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UV TUNNEL  
UV COVER & NAIOPUR



The Dinies Technologies GmbH company is a medium-sized, innovative family-owned company of UV technology and electronics manufacturing, which does not shy away from investing in new, revolutionary methods and technologies.

COMPETENT ■■■■■  
RELIABLE  
■■■■■ INNOVATIVE

Since our foundation in 1979, it has been important to us to supply our customers with everything from a single source. In 2005, the two main pillars, electronic production UV technology, were further expanded.

„ IN PARTICULAR, NEW TECHNOLOGIES AND FIELDS OF APPLICATION IN UV-TECHNOLOGY OFFER GOOD BASIS FOR AN INNOVATIVE COMPANY POLICY.“

Dinies Technologies GmbH is DIN EN ISO 9001 certified and is constantly monitored and audited by its customers to ensure its effectiveness, to meet their high quality requirements.

In addition, internal audits carried out by external auditors guarantee a high standard of quality and efficiency in quality management.



- No microorganisms on packaging and products
- A longer shelf life
- A very effective and a very fast disinfection method
- Product properties and consistency remain consistent during disinfection
- Can be installed on an existing conveyor belt
- Also available as all-in-one solution with a conveyor belt
- No use of chemicals 100%
- environmentally-friendly
- Low operating costs
- Low maintenance

SUMMARY



## General information about the UV tunnel

The Dinies UV tunnel has been specially developed for surface disinfection of packaging and food.

The potential applications are very diverse and range from production airlocks in highcare areas to the sterilization of packaging.

The UV lamps are equipped with a splitter protection, which means that they meet the HACCP requirements. Thanks to its modular design, the UV tunnel can be adapted precisely to your product and process requirements.

This means that the process speed, bandwidth and product height can be optimally designed. The foldable covering lids make maintenance and care very simple. It's also very easy to change the UV lamps.

## Operation of the UV tunnel

Products are transported through the UV tunnel on a conveyor belt at an appropriate speed. There are several UV-C tubes in this tunnel that destroy the microorganisms present on the product surface.

This means that the products exit the UV tunnel in a microbiologically clean condition.

We use high efficiency UV-C lamps with a wavelength of 254 nm in our Dinies UV tunnel. This wavelength has the property of changing the DNA of microorganisms so that they are unable to reproduce.



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1  
1





# 2

## UV TUNNEL

Thanks to its modular design, the UV tunnels can be adapted precisely to your product and process requirements. This means that the optimum process speed, belt width and product height can be set.

360° disinfection is guaranteed during disinfection with the UV tunnel, as highly effective UV-C tubes are used on all sides, which destroy any germs, bacteria and spores that are present within a very short time.

As a result, you get a product that is free of microbial impurities.





**360°  
Radiation**



- Variable belt speed
- Splitter protection
- Touch display
- UV measurement with data logging
- Can be integrated into complete systems
- Lamp monitoring
- Air knife
- Ionizer

Conveyor belt width	Length	Height	Outlet height
100-800mm	individual	individual	individual

Size of the product	Conveyor belt type	Nominal power
At least 8mm	Individual mixed product	400V – 50Hz – 3P/N/PE



**Users**

- Pharmaceutical industry
- Food industry
- Medical technology
- Service





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## UV COVER

The Dinies UV Cover can be supplied either as a complete unit with a conveyor belt or installed on your existing conveyor belt system.

The cover in this product series contains high performance UV lamps with a wavelength of 254nm.





**270°  
Radiation**

**3<sub>1</sub>**

- Belt speed
- Splitter protection
- Touch-display
- UV measurement with data logging
- Can be integrated into complete systems with or without a conveyor belt
- Lamp monitoring

Bandwidth	Length	Height	Outlet height
100-800mm	individual	individual	individual

Types of conveyor belts	Nominal power
Individual mixed product	230/400V – 50Hz – 3F/N/PE



**3<sub>2</sub>**

**Users**

- Pharmaceutical industry
- Food industry
- Medical technology
- Service

## UV-Tunnel & UV-Cover

- UV channel in high care areas
- Disinfection of foodstuffs
- Disinfection of packaging
- Disinfection of transport crates
- Medical Instruments



APPLICATIONS

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The Naiopur seed disinfectant has been specifically developed for the efficient and cost-effective surface disinfection of seeds, grains, herbs, spices etc.

The purified product is filled into a silo hopper and transported on a transport plate to the sterilization process.

Thanks to innovative transportation technology, the bulk material is constantly surrounded by UV-C light. The UV-C light is a natural component of sunlight, with the important property of the germicidal effect. In this natural process, the DNA of the microorganisms is altered so that the germs are no longer able to reproduce. The gentle and natural process reduces germs by up to 99.9%.



