Bohle

# User's Manual

## UVAHAND 250 H1 / BL

## List of contents

# 1 Introduction

This User's Manual describes the UVAHAND 250, how to operate it and its areas of application.
Safety instructions and hazard warnings explain how to operate the UVAHAND 250 safely and correctly.

The following symbols and terms are used in the manual:


**Danger**
This symbol indicates **imminent danger** threatening the life and health of personnel!


**Warning**
This symbol indicates **possible danger** to the life and health of personnel..


**Caution**
This symbol refers to a **potentially dangerous** situation

**Note**
This symbol refers to notes, tips for application and useful information.

## 2 Description

The UVAHAND 250 is a high-intensity ultraviolet (UV) lamp unit designed for mobile applications.

The emission spectrum of the UVAHAND 250 has its maximum in the long-wave UV range (UVA).

Various ranges of the spectrum can be filtered out by using different filters.

This makes the UVAHAND 250 ideal for use in widely differing areas of application.

The UVAHAND 250 consists of a lamp and a ballast unit.

The ballast supplies the electricity for the lamp.


*Areas of application*

**Areas of application**

The UVAHAND 250 is used in laboratories, in production and repair processes in the following applications:

- hardening UV-reactive sealing and casting masses
- bonding glass, plastics and metals
- hardening fibreglass-reinforced polyester resins (e. g. for repairing fibreglass - reinforced plastics on automobiles and boats)
- fluorescence analysis (e.g. in material testing and paint penetration testing)

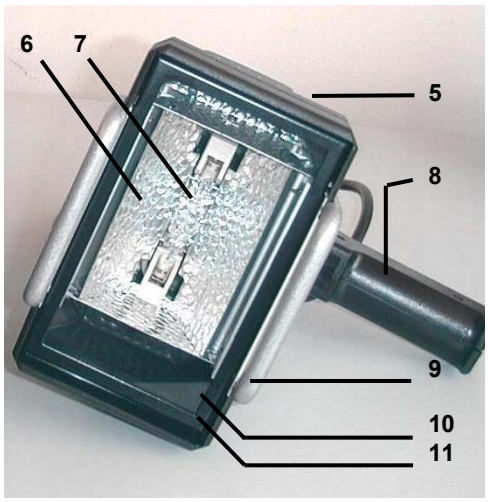
## Description of the individual parts and operating elements


**(1) Ballast**
Supplies the electricity for the hand-held lamp.

**(2) Operating hours counter**
Shows the number of operating hours of the ballast.
The operating hours counter is built-in and cannot be reset. It is used to ascertain how many hours of operation the equipment has behind it in order to know when the lamp needs replacing. See the chapter ‘Replacing the UV lamp’ for details of lamp servicing.

**(3) Mains switch**
Used to turn the UVAHAND 250 on and off.

**(4) Socket for connector cable**
The cable connects the ballast unit to the mobile hand-held lamp.




**(5) Mobile hand-held lamp**

**(6) Reflector with lamp (7)**
Lamps are available in three different spectra.

**(8) Handle**
Can be turned 90°.
Can be removed for operation on a tripod or with the equipment firmly mounted.

**(9) Spacer bar**

**(10) Filter**
Available in three types.

**(11) Filter frame**
The filter unit consists of the filter and the filter frame.

# 3 Safety instructions

*General information*

## General information

A sound knowledge of all basic safety regulations is essential to ensure safe and fault-free operation of the UVAHAND 250. This user's manual contains all important safety regulations to ensure safe operation of the equipment.
This user's manual, and in particular the safety instructions, must be observed by all persons working with the equipment.

In addition, all relevant rules and accident prevention regulations relating to the operation site must be observed.
At regular intervals, the operator will check that all personnel are observing the safety regulations.

*Staff obligation*

## Staff obligation

Before commencing work, all persons entrusted with work to be performed on the UVAHAND 250 undertake the following:

- to observe the safety at work and accident prevention regulations.
- to read the chapter on safety and the warnings printed in this manual and to observe them at all times while using the equipment.

*Danger when using the equipment*

## Danger when using the equipment

The UVAHAND 250 has been manufactured in accordance with the very latest state-of-the-art technology and the recognized rules of safety technology.

The equipment may only be used under the following conditions:

- for the purpose for which it was constructed
- in a condition in which the equipment complies with all safety technology requirements.


**Danger**
Improper use of the equipment can endanger the health of personnel using it or cause a risk to third parties (including the risk of serious skin damage or eye injury). It may also cause damage to the device or other material damage.

**Note**
Faults which impair the safe operation of the equipment must be remedied immediately.

*Appropriate use*

## Appropriate use

The UVAHAND is a high-intensity ultraviolet area lamp (UV) for the radiation of surfaces. Any other use or use above and beyond these terms is defined as inappropriate and is thus dangerous.
The UVAHAND 250 must not be used for tanning the skin.
The operator may only operate the equipment as stipulated by the operating instructions in this manual.
The operator is under obligation to ensure that the prescribed inspections and servicing work are carried out and that the indicated replacement of worn parts is effected.

The following are further conditions for appropriate use:

- the observance of all points listed in the user's manual
- the execution of all servicing and maintenance work
- compliance with the general and specific safety instructions in this manual
- compliance with the relevant accident prevention regulations.

