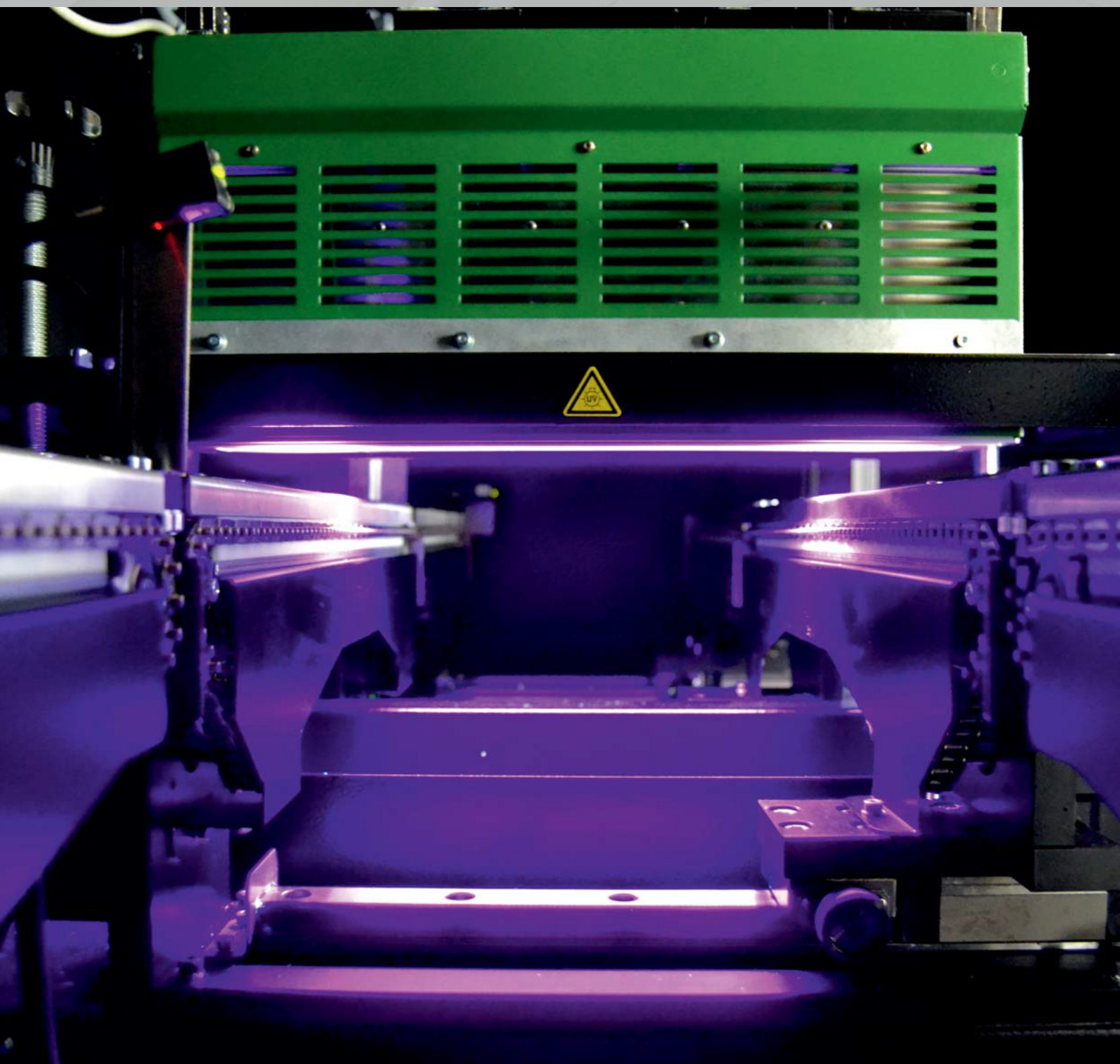




Innovative

uv technology

sustained • efficient and save • for a clean future



Over 50 years - Quality „Made in Germany“

Beltron GmbH

over 50 years Quality „Made in Germany“

BELTRON produces high quality machinery and equipment for many applications and markets. Generally our partners are from the graphic industry as well as from other industrial applications. Besides the printing and reproduction market and the electronic industry, the brand “**BELTRON**” has been approved in many other fields, such as solar industry, nano technology, uv-hardening of glue, medical industry, glass industry, automobile industry, production of furniture or other wood based applications, manufacturing of concrete plates, are just a few examples from **BELTRON**'s manifold partner portfolio.

