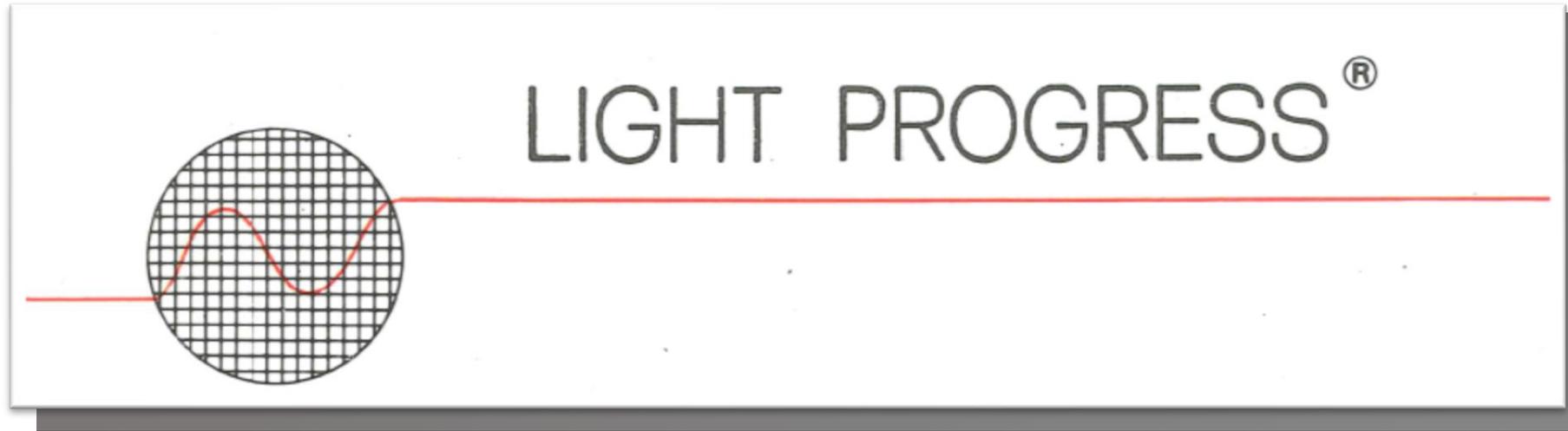




Grease and Odours Reduction



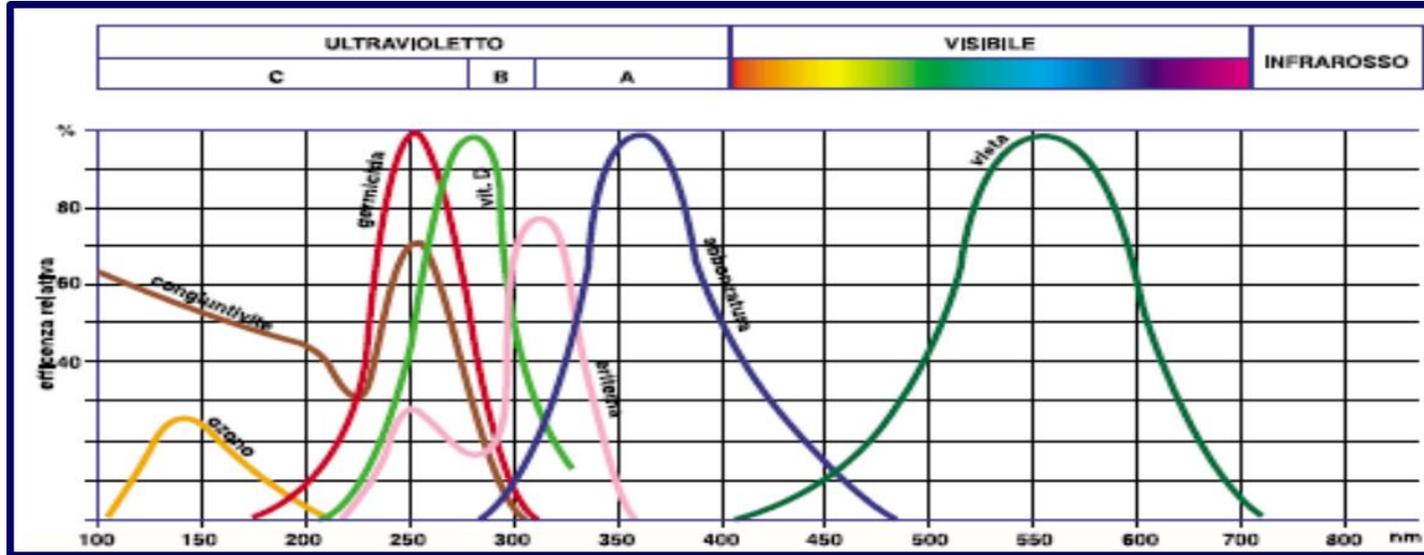
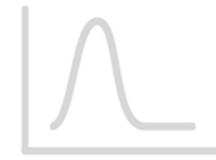
studies, develops, projects and produces