**Note**
The supplier is not liable for damage resulting from inappropriate use of the equipment.

*Warranty and liability*

**Warranty and liability**

The 'General sales and delivery conditions' of the Bohle AG apply. The operator will have received these terms, at the latest upon signing the contract. The supplier is not liable for any damage to persons or property arising from any one or more of the following:

- inappropriate use of the UVAHAND 250,
- incorrect assembly, commissioning and operation of the UVAHAND 250,
- operation of the UVAHAND 250 with faulty and/or non-functioning safety and protection devices,
- non-observance of the instructions given in the user's manual with reference to the safety, transport, storage, assembly, commissioning, operation and servicing of the device.
- unauthorised alterations to the construction of the UVAHAND 250,
- negligent monitoring of equipment parts subject to wear
- repairs which are carried out incorrectly
- catastrophes, the action of foreign bodies or acts of God.

# 4 Safety regulations

*Organisational measures*

## Organisational measures

All safety devices on the equipment must be tested for correct functioning regularly, prior to carrying out work and at each shift change. Look for external signs of damage.

*Informal safety measures*

## Informal safety measures

In addition to this user's manual, the generally and locally applicable accident prevention and environmental protection regulations must be made available and observed.

*Danger due to electricity*

## Danger due to electricity

The electrical components of the UVAHAND 250 must be inspected regularly.

Before commencing work:

- check all equipment components for external signs of damage
- check that all electric cables are in perfect condition.

Loose connections must be tightened and damaged wiring replaced immediately.


**Danger**
There is a danger caused by direct or indirect contact with electricity!

## Thermal hazards

The following safety precautions must be observed when operating the UVAHAND 250:

- Never touch the filter during operation.


**Danger**
There is an acute danger of fire and burns caused by the high temperature of the filter during operation (up to 200 °C)!

- Protective clothing (protective gloves, UV protection goggles) must be worn when working within the radiation field.
- There must always be a distance of at least 1m between the equipment and flammable objects.
- If the reflector is temporarily covered with a screen, leave a gap of 3 to 5 cm between the screen and the filter to prevent a build-up of heat.
- **The UV lamp must not be used inside explosion-protected areas.**


**Danger**
The UV lamp must not be used in explosion-protected areas because of the high temperature it reaches (1000 °C). There is an acute danger of explosion!

- Never lay the lamp unit filter down while the equipment is switched on.

This would trigger the thermal fuse and cause damage to temperature-sensitive and combustible surfaces.

*Danger caused by gases and radiation*

**Danger caused by radiation**

In addition to UVA rays, the radiation source of the UVAHAND 250 also emits short-wave UV radiation (UVC and UVB).
For this reason, the UVAHAND 250 must only be operated with an intact filter.


**Danger**
**If not used properly**, UV radiation can damage the skin and eyes! It can cause severe sunburn or inflammation of the retina and conjunctiva.

The following instructions must be observed when working with the equipment:

- Never look directly into the lamp when it is switched on.
- The UVAHAND 250 must not be operated without the filter.
- The lamp must be positioned in such a way that no-one is exposed to direct radiation.
- The filter must be inspected regularly for signs of damage.
- The equipment must not be operated unless the filter is intact.
- When working within the radiation field, always wear the corresponding protective clothing and UV goggles.
- When working without protective clothing, the UV radiation must be completely shielded so that personnel is not exposed.

**Note**
Protective articles are listed in the chapter ‘Order data for equipment, spare parts and accessories’.


**Caution**

UV radiation can cause damage to electronic components!
If EPROMs are used in the vicinity of the UVAHAND 250, they must be protected against UV radiation.


**Caution**
UV radiation accelerates the aging process of materials!
Surfaces and objects sensitive to UV radiation must be protected before operation.

*Danger caused by gas*

### Danger caused by gas

Chemical fumes can be released when radiating materials with the UVAHAND 250.

- Observe the safety data sheets for the materials to be radiated.
- Where necessary, breathing equipment is to be worn, and it must be ensured that the work area is adequately ventilated.
- At the start of operation, measure the level of radiation in the atmosphere. If the level is too high, a ventilation and suction unit must be installed.
- UV rays encourage the production of ozone. For this reason, it is essential to ensure that the workroom is well ventilated.


**Danger**
The lamp contains mercury!
If it breaks when it gets hot or during operation, mercury vapour is released.
Everyone present must leave the room immediately. The room must be thoroughly ventilated.
Subsequently, the mercury residue must be collected using a suitable binding agent and disposed of appropriately.
Waste code number: 35326
Binding agent: Powdered copper or zinc or Protectasan
Fa. Frankenberg Königstein/TS
Tel.: +49 61 74 39 93

*Service, maintenance, remedying faults*

### Service, maintenance, remedying faults

All necessary servicing tasks are described in the chapter ‘Servicing, maintenance and cleaning; Servicing’. They must be carried out to ensure trouble-free operation.
In the unlikely event of faults occurring on the UVAHAND 250, the chapter 'Faults’ offers information on the causes of the fault and possible remedial action.
In the unlikely event of a fault occurring which cannot be remedied by any of the procedures listed, please contact the customer service department of the Bohle AG.
Replace any worn or damaged parts immediately.
Use only original spare parts and replacement parts.
Parts made by other manufacturers may not be satisfactory from the point of view of safety technology or their suitability for this application.

