



NSK
CREATE IT.



Surgic Pro2

Surgical micromotor system connecting you with the future.



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 comfort, safety and efficiency for the operator during dental treatment. Professionals demand the reliability and sense of safety in clinical practice, and we have responded with our 'next-generation performance' technology.

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.

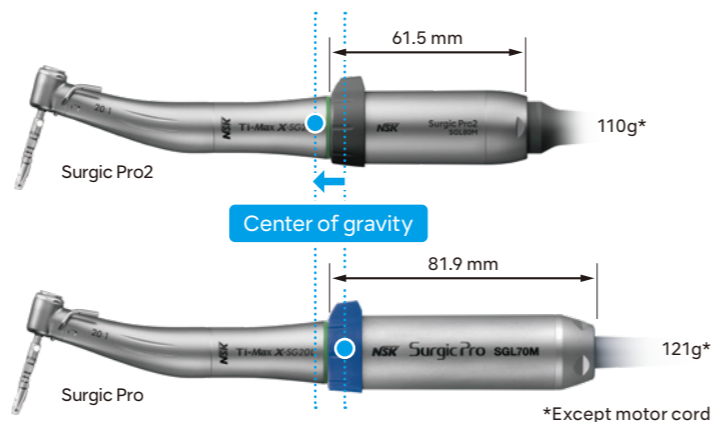


Improved operability A more compact new motor.

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 balance closer to the head of the handpiece. This increases efficiency and alleviates the stress of implant treatment.

Length
24.9% DOWN

Weight
9.1% DOWN



Superb visibility and operability Large 4-color LCD panel

Visibility is assured 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 flowing implant treatment.

Easy-clean flat screen display

The sensitivity of the touch panel can be adjusted to 3 levels to enable it to respond when surgical gloves and surgical barrier sheets are in use. Ultra narrow bezel of the display allows for simpler cleaning after use, making hygiene easier. The design anticipates requirements both during treatment and post-surgery.



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

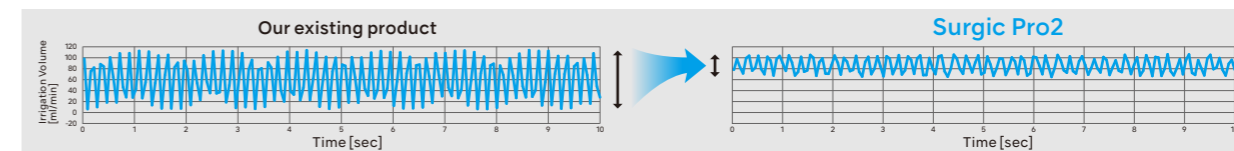
Use of high-resolution color LED allows blood and gums to be seen as if naturally-lit, thereby providing increased visibility during dental surgery. Very little heat generation occurs ensuring safety over long usage periods and its long operating-life also makes it economical.



