Instructions for use

MASTERtorque LUX M9000 L - 1.008.7900
MASTERtorque LUX M9000 LS - 1.008.5400

KAVO
Dental Excellence

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CE 0124

Table of contents

1 User instructions

Dear User
Congratulations on purchasing this KaVo quality product. By following the instructions below you will be able to work smoothly, economically and safely.

KaVo Original Factory Repair

In the event of a repair, please ship your product to the KaVo Original Factory Repair using www.kavobox.com.

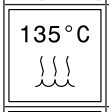
KaVo Technical Service
If you have any questions or complaints, please contact the KaVo Technical Service:
+49 (0) 7351 56-1000
service.instrumente@kavokerr.com

Target group

The instructions for use are intended for medical professionals, in particular dentists and office personnel.

The section on startup is also intended for the service staff.

General marks and symbols

	See Chapter on User Instructions/Hazard Levels
	Important information for users and service technicians
▶	Action request
CE	CE mark (European Community). A product bearing this mark meets the requirements of the applicable EC directive.
	Can be steam-sterilised at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F)
	Thermodisinfectable

Information on the packaging

REF	Material number
SN	Serial number
	Legal Manufacturer
CE 0124	CE mark according to Medical Devices Directive EC 93/42
	Please note the electronic instructions for use
	Note: Please note accompanying documents
EAC	EAC conformity mark (Eurasian Conformity)
	GOST R certification
°C	Transportation and storage conditions (Temperature range)
hPa	Transportation and storage conditions (Air pressure)
%	Transportation and storage conditions (Humidity)
	Protect from moisture!
	Protect from impact
	HIBC Code

Hazard levels

The warning and safety notes in this document must be observed to prevent personal injury and material damage. The warning notes are designated as shown below:

⚠ DANGER

In cases which – if not prevented – directly lead to death or severe injury.

⚠ WARNING

In cases which – if not prevented – can lead to death or severe injury.

⚠ CAUTION

In cases which – if not prevented – can lead to minor or moderate injury.

NOTICE

In cases which – if not prevented – can lead to material damage.

2 Safety

The instructions for use are a component of the product and must be read carefully prior to use and be accessible at all times.
The device may only be used in accordance with the intended use, any other type of use is not permitted.

2.1 Infection hazard

Patients, users or third parties could be infected by contaminated medical devices.

- Take suitable personal protective measures.
- Follow the instructions for use of the components.
- Before initial startup and after each use, reprocess the product and accessories appropriately.
- Carry out the reprocessing as described in the instructions for use. The procedure has been validated by the manufacturer.
- If you deviate from this procedure, it is essential to make sure that the reprocessing is effective.
- Reprocess the product and accessories appropriately before disposal.
- If there is any injury to soft tissue, do not continue treatment in the oral cavity with compressed air-driven instruments.
- Use gloves or finger guard whenever you test, insert, and remove the tool.

2.2 Improper use

The improper use of the device could lead to burns or injuries.

- Never touch soft tissue with the handpiece head or instrument cover.
- Do not use the medical device as a light probe.
- Use an appropriate light probe for illumination of the oral cavity or site of preparation.
- After treatment, place the medical device properly in the cradle without the tool.

During the preparation of abutments, heat transmission can cause thermal damage to the jawbone.

- During the preparation of abutments, make sure that the preparation times are short and that there is sufficient cooling.

2.3 Technical condition

A damaged device or components could injure patients, users and third parties.

- Only operate devices or components if they are undamaged on the outside.
- Check that the device is working properly and is in satisfactory condition before each use.
- Have parts with sites of breakage or surface changes checked by the Service.
- If the following defects occur, stop working and have the service personnel carry out repair work:
  - Malfunctions
  - Damage

- Irregular running noise
- Excessive vibration
- Overheating
- Dental bur is not seated firmly in the handpiece

Observe the following instructions in order to guarantee optimum functioning and prevent material damage:

- Service the medical device with care products and systems regularly as described in the instructions for use.
- The device should be reprocessed and stored in a dry location, according to instructions, if it is not be used for a longer period.

2.4 Accessories and combination with other equipment

Use of un-authorised accessories or un-authorised modifications of the device could lead to injury.

- Only use accessories that have been approved for combination with the product by the manufacturer.
- Only use accessories that are equipped with standardised interfaces.
- Do not make any modifications to the device unless these have been approved by the manufacturer of the product.

2.5 Qualification of personnel

Application of the product by users without the appropriate medical training could injure the patients, the users or third parties.

- Make sure that the user has read and understood the instructions for use.
- Only employ the device if the user has the appropriate medical training.
- Observe national and regional regulations.

