Instructions for use
INTRA Motorhandstück PROPHYwiz 181 P - REF 1.003.2278

KaVo. Dental Excellence.

Distributed by:
KaVo Dental GmbH
Bismarckring 39
D-88400 Biberach
Phone +49 7351 56-0
Fax +49 7351 56-1488

Manufacturer:
Kaltenbach & Voigt GmbH
Bismarckring 39
D-88400 Biberach
www.kavo.com

CE 0124

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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.

Symbols

	Refer to the chapter on Safety/Warning symbol
	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 sterilizes at 134 °C -1 °C / +4 °C (273 °F -1,6 °F / +7,4 °F)

Target group

This document is intended for dentists and their assistants. The section on starting up is also intended for service technicians.

2 Safety

2.1.1 Description of safety instructions: Warning symbol

	Warning symbol

2.1.2 Description of safety instructions: Structure

⚠ DANGER

The introduction describes the type and source of the hazard.
This section describes the potential consequences of non-observance.

- ▶ The optional step includes necessary measures for hazard prevention.

2.1.3 Description of safety instructions: Description of danger levels

The safety instructions listed here, together with the three levels of danger will help avert property damage and injury.

⚠ CAUTION

CAUTION
indicates a hazardous situation that can cause damage to property or mild to moderate injuries.

⚠ WARNING

WARNING
indicates a hazardous situation that can cause death or serious injury.

⚠ DANGER

DANGER
indicates a hazardous situation that can directly cause death or serious injury.

2.2 Safety instructions

⚠ WARNING

Hazard to the care provider and patient.
Irregular running noise, significant vibration, overheating, imbalance or insufficient grip.

- ▶ Stop working and contact service support.

⚠ CAUTION

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.

⚠ CAUTION

Premature wear and malfunctioning from improper storage during long periods of nonuse.
Reduced product life.

- The medical device should be cleaned, serviced and stored in a dry location, according to instructions, before long periods of nonuse.

The following individuals are authorized to repair and service KaVo products:

- Technicians at KaVo branches throughout the world
- Technicians specially trained by KaVo

To ensure proper function, the medical device must be set up according to the reprocessing methods described in the KaVo Instructions for Use, and the care products and care systems described therein must be used. KaVo recommends specifying a service interval at the dental office for a licensed shop to clean, service and check the functioning of the medical device. This service interval depends on the frequency of use and should be adjusted accordingly.
Service may only be carried out by KaVo-trained repair shops using original KaVo replacement parts.

3 Product description

INTRA Motor handpiece PROPHYwiz 181 P (Mat. no. 1.003.2278)

3.1 Purpose – Intended use

Purpose:

The motor handpiece is:

- an air motor intended to operate/drive a dental prophylaxis head
- intended only for dental treatment by a dental professional. The product may not be changed or used for any other purpose since this may be hazardous.
- a medical device according to relevant national statutory regulations

Proper use:

According to these regulations, this medical device may only be used for the described application by a knowledgeable user. The following must be observed:

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

According to these regulations, it is the responsibility of the user to:

- only use equipment that is operating correctly,
- use the equipment for the proper purpose,
- protect him or herself, the patient and third parties from danger, and
- avoid contamination from the product.

3.2 Technical Specifications

Drive pressure	1.8 to 2.5 bar (26 to 40 psi)
Motor speed	17,000 to 21,000 rpm
Step-down ratio	7.4 : 1
Operating speed	2,300 to 2,800 min^{-1}
Air consumption	up to 65 Nl/min
Idle torque	max. 8 Ncm

Clockwise rotation.

All prophylaxis heads with a Doriot connection can be attached. The clamping system is designed for drive shafts in accordance with EN ISO 1797 part 1 and part 2 for shaft diameters from 2.3 to 2.35 mm.

The INTRA motor handpiece can be attached to all hoses with Borden 4-hole standard connection.

