



UVC-5

Light-Curing Conveyor User Guide



About Dymax

UV/Visible light-curable adhesives. Systems for light curing, fluid dispensing, and fluid packaging.

Dymax manufactures industrial, light-curable, epoxy, and activator-cured adhesives. We also manufacture a complete line of manual fluid dispensing systems, automatic fluid dispensing systems, and light-curing systems. Light-curing systems include LED light sources, spot, flood, and conveyor systems designed for compatibility and high performance with Dymax adhesives.

Dymax adhesives and light-curing systems optimize the speed of automated assembly, allow for in-line inspection, and increase throughput. System designs enable stand-alone configuration or integration into your existing assembly line.

Please note that most dispensing and curing system applications are unique. Dymax does not warrant the fitness of the product for the intended application. Any warranty applicable to the product, its application, and use is strictly limited to that contained in the Dymax standard Conditions of Sale. Dymax recommends that any intended application be evaluated and tested by the user to ensure that desired performance criteria are satisfied. Dymax is willing to assist users in their performance testing and evaluation by offering equipment trial rental and leasing programs to assist in such testing and evaluations. Data sheets are available for valve controllers or pressure pots upon request.

Important Information Before Initial Start-Up and First Operation

Read the operating instructions before using the device for the first time.



The operating instructions must be accessible to the operating personnel of the operator.

The system operator must issue work instructions for the operation.

The product's guarantee becomes invalid if the product is damaged due to non-observance of these operating instructions. We do not assume any liability for any consequential damage.



The system operator must make sure that the connection to the power supply is made correctly. It is recommended to have the power supply checked by a specialized company before the initial start-up (loop resistance etc.).

We cannot be held liable for damage resulting from an incorrect current/power supply.



According to DIN VDE 0100 part 600, a PE conductor test must be carried out before re-commissioning the device after having installed, extended or repaired the electrical system.

This measurement during the first start-up must be documented and the results must be saved.

The information given in chapters "Safety" and "Commissioning" must be observed!

General information



The device has been built in accordance with the state-of-the-art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or third parties, or cause damage to the machine and other material property.

The device is designed exclusively for the application mentioned in the order confirmation. If not contractually agreed upon, using the machine for purposes other than those described above is considered contrary to its designated use. The manufacturer cannot be held liable for any damage resulting from such use. The risk lies entirely with the system operator.

We reserve the right to make modifications to the design and technical data in the interest of further development. No claims can therefore be derived from the data, illustrations or drawings and descriptions. Errors are excepted.

These operating instructions are intended for users. Dymax Europe GmbH reserves the right to make modifications without prior notice. All rights regarding these operating instructions remain with Dymax Europe GmbH. The texts, illustrations and drawings of these instructions may not be reproduced, distributed or used without prior permission or communicated to third parties for competition purposes. These instructions were compiled with utmost care. Nevertheless, if you detect any errors, we would be grateful for any information from you to that effect.

General Safety Considerations

In addition to the operating instructions and mandatory regulations for accident prevention applicable in the country of use, the standard technical rules for safe and professional work according to UVV (German Accident Prevention Regulation), VBG (Administrative and Professional Association), VDE (Association for electrical engineering) etc. must be observed as well.

However, this device may constitute a hazard if used improperly by unqualified personnel or for a purpose other than the intended one.



Only skilled electricians are allowed to work on the electrical system or components in compliance with the electro-technical rules (e.g. EN 60204, DIN VDE 0100/0113/0160). The operator has to make sure that the electrical systems and equipment are operated and maintained according to the electrotechnical rules.

In general, it is not allowed to carry out work on parts under voltage. The protection class of the device may be IP00 for certain components (direct contact with hazardous voltage is possible).

Use the device only if it is closed.

Fuses must not be repaired or bridged but only replaced. Use only fuses according to the circuit diagram or spare parts list.

Before carrying out repair or maintenance work, check whether the system is de-energized using a two-pole voltage tester. Identified defects on electrical systems / equipment / components must be eliminated immediately. If there is an acute danger, the defective device / system must not be operated.

Transport and storage



Transport the device only if packed in the original or in an appropriate packaging. In case of big devices, it is recommended to use a transport base or a pallet for transport.

Store the device in a dry place protected from the effects of the weather. Avoid exposure of the device to extreme heat and cold. Observe the transport instructions in the operating manual.

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1. Important general information

1.1. Scope of delivery

The scope of delivery includes:

- UV curing conveyor delivered as desktop device
- UV bulb included in the delivery (number and doping according to the delivery note)
- Standard connecting cable 2 m
- Technical documentation according to order / performance specification
- EC Declaration of Conformity (A) according to the EC Machinery Directive 2006/42/EC
- Various accessories (see delivery note)
- Safety goggles

Not included in the scope of delivery:

- Pipework for supply and exhaust air

1.2 Responsibilities

In the following section, the different responsibilities of the manufacturer and operator are defined.