Beltron GmbH

more than 50 years your partner in UV technology

Which criteria should your new business partner have to become interesting for you?

Besides requirements like quality and reliability, competence, readiness and partnership are the most important features. As many of our business partners confirm, **BELTRON** fulfils these requirements. Of course – our equipment stands in accordance with all main regulations, such as CE, DIN or SMEMA. Over 50 years quality and experience combined with “**Made in Germany**” – which is still **BELTRON**'s policy.

Design and engineering in 3D and most modern CNC and laser production enables us to fulfil all partner specific requirements. Your needs and wishes must not be what we have – our possibilities must be according to your needs. Furthermore **BELTRON** offers his customers a minimized spare parts stock as we have our own spare parts storage. More than 20.000 different articles including UV lamps etc. are available for your requirements. Besides a strong network of local partners, **BELTRON** has business relations to customers all over the world in almost all countries.

Want to try? Your Satisfaction is our target...



One-sided continous-dryer

Application:

For drying and polymerization of uUV screen inks, UV adesives, for printed circuit boards, laminated materials, plastic, paper, glass, metal and other printed materials in flow process.

Machines of BE type can be delivered with working width of 35 to 260 cm and lamp power of 80 to 120 W/cm and can be equipped with 1 to 3 bulbs.

Design:

Compact, space saving steel construction, belt speed 0,5 – 12 m/min stepless controllable (other ranges possible), electronical lamp cooling system, easy and fast lamp exchange, alu lamp casing with uv bulb with 120 W/cm caspacity, stepless power control in the range of 30-100% for optimal uv radiation, spezial reflectors for optimal focusing of uv radiation, service and maintenance friendly design, exhaust air system with connection to exhaust pipe, additional air cooling system between the lamps for critical applications, Compact Control, display of various parameters such as UV set value, operating hours, lamp current. The Compact Control also controls the following tasks: lamp ignition, lamp fuses, idle run, over temperature, exhaust air, converter.

Optional equipment:

Selective filters, quartz glass for further reduction of product temperature, or a SPS computer control.

Special application uv dryers with 6-8 lamps are manufactured several times.

Technical Information One-sided continous-dryer

- Transportation belt: Teflon or metal
- Control: Conventional or PLC with touch screen
- Lamps: 1, 2 or 3 UV- lamps
- Lamp filling: Hg (Mercury), Fe (Iron) or Ga (Gallium)
- Lamp power: 80 - 120 W/cm
- Electrical supply: 400 V / 50 Hz / 3~
- CE-Sign

The One-sided continous-dryers are used successfully in:

printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

These are just a few examples from the various partner portfolio of Beltron.

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Double-sided continuous-dryer

Application:

Uv curing and uv post-polymerisation of photoimageable soldermask on printed circuit boards and flex-boards.

Ausführung:

The developed soldermask will be final UV cured in addition to the final thermal curing process. The post- polymerisation process improves the surface characteristics of the solder mask regarding resistance to chemicals in the nickel gold bath, during hot air leveling, in chemical or galvanic tin bath along with the electric surface properties. Exposure time can be reduced to a minimum because the final properties are realized by UV polymerisation.

Technical Information Double-sided continuous-dryer

- 2 Medium pressure UV lamps, 800 mm active length
- 1 UV lamp below and 1 UV lamp above the conveyer system
- Conveyor speed: Conveyor speed 1,0 to 6,0 m/min adjustable (others on customer's request)
- Dimensions of PCB:
 - Width: 100 up to 720 mm
 - Length: 100 up to 760 mm
 - Thickness: 0,4 up to 5,0 mm
 - Panel warpage: max. +/- 6mm
- Dimension of the machine:
 - Length: 1500 mm
 - Height: 1160 mm
 - Width: 1300 mm
- Electrical supply: 400 V / 50 Hz / 3~
- CE-Sign

The Double-sided continuous-dryers are used successfully in: printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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UV dryer Slimsize



Application:

The Slimsize UV dryer is ideal for use in existing systems and is suitable for products such as paper, cardboard, foil, glass, circuit boards, plastics, wood and metal. Due to its overall width of only 600 mm it can be integrated in any system concept (also later on).