Air requirements

Air quality in accordance with EN ISO 7494-2	dry, oil-free, dirt-free, non-contaminated
Air filter, supplied by customer	< 20 µm

3.3 Transportation and storage conditions

⚠ CAUTION

It is hazardous to start up the medical device after it has been stored strongly refrigerated.
This can cause the medical device to malfunction.

- Prior to start-up, very cold products must be heated 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

3.4 Operating conditions

Temperature: +5 °C to +40 °C (41 °F to 104 °F)
Maximal rel. humidity: < 80 %
Air pressure: 700 hPa to 1060 hPa (10 psi to 15 psi)

4 Start up and shut down

⚠ WARNING

Hazard from nonsterile products.
Infection danger to the care provider and patient.

- ▶ Before first use and after each use, prepare and sterilise the medical device if needed.

⚠ WARNING

Disposal of the product in the appropriate manner.
Prior to disposal, the product must be appropriately prepared or sterilised if this is necessary.

⚠ CAUTION

Damage to the handpiece caused by spray air and spray water.

- Un-select spray air and water on the supply unit before startup!

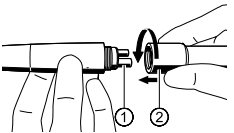
⚠ CAUTION

Compressed air connection on devices.
Contaminated and humid compressed air leads to premature wear and tear.

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

5 Operation

5.1 Connecting the motor handpiece to the supply hose

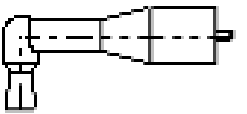


- Attach plug-in fitting ① to the motor connection and screw tight in clockwise direction using the sleeve ②.

Note

Details on the hose connection can be obtained from the manufacturer.

5.2 Attach the prophylaxis head



Note

All prophylaxis heads with a Doriot connection can be attached.
The clamping system is designed for drive shafts in accordance with EN ISO 1797 part 1 and part 2 for shaft diameters from 2.3 to 2.35 mm.

⚠ CAUTION

Use of impermissible prophylaxis heads.
Injury to the patient or damage to the medical device.

- Comply with the manufacturer instructions and use the prophylaxis heads properly.
- Only use prophylaxis heads that do not deviate from the specified data.

⚠ CAUTION

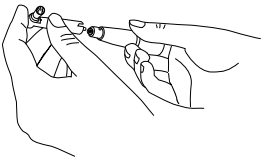
Removing and attaching the prophylaxis head while the device is rotating.
Damage to the chucking system.

- Never attach or remove the prophylaxis head while the device is rotating!

⚠ CAUTION

Damaged prophylaxis head.
Injuries.

- Check the prophylaxis head for damage before each use.
- See the manufacturer's instructions for use.



- Attach the prophylaxis head to the handpiece proceeding in axial direction until it hits the stop.

- Before the start of treatment, check if the seat is secure by pulling on the head.

5.3 Removing the prophylaxis head

⚠ CAUTION

Hazard due to incorrectly stored instrument.
Injury and infection from clamped prophylaxis head.

- ▸ After each treatment, place the instrument properly in the cradle without the prophylaxis head.

- ▸ Remove the prophylaxis head axially from the handpiece.

6 Reprocessing methods according to ISO 17664

6.1 Preparations at the site of use

⚠ WARNING

Hazard from nonsterile products.
There is a risk of infection from contaminated medical devices.

- ▸ Take suitable personal protective measures.

- ▸ Remove all residual cement, composite or blood without delay.
- ▸ The medical device must be dry when transported for reconditioning.
- ▸ Do not place it in a solution or similar.
- ▸ Recondition the medical device as soon as possible after treatment.
- ▸ Remove the prophylaxis head from the medical device.

6.2 Cleaning

⚠ CAUTION

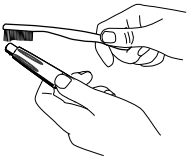
Malfunction of the product from cleaning in the ultrasonic unit.