 NAIOPUR





**360°  
Radiation**



Standard size (other sizes on request)

<u>Total width</u>	<u>Total length</u>	<u>Insertion height</u>	<u>Height of transport</u>	<u>Ejection height</u>
600mm	1800mm	1400mm	900mm	900mm

<u>Nominal voltage</u>	<u>Nominal power</u>
220-240V - 50Hz	900W



- Belt speed
- Splitter protection
- Lamp monitoring
- Can be integrated into a complete system
- Dedusting nozzle



# 6 APPLICATIONS



## Naiopur

- Larger seeds (e.g. pumpkin seeds, sunflower seeds)
- Smaller seeds (e.g. hemp seeds)
- Vertical farming
- All kinds of herbs
- Spices
- Dried tea leaves
- Products for organic cosmetics
- Raw products for cereals and cereal bars
- Dried fruits
- Nuts (e.g. macadamia)





## DETAILS

### 1. Easy lamp replacement

### 2. Air knife

Efficient removal of dirt particles

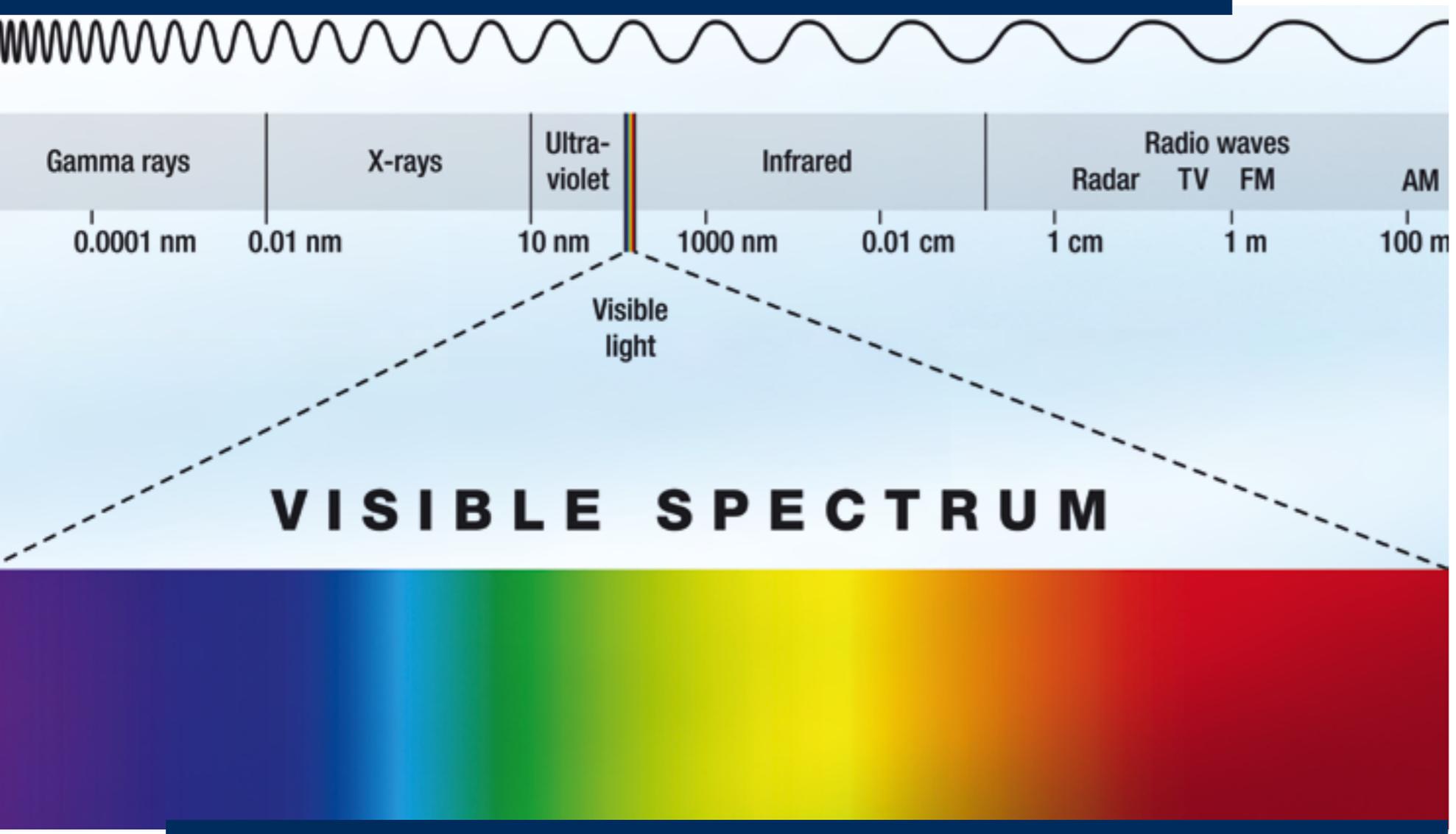
### 3. Lamp monitoring

Visual signal if lamp needs to be replaced

### 4. Splinter protection

The UV lamps can be provided with splinter protection to meet HAACCP requirements





# UV- RADIATION

Highly effective hygiene with UVC!  
Microorganisms are killed off naturally if they are exposed to natural sunlight. Artificial UVC that uses this natural principle was developed many years ago.

UVC rays are short-wave rays in the range of 280-100 nm that are invisible to the human eye. UVC rays in the range of 254 nm have a very strong germicidal impact, so that even dangerous germs, bacteria, viruses, moulds etc. are quickly exterminated. And all this without the use of chemicals.

The DNA of the microorganisms is modified in the nucleus so that reproduction is no longer possible. As a result, the microorganisms eventually cease to exist. Ultraviolet radiation is therefore an economical and environmentally friendly alternative to chemical disinfection.

