Create it 🖌

HYGIENE & MAINTENANCE









# Safer and more comfortable everyday dental care.

Even the most advanced handpiece is worthless if it cannot be operated safely and reliably. As a trusted global manufacturer of handpieces NSK strives to ensure the highest standard of performance through advanced technologies. NSK offers solutions to cover the entire decontamination cycle - cleaning, lubrication and sterilization to help maintain safe and reliable operation.

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# iCare+

## Automatic system for cleaning, disinfecting and lubricating rotary instruments

Manual cleaning of instruments does not remove all deposits and residues. Dynamic instruments that are poorly maintained or not adequately cleaned may become damaged and pass on infections to both patients and practitioners. Any instrument used in dentistry must be perfectly cleaned, disinfected and maintained. NSK is aware of the requirements in the daily practice of dentistry and, after many years of research, it has come up with a simple and effective solution thanks to iCare+.

#### Advantages

- Simplicity
- Automatic
- Speed
- Constant monitoring of working parameters for consistent performance
- Universal connection of dynamic instruments
- Validation
- Traceability
- Detects instrument type spray / water external or internal
- Consistent repetition of cycles

#### Intelligence at the service of your instruments

iCare+ is smart and detects the type of instrument attached to the ports (internal/external spray or without spray), when canals are blocked or the wrong cycle has been selected for a specific instrument to ensure cycle efficiency. During the different cycles, iCare+ starts the rotation of instruments and injection of treatment products into all the internal mechanisms and tubing of the instruments to provide deep cleaning and disinfection; a pressure spray simultaneously cleans and disinfects the external surfaces. Each cycle lasts for a specific duration in compliance with EN ISO 15883/15883-5 to guarantee maximum effectiveness of the n.clean and n.cid solution for the perfect treatment of every instrument.



#### Security

Tests performed by the Dr. Brill Institute conducted on extremely dirty instruments (containing sheep's blood with heparine, protamine, bacteria and yeast) prove that iCare+ treatment cycles together with n.clean cleaning and n.cid disinfection guarantee proven effectiveness of the results. The validated tests realized in Germany by this accredit laboratory were done according to RKI recommendations (Robert Koch Institute) and EN ISO 15883.

#### 99.999% of bacteria is eliminated

iCare+ makes it possible to reduce proteins to less than 100 mg per instrument after treatment. Thus, the reduction in the level of microbial contamination (> 5-log step) of the instruments treated is equivalent to eliminating over 99.999% of the bacteria.

#### Guaranteed consistent repetition of cycles

iCare+'s internal control system has sensors, which ensure consistency of every cycle in accordance with the parameters which were determined during the laboratory tests. iCare+ is a medical device which has a protocol, a method of analysis, and certifiable results.



# **Cleaning and Disinfection**

#### Two Products Inextricably Linked to iCare+

iCare+ working hand in hand with n.clean and n.cid products. n.clean and n.cid have been specifically developed for rotary instruments in compliance with laboratory protocols as well European and International standards.

#### Validated Association of Certified Products

Extensive laboratory tests have been conducted on NSK turbines, handpieces and contra-angles, as well as on instruments from other brands: the results are identical for all tested instruments and always in compliance with EN ISO 15883. It is therefore crucial that iCare+ be used together with n.clean for cleaning and n.cid for disinfection of rotary instruments to guarantee optimal results validated by laboratories.

#### **Targeted Action**

n.clean, a cleaning and rinsing solution, acts as a detergent and has bacteriostatic and fungistatic effects. It prevents proteins from attaching to internal and external surfaces of instruments. Disinfection prior to sterilisation is carried out by n.cid, a bactericidal, fungicidal and virucidal\* disinfectant solution effective against wrapped viruses, as well as unwrapped Adeno viruses.

\*Bactericidal: TBC, MRSA. - Fungicidal: Candida albicans - Virucidal: HBV, HCV, HIV, Herpes simplex, Influenza, H1N1 + H5N1.



# **Complete Traceability**

#### Internal Traceability Software

In addition to the permanent internal validation process, software is available to log all cycle data on an external device. iCare+ generates a serial number for every cycle. Once the data has been transfered to a computer you can add serial numbers of individual instruments to specific cycle records in order to establish total traceability.

