

MICROCLEAN - Denture cleaning unit Instruction manual



Schütz Dental GmbH

Dieselstr. 5-6

61191 Rosbach/Germany

Phone: +49 (0) 6003 814-365

Fax: +49 (0) 6003 814-906

export@schuetz-dental.de

www.schuetz-dental.de

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Dear Customer

Congratulation on your purchase of our **MICROCLEAN** Denture cleaning unit!
Schütz Dental GmbH thanks you for your trust!

If you should need any information or have special questions on this system, our complete team of dental technicians, product specialists and sales people will be at your disposal:

phone +49 6003 814-365

fax +49 6003 814-907

e-mail: export@schuetz-dental.de

Please kindly read the following pages minutely and adhere to any instructions given when taking this system into operation. We recommend that the instructions are well-known to any person operating the system in order to avoid handling errors or accidents.

Schütz Dental cannot be held liable for any damages which were cause by lack of knowledge of the instructions or failure to adhere to them.

Enjoy working with your **MICROCLEAN** unit!

1 Technical data

Product data

Unit for use with all dental alloys, titanium, acrylics and ceramics.

Dimensions and weights

Width:	185 mm
Height:	195 mm
Depth:	175 mm
Weight:	7 kg

Electrical power supply values

Power supply:	230 V~ (or 110 V~, 2 Amps for e.g.USA)
Wattage:	200 W
Revolutions:	1450 r.p.m.
Phase number:	1 phase-N+PE
Mid-point conductor:	rating N~
Earthed conductor:	separate earthed conductor (PE-green/yellow)
Class of protection:	I
System of protection:	covered
Frequency:	50/60 Hz

General data

Ambient temperature range:	5 - 50°C
Air humidity:	up to 65%
Noise level:	< 65 dB (A)

2 Brief description (correct use)

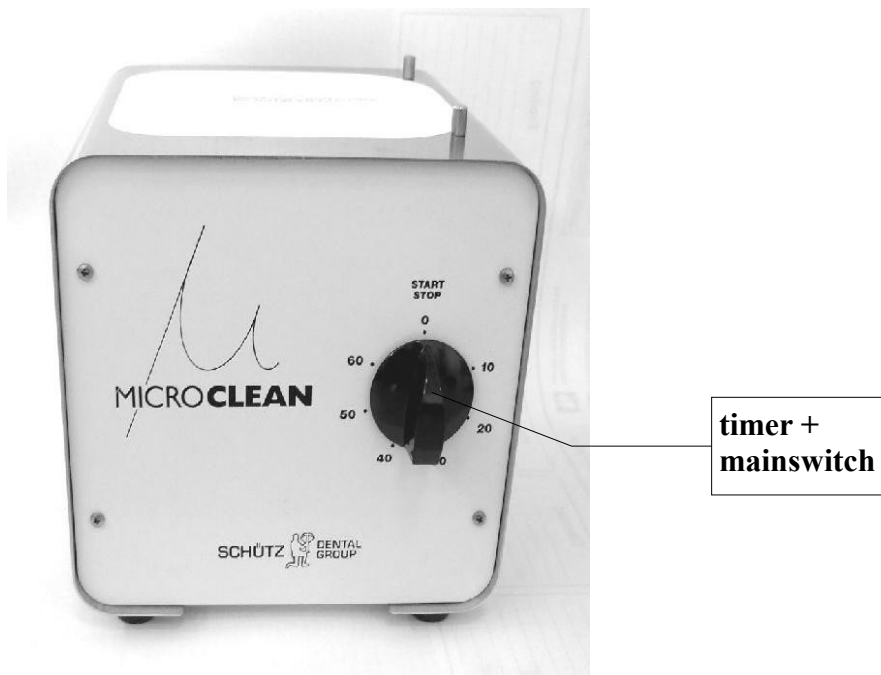
The Microclean cleaning unit was developed for cleaning and compacting the surfaces of metals and acrylics.