- ► Only clean manually!

6.2.1 Cleaning: Manual cleaning - external

Accessories required:

- Tap water 30 °C ± 5 °C (86 °F ± 10 °F)
- Brush, e.g. medium-hard toothbrush



- Brush off under running tap water.

6.2.2 Cleaning: Automated external cleaning

Not applicable.

6.2.3 Cleaning: Manual cleaning of the inside

Not applicable.

6.2.4 Cleaning: Automated internal cleaning

Not applicable.

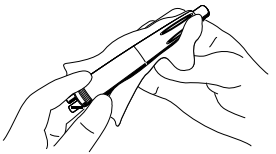
6.3 Disinfection

⚠ CAUTION

Malfunctioning from using a disinfectant bath or chlorine-containing disinfectant.
Defects in the product.

- ► Disinfect manually only!

6.3.1 Disinfection: Manual disinfection - external



KaVo recommends the following products based on material compatibility. The microbiological efficacy must be ensured by the disinfectant manufacturer.

- Mikrozid AF Liquid made by Schülke & Mayr
- FD 322 made by Dürr

- CaviCide made by Metrex

Consumables required:
- Cloths for wiping off the medical device.

- Spray the disinfectant on a cloth, then thoroughly wipe down the medical device and leave the disinfectant to soak in according to the instructions from the disinfectant manufacturer.
- Follow the instructions for use of the disinfectant.

6.3.2 Disinfection: Manual disinfection - internal

Not applicable.

6.3.3 Disinfection: Machine disinfection - external and internal

Not applicable.

6.4 Drying

Manual Drying

- If there is any residual moisture after cleaning and disinfecting, soak up the residual moisture with a soft cotton cloth and then wipe dry.

Automatic Drying

Not applicable.

6.5 Care products and systems - Servicing

⚠ CAUTION

Premature wear and malfunctions from improper servicing and care.
Reduced product life.

- Perform proper care regularly!

⚠ CAUTION

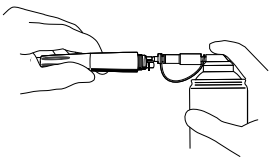
Incorrect servicing of prophylaxis heads.
Infection.

- Comply with the manufacturer instructions for prophylaxis head care and hygiene.

Note

KaVo only guarantees that its products will function properly when the care products used are those listed as accessories, as they were tested for proper use on our products.

6.5.1 Care products and systems - Servicing: Care with KaVo Spray



KaVo recommends servicing the product after each use, i.e. after each cleaning and before each sterilisation.

- ▸ Take the head off.
- ▸ Unscrew the motor handpiece from the hose.
- ▸ Cover the product with the Cleanpac bag.

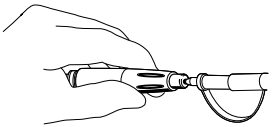
- Use an appropriate cannula and apply spray into the smaller of the two tubes for one second.

Note

Additional servicing is required if the working speed decreases due to contamination or particles being present in the air supply system.

Chuck care

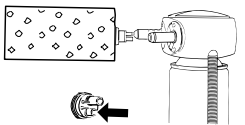
KaVo recommends cleaning and servicing the chuck system once a week.



- Remove the head and spray into the opening using the tip of the spray nipple.

- Carry out the servicing according to the instructions in the section, "Care with KaVo Spray".

6.5.2 Care products and systems - Servicing: Servicing with KaVo SPRAYrotor



KaVo recommends servicing the product after each use, i.e. after each cleaning and before each sterilisation.

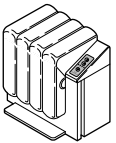
- Take the head off.

- Unscrew the motor handpiece from the hose.
- Place matching care insert on the appropriate coupling on the **KaVo SPRAYrotor** and cover the product with the Cleanpac bag.
- Apply spray into the smaller of the two tubes for one second.