#### Data Storage

To allow traceability and external storage of the iCare+ cycle data an easily accessible USB port is built into iCare+ unit.\*

#### **User-friendly Interface**

The user friendly software interface allows easy and efficient management of all cycle data with the option of adding specific records for individual instruments at the push of a button.



#### Easy to use

The clearly and intuitively arranged control panel together with the LED indicators and the internally lit treatment chamber, which clearly indicates operating mode, makes it really easy to operate iCare+.

- Yellow for cleaning
- White for disinfection
- Blue for lubrication
- When the green LED lights up, the process is complete.

iCare+ Complet		
Dual standard port	s + Dual rotation ports	Single standard port + T
MODEL	ORDER CODE	MODEL
iCare+C2	S102001	iCare+C3

#### Contents

• iCare+ unit • Power cord with L-shaped plug • Air tube • Notice on DVD

Specifications

Power Supply: AC 100-230 V 50/60 Hz
Capacity : up to 4 instruments
Air Pressure : 0.5-0.6 MPa (5.0-6.0 kgf/cm<sup>2</sup>)
Weight : 14 kg
Dimension : W 400 x D 405 x H 355 mm
Capacity of the oil tank : 500 mL
Capacity of the ottles for the cleaning and isinfection product : 500 mL
\*Connects only to Midwest 4-hole type \*An airline is necessary (5.0-6.0 kgf/cm<sup>2</sup>)

#### iCare+ Adaptors

MODEL	ORDER CODE	
iCare+ Adaptor PTL	Z1127010	For NSK high speed handpie
iCare+ Adaptor KV	Z1127011	• For KaVo® high speed handp
iCare+ Adaptor SR	Z1127013	• For Sirona® high speed hand
iCare+ Adaptor WH	Z1127012	<ul> <li>For W&amp;H<sup>®</sup> high speed handp</li> </ul>
iCare+ Adaptor BA	Z1127014	• For Bien Air® high speed han

Check with your dealer for the correct adaptors to use for your high speed handpieces.

#### Pressure regulator

MODEL	ORDER CODE
Pressure regulator for iCare+	S103500

#### **Refill Maintenance Oil**



#### Triple rotation ports

ORDER CODE

S103001



ces for	PTL coupling	

pieces for Multiflex® coupling

dpieces for Quick coupling

pieces for Roto Quick® coupling

ndpieces for UNIFIX® coupling

MODEL

ORDER CODE





iCare+

# iCare

# **Automatically Lubricates**

iCare sets a new standard for handpiece maintenance systems. In one stylish and compact body, it offers you both ease of use and multiple functions to achieve complete lubrication. The proper solution volume is preset based on handpiece type, and maintenance can be initiated at the touch of a button. The chuck cleaning system keeps chucks pristine, and the purging select mode lets you alter purge time depending on the situation for truly comprehensive maintenance. Thanks to its stylish and compact body, iCare is also space efficient and totally in harmony with your working environment.

#### Advantages

- · Preset solution volume based on handpiece type (high-speed handpieces, low-speed handpieces)
- Chuck cleaning function ensures that the chuck is thoroughly cleaned and lubricated
- Purging select mode ensures complete removal of excess oil
- Integrated large oil tank (1.2 Liters) reduces the burden of refilling

#### Ergonomic and easily readable large panel

Simple one-touch operation to start lubrication.



#### Preset proper solution volume based on handpiece type

The proper solution volume is preset based on high speed and low speed handpieces, ensuring precise and thorough lubrication at the touch of a button.



#### High speed handpieces

iCare meticulously lubricates the components of high speed handpieces.

#### Low speed handpieces

Low speed handpieces incorporate gearing systems that require extra solution penetration. The NSK rotation system guarantees optimum oil delivery to the internal components of all low-speed handpieces.

#### Accommodates both NSK handpieces and those of other brands

NSK and all other brands of low speed handpieces connect directly to the fitting supplied. NSK high speed handpieces require the PTL adaptor. Adaptors are available for connection of most other high speed brands.



#### Purging select mode

**Chuck cleaning function** 

After lubrication, you can select from appropriate modes offering different purge lengths - short, medium and long.