2.6 Service and repair

Repairs, servicing and safety checks may only be performed by trained service personnel. The following persons are authorised to do this:

- Service technicians of KaVo branches after the appropriate product training
- Service technicians of KaVo authorised dealers after the appropriate product training

Observe all the following items during servicing work:

- Have the service and testing tasks carried out according to the Medical Device Operator Ordinance.
- After servicing, interventions on and repairs of the device and before reuse, have the service personnel perform safety checks on the device.
- Following expiry of the warranty, have the tool holding system checked once a year.
- KaVo recommends specifying in-house service intervals where the medical device is brought to a professional shop for cleaning, servicing and a function check. Define the service interval depending on the frequency of use.

As a result of the use of NON-KaVo original spare parts during the repair, parts such as covers may become undone and injure the patient, user or other people. This may result in aspiration, swallowing of parts and possibly even a risk of suffocation.

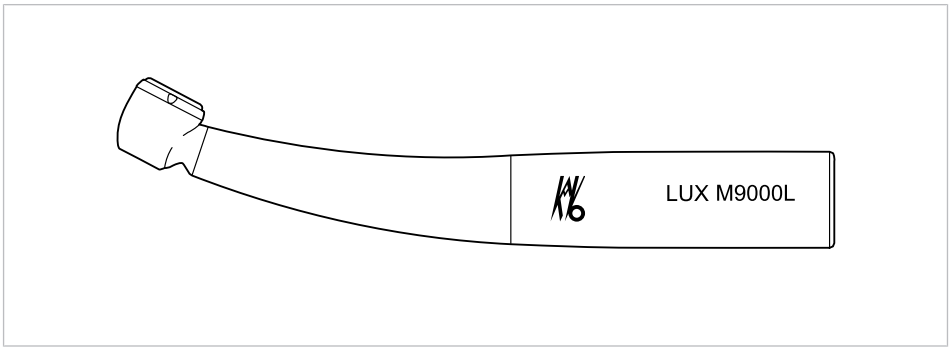
- Only use spare parts that comply with the specification for repair; original KaVo spare parts comply with the specification.

Note

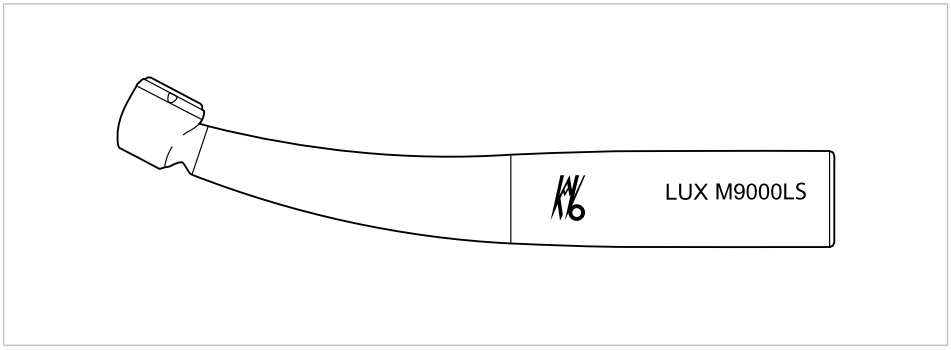
If a repair is done with NON-KaVo original spare parts, this may constitute a product modification that leads to the loss of CE conformity. In the event of damage, the responsibility is with the service company or the operator.

The introduction into the market of a modified product, where there is reasonable suspicion that the safety and health of patients or users may be jeopardised, is prohibited by the German medical device law §4, section 1 no. 1 and requires a separate conformity check.

3 Product description



MASTERtorque LUX M9000 L (**Mat. no. 1.008.7900**)



MASTERtorque LUX M9000 LS (**Mat. no. 1.008.5400**)

3.1 Purpose – Proper use

Indications for use:

This medical device is:

- Intended for dental treatment only. All other types of use of or modifications to the product are not permitted and can be hazardous
- The medical device is intended for the following applications:
  - Removal of carious material
  - Removal of fillings
  - Processing of tooth and restoration surfaces
  - Cavity and crown preparations
- A medical device according to relevant national statutory regulations

Proper use:

According to these regulations, this product may only be used for the described application by a properly trained user. You need to comply with the following:

- the applicable health and safety regulations
- the applicable accident prevention regulations
- these Instructions for use

According to these regulations, the user is required:

- to only use equipment that is operating correctly
- adhere to the specified intended use
- to protect him or herself, the patient and third parties from hazards
- to prevent contamination from the product

3.2 Technical Specifications M9000 L

Drive pressure	2.1 to 4.2 bar (30 to 61 psi)
Recommended drive pressure	2.8 bar (41 psi)
Return air pressure	< 0.5 bar (7 psi)
Spray water pressure	0.8 to 2.5 bar (12 to 36 psi)
Spray air pressure	1.0 to 2.5 bar (15 to 36 psi)
Air consumption	42 to 48 Nl/min
Idle speed	340,000 to 400,000 min^{-1}
Recommended application force	2 to 3 N
Insert	dental burs and diamond grinders in accordance with DIN EN ISO 1797 type 3
Can be attached to	All MULTIflex couplings