High color rendering LED Standard White LED

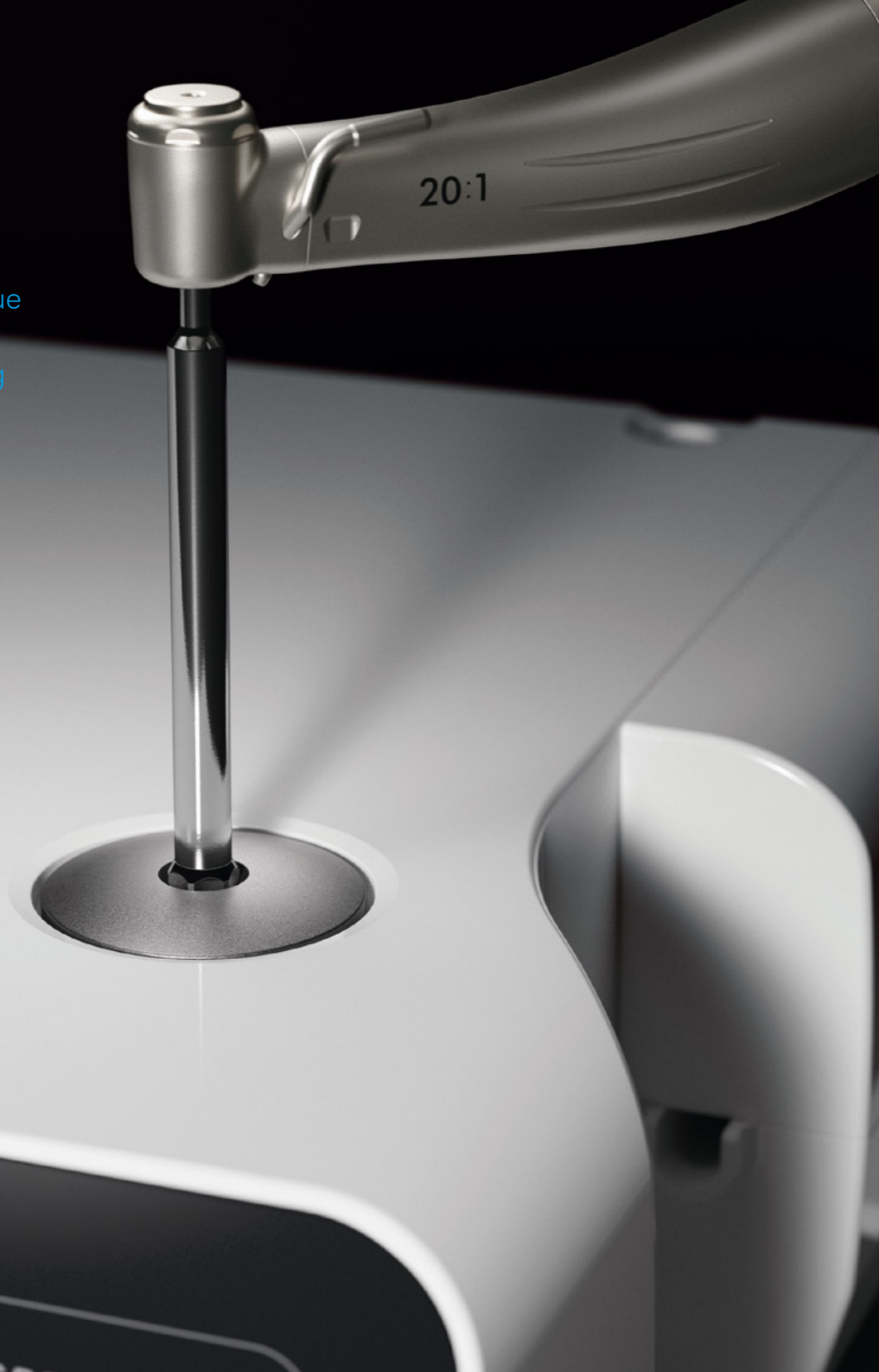
Silent and Smooth Irrigation Pump

The new model irrigation pump provides smooth flowing irrigation and a greatly reduced noise level. The irrigation tube setup has become more straight-forward and easier to use. Pump components that protruded from the main body have been combined to create a more cohesive and elegant design. The size of the main control unit has been reduced to save worktop space in the dental surgery.



SAFETY

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

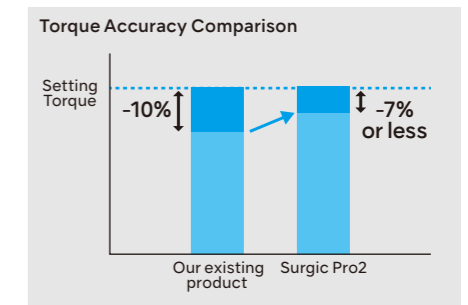


NSK's proprietary torque calibration system is now even more precise

Implant motors usually have a discrepancy between the stated torque value and the actual output torque value, depending on the contra-angle bearing and gear abrasion. This difference in torque values must be corrected to perform safe implant treatment. This is torque calibration.

The previous model Surgic Pro used NSK's own "Advanced Handpiece Calibration" (AHC) function to correct differences in actual handpiece conditions using automatic calibration with no load current and load-bearing calibration to achieve the accurate torque values demanded in implant surgery.