1.2.1 Responsibilities of the manufacturer

A risk assessment for this device has been performed by the manufacturer and the result has been documented according to DIN EN 12100. The manufacturer delivers a device which complies with the EC Machinery Directive 2006/42/EC dated 17 May 2006, appendix II A.

The concept and design of the device correspond to the basic safety and health requirements of the EC Machinery Directive; therefore, the device has received the CE mark and declaration of conformity.

This declaration will cease to be valid if any modification is made to the device without previous consultation and consent of Dymax Europe GmbH. The signed declaration of conformity is a part of this operating manual, the CE mark has been placed near the rating plate of the system.

The device has been extensively tested in our premises before delivery, the safety equipment has been checked and the results have been documented in a test report. The prescribed electrical tests according to VDE 0113 (EN 60204-1) (e.g. isolation resistance, measurement of PE conductor) have been carried out and documented by the manufacturer.

1.2.2 Responsibilities of the system operator

The operator is obliged to issue a risk assessment and to train the employees (operating personnel, maintenance personnel) regarding the handling of the device.

The operating manual informs the system operator about the possible dangers that may arise from the device. The respective safety instructions are indicated in this operating manual and can be used for the risk assessment and operation training.



To create a risk assessment, Dymax Europe recommends to observe the brochure "Risk assessment - hazard catalog" (A017 (BGI 571) ISBN 978-3-920506-38-8) from the German Professional Association of Raw Materials and Chemical Industry (BG RCI).

1.3 External interfaces

The system is equipped with external interfaces which are described in detail in the manual. The circuit diagram clearly shows and documents the details of the external interface in the item "Machine interface".

1.4 Legal notes

1.4.1 Warranty and liability

The general terms of delivery of the manufacturer are generally applicable. Claims under warranty and liability for personal injury and material damage are excluded especially if they are due to one of the following causes:

- Incorrect handling
- Use for purposes other than its designated use
- Non-observance of the safety regulations
- Use of a wholly or partly defective device
- Non-observance of this operating manual
- Modifications on the device
- Improper repair
- Force majeure, disasters etc.

1.4.2 Safety regulations

- Before use, the system must be checked for damage.
- Regulations regarding accident protection and prevention must be observed.
- The instructions indicated in this manual must be followed.
- The functionality of the emergency stop devices (such as the emergency stop switch) must be checked regularly before starting work.
- Wear your personal protective equipment (e.g. UV safety goggles) when working on and with the device.
- Check the connections to the power system at regular intervals and replace them in case of damage.
- It is not allowed to modify or extend the device without prior consultation with the manufacturer.
- Use only original spare and wear parts (see spare parts list with DYMAX EUROPE article numbers).
- The chapter "Maintenance work" of this operating manual describes most of the maintenance operations which are required for proper use of the device.
- If a fault which is not described in chapter "Troubleshooting" of this manual occurs on the device, contact the after-sales service of the manufacturer.

1.5 Documentation

1.5.1 Language

The original documentation of the device was written in German.

1.5.2 Use of the supplier documentation

The latest supplier documentation can be found on the homepages of the respective manufacturer.

1.5.3 Conventions

Symbol	Meaning
	"Note" Contains special information and useful tips regarding the handling of the device.
	"Important" Warnings are additionally marked with this symbol. If the prescribed measures are not taken or adhered to, there is a risk of injury or material damage.
	"Disposal instruction" This symbol informs you about the correct disposal (e.g. disposal of the bulbs).

1.6 Service support

Whenever service is needed, please send your technical questions directly to the manufacturer or to your distribution partner.

Please keep the device number and software version ready in order to be able to answer the questions of the service department.

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Web: www.dymax.de

For service requests, specify the following data:

Device designation / type	Mini UV laboratory dryer
Serial number / device number	xxx (see rear side of the device)
Date of manufacture	20xx

2. Device description

2.1 Overall design

The mini UV laboratory dryer consists of a lamp unit (Fig. 2) and a transport unit. The following section describes the transport system and the lamp unit.

2.1.1 Transport system

The electrical control system and operating elements are located in the transport system. By pressing a switch, the power of the UV lamp can be reduced from 100% to approx. 50%. Iron-doped lamps can only be operated under full load.

The supply connections are located on the rear side of the device. Fans are used for sufficient cooling of the electrical components and UV bulb.

The transport speed can be set from 2 - 26 m/min (according to the table) by turning the potentiometer in the front plate. It is recommended to check the speed using an appropriate measuring instrument.

2.1.2 Lamp unit

A UV bulb with a power of max. 140 W/cm is used as radiation source. The lamp unit is provided with integrated excess temperature protection which switches the system off in case of insufficient lamp cooling.



Upon delivery, the UV bulb is not mounted. Before using the dryer for the first time, the bulb must be built in according to the mounting instructions indicated in this operating manual.

It is recommended to dismount the bulb before transporting or storing the UV dryer.