3.3 Technical Specifications M9000 LS

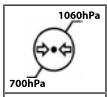
Drive pressure	2.6 to 3.0 bar (38 to 44 psi)
Recommended drive pressure	2.7 bar (39 psi)
Return air pressure	< 0.3 bar (4 psi)
Spray water pressure	0.8 to 2.5 bar (12 to 36 psi)
Spray air pressure	1.0 to 2.9 bar (15 to 42 psi)
Air consumption	42 to 48 Nl/min
Idle speed	340,000 to 400,000 min^{-1}
Recommended application force	2 to 3 N
Insert	dental burs and diamond grinders in accordance with DIN EN ISO 1797 type 3
Can be attached to	All Sirona quick couplings

3.4 Transportation and storage conditions

NOTICE

Startup after refrigerated storage.
Malfunction.
- Prior to startup, strongly refrigerated products must be allowed to warm up to a temperature of 20 °C to 25 °C (68 °F to 77 °F).

	Temperature: -20 °C to +70 °C (-4 °F to +158 °F)
	Relative humidity: 5% RH to 95% RH absence of condensation

	Air pressure: 700 hPa to 1060 hPa (10 psi to 15 psi)
	Protect from moisture (Keep dry)

4 Start up and shut down

⚠ WARNING

Hazard from non-sterile products.

Infection hazard for dentist and patient.

- Prior to initial startup and after each use, reprocess the product and accessories.

See also:

7 Reprocessing steps in accordance with ISO 17664, Page 22

⚠ WARNING

Dispose of the product in appropriate manner.

Infection hazard.

- Reprocess and sterilise the product and accessories before disposal.

See also:

7 Reprocessing steps in accordance with ISO 17664, Page 22

NOTICE

Damage from soiled and moist cooling air.

Contaminated and moist cooling air can cause malfunctions.

- Make sure that the supply of cooling air is dry, clean, and uncontaminated according to EN ISO 7494-2.

4.1 Installing the MULTIflex coupling in the M9000 L

⚠ WARNING

Detachment of the medical device during treatment.

A medical device that is not properly locked can release from the MULTIflex coupling during treatment.

- Before each use, check if the medical device is securely locked onto the MULTIflex coupling.

- Screw the MULTIflex coupling onto the turbine hose and tighten it with the wrench **Mat. no. 0.411.1563**.

- Rotate the spray ring on the MULTIflex coupling in order to regulate the water supply.

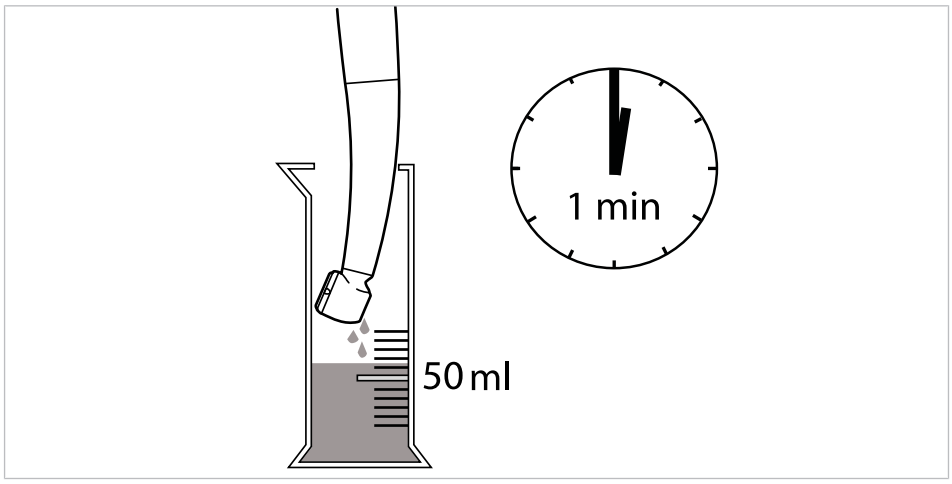
4.2 Checking the amount of water

⚠ CAUTION

Overheating of the tooth due to insufficient amount of cooling water.

Insufficient spray water can cause the medical device to overheat and damage the pulp and tooth.

- Adjust the water amount for the spray cooling to a minimum of 50 ml/min (3.1 inch^3).
- Check spray water channels and if necessary clean spray nozzles with the nozzle needle (**Mat. no. 0.410.0921**).
- Check water filter and replace, if necessary.