The chuck cleaning function completely removes dirt and cutting powder



# HP head filter prevents mist leaks (Optional)

Handpiece head filters are made to absorb any spray mist generated.

### Easy to clean

from the chuck.

iCare's front door can completely removed to allow fast, easy cleaning.



#### Solution tank

iCare's big solution tank has a capacity of 1.2 litres allowing you to pour in a full one litre bottle of maintenance solution at once, reducing the necessity for frequent refilling. The enclosed nozzle enables clean and easy refilling.

### Safe operation with a range of alarm functions

The alarm LED ensures safe and secure maintenance by alerting you to various situations, including inadequate solution and an unclosed door.

#### Stylish and compact

In the pursuit of 'ultimate ease-of-use', the iCare performs automatic maintenance of up to four handpieces at once. iCare is also designed to be simple to set up and space efficient, you can install it virtually anywhere.



#### iCare Complete Sets



Dual standard connectors +



# Single standard connector + Triple rotation connectors

MODEL

**Dual rotation connectors** MODEL ORDER CODE iCare C2 Type Y1002787

iCare C3 Type

#### Contents

Contents
 iCare unit • Power cord • Chuck cleaning nozzle • Maintenance oil for iCare (1 Liter) • Mist filter set
 •Oil absorber sheet • Air tube

 
 Specifications

 • Power supply: AC 100-240 V 50/60 Hz

 • Air pressure: 0.5-0.6 MPa (5.0-6.0 kgf/cm²)

 • Weight: 6.5 kg (C2 type / C3 type)

 • Dimension: W 280 x D 240 x H 350 mm
 • Solution tank capacity : 1.2 L

#### Connects only to Midwest 4-hole type

Connects Only to Pindwest 4-hole type
 An air line is necessary (5.0-6.0 kgf/cm<sup>2</sup>)
 Do not use iCare to lubricate air scalers (except NSK S970 series) and Phatelus air motors. The iCare lubricating system is not designed to lubricate those particular products. Maintain air scalers and Phatelus air motors as described in the operation manual for each product.
 If blood infiltrates inside a handpiece, iCare may not totally clean the internal handpiece components, and internal blood coagulation may cause product failure. In this case, NSK recommends to immediately lubricate those handpieces manually with PANA SPRAY Plus.

#### iCare Adaptors

· ·		
MODEL	ORDER CODE	
PTL Adaptor	Z257010	For NSK high speed handpieces for PTL coupling
B2/M4 Adaptor	T904	For Borden 2 hole high speed handpieces
KV Adaptor	Z257020	$\bullet$ For KaVo* high speed handpieces for Multiflex* coupling
SR Adaptor	Z257023	For Sirona® high speed handpieces for Quick coupling
WH Adaptor	Z257021	$\bullet$ For W&H $^{\circ}$ high speed handpieces for Roto Quick $^{\circ}$ coupling
BA Adaptor	Z280022	$\bullet$ For Bien Air* high speed handpieces for UNIFIX* coupling
F-Type Adaptor	Z280042	For ENDO-MATE TC2, DT2 heads

Check with your dealer for the correct adaptors to use for your high speed handpieces.

#### **Refill Maintenance Oil**

MODEL	ORDER CODE	
Maintenance oil for iCare (1 bottle, 1 litre)	Z016130	
MODEL	ORDER CODE	
Maintenance oil for iCare (Pack of 6 bottles)	Y1002783	





ORDER CODE

Y1002788



MODEL	ORDER CODE	
Mist Filter Set	Y900159	
Pack of 12		
MODEL	ORDER CODE	

**Oil Absorber Sheet** • Pack of 10

U433135



# iClave plus EN 13060 : Class B

# The iClave's copper chamber improves efficiency and capacity.

Air turbines, contra-angles, and other dynamic dental instruments consist of high-precision micro mechanisms and therefore benefit from careful sterilization to maintain performance. NSK chose to use a highly conductive copper chamber to satisfy Class B, Europe's strictest sterilization standard. The system delivers outstanding efficiency despite its large capacity.