No changes may be made to the UVAHAND 250, no fittings may be added or conversions carried out without obtaining the prior permission of the supplier. In the event of claims under the warranty, for our repair and spare parts service, please contact:

Bohle AG

Dieselstrasse 10, D-42781 Haan
Postbox 1163, D-42755 Haan

Telefon: 0049 (0) 2129 5568-0
Telefax: 0049 (0) 2129 5568-201

Internet: www.Bohle.de
E-mail: Info@Bohle.de


**Warning**
No repairs or changes to the equipment other than those described in this manual may be carried out.

# 5 Transport, storage, delivery

The UVAHAND 250 consists of two units which are delivered in two cartons, or, if desired, in a plastic box:

**Lamp unit**
- spacer bar
- connector cable for linking the lamp with the ballast
- filter frame with filter
- casing
- reflector with holder and UV lamp
- protective goggles

- protective grille (optional)

**Ballast**
- The UVAHAND 250 is connected to the electricity supply via the ballast.

The delivered goods must be inspected to ensure that the consignment is complete, that there is no damage or anything else conspicuous.
Any damage detected must be documented at once and reported immediately to your specialist dealer or directly to the supplier.

**Note**
Packing material must be disposed of in an environment-friendly way or re-used if possible.
We would recommend that the packing material be kept to protect the equipment if it needs to be shipped onward or otherwise transported.

# 6 Setting-up, commissioning and operation



## General information

- When setting up the equipment, ensure that there are no fingerprints on the reflector, the lamp or the filter.
- Never touch the reflector.
- Only handle the UV lamp by its ceramic bases or with a clean cloth.
- If it is necessary to clean the reflector, the lamp and the filter, do so when they are cold, and always use a clean cloth and alcohol.

**Note**
Marks on the UV lamp or the reflector (e.g. fingerprints) will be burnt on when the lamp is put into operation. They reduce the service life and the performance of the UV lamp.

- Check the air inlets and outlets in the casing before switching the equipment on.
  There must be no foreign bodies covering or blocking the apertures.
- When the hand-held lamps are switched on, never deposit them on temperature-sensitive or combustible surfaces with the filter facing downwards.
- If the reflector is to be covered with a screen for any period of time during operation, ensure that there is a gap of between 3 and 5 cm between the screen and the filter.
  This will prevent the build-up of heat, which can lead to the destruction of the filter. While the spacer bar is fitted, this gap is automatically given, so please do not remove this bar.


**Danger**
Ensure that the cooling is sufficient when setting up the UVAHAND 250. There is acute danger of fire if the equipment is not sufficiently cooled!
Neither the ambient temperature nor the cooling air temperature may exceed 45 °C.

- The equipment must be protected against chemical fumes.
- Only operate the UVAHAND 250 in dry rooms.

*Setting-up*

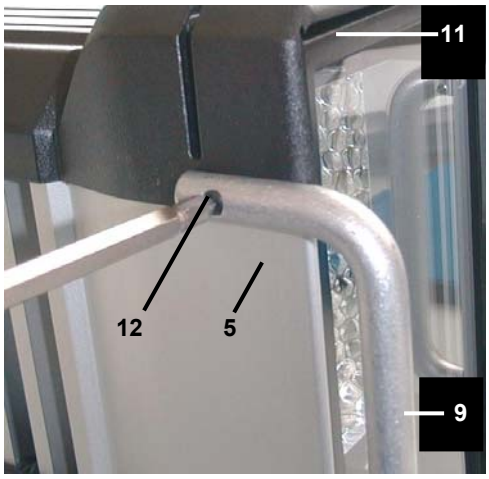
**Setting-up**

*Fitting the protective grille*

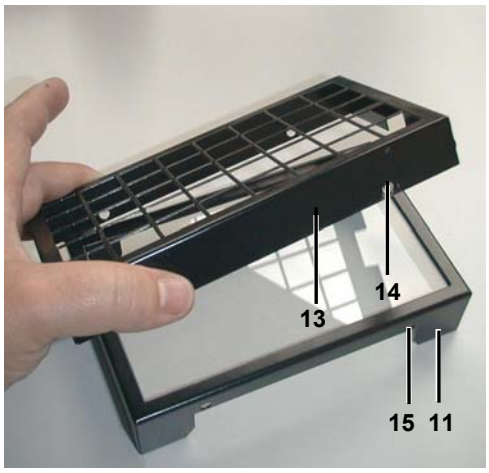
**Fitting the protective grille**

The protective grille is an optional extra.

- When fitting it, ensure that there are no fingerprints on the reflector, the lamp or the filter.

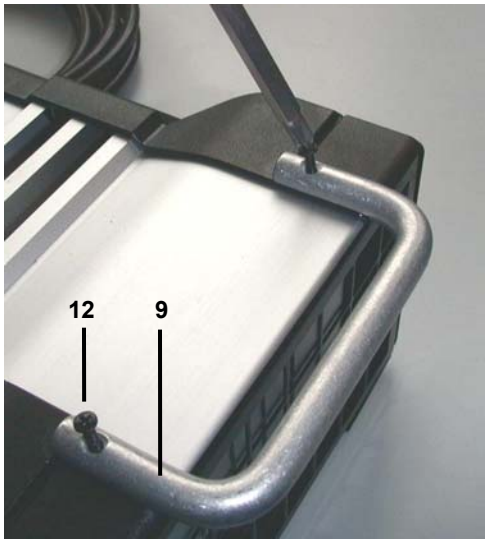



- Unscrew the four fixing screws (12) of the filter frame (11) and the spacer bar (9).
- Remove the spacer bar (9) and the filter screen (11) from the hand-held lamp (5).