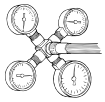
4.3 Checking the pressures, M9000 L

NOTICE

Contaminated or moist compressed air at the compressed air connection

Premature wear

- Ensure that the cooling air is dry, clean and uncontaminated in accordance with EN ISO 7494-2.



- Insert the test manometer (**Mat. no. 0.411.8731**) between the coupling and the medical device and check the following pressures:

⇨ Drive pressure, drive pressure recommended, return air pressure, spray water pressure, and spray air pressure.

See also:

3.2 Technical Specifications M9000 L, Page 12

4.4 Checking the pressures, M9000 LS

NOTICE

Contaminated or moist compressed air at the compressed air connection

Premature wear

- Ensure that the cooling air is dry, clean and uncontaminated in accordance with EN ISO 7494-2.

- Install the Sirona test manometer test star between the hose and coupling. Then plug the handpiece onto the Sirona quick coupling and check the following pressures:

⇨ Drive pressure, recommended drive pressure, return air pressure, spray water pressure, and spray air pressure.

See also:

3.3 Technical Specifications M9000 LS, Page 12

4.5 Checking the O-rings

NOTICE

Missing or damaged O-rings.
Malfunction and premature failure.
- Make sure that all O-rings are on the coupling and are undamaged.

M9000 L

Number of available O-rings: 5

M9000 LS

Number of available O-rings: 4

5 Operation

⚠ CAUTION

Heat transmission during the preparation of abutments.

Thermal damage to the jawbone.

- During the preparation of abutments, make sure that the preparation times are short and that there is sufficient cooling.

Note

At the beginning of each workday, the water-conducting systems should be rinsed for at least 2 minutes (without transmission handpieces being attached) and if there is a risk of contamination from reflux or back suction, the system may also need to be rinsed for 20 to 30 seconds after each patient.

5.1 Attaching the medical device, M9000 L

⚠ WARNING

Detachment of the medical device during treatment.

A medical device that is not properly locked can release from the MULTIflex coupling during treatment.

- Before each use, check if the medical device is securely locked onto the MULTIflex coupling.

NOTICE

Inaccurate coupling can destroy the high-pressure lamp or the LED of the coupling or reduce its service life.

- Make sure that the turbine is accurately coupled and firmly seated on the coupling.

- Precisely attach the medical device to the MULTIflex coupling and push it to the rear until the coupling audibly locks in the medical device.
- Pull on the medical device to make sure that it is securely affixed to the coupling.

5.2 Attaching the medical device, M9000 LS

⚠ WARNING

Release of the medical device during treatment.

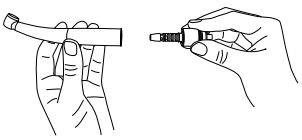
A medical device that is not properly locked can release from the Sirona quick coupling during treatment.

- Before each use, check if the medical device is securely locked onto the Sirona quick coupling.

NOTICE

Inaccurate coupling can destroy the high-pressure lamp or the LED of the coupling or reduce its service life.

- Make sure that the turbine is accurately coupled and firmly seated on the coupling.



- Precisely attach the medical device to the Sirona quick coupling and push is to the rear until the coupling audibly locks in the medical device.

- Pull on it to make sure that the medical device is securely affixed to the coupling.

5.3 Removing the medical device

- Grasping the coupling, twist the medical device slightly and pull it off.

5.4 Inserting the dental bur

Note

Only use carbide cutters or diamond grinders that correspond to DIN EN ISO 1797 type 3, are made of steel or hard metal and meet the following criteria:
- Shaft diameter: 1.59 to 1.60 mm (0.0626 in to 0.0629 in)
- Overall length: max. 25 mm
- Shaft clamping length: at least 11 mm
- Blade diameter: max. 2 mm (0.0787 in)

⚠ WARNING

Use of non-approved dental burs.

Injury to the patient or damage to the medical device.
- Comply with the instructions for use and the intended use of the dental bur.
- Only use dental burs that do not deviate from the specified data.

⚠ CAUTION

Dental bur with worn or damaged shafts.

Risk of injury, dental bur may fall out during treatment.
- Never use a dental bur with damaged or worn shafts.

⚠ CAUTION

Contaminated, sharp-edged dental bur.

Infections or cuts.
- Use gloves or a finger guard when you test, insert and remove the dental bur.

⚠ CAUTION

Defective clamping system.

Risk of injury, dental bur may fall out during treatment.
- Pull on the dental bur to check if the clamping system works properly and if the dental bur is firmly clamped.

NOTICE

Dental bur with worn or damaged shafts.

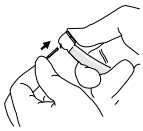
Material damage to the chuck system, dental bur is difficult or impossible to remove from the chuck system.
- Never use a dental bur with damaged or worn shafts.

