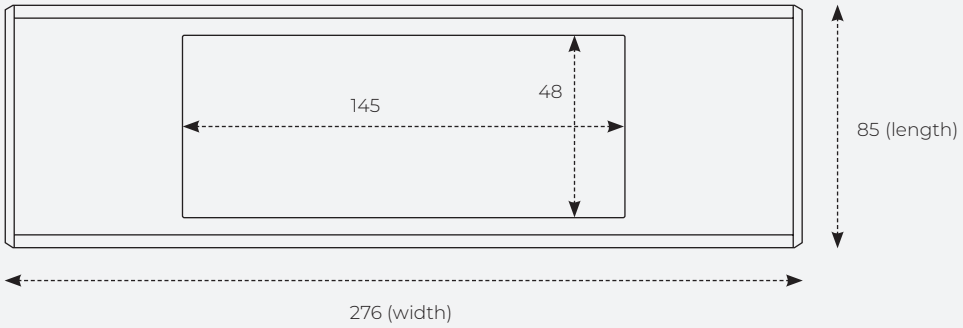
IRRADIATION LAMPS

Irradiation lamps provide stable and concentrated UV output for fluorescence detection and general UV applications. Available in filtered and unfiltered versions from 6 to 3×30 watts, they cover a wide range of experimental needs. Each lamp features an anodized aluminum housing for extended durability, while the Ondulex reflector enhances UV efficiency across the entire illuminated area. With highly uniform radiation and multiple mounting options, these lamps deliver consistent, reliable performance in any laboratory setup.

6W Filtered lamps

Filter size : 145 x 48 mm

(mm)

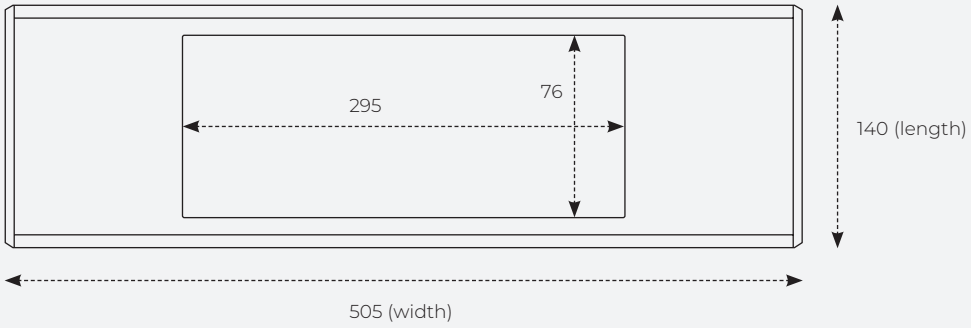


MODEL	Wavelength (nm)	Tubes x Power (W)	Irradiance (mW/cm²)
VL-6.LC	365 / 254	1 x 6 365nm & 1 x 6 254nm	0.610 for 356nm – 0.400 for 254nm
VL-6.L	365	1 x 6	0.700
VL-6.C	254	1 x 6	0.710

Irradiance measured at 15 centimeters.

15W Filtered lamps

Filter size : 295 x 76 mm (mm)



MODEL	Wavelength (nm)	Tubes x Power (W)	Irradiance (mW/cm²)
VL-215-LM	365 / 312	1 x 15 365nm & 1 x 15 312nm	1.350 for 356nm – 1.800 for 312nm
VL-215-LC	365 / 254	1 x 15 365nm & 1 x 15 254nm	1.350 for 356nm – 0.930 for 254nm
VL-215-MC	312 / 254	1 x 15 312nm & 1 x 15 254nm	1.800 for 312nm – 0.930 for 254nm
VL-215-L	365	2 x 15	2.300
VL-215-M	312	2 x 15	3.000
VL-215-C	254	2 x 15	1.780

Irradiance measured at 15 centimeters.

