


MODEL	PRODUCTS	ORDER CODE
<b>Spray Nozzle</b> For SGX-E20R		<b>HA12000122</b>

## Micro Saw Handpieces




MODEL	PRODUCTS	ORDER CODE
<b>Spray Nozzle</b> For SGR, SGT, SGO		<b>SH162035</b>



MODEL	PRODUCTS	ORDER CODE
<b>Spanner 8x5</b>		<b>K040751</b>

## Micro Surgery Handpieces




MODEL	PRODUCTS	ORDER CODE
<b>Spray Nozzle</b> For SGS, SGA		<b>H263018</b>

## Implant Handpieces



MODEL	PRODUCTS	ORDER CODE
<b>Internal Spray Nozzle</b>		<b>10000324</b>
<b>Nozzle Holder</b> For X-DSG20L, X-DSG20, X-SG20L		<b>20000396</b>
<b>Nozzle Holder</b> For SG20		<b>20000357</b>

MODEL	PRODUCTS	ORDER CODE
<b>Y-Connector</b>		<b>C823752</b>
<b>Cleaning Wire</b>		<b>20000512</b>




## Osseo 100+



MODEL	PRODUCTS	ORDER CODE
<b>Multipeg Driver</b>		<b>55003</b>
<b>Sterile cover</b>		<b>55105</b>
<b>Mains adapter</b>		<b>55263</b>


MODEL	PRODUCTS	ORDER CODE
<b>EU plug</b>		<b>55264</b>
<b>UK plug</b>		<b>55265</b>

MODEL	PRODUCTS	ORDER CODE
<b>AU plug</b>		<b>55266</b>
<b>US plug</b>		<b>55267</b>

## iSD900





MODEL	PRODUCTS	ORDER CODE
<b>Quick Charger for iSD900</b>		<b>U1070001</b>
<b>iSD900 Motor</b>		<b>E1060001</b>
<b>iSD-HP</b>		<b>C1060001</b>





MODEL	PRODUCTS	ORDER CODE
<b>Power Cord</b>		<b>U439550</b>
<b>Torque Calibrator</b>		<b>Z1056001</b>
<b>Calibration Bur</b>		<b>Z1057101</b>

MODEL	PRODUCTS	ORDER CODE
<b>On/Off Switch Lever</b>		<b>Z1070001</b>
<b>Ni-MH Rechargeable Battery (Pack of 2)</b>		<b>Y900103</b>

\* Utilizzare solo batterie ricaricabili formato AAA Ni-MH (Nickel Metal Hydride). Non utilizzare batterie non ricaricabili.

## VarioSurg 4

MODEL	PRODUCTS	ORDER CODE
<b>E Tip Replacement Wrench</b> For V10-S		<b>Z217399</b>
<b>CR-40</b> For SG1A, SG8A, Socket Lift Tip VS Tip Wrench		<b>Z305350</b>
<b>CR-30</b> Tip Wrench		<b>10000977</b>
<b>FC-86</b>		<b>ZF16040001</b>

MODEL	PRODUCTS	ORDER CODE
<b>FC-78</b>		<b>Z1102003</b>
<b>VS4-LED-HPSC</b>		<b>EA14170001</b>
<b>Tips Holder</b>		<b>Z221086</b>
<b>Handpiece Stand</b>		<b>Z1029201</b>

MODEL	PRODUCTS	ORDER CODE
<b>Coolant Solution Hanger Post</b>		<b>U370152</b>
<b>Irrigation Tube (Pack of 5)</b>		<b>Y900113</b>
<b>Tube Holder (Pack of 7)</b>		<b>Y900767</b>
<b>VA-SG-CASE Sterilization Cassette</b>		<b>Z313102</b>