NOTICE

Tool shaft slips inside the chuck due to excessive speed of the tool or abrupt engagement of the tool.

Material damage to tool shaft and chuck system, reduction of the service life of tool and chuck system.

- Do not operate the tool at a higher speed than recommended by the manufacturer.



- Forcefully press on the push button with your thumb and simultaneously insert the dental bur to the bur stop.

- Check if the dental bur is seated securely by pulling on it.

5.5 Removing the dental bur

⚠ WARNING

Hazard due to rotating dental bur.

Cuts, infection and burn injury.

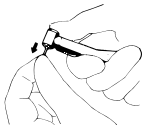
- Never push the press-button while the dental bur is rotating.
- Do not touch the dental bur while it is rotating.
- Never touch soft tissue with the handpiece head or instrument cover.
- Remove the dental bur from the contra-angle handpiece after treatment to avoid injury and infection during storage.

NOTICE

Damage to the chucking system.

Material damage.

- Never push the push-button while the dental bur is rotating.



- After the dental bur has stopped rotating, press the push-button down with your thumb and simultaneously remove the dental bur.

6 Troubleshooting

⚠ WARNING

Repair WITHOUT using KaVo original spare parts.

Parts such as the cover can come loose and cause injury.

Aspiration, swallowing of parts and danger of suffocation.

- Only use spare parts that comply with the specification for repair; original KaVo spare parts comply with the specification.

Note

If a repair is done with NON-KaVo original spare parts, this may constitute a product modification that leads to the loss of CE conformity. In the event of damage, the responsibility is with the service company or the operator.

The introduction into the market of a modified product, where there is reasonable suspicion that the safety and health of patients or users may be jeopardised, is prohibited by the German medical device law §4, section 1 no. 1 and requires a separate conformity check.

6.1 Changing the O-rings on the MULTIflex coupling, M9000 L

NOTICE

Improper care of the O-rings.

Malfunction or complete failure.

- Do not use Vaseline or other grease or oil.

Note

The O-rings on the coupling may only be lubricated with a cotton ball wetted with KaVo Spray.

- Press the O-ring between your fingers to form a loop.
- Push the O-ring to the front, and remove it.
- Insert new O-rings into the grooves.

6.2 Changing the O-rings on the Sirona quick coupling, M9000 LS

NOTICE

Improper care of the O-rings

Malfunction or complete failure.

- Observe the instructions for use of the Sirona quick coupling.

6.3 Cleaning the spray nozzle

⚠ WARNING

Hazard from contaminated products.

Infection hazard for care provider and patient.

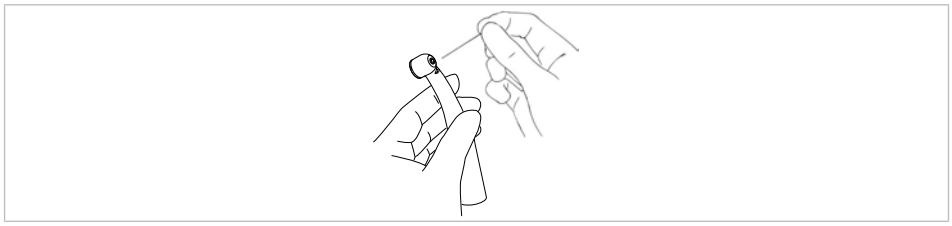
- Prior to initial commissioning and after each use, reprocess the product and accessories.

⚠ CAUTION

Hazard from insufficient spray water.

Overheating of the medical device and damage to the tooth.

- Check the spray water channels and clean the spray nozzles with the nozzle needle **Mat. no. 0.410.0921** if necessary.
- Check the water filter and exchange if necessary.



6.4 Changing the water filter

⚠ WARNING

Hazard from contaminated products.

Infection hazard for care provider and patient.

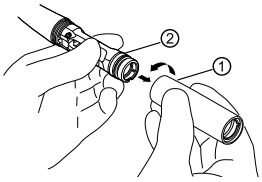
- Prior to initial commissioning and after each use, reprocess the product and accessories.

⚠ CAUTION

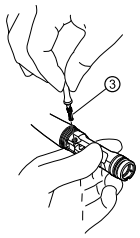
Overheating of the tooth due to insufficient amount of cooling water.

Insufficient spray water can cause the medical device to overheat and damage the pulp and tooth.

- Check the water filter and replace it, if needed.
- Check spray water channels and if necessary clean spray nozzles with the nozzle needle (**Mat. no. 0.410.0921**).



- Unscrew the sleeve ① in counterclockwise direction from the insert ② and pull it off.



- Unscrew the water filter ③ with the wrench (Mat. no. 1.002.0321) and take it out

- Insert the new filter (Mat. no. 1.002.0271) and screw it in with the wrench
- Place the sleeve ① on the insert ②, and screw it tight in clockwise direction.