Ultraviolet Germicidal Irradiation

devices, since



What does UVGI mean?



Light is divided in visible, infrared and ultraviolet.

UV rays (invisible) are classified in:

- UV - A (tanning properties)
- UV - B (therapeutic properties)
- UV - C (germicidal properties)

The germicidal effects of the UV-C radiation **destroy DNA** of **Bacteria, Viruses, Spores, Fungi, Moulds** and **Mites** avoiding their growth and proliferation.

UVGI technology is a physic disinfection method with a **great costs/benefits** ratio, it's ecological, and, unlike chemicals, it works against every microorganisms without creating any resistance.



operates in different fields and turns Ultraviolet Technology into real Solutions, providing a Specific Device for every application needed.



HVAC



Water



Health



Food



Smell reduction



What happens inside Kitchen Ventilation Systems ?



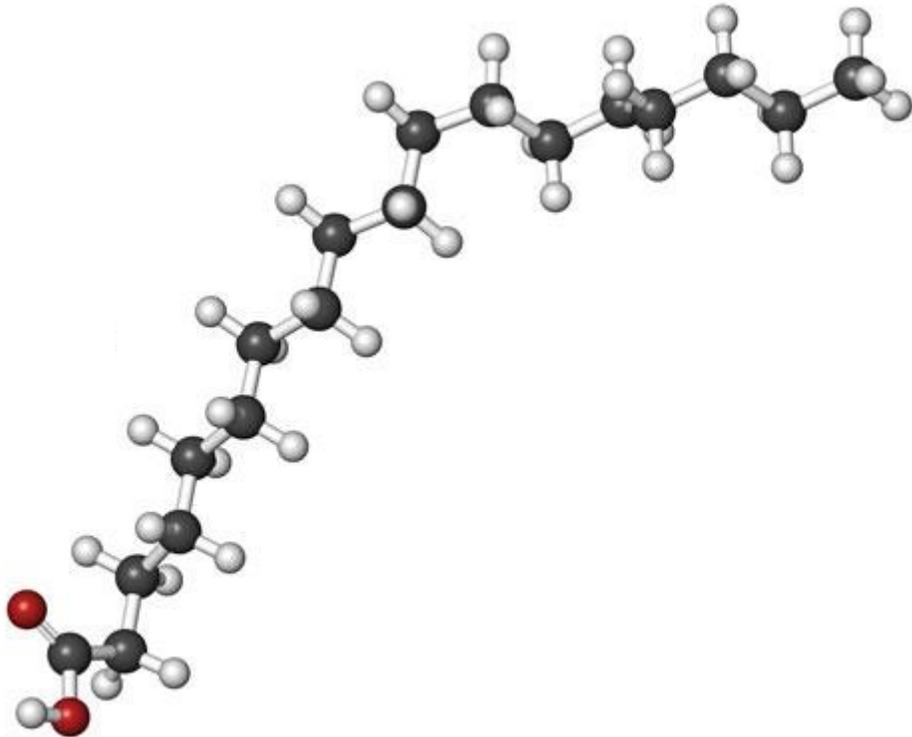
In restaurants and community kitchens, during food cooking phases, fats pollutants and unpleasant smells are generated.