The UV-dryer is available with one UV lamp or as double-sided UV dryer with one UV lamp above and 1 below the product.

Design:

Steel structure in Slimsize version, belt speed in the range 1:10 infinitely adjustable, electronically controlled cooling system, radiator power continuously variable 30-100%, simple and quick lamp replacement, lamp housing made of aluminum with UV lamps, each with 80-120 W/cm power, special-faceted reflectors for optimal focusing of the UV radiation, service and maintenance friendly, exhaust fan with a connection for exhaust pipe. Optionally, the UV dryer may be equipped with selective filters and quartz glass (to reduce the product temperature) and PLC with touch screen.

Technical Information UV dryer Slimsize

Conveyor belt: Metal belt
Working width: 80 cm
Lamp filling: Hg (Mercury), Fe (Iron) und Ga (Gallium)
Number of lamps: 2 UV lamps (1 from above and 1 from below the conveying system)
Lamp power: 80 - 120 W/cm
Electrical supply: 400 V / 50 Hz / 3~
CE-Sign

The UV dryer Slimsize are used successfully in:

printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

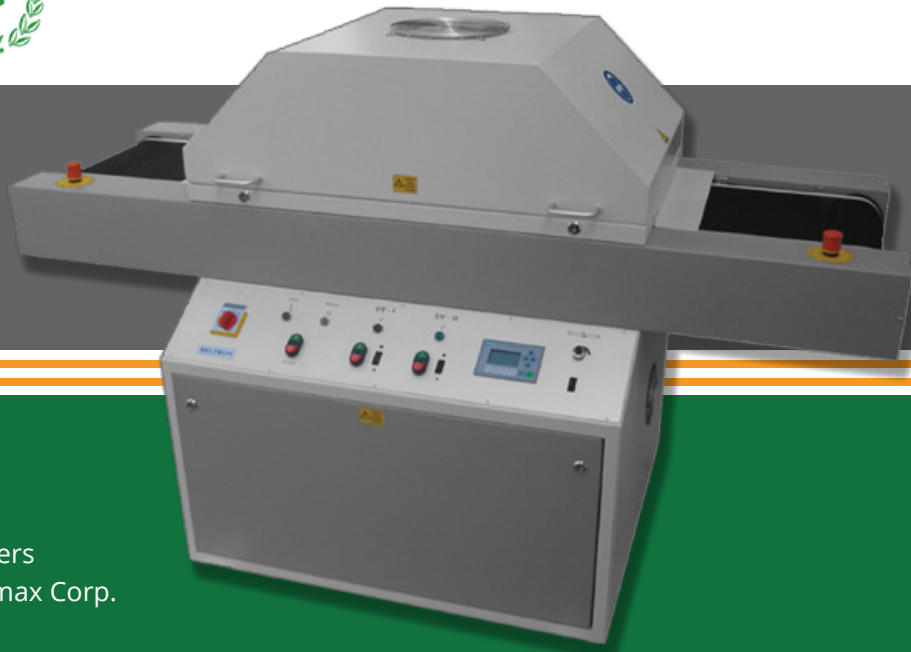
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UV curing unit BE 35 BETC



Application:

For uv curing of conformal coatings and solvent-free thick film lacquers on pcbs or other 3D objects such as: uv thick film lacquers TWIN CURE® from Peters Lackwerke or Dymax Corp. and other uv products.

Design:

PFT-conveyor belt with suction/cooling system, max. working width 350 mm, max. working height adjustable between 25 and 95 mm, belt speed adjustable in the range of 1:10, i.e. 2-20 m/min, belt speed 0,5 – 12 m/min stepless controllable (other ranges possible), stepless power control in the range of 30 - 100% for optimal UV radiation, easy and fast replacement of UV lamps, special reflector for optimized focus of uv radiation, integrated electronic control system with all control elements and digital belt speed indication, service and maintenance optimized, exhaust fan with connection for exhaust pipes, special design for curing of thick film lacquers.

