Instructions for use

MASTERmatic LUX M25 L - 1.009.3630
MASTERmatic LUX M05 L - 1.009.3640
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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.

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All other trademarks are property of their respective owners.

Please direct all questions regarding the product, service and maintenance to the
KaVo Technical Service:
Toll-free: 1-888-ASK-KAVO (888-275-5286)
Email: techservice@kavokerr.com
Please refer to the serial number of the product in all inquiries!

For repairs, please contact KaVo Repair Service.
For scheduling or if you have any questions, please contact:
KaVo Repair Service
KaVo Dental Technologies, LLC
11727 Fruehauf Drive
Charlotte, NC 28273 USA
Toll-free Direct Customer Service: 1-888-ASK-KAVO (888-275-5286)
Email: techservice@kavokerr.com
www.kavo.com

General marks and symbols

<table>
<thead>
<tr>
<th>Mark</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
<td>See Chapter on User Instructions/Hazard Levels</td>
</tr>
<tr>
<td>i</td>
<td>Important information for users and service technicians</td>
</tr>
<tr>
<td>▶</td>
<td>Action request</td>
</tr>
<tr>
<td>135°C</td>
<td>Sterilization parameters</td>
</tr>
<tr>
<td><img src="image" alt="thermodisinfectable" /></td>
<td>Thermodisinfectable</td>
</tr>
</tbody>
</table>

Sterilization parameters
- Sterilizer with triple pre-vacuum:
  - at least 3 minutes at 135°C (275 °F)
  - Drying time: 16 min.
- Sterilizer using the gravity method:
  - at least 10 minutes at 135°C (275 °F)
  - Drying time: 30 min.
- Sterilizer using the gravity method:
  - at least 60 minutes at 121°C (250 °F)
  - Drying time: 15 min.
# Information on the packaging

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<thead>
<tr>
<th>REF</th>
<th>Catalog number</th>
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</thead>
<tbody>
<tr>
<td>SN</td>
<td>Serial number</td>
</tr>
<tr>
<td></td>
<td>Legal Manufacturer</td>
</tr>
<tr>
<td>CE</td>
<td>CE mark according to Medical Devices Directive EC 93/42</td>
</tr>
<tr>
<td></td>
<td>Please note the electronic instructions for use</td>
</tr>
<tr>
<td></td>
<td>Caution: Consult instructions for use</td>
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<td>EAC</td>
<td>EAC conformity mark (Eurasian Conformity)</td>
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<tr>
<td></td>
<td>GOST R certification</td>
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<td></td>
<td>Transportation and storage conditions (Temperature range)</td>
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<td></td>
<td>Transportation and storage conditions (Air pressure)</td>
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<tr>
<td></td>
<td>Transportation and storage conditions (Humidity range)</td>
</tr>
<tr>
<td></td>
<td>Protect from moisture (Keep dry)</td>
</tr>
<tr>
<td></td>
<td>Fragile, handle with care</td>
</tr>
<tr>
<td></td>
<td>HIBC Code</td>
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</table>

## Hazard levels

The warning and safety notes in this document must be observed to prevent personal injury and property 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 property 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 can 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, process the product and accessories appropriately.
- Carry out the processing 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 processing is effective.
- Process the product and accessories appropriately before disposal.
- In the case of injury to soft tissue, do not continue treatment in the oral cavity with instruments driven by compressed air.
- To test, use and remove the tool, use a glove or finger guard.

2.2 Improper use

Because the operation with an electric motor involves a higher torque, patients, users and other people can suffer injuries and serious burns if an instrument is damaged or used improperly.

- Check the technical condition before each use.

See also:
- 2.3 Technical condition, Page 8

- Never press the push-button during operation of the device.
- Never use the instrument to keep the cheek, tongue or lip at a distance.
- Never touch the handpiece head or handpiece lid to soft tissue.
- 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 can injure patients, users and third parties.