Figure 1.
Transport system with lamp unit

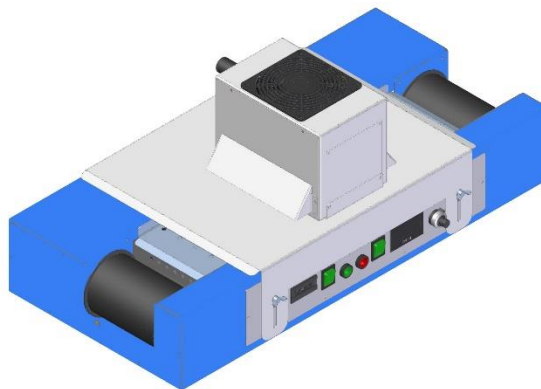
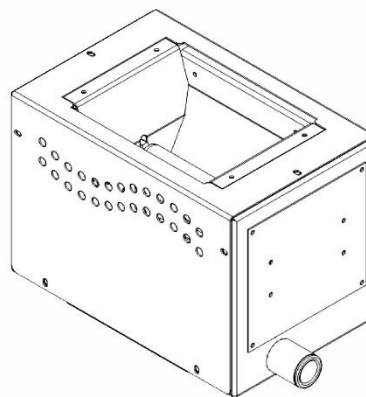


Figure 2.
Lamp unit



2.2 Application

The UV curing system is exclusively designed for curing of suitable, UV-sensitive materials such as colors, paints, adhesives and casting compounds.



The use for other drying processes such as drying of solvent-containing materials is not allowed. Risk of explosion in case of high solvent concentration!

3. Safety instructions

The mini UV laboratory dryer UVC-5 complies with the state of the art and recognized safety rules. Nevertheless, it may give rise to risks.



Danger: High voltage! The UV bulb is operated with an ignition voltage of approx. 2,800 V-4,500 V. Always press the main switch to disconnect the device from the electrical system and pull the plug before carrying out any work on the system, especially before replacing the UV bulbs! Danger to life! After switching off, wait for approx. 3 minutes to let the capacitors discharge!



Safety information! Use the mini UV laboratory dryer only if it is in perfect condition and observe the operating manual.

3.1 UV radiation

3.1.1 Indirect effect of the UV radiation, generation of ozone



Ozone is generated by UV radiation with a wavelength of less than approx. 200 nm as a consequence of the dissociation of molecular oxygen. Ozone in a specific concentration is a toxic gas. Ozone can damage the mucous membranes. Concentrations of 0.1 to 0.2 ppm for several hours can cause headache, pains in the chest and dryness and irritation of the upper respiratory tract.

Therefore, make sure that the ozone-containing air is extracted and guided to the outside. The ozone rapidly dissociates into oxygen.

3.1.2 Effect of UV radiation on the skin



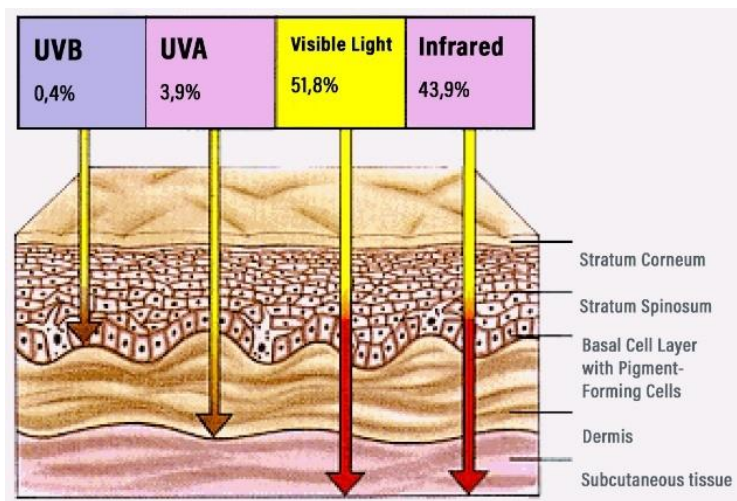
Everybody knows the effect of an acute overdose in form of a sunburn which normally remains an unpleasant memory.

Along with intensity of radiation, the spectrum is very important for damage.

Spectra of the UV bulbs

Most of the UV bulbs used emit approx. 30% UV radiation, 15% visible light and 55% infrared (heat). The UV radiation is emitted in different spectra. The UV radiation of the UV bulbs can be classified in: UV-A (315-400 nm), UV-B (280-315 nm), UV-C (100-280 nm). The percentage of each wavelength range depends on the doping of the UV bulb and is indicated in the respective data sheet.