This unit was designed to create a magnetic field which reverses its polarity every two minutes when running. The magnetic field oscillates and rotates the polishing pins. The impact energy of the pins compacts and cleans the surface of the object and the special cleaning fluid enhances the effect. Please refer to section 5 „Operation“ for further details on running this unit.

3 Installation

- Remove the packaging.
- Place the unit on a nonskid surface.
- Plug the power cable of the unit into the power supply.

4 Controls



5 Operation

5.1 Working procedures

Prepare the castings for polishing as usual using burs and rubber polishers. Very hard areas of CoCrMo alloys or „alpha-case“ on titanium can be removed with burs and sandblasting.

The various cleaning fluids are for use with precious alloys, dentures, facing materials, CoCrMo alloys and titanium (refer to the table).

Caution!

When cleaning potentially contaminated materials (e. g. a dental prosthesis) make sure it is disinfected before and after the cleaning procedure.

- Place the restoration in the cleaning vessel with polishing pins and fluid and tighten the lid properly (the amounts of fluid are shown on pages 7 and 8).
- In order to avoid rotation of the cleaning vessel, set a paper towel between unit and black beaker mount (acrylic top).
- Place the cleaning vessel on the unit.

Please note: Only clean one object per cycle.

- Once the set time has elapsed, remove the lid from the cleaning vessel. Remove object with plastic pincers and rinse it with clear water. If the luster is not satisfactory, prolong the time.

Caution!

Avoid direct contact with the skin and eyes as the fluid may irritate them.

Should the cleaning fluid become contaminated, clean the pins and add fresh fluid - this is simplified by the **Microclean** magnets.

Important!

Fluid should only be used for one cleaning session as, otherwise, particles in the fluid may be deposited on the next restoration.

Please note!

Do not keep needles in the cleaning liquid for longer than one day. Remove needles, clean and let air-dry on a cotton towel. Should the needles turn dark after use, clean them approximately for 30 minutes in polishing fluid consisting of 150 ml water and 20 ml acidic cleaning agent. If necessary, please repeat this procedure.

Disposal!

Look at **chapter 9**, page 12.

The following table shows the amounts and cleaning periods.

The table assumes that 150 g of pins and 150 ml of water are used.

MICROCLEAN table

cleaning fluid - orange (universal).

500 ml, order no.: 678855, for following applications:

- Removing oxides from chrome cobalt, titanium and non-precious metals after sandblasting them to remove the investment material.
- Removing oxides from titanium and non-precious metals after firing porcelain.
- Removing cement from bridgework.
- Removing plaster from acrylic.

Cleaning in the large vessel, order no.: 678820

The amounts are always 150 g pins and 150 ml water

Time Minutes	Pins Description	Amount Fluid	Object/Application	Outcome
45 - 60	short/long	70 ml	Titanium,CrCo frameworks	Matte, silvery sheen
20 - 40	long	70 ml	Removing plaster from acrylic	Removes up to 98%
30 - 45	short/long	70 ml	Removing cement from crowns	Cement is released. Soft material must be scratched out or rinsed out with water if necessary.

Cleaning in the small vessel, order no.: 678864

The amounts are always 15 g pins and 15 ml water

Time Minutes	Pins description	Amount Fluid	Object/Application	Outcome
5 - 10	short	5 – 10 ml	Titanium,CrCo frameworks	Matte, silvery sheen

cleaning fluid - green (acidic), 500 ml, order no.:678857 for the following applications:

- Removing oxides from precious metals after divesting.
- Removing oxides from previous metals immediately after firing porcelain.
- Cleaning deposits and calculus off dentures.