- Place the protective grille (13) over the filter screen (11).
  The four bore holes (14) in the protective grille must be located directly over the four holes (15) in the filter screen (11).


- Insert the filter frame (11) with the fitted protective grille (13) into the opening at the front of the device.
- Check that it is fitted correctly.




- Bring the spacer bar (9) into position and tighten the four fixing screws (12) again.

The filter and the protective grille are now held in position and cannot fall off.

## Commissioning

### Connecting up to the mains


- Plug the connector cable of the UVAHAND 250 into the socket (4) on the ballast (1).
- Plug the mains cable of the ballast (1) into the socket.

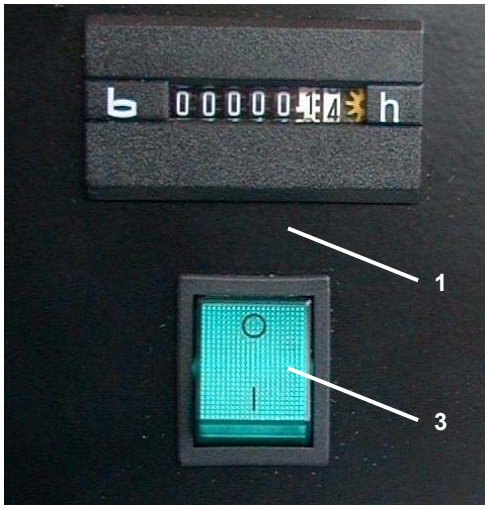
The green lamp in the mains switch (3) lights up.


**Danger**
The UVAHAND 250 may only be connected up to properly installed and earthed sockets.


**Warning**
Do not connect or disconnect the connector cable unless the ballast is switched off and de-energised.

*Switching the UVAHAND 250 on and off*

## Switching the UVAHAND 250 on and off




- The UVAHAND 250 is switched on and off by pressing the mains switch (3) on the ballast (1).

The UV lamp reaches its full power after approx. 3 minutes.
If the equipment is cold, the ignition process can take up to approx. 60 seconds.
The UVAHAND 250 is not equipped with hot ignition, which means that the lamp can only be switched on again after a cooling-off period of 3 to 5 minutes.
If interrupting work for some time, the ballast should be disconnected from the mains.

**Note**
Each time the equipment is switched on and off, its service life is reduced. Avoid switching it on and off unnecessarily.

*Operation*

## Operation

*Operation as a hand-held lamp*

## Operation as a hand-held lamp

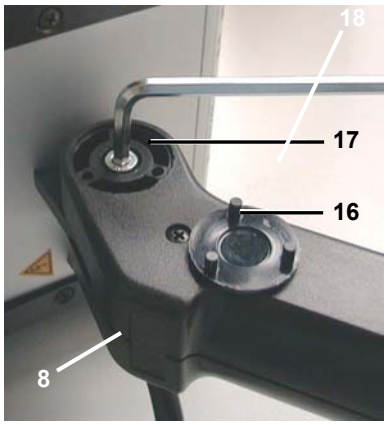
For ease of operation, the UVAHAND 250 is fitted with a handle which can be turned 90°.

*Operation on a tripod*

## Operation on a tripod

The UVAHAND 250 can be directly mounted on a tripod using the socket or the handle itself.

*Tripod operation via the socket on the casing*

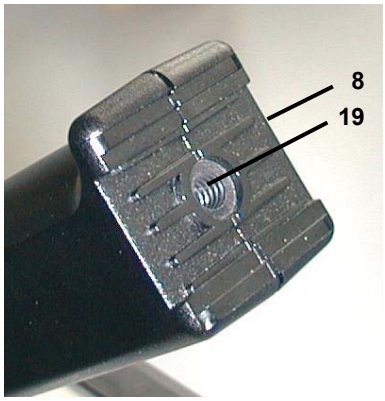



**Tripod operation via the socket on the casing**

Remove the handle (8). To do this:

- Remove the plastic cap (16) on the screw side of the handle (8).
- Using a hexagon socket screw key, undo the screw (17).
- Pull off the handle (8).
- Mount the hand-held lamp on the tripod via the socket (18) on the handle, using an M5 screw.

*Tripod operation via the handle*



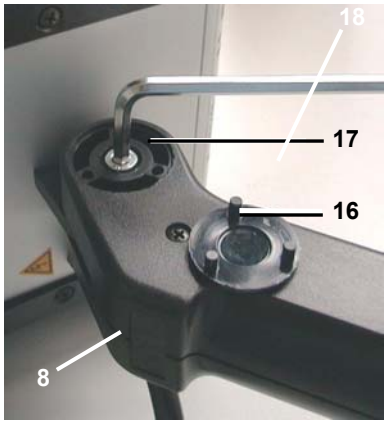

**Tripod operation via the handle**

To fix the lamp directly, without first removing the handle (8):

- Screw the photographic tripod into the threaded bore (19) in the handle (8).

## Operation as a fitted device

The UVAHAND 250 can also be operated as a fitted device.