Compact Control, display of various parameters such as uv set value, operating hours, lamp current. The PLC also controls the following tasks: lamp ignition, lamp fuses, idle run, over temperature, exhaust air, converter.

On customer request we can equip the machines with:

Selective filters, quartz glass for further reduction of product temperature, or a SPS computer control.

Technical Information UV curing unit BE 35 BETC

- Special designed high gloss furnished reflector which also undercuts the components
- Quick start UV lamp
- Uv energy 80-120 W/cm
- Belt speed: 1,0 - 10,0 m/min (others on request)
- Belt width: 300 mm
- Working width: max. 350 mm
- Substrate height: approx 100 mm (others on request)
- Electrical supply: 400 V / 50 Hz / 3~
- CE-Sign

The UV curing unit BE 35 BETC are used successfully in:

printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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UV dryer with edge conveyor

Application:

UV drying and curing of all UV reactive materials, i.e. conformal coatings, adhesives, resins and UV inks. Useable for stand alone and inline production.

Design:

The continuously adjustable power control of the lamps between 40 and 100 % UV output enables an optimal adjustment of the UV power (500–5000 mJ/cm²) to the belt speed (0,3 to 3,0 m/min).

Advantages:

UV-cross linking during fast horizontal transport, controlled UV dose on substrates, flexible adaptation to different process requirements, program storage in the PLC control.

Technical Information UV dryer with edge conveyor

Special designed high gloss furnished reflector which also undercuts the components

- Quick start UV lamp
- Uv energy 80-120 W/cm
- Belt speed: 1,0 - 10,0 m/min (others on request)
- Belt width: 300 mm
- Working width: max. 350 mm
- Substrate height: approx 100 mm (others on request)
- Electrical supply: 400 V / 50 Hz / 3~
- CE-Sign

The UV dryer with edge conveyor are used successfully in: electronic industry, automotive industry and engineering.

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UV dryer BE 20

Application:

For drying and polymerization of inks, coatings and adhesives for printed circuit boards, laminated materials, plastic, paper, glass, metal and other printed materials in flow process.

The lamp power lasts from 80 to 120 W/cm and the machines are equipped with 1 or 2 UV lamps. This UV dryers are used for laboratory operation or small size production.

Design:

Teflon belt (PTFE-coated), with maintenance-free adjustable belt drive 0,5—12 m/min (optional other range), belt width 220 mm with 1 or 2 UV lamp units, with special aluminum reflectors or (upon request) with selective filters for temperature reduction, with rollers or stand, Inlet and outlet transport, entire lamp unit can be raised for different material height to be adjusted between 20 and 100 mm working height, according to SMEMA in unit version stand, belt height adjustable between 900 to 950 mm and exhaust/cooling fan.

Compact Control, display of various parameters such as UV set value, operating hours, lamp current. The Compact Control also controls the following tasks: lamp ignition, lamp fuses, idle run, overtemperature, exhaust air, converter, installed power 400V (other power optional).

Technical Information UV dryer BE 20

- Transport belt: Teflon belt or metal belt
- Control: Compact control - Option: PLC control
- Bulb: 1 or 2 UV lamps
- Bulb filling: Hg (mercury), Fe (Iron) oder Ga (Gallium)
- Bulb power: 80 - 120 W/cm
- Working height: 900 to 950 mm
- Electrical supply: 400 V / 50 Hz / 3~
- CE-Sign