Figure 3.
Skin Incision



Different spectra have different effects on the skin

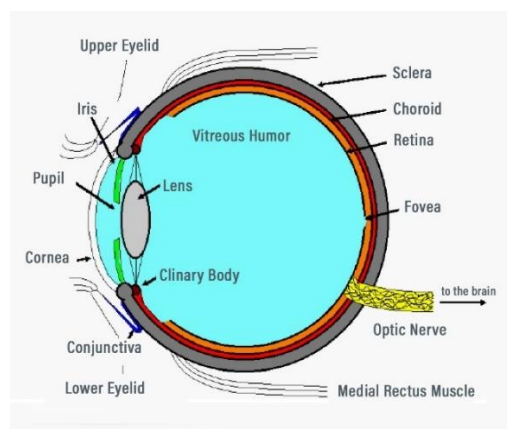
UV-A	• Direct pigmentation • Damages the collagens in the skin • Increased risk of melanoma due to formation of free radicals • Low risk of erythema (sunburn)
UV-B	• Indirect pigmentation • Strong erythema effect (= high risk of sunburn) • Formation of anti-rachitic cholecalciferol (vitamin D3)
UV-C	• Very deep penetration into the skin • Sunburn caused by UV-C abates the next day (=no long-term damages due to sunburn and its consequences)

3.1.3 Effect of the UV radiation on the eye



Long-wave UV radiation is absorbed almost exclusively by the lens body. A part of it can get into and affect the posterior eye chamber. Short-wave UV radiation is absorbed by the cornea. Overexposure of the conjunctiva and cornea causes inflammation of the conjunctiva and cornea.

Figure 4.
Eye Incision



Type of radiation	Penetration depth
UV-C and UV-B (in part)	Cornea / conjunctiva
UV-B (in part) and UV-A	Eye lens
Visible radiation	Retina
IR-A (in part)	Retina, vitreous body
IR-A (in part)	Eye lens
IR-B and IR-C	Cornea / conjunctiva

The transitions and penetration depths are fluid. For a more precise determination, the degree of transmission of the individual parts of the eye must be specified based on the wavelength. Besides, the permeability of the eye depends on the age. At a young age, the anterior part of the eye is more permeable for optical radiation than at an older age.

For further information on the dangers to the eye caused by optical radiation, we recommend the report of the employer's liability insurance association "Risk of damage to the eyes", edition 07/2002.

3.1.4 Protective measures



In general, protective measures against UV radiation are not difficult to take since this is a "non-volatile noxious agent" obeying the simple laws of physics regarding diffusion. The so-called indirect risks of short-wave UV radiation resulting from the generation of ozone can easily be reduced by placing an exhauster near the radiation source.

The general protective measures include:

- Marking of locations where especially powerful lamps of the UV-C range are installed.
- Careful check for metallic objects with a smooth surface in the radiation area which can generate direct and wide-ranging reflections (cover or paint them).
- Use of light-proof protective housings which can only be removed or opened using a tool and which are equipped with interlock switches.
- Loading doors for materials or similar openings easy to open where radiation can escape should be equipped with interlock switches.



The employees should be informed about the installed UV radiation sources and protective measures. We recommend to read the publication series of the German Federal Institute for Occupational Safety and Health "Protection against ultraviolet radiation" (ISBN 3-88314-352-9).

3.2 Mercury

The UV bulbs contain a low quantity of mercury. If they are damaged, mercury vapours may escape and come into contact with the skin.



Leave the room and air it thoroughly. Afterwards remove the mercury residuals using a binding agent and dispose it of. We recommend to use the UV safety set from the manufacturer.

3.3 General electrical hazards

Danger area	Danger group	Consequences	Danger source
Switch room	Electrical hazards	Burns Lethal electrical shock	Electric arc; live components; short-circuit; overload Parts which have become electrically live due to faults

Hazard description

In all stages of service life, electrical hazards may occur which endanger the entire staff of the system operator and service personnel.

- Touching the voltage connections during bulb replacement
- Touching live parts
- Touching the conductive parts which become electrically live due to faults

Protection aim

Avoiding the contact with hazardous voltage by means of a constructive solution. Live components are located in the switch room which can only be opened using suitable tools. Heating elements are also protected against direct contact.

Protective measures

- Before carrying out work on the device, it must be disconnected from the power supply.
- Live parts are only accessible if a suitable tool is used.
- Protection against direct and indirect contact (basic protection) is provided (see appendix 1, no. 2.18 BetrSichV (Regulation of Industrial Safety)).
- No hazardous voltage on the housing of components or the system due to protective grounding (equipotential bonding).
- Installation of main switch and use of protective low voltage for device control.
- Warning labels on the device and warning notes in the operating manual.
- Installation of RCD - residual current circuit breakers (option).

In general

- The 5 safety rules have to be observed (DIN VDE 0105-1 / DIN EN 50110-1).
- Work on electrical systems and pieces of equipment must only be performed by qualified electricians (defined operations) (BGV A3, DIN EN 50110-1).
- Use insulated tools only.
- Use suitable personal protective equipment.

5 - Safety rules:

1. Disconnect
2. Secure against switching on again
3. Make sure that there is no voltage on all poles.
4. Ground and short-circuit
5. Cover or shield adjacent live parts

Valid standards:

BGV A3, BGR A3, DIN 57100, DIN VDE 0101, DIN EN 50 110-1, DIN EN 60529

Residual risk

When using electronical or electrical components, there may always be a defective one which no longer fulfills the safety function (e.g. connections protected against unintentional contact, live components). To minimize this risk, the device must be maintained at regular intervals. The recommended maintenance work and intervals are indicated in the operating manual.