See also: Instructions for use **KaVo SPRAYrotor**

6.5.3 Care products and systems - Servicing: Servicing with KaVo QUATTROcare 2104 / 2104A

Cleaning and care unit with expansion pressure for effective cleaning and care.



KaVo recommends servicing the product after each time it is used, i.e. after each automatic cleaning and before each sterilisation.

- ▸ Take the head off.
- ▸ Unscrew the motor handpiece from the hose.

- ▸ Servicing the product.

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

Servicing the clamping chuck

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

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

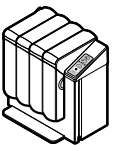
- Remove the head and spray into the opening using the tip of the spray nipple.

- Subsequently treat with the specified care products and systems.

See also: Servicing with KaVo **QUATTROcare** 2104 / 2104A

6.5.4 Care products and systems - Servicing: Servicing with KaVo QUATTROcare PLUS

KaVo recommends servicing the product after each time it is used, i.e. after each automatic cleaning and before each sterilisation.



- ▸ Take the head off.
- ▸ Unscrew the motor handpiece from the hose
- ▸ Servicing the product in QUATTROcare PLUS.

See also: Instructions for use **KaVo QUATTROcare PLUS**

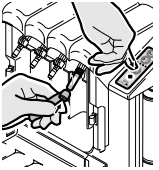
Servicing the clamping chuck

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

See also: Instructions for use **KaVo QUATTROcare PLUS**

Note

Switch on the chuck service mode.
No handpieces may be on the treatment coupling at the start of and during the chuck service mode.
Close the front flap and press the chuck service button ④ for at least three seconds until the spray canister control LED ① flashes three times consecutively. The QUATTROcare is now in chuck service mode.



- Take the head off.
- Remove the service coupling chuck from the side hatch of the QUATTROcare PLUS and attach it to coupling service point 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 chuck.
- Press the button showing the chuck service symbol.

Note

Completing the chuck service mode.
Option 1: Equipping the **QUATTROcare** with handpieces and closing the front panel.
Option 2: after three minutes without a service procedure, the device switches automatically to normal service mode.

See also: Care with KaVo QUATTROcare PLUS

6.6 Packaging

Note

The sterilisation bag must be large enough for the handpiece so that the bag is not stretched.
The quality and use of the sterilisation packaging must satisfy applicable standards and be suitable for the sterilisation procedure!

- ▸ Weld each medical device individually in a sterilised item package!

6.7 Sterilisation

Sterilisation in a steam steriliser (autoclave) in accordance with EN 13060 / ISO 17665-1 (z. B. KaVo STERIclave B 2200 / 2200 P)

⚠ CAUTION

Premature wear and malfunctions from improper servicing and care.
Reduced product life.

- ▶ Before each sterilisation cycle, service the medical device with KaVo care products.

⚠ CAUTION

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 ℃ (280.4 °F).

(Depending on the available autoclave,) select a suitable procedure from the following sterilisation processes:

- Autoclave with three times initial vacuum:
  - at least 3 minutes at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F)
- Autoclave using the gravitation method:
  - at least 10 minutes at 134 °C -1 °C / +4 °C (273 °F -1.6 °F / +7.4 °F) or alternatively
  - at least 60 minutes at 121 °C -1 °C / +4 °C (250 °F -1.6 °F / +7.4 °F)

▸ Use according to the manufacturer's Instructions for Use.

6.8 Storage

- Reprocessed products should be stored protected from dust with minimum exposure to germs in a dry, dark and cool space.
- Comply with the expiry date of the sterilised items.

7 Auxiliary equipment

Available from dental suppliers.

Material summary	Mat. no.
Seal	0.553.1872
Cleanpac 10 units	0.411.9691

Material summary	Mat. no.
KaVo Spray 2112 A	0.411.9640
QUATTROcare plus Spray 2140 P	1.005.4525

8 Warranty terms and conditions

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.

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