Instructions for use

SURGmatic S201 L - 1.009.0470
SURGmatic S201 C - 1.009.1100
Table of contents

1 User instructions ................................................................................................................4

2 Safety..................................................................................................................................6
  2.1 Infection hazard ............................................................................................................6
  2.2 Technical condition.........................................................................................................6
  2.3 Accessories and combination with other equipment...........................................................6
  2.4 Qualification of personnel................................................................................................7
  2.5 Service and repair ..........................................................................................................7

3 Product description ............................................................................................................8
  3.1 Purpose – Proper use .....................................................................................................8
  3.2 Technical Specifications S201 L / S201 C ..........................................................................8
  3.3 Transportation and storage conditions..............................................................................9

4 Start up and shut down ......................................................................................................10
  4.1 Checking the amount of water ........................................................................................10

5 Operation............................................................................................................................12
  5.1 Inserting the head .........................................................................................................12
  5.2 Pulling off the head ........................................................................................................12
  5.3 Attaching the contra-angle handpiece to motor coupling ....................................................13
  5.4 Pulling the contra-angle handpiece off the motor coupling..................................................13
  5.5 Inserting the milling tool or diamond grinder ....................................................................13
  5.6 Removing the milling tool or diamond grinder ...................................................................14

6 Troubleshooting .................................................................................................................15
  6.1 Check for malfunctions...................................................................................................15
  6.2 Troubleshooting .............................................................................................................15
    6.2.1 Cleaning the spray clip and the spray tube ............................................................15

7 Reprocessing steps in accordance with ISO 17664 ...........................................................17
  7.1 Preparation at the site of use ..........................................................................................17
  7.2 Non-fixing preliminary cleaning of the spray clip and spray tube .........................................17
  7.3 Manual reprocessing ......................................................................................................18
    7.3.1 Manual internal and external cleaning and internal and external disinfection ...............18
    7.3.2 Manual drying ....................................................................................................18
  7.4 Automated reprocessing .................................................................................................18
    7.4.1 Automated internal and external cleaning and internal and external disinfection .........19
    7.4.2 Automated drying ...............................................................................................19
  7.5 Care products and systems - Servicing .............................................................................20
    7.5.1 Care with KaVo Spray .........................................................................................20
    7.5.2 Servicing with KaVo QUATTROcare PLUS ..........................................................20
    7.5.3 Care with KaVo SPRAYrotor .................................................................................21
    7.5.4 Servicing with KaVo QUATTROcare .......................................................................22
  7.6 Packaging .....................................................................................................................23
  7.7 Sterilisation ..................................................................................................................23
  7.8 Storage ........................................................................................................................23

8 Tools and consumables ......................................................................................................24

9 Terms and conditions of warranty .....................................................................................25
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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KaVo Original Factory Repair

In the event of a repair, please ship your product to the KaVo Original Factory Repair using www.ka-vobox.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 Commissioning is also intended for service technicians.

General marks and symbols

| ![ ] | See Chapter on User Instructions/Hazard Levels |
| ![ ] | Important information for users and service technicians |
| ![ ] | Action request |
| ![ ] | 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 |
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 – could lead to death or severe injury.

**CAUTION**
In cases which – if not prevented – could lead to minor or moderate injury.

**NOTICE**
In cases which – if not prevented – could 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.

2.2 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 or diamonds is not firmly locked 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 cleaned, serviced and stored in a dry location, according to instructions, if it will not be used for a longer period.

2.3 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.

Use original KaVo spare parts only.

It is not permissible to combine this unit with other heads and bases as this may lead to injury.

The SURGmatic S201 L/ C contra-angle handpiece consists of a base and a head and must not be combined with other heads or bases.

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 released by KaVo.

Comply with the Instructions for Use of the treatment centre.

### 2.4 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.

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

- Never touch soft tissue with the handpiece head or instrument cover.
- After treatment, place the medical device properly in the cradle without the tool.

### 2.5 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 re-use, 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.
3 Product description

SURGmatic S201 L (Mat. no. 1.009.0470)

SURGmatic S201 C (Mat. no. 1.009.1100)

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 use in the following applications: surgery e.g. placing an implant, bone augmentation, sinus lift, dental extraction, implantology and oromaxillary and facial surgery.
- 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:
- 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 S201 L / S201 C

CAUTION

It is not permissible to combine the unit with other heads / bases.

Risk of injury.
- The SURGmatic S201 L/ C contra-angle handpiece consists of a base and a head and must not be combined with other heads or bases.
Drive speed  max. 40,000 rpm
Identification  1 green ring
Speed transmission  20 : 1
Torque  max. 55 Ncm

With press-button chuck.

Usable with surgical drill bits or burs with inner cooling.
Internal cooling system (acc. Kirschner and Meyer) and external cooling-medium connection.

The contra-angle handpiece can be mounted on all INTRAmatic (LUX) motors and motors with a connector in accordance with ISO 3964 / DIN 13940.

### 3.3 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).

<table>
<thead>
<tr>
<th>Temperature: -20°C to +70°C (-4°F to +158°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative humidity: 5% RH to 95% RH absence of condensation</td>
</tr>
<tr>
<td>Air pressure: 700 hPa to 1060 hPa (10 psi to 15 psi)</td>
</tr>
<tr>
<td>Protect from moisture</td>
</tr>
</tbody>
</table>
4 Start up and shut down

**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.

See also:
7 Reprocessing steps in accordance with ISO 17664, Page 17

**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 17

4.1 Checking the amount of water

**CAUTION**

**Overheating of the tooth due to insufficient amount of cooling water.**
Thermal damage to the dental pulp.
▶ Adjust the water amount for the spray cooling to a minimum of 50 ml/min!

**CAUTION**

**Hazard from insufficient amount of spray water.**
Insufficient spray water can cause the medical device to overheat and damage the tooth.
▶ Check the spray water channels and clean the spray tube with the nozzle needle (Mat. no. 0.410.0931) according to need.
▶ Switch off spray-air and spray-water supply on the treatment device.
Cool the dental bur or diamond grinder via the external and/or internal feed, if available. The supply can take place individually or via a coupling piece.

During surgical interventions, comply with the necessary precautions regarding cooling.

Use physiological, sterile cooling fluid.

Ensure that the coolant supply is free of air.
5 Operation

5.1 Inserting the head

⚠️ WARNING

**Detachment of the medical device during treatment.**
If the head is not properly locked in place, it can become detached during treatment.
- Do not mount or remove the head while it is rotating. Before each treatment, check that the head is firmly seated and that the clamping ring is tight.

⚠️ CAUTION

**It is not permissible to combine the unit with other heads / bases.**
Risk of injury.
- The SURGmatic S201 L/ C contra-angle handpiece consists of a base and a head and must not be combined with other heads or bases.

**Note**

The head of the SURGmatic S201 L / C contra-angle handpiece should be taken off the base for reprocessing purposes only.

- Rotate the clamping ring in the direction of the arrow until it hits the stop and hold it there.
- Insert the head to the stop. Make sure that the catches engage properly.
- Rotate the clamping ring in the direction of the arrow (-> close) and tighten it.

- Attach the spray clip.
- Make sure that the spray clip is securely affixed.

5.2 Pulling off the head

- Pull the spray clip off.
- Rotate the clamping ring in the direction of the arrow until it hits the stop and hold it there.
- Pull off the medical device.
- Release the clamping ring.
5.3 Attaching the contra-angle handpiece to motor coupling

**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 ensure that it is securely locked onto the motor coupling.

**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.

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

- Attach the medical device to the motor coupling and turn it until the latch audibly snaps into place.

