

Dinies . . . . .

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*Atopur*

UV-TUNNEL, UV-COVER & NAIOPUR



Dinies Technologies GmbH is a innovative, family-owned company specializing in UV-technology and electronics.

We are always open to and looking for new, revolutionary methods and technologies to adopt and invest in.

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

Since our founding 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 and UV-technology, were further expanded.

“IN PARTICULAR, NEW TECHNOLOGIES AND FIELDS OF APPLICATION IN UV-TECHNOLOGY OFFER A 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, external auditors guarantee a high standard of quality and quality management systems.

# THE PROBLEM

- Virus, germs, bacteria and mold spores on packaging and foodstuffs
- Contamination of fruits, vegetables and meat
- Short shelf life of products
- Health risk for consumers

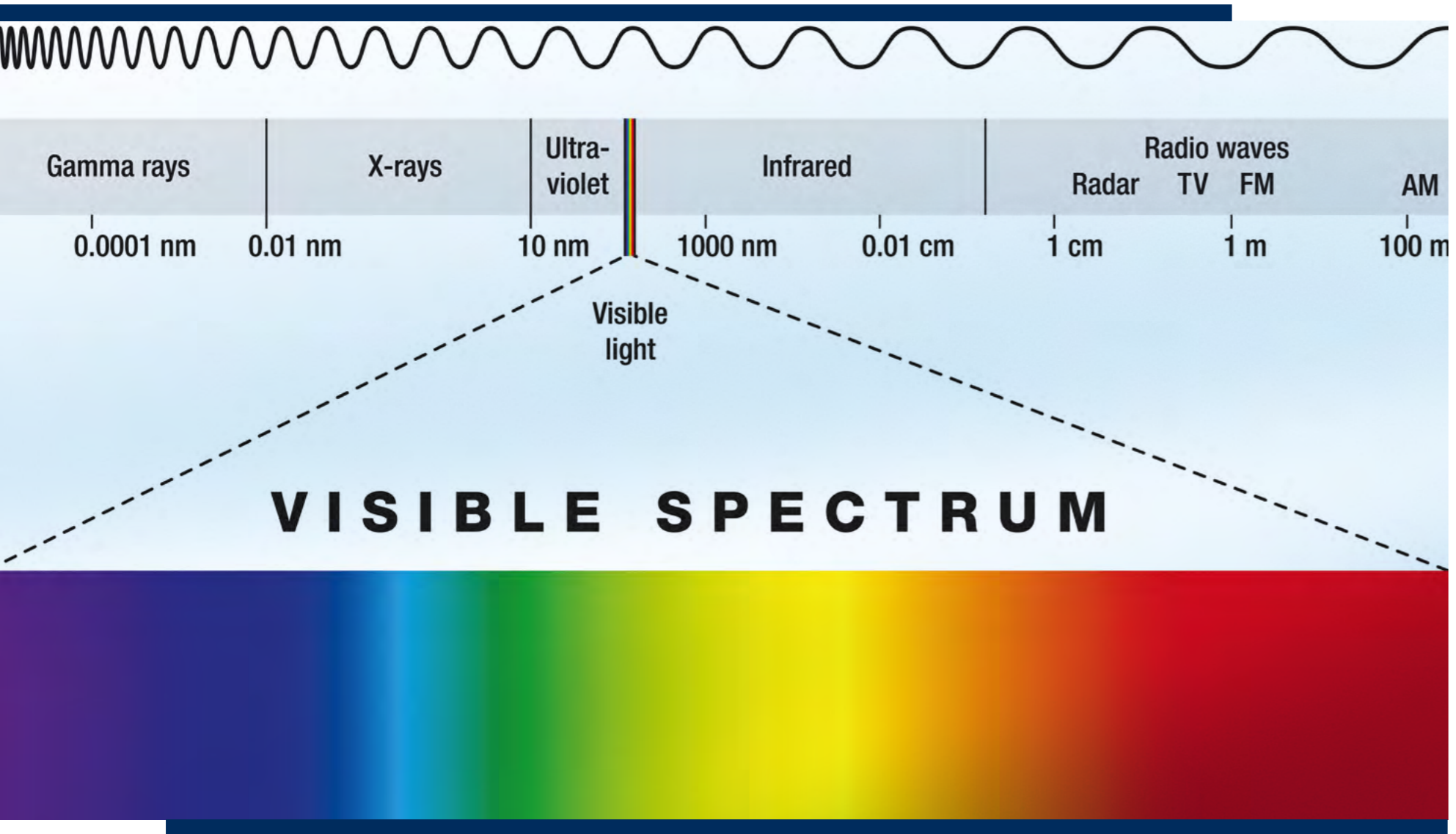
# THE GOAL

- Shelf life extension
- Prevention of diseases transmitted by virus, bacteria or mold
- Prevention of contaminated food and packaging

# THE ORGANIC SOLUTION UV-C DISINFECTION OF FOOD AND PACKAGING MATERIAL

SUMMARY





## UV-C LIGHT

Effective hygiene with UV-C: Microorganisms exposed to sunlight are killed naturally. According to this principle from nature, artificial UV-C light was developed many years ago. UV-C light is short-wave radiation in the range of 280-100 nm which is not visible to the human eye.

In the area of 254 nm, UV-C light has a strong germicidal effect, so even dangerous germs, bacteria, viruses and mold spores will be destroyed within a short amount of time without the use of chemicals.

The DNA of the microorganisms is changed in the core so that reproduction is no longer possible. As a result the microorganisms die. The ultraviolet light is therefore an economical and environmentally friendly alternative to chemical disinfection.