To minimize the residual risk, the following measures are recommended:

- Regular maintenance to avoid damage to the lamp or lamp breakage.
- Electrical check of the device during commissioning (e.g. insulation values, residual current).
- Repeated, regular check of the electrical parts.
- During all work on electrical components, the 5 safety rules must be observed.

3.4 Electrical hazard - Fire

Danger area	Danger group	Consequences	Danger source
Switch room	Electrical hazards	Fire	Thermal radiation; short circuit; electric arc; solvent-containing materials

Hazard description

In all stages of service life, electrical hazards may occur which endanger the entire staff of the system operator and service personnel. In case of a short circuit in the device, the electric arc may provoke a fire/an explosion. In case of fault (e.g. insufficient cooling), the lamps or the housing may become overheated. The hot surface may lead to an ignition / explosion of the ambient air.

Protection aim

- Avoiding the fire and explosion hazard.
- Protective measures
- Only regular maintenance work can prevent the components from burning.
- When electrical / electronical components are used, there can always be a short circuit igniting the component.
- Regular maintenance can minimize the risk but cannot eliminate the risk completely.

Residual risk

Only regular maintenance work can prevent the components from burning.

Protective measures against fire and explosion hazards in connection with the IR radiation and vapours are explained in detail in the operating manual and in the calculation and are not looked at closely in this document.

4. Installation of the system



The device must only be commissioned and operated by qualified persons.

Qualified personnel within the scope of safety-related instructions are persons who are allowed to install, ground and mark devices, systems and electric circuits according to the safety standards.

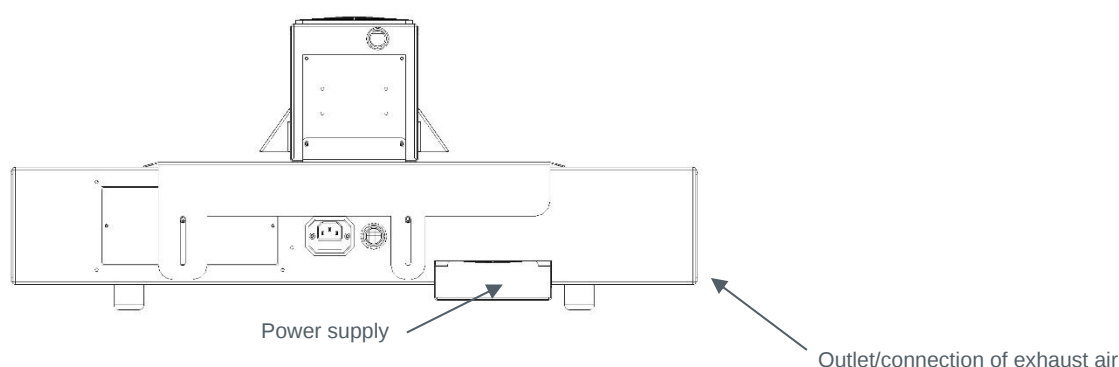
Due to high voltage required for the operation of lamps, the covers of the ballast and the hood of the dryer must not be opened by unauthorized persons.

Wear UV safety goggles when performing any measuring and inspection work.

To avoid overheating of components, first, switch off only the lamps at the end of the workday.

Figure 5.

Rear side UVC-5



The power supply cable (230 V/50 Hz) is located on the rear side of the mini laboratory dryer. Before connecting the device, observe the technical data indicated in this operating manual.

The lamp unit of the mini UV laboratory dryer can be mechanically adjusted by means of screws. For safety reasons, the height should only be adjusted if the device is off. Using suitable protective devices, the surrounding area is protected against UV radiation to the greatest possible extent. Due to the design, UV radiation is emitted at the inlet and outlet. Avoid unnecessary light emission by positioning the height adjustment to the lowest possible position. Take appropriate protective measures to protect the device environment against UV radiation (e.g. protective curtain, cover etc.). Make sure that the supply air and exhaust air openings are not covered. The lamp case can be dismantled in order to facilitate lamp replacement.



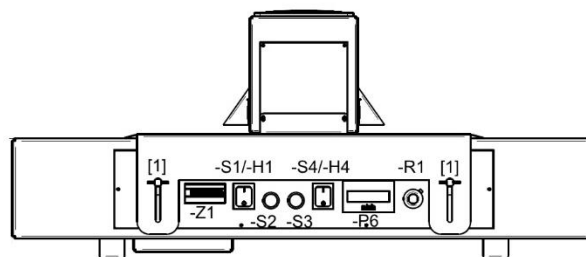
To protect your employees:

It is possible to conduct the exhaust air of the device outside using a suitable exhaust air hose. The exhaust hose connection piece (accessory) can be ordered from the manufacturer.