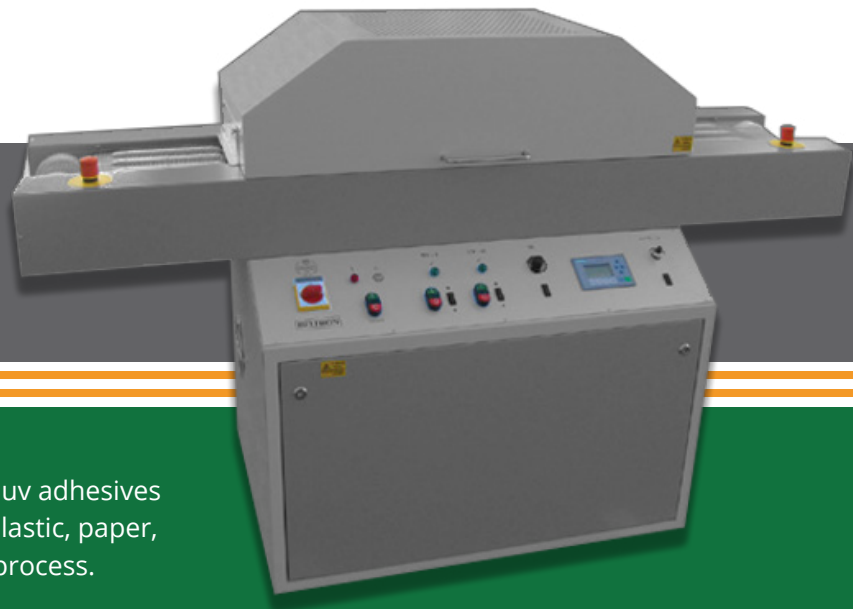
The UV dryer BE 20 are used successfully in:

printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

These are just a few examples from the various partner portfolio of Beltron.

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UV-IR dryer BE 20

Application:

For drying and polymerization of uv screen inks, uv adhesives for printed circuit boards, laminated materials, plastic, paper, glass, metal and other printed materials in flow process.

The lamp power lasts from 80 to 120 W/cm and the machines are equipped with 1 to 3 uv lamps. As well as up to 3 IR modules. This UV-IR dryers are used for laboratory operation or small size production.

Design:

Teflon belt (PTFE-coated) or stainless steel belt, belt width 200 mm with uv lamps , with special aluminum reflectors mit or (upon request) with selective filters for temperature reduction, entire lamp unit can be raised 70 to 120 mm, dryer can be moved due to rolls, inlet and outlet for different materials can be adjusted between 20 and 50 mm, stepless belt speed control in the range of 1,5-15 m/min (other ranges upon request) and exhaust/cooling fan.

Compact Control, display of various parameters such as UV set value, operating hours, lamp current. The Compact Control also controls the following tasks: lamp ignition, lamp fuses, idle run, over temperature, exhaust air, converter, installed power 400V (other power optional).

Technical Information UV-IR dryer BE 20

- Belt: Metal belt
- Control: Compact control - Option: PLC control
- Lamp: 1, 2 or 3 uv lamps
- Lamp filling: Hg (Mercury), Fe (Iron) or Ga (Gallium)
- Lamp power: 80 - 120 W/cm
- IR-Modules: 1 to 3 medium waves IR-Modules
- Electrical supply: 400 V / 50 Hz / 3~
- CE-Sign

The UV-IR dryer BE 20 are used successfully in:

printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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UV minidryer

Application:

For drying and polymerization of UV screen inks, UV adhesives for printed circuit boards, laminated materials, plastic, paper, glass, metal and other printed materials in flow process.

Design:

Unit ready for operation with one uv lamp unit. The electric control is located in the transportation device, designed for uninterrupted operation in drying of small sized materials.

The uv bulb is located in an air-cooled casing with aluminum reflector, with counter for operation hours, power switch, lamp ON/OFF, 100%/50% lamp power and stepless speed control (approx. 2 - 27 m/ min) with digital belt speed control.

Technical Information UV minidryer

- Belt: Teflon - Vacuum belt
- Length: 700 mm
- Width: 330 mm
- Height: 280 mm
- Belt width: 120 mm
- Lamp power: 850 W
- Belt speed: stepless 2 - 27 m/min with maintenance-free drive motor
- Passing height: adjustable 15-60 mm
- Electrical supply: 230 V / 50 Hz
- CE-Sign

The UV minidryer are used successfully in:

printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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UV chamber

Application:

Applications of the UV-chamber are numerous. Besides the standard tasks such as curing and glueing, the chamber may be used for material testing and radiation for chemical and biological applications.

Design:

UV-chamber for laboratory and manual production, various UV emission spectra are possible due to combination of UV lamps and UV filter, manual lamp shutter or optional as automatic electric shutter with timer, high safety by interlocking the door during UV exposure resp. the shutter can not be opened while the door is open, equipped with operating hours counter and capacity code switch (50%/100%) as well as a footswitch to start the curing process, even and homogeneous radiation in the UV-chamber, lamp unit with 850W UV lamp (other power optional), high UV intensity due to computer optimized reflector geometry, UV-chamber completely equipped with special reflectors, radiation area max. 400 x 300 mm. Due to the large equipment door the unit is capable of handling larger/higher materials. Our air-cooled system guarantees a low-heating UV-chamber.

