



BlueLight[®] Flash System

The new solution offering $>\log 4$ reduction at high speed without chemicals and mercury free



**>log 4
reduction!**

**Heraeus Noblelight's BlueLight[®]
flash system is a chemical-free, powerful
technology offering you instant disinfection.
It is a sophisticated pulsed light
solution ideally suited to high-speed
cap disinfection.**

For a reliable, fast and environmentally friendly solution

Key features and benefits

- Instant treatment with no warm-up time
- Compact, easy to integrate into any orientation, and can be retrofitted
- Environmentally friendly disinfection with no use of chemicals and mercury free
- Low energy consumption
- Built in safety – a protective quartz window with breakage detection
- Easy to use with an operator friendly HMI interface, customisable to your process
- Simple UV lamp replacement – a cartridge design enables reduced downtime
- Utilises special fused silica quartz for UV flash lamps, unique to Heraeus
- Stainless steel hygienic design UV module to IP65
- Reflector optimised for maximum UV intensity
- Support, service and commissioning for system integration

Applications



Flat caps from
Ø26mm to Ø55mm



>log 4 reduction



Speeds up to
90,000 bph



Food packaging disinfection
for liquid and viscous food
including beverage bottle caps,
pots, tubs and sealing films

Delivering energy efficiency and cost savings

Owning a BlueLight® Flash System is more cost effective than you think. Thanks to our years of learning and development with our BlueLight® family of products we are able to bring you the latest in disinfection technology

Sample calculation

Machine runtime: 3500 h/year*
BlueLight® Flash system including chiller
2 lamp head - 2750v @ 10Hz
4.9kW total lamp power
£1.08/h
Energy cost - £3780/year

(*two shift operation £0.15/kWh/3500h)



Microbiological data

Test material	Distance (mm)	Voltage (V)	Flashes	Inoculation level/germ	Inoculation	Number of samples	Log rate
Screw cap	20	2750	2	Log 5 <i>A. brasiliensis</i>	MultiDot 10* 2µl	15	4.21

Table 1: Reduction in *Aspergillus brasiliensis* spores (ATCC 16404)

UV module



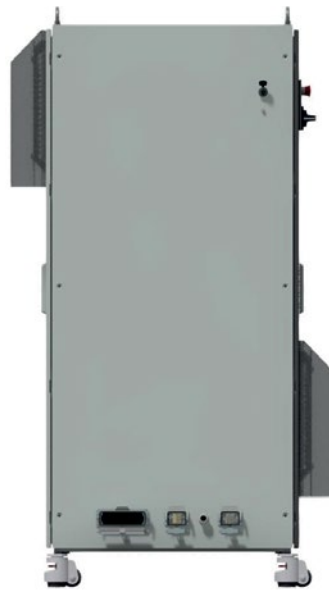
BlueLight® Flash UV module

Dimension or unit description	
UV module size L×H×W (mm)	400×210×130
Optical window (mm)	240×70
UV module weight (kg)	10
UV module IP rating	IP65
Conduit – control module to UV module (m)	10
Mounting point dimensions (mm)	95×368

Chiller and control module



BlueLight® Flash typical chiller



BlueLight® Flash typical control module side and front profile

Dimension or unit description

Control module – inclusive of fixings H×D×W (mm)	1775×1034×702
Control module weight (kg)	200
Control module IP rating	IP55
Chiller dimensions H×D×W (mm)	1140×820×654
Chiller weight (kg)	150

Productivity

Beverage caps	Time	Volume
Max production rate – caps up to 30mm	Caps/hr	>90,000
Max production rate – caps up to 40mm	Caps/hr	80,000
Max production rate – caps up to 50mm	Caps/hr	60,000
Start-up time	Seconds	<1

Ray tracing simulation

Heraeus Noblelight has developed a unique ray tracing simulation tool to be able to accurately model log reduction rates across a wide range of food packaging and materials.