- Use the device and components only if there is no damage on the outside.
2 Safety | 2.4 Accessories and combination with other equipment

- Check to make sure 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
  - Bur is not seated firmly in the handpiece

To ensure optimum function and to prevent property damage, please comply with the following instructions:
- Service the medical device with care products and systems regularly as described in the instructions for use.
- The product should be processed and stored in a dry location, according to instructions, if it is not to be used for an extended period of time.

2.4 Accessories and combination with other equipment

Use of un-authorized accessories on the device or un-authorized modifications to the device can lead to injury.
- Only use accessories that have been approved for combination with the product by the manufacturer.
- Do not make any modifications to the device unless these have been approved by the manufacturer of the product.

The lack of control equipment for changing the speed range and the direction of rotation can lead to injury.
- Control facility for changing the speed and the direction of rotation must be present.
- The medical device may only be combined with a treatment centre / control unit released by KaVo.
- Comply with the Instructions for Use of the treatment center / control unit.

2.5 Qualification of personnel

Application of the product by users lacking appropriate medical training can injure the patient, the user or third parties.
- Make sure that the user has read and comprehends the instructions for use.
- Only employ the device if the user has the appropriate medical training.
- Comply with 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 authorized to do this:
- Service technicians of KaVo branches after the appropriate product training
• Service technicians of KaVo authorized dealers after the appropriate product training

Comply with the following items during all servicing work:

▶ Have the service and testing tasks carried out in accordance with the authorized personal.
▶ After servicing, interventions on and repairs of the device and before re-use, have the service personnel perform safety checks on the device.
▶ Following expiration of the warranty, have the tool holding system checked once a year.
▶ Have the medical device evaluated by a professional shop with regard to its cleaning, servicing and functional needs according to an in-house service interval. 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 jeopardized, is prohibited by the German medical device law §4, section 1 no. 1 and requires a separate conformity check.
3 Description of the product

The MASTERmatic LUX electrical-driven handpieces are dental handpieces in accordance with 21 CFR § 872.4200 (dental handpieces and accessories) for the use by a trained professional in the field of general dentistry.

The devices are electric driven handpieces that are reusable and ergonomically shaped, and provided with a fiber optic light system. The handpieces can be sterilized in a steam sterilizer (autoclave). MASTERmatic LUX handpieces equipped with a handpiece connector in accordance with ISO 3964 are connected to a treatment unit by means of a hose and the electrical motor and receive the energy for the gear, cooling water and air for conservative dental treatment as well as the light for illumination of the operation area through corresponding output openings. Dental burs in accordance with ISO 1797 must be used with the MASTERmatic LUX handpieces. Based on the INTRAmatic connection in accordance with ISO 3964 the MASTERmatic LUX handpieces fit every electrical dental motor manufactured in accordance with this standard. According to the intended use, MASTERmatic LUX handpieces interact with the patient's teeth by means of the rotating bur.
3.1 Intended use

Indications for use:

The MASTERmatic LUX handpieces are intended for the removal of carious material, reducing of hard tooth structure, cavity and crown preparations, root canal preparations, removal of fillings, processing and finishing tooth preparations, restorations, and for polishing teeth. They are designed for use by a trained professional in the field of general dentistry.

⚠️ CAUTION

US Federal law restricts this device to sale by or on the order of a healthcare professional / dentist.

For dental use only.

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

In accordance with these regulations, the user is required to:

- only use equipment that is operating properly
- adhere to the specified intended use
- protect himself or herself, the patient and third parties from danger
- avoid contamination from the product

3.2 Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive speed</td>
<td>max. 40,000 rpm</td>
</tr>
<tr>
<td>Speed transmission</td>
<td>1 : 5</td>
</tr>
<tr>
<td>Spray water pressure</td>
<td>0.8 to 2.0 bar (12 to 29 psi)</td>
</tr>
<tr>
<td>Spray air pressure</td>
<td>1.0 to 2.0 bar (15 to 29 psi)</td>
</tr>
<tr>
<td>Amount of spray air</td>
<td>min. 1.5 Nl/min (at 2 bar)</td>
</tr>
<tr>
<td>Cooling air flow</td>
<td>5.5 to 9.5 Nl/min</td>
</tr>
<tr>
<td>Push-button chuck</td>
<td>Ø 1.6 mm</td>
</tr>
</tbody>
</table>

Usable with contra-angle burs.