The Surgic Pro2 fine-tunes NSK's own AHC technology to achieve even more accurate torque calibration. The torque setting discrepancy is reduced a further 30% compared to the previous Surgic Pro model. Minimizing the discrepancy between the set torque value and actual output torque value improves safety during implant treatment.



* Rotation: 10,000 min⁻¹
** Average value of torque nonuniformity

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

Osseo100+ measure implant stability and osseointegration to enhance decisions about when to load. Especially important when using protocols with shorter treatment time and treating risk patients.

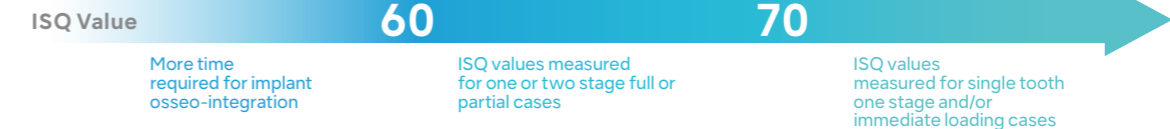
By connecting with the Surgic Pro2 it is possible to share and manage the measured ISQ value on external terminals.



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

Decreasing micro mobility with increasing ISQ values

*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, 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 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 Brägger. 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.

VarioSurg3
Ultrasonic Bone Surgery

Foot Control

Surgic Pro2

Osseo 100+

Osseointegration Monitoring Device

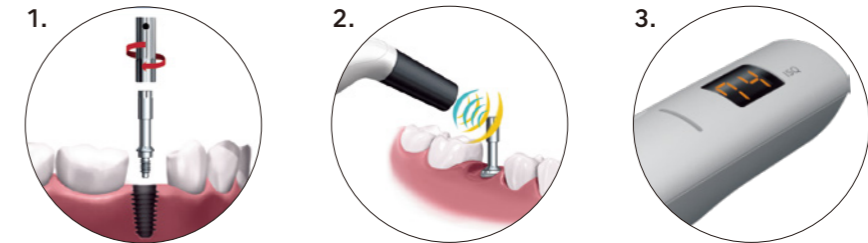
iPads
or external devices

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 at 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 "VarioSurg3" ultrasonic bone surgery system

Even with the previous model, connection to the highly-rated surgery system VarioSurg3 simply requires installation of the Bluetooth connection module to enable wireless connection.

If the dedicated link stand is used, two systems may be set up in a limited amount of space.

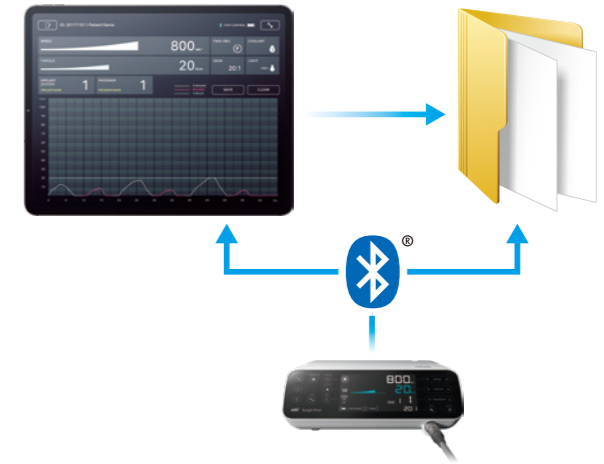


Link Stand & Link Module



Linked with iPads or external devices

Installing a dedicated application and connecting an iPad or external devices 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 Osseo100+. 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 700g 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", "PRG(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 100 days. A flashing light indicates when the batteries are running low.

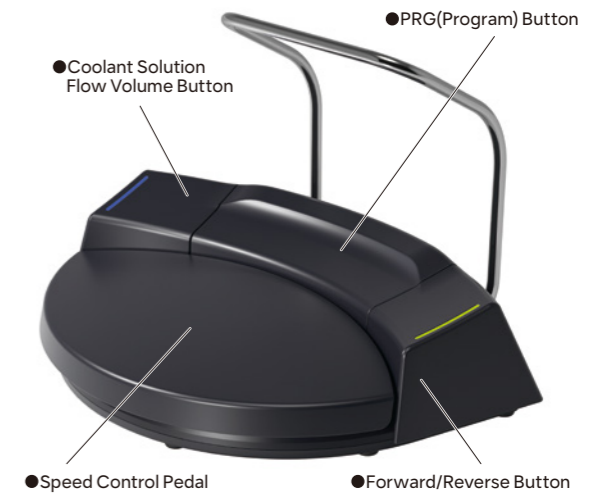
Energy-Efficient Design
(3 AAA batteries/
100 days)

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 alternate between the Surgic Pro2 and VarioSurg3 surgical systems using one wireless foot control. More flexible implant procedures are possible even in a restricted space.



LINE-UP

COMPLETE SET with X-SG20L

OPTIC MODEL: Surgic Pro2 OPT
ORDER CODE: Y1004195

- Contents :
- Control Unit
 - SGL80M LED Micromotor
 - X-SG20L Optic Handpiece (20:1 Reduction)
 - Wireless Foot Control
 - Irrigation tube (5 pics.) 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)
 - Wireless Foot Control
 - Irrigation tube (5 pics.) and other accessories



Specifications:

Control Unit with AHC	Micromotor	Wireless Foot Control
<ul style="list-style-type: none"> • Power Supply : AC100~240V 50/60 Hz • Max. Pump Output : 75 mL/min • Programs : 8 Programs / Implant Systems • Dimensions : W235 × D230 × H90 mm 	<ul style="list-style-type: none"> • Torque : 5-80 Ncm • Motor Speed : 200~40,000 min⁻¹ • Light Power : over 32,000 LUX (LED Micromotor) 	<ul style="list-style-type: none"> • Foot Control Functions : Coolant Solution Flow Volume Button, PRG(Program) Button, Forward/Reverse Button, Speed Control Pedal

OPTION

Wireless Link Tools (Surgic Pro2 x VarioSurg3)

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 Module
- LINK Cable

MODEL: LINK STAND2 ORDER CODE: Z1452001

iCart Duo

The Surgic Pro2 and VarioSurg3 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 Pro 2.

MODEL: Osseo 100+ ORDER CODE: Y1004176

Sterilization Cassette

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

MODEL: SG-CASE (Surgic Pro2) ORDER CODE: S900040

- Dimensions: W281 x D171.5 x H47 mm

Carrying Case for Surgic Pro2

Carrying case for componets and accessories of Surgic Pro2

MODEL: Carrying Case (Surgic Pro2) ORDER CODE: Y1004219

- Dimensions: W534 x D427 x H207 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 (Wireless Foot Control)		Z1401001	Irrigation Tube (Pack of 5)		Y900113	Handpiece Stand		Z1402110	Protection Plug		10001595
SG80M (Non-Optic Motor & Cord)		Y1004212	Coolant Solution Hanger Post		U370152	AC Power Cord		U260414A	Tube Holder (Pack of 7)		Y900083			

RELATED PRODUCTS

SURGICAL HANDPIECES IMPLANT

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⁻¹
- 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

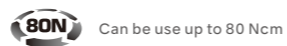
- 20:1 Reduction ● Max. Torque : 80 Ncm ● Max. Speed : 2,000 min⁻¹
- Titanium Body with Scratch Resistant DURACOAT
- Cellular Glass Optics ● Double Sealing System
- Push Button Chuck ● External and internal cooling



SG20

NON-OPTIC MODEL: SG20 ORDER CODE: C1010

- 20:1 Reduction ● Max. Torque : 80 Ncm ● Max. Speed : 2,000 min⁻¹
- Stainless Steel Body ● Double Sealing System ● Push Button Chuck
- External and internal cooling



SURGICAL HANDPIECES CONTRA-ANGLE (INCREASING)

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⁻¹
- 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⁻¹
- 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 ● DLC Coating



SURGICAL HANDPIECES CONTRA-ANGLE (DIRECT DRIVE)

X-SG25L

OPTIC MODEL: X-SG25L ORDER CODE: C1011

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