Besides these inconveniences, those deposits are very dangerous for **fire risks**, and for this reason continuous maintenance operations are necessary.

Furthermore food cooking bad smells may be disputed by authorities and give often rise of legal issues with the neighborhood.

What happens inside Kitchen Ventilation Systems ?

Fats are carbon and hydrogen compounds, with a structure made of complex chains.



If fats are **exposed to an intense UV-C irradiation**, they absorb part of this powerful energy, and molecules, placed in a higher energy state, become more reactive.

For this reason they recombine with oxygen present in the air.

This process causes a particular and immediate chemical reaction, the “**cold combustion**”.

Results of this reaction are organic and odorless short chain gases, such as carbon dioxide (CO₂), water, etc., normally present in air.



What happens inside Kitchen Ventilation Systems ?



UV-SMELL-SQ o UV-STYLO-S are applied either inside kitchen hoods or in kitchen ventilation system, through a «plenum».

Both devices can be equipped with UV-C+O3 (Ozone) lamps or UV-C ozone-free lamps; these are the first devices in the market that can handle ozone or ozone-free lamps, alternatively or even combined together, according to clients' needs.

So the air filtered by UV-SMELL-SQ or UV-STYLO-S during normal cooking, reduces the formation and deposits of fat and the consequent risk of fires, limiting also the growth of molds that feed usually on fats.

Special TiOX[®] Filter



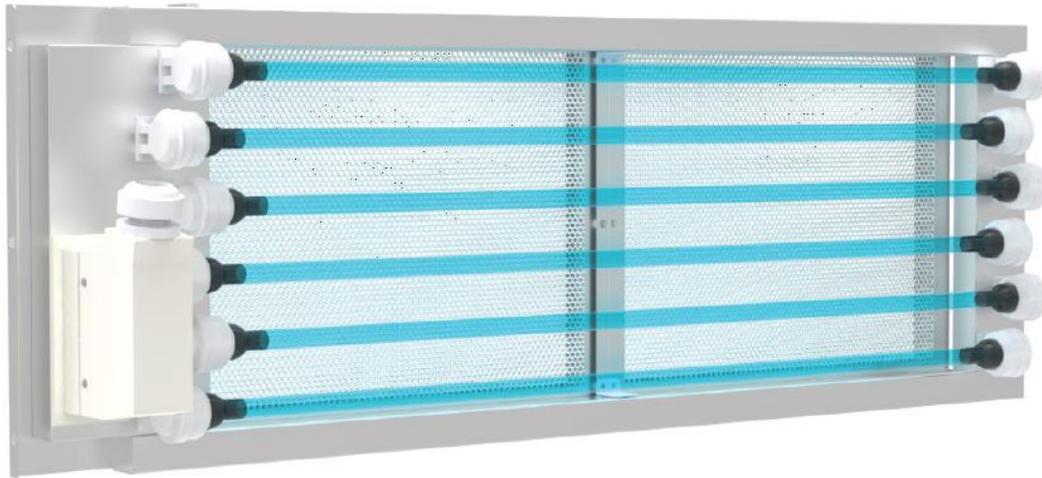
TiOX[®] honeycomb filter, original Light Progress (optional) is a special filter coated with nano-structured titanium dioxide and silver salts (optional) that, in combination with the very high UVC power emitted by lamps, is an excellent photo-catalyst that degrades pollutants and organic and inorganic compounds (SOV, NO_x and VOC volatile organic compounds, nitrogen oxides).

TiOX[®] filter performs further oxidation of polluting particles, and contributes significantly to the deodorizing action of UV-C.

It TiOX[®] can be added inside UV-SMELL-SQ or in between the application of UV-STYLO-S.



