honle group

honle uv technology

Products and Applications

High-performance units and systems for curing inks, varnishes, adhesives and sealants and for disinfection

Lighting systems for sun simulation, Automotive, trade shows and industry

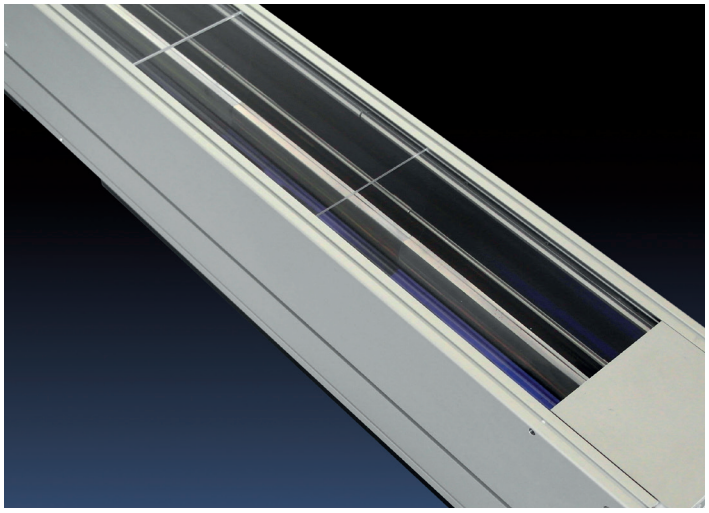
Components and spare parts for UV and IR systems, manufactured inhouse

- LED-UV units / LED-UV systems
- UV systems / UV units
- UV disinfection systems
- Inert UV systems
- IR / IR hotair units
- LED-UV/ UV measuring
- Electronic power supplies
- UV and IR lamps
- Reflectors

Hönle Units / Systems

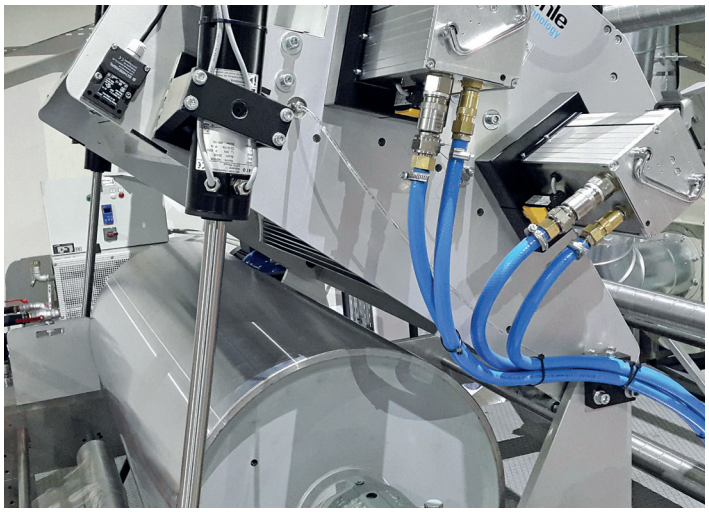
LED-UV units and systems

LED Powerline series: high-performance arrays for printing and bonding applications
LED Powerline Focus: focused UV irradiation for sheetfed printing
jetCURE LED: for curing inks and varnishes at inkjet printing, for curing adhesives & sealants
bluepoint LED eco: point source with up to four LED-heads
LED Power Pen 2.0: handy point source
LED Spot 100 IC: UV flood unit (100 mm x 100 mm)
LED Spot 40 IC: UV flood unit (40 mm x 40 mm)
LED Spot W: water-cooled, compact, clean room compatible
UVAHAND LED: LED-UV hand lamp
LEDLINE 500: mobile line array



UV plants / UV systems / UV units

UVAPRINT: product series for UV printing and UV coating
pureUV: prevents direct irradiation on the substrate
jetCURE UV: especially for large-format inkjet printing
bluepoint: UV point source for curing adhesives and sealants
UVACUBE: UV irradiation chamber, especially for lab use
UVASPOT: UV flood unit with modular design for variable use
UVAHAND: mobile hand lamp, for a variety of applications