Fig a: Wet surface ray trace

Fig b: Light distribution quite even on wet surface, so most of the surface will get a similar dose

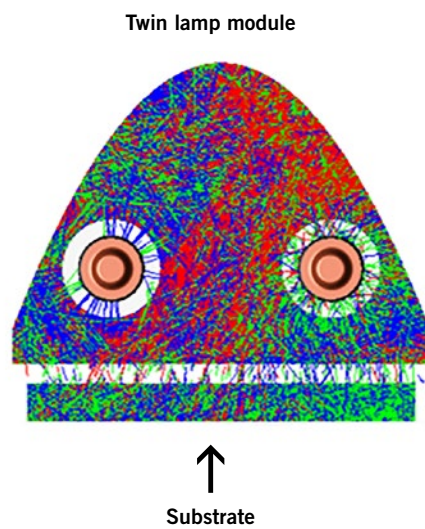


Fig a

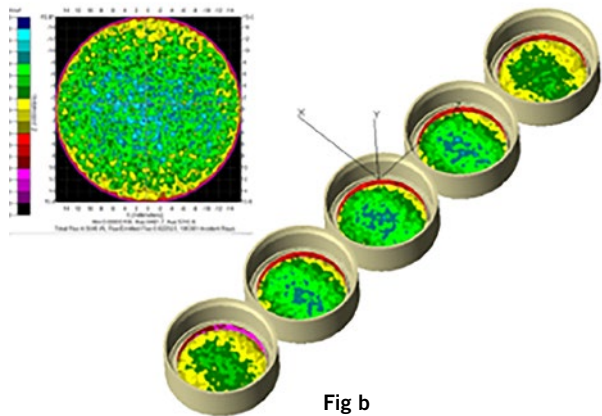


Diagram 1: In house ray tracing simulation representing optical head and substrate

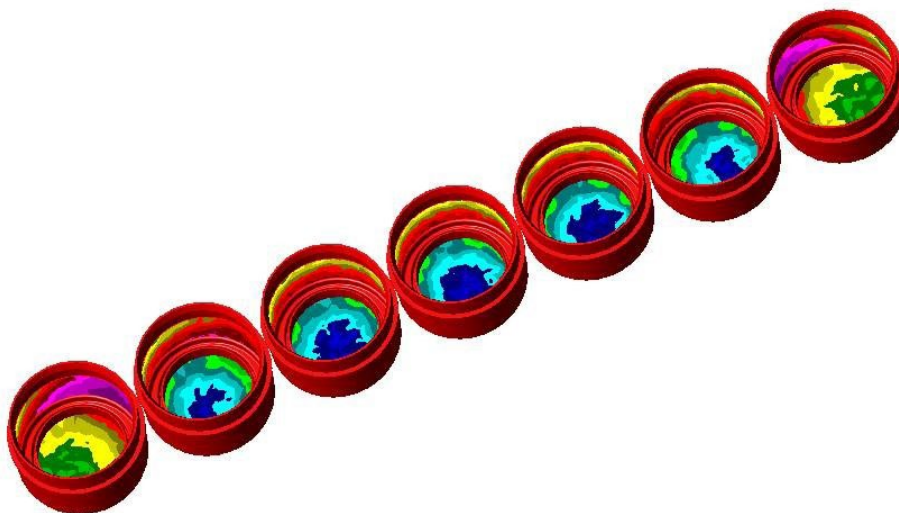


Diagram 2: Ray tracing model showing energy distribution

This page has been left blank for your notes



TEST BEFORE DECIDE

Make use of our ray tracing simulation and microbiological test capabilities before you decide on a solution. We will be happy to advise you! BlueLight Flash – for long-lasting enjoyable food and beverages.

The future begins with Heraeus. In 1904 we had already invented the UV quartz glass lamp in Hanau. This wasn't the last time that Heraeus was ahead of its time. Countless innovations for combined applications from UV to infrared have been vital as our role as an inventor, pioneer and technology leader.

Today we offer you a complete portfolio of UV solutions across the entire technology spectrum – from systems with discharge lamps to LEDs to microwave-excited lamps. For over 110 years we are a market leader with sites across the globe.

Our site in Cambridge, UK is the centre of excellence for flash lamp technology and combined with our many years experience of UV disinfection we are proud to bring you our newest addition to the BlueLight® family – BlueLight® Flash System.

To discover more please go to: www.heraeus-noblelight.com/bluelight



Germany

Heraeus Noblelight GmbH

Heraeusstraße 12-14

63450 Hanau

Phone +49 6181 35 4499

Fax +49 6181 35164499

hng-uv@heraeus.com

heraeus-noblelight.com

Great Britain

Heraeus Noblelight Ltd.

161-163 Cambridge Science Park

Milton Road, Cambridge CB4 0GQ

Phone +44 1223 423324

hnl.customerservice@heraeus.com