Heraeus

Noblelight

Efficient odor and grease reduction in commercial kitchens

Heraeus smart UV Control System for cooking fumes

Odor reduction with Heraeus UV solution
Highly efficient and energy-saving

The use of fats and oils, especially in large commercial kitchens, leads to unpleasant odors and builds up in kitchen exhaust and fume hoods. Grease separators catch only up to about 95% of the grease in the exhaust air stream. The remaining grease builds up on the hood body and exhaust duct surfaces creating a significant fire hazard. No grease filter is capable of completely eliminating these deposits.

Heraeus Noblelight, the world's leading manufacturer of specialty light sources, offers vacuum UV lamp (VUV) solutions for aerosol and aerosolate after-treatment in kitchen exhaust hoods. Heraeus vacuum UV lamps in the 185 nm wavelength range photolyze, destroy and neutralize grease and odors. This greatly reduces cleaning and service costs, and improves safety.

Powerful Heraeus VUV lamp solutions are extremely effective even at an ambient temperature of up to 80°C. Their long useful life of up to 10,000 operating hours[1] minimizes service intervals. A single high-power vacuum UV lamp replaces up to 6 conventional low-pressure lamps.

This UV system also provides a smart option for remote maintenance and fault diagnosis. This provides real maintenance cost savings, as there is no need to travel to the site.

At a glance: The Heraeus smart UV Control System (UVSCS)

- Optimum fire protection
- Optimum heat recovery
- Minimizes of cleaning costs
- Safe odor elimination
- Improved hygiene
- Reduction of downtime and repair costs
- Simple retrofit into existing systems

The Heraeus smart UV Control System, which can be easily retrofitted, is designed and offered on a project-specific basis. After correct installation and system commissioning, the systems comply with DIN 18869-7, amendment A, “Operation of UV systems for aerosol and aerosolate after-treatment“.

Application areas

- Cafeteria and restaurant kitchens
- Front cooking stations
- Mobile event cooking
- Grill stations
- Fast food restaurants
- Fish preparation
- Bakeries
- Coffee roasters

[1] 80 percent of the UV power measured at the beginning under laboratory conditions

Advantages of operation with UVSCS

- **Reduces fire risk**
- **Space-saving:** 1 lamp instead of a standard UV cassette with 4-6 low-pressure lamps.
- **Effectiveness duration:** up to 10,000 h due to new Longlife coating
- **Ambient temperature:** can be up to 80° C
- **Easy handling:** 1 power supply and 2 spring clips per lamp are sufficient
- **Easy installation:** the lamp installs directly into the hood, while the power supply and control unit mount externally
- **Independent system:** two separate installations can be operated independently with one control unit
- **Cleaning:** Wipe lamp occasionally with damp cloth
- **Safety:** No plug connections in the exhaust air flow, in which voltage flashovers could occur

The optionally available status display can withstand splash water and offers further advantages in combination with our control cabinet:

- **System size easily scalable** from 2 – 8 UV lamps
- **Easy maintenance** through remote fault diagnostics
- **Interface** to building control system
- **Monitor UV lamps** for operating hours and function
- **Clear status information** for the operating personnel
- **Monitor** the safety sensors

Scope of delivery

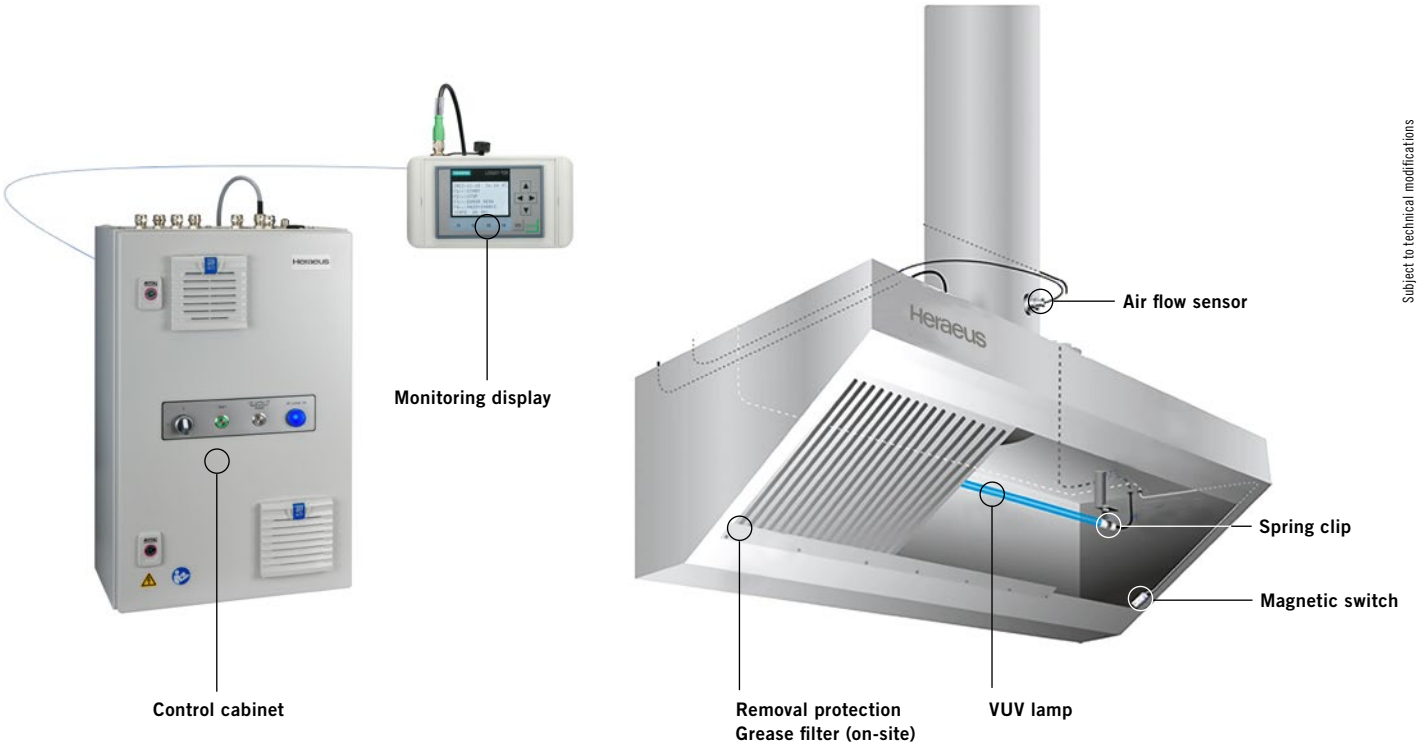
The package includes the components needed for safe operation:

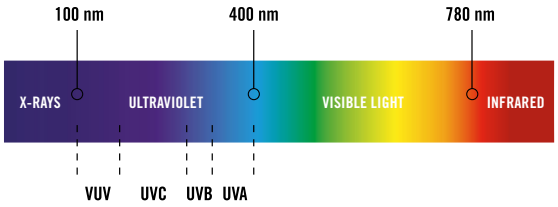
- Matched VUV lamps for each application.
- Stainless steel mounting brackets for the lamps
- Air flow monitor and reed contact switch
- Advanced control electronics, including a control panel with protection against dust and moisture
- External status display (optional)

Suitable for all kitchen sizes

	Heraeus UVSCS 1.200	Heraeus UVSCS 2.200	Heraeus UVSCS 4.220	Heraeus UVSCS 8.220
Exhaust air flow rate	< 1,500 m³ / h = 885 cfm	< 3,000 m³ / h = 1,700 cfm	< 8,000 m³ / h = 4,700 cfm	< 16,000 m³ / h = 10,000 cfm
Number of lamps	1	2	4	8
Recommended lamp	NIQ 170/90 XL	NIQ 170/90 XL	NIQ 200/120 XL	NIQ 200/120 XL
Energy consumption	200 W	420 W	950 W	2000 W
Lamp cable length	NNI 60/35 XL	NNI 125/84 XL	NNI 201/107 XL	NNI 300/147 XL
Ambient temperature	< 40° C	< 40° C	< 35° C	< 35° C
Size	400 × 300 × 210 mm	400 × 400 × 210 mm	400 × 600 × 210 mm	600 × 760 × 210 mm
Protection class	IP 65	IP 65	IP 54	IP 54
SAP Ident No.	80094149	80121436	80121437	80118804

UVSCS installation at a glance





General and safety instructions

UV lamps should only be installed by qualified personnel. The number of UV lamps depends on the exhaust air volume, type of kitchen (vegetable/animal, cooking/grilling) and the kitchen load (grease load/type of grease). Kitchen or exhaust hoods equipped with UV lamps must be marked. Please observe our installation instructions!

The standard DIN 18869-7,amendment A, regulates the operation of UV systems for aerosol and aerosolate after-treatment in kitchens and food processing plants. Users must pay particular attention to and must comply with the appendix A 6.4 with instructions for protection against UV radiation.

The warning sign W 09 “Warning of optical radiation“ according to BGV A8 must be attached.

heraeus-noblelight.com

Germany
Heraeus Noblelight GmbH
Heraeusstraße 12–14
63450 Hanau
Tel. +49 6181 35 4499
Fax +49 6181 35 164499
hng-uv@heraeus.com

France
Heraeus SAS
12, Avenue du Québec - Bât. I.2
Villebon B.P. 630
91945 Courtaboeuf Cedex
Telefon +33 1 69 18 48 51
Fax +33 1 69 28 82 43
philippe.wuattier@heraeus.com

Italy
Heraeus SpA
Via dei Chiosi, 11
20040 CAVENAGO BRIANZA (MI)
Telefon +39 02 95759212
Fax +39 02 95759241
hng-italy@heraeus.com

Spain
Heraeus S.A.
C/Ilull 27-39 1°-9ª
08005 Barcelona.
Telefon +34 933 208 042
Fax +34 934 853 411
bcn@heraeus.es