

Create it



Surgic Pro2

**NSK**



# Go beyond.

## Surgic Pro2

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.

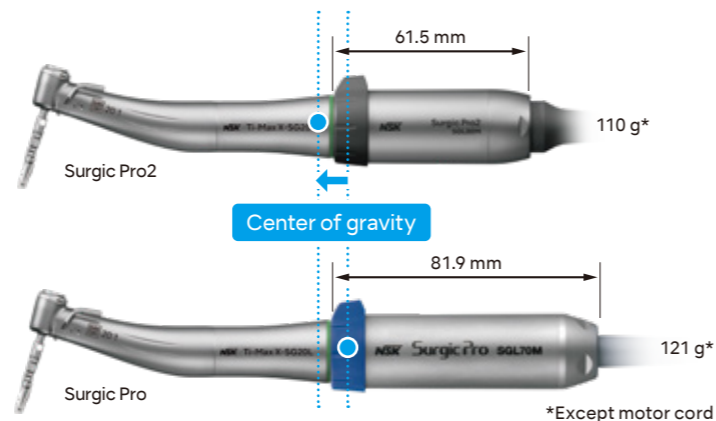


## Improved operability A more compact new motor.

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+".

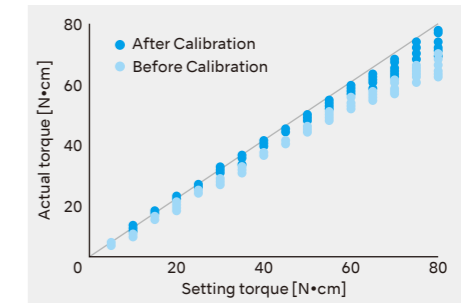


## NSK's Drive for Accuracy Ensure Safe Treatment through Accurate Torque Correction

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 successful implant surgery.

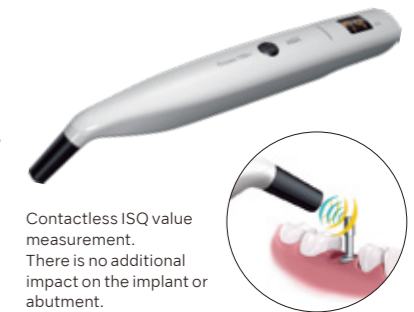
Minimizing the discrepancy between the set torque value and the actual output helps improve treatment outcomes.



## 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.



### Decreasing micro mobility with increasing ISQ values

\*The below is not a clinical recommendation from NSK.

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

ISQ Value

60

70

- 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, Todovic V, Jurisic M, Hamerle 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. Millillo, C. Fiandaca, F. Giannoulis, L. Ottria, A. Lucchese, F. Silvestre, M. Petrucci. Oral & Implantology - anno IX - n. 3/2016

# WIRELESS EXTENSIBILITY

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

VarioSurg 3  
Ultrasonic Bone Surgery

FOOT CONTROL  
WIRELESS

Surgic Pro2

Osseo 100+  
Osseointegration Monitoring Device

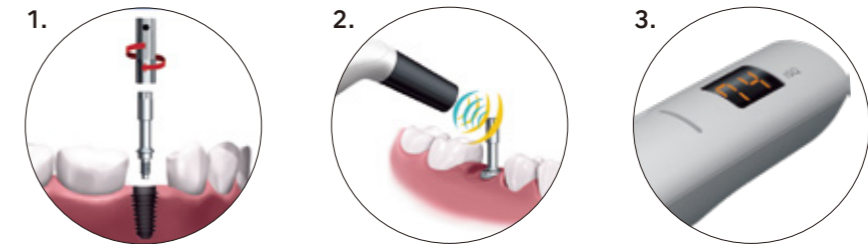
iPads

## 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+.



### 3-step procedure



1. The Multipeg™ is attached to the implant. It screws effortlessly into the implant's internal thread (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 both displays. This reflects the level of stability on the universal ISQ scale—from 0 to 99. The higher the ISQ value, the more stable the implant.



## Linked with the "VarioSurg 3" ultrasonic bone surgery system

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

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



## 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.



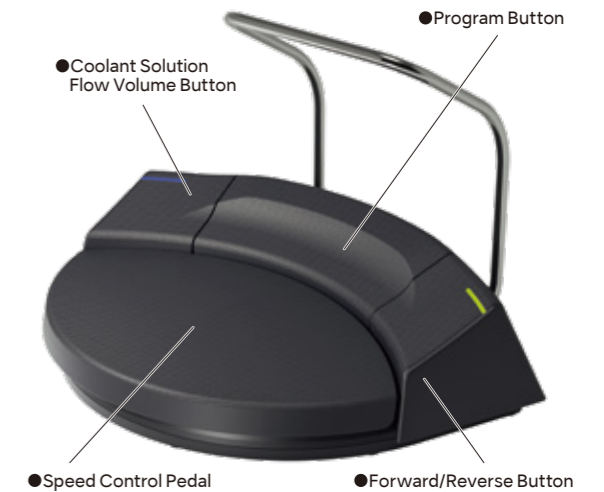
## Linked with a wireless foot control

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



## Two devices can be controlled with only one Foot Control.

You can easily switch between Surgic Pro2 and VarioSurg 3 for improved flexibility and workflow.



