



IR - Sun simulation

System-Features

- Immediate thermal radiation
- High heat irradiation
- Dimmable
- Uniform light distribution
- 5000 hours bulb life

Advantages

- No warm-up phase
- Fast specimen heat-up
- 0 to 100 %
- Extremely good Homogeneity
- Low maintenance costs

IR - Sun simulation

Sun simulation systems with infrared-technology are used in industrial validation- and testprocedures where fast heat-up is requested. The tubular infrared halogen lamps are double ended and equipped with integrated white reflector.

Technology

Infrared irradiation is the part of the electromagnetic spectrum above 800 nm. It is divided into IR-A (800 – 1400 nm), IR-B (1400 - 3000 nm) and IR-C (3000 – 10000 nm). The main part is IR-A irradiation. IR-A offers the highest energy density and best efficiency. Heat source is a special cylindrical emitter with 1000 W or 2000 W with lifetime of approx. 5000 h. This guarantees low maintenance costs. 90% of the consumed energy is converted into heat, which results in high efficiency. The power of the irradiation system is adjusted from 0 to 100 % with electrical dimming modules.

Application example

The so far biggest IR-system realized by Dr. Hönle with a total of 260 IR-emitters has a top irradiance area of 3.8 x 11 m with height adjustment (vertical movement) and front/rear tilting. In addition there are 4 side irradiation units with an area of 4.5 x 5.5 m each. Each side irradiation unit is equipped with horizontal movement.

Scope of delivery

All our infrared systems are solely designed and made according to customer requirements regarding irradiance area and irradiance power. Height adjustment, tilting of front-, rear- and side-area as well as length wise and crosswise movements are available. System control is customer-oriented and realized by handheld devices as well as programmable logic controller (PLC).

