



...clean air again

Efficient air treatment with Heraeus UV lamps

Heraeus Noblelight, worldwide leading manufacturer of specialty light sources, offers UV lamps for the photochemical treatment of air and exhaust air. This process is characterised by low investment and operating costs, and enables space-saving installation due to its compact design.

By the use of UV lamps, contaminants and odours in the air are photolysed and neutralised directly by the vacuum UV radiation at the wavelength range of 185 nm. At the same time, the vacuum UV radiation produces ozone from the oxygen in the air around the lamp. This subsequently breaks down again into excited oxygen, as highly-reactive

free radicals react with organic molecules such as fats and aromatic hydrocarbons.

High-performance UV lamps from Heraeus Noblelight remain extremely effective even at ambient temperatures of up to 80 °C. The special longlife coating of the lamp tube results in the very long service life of the UV lamp of at least 10,000* operating hours.

Thanks to the extremely high-performance UV lamp, 4-6 low pressure lamps can now be replaced by one single Vacuum UV lamp. Existing low pressure lamp systems can be converted quickly and easily.

* 80% of the original UV output measured under laboratory conditions

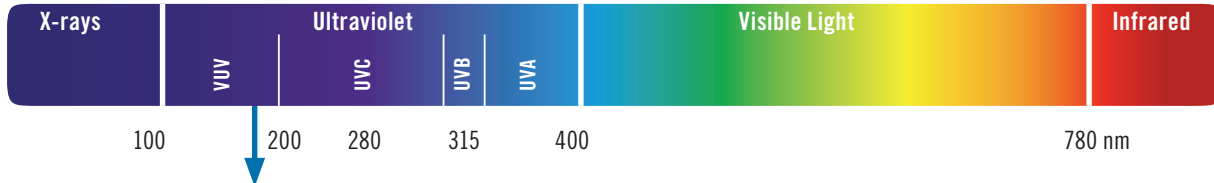
UV light and its applications

UV light at the wavelength range of 185nm treats the air effectively. Heraeus vacuum UV emitters are used for the breakdown of:

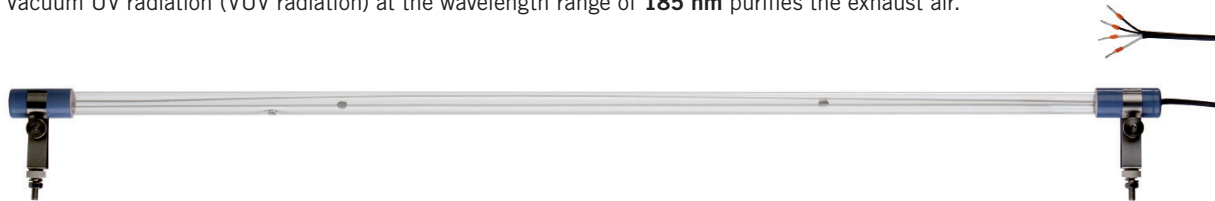
- **Odours** (food processing industry, waste water treatment plants, livestock stables, unpleasant odours)
- **Fats**
- **Solvents and VOCs**
- **Chemicals** (TCE, Perc, Ammonia and others)

Advantages of the efficient UV lamp for air treatment

- **Low space requirement:** 1 Amalgam Vacuum UV lamp instead of 4-6 low pressure lamps
- **Effectiveness time:** at least 10,000 h due to the new longlife coating - reduces maintenance costs
- **Ambient temperature:** can heat up to 80 °C, and therefore the UV lamp is also suitable for high temperatures
- **High cost effectiveness:** due to low investment and installation costs, since only one UV lamp is required



Vacuum UV radiation (VUV radiation) at the wavelength range of **185 nm** purifies the exhaust air.



Lamp specifications

Lamp type	ozone generating
Use at ambient temperatures	up to 80° C
UV-emission	185 nm, 254 nm
Electrical Power	50-300 W
Lamp length	25-150 cm
Typical service life	up to 10,000 h

General and safety instructions

UV lamps have to be installed only by qualified specialist personnel.

The ambient conditions, air speed and temperature must be taken into account accordingly in the design of UV lamps, in order to be able to carry out a successful installation.

Exhaust air treatment systems or exhaust air ceilings equipped with UV lamps must be designated accordingly. The warning sign W 09 "Warning of optical radiation" to BGV A8 must be fitted. Installation instructions

UV lamp types from Heraeus Noblelight

Lamp type	Ambient temperature	Overall length
NAQ 170 / 90 XL	20° – 40° C	900 mm
NAQ 200/120XL	20° – 40° C	1200 mm
NAQ 290 / 155 XL	20° – 40° C	1554 mm
NIQ 170 / 90 XL	40° – 80° C	900 mm
NIQ 200 / 120 XL	40° – 80° C	1200 mm
NIQ 290 / 155 XL	40° – 80° C	1554 mm

must be followed at all times! The standard DIN 18869-7, Appendix A, governs the operation of UV systems for the secondary treatment of aerosols and aerosolates in kitchens and food processing businesses. The instructions of Appendix A 6.4 in particular must be observed for protection against UV radiation. The ozone concentration in the exhaust air (measured at the air outlet connection of the ventilation and air conditioning system) must not exceed 20 mg/Nm³.