The contra-angle handpiece can be mounted on all INTRAmatic (LUX) motors and motors fitted with a connector in accordance with ISO 3964.

3.3 Transportation and storage conditions

- Do not store in a refrigerated environment.

Temperature: -20 °C to +70 °C (-4 °F to +158 °F)
### 3.3 Transportation and storage conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative humidity</td>
<td>5% RH to 95% RH absence of condensation</td>
</tr>
<tr>
<td>Air pressure</td>
<td>700 hPa to 1060 hPa (10 psi to 15 psi)</td>
</tr>
<tr>
<td>Protection</td>
<td>Protect from moisture (Keep dry)</td>
</tr>
</tbody>
</table>
4 Startup and shut-down

**WARNING**
Hazard from non-sterile products.
Infection hazard for dentist and patient.
- Prior to initial startup and after each use, process the product and accessories.

See also:
- 2 7 Processing steps in accordance with ISO 17664, Page 20

**WARNING**
Dispose of the product in the appropriate manner.
Infection hazard.
- Process the product and accessories before disposal.

See also:
- 2 7 Processing steps in accordance with ISO 17664, Page 20

**NOTICE**
Damage from contaminated and moist cooling air.
Contaminated and moist cooling air can cause malfunctions.
- Make sure that the supplied cooling air is dry, clean and free of contamination in accordance with ISO 7494-2.

4.1 Checking the water quantity

**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 inch³).
- Check the spray water channels and, if necessary, clean the spray nozzles with the nozzle needle (Mat. no. 0.410.0921).
- Check the water filter and replace it, if necessary.

![Image of water quantity check](image.png)
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 20-30 seconds after each patient.

5.1 Attach the medical device

WARNING

Detachment of the medical device during treatment.
A medical device that is not properly locked in place can become disconnected from the motor coupling and fall off.
▶ Carefully pull on the medical device before each treatment to make sure that it is securely locked onto the motor coupling.

NOTICE

Connection to the drive motor.
Straight or contra-angle handpiece jams.
▶ Operate the straight or contra-angle handpiece only with the chuck being closed.

NOTICE

Removing and attaching the straight or contra-angle handpiece while the drive motor is rotating.
Damage to the driver.
▶ Never attach or remove the straight or contra-angle handpiece while the drive motor is rotating.

NOTICE

Pressing the foot switch while attaching or detaching the medical device.
Property damage to the medical device.
▶ Do not connect or remove the medical device while pressing the foot switch.

▶ Lightly spray O-rings on motor coupling with KaVo Spray.

▶ Attach the medical device to the motor coupling and turn it until the guide stud audibly snaps into place.

▶ Pull on the medical device to make sure that it is securely affixed to the coupling.
5.2 Removing the medical device

▶ Unlock the medical device from the motor coupling by twisting it slightly and then pulling it along its axis.

5.3 Insert the milling cutters or diamond grinders

**Note**
Only use carbide burs or diamonds that comply with ISO 1797 type 3, are made of steel or hard metal and meet the following criteria:
- Shaft diameter: 1.59 to 1.60 mm
- Overall length M25 L: max. 25 mm
- Shaft clamping length M25 L: at least 11 mm
- Overall length M05 L: max. 19 mm
- Shaft clamping length M05 L: at least 9 mm
- Blade diameter: max. 2 mm

**WARNING**
Use recommended dental burs or diamonds only.
Risk of injury.
▶ Comply with the instructions for use and the intended use of the bur.

**CAUTION**
Bur with worn or damaged shafts.
Risk of injury, bur may fall out during treatment.
▶ Never use a bur with damaged or worn shafts.

**CAUTION**
Danger of injury from bur.
Infections or cuts.
▶ Wear gloves or finger guards.

**CAUTION**
Hazard from defective chucking system.
The tool can fall out and cause injury.
▶ Pull on the tool to check if the chucking system is functioning properly and that the tool is firmly clamped. Wear gloves or a finger guard when you check, insert or remove the bits to prevent injury and infection.

