

HYGIENE & MAINTENANCE

iCare+ / iCare / iClave plus / iClave mini / PANA SPRAY Plus

NSK

CREATE IT.

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.

Index

iCare+	P 03-06
iCare	P 07-10
iClave plus	P 11-16
iClave mini	P 17-18
PANA SPRAY Plus	P 19-20
Product Summery	P 21
Spare parts and Accessories	P 22

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+.

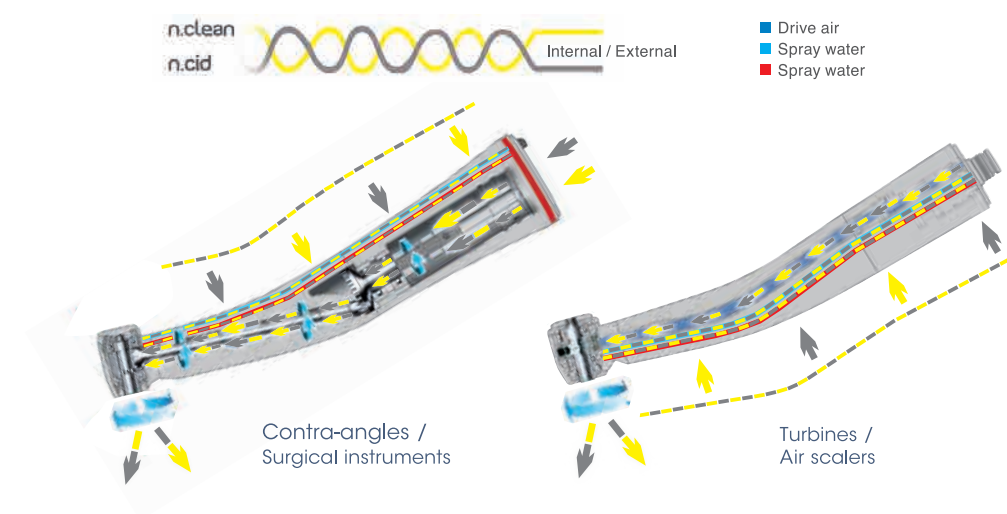
Advantages

- 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 accredited 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+'s medical device which are a protocol, an analyse method and a result of certification.

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 transferred 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 at the end of has been completed



iCare+

iCare+ Complete Sets

Dual standard ports + Dual rotation ports
MODEL : iCare+ C2 ORDER CODE : S102001

Single standard port + Triple rotation ports
MODEL : iCare+ C3 ORDER CODE : S103001

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

Specifications :	
• Power Supply : AC 100-230 V 50/60 Hz	• Dimension : W 400 x D 405 x H 355 (mm)
• Capacity : up to 4 instruments	• Capacity of the oil tank : 500 mL
• Air Pressure : 0.5-0.6 MPa (5.0-6.0 kgf/cm²)	• Capacity of the bottles for the cleaning and isinfection product : 500 mL
• Weight : 14 kg	

*Connects only to Midwest 4-hole type *Air piping is necessary (5.0-6.0 kgf/cm²)



iCare+ Adaptors

- | | | |
|----------------------------|-----------------------|---|
| MODEL : iCare+ Adaptor PTL | ORDER CODE : Z1127010 | ● For NSK high speed handpieces for PTL-CL-LED coupling |
| MODEL : iCare+ Adaptor KV | ORDER CODE : Z1127011 | ● For KaVo® high speed handpieces for MULTIflex® LUX coupling |
| MODEL : iCare+ Adaptor SR | ORDER CODE : Z1127013 | ● For Sirona® high speed handpieces for Quick coupling |
| MODEL : iCare+ Adaptor WH | ORDER CODE : Z1127012 | ● For W&H® high speed handpieces for Roto Quick coupling |
| MODEL : iCare+ Adaptor BA | ORDER CODE : Z1127014 | ● For Bien-Air® high speed handpieces for Unifix® coupling |

Check with the dealer for the adaptors to mount other manufactures' handpieces.

Pressure regulator

MODEL : Pressure regulator for iCare+ ORDER CODE : S103500

Refill Maintenance Oil

MODEL : n.Clean, 500 mL PEHD bottle (6 pcs)
ORDER CODE : ACL600



MODEL : Maintenance Oil, 1 L PEHD bottle
ORDER CODE : Z016117



MODEL : n.Cid, 500 mL PEHD bottle (6 pcs)
ORDER CODE : ACD600



iCare

Automatically Clean & 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 cleaning and 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.

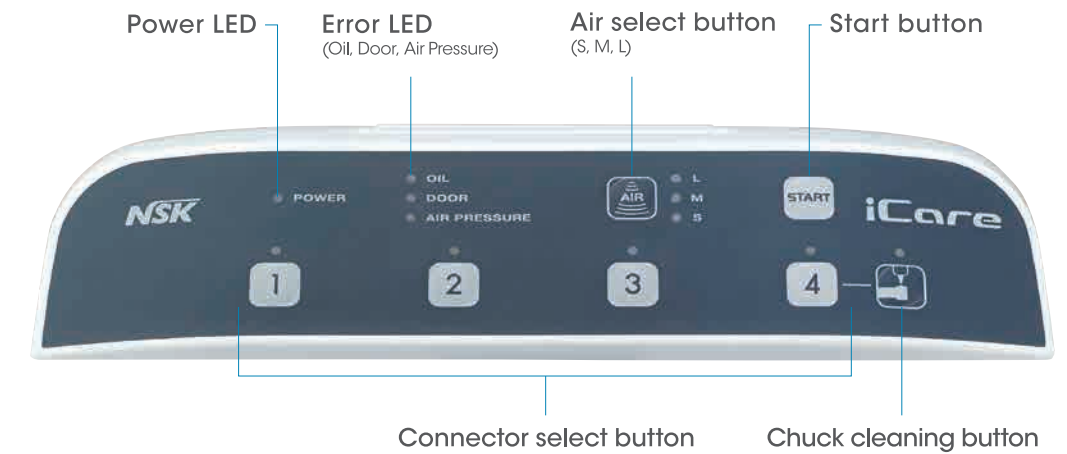
Advantages

- Preset solution volume based on handpiece type (high-speed handpieces, low-speed handpieces)
- Thorough cleaning and lubrication with simple operation
- 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 burden of refill



Ergonomic and easily readable large panel

Simple one-touch operation to start lubrication.

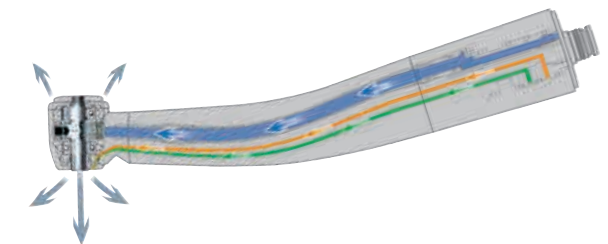


Preset proper solution volume based on handpiece type

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.

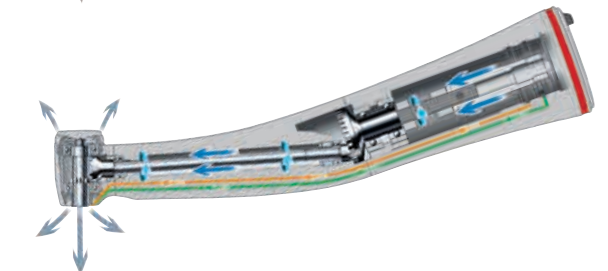
High speed handpieces

iCare meticulously cleans 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 coupling supplied. NSK high speed handpieces require the PTL adaptor. Adaptors are available for direct connection of most other brands of high speed handpieces.

Purging select mode

After lubrication, you can select from appropriate modes offering different purge lengths.



Chuck cleaning function

The chuck cleaning function completely removes dirt and cutting powder from the chuck.



HP head filter prevents mist leaks (Optional)

HP head filter is made to absorb any spray mist generated, which prevents mist leaks.



Easy to clean

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



Solution tank

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



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 quantity and an unlocked front door.

Stylish and compact

In the pursuing ultimate ease of use, NSK has given iCare the power to perform automatic maintenance for 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

iCare Complete Sets

Dual standard connectors + Dual rotation connectors
MODEL : **iCare C2 Type** ORDER CODE : **Y1002787**

Single standard connector + Triple rotation connectors
MODEL : **iCare C3 Type** ORDER CODE : **Y1002788**

- 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/cm ²)
• 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
- Air piping is necessary (5.0-6.0 kgf/cm²)
- 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 with PANA SPRAY Plus.

iCare Adaptors

MODEL : PTL Adaptor	ORDER CODE : Z257010	● For NSK high speed handpieces for PTL-CL-LED coupling
MODEL : B2/M4 Adaptor	ORDER CODE : T904	● For Borden 2 hole high speed handpieces
MODEL : KV Adaptor	ORDER CODE : Z257020	● For KaVo® high speed handpieces for MULTiflex® LUX coupling
MODEL : SR Adaptor	ORDER CODE : Z257023	● For Sirona® high speed handpieces for Quick coupling
MODEL : WH Adaptor	ORDER CODE : Z257021	● For W&H® high speed handpieces for Roto Quick coupling
MODEL : BA Adaptor	ORDER CODE : Z280022	● For Bien-Air® high speed handpieces for Unifix® coupling
MODEL : F-Type Adaptor	ORDER CODE : Z280042	● For ENDO-MATE TC2, DT heads

Check with the dealer for the adaptors to mount other manufactures' handpieces.

Refill Maintenance Oil

MODEL : **Maintenance Oil for iCare (1 bottle, 1 Liter)**
ORDER CODE : **Z016130**



MODEL : **Maintenance Oil for iCare (Pack of 6 bottles)**
ORDER CODE : **Y1002783**

MODEL : **Mist Filter Set**
ORDER CODE : **Y900159** ● Pack of 12



MODEL : **Oil Absorber Sheet**
ORDER CODE : **U433135** ● Pack of 10



iClave

Optimizing handpiece performance with the long-awaited debut of NSK's autoclave series

Even the best handpiece means nothing if you cannot use and decontaminate it safely. NSK leveraged the advanced know-how it has gained as a trusted global handpiece manufacturer to realize the potential of a handpiece friendly autoclave through the launch of the long awaited iClave series.



iClave+

iClave

iClave plus

iClave mini

PANA SPRAY Plus

iClave plus

More Safety, More Capacity

Deploying a copper chamber to match the advanced class B cycle sterilization capacity and efficiency standards

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



A 17.5 Liters model complying with the top sterilization standard

Employing a copper chamber to minimise internal temperature fluctuations. Efficiently sterilizing more instruments while minimising wasted space.

50% more capacity than conventional autoclave

The iClave plus can fully use its 17.5 Liters capacity because it maintains even temperatures throughout the autoclave chamber and constantly controls the surface temperature. The iClave plus offers 50% more sterilization space than a conventional stainless steel chamber of the same size, ensuring greater safety by reducing instrument overcrowding.



NSK autoclave benefits include combining high heat conductivity of copper chamber with proprietary heating system

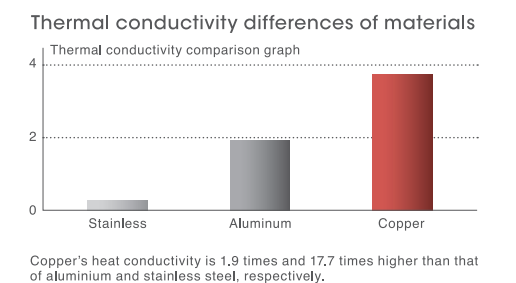


The copper chamber's superior thermal conductivity delivers outstanding performance

Copper Chamber

Highly thermal conductive copper chamber with even temperatures

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 despite its large capacity.