UV-SMELL-SQ



- Body in STAINLESS STEEL AISI 304.
- UV-C selective (253.7 or 253,7 nm + Oz 183 nm.) high efficiency, pure quartz.
- Waterproof and dust proof (IP 55)
- Control Board in ABS; LED synoptic view with hourcounter (IP65)
- Modular system, can be applied combining more units
- facilitated connections plug with pre-wired multipole cable
- All materials are tested for resistance to intense UV-C rays and Ozone.
- Powered by electronic ballasts specific for Light Progress UV-C rays lamps. (220-240 V, 50-60 Hz)
- Suitable for TiOX[®] filter (optional)
- CE Mark (LVD - EMC - MD - RoHS).

Installation Examples



UV-SMELL-SQ

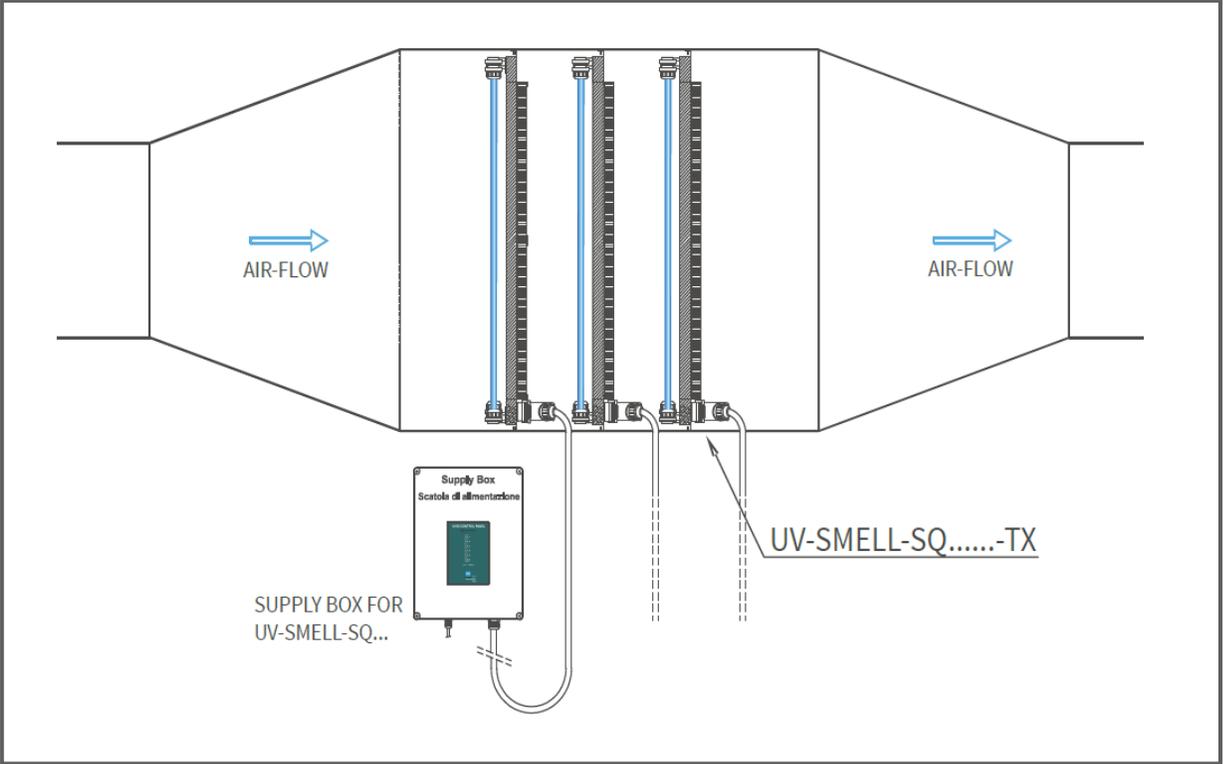
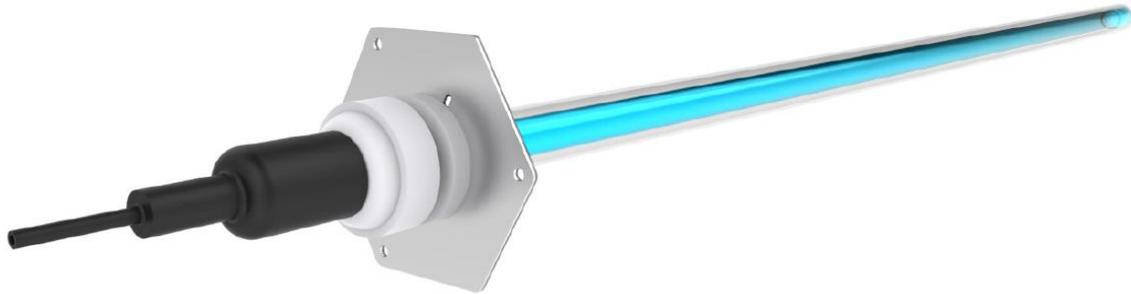




TABLE - Tabella

UV-SMELL-SQ		4/40H (TX)	4/90H (TX)	4/120H (TX)	6/40H (TX)	6/90H (TX)	6/120H (TX)
LIFETIME LAMP UP TO (hour)	DURATA LAMPADA FINO A (ore)	18.000	18.000	18.000	18.000	18.000	18.000
UV-SMELL-SQ (+Oz)		4/40H-Oz(TX)	4/90H-Oz(TX)	4/120H-Oz(TX)	6/40H-Oz(TX)	6/90H-Oz(TX)	6/120H-Oz(TX)
LIFETIME LAMP UP TO (hour)	DURATA LAMPADA FINO A (ore)	12.000	12.000	12.000	12.000	12.000	12.000
CONSUMPTION (W)	CONSUMO TOTALE (W)	40x4 = 160	80x4 = 320	100x4 = 400	40x6 = 240	80x6 = 480	100x6 = 600
UV-C EMISSION (W)	EMISSIONE UV-C (W)	13x4 = 52	26x4 = 104	32x4 = 128	13x6 = 78	26x6 = 156	32x6 = 192
MODULE DIMENSIONS (mm)	DIMENSIONI MODULO (mm)	145xAxB	145xAxB	145xAxB	145xAxB	145xAxB	145xAxB
DIMENSIONS (A)(mm)	DIMENSIONI (A)(mm)	594	1052	1332	594	1052	1332
DIMENSIONS (B)(mm)	DIMENSIONI (B)(mm)	253	253	253	358	358	358
DIMENSIONS (C)(mm)	DIMENSIONI (C)(mm)	96,5	96,5	96,5	149	149	149
SUPPLY BOX DIMENSIONS (mm)	DIMENSIONI ALIMENTAZIONE(mm)	314x394x128	314x394x128	314x394x128	314x394x128	314x394x128	314x394x128
WEIGHT(Kg)	PESO (Kg.)	5,50	6,00	6,50	6,50	7,00	7,50
MAX AIR FLOW TO BE TREATED (m ³ /h)	Volume di aria esausta trattabile (m ³ /h)	1.000 m ³ /h	2.400 m ³ /h	3.200 m ³ /h	1.600 m ³ /h	3.600 m ³ /h	4.800 m ³ /h



- Body in STAINLESS STEEL AISI 304.
- UV-C selective (253.7 or 253,7 nm + Oz 183 nm.) high efficiency, pure quartz.
- Waterproof and dust proof (IP 40)
- Modular system, can be applied combining more units
- Facilitated connections plug with pre-wired multipole cable
- Quartz sleeve to protect the UV lamp (or UV + Oz)
- All materials are tested for resistance to intense UV-C rays and Ozone.
- Powered by electronic ballasts specific for Light Progress UV-C lamps. (220-240 V, 50-60 Hz)
- Suitable for TiOX[®] filter (optional)
- UVLON PIPE special sleeve (optional)
- CE Mark (LVD - EMC - MD - RoHS).