7 Reprocessing steps in accordance with ISO 17664

7.1 Preparations at the site of use

⚠ WARNING

Hazard from contaminated products.

Contaminated products are associated with an infection hazard.

- ▸ Take suitable personal protective measures.

⚠ WARNING

Sharp tool in the medical device.

Injury hazard from sharp and/or pointed tool.

- ▸ Remove the tool.

- ▸ Reprocess the medical device as soon as possible after treatment.
- ▸ The medical device must be dry when transported to reprocessing.
- ▸ To minimise the risk of infection during reprocessing, always wear protective gloves.
- ▸ Remove the tool from the medical device.
- ▸ Remove all residual cement, composite or blood immediately.
- ▸ Do not place in solutions or similar substances.

7.2 Manual Reprocessing

⚠ WARNING

Sharp tool in the medical device.

Injury hazard from sharp and/or pointed tool.

- ▸ Remove the tool.

NOTICE

Never reprocess this medical device in an ultrasonic cleaner.

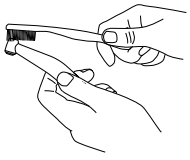
Malfunction and material damage.

- ▸ Clean manually or in a washer disinfector only.

7.2.1 Manual cleaning - external

Required accessories:

- Tap water 30°C ± 5°C (86°F ± 10°F)
- Brush such as a medium hard toothbrush



- ▸ Brush off under flowing tap water.

7.2.2 Manual cleaning - internal

Validated internal cleaning (removal of residual protein) can be accomplished with KaVo CLEANspray.

- ▸ Cover the medical device with the KaVo Cleanpac bag, and place it on the corresponding care adapter.

- Hold the can vertically.
- Press the spray button three times for 2 seconds each time.
- Remove the medical device from the spray attachment and let the cleanser act for 1 minute.

See also:
KaVo CLEANspray Instructions for Use

- If a manual external and internal disinfection do not follow directly, dry the medical device with KaVo DRYspray.

See also:
7.2.5 Manual drying, Page 24

7.2.3 Manual external disinfection

⚠ WARNING

Incomplete disinfection.

Infection hazard.

- Only use disinfection procedures that are verified to be bactericidal, fungicidal and virucidal.
- If the disinfectants used do not meet these requirements, the process must be concluded by disinfection of the unit(s) without packaging using a steam steriliser.

NOTICE

Never disinfect the medical device with chloride-containing products.

Malfunction and material damage.

- Only disinfect in a washer disinfector or manually.

KaVo recommends the following products based on compatibility of the materials. The microbiological efficacy must be ensured by the disinfectant manufacturer and proven by an expert opinion.

Approved disinfectants:

- CaviWipes and CaviCide made by Metrex (intermediate disinfection)
- Mikrozid AF made by Schülke & Mayr (liquid or cloths)
- FD 322 made by Dürr

Consumables required:

- Cloths for wiping the medical device.

- Spray the disinfectant on a cloth, then wipe down the medical device and allow the disinfectant to act according to the instructions of the disinfectant manufacturer.
- Follow the instructions for use of the disinfectant.

7.2.4 Manual disinfection - internal

⚠ WARNING

Incomplete disinfection.

Infection hazard.

- Only use disinfection procedures that are verified to be bactericidal, fungicidal and virucidal.
- If the disinfectants used do not meet these requirements, the process must be concluded by disinfection of the unit(s) without packaging using a steam steriliser.

NOTICE

Never disinfect the medical device with chloride-containing products.

Malfunction and material damage.

- Only disinfect in a washer disinfector or manually.

The efficacy of manual internal disinfection must be demonstrated by the manufacturer of the disinfection agent. With KaVo products, use only disinfection agents that have been released by KaVo with respect to the compatibility of materials (e.g. WL-cid / made by ALPRO).

- Cover the medical device with the KaVo CLEANpac bag, and place it on the corresponding care adapter.
- Hold the can vertically.
- Press the spray key for at least 3 seconds.
- Remove the medical device from the spray attachment and let the disinfectant act for 2 minutes.
- Follow the instructions for use of the disinfectant.

7.2.5 Manual drying

Use KaVo DRYspray for subsequent drying of the air, water and gear unit ducts.

- Cover the medical device with the KaVo CLEANpac bag, and place it on the corresponding care adapter.
- Hold the can vertically.
- Press the spray key for at least 3 seconds.

See also:

KaVo DRYspray Instructions for Use

- Immediately after drying, lubricate the KaVo medical device with care agents from the KaVo care system.

See also:

7.4 Care products and systems - Servicing, Page 26

7.3 Automated reprocessing

⚠ WARNING

Incomplete disinfection.

Infection hazard.