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.



Safety & Durability

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 filter 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 and two in the iClave mini. 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 Yellow: During operation
 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 EN 13060 : Class B

MODEL : iClave plus 230 V ORDER CODE : Y1003077

Technical characteristics

• External dimensions	: W 445 x D 585 x H 440 (mm)
• Chamber dimensions	: ø240 x 384 (mm)
• Chamber capacity	: 17,5 L
• Net weight	: 47 kg
• Maximum power consumption	: 1,920 W
• Supply voltage CE	: AC 230 V - 50/60 Hz
• Air expulsion system	: Vacuum pump 2, 3, 4 vacuum
• Max load	: 4 kg (solid), 1.5 kg (porous)

External dimensions exclude protrusions.

	Programs	Parameters			Class
1	UNIVERSAL	134°C	5 min	3 vacuum	B
2	DELICATE	121°C	20 min	3 vacuum	B
3	FLASH	134°C	3 min	2 vacuum	S
4	SMALL LOAD *1	134°C	4 min	3 vacuum	B
5	PRION	134°C	18 min	3 vacuum	B
6	CRITICAL 134°C	134°C	5 min	4 vacuum	B
7	CRITICAL 121°C	121°C	20 min	4 vacuum	B
8	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)



Optional Accessories

Sealer Newseal Plus

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

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

MODEL : Sealer Newseal Plus
ORDER CODE : Z1279



USB Data Logger

Store all cycle information directly onto a file without a paper report. The 2 GB USB drive, supplied with the USB log interface, allows storage of more than 10,000 cycles.

MODEL : USB Flash drive (2.0 GB)
ORDER CODE : Z1280



Barcode Label Writer

Increases traceability levels by combining sterile instruments and patients.

MODEL : Barcode Label Writer
ORDER CODE : Z1281



DX Labeller

Designed for fast, easy traceability. The label shows production and expiration dates, operator name, cycle number and other information.

MODEL : DX Labeller
ORDER CODE : Z1282



Helix Test

Kit to test steam penetration in handpiece cavities.

MODEL : Helix Test
ORDER CODE : Z1283



Purity

High quality water is essential to improve sterilization quality. We offer an optional automatic water supply device with a desalination feature.

MODEL : Purity
ORDER CODE : Z1284



iClave mini

The smallest and lightest in the series
A handpiece autoclave small enough to use anywhere



A handpiece autoclave from a handpiece manufacturer, complying with europe's class S sterilization standard. The iClave mini sterilizes even the invisible parts of handpieces and is completely portable to use anywhere.

Small enough to fit in any space

The iClave mini weighs only 15.5 kg. Just plug it in and start sterilizing. Its compact and elegant design makes it an ideal fit for any clinic interior.



Effective sterilization of hollow instruments

The iClave mini complies with europe's class S sterilization standard. It repeatedly de-aerates to sterilize even the inside of a handpiece.



Fast and compact but with large capacity

The new direct-heating technology around the 2.5 Liters chamber aims to work and perform like the combination of copper chamber and adaptive heat system. iClave mini is compact in size yet large in capacity while at the same time running fast and efficient cycles.



User-friendly, easy to read operating panel

With a sophisticated design and excellent visibility, the iClave mini panel is easy to operate and maintain, enhancing sterilization reliability.



A user-friendly design

The iClave mini is designed with ease of use and day-to-day maintenance in mind. The smooth, seamless design inside and out as well as with the design of the control panel make it extremely user friendly in every respect.



iClave mini EN 13060 : Class S

MODEL : iClave mini 230 V ORDER CODE : Y1003074

Smallest and lightest in the series usable anywhere

Developed exclusively for handpieces.
Portable and usable anywhere.