Installation Examples



UV-STYLO-S

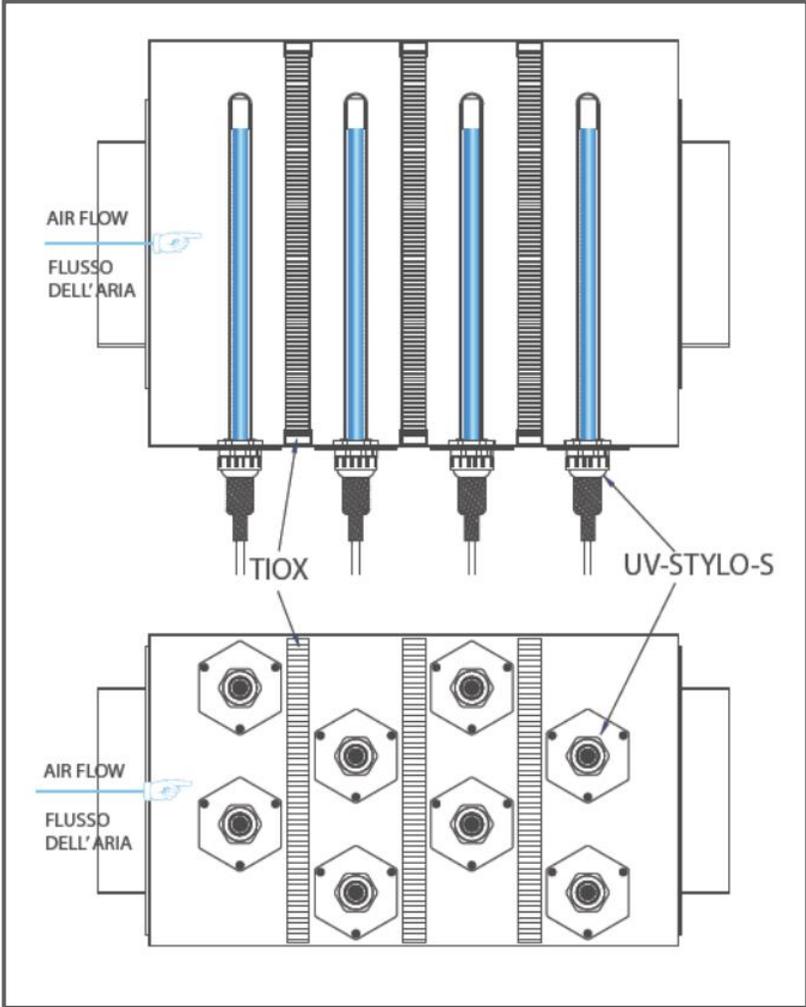
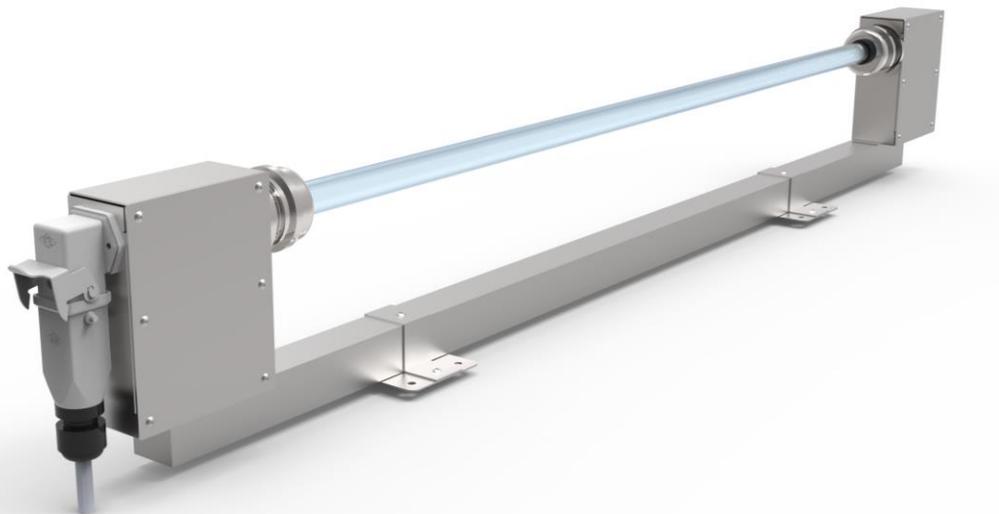