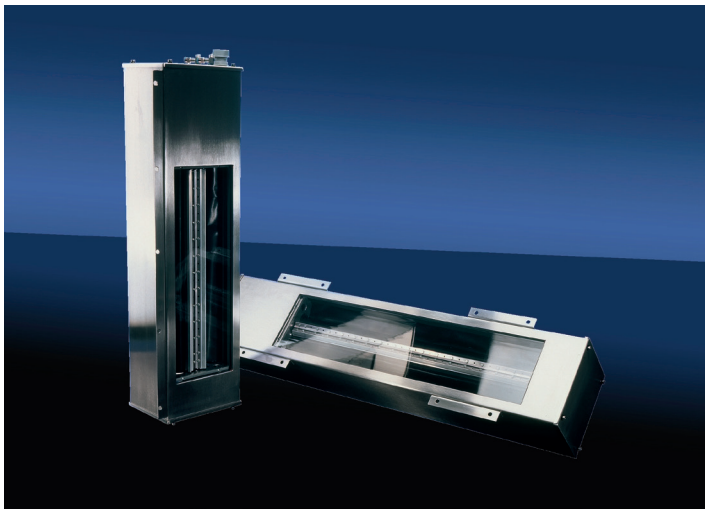


Inert UV systems

A wide range of **inert UV chambers**:
The Hönle Group has got years of experience in the field of inertization. We use this know-how when it comes to optimizing an inert system according to our customers' demands. This results in excellent product quality at optimized investment and operating costs.

Our tried and tested product series for UV curing work – according to the application – with different arc lengths. They offer a continuously adjustable power control and can be supplied with all standard as well as customized spectra.

Hönle Units/ Systems



UV disinfection systems

Surface disinfection with UVC irradiation – a reliable and eco-friendly alternative to chemical processes.
The disinfection unit **UVATEC** with CAD-optimized reflector geometrics allows highest possible UV intensities. This guarantees a very safe effectiveness of microorganism destruction. Even highly resistant microorganisms can be destroyed within a split second.

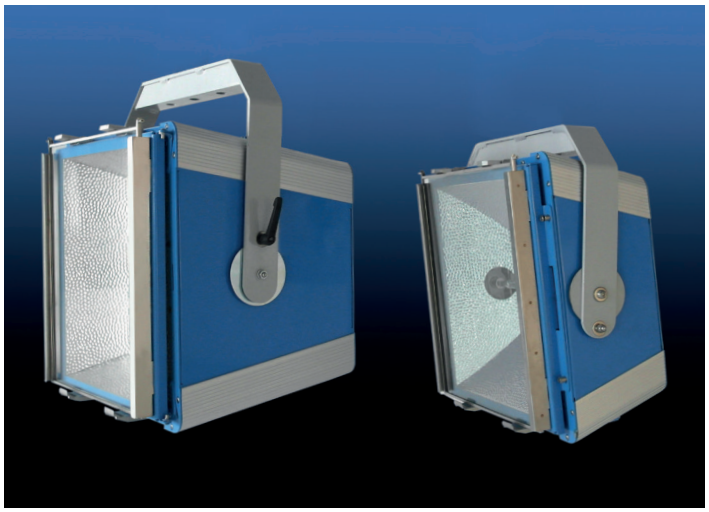
A compact, slim design and an extremely high power output make it possible to adapt UVATEC to different requirements.

IR & IR / hotair units

jetCURE IR is an air-cooled IR module for drying water-based inks and coatings. According to the application, it can be operated as a pure IR dryer or an IR/ hotair dryer.

The module can be equipped with short or medium wave IR lamps, a combination of different wavelengths, including NIR, is possible. Thus, jetCURE IR can be flexibly applied for various drying tasks.

Unique about jetCURE IR is the possibility to change it – fast and easily – from a pure IR to an IR / hotair dryer.



Sun simulation systems and lamps

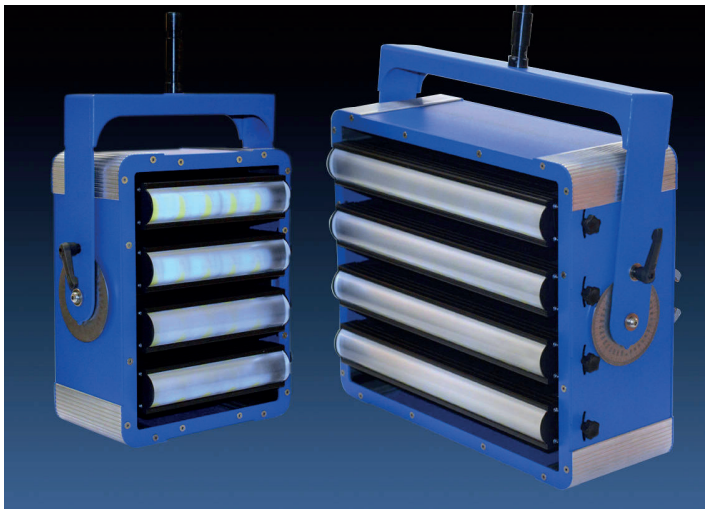
Fluter SFL: generates a sunlike spectrum.
Applied for e.g. emission testing, aging, life testing and material testing

IR sun simulation: for heating test materials

SOL 500 / 1200 / 2000: powerful sun simulation in different power levels for large-format objects, also in combination with climate chambers

UVACUBE 400: irradiation chamber / lab unit for sun simulation and for material testing

Hönle Units / Systems

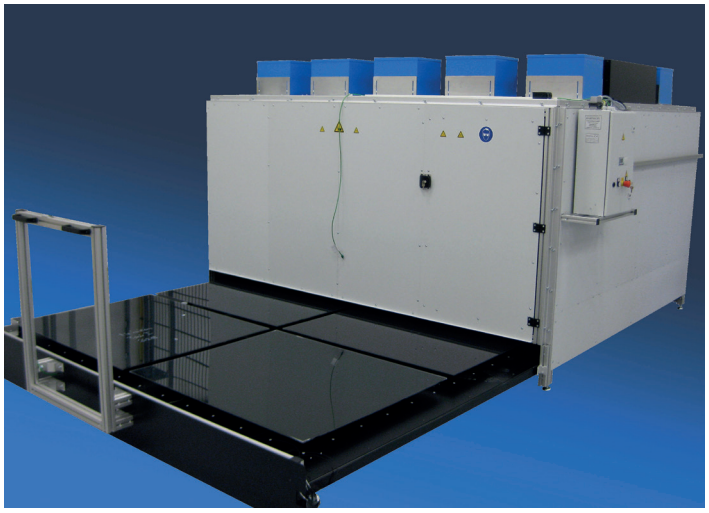


Lighting systems automotive

LED Floodlight 1.500 W - 6.000 W: is applicated for high-speed photography, e.g. at crash tests or as lighting system for airbag test facilities.

I.a. for the following test procedures: impact test, pedestrian protection and passenger protection.

LED onboard lamp 300 W - 1.200 W: for crash test applications, e.g. sled, rollover and block tests – for installation in or on the vehicle.



Sun simulation systems for photovoltaics

Sun simulation and UV preconditioning test systems for photovoltaics modules.

PV modules are expected to work reliably for more than 20 years, at environmental conditions which are often quite adverse. Thus, PV modules have to be tested under extreme conditions in order to ensure their quality in the long run.

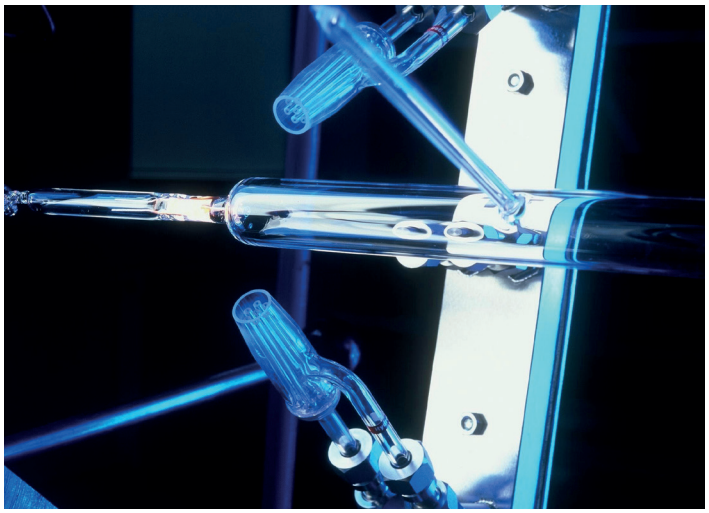
This testing procedure includes various load tests of the materials used for PV modules. These tests are defined in the standards IEC 61215 and IEC 61646.

UV measuring technology

UV-Meter for UV intensity and UV dose measuring.
High-quality UV measuring devices which monitor the exposure rate of point sources and flood lamps in the ranges UVA, UVB, UVC and VIS. A huge choice of exchangeable sensors allows applicating the UV-Meter at various manufacturing processes.

UV Scan: An UV measuring system for a reliable monitoring of the UV dose on the substrate by using photosensitive stripes which stick on the object.
Fields of applications: printing and coating industry.

Hönle Units / Systems



UV lamps / IR lamps

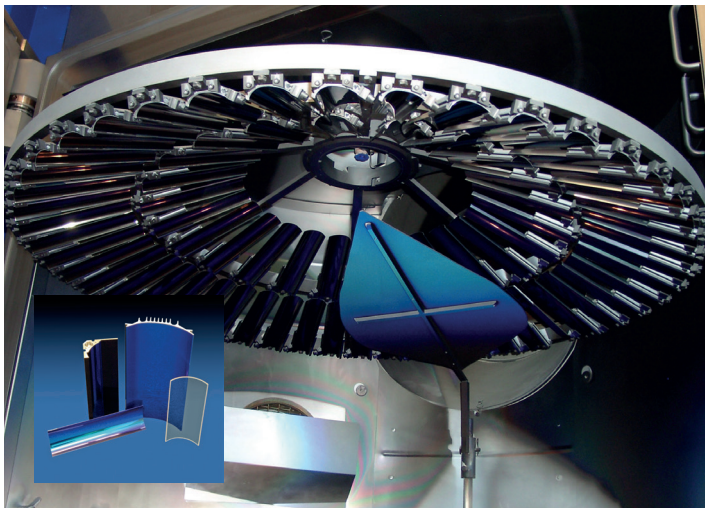
Our **UV lamps** have got an excellent power output and an improved endurance. In addition to lamps with all standard spectra, we also offer customized spectra which makes it possible to develop new or to optimize conventional processes.
Infrared lamps (IR lamps): We develop and manufacture IR lamps in different versions and wavelengths for industrial drying and heating processes. Apart from standard designs, we also offer customized versions in varying designs.

Electronic power supplies

We offer a series of compact electronic power supplies for UV discharge lamps with a maximum power of up to 40 kW. In addition to UV lamps, electronic power supplies are counted among the main key components of an UV system. Our EPSA are available in different versions to cover a wide range of applications.

The EPSA are supplied with an integrated continuously variable power control.

Installation effort maintenance are minimized by using pluggable connections.

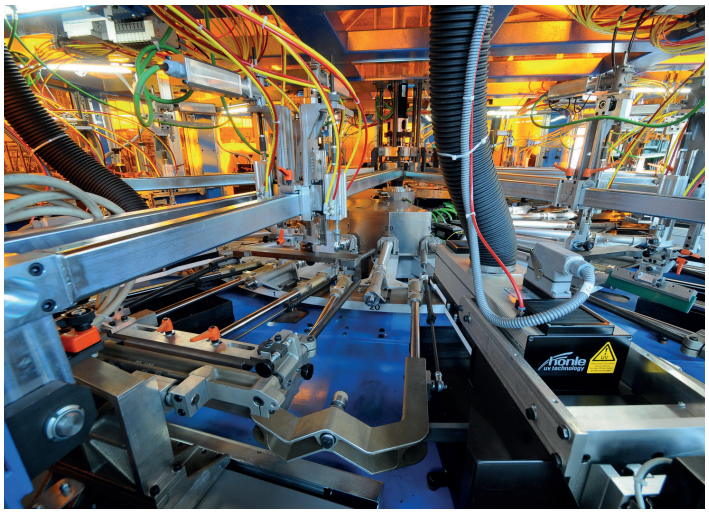


Reflectors

The deeper secret of many UV systems lies in the usage of their reflectors. Depending on lamp position and reflector geometrics, the reflected UV irradiation can be spread widely or can be concentrated.

Special reflectors are necessary when it comes to temperature-sensitive substrates: **Dichroitic reflectors** (cold mirror) are designed for highly intensive UV irradiation with a simultaneous reduction of infrared radiation. This guarantees an excellent curing at a low temperature load.

Applications

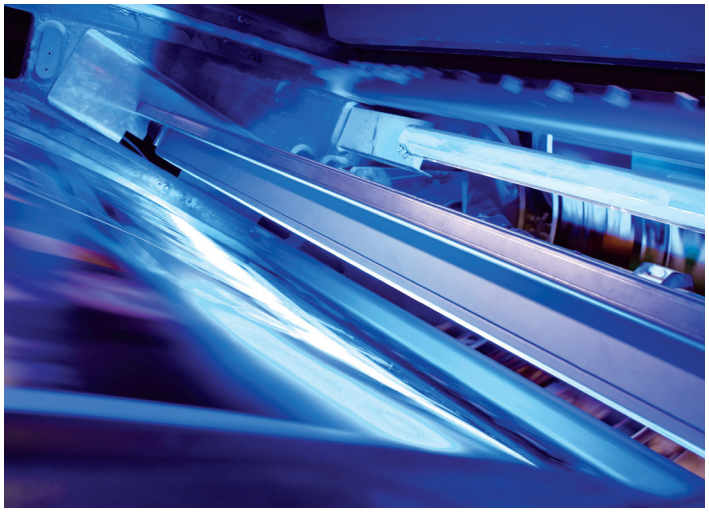


3-D printing

A speciality within the printing industry is printing on 3-D objects or 3 -D components. This process results in individual and high-end products, especially when it comes to inkjet printing.

The partially irregular surfaces of the substrate make it essential to distribute the high UV irradiation, which is needed for a reliable curing, uniformly and independently of the distance to the substrate.

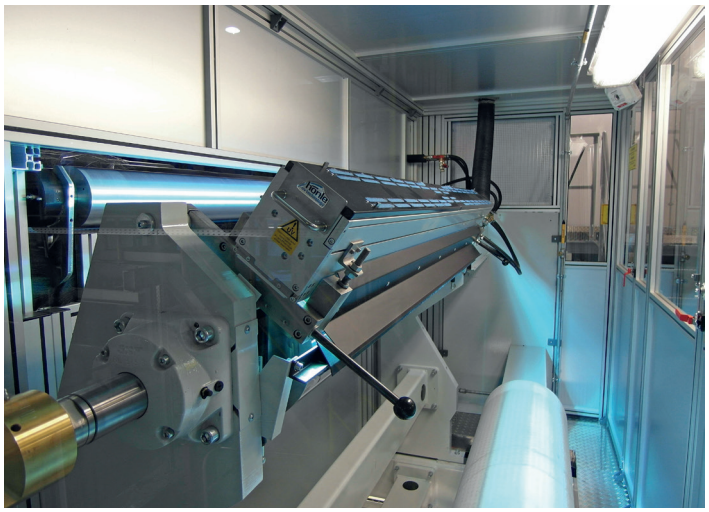
Common printing applications for 3-D printing are: inkjet printing, offset printing, screen printing and pad printing.



Printing

As diverse as the printing applications, as diverse and individual are the LED-UV curing systems and IR drying systems offered by Dr. Hönle AG.

As a system provider with a high vertical range of manufacture, which includes the production of all key components, we offer curing and drying systems for all printing applications, e.g. sheetfed printing, web printing, inkjet printing, flexo printing, tin printing, pad printing or screen printing.

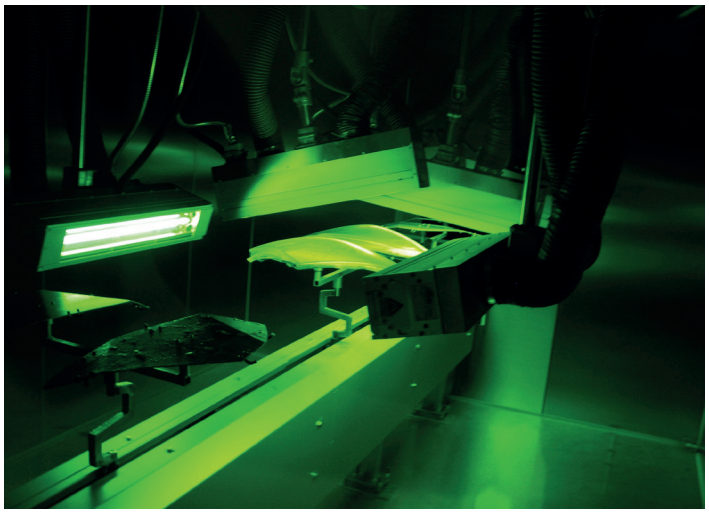


Coating / Finishing

The characteristics of UV-reactive coatings, namely scratch resistance, abrasion resistance and chemical resistance, in combination with different, even temperature-sensitive substrates allow a multitude of – often challenging – applications. It is possible to coat foils, substrates of diverse materials, printed surfaces and also 3-D objects.

We always supply the perfect UV curing system for each coating or finishing application. Prerequisite is an individual, applications-oriented advice which usually leads to a customized solution.