# LINE-UP

## COMPLETE SET with X-SG20L

**OPTIC** MODEL: Surgic Pro2 OPT  
ORDER CODE: 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

**NON-OPTIC** MODEL: Surgic Pro2 NON-OPT  
ORDER CODE: 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   | Micromotor   | FOOT CONTROL WIRELESS  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• Power Supply : AC100-240V 50/60 Hz</li> <li>• Max. Pump Output : 75 mL/min</li> <li>• Programs : 8 Programs / Implant Systems</li> <li>• Dimensions : W 245 x D 235 x H 90 mm</li> </ul> | <ul style="list-style-type: none"> <li>• Torque : 5-80 Ncm</li> <li>• Motor Speed : 200-40,000 min<sup>-1</sup></li> <li>• Light Power : over 32,000 LUX (Optic Micromotor)</li> </ul> | <ul style="list-style-type: none"> <li>• Foot Control Functions : Coolant Solution Flow Volume Button, PRG(Program) Button, Forward/Reverse Button, Speed Control Pedal</li> </ul> |

## 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.

MODEL: Link Module ORDER CODE: Z1402001

- Link Box
- Link Cable



MODEL: Link Stand2 ORDER CODE: Z1452001



### iCart Duo

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

MODEL: iCart Duo ORDER CODE: S9090



### Osseo 100+(implant Stability Measurement System)

The implant stability level can be set, facilitating safer implant treatment. ISQ data can be recorded and saved by connecting to the Surgic Pro2.

MODEL: Osseo 100+ ORDER CODE: Y1004176

Manufacturer  
Integration Diagnostics Sweden AB



### Sterilization Cassette

The sterilization Cassette is designed for the safe processing and storage of Surgic Pro2 components.

MODEL: SG-CASE ORDER CODE: S900040

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



### Carrying Case for Surgic Pro2

Carrying case for components and accessories of Surgic Pro2

MODEL: Carrying Case ORDER CODE: Y1004219

- Dimensions : W534 x D 427 x H 207 mm



## SPARE PARTS

| MODEL                          | PRODUCTS | ORDER CODE | MODEL                         | PRODUCTS | ORDER CODE | MODEL                       | PRODUCTS | ORDER CODE | MODEL                   | PRODUCTS | ORDER CODE | MODEL           | PRODUCTS | ORDER CODE |
|--------------------------------|----------|------------|-------------------------------|----------|------------|-----------------------------|----------|------------|-------------------------|----------|------------|-----------------|----------|------------|
| SGL80M (Optic Motor & Cord)    |          | Y1004211   | FC-81 (FOOT CONTROL WIRELESS) |          | Z1401001   | Irrigation Tube (Pack of 9) |          | Y900113    | Handpiece Stand         |          | Z1402110   | Protection Plug |          | 10001595   |
| SG80M (Non-Optic Motor & Cord) |          | Y1004212   | Coolant Solution Hanger Post  |          | U370152    | AC Power Cord               |          | U260414    | Tube Holder (Pack of 7) |          | Y900083    | Tube Holder     |          | E1198105   |

# RELATED PRODUCTS

## SURGICAL IMPLANT CONTRA-ANGLES

### X-DSG20L (Dismantable Contra-Angle)

**OPTIC** MODEL: X-DSG20L ORDER CODE: C1068

**NON-OPTIC** MODEL: X-DSG20 ORDER CODE: C1067

- 20:1 Reduction ● 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

### X-SG20L

**OPTIC** MODEL: X-SG20L ORDER CODE: C1003

- 20:1 Reduction ● Max. Torque : 80 Ncm ● Max. Speed : 2,000 min<sup>-1</sup>
- Titanium Body with Scratch Resistant DURAGRIP
- Cellular Glass Optics ● Double Sealing System
- Push Button Chuck ● External and internal cooling

### SG20

**NON-OPTIC** MODEL: SG20 ORDER CODE: C1010

- 20:1 Reduction ● 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

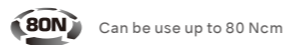


## ZYGOMATIC IMPLANT HANDPIECE

### SGX-E20R

**NON-OPTIC** MODEL: SGX-E20R ORDER CODE: HA1200

- 20:1 Reduction ● 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 Zygo implants for Maxillofacial / oral surgery



## SPEED INCREASING SURGICAL CONTRA-ANGLES

### X-SG93L

**OPTIC** MODEL: X-SG93L ORDER CODE: C1004

**NON-OPTIC** MODEL: X-SG93 ORDER CODE: C1007

- 1:3 Increasing ● Max. Speed : 120,000 min<sup>-1</sup>
- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics (X-SG93L) ● Clean Head System
- Push Button Chuck ● External cooling ● For FG burs (ø1.6)



### Z-SG45L

**OPTIC** MODEL: Z-SG45L ORDER CODE: C1107

**NON-OPTIC** MODEL: Z-SG45 ORDER CODE: C1108

- 1:3 Increasing ● 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 SURGICAL HANDPIECES

### X-SG25L

**OPTIC** MODEL: X-SG25L ORDER CODE: C1011

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



### X-SG65L

**OPTIC** MODEL: X-SG65L ORDER CODE: H1009

**NON-OPTIC** MODEL: X-SG65 ORDER CODE: H1038

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