Cleaning in the large vessel, order no.: 678820

The amounts are always 150 g pins and 150 ml water

Time Minutes	Pins Description	Amount Fluid	Object/Application	Outcome
30 - 45	long	40 ml	Cleaning deposits and calculus off used restorations	Cleans the restoration by up to 98% to regain its sheen
5 - 10	short/ long	40 ml	precious metal framework	Matte sheen
40 - 50	short/long	40 ml	non-precious metal framework	98% sheen

Cleaning in the small vessel, order no.: 678864

The amounts are always 15 g pins and 15 ml water

Time Minutes	Pins Description	Amount Fluid	Object/Application	Outcome
5 - 15	short	5 – 10 ml	precious metal frameworks	Matte sheen

* Long pins = polishing pins, long, 150 g Order No.: 678865

Short pins = polishing pins, short, 150 g Order No.: 678866

Long pins = polishing pins, long, 200 g Order No.: 678856

Short pins = polishing pins, short, 200 g Order No.: 678861

5.2 Trouble shooting

Objects are not cleaned sufficiently	Keep to the mixing ratio 150 ml water, 150 g needles and the according quantity of cleaning liquid (see system table).
Needles dirtied	Clean needles in the system with 150 ml water and 20 ml acidic liquid for about 30 min.
Needles stick to the magnet	Magnet must be set against the outside of the beaker when changing the liquid.

5.3 Operating the unit

- 1.) Place the restoration in the fluid in the plastic vessel and close the lid tightly.
- 2.) In order to avoid rotation of the cleaning vessel, set a paper towel between unit and black beaker mount (acrylic top).
- 3.) Place the vessel on the unit.
- 4.) Set the timer to the correct time. The magnetic field rotates in direction.
- 5.) Once the time has elapsed, the unit switches off automatically. Remove the lid from the vessel, remove the restoration and rinse it with water. If the outcome is not satisfactory, prolong the time.
- 6.) Contaminated cleaning fluid should be disposed of according to local regulations, making certain to keep the pins. Rinse the pins with clear water and fresh polishing fluid.

Please note!

This unit can be switched off prematurely at any time with the timer.

6 Maintenance/Serviceing

Danger!

Before commencing maintenance procedures or replacing components the unit must be switched off as follows.

Disconnect the current as follows:

- Switch the timer off
- Unplug the mains supply

In case of non-compliance, the staff's life and limbs may be at a risk!

- This unit should be cleaned with a damp cloth or stainless steel cleaner.
- Clean the vessels regularly and thoroughly.

Please note!

Do not clean with solvent as it may harm the plastic components.

7 Transport and packaging

All Schütz Dental units and systems are carefully inspected before they are packed and dispatched. However, damages during transport can not be ruled out.

Incoming inspection:

Check for completeness of the consignment, according to delivery note!

In case of damaged packaging:

Visually check the delivery for damages!

In case of a complaints:

If the consignment has been damaged during transport

- Immediately contact the last forwarder. The notification period for damaged packaging during transport by rail is one week; by post 24 hours; by a forwarder 4 days. In case the contents are damaged, the notification period for transportation by post is 24 hours; by DPD 24 hours and by a forwarder 4 days.
- Please keep the packaging (for a possible verification by the forwarder or for reconsignment)!

Packaging for reconsignment:

If possible use the original packaging and packaging material for reconsignment.

If these are no longer available then ensure that the item is packed shock-proof in a cardboard box. Please contact Schütz Dental for any questions concerning the packaging.

8 Safety

When operating the **Microclean**, keep equipment or objects which may be affected or damaged by powerful magnetic fields approximately 0.5 m from it.

The relevant regulations for prevention of accidents must be heeded!

It is forbidden to deactivate the safety devices!

These operating instructions belong to the unit and:

- must be available to the staff operating the unit at any time.
- must be read prior to installing the unit.
- the sections on hazards and other information must be heeded.

Please note that the operator must instruct his operating and servicing staff:

- about the safety devices of this unit.
- on working safely with it.
- about observing the safety precautions.

The necessary tools and test equipment must be available to the staff.

This unit was manufactured according to EU directives:

<p>Applicable EU directives: 2006/95/EC Low-voltage directive 2004/108/EC EMC Directive</p>

9 General Data/Disposal

Disposing of the unit:

This unit consists mainly of electrical and electronic components.