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

5.4 Pulling the contra-angle handpiece off the motor coupling

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

5.5 Inserting the milling tool or diamond grinder

**Note**

Only use carbide cutters or diamond drill bits that conform to EN ISO 1797-1 type 1, are made of steel or hard metal, and meet the following criteria:

- Shaft diameter: 2.334 to 2.350 mm
- Overall length: max. 45 mm
- Blade diameter: max. 10 mm

**WARNING**

Use of unauthorised cutters or grinders.
Injury to the patient or damage to the medical device.

- Observe the instructions for use and use the cutter or grinder properly.
- Only use cutters or grinders that do not deviate from the specified data.

**CAUTION**

Injury from using worn cutters or grinders.
Cutters or grinders could fall out during treatment and injure the patient.

- Never use cutters or grinders with worn shafts.
5 Operation | 5.6 Removing the milling tool or diamond grinder

⚠️ **CAUTION**

**Danger of injury from cutters or grinders.**
Infections or cuts.
- Wear gloves or finger stalls.

⚠️ **CAUTION**

**Hazard from defective chuck system.**
The cutter or grinder could fall out and cause injury.
- Pull on the cutter or grinder to check that the chucking system is okay and the cutter or grinder is securely held. Wear gloves or finger stalls when you check, insert or remove the insert to prevent injury and infection.
- Insert the bur or diamond grinder into the segment of the head drive by twisting the tool slightly, and push it to the end stop. Activate the pushbutton if necessary.
- Check if the tool is seated securely by pulling on it.

### 5.6 Removing the milling tool or diamond grinder

⚠️ **WARNING**

**Hazard from rotating dental bur or diamond grinder.**
Lacerations and damage to the chuck system.
- Do not touch the dental bur or diamond grinder when it is rotating!
- Do not press the push-button while the dental bur or diamond grinder is rotating!
- Remove the dental bur/diamond grinder from the contra-angle handpiece after treatment to avoid injury and infection when putting it away.
- After the dental bur or diamond grinder has stopped rotating, firmly press the pushbutton with your thumb and simultaneously pull out the dental bur or diamond grinder.
6 Troubleshooting

6.1 Check for malfunctions

⚠️ CAUTION

Heating of the product.
Burns or product damage from overheating.
▷ Do not use the product if it is irregularly heated.

▷ The medical device is too hot while working:
  Service the medical device.

▷ When the speed drops or is uneven:
  Service the medical device.

▷ An O-ring is missing on the motor coupling:
  Replace O-ring.

See also:
2 Instructions for use of motor

6.2 Troubleshooting

6.2.1 Cleaning the spray clip and the spray tube

⚠️ CAUTION

Hazard from insufficient amount of spray water.
Insufficient spray water can cause the medical device to overheat and damage the tooth.
▷ Check spray water channels and if necessary clean spray tubes with the nozzle needle (Mat. no. 0.410.0931).
Use the nozzle pin (Mat. no. **0.410.0931**) to free the water passage on the spray clip on both sides.
7 Reprocessing steps in accordance with ISO 17664

7.1 Preparation 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 Non-fixing preliminary cleaning of the spray clip and spray tube

The non-fixing preliminary cleaning is a central constituent and must be carried out prior to the automatic reprocessing.

Accessories required:
- Demineralised water 30 °C ± 2 °C (86 °F ± 3.6 °F)
- Nozzle pin
- Brush, e.g. medium-hard toothbrush
- Disposable syringe

Note
Before cleaning, take the hose off the spray clip and the contra-angle hand-piece.

- Check the patency of the spray clip and spray tube and clean them with the nozzle pin (Mat. no. 0.410.0931).
- Rinse the spray clip and spray tube with at least 20 ml demineralised water using a disposable syringe.
- If the spray clip and spray tube are not patent after the manual rinsing procedure, the medical device and/or the spray clip must be replaced.
• Brush the spray clip and spray tube under running tap water for at least 20 seconds using a medium-hard toothbrush.

For validated internal cleaning of the spray clip and spray tube in the cleaning and disinfecting device, preliminary non-fixing cleaning is required.

### 7.3 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 device.**

Malfuction and material damage.