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

**NOTICE**
Bur with worn or damaged shafts.
Property damage to the chuck system, bur is difficult or impossible to remove from the chuck system.
▶ Never use a bur with damaged or worn shafts.
Remove the milling tool or diamond grinder

**5.4 Removing the milling tool or diamond grinder**

**WARNING**

Hazard due to rotating bur.

Cuts, infection and burn injury.

- Never push the press-button while the bur is rotating.
- Do not touch the bur while it is rotating.
- Never touch the handpiece head or handpiece lid to soft tissue.
- Remove the 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 bur is rotating.

- After the bur has stopped rotating, press the push-button down with your thumb and simultaneously remove the bur.
6 Checking for malfunctions and troubleshooting

6.1 Check for malfunctions

⚠️ CAUTION

Product heats up.
Burn injury or product damage due to over-heating.
- Do not continue working if the product heats up irregularly.

NOTICE

Missing or damaged O-rings.
Malfunctions and premature failure.
- Make sure that all O-rings are present on the coupling and are undamaged.
- The medical device overheats while idling:
  Check the amount of cooling air.
- The medical device overheats while working:
  Service the medical device.
- When the speed drops or is uneven:
  Service the medical device.
- Missing O-ring on the motor coupling:
  Replace O-ring.

See also:
Instructions for use of motor

6.2 Troubleshooting

⚠️ WARNING

Use of NON-KaVo original spare parts in the repair.
Parts such as covers can become undone and cause injury.
Aspiration, swallowing of parts, 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 jeopardized, is prohibited by the German medical device law §4, section 1 no. 1 and requires a separate conformity check.

6.2.1 Replacing the O-rings

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.

6.2.2 Cleaning the spray nozzle

⚠️ WARNING
Hazard from non-sterile products.
Infection hazard for dentist and patient.
▶ Reprocess and sterilize the medical device properly before the next use.

⚠️ CAUTION
Hazard from insufficient amount of 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 needed.
▶ Check the water filter and replace it, if needed.

6.2.3 Changing the water filter

⚠️ WARNING
Hazard from non-sterile products.
Infection hazard for dentist and patient.
▶ Reprocess and sterilize the medical device properly before the next use.

⚠️ 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 the spray water channels and, if necessary, clean the spray nozzles with the nozzle needle (Mat. no. 0.410.0921).

▶ Push out and remove the filter with the wrench (Mat. no. 1.002.0321).

▶ Insert a new filter (Mat. no. 1.002.0271) and screw it in with the wrench.
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 risk.
▷ Take suitable personal protective measures.

⚠️ WARNING
Sharp tool in the medical device.
Injury hazard from sharp and/or pointed tool.
▷ Remove the tool.
▷ Process the medical device as soon as possible after treatment.
▷ To minimize the risk of infection during processing, always wear protective gloves.
▷ Remove the tool from the medical device.
▷ Remove all residual cement, composite or blood immediately.
▷ Do not immerse in solutions or the like.

7.2 Manual processing

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

⚠️ NOTICE
Never process this medical device in an ultrasonic device.
Functional damage and property damage.
▷ Clean manually or in a washer disinfector only.

7.2.1 Manual external cleaning
Accessories required:
• Tap water
• Brush, e.g. medium-hard toothbrush

▷ Brush under flowing tap water.

7.2.2 Manual internal cleaning
The interior of this product is not to be cleaned manually.
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 sterilizer.

**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 material compatibility. 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)

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 in accordance with the instructions of the disinfectant manufacturer.
- Comply with the instructions for use of the disinfectant.

7.2.4 Manual internal disinfection

The interior of this product is not designed for manual disinfection.

7.2.5 Manual drying

- Clean the outside and inside with compressed air until no drops of water are visible.
- 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 23
7.3 Automated processing

**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 sterilizer.

**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 process this medical device in an ultrasonic device.**
Functional damage and property 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 in accordance with ISO 15883-1, which are operated using alkaline cleaning agents.
- For program 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 usually part of the cleaning program 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.
- 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.
- Perform regular proper care and servicing.