5. Commissioning

- S1 Rocker switch transport belt On / Off
- Mini UV dryer On / Off
- S2 Pushbutton UV lamp On
- S3 Pushbutton UV lamp Off
- S4 Rocker switch half/full power
- H1 Indicating lamp transport belt On
- H4 Indicating lamp half/full power
- R1 Potentiometer transport speed
- Z1 Runtime counter
- P6 Display transport speed

Figure 6.
Front side of the UVC-5



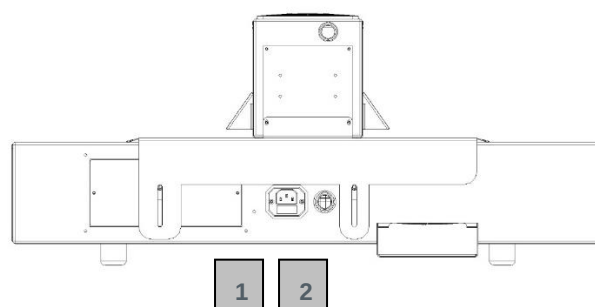
Designation:

1. Connector plug with mains fuse
2. Lamp supply line



Before connecting the device, check whether the data on the rating plate comply with the supply voltage.

Figure 7.
Rear side of the UVC-5



5.1 Switching on the system

Observe the safety instructions in this operating manual!

- Press the switch pos. 3 (conveyor On/Off), the belt is running and the fan of the lamp unit is in operation.
- Start the UV lamp by pressing the key pos. 4. The lamp is switched on and the fan in the ballast starts running.
- After approx. 3 minutes, the lamp has reached full capacity. The lamp is now ready for operation. The desired power level can be selected by means of the switch pos. 6 (0 = half power, 1 full power).
- Set the desired transport speed by means of the potentiometer (pos. 1).

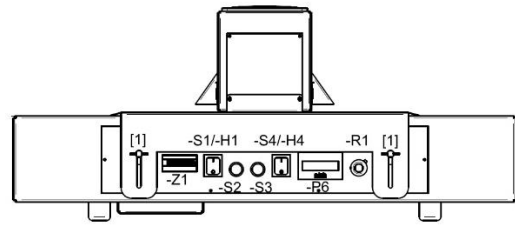
5.2 Switching off the system

- Switch off the UV lamp by pressing the key pos. 5. The lamp goes out and the fan in the ballast is switched off.
- The lamp unit needs approx. 5 minutes to cool down sufficiently. You can switch off the mini UV laboratory dryer by pressing switch 3 only after this time has elapsed since there is a risk of heat accumulation.

5.3 Belt speeds

The rotary potentiometer (R1) allows continuous speed control. The transport speed (2 - 26 m/min) is shown on the LCD - display (P6). It is recommended to check the belt speed at regular intervals with an appropriate measuring instrument.

Figure 8.
Front side of the UVC-5



5.4 Height adjustment

To adjust the height of the device mechanically, loosen the wing screws (see fig. 6, pos. 1).

Please note that the high transport height may cause higher radiation emission of the device. The operator is obliged to mount suitable protective devices.

With high transport height, personal safety equipment, such as safety goggles, must be used. The safety instructions must be observed.

6. Maintenance work



Maintenance work has to be carried out regularly to maintain the operational reliability. In this section the main operations, such as lamp replacement, which have to be carried out during maintenance work are described.

All special spare parts can be purchased from *DYMAX EUROPE*. For this purpose, specify the listed article numbers.



BEFORE CARRYING OUT MAINTENANCE AND REPAIR WORK, THE DEVICE MUST BE DISCONNECTED FROM THE POWER SUPPLY BY QUALIFIED PERSONNEL!

Make sure that the capacitors are discharged before starting maintenance work.

The safety instructions regarding handling of electronic ballast must be observed!

6.1 Replacing the UV bulb



Before replacing the lamp, make sure that the dryer has cooled down sufficiently (risk of burns).

Disconnect the machine from the power supply system, switch off the main switch and lock it. Pull the power plug.

Before loosening the connecting cables by short circuiting the lamp cables make sure that the device is electrically discharged.



Replacement approx. **every 500 - 1000** hours or earlier if the required throughput times become inadmissibly long.

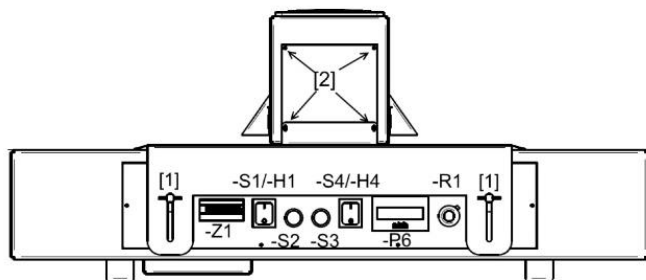
USE ONLY ORIGINAL DYMAX EUROPE BULBS. THIRD-PARTY PRODUCTS CAN DAMAGE THE DRYER.

CAUTION - Warning during UV measurement When performing UV measurement at high speed using an UV integrator, make sure that it is caught accordingly.