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.

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.

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



### 3 EFFICIENCY OF UV-C





- No microorganisms on packaging and products
- Longer shelf life
- Effective and fast disinfection method
- Product properties and consistency are unchanged during disinfection
- Can be installed on an existing conveyor belt by using the UV-C Cover, or is available as a complete conveyor system.
- 100% chemical free
- Environmentally-friendly
- Low operating costs
- Low maintenance

PRODUCTS **4**

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## Atopur<sup>360°</sup>

The Dinies UV-Tunnel has been specially developed for surface disinfection of packaging and foodstuffs. The potential applications are very diverse and range from production airlocks in cleanrooms to the disinfection of packaging and foodstuffs.

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

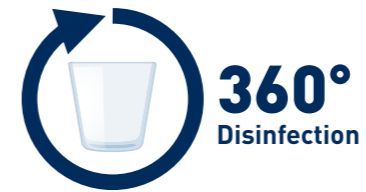
This means that the process speed, bandwidth and product height can be optimally designed. The closeable covering lids make maintenance and care very simple. Changing the long life UV-C lamps is also a simple and fast process.





- Variable belt speed
- Lamp splinter protection
- Touch display and control
- UV-C measurement with data logging
- Can be integrated into existing production lines
- Lamp monitoring
- Air Knife with side channel blower option
- Ionizer

Conveyor belt width	Length	Height	Outlet height
100-800mm	Individual	Individual	Individual
Size of the product	Conveyor belt type	Rated power	
At least 8 mm	Individual mixed product	400V – 50 Hz – 3 P/N/PE	



Primary Applications

- Pharmaceutical industry
- Food industry
- Medical technology
- Packaging industry





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*Atopour*<sup>270°</sup>

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-C lamps with a wavelength of 254 nm.