- Only use disinfection procedures that are verified to be bactericidal, fungicidal and virucidal.
- If the disinfectants used do not meet these requirements, the process must be concluded by disinfection of the unit(s) without packaging using a steam steriliser.

⚠ WARNING

Sharp tool in the medical device.

Injury hazard from sharp and/or pointed tool.

- Remove the tool.

NOTICE

Never disinfect the medical device with chloride-containing products.

Malfunction and material damage.

- Only disinfect in a washer disinfector or manually.

NOTICE

Never reprocess this medical device in an ultrasonic cleaner.

Malfunction and material damage.

- Clean manually or in a washer disinfector only.

7.3.1 Automated internal and external cleaning and internal and external disinfection

KaVo recommends washer disinfectors according to EN ISO 15883-1, which are operated using alkaline cleaning agents having a maximum pH value of 10. The validation was performed in a Miele washer disinfector using the "VARIO-TD" program, the "neodisher mediclean" cleaning agent, the "neodisher Z" neutralizer, and the "neodisher mielclear" rinsing agent.

- For programme settings as well as cleansers and disinfectants to be used, please refer to the Instructions for Use of the washer disinfector.

7.3.2 Automated drying

The drying procedure is normally part of the cleaning programme of the washer disinfector.

Note

Please comply with the instructions for use of the washer disinfector.

- In order to prevent impairment of the KaVo medical device, make sure that the inside and outside of the device is dry after the end of the cycle.
- Remove any residual liquids with KaVo DRYspray.

See also:

7.2.5 Manual drying, Page 24

- Immediately after drying, lubricate the KaVo medical device with care agents from the KaVo care system.

7.4 Care products and systems - Servicing

⚠ WARNING

Sharp tool in the medical device.
Injury hazard from sharp and/or pointed tool.
- Remove the tool.

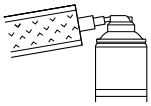
⚠ CAUTION

Improper service and care.
Risk of injury.
- Service regularly with suitable agents.

Note
KaVo guarantees the proper function of KaVo products only if the care products listed as accessories are used, since these were tested for proper use on our products.

7.4.1 Servicing with KaVo Spray

KaVo recommends servicing the product as part of the reprocessing after each use, i.e. after each cleaning, disinfection, and before each sterilisation.
- Remove the tool from the medical device.



- Cover the medical device with the KaVo CLEANpac bag, and place it on the corresponding care adapter.
- Press the spray key for 1 to 2 seconds.

Care of clamping chuck

KaVo recommends servicing the chucking system once weekly.
- Remove the tool from the medical device.

- Position the tip of the spray nipple in the opening, and apply the spray.
- Press the spray key for 1 to 2 seconds.

7.4.2 Servicing with KaVo QUATTROcare PLUS

Cleaning and servicing device with expansion pressure for internal cleaning of inorganic residues and optimum care.
(no validated cleaning of the interior according to German Robert Koch Institute (RKI) requirements)
KaVo recommends servicing the product as part of the reprocessing after each use, i.e. after each cleaning, disinfection, and before each sterilisation.
- Remove the tool from the medical device.

- Service the product in the QUATTROcare PLUS.

See also:
Instructions for use KaVo QUATTROcare PLUS

Servicing of the clamping chuck

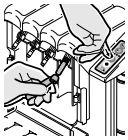
KaVo recommends servicing the chuck system once a week using the chuck servicing program integrated in the device.

Note
Handpieces must be taken off the service couplings before the chuck service can be started and performed.

- Close the front door and press the chuck service button for at least three seconds until the spray canister control LED flashes three times consecutively.

⇨ The device is in chuck service mode.

- Remove the service coupling of the chuck from the side hatch of the QUATTROcare PLUS and attach it to coupling service point four, on the far right. A MULTIflex adaptor must be mounted there.



- Press the handpiece together with the guide bush of the chuck to be serviced against the tip of the service coupling.
- Press the button marked with the chuck service symbol.

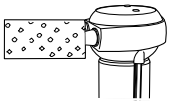
Note
Close the chuck service mode.
Option 1: Place the dental handpieces in the QUATTROcare PLUS 2124 A, close the front door and start theservice procedure.
Option 2: After three minutes with no service procedure running, the device automatically switches back to normal service mode.

See also:
Servicing with KaVo QUATTROcare PLUS

7.4.3 Care with KaVo SPRAYrotor

Note
KaVo SPRAYrotor is no longer included in the current delivery programme.
Follow-up product:
- QUATTROcare PLUS 2124 A

KaVo recommends servicing the product as part of the reprocessing after each use, i.e. after each cleaning, disinfection, and before each sterilisation.



- Cover the medical device with the Cleanpac bag, and place it on the corresponding servicing adapter on the KaVo SPRAYrotor.
- Service the product.