Applications



3-D coating

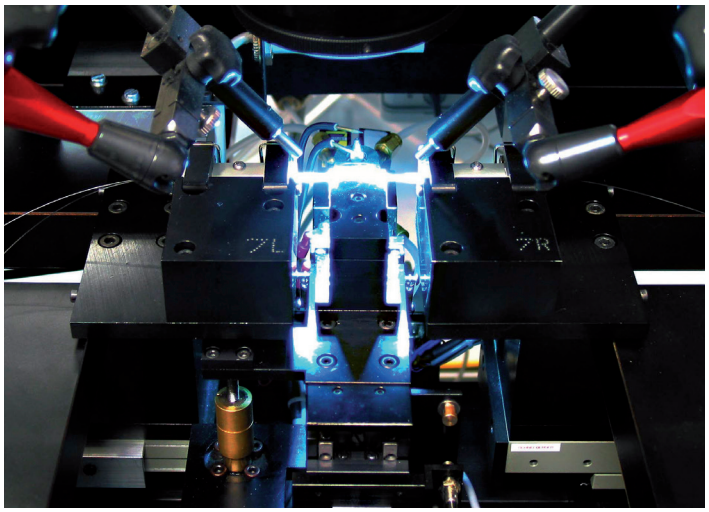
Dipping, flowing, spraying, doctor-knifing, rolling – all these are conventional coating applications for 3-D objects where our UV curing systems are used.
On the picture: UV-coating of car headlamps.

The coating, which for example is used as a protective layer for three-dimensional objects, has got a high degree of cross-linking when cured with UV irradiation. Thus, it offers an excellent mechanical and chemical resistance.

UVC disinfection

UV discharge lamps have got a comparatively high content of short-waved UV irradiation (UVC) which makes them perfectly apt for germ reduction. The DNA of the germ is damaged which prevents their spreading. The disinfection rate is > 99,9%. This disinfection process enhances the shelf life of food significantly.

UVC disinfection is mainly applied in the packaging industry, especially in the segments dairy and beverage.

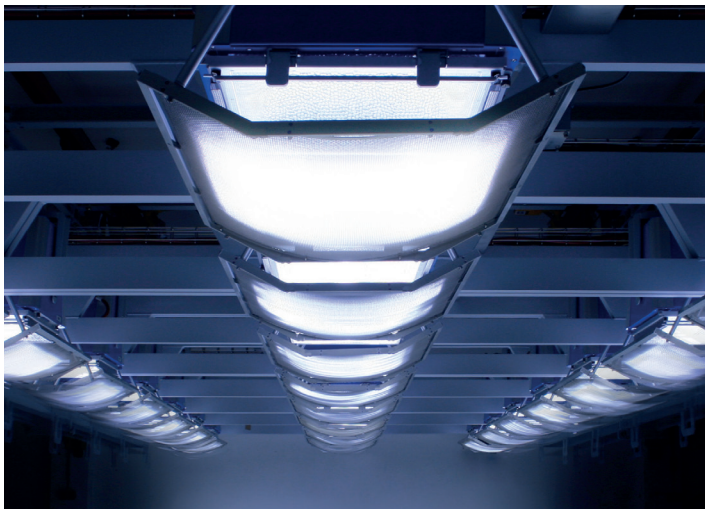


Bonding / Potting / Sealing

The UV technology offers many possibilities to reliably join components or protect them from environmental influences (e.g. dirt, humidity).
Electronics, optics / opto-electronics, glass, medical engineering, plastics and automotive – these are only few markets where UV technology is successfully applied.

UV / LED-UV curing systems by Hönle and the adhesives by Panacol are perfectly matched to each other. Combined they are strong and high-tech bonding systems which lead to fast and reliable bonding results.

Applications



Sun simulation

Especially the short-waved part of UV irradiation has influences on most modern materials. These influences must be thoroughly tested before materials are released for the market. For such so called preconditioning tests Hönle offers high-end sun simulation systems.
The materials are subjected to different tests in which specific environmental conditions are simulated to find out their influence on the substrate, e.g. concerning material aging or emission.
Hönle sun simulation systems are always customized. Their designs range from compact irradiation chambers up to huge test facilities e.g. for the Automotive Industry.

Lighting Automotive / Event

Lighting for crash tests block / pole, sled, rollover, lighting for airbag test facilities, lighting for high-speed photography (Impact Tests, Pedestrian Protection, Passenger Protection) – for all these applications we offer optionally SFL lamps with HMI light fittings (with or without shutter) or LED lamps, all of them generating flicker-free light.

For film, TV, events, trade shows, research and architecture our spotlights and lamps guarantee an extremely high light yield both in daylight and under artificial lighting and applying different diffusers allows perfect lighting effects. We design and manufacture lamps and complete lighting systems.

For more information about our complete product range, please see the regarding product flyers on www.hoenle.com.

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