TABLE - Tabella

UV-STYLO-S		11	16	40H (OZ)	60H (OZ)	90H (OZ)	120H
LAMP LIFETIME UP TO (hours)	DURATA LAMPADA FINO A (ore)	18.000	18.000	18.000 (12.000)	18.000 (12.000)	18.000 (12.000)	18.000
CONSUMPTION (W)	CONSUMO TOTALE (W)	11	16	35	60	85	100
"A" DIMENSIONS (mm)	DIMENSIONI "A" (mm)	196	272	397	541	851	1.132
WEIGHT (kg)	PESO (kg)	0.20	0.30	0.70	0.75	0.80	1.00
AIR FLOW IN M ³ WITH SPEED MAX 2.5 m/s	PORTATA D'ARIA IN M ³ CON VELOCITA' MAX 2.5 m/s	80	120	280	450	600	750



- Body in STAINLESS STEEL AISI 304.
- UV-C AMALGAM selective (253.7 or 253,7 nm + Oz 183 nm.) high efficiency, pure quartz.
- Waterproof and dust proof (IP 40)
- Modular system, can be applied combining more units
- All materials are tested for resistance to intense UV-C rays and Ozone.
- Powered by electronic ballasts specific for Light Progress UV-C rays lamps. (220-240 V, 50-60 Hz)
- Suitable for TiOX[®] filter (optional)
- CE Mark (LVD - EMC - MD - RoHS).

