

**SECURE UV LED LAMPS FOR RELIABLE CHECKS
in FLUORESCENT MAGNETIC PARTICLE TESTING
AND PENETRANT INSPECTION**

Product Technology Showase

A4A NDT Forum 2019

SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

Solution provider for NDT with high skills in Aerospace Industry

NDT Equipment Designer and Supplier

German Manufacturer of
Technology Leading UV LED Sources

Passionate and Dedicated to Easier, Better, Faster,
More Reliable and Less Tiring Fluorescent Mag and Pen Inspection
Without Compromises
Because Failure Is Not An Option

SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

DON'T WORRY TO CHANGE TO UV-LED

SECU-CHEK UV-LED Flood lamps

ensure **much more than** the same

QUALITY, RELIABILITY, PERFORMANCE and COSTS

of the inspection

in **ALL MATTERS** without compromises!

Compared to
100W Mercury Vapour bulb based UV-Sources

SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

The Right UV-LED Lamp for Every Applications



Torches /
Flashlights



Handlamps
Mains and/or
Battery Powered



Stationary Lights



Splashproof Lamp /
Background Illumination



Accessories /
PPE

Fulfilling and exceeding all Aerospace Requirements like:
Airbus AITM 6-10011, Boeing , Rolls Royce RRES 90061, Pratt & Whitney FPM Master

And General Industry Stanards
ASME-Code, ASTM E-3022, EN ISO 3059

SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

Integrated Features

- + ECO-Mode automatically switches-off the lamps if it is not moved for more than 3 minutes, resumes immediately to full power when picked-up, multiplies the life-time of usage of the lamps and reduce the cost for UV LED Lamps to a fraction
- + Automatic Adaption Time Signalization when switching on the lamp (pre-adjustable 1, 3 or 5 Minutes)
- + Acoustical, visual and haptical (vibrating) status indicators
- + Pre-warning and automatic switch-off in case of low battery



SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

Integrated White Light Features

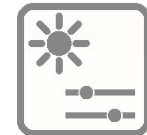
White Light Toggling (UV or VIS)



Additional White Light (UV and VIS together)



In-Use Adjustable White Light Output



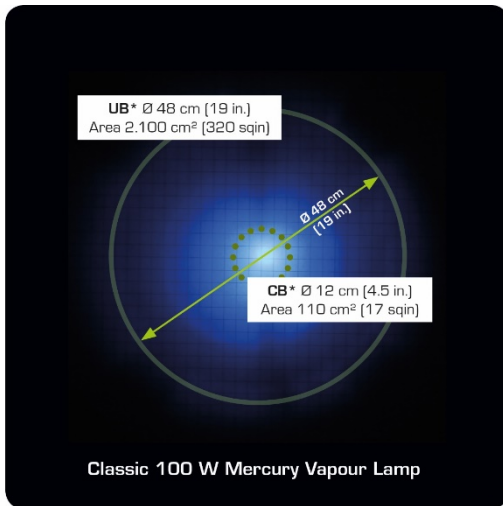
Automatic Stepless Dimming

- White Light Dimming in addition to UV
- Crossfade between UV and White light
- Uninterrupted observation when using the white light for continuous stress-free observation during inspection
- Usage of white light without flash-blinding of the eyes

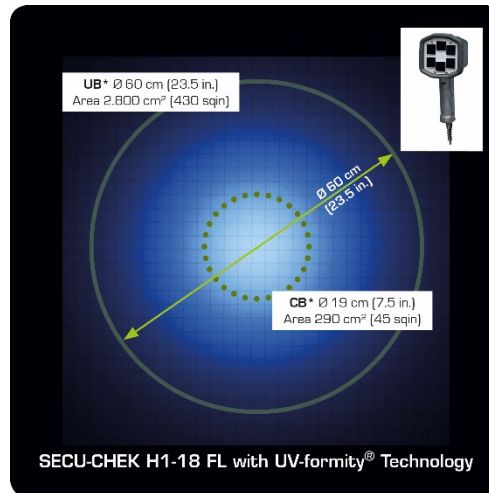


SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

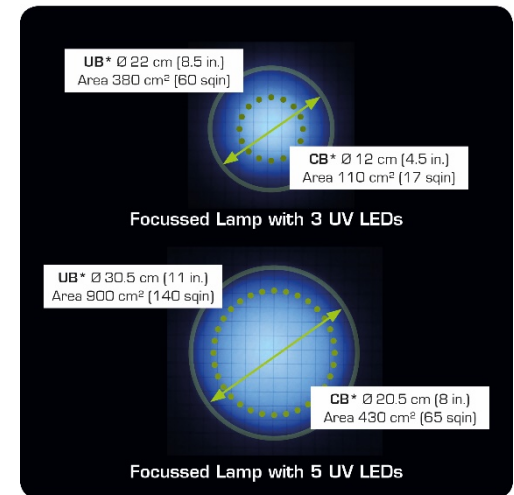
Mercury Vapour -> LED



100 W Mercury Vapour Lamp
(The Unwritten Standard)
Flood with central



SECU-CHEK UVE H1-18 W FL
Total Uniform Flood for
easy, secure, fast, fatigue-proof
and cost efficient inspection



A: Spot mit marginal peripheral irradiation and hot spots
(3 UV LEDs)
B: Spot with micro-structures

SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

Mercury Vapour -> LED

Multiple larger usable beam

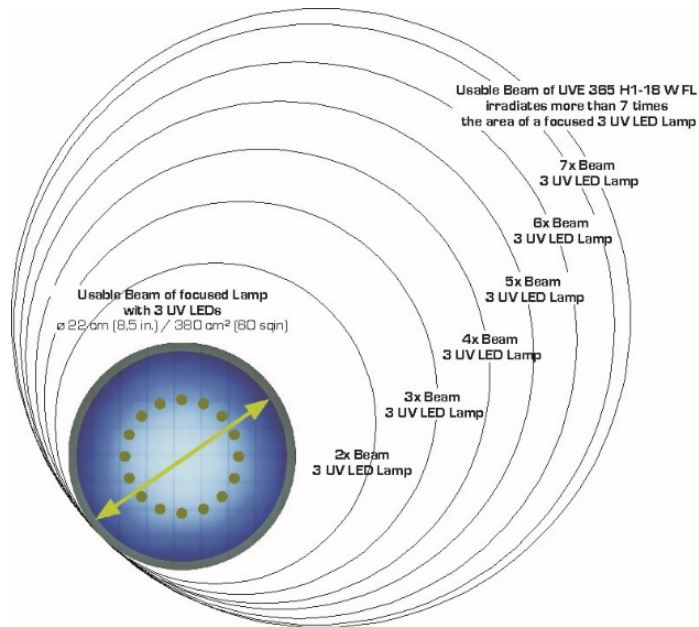


Easy and Fast Inspection

NO Missed Indications
(secure detection of indications)

Fatigue-Proof Inspection

Multiple Reduction of
Inspection Costs and Time



SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

Classification and Description of the Beam

Usable Beam

($\geq 100 \mu\text{W}/\text{cm}^2$ / $10 \text{ W}/\text{m}^2$)

Lamp Type	Dimension	Area	Intensity (max.)	Drop
SECU-CHEK UVE365 H1A-18 W FL	ø 65 cm	3.300 cm ²	$\geq 3.100 \mu\text{W}/\text{cm}^2$	< 32 %
New100 W Mercury Vapour	ø 48 cm	1,800 cm ²	$\geq 5.000 \mu\text{W}/\text{cm}^2$	< 40 %
SPP Spot (3 UV LED)	ø 22 cm	380 cm ²	$\geq 5.000 \mu\text{W}/\text{cm}^2$	< 60%
SP Spot (5 UV LED)	ø 30 cm	900 cm ²	$\geq 4.000 \mu\text{W}/\text{cm}^2$	> 80 %

Multiple reliable and faster DETECTION

SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

SECU-CHEK UVN-TC1

Large Uniform Beam

Secure Battery Operation

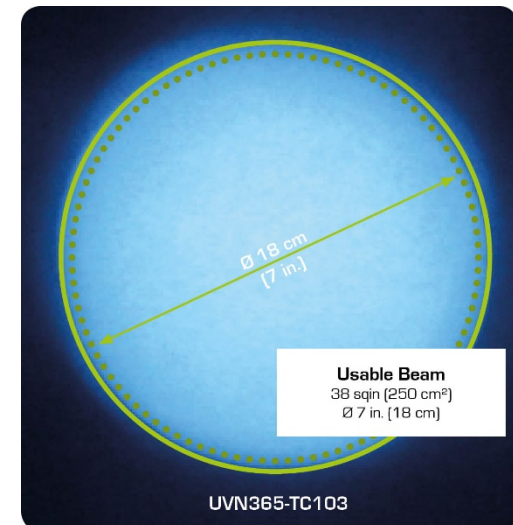
Exchangeable Battery

Long Operation Time ($\geq 2,5$ h)

Lightweight

Well Balanced

Splash proof and penetrant proof (IP65 rated)



SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

SECU-CHEK B6A series

Various Modules

- Different Power Level
- 3 Focuses
- Optional active fan cooling for long life-time

Optimal irradiation

- Output adjustable by key-switch
- Easy and optimal alignment by optional 2D mount

Splash proof and penetrant proof (IP65 rated)

Easy Exchangeable Protective Sheet

- For easy cleaning and maintenance

High Reliable and Secure

- Power by Safety Extra Low Voltage (SELV)
- High Process Security by optional UV LED monitoring and system health monitoring with security switch-off



SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

SECU-CHEK NDT Optimized UV protection glasses

Clear View

No Reflections in the Field of Vision

No Limitation of the Field of Vision

Can Be Worn Over Personal Glasses

Eliminates Fluorescence of Personal Glasses

Eliminates Reflection

Length Adjustable Temples

Adjustable Tilt Angle

Protection From the Top and from the Sides

ANSI & CE Compliant (EN 166F & EN 170)



SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

Conclusion

SECU-CHEK offers a wide range of SECURE UV LED Lamps that ensure reliable NDT for all kinds of applications.

SECU-CHEK UV LED Lamps are able to significantly enhance the performance of the inspection while massively reducing the costs of inspection.

SECURE UV-LED Lamps for Reliable and Cost-Efficient Inspection

FURTHER QUESTIONS?

get a free high quality UV protection glass

CONTACT US FOR FREE ON-SITE TRIAL

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