Advantages

- More capacity
- Faster sterilization
- More efficient drying phase
- More economical and environmentally friendly
- Gentle handpieces sterilization



#### Improved Capacity

The iClave plus can fully use its 17.5 litre capacity because it maintains even temperatures throughout the autoclave chamber and constantly controls the surface temperature.

High efficiency copper chamber improves total cycle times for faster throughput, saving time and money.

# The copper chamber's superior thermal conductivity delivers outstanding performance

#### **Copper Chamber**

Using copper to construct the chamber gives 17.7 times more heat conductivity than stainless steel. The copper chamber retains even internal temperature levels throughout, enhancing the drying performance, helping protect instruments from corrosion, discolouration and damage.

#### Adaptive Heat System

Advanced heating system leveraging excellent thermal conductivity

NSK's innovative heating system optimizes the high heat conductivity of copper. Enveloping the copper chamber is a special heater which is also used in satellites, incorporating electro-thermal material embedded in silicone to heat the entire chamber evenly without heat loss.





CLASS B









# Advanced safety and durability through user-friendly functions.

#### Vacuum sterilization for all types of instrument

A vacuum pump removes air from the chamber and handpiece cavities before sterilization.

#### Bacterial ventilates for greater safety

The iClave plus ventilate air through a bacterial filter during the drying phase, eliminating the possibility of re-contamination.



#### Designed to boost product reliability

Consistent temperatures inside the chamber eliminate fluctuation stresses and reduce the risk of problems. NSK initially reviewed product reliability to ensure safe treatment. There are three temperature sensors to control temperatures in the iClave plus. An annual maintenance service alert helps prevent breakdowns and boosts product reliability.

#### Stainless steel body enhances durability

The stainless steel body work, which is rare for an autoclave these days, makes iClave plus more robust. Together with the copper chamber it delivers outstanding durability.

#### Constantly monitoring working parameters for safe operation

The process evaluation system constantly monitors pressure, temperature, water quality and steam. Additional features include cycle counter, altitude set-up, maintenance monitoring, triple safety lock, auto switch-off, and double water tank.

#### User-friendly, easy to read operating panel

With a sophisticated design and excellent visibility, the panel is easy to operate and maintain, with colors changing according to conditions, enhancing sterilization reliability.

[Text colors] White: Selection screen Green: Sterilization complete Red: Error



#### Sterilization cycle data recording

All sterilization cycles are recorded on a USB flash drive, and no special software is required to view and print records of all cycles. The system records all relevant cycle parameters against a unique date and time stamp.



#### iClave plus Complete Set

MODEL	ORDER CODE
iClave plus 230 V	Y1003077
Technical characteristics	
External dimensions : W 44     Chamber dimensions : @24(	
External dimensions : W 44	0 x 384 mm
• External dimensions : W 44 • Chamber dimensions : ø240	0 x 384 mm
• External dimensions : W 44 • Chamber dimensions : ø240 • Chamber capacity : 17.5 litr	0 x 384 mm 'e

Air expulsion system : Vacuum pump 2, 3, 4 vacuum
 Max load : 4 kg (solid), 1.5 kg (porous)
External dimensions exclude protrusions.

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 SPECIAL
 105-135°C
 3-90 min
 2-4 vacuum

 • Bowie & Dick : 134°C / 3.5 min / 3 vacuum • Vacuum test : 20 min
 \*1 small load : included hollow instruments type A and B (MAX 0.5 kg)

134°C

121°C

134°C

134°C

134°C

134°C

121°C

PROGRAMS

2 DELICATE

4 SMALL LOAD\*

6 CRITICAL 134°C

7 CRITICAL 121°C

3 FLASH

5 PRION

# **Optional Accessories**

#### **Sealer Newseal**

With high output, easily and automatically seals envelopes before sterilization.

Self adjusting sealing from 10 mm
 Retracting blade cutter • Reel holder
 Visual and acoustic seal indication
 Pre-set for wall attachment

MODEL



Sealer Newseal Z1279



### **Regenerating Tabs**

A special effervescent tablet for cleaning the chamber. Placed inside the chamber, it removes limescale and dirt residue from the chamber upon activating the cycle.



### Barcode Label Writer

Increases traceability levels by combining sterile instruments and patients.