- Variable belt speed
- Lamp splinter protection
- Touch-display and control
- UV-C 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		Rated power	
Individual mixed product		230/400V - 50 Hz - 3 F/N/PE	



### Primary Applications

- Pharmaceutical industry
- Food industry
- Medical technology
- Packaging industry



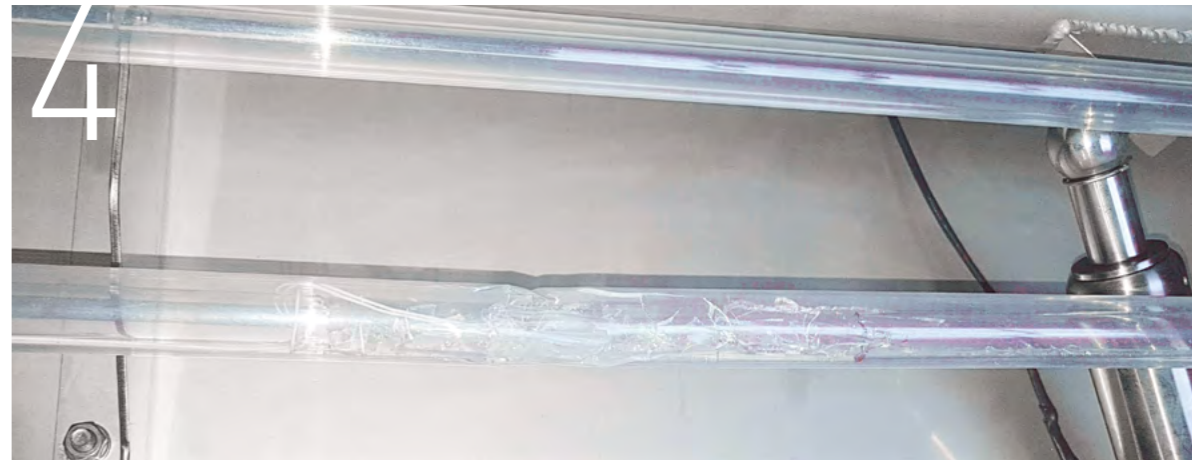
UV-Tunnel & UV-Cover

- UV-C channel in clean room areas
- Disinfection of food
- Disinfection of packaging
- Disinfection of transport crates
- Disinfection of medical instruments



APPLICATIONS





# 8 DETAILS

**1. Easy lamp replacement**

**2. Air knife**  
Efficient removal of dirt particles

**3. Lamp monitoring**  
Visual signal if a lamp needs to be replaced

**4. Splinter protection**  
The UV-C lamps can be provided with splinter protection to meet HACCP requirements



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

The pre-cleaned product is fed via a conveyor belt or a silo hopper onto a transport plate in the disinfection process.

Due to an innovative transport technique, the bulk material is constantly enveloped by UV-C light. UV-C light is a natural component of sunlight, with the important property of germicidal action. In this natural process, the DNA of the microorganisms is altered in such a way that reproduction of the germs is no longer possible. The gentle and natural process reduces germs up to 99.9%.



# 91 APPLICATION

**The areas of application of the Naiopur series are diverse:**

- Seeds (pumpkin seeds, sunflower seeds, ...)
- Nuts (walnuts, peanuts, cashews, ...)
- Grains (wheat, rye, barley, oats, ...)
- Herbs (oregano, parsley, rosemary, ...)
- Spices (chili, cinnamon, pepper, cloves, ...)
- Tea (dried tea leaves, green tea, ...)
- Beans (kidney beans, coffee beans, ...)
- Dried fruits (cranberry, goji berries, ...)

9 Naiopur





Naiopur



Jumbo I



Jumbo II

Pictures contain accessories.

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Model	Rated voltage	Rated power	Dimensions L* x W x H	Lamp power	UV-C power	UV section	Disinfection width	Disinfection length	Working height
Naiopur	230V, 50/60 Hz	900W	1800x600x1400 mm	540W	175W	1	300 mm	900 mm	900 mm
Jumbo I	380V, 50/60 Hz	2500W	2420x1146x1298 mm	1920W	625W	1	800 mm	1200 mm	900 mm
Jumbo II	380V, 50/60 Hz	4900W	3854x1146x1298 mm	3840W	1250W	2	800 mm	2400 mm	900 mm
Jumbo III	380V, 50/60 Hz	6900W	5200x1146x1298 mm	5760W	1875W	3	800 mm	3600 mm	900 mm



Dimensions may vary. Custom designed machines are available on request. \*Length without accessories.