- Remove the plastic cap (16) on the screw side of the handle (8).
- Using a hexagon socket screw key, undo the screw (17).

- Remove the handle (8).
- Using a screw (M5), attach the UVAHAND 250 to the machine at the handle mount (18).

**Note**
If the lamp unit is mounted firmly, the UVAHAND 250 must be operated horizontally. The equipment must never be tilted more than ± 10° horizontally, or the service life of the UV lamps used will be reduced.
Ensure that the ventilation is adequate and that the ventilation apertures are unobstructed.

# 7 Servicing, maintenance and cleaning

*Servicing*

## Servicing

The UVAHAND 250 requires the following servicing work:

**Daily:**
Inspect the reflector, the UV filter and the UV lamp for dust and other soiling.
If necessary, these parts must be cleaned, see: 'Cleaning the reflector, the UV filter and UV lamp'.

**After 1000 operating hours (depending on operating conditions):**
Replace the UV lamp, see: 'Replacing the UV lamp'.

**Danger**

Before carrying out servicing, switch off the equipment and disconnect at the mains.
Risk of serious, even fatal injury!

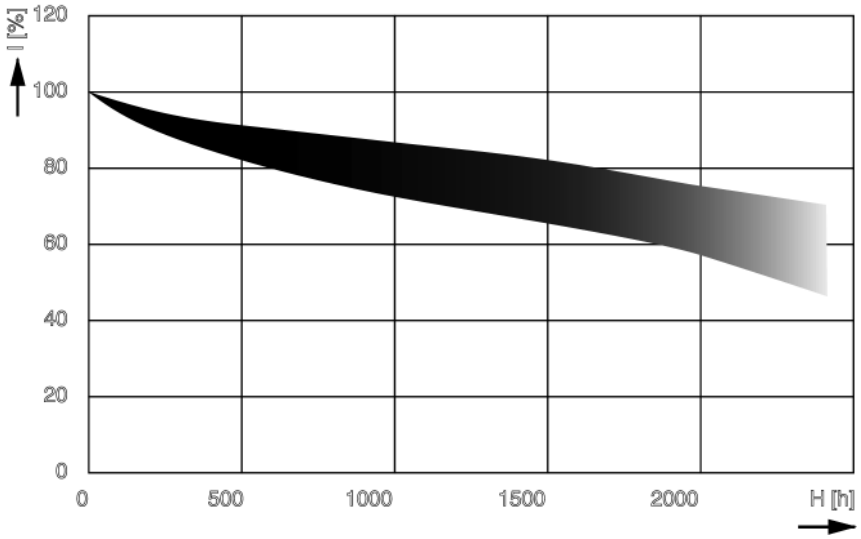

Servicing, maintenance and cleaning work must only be carried out when the equipment has cooled off.
If the equipment has been in operation before the servicing, maintenance or cleaning, a cooling-off period of at least 10 minutes must be allowed.
Acute danger of burns!

*Replacing the UV lamp*

## Replacing the UV lamp

The lamp should be replaced after approx. 1000 hours of operation.

The relative intensity of the UV radiation decreases with the number of operating hours as shown on the graph.




I relative UV intensity [%]
H operating hours [h]

**Note**
A reduction in the UV intensity makes applications less effective.

**Warning**
Use only spare parts supplied by the Bohle AG. Safe operation of the UVAHAND 250 cannot be guaranteed if spare parts from other manufacturers are used.

| | |
|---|---|
| The following replacement lamps are available : | UV lamp UV 250 F<br>BO 5209407 |

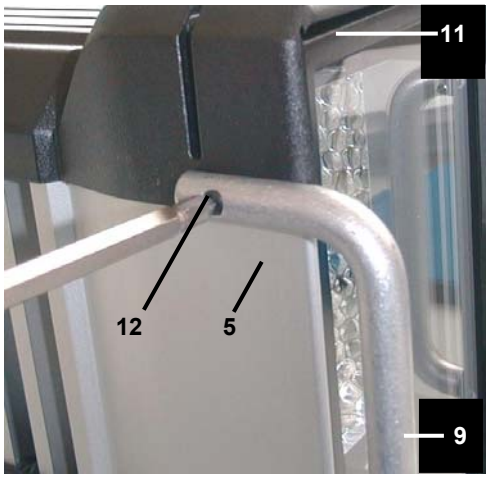
**Note**
To order spare parts, see: ‘Order data for equipment, spare parts and accessories; Spare parts’

The equipment must be opened to replace the UV lamp.

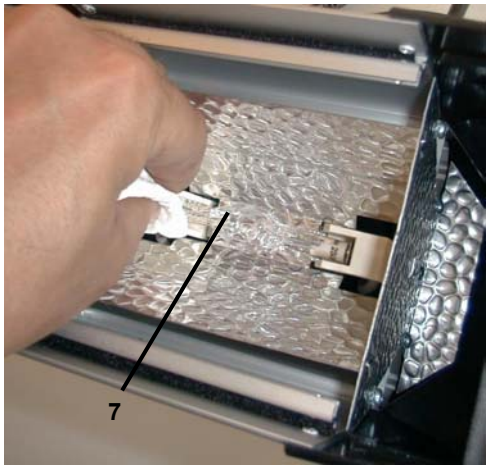
**Danger**

Before opening the equipment, switch it off and disconnect from the mains.
There is a risk of serious, even fatal injury!