Barcode Label Writer Z1281



RAMETERS		CLASS
5 min	3 vacuum	В
20 min	3 vacuum	В
3 min	2 vacuum	S
4 min	3 vacuum	В
18 min	3 vacuum	В
5 min	4 vacuum	В
20 min	4 vacuum	В
3-90 min	2-4 vacuum	-



### Kit Wifi

Device for storing the sterilization cycles' data on an external memory and send to any PC, tablet or smartphone via WIFI connection.

MODEL	ORDER CODE	
Kit Wifi	599011	

### Helix Test

Helix Test allows you to verify steam penetration into hollow instruments. Includes a tester and 250 indicators.

MODEL	ORDER CODE
Helix Test	9900059



### Purity

High quality water is essential for sterilisation. This customised RO unit fits on top of the iCare plus automatically filtering water from the mains supply.

MODEL	ORDER CODE	
Purity	Z1284	

# **PANA SPRAY Plus**

PANA SPRAY Plus is a specially formulated, highly effective general handpiece and air motor lubricant. Frequent application of PANA SPRAY Plus will assure handpiece and air motor performance and durability. Apply PANA SPRAY Plus every time before autoclaving any handpiece or air motor.

MODEL	ORDER CODE	
PANA SPRAY Plus	Z182100	<ul> <li>For high &amp; low speed handpieces, and air motors</li> <li>500 mL • Alcohol-based lubricant</li> </ul>
PANA SPRAY Plus Package	Y900630	PANA SPRAY Plus pack of 6
MODEL	ORDER COD	E
Tip Nozzle	Z020201	



### PANA SPRAY Plus Nozzles



MODEL	ORDER CODE
Phatelus Spray Nozzle	P183090
<ul> <li>For high speed attachments and air motors which attach to Phatelus and Mach couplings</li> </ul>	
KVNozzle	Z090051
• For KaVo <sup>®</sup> Multiflex <sup>®</sup>	
SR Nozzle	Z090052
• For Sirona® Quick coupling	
WH Nozzle	Z090054
<ul> <li>For W&amp;H<sup>®</sup> Roto Quick<sup>®</sup></li> </ul>	
BA Nozzle	Z090053
<ul> <li>For Bien Air<sup>®</sup> UNIFIX<sup>®</sup></li> </ul>	
E-Type Spray Nozzle	Z019090
For E-Type* attachments	
F-Type Spray Nozzle	Z256090
For ENDO-MATE TC2 / DT2 & iSD900 heads	

\* E-Type : Conformable to ISO 3964.

## Multi Stands ISSE NSK Multi Stand is the convenient way

NSK Multi Stand is the convenient way to organize and store NSK high and low speed handpieces and heads. Autoclavable at 135°C.





MODEL ORDER CODE
Multi Stand Complete 2036

For NSK high speed and low speed attachments

• 3 x adaptor A • 2 x adaptor C

Multi Stand for

MODEL

Phatelus

### Multi Stand Handpiece Adaptors

MODEL	ORDER CODE		
Adaptor A	Z036201	<u>I</u> II	For high speed handpied
Adaptor B	Z036202	ĮĮ.	• For E-Type* low speed h
Adaptor C	Z036203	Į.	For Phatelus and Mach c
Adaptor KV	Z036204	<u>H</u>	• For KaVo® Multiflex®
Adaptor SR	Z036205	1	• For Sirona® Quick Coup
Adaptor WH	Z036207		• For W&H® Roto Quick®
Adaptor BA	Z036206	<u>H</u>	• For Bien Air® UNIFIX®
Adaptor F	Z036209		For ENDO-MATE TC2 / E

# Spray Mist Absorber

A convenient way to contain mist spray from escaping into the environment. Simply insert the handpiece into the absorber pack then apply the spray lubricant.

MODEL	ORDER CODE
Spray Mist Absorber	Y900084
• Pack of 10	





ORDER CODE **Z036002** 



eces and Phatelus air motors
handpieces and Phatelus air motor heads
couplings
bling

2 / DT2 & iSD900 heads

\* E-Type : Conformable to ISO 3964.

# **Spare Parts and Accessories**

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Specifications are subject to change without notice.

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