Technical characteristics

• External dimensions	: W 210 x D 320 x H 360 (mm)
• Chamber dimensions	: ø130 x 200 (mm)
• Chamber capacity	: 2.5 L
• Net weight	: 15.5 kg
• Maximum power consumption	: 750 W
• Supply voltage CE	: AC 230 V - 50 Hz
• Air expulsion system	: Pressure deaeration
• Max load	: 1 kg (solid), 0.5 kg (porous)

External dimensions exclude protrusions.

PROGRAMS		PARAMETERS		CLASS
1	134°C solid	134°C	4 min	S
2	134°C porous	134°C	14 min	S
3	121°C solid	121°C	20 min	S
4	121°C porous	121°C	30 min	S

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 : PANA SPRAY Plus ORDER CODE : Z182100

● For high & low speed handpieces, and air motors ● 500 mL ● Alcohol-contained lubricant

MODEL : PANA SPRAY Plus Package ORDER CODE : Y900630

● PANA SPRAY Plus pack of 6

MODEL : Tip Nozzle ORDER CODE : Z020201



PANA SPRAY Plus Nozzles



			MODEL : Phatelus Spray Nozzle ORDER CODE : P183090	● For high speed attachments and air motors which attach to Phatelus and Mach couplings
			MODEL : KV Nozzle ORDER CODE : Z090051	● For KaVo® MULTIflex® LUX
			MODEL : SR Nozzle ORDER CODE : Z090052	● For Sirona® Quick coupling
			MODEL : WH Nozzle ORDER CODE : Z090054	● For W&H® Roto Quick
			MODEL : BA Nozzle ORDER CODE : Z090053	● For Bien-Air® Unifix®
			MODEL : E-Type Spray Nozzle ORDER CODE : Z019090	● For E-Type® attachments
			MODEL : F-Type Spray Nozzle ORDER CODE : Z256090	● For ENDO-MATE TC2 / DT & iSD900 heads

* E-Type : Conformable to ISO 3964.

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 : Spray Mist Absorber ORDER CODE : Y900084

● Pack of 10



Multi Stands



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



MODEL : Multi Stand Complete ORDER CODE : Z036

● For NSK high speed and low speed attachments



MODEL : Multi Stand for Phatelus ORDER CODE : Z036002

● 3 × Adaptor A ● 2 × Adaptor C



Multi Stand Handpiece Adaptors



	MODEL : Adaptor A ORDER CODE : Z036201		MODEL : Adaptor SR ORDER CODE : Z036205
● For high speed handpieces and Phatelus air motors		● For Sirona® Quick Coupling	
	MODEL : Adaptor B ORDER CODE : Z036202		MODEL : Adaptor WH ORDER CODE : Z036207
● For E-Type® low speed handpieces and Phatelus air motor heads		● For W&H® Roto Quick	
	MODEL : Adaptor C ORDER CODE : Z036203		MODEL : Adaptor BA ORDER CODE : Z036206
● For Phatelus and Mach couplings		● For Bien-Air® Unifix®	
	MODEL : Adaptor KV ORDER CODE : Z036204		MODEL : Adaptor F ORDER CODE : Z036209
● For KaVo® MULTIflex® LUX		● For ENDO-MATE TC2 / DT & iSD900 heads	

* E-Type : Conformable to ISO 3964.

Product Summery

Maintenance

iCare+



Cleaning, Disinfecting and Lubricating

iCare



Cleaning and Lubricating

Sterilization

iClave plus



EN 13060: Class B

iClave mini



EN 13060: Class S

Lubricant Spray

PANA SPRAY Plus



Organizer

Multi Stand



Spare parts and Accessories

iCare+

MODEL : E-type O-ring joint
ORDER CODE : 0312074080



MODEL : Blister pack
ORDER CODE : S103106



iCare

MODEL : Air Filter
ORDER CODE : U508352



MODEL : Chuck Cleaning Nozzle
ORDER CODE : Z257301



HP Head Filter (Pack of 200)
ORDER CODE : U1120118