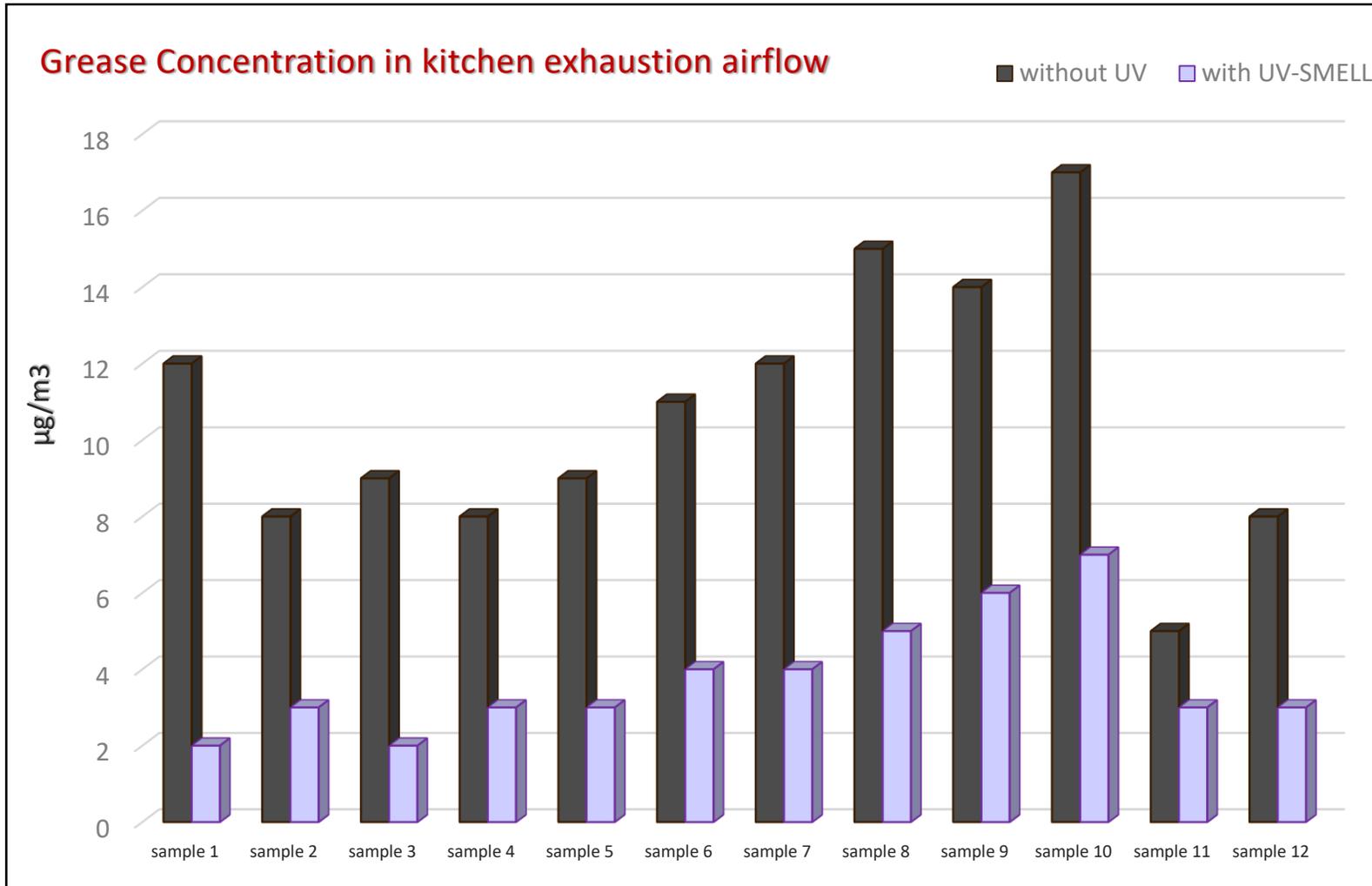


TABLE - Tabella

UV-SMELL-A		172
LIFETIME LAMP UP TO (hour)	DURATA LAMPADA FINO A (ore)	18.000
UV-SMELL-SQ (+Oz)		172-Oz
LIFETIME LAMP UP TO (hour)	DURATA LAMPADA FINO A (ore)	16.000
CONSUMPTION (W)	CONSUMO TOTALE (W)	1X172=172
UV-C EMISSION (W)	EMISSIONE UV-C (W)	51
MODULE DIMENSIONS (mm)	DIMENSIONI MODULO (mm)	1020X151X47
WEIGHT(Kg)	PESO (Kg.)	3
MAX AIR FLOW TO BE TREATED (m ³ /h)	Volume di aria esausta trattabile (m ³ /h)	1.200 m ³ /h

Testing grease reduction

After taking samplings from a frying station determine the amount of grease in kitchen air.
Thanks to our systems, in every sample we took the amount of grease particles was consistently reduced.



NO GREASE =

- 👍 Fire prevention
- 👍 Less maintenance interventions
- 👍 Very few, recurring cleaning costs
- 👍 Improvement of active carbon filters' life

In any large kitchens, in shopping malls, office buildings, hotels and food court UV can help you keep the environment clean and hold odors back.



What are main benefits and advantages ?



Important reduction of odors and smells coming from kitchen ventilation system. No germs proliferation (bacteria and mold) or fat deposits.



Less maintenance interventions, deep surface cleaning without the continuous use of high pressure equipment and chemical products, usually very expensive.



Significant life improvement of active carbon filters, which are "cleaned up" by the ozone absorbed and maintain best performances in time.



Ecological Treatment (cold and dry) without any chemical spray or agent, dangerous for the environment.



Fire protection with the prevention of highly flammable fats' deposits in the hoods and inside exhaust-air ducts. Maximum safety for employees.



Quick installation, maintenance and lamps replacement are easy. Our team will help you and guide you in choosing the solution that best suits your needs.

Some



References





Some



References

- Restaurants -







Loc. San Lorenzo, 40

52031 - ANGIARI (AR) - ITALY

Tel. +39.0575.74.92.55

Fax +39.0575.78.99.29

www.lightprogress.com

info@lightprogress.it



thank you