When replacing the UV bulb, proceed as follows:

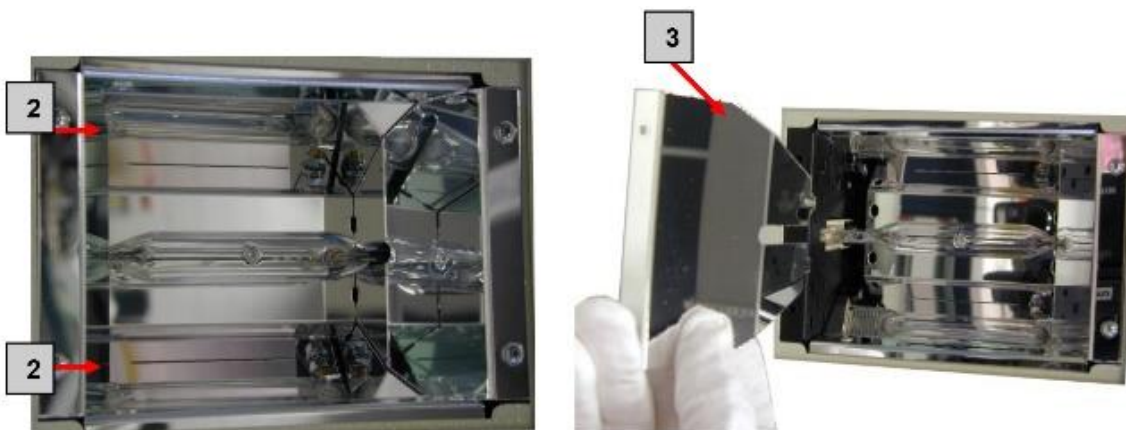
- Disconnect the system from the power supply system and wait until the system has cooled down.
- Loosen the 4 retaining screws (pos. 1) and the UV bridge (lamp case).

Figure 9.
Unscrewing the UV bridge



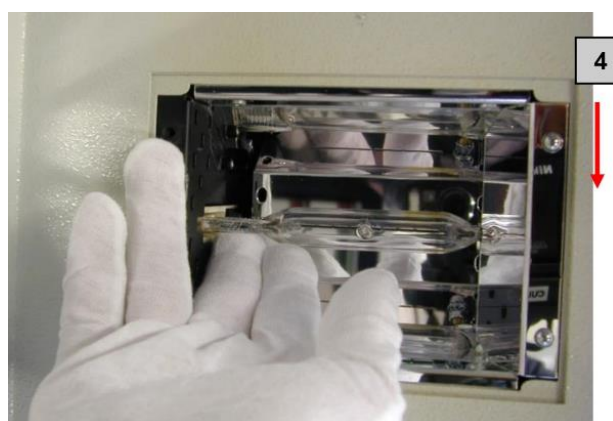
- Place the UV bridge on a safe surface with its opening facing upwards.
- Loosen the reflector cover by unscrewing the two screws (pos. 2) and remove it.

Figure 10.
Loosening and removing the reflector cover



- Push the UV bulb slightly to the right, press the left end upwards and remove the bulb (4). Only touch the ends of the lamp (wear cotton gloves).

Figure 11.
Removing the lamp



- The installation of the UV bulb takes place in reverse order. Make sure that the fusion point in the middle of the bulb points in the radiation direction.
- After having inserted the bulb, clean it using the cleaning cloth included in the delivery.
- When closing the reflector cover, make sure that both pins located on the bottom side of the reflector are inserted in the oblong holes in the reflector case provided for this.



Do not dump in your normal waste



Do not touch the new bulbs with your bare hands. Wear cotton gloves!

Only touch the ends of the bulbs. After installation, the glass surface should generally be wiped clean using the cleaning cloth included in the delivery (it is also possible to clean the bulb with alcohol or spirit and a clean cloth).

6.2 Disposal of the UV bulbs



Do not dump in your normal waste



The UV bulbs used by Dymax Europe GmbH are products according to the German Electrical and Electronic Equipment Act and can be disposed of. The end user is authorized to dispose of the parts at the local collection point or recycling center since Dymax Europe GmbH and its suppliers are registered with the foundation Elektro-Altgeräte-Register (EAR).

6.3 Cleaning

Depending on the installation site, it is necessary to clean the lamp case every 6 months. Remove the dust deposits from the fan and case. Especially the air outlets have to be checked and cleaned, if necessary. Clean the lamp reflector using a lint-free cloth. Adhering contamination on the reflector surface can be removed with alcohol. The roller bearings should be lubricated using a heat-resistant grease (approx. 100°C).

7. Technical data

Property	Specification
Dimensions	
Overall Dimensions	700 mm x 369 mm x 299 mm (W x D x H)
Lamp Case	130 mm x 200 mm x 130 mm (W x D x H)
Transport Height	15-60 mm
Special Design	52-82 mm
Weight	
Lamp Case	4,2 kg
Transport Unit	15,8 kg
Total Weight Approx.	20,0 kg
Electrical Data	
Supply Voltage	230V/ 50Hz (1~/ N/ PE)
Connected Load	950 W
Power Supply at Full Power	5.9 A
Fuse In the Ballast (F1)	10 A slow-acting
Ambient Temperature	max. approx. 25°C
Bulb Performance Data	
UV bulb (art. no. 028.181 – mercury bulb)	Lamp voltage: 135 V (+/-15 V) Lamp current: 7,4 A Lamp power (Nominal power): 850 W Arc length: 69 mm
UV bulb (art. no. 028.194 – iron bulb)	Lamp voltage: 150 V (+/-15 V) Lamp current: 6,2 A Lamp power (Nominal power): 820 W Arc length: 69 mm

Figure 12.
UVC-5 Conveyor Dimensions

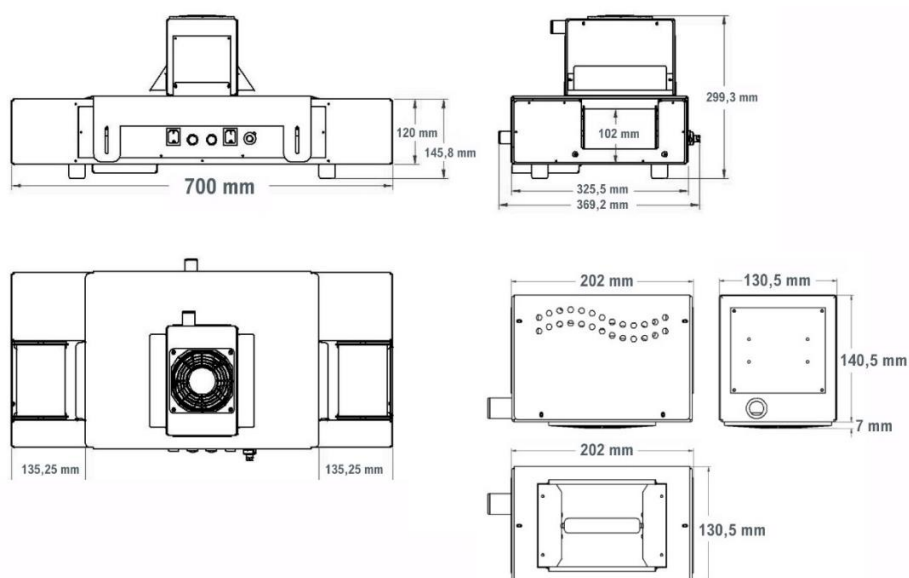


Figure 13.
UV dose depending on the transport speed (1-10 m/min)



This table and diagram show optimized values. They can differ for the individual devices due to manufacturing tolerances of the UV bulbs. This table can only be used for initial estimation. It is recommended to check the UV dose regularly with an appropriate measuring instrument and write down the measured results.

8. Spare parts list

Please indicate the following on your spare parts orders:

- Type designation and serial number of the machine
- Component designation
- Six-digit article number

Article Number	Part Number	Item
100.204		Tooth lock washer, type 18 XI 037, Standard
100.205		Tooth lock washer, type 36 XL 037, 1,2 – 14 m/min
100.206	42902	Toothed belt XL, 1,2 – 14 m/min
100.232		Tooth lock washer, type 60 XK 037
100.265	42903	Toothed belt 156XL, 1,2 – 14 m/min
100.153		Flange bearing 10-mm hole

The electrical and electronical components can be found in the parts list that is attached to the electrical documentation.

9. Troubleshooting

Problem	Possible Cause
There is no reaction after having switched on the transport belt	Check the power plug
	Check the fuse in the connector plug
The UV bulb is not ignited once the key UV-ON (4) has been pressed	Switch on the transport belt
	Lamp has not cooled down sufficiently yet
	UV bulb is defective
After a long operating period, the UV bulb is switched off automatically	Lamp is overheated - check whether the air outlets are free and clean
	Ambient temperature is too high
UV curing result is not sufficient	UV bulb is used up
	The belt speed is too fast

10. Appendix

10.1 EC Declaration of Incorporation (A) according to the EC Machinery Directive 2006/42/EC dated 17 May 2006, appendix II 1.B

Manufacturer
Beltron GmbH
Siemensstr.6
D-63322 Rödermark
www.beltron.de

Distributor
Dymax Euorpe GmbH
Kastelerstr. 13
D-65203 Wiesbaden
www.dymax.com

Warranty

From date of purchase, Dymax Corporation offers a one-year warranty against defects in material and workmanship on all system components with proof of purchase and purchase date. Unauthorized repair, modification, or improper use of equipment may void your warranty benefits. The use of aftermarket replacement parts not supplied or approved by Dymax Corporation, will void any effective warranties and may result in damage to the equipment.

Replacement Bulb Warranty

If the Bulb fails to ignite during the warranty period of 500 hours and all bulb history cards for a specific UVC-5 have been returned to Dymax, the Bulb will be replaced under warranty.

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MAN088EU 22 April 2025