**Note**
KaVo only guarantees that its products will function properly if the care products listed as accessories are used, since these products have been tested for proper use on our products.

7.4.1 Servicing with KaVo Spray

KaVo recommends servicing the product as part of the processing after each use, i.e. after each cleaning, disinfection, and before each sterilization.
- 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 once for 1-2 seconds.

**Servicing the 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 once for 1-2 seconds.

7.4.2 Servicing with KaVo QUATTROcare PLUS

Servicing and cleaning device with expansion pressure for internal cleaning of inorganic residues and optimum servicing.
KaVo recommends servicing the product as part of the processing after each use, i.e. after each cleaning, disinfection, and before each sterilization.
- Remove the tool from the medical device.
- Service the product in the QUATTROcare PLUS.

**See also:**
- Instructions for use KaVo QUATTROcare PLUS
**Servicing the 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 run.

- 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 chuck from the side hatch of the QUATTRO-care PLUS and attach it to coupling service station four, on the far right. A MULTIflex adapter 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 the service 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

**7.5 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 sterilization packaging must comply with applicable standards and be suitable for the sterilization procedure!

- Seal each medical device individually in a sterilization item package.

**7.6 Sterilization**

**Sterilization in a steam sterilizer (autoclave) in accordance with ISO 17665-1**

**CAUTION**
**Improper service and care.**
Risk of injury.
- Perform regular proper care and servicing.
NOTICE

Contact corrosion due to moisture.
Damage to the product.
- Remove the product from the steam sterilization immediately after the sterilization cycle.

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

Sterilization parameters:
Select a suitable procedure (depending on the available autoclave) from the following sterilization processes:
- Sterilizer with triple pre-vacuum:
  - at least 3 minutes at 135°C (275 °F)
  - Drying time: 16 min.
- Sterilizer using the gravity method:
  - at least 10 minutes at 135°C (275 °F)
  - Drying time: 30 min.
- Sterilizer using the gravity method:
  - at least 60 minutes at 121°C (250 °F)
  - Drying time: 15 min.
- Remove contra-angle handpieces and turbines immediately after the completion of the sterilization cycle from the sterilizer.
- Use in accordance with the manufacturer’s Instructions for Use.

7.7 Storage

Processed products must be stored, protected from bacteria, to the extent possible, and dust, in a dry, dark, cool room.

Note
Comply with the expiration date of the sterilized items.
### 8 Tools and consumables

Available from dental suppliers.

<table>
<thead>
<tr>
<th>Material summary</th>
<th>Mat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRA instrument stand</td>
<td>3.005.5204</td>
</tr>
<tr>
<td>Cellulose pad 100 units</td>
<td>0.411.9862</td>
</tr>
<tr>
<td>Cleanpac 10 units</td>
<td>0.411.9691</td>
</tr>
<tr>
<td>Nozzle needle</td>
<td>0.410.0921</td>
</tr>
<tr>
<td>Replacement filter</td>
<td>1.002.0271</td>
</tr>
<tr>
<td>Wrench</td>
<td>1.002.0321</td>
</tr>
<tr>
<td>O-ring</td>
<td>0.200.6120</td>
</tr>
</tbody>
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<table>
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<th>Material summary</th>
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<tbody>
<tr>
<td>KaVo Spray USA and Canada 2113 A</td>
<td>0.411.9660</td>
</tr>
<tr>
<td>QUATTROcare plus Spray USA and Canada 2141 P</td>
<td>1.005.4524</td>
</tr>
<tr>
<td>Chuck care set</td>
<td>1.003.1253</td>
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</tbody>
</table>
9 Terms and conditions of warranty

The following Terms and conditions of warranty 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 workmanship for a period of 24 months from the date of the invoice, subject to the following conditions:

In case of justified complaints, KaVo will honor its warranty with a free repair or replacement, as needed. 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, non-compliance 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, optical fibers made of glass and glass fibers, glassware, rubber parts, and the colorfastness of plastic parts.

All liability shall be 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 authorized by KaVo.

Warranty claims shall be accepted only 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.