Do not open the equipment until it has cooled down. If the equipment has been in operation immediately before replacing the lamp, let it cool for at least 10 minutes before opening.
Acute danger of burns!




- Disconnect the equipment from the mains.
- Back off the four fixing screws (12) of the filter frame (11).
- Remove the spacer bar (9) and the filter frame (11) from the hand-held lamp (5).

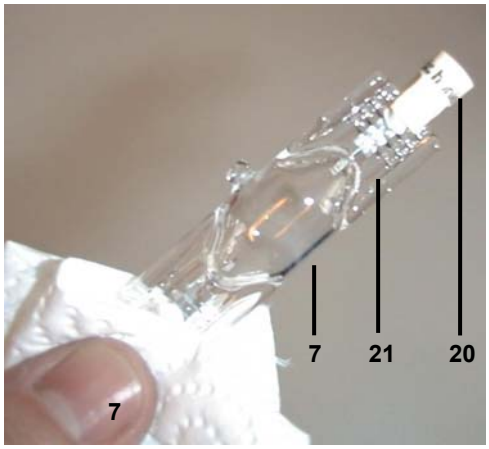



- Pressing the lamp (7) at the sides, in the direction of the lamp axis, push it into one of the two lamp holders.

The UV lamp (7) springs free of the holder at its other end.

- Remove the UV lamp (7).

**Note**
UV lamps contain mercury and must therefore be disposed of as special waste.
Waste code number: 35 326




Always handle the new lamp (7) only by its two ceramic bases (20).

Do not touch the bulb (21).

- Check the new lamp for soiling.
- If necessary, clean the new lamp using a clean cloth and alcohol.
- Fit the new lamp.
- Check that there is correct contact between the lamp bases and the lamp holders.
- Place the filter frame on the casing.
- Check that it is fitted correctly.
- Put the spacer bar in position and tighten the four fixing screws. Do not over-tighten.

The UVAHAND 250 is ready for operation again.

## Maintenance

### Replacing the UV filter


**Danger**

Never operate the equipment if the filter is damaged or without a filter. UV radiation is a health hazard!

The UV filter is a unit comprising a filter and a filter frame.
The filter unit needs replacing if:

- the filter is damaged.
- a different radiation spectrum is required for the application.


**Warning**
Use only spare parts manufactured by the supplier. The operational safety of the UVAHAND 250 cannot be guaranteed if other parts are used.

The following filter parts are available from the Bohle AG:

Filter H1 with frame BO 5209406

Filter BL with frame BO 5209408

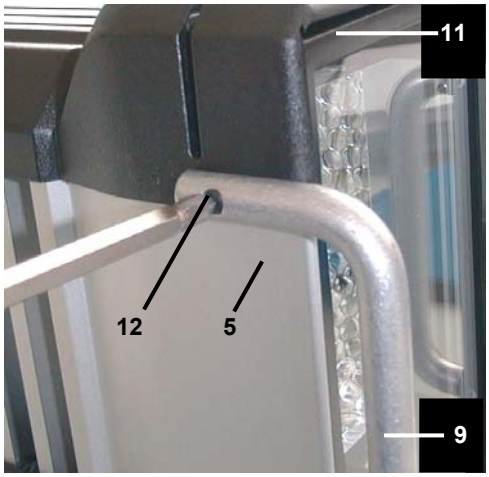
**Note**
To order spare parts, see: ‘Order data for equipment, spare parts and accessories; Spare parts’.

The equipment must be opened in order to replace the UV filter.


**Danger**

Before opening the equipment, switch it off and disconnect from the mains. There is a risk of serious, even fatal injury!

Let the lamp cool for at least 10 minutes before opening.
Acute danger of burns!




- Disconnect equipment from the mains.
- Unscrew the four fixing screws (12) of the filter frame (11).
- Remove the spacer bar and the filter frame (11) from the hand-held lamp unit (5).

- Check the new filter unit for soiling.
- If necessary, clean the new filter unit, using a clean cloth and alcohol.
- Place the filter frame on the casing.
- Check that it is fitted correctly.
- Put the spacer bar in position and fit the four fixing screws. Do not over-tighten the screws.

The UVAHAND 250 is ready for operation again.

*Cleaning*

## Cleaning

*Cleaning the reflector, the UV filter and the UV lamp*

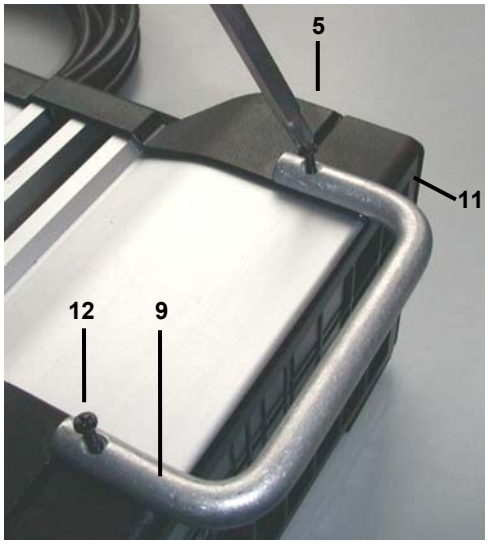
### Cleaning the reflector, the UV filter and the UV lamp

If the equipment is operated in a dust-laden environment, the reflector, the UV filter and the UV lamp become soiled very quickly.
The equipment must be opened in order to clean the reflector, the UV filter or the UV lamp.