Note on environmental protection



- Electrical and electronic devices, batteries and rechargeable batteries may not be disposed of with domestic waste.
 - This symbol on the product, the instruction manual or the package indicates this.
 - **This product** is in accordance with the law “waste electrical and electronic equipment“ (WEEE).
- Please contact your local representative for more information.**
- By recycling, reusing the materials or other forms of utilising old devices, you are making an important contribution to protecting our environment.

Disposing of waste material:

Dispose of as described by the manufacturer of the material, the safety data sheets and local regulatory requirements.

Disposing of cleaning fluid

Cleaning fluid orange (universal)

When mixed with large amounts of water, it may be disposed of in the drain.
Better: collect in a large can and dispose of at a local drop-off for special refuse.

Cleaning fluid green (contains acid)

Attention!

DO NOT pour in the drain!

Collect in a large can and dispose of at a local drop-off for special refuse.

10 General hazard notes

10.1 Danger zone

The danger zone is considered to be the area within 1 m of the unit as this is the area required by the staff for operating it.

This unit may not be protected if it is not used as described in the operating instructions.

Caution!

Please ensure that:

- you wear gloves when using the polishing liquid to prevent it contacting the skin.
- no equipment or objects are placed in close proximity to this unit which could be damaged or affected by the magnetic field.
- the lid of the polishing vessel remains closed while the unit is running.

10.2 Operating and servicing staff

Are responsible for transporting, installing, operating and cleaning the unit as well as for eliminating malfunctioning.

1. This unit must only be operated by properly trained, authorized staff
2. It must be decided who is responsible for operating the unit and adhered to strictly to rule out uncertainty regarding the safety aspects.
3. The methods for switching off the unit described in the operating instructions must be strictly adhered to for all procedures (running and cleaning the unit, fitting spare parts and accessories).
4. The cleaning procedures and those for fitting spare parts and accessories are described in these instructions so as to be understood by anyone trained in:
 - Electrical engineering/Electronics
 - Mechanics/Cleaning

The necessary tools and test equipment must be available to them.

4. The user must refrain from anything which risks the safety of this unit.
5. The user must ensure that no unauthorized persons have access to this unit.
6. The user is obliged to report any changes in the unit, which may adversely affect its safety, to the operator.
7. The operator is obliged to ensure that the unit is only ever operated in perfect condition.

10.3 Fitting spare parts and expendable parts

We must point out that any spare parts or accessories not supplied by Schütz Dental have not been tested or approved by us. Fitting and/or using such products may adversely affect the properties of the unit under certain circumstances.

The manufacturer is not liable for damage caused by using non-original parts and accessories.

Please note!

- All spare parts and expendable parts are replaced by the manufacturer. Users are not allowed to carry out repairs.
- Return any deficient components to Schütz Dental.

10.4 Switching the unit off

Caution!

Prior to cleaning the unit or replacing parts is essential to:

- switch the unit off and unplug it as, otherwise, the staff's life and limbs may be at risk!

11 Emergencies

- Disconnect the unit from the mains.

12 Spare parts

In case of questions regarding spare parts, please contact Schütz Dental.

13 Guarantee

This unit has been constructed and manufactured under consideration of all safety regulations. Should the unit show any manufacturing errors or irregularities during the guarantee period, they will be fixed by the manufacturer according to our standards. For any guarantee claim, the invoice or delivery note must be provided as proof. The guarantee is limited to the replacement of the part or parts which show the manufacturing error or irregularity.

Excluded from guarantee are: personnel costs, expenses of the technical staff, transport costs, packaging, etc. The claim of the following is absolutely ruled out: light bulbs, fuses, glass. Furthermore, errors or other problems which the manufacturer cannot be blamed for or parts which are subject to normal wear may not be claimed under guarantee.

Direct or indirect damage claims towards any persons or things may not be derived from this guarantee, even if the reason for the damage could be traced back to the unit. This guarantee will automatically be terminated, if the unit is repaired, changed or opened by force by the user/buyer or any unauthorized third party.

Should any problem occur during the guarantee period, the user/buyer must only contact the manufacturer or an authorized service center named by the manufacturer.