• Clean it in a washer disinfector only.

#### Note

The spray clip for internal cooling may be additionally cleaned in the ultrasonic cleaner.

### 7.3.1 Manual internal and external cleaning and internal and external disinfection

Not applicable.

### 7.3.2 Manual drying

• Blow off the outside and inside with compressed air until water drops are no longer visible.

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

**See also:**

7.5 Care products and systems - Servicing, Page 20

### 7.4 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 handpiece with chloride-containing products.**
Malfunction and material damage.
- Only disinfect in the washer disinfector.

NOTICE

**Never reprocess this medical device in an ultrasonic device.**
Malfunction and material damage.
- Clean it in a washer disinfector only.

Note

The spray clip for internal cooling may be additionally cleaned in the ultrasonic cleaner.

For validated internal cleaning of the spray clip and spray tube in the cleaning and disinfecting device, preliminary non-fixing cleaning is required.

### 7.4.1 Automated internal and external cleaning and internal and external disinfection

**Note**

Prior to cleaning or disinfection in a thermodisinfector, attach the head to an appropriate shank.

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" neutraliser, 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.
- For the spray clip and spray tube, also use the adapter for external spray channels.

### 7.4.2 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.
- Immediately after drying, lubricate the KaVo medical device with care agents from the KaVo care system.
7.5 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.

### 7.5.1 Care with KaVo Spray

**Note**

Head can be serviced alone or attached to a shank.

KaVo recommends servicing the product after each use, i.e. after each automatic cleaning 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 chucking system**

KaVo recommends cleaning and servicing the chuck system once a week.
▶ 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.

### 7.5.2 Servicing with KaVo QUATTROcare PLUS

**Note**

Head can be serviced alone or attached to a shank.

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 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 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

7.5.3 Care with KaVo SPRAYrotor

Note
KaVo SPRAYrotor is no longer included in the current delivery programme.

Follow-up product:
- QUATTROcare PLUS 2124 A

Note
Head can be serviced alone or attached to a shank.
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

### 7.5.4 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

**Note**

Head can be serviced alone or attached to a shank.

Servicing and cleaning device with expansion pressure for the interior 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.

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

### Care of chucking system

KaVo recommends cleaning and servicing the chuck system once a week.

- 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.
7.6 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.

7.7 Sterilisation

**Sterilisation in a steam steriliser (autoclave) according to EN 13060 / 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:**
Depending on the device, select a suitable process 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 contra-angle handpieces and turbine handpieces from the steam steriliser immediately after completion of the sterilisation cycle.
- Use according to the manufacturer's Instructions for Use.

7.8 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 Tools and consumables

Available from dental suppliers.

<table>
<thead>
<tr>
<th>Material summary</th>
<th>Mat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spray head INTRA (KaVo Spray)</td>
<td>0.411.9911</td>
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<tr>
<td>Service coupling for heads (QUATTROcare)</td>
<td>0.411.7941</td>
</tr>
<tr>
<td>Spray clip</td>
<td>1.002.3377</td>
</tr>
<tr>
<td>Coupling piece</td>
<td>0.593.0361</td>
</tr>
<tr>
<td>Nozzle pin</td>
<td>0.410.0931</td>
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<tr>
<td>Instrument stand 2151</td>
<td>0.411.9501</td>
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<td>Cleanpac 10 units</td>
<td>0.411.9691</td>
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<tr>
<td>Cellulose pad 100 units</td>
<td>0.411.9862</td>
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<td>Surgery service coupling</td>
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<table>
<thead>
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<tr>
<td>KaVo Spray 2112 A</td>
<td>0.411.9640</td>
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<td>ROTA Spray 2 2142 A</td>
<td>0.411.7520</td>
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<tr>
<td>QUATTROcare plus Spray 2140 P</td>
<td>1.005.4525</td>
</tr>
<tr>
<td>Chuck servicing set</td>
<td>1.003.1253</td>
</tr>
</tbody>
</table>
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 12 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, 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, 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.