**Danger**

Before opening the equipment, switch it off and disconnect from the mains.
There is a risk of serious, even fatal injury!

Do not open the equipment until it has cooled down. If the equipment has been in operation immediately before cleaning, let it cool for at least 10 minutes before opening.
Acute danger of burns!




- Disconnect the equipment from the mains.
- Unscrew the four fixing screws (12) of the filter screen (11).
- Remove the spacer bar (9) and the filter frame (11) from the hand-held lamp unit (5).
- Clean the reflector, the filter and the UV lamp, using a clean cloth and alcohol.

**Note**
Do not use aggressive or abrasive agents for cleaning.

- Place the filter frame on the casing.
- Check that it is fitted correctly.
- Put the spacer bar in position and fit the four fixing screws. Do not over-tighten the screws.

The UVAHAND 250 is ready for operation again.

*Cleaning the surface of the equipment*

**Cleaning the surface of the equipment**

Never use aggressive or abrasive cleaning agents to clean the equipment surfaces. Use only mild cleaning agents containing tensides, cleaning cloths or a damp sponge. No moisture must be allowed to penetrate into the equipment.

# 8 Order data for equipment, spare parts and accessories

*Ordering*

## Ordering

Order spare parts from our spare parts service:

Bohle AG

Dieselstrasse 10, D-42781 Haan
Postbox 1163, D-42755 Haan

Telefon: 0049 (0) 2129 5568-0
Telefax: 0049 (0) 2129 5568-201

Internet: www.Bohle.de
E-mail: Info@Bohle.de

*Equipment*

## Equipment

| Description | Article / Order Number |
|---|---|
| UVAHAND 250 H1 | BO 5209404 |
| UVAHAND 250 BL | BO 5209415 |

*Spare parts*

## Spare parts

| Description | Article / Order Number |
|---|---|
| Spare lamp UV 250 F | BO 5209407 |
| Filter H1 with frame | BO 5209406 |
| Filer Bl with frame | BO 5209408 |


**Warning**
Use only original spare parts from the supplier. The operational safety of the UVAHAND 250 cannot be guaranteed if other parts are used.

## Accessories

| Description | Article / Order Number |
|---|---|
| Transport case Systainer | BO 5209409 |
| Protective goggles, tinted | BO 5007610 |

# 9 Faults

*General information*

## General information

The following fault lists contain information on faults which may occur on the UVAHAND 250, possible causes and tips on how to remedy the fault.

If a fault occurs on your equipment and cannot be remedied by following these instructions, contact the customer service department of the Bohle AG.

Contact address:

Bohle AG

Dieselstrasse 10, D-42781 Haan
Postbox 1163, D-42755 Haan

Telefon: 0049 (0) 2129 5568-0
Telefax: 0049 (0) 2129 5568-201

Internet: www.Bohle.de
E-mail: Info@Bohle.de

*Fault list Part 1*

## Fault list Part 1

| Fault | Cause of fault | Remedial action |
|---|---|---|
| Green lamp on the mains switch does not light up | Device is not plugged in to the mains. | • Plug in to the mains, see: ‘Setting-up, commissioning and operation; Connecting up to the mains’. |
| | No current at the mains socket. | • Check the main fuse. |
| | Mains fuse is faulty. | • Replace fuse. |
| UV lamp does not ignite | The ballast and the UVAHAND 250 are not connected. | • Connect connecting cable, see: ‘Setting-up, commissioning and operation; Connecting up to the mains’. |
| | The UVAHAND 250 is cold. The ignition process can take up to approx. 60 seconds. | • Wait for ignition, see: ‘Setting-up, commissioning and operation; Switching the UVAHAND 250 on and off’. |
| | UV lamp is not fitted correctly. | • Fit UV lamp correctly, see: ‘Setting-up, commissioning and operation; Replacing the UV lamp’. |
| | UV lamp is faulty. | • Replace UV lamp, see: ‘Setting-up, commissioning and operation; Replacing the UV lamp’. |
| | UV lamp is still hot after repeated use. | • Allow the prescribed 3 to 5 minutes for the equipment to cool off, see: ‘Setting-up, commissioning and operation; Switching the UVAHAND 250 on and off’. |

*Fault list Part 2*

## Fault list Part 2

| Fault | Cause of fault | Remedial action |
|---|---|---|
| Casing becomes too hot, filter bursts | Ventilator is not running | • Switch equipment off immediately. Send it to the customer service department. |
| | The air inlets and outlets of the ventilator are covered or blocked by foreign bodies. | • Remove foreign body or covering, see: ‘Setting-up, commissioning and operation; General information’. |

# 10 Technical data

*Dimensions and weights*

## Dimensions and weights

| | Width [mm] | Depth [mm] | Height [mm] | Weight [kg] |
|---|---|---|---|---|
| **Mobile hand-held lamp unit** | 180 | 213 | 150 | 1,5 |
| **Ballast unit** | 115 | 255 | 170 | ca. 4 |