Technical Information UV chamber

UV-Chamber (small)

Radiation area: 400 x 310 x 460 mm

Door: 385 x 380 mm

Total weight: approx 37 kg

Dimensions: 466 x 488 x 754 mm

Lamp: 850 W (Fe, Hg or Ga)

Radiation area: 400 x 300 mm

Filter glass: WSG, QRZ, SLF

Electrical supply: 230 V / 50 Hz

CE-Sign

UV Chamber (big)

Radiation area: 400 x 310 x 590 mm

Door: 385 x 510 mm

Total weight: approx 40 kg

Dimensions: 466 x 488 x 884 mm

Lamp: 850 W (Fe, Hg or Ga)

Radiation area: 400 x 300 mm

Filter glass: WSG, QRZ, SLF

Electrical supply: 230 V / 50 Hz

CE-Sign

The UV chamber is used successfully in:

electronic industry, textile industry, packaging industry and automotive industry.

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Stationary UV dryer Beltrost

Application:

The UV dryer Beltrost is used for uniform drying / curing of UV coatings, adhesives, and is particularly suitable for use in the production of small series, with repairs and in the laboratory. Also suitable for higher substrates in which a lateral irradiation is necessary.

Design:

Stationary UV dryer for small batches, repairs and lab operation, front cover with single drawer and viewing window. Low heating devices with optimized air flow, even for longer drying times, even optimal illumination. Safety lock against accidental opening of the drying chamber during the curing process. Control by timer and function keys. Low-power consumption due to 50% power reduction. Electric shutter - therefore no compressed air required.

Scope of Supply:

- Stationary UV dryer with drawer
- Unit dimensions: 570 x 570 x 460 mm (W x D x H)
- Drawer dimensions: 495 x 540 x 90 mm
- Drawer extension: > 500 mm
- 3m power cable

Optional:

BELTROMAT control computer

Technical Information Stationary UV dryer Beltrost

Power consumption: max 850 W
Fuse: (F1/F2) 8 A-slow
Power supply: 230 V / 50 Hz
Mercury doped UV lamp (Hg)
Lamp power: 800 W
Irradiated area approximately: 210 x 290 (DIN A4)
Dimensions: 570 x 570 x 460 mm
Electrical supply: 230 V / 50 Hz
CE-Sign

The Stationary UV dryer Beltrost is used successfully in:
electronic industry, textile industry and packaging industry.

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UV dryer UV lamp service- and safety-set



An essential addition to existing maintenance and safety.

All ultra violet lamps contain a small amount of mercury and in accordance with Guidance Note EH17 (revised) ; all users of ultra violet light are advised to have a kit easily accessible located within the factory area where UV equipment is operated. Our uv lamp change and mercury spillage kit has all that is needed, not only to handle the delicate process of lamp changing, but to clean up safely in the event of accidental damage to the lamp.

Detailed instructions are included.

Content of the Set:

Service Set

Safety Spectacles - high impact polycarbonate lens which meets EN166 Grade 1F. Lint Free Nylon Gloves - essential when handling or cleaning uv lamps. Ensures prevention of fingerprint marking which will burn into the quartz during operation and significantly reduce lamp life. Also cleaning issues - saturated with 70% v/v Isopropyl Alcohol BP for cleaning uv lamps immediately after fitting and also periodically during the operating life. Also used for cleaning filter glasses and reflectors.

Mercury Spillage Kit

Materials and personal protective equipment for safe removal of small mercury spillages, which could result in the event of UV lamp breakages.

Contains:

- Zinc powder, GPR.
- Safety spectacles.
- protective rubber.
- Gloves.
- Scoop and spoon; sponge; disposal bag and full instructions.

The UV lamp service- and safety-set are used successfully in:
printing industry, electronic industry, plastic industry, building materials industry, textile industry, packaging industry, pharmaceutical industry, automotive industry, glass industry and engineering.

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