

A photograph of a modern commercial kitchen. In the foreground, there is a large stainless steel oven with a glass door showing a landscape. To its right is a long stainless steel counter with a gas cooktop and various drawers and cabinets underneath. Above the counter is a large stainless steel range hood with a UV control system. The kitchen has a clean, professional look with white walls and a light-colored floor.

**Efficient odor and grease reduction
in commercial kitchens
Excelitas smart UV Control System
for cooking fumes**

NobleLight

EXCELITAS
TECHNOLOGIES®



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Odor reduction with Excelitas 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.

Excelitas 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. Excelitas 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 Excelitas 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 hours¹ 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 Excelitas smart UV Control System (UVSCS)

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

The Excelitas 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

Excelitas UVSCS 4.220

Exhaust air flow rate	< 8,000 m³ / h = 4,700 cfm
Number of lamps	4
Recommended lamp	NIQ 200/120 XL
Energy consumption	950 W
Ambient temperature	< 35° C
Size	400 × 600 × 210 mm
Protection class	IP 54

About Excelitas Technologies

Excelitas is a leading provider of advanced, life-enriching technologies that make a difference, serving global market leaders in the life sciences, advanced industrial, next-generation semiconductor, aerospace and defense end markets. Headquartered in Pittsburgh, PA, USA, Excelitas is an essential partner in the design, development and manufacture of photonic technologies, offering leading-edge innovation in sensing, detection, imaging, optics, and specialty illumination for customers worldwide. Excelitas is at the forefront of addressing many of the relevant megatrends impacting the world today, including precision medicine, industrial automation, artificial intelligence, connected devices (IoT) and military modernization.



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