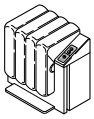
See also:
Instructions for use KaVo SPRAYrotor

7.4.4 Servicing with KaVo QUATTROcare

Note
QUATTROcare 2104 / 2104 A is no longer included in the current delivery programme.
Follow-up product:
- QUATTROcare PLUS 2124 A

Servicing and cleaning device with expansion pressure for the interior cleaning of inorganic residues and optimum care.
(no validated cleaning of the interior in accordance with German RKI requirements)
KaVo recommends servicing the product as part of the reprocessing after each use, i.e. after each cleaning, disinfection, and before each sterilisation.

- Remove the tool from the medical device.



- Service the product in the QUATTROcare.

See also:
Instructions for use KaVo QUATTROcare 2104 / 2104A / 2124A

Servicing the clamping chuck

KaVo recommends servicing the chucking system once weekly.

- Remove the tool from the medical device.

- Plug the spray nipple of the chuck servicing set onto the QUATTROcare plus Spray.
- Position the tip of the spray nipple in the opening, and apply the spray.
- Press the spray key for 1 to 2 seconds.

7.5 Packaging

Note
The sterile goods package must be large enough for the product so that the packaging is not stretched.
The quality and use of the packaging of the items to be sterilised must satisfy the applicable standards and be appropriate for the sterilisation process!

- The medical device must be packed before sterilisation.

7.6 Sterilisation

Sterilisation in a steam steriliser (autoclave) in accordance with EN 13060 / EN ISO 17665-1

⚠ CAUTION

Improper service and care.
Risk of injury.
- ▸ Service regularly with suitable agents.

NOTICE

Contact corrosion due to moisture.
Damage to product.
- ▸ Immediately remove the product from the steam steriliser after the sterilisation cycle.

The KaVo medical device has a maximum temperature resistance up to 138 °C (280.4 °F).

Sterilisation parameters:

Select a suitable procedure (depending on the available autoclave) from the following sterilisation processes:
- Steriliser with triple pre-vacuum:
  - at least 3 minutes at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F)
- Steriliser using the gravity method:
  - at least 10 minutes at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F)
- ▸ Remove the medical device immediately after the completion of the sterilisation cycle from the steriliser.
- ▸ Use according to the manufacturer's Instructions for Use.

7.7 Storage

Prepared products must be stored appropriately in a dry, dark, cool room such that they are protected from germs (as far as possible) and dust.

Note
Comply with the expiry date of the sterilised items.

8 Optional aids and consumables

Available from dental suppliers.

Material summary	Mat. No.
Spare turbine with wrench	2.000.2288
Spare turbine without wrench	2.000.2266
Wrench for cover	0.411.3053
Replacement filter	1.002.0271
Wrench for water filter	1.002.0321
INTRA instrument stand	3.005.5204
Nozzle pin	0.410.0921
Insert for turbine handpieces	0.411.9902
Cleanpac 10 units	0.411.9691
MULTIflex spray head (nozzle)	0.411.9921

Material summary	Mat. no.
Adapter KaVo MULTIflex for KaVo CLEANspray/ DRYspray	1.007.1775
CLEANspray/ DRYspray Starter set 2116 P	1.007.0573
KaVo CLEANspray 2110 P	1.007.0579
KaVo DRYspray 2117 P	1.007.0580
KaVo Spray 2112 A	0.411.9640
ROTAspray 2142 A	0.411.7520
QUATTROcare plus Spray 2140 P	1.005.4525
Chuck servicing set	1.003.1253

9 Terms and conditions of warranty

The following warranty conditions apply to this KaVo medical device:

KaVo provides the end customer with a warranty of proper function and guarantees zero defects in respect of material and processing for a period of 24 months from the date of the invoice, subject to the following conditions:
In case of justified complaints, KaVo will honour its warranty with a free replacement or repair. Other claims of any nature whatsoever, in particular with respect to compensation, are excluded. In the event of default, gross negligence or intent, this shall only apply in the absence of mandatory legal regulations to the contrary.
KaVo shall not be liable for defects and their consequences that have arisen or may arise from natural wear, improper handling, cleaning or maintenance, noncompliance with operating, maintenance or connection instructions, calcination or corrosion, contaminated air or water supplies or chemical or electrical factors deemed abnormal or impermissible in accordance with KaVo's instructions for use or other manufacturer's instructions. The warranty granted does not usually extend to lamps, light conductors made of glass and glass fibres, glassware, rubber parts, and the colourfastness of plastic parts.
All liability is excluded if defects or their consequences originate from manipulations or changes to the product made by the customer or a third party that is not authorised by KaVo.
Warranty claims will only be accepted if the product is submitted along with proof of purchase in the form of a copy of the invoice or note of delivery. The dealer, purchase date, type, and serial number must be clearly evident from this document.

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