*Electrical data*

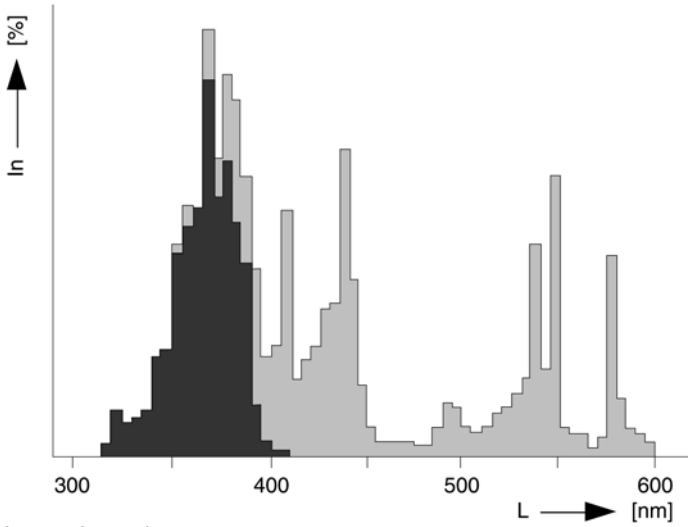
## Electrical data

| **Ballast unit:** | |
|---|---|
| Voltage | 230 V ±10 % |
| Mains frequency | 50 Hz |
| Power consumption | 310 W |
| Fuse | T 6.3 A |

*UV spectrum*

## UV spectrum

The UVAHAND 250 can be operated with different filters (H1 and BL 400 nm). See: ‘Order data for equipment, spare parts and accessories; Spare parts’.
The following diagram shows the UV radiation spectra emitted by the UV lamp.

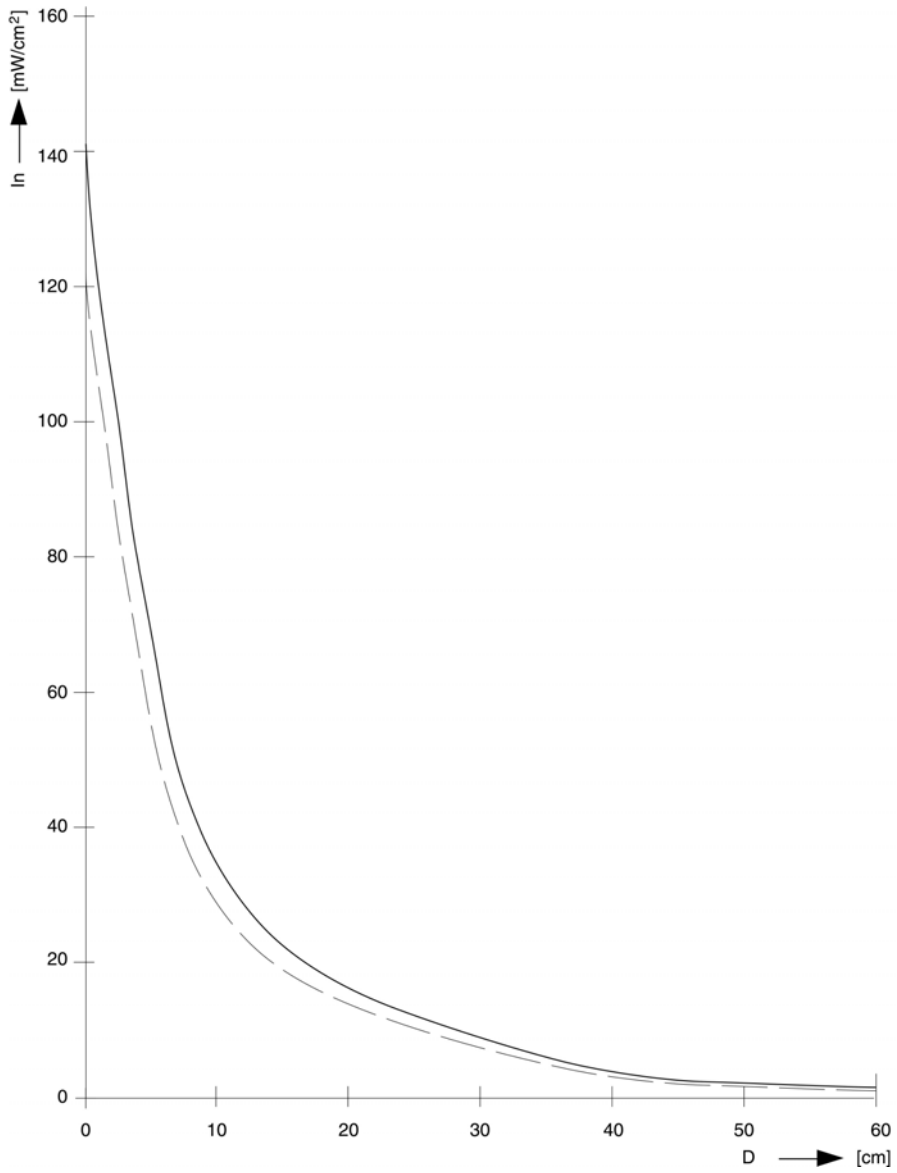



In Intensity
L Wave length

UVAHAND 250 H1
UVAHAND 250 Black light

## Radiation intensity

The following diagram shows the respective radiation intensities for different filters on the lamp UV 250 F.




In UVA intensity
D Distance

——— Filter glass H1
----- Filter glass BL