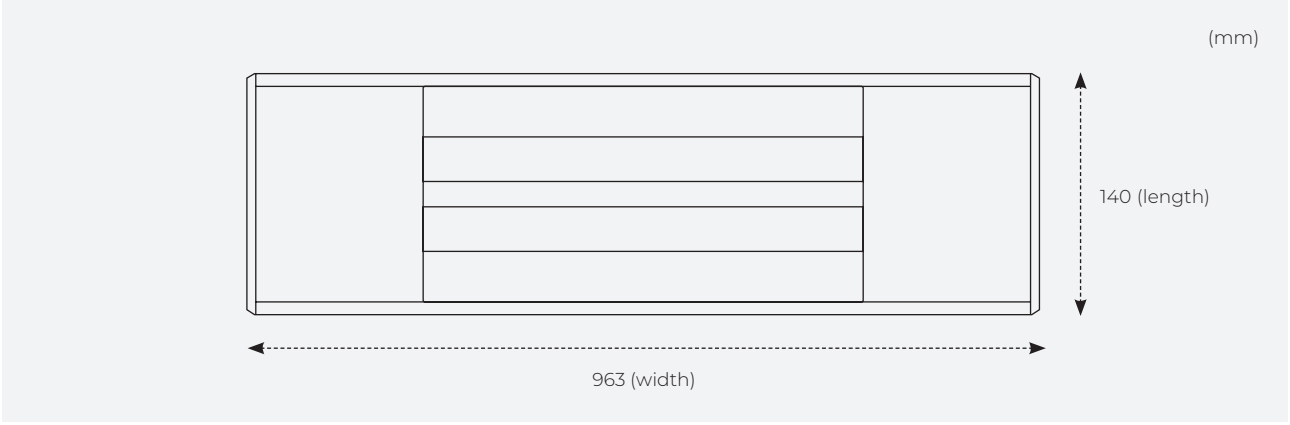
UV LAMPS

15W Unfiltered lamps

MODEL	Wavelength (nm)	Tubes x Power (W)	Irradiance (mW/cm²)
VL-215.BL	365	2 x 15	0.108

Irradiance measured at 1 meter.

30W Unfiltered lamps



MODEL	Wavelength (nm)	Tubes x Power (W)	Irradiance (mW/cm²)
VL-330.BL	365	3 x 30	0.312

Irradiance measured at 2 meters.

GERMICIDAL LAMPS

Germicidal lamps operate at 254 nm and are widely used to prevent contamination in research laboratories. Their effectiveness depends not only on wavelength but also on the applied dose, defined as irradiation density multiplied by exposure time. At 254 nm, low-pressure lamps reach 85% of the maximum DNA absorption efficiency, which makes them highly effective against microorganisms. However, factors such as the type of microorganism and the surrounding environment can influence the dose needed for complete inactivation. For example, water or iron salts may absorb part of the radiation and reduce efficiency. In practice, the irradiation time can be estimated using the relation :

Irradiation time (s) = Killing dose (mJ/cm²) / Lamp irradiance (mW/cm²).

Approximative killing dose values

YEASTS	Dose 90% killing rate (mJ/cm²)	Dose 99% killing rate (mJ/cm²)
Bakers' yeast 39 0.060	3.90	7.80
Brewers' yeast 33 0.070	3.30	6.60
Common yeast cake 60 0.038	6.00	12.00
Saccharomyces cerevisiae 60 0.038	6.00	12.00
Saccharomyces ellipsoideus 60 0.038	6.00	12.00
Saccharomyces sp.	8.00	16.00

UV LAMPS

BACTERIA	Dose 90% killing rate (mJ/cm²)	Dose 99% killing rate (mJ/cm²)
Bacillus anthracis	4.52	9.04
B. megatherium sp. (spores)	2.73	5.46
B. megatherium sp. (veg.)	1.30	2.60
B. parathyphosus	3.20	6.40
B.suptilis	7.10	14.20
B. suptilis spores	12.00	24.00
Campylobacter jejuni	1.10	2.20
Clostridium tetani	12.00	24.00
Corynebacterium diphteriae	3.37	6.74
Dysentery bacilli	2.20	4.40
Eberthella typhosa	2.14	4.28
Escherichia coli	3.00	6.00
Klebsiella terrifani	2.60	5.20
Legionella pneumophila	0.90	1.80
Micrococcus candidus	6.05	12.10
Micrococcus sphaeroides	10.00	20.00
Mycobacterium tuberculosis	6.00	12.00
Neisseria catarrhalis	4.40	8.80
Phytomonas tumefaciens	4.40	8.80
Pseudomonas aeruginosa	5.50	11.00
Pseudomonas fluorescens	3.50	7.00
Proteus vulgaris	2.64	5.28
Salmonella enteritidis	4.00	8.00
Salmonella paratyphi	3.20	6.40
Salmonella typhimurium	8.00	16.00
Sarcina lutea	19.70	39.40
Seratia marcescens	2.42	4.84
Shigella paradysenteriae	1.63	3.26
Shigella sonnei	3.00	6.00
Spirillum rubrum	4.40	8.80
Staphylococcus albus	1.84	3.68
Staphylococcus aureus	2.60	5.20
Streptococcus faecalis	4.40	8.80
Klebsiella terrifani	2.60	5.20
Streptococcus hemoluticus	2.16	4.32
Streptococcus lactus	6.15	12.30
Streptococcus viridans	2.00	4.00
Sentertidis	4.00	8.00
Vibrio chlolerae (V.comma)	3.50	7.00
Yersinia enterocolitica	1.10	2.20

UV LAMPS

MOULD SPORES	Dose 90% killing rate (mJ/cm²)	Dose 99% killing rate (mJ/cm²)
Aspergillus flavus 600 0.003	60.00	120.00
Aspergillus glaucus 440 0.004	44.00	88.00
Aspergillus niger 1320 0.0014	132.00	264.00
Mucor racemosus A 170 0.013	17.00	34.00
Mucor racemosus B 170 0.013	17.00	34.00
Oospora lactis 50 0.046	5.00	10.00
Penicillium digitatum 440 0.004	44.00	88.00
Penicillium expansum 130 0.018	13.00	26.00
Penicillium roqueforti 130 0.018	13.00	26.00
Rhizopus nigricans	111.00	2220.00

VIRUS	Dose 90% killing rate (mJ/cm²)	Dose 99% killing rate (mJ/cm²)
Hepatitis A 73 0.032	7.30	14.60
Influenza virus 36 0.064	3.60	7.20
MS-2 Coliphase 186 0.012	18.60	37.20
Polio virus 58 0.040	5.80	11.60
Rotavirus	8.10	16.20

PROTOZOA	Dose 90% killing rate (mJ/cm²)	Dose 99% killing rate (mJ/cm²)
Cryptosporidium parvum 25 0.092	2.50	5.00
Giardia lamblia	1.10	2.20

ALGAE	Dose 90% killing rate (mJ/cm²)	Dose 99% killing rate (mJ/cm²)
Blue Green 3000 0.0008	300.00	600.00
Chlorella vulgaris	10.00	20.00

UV LAMPS

15W Unfiltered lamps

MODEL	Wavelength (nm)	Tubes x Power (W)	Irradiance (mW/cm²)
VL-215.G	254	2 x 15	0.76

Irradiance measured at 1 meter.

30W Unfiltered lamps

MODEL	Wavelength (nm)	Tubes x Power (W)	Irradiance (mW/cm²)
VL-330.G	254	3 x 30	0.191

Irradiance measured at 2 meters.

UV LAMPS

Approximative irradiation surface for a height of 2 meters

Power (W)	3 UV Tubes	2 UV Tubes	1 UV Tubes
30	11.25m² (2.5mx4.5m)	8.75m² (2.5mx3.5m)	6.25m² (2.5mx2.5m)
15	6m² (1.5mx4m)	4.50m² (1.5mx3m)	3.0m² (1.5mx2m)

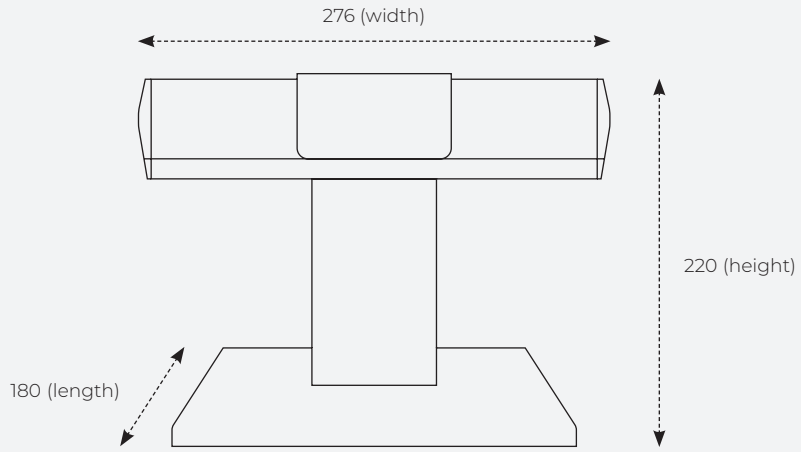
LAMPS ACCESSORIES

Nota Bene :

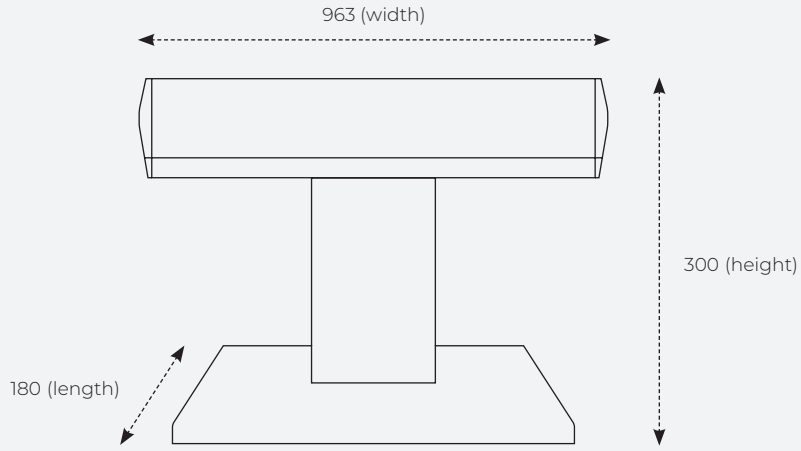
It is advisable that the lamps are hung on the ceiling and place in the middle of the room, so that you can have the best UV repartition. The negative parts (i.e. the under-part of a table for example) won't be sterilized. Indeed, the sterilization is efficient only if the areas to be sterilized are irradiated directly by the lamps. The germicidal lamps can't work when there are people inside the room. This is why we recommend the door to be fitted with a protection system, so that the lamp switches off when somebody enter into the room. Radiation has to be perpendicular to the area which needs to be sterilized.

Benchtop for 6W irradiation lamps

SVL-6 for 6W filtered or unfiltered lamps' dimensions : (mm)

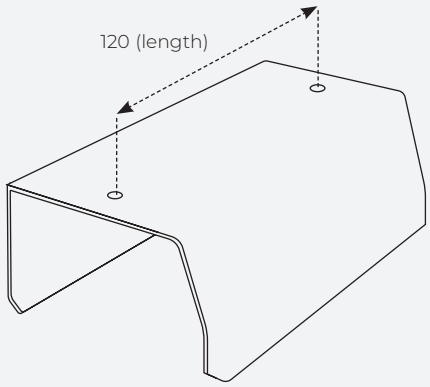


SVL-30 for 15W filtered or unfiltered lamps' dimensions : (mm)



SMA-Handheld stand or bracket for 6W lamps

(mm)



Safety Warnings

Vilber's lamps must be connected to a wall outlet having protective earth terminal. Connecting to ground is an obligatory protection. Never obstruct the air admission grids of the unit. Do not expose the unit to moisture or rain, and disconnect from power if unused for extended periods. Disconnect the power cord by grasping the plug. Never pull the cord itself. Protect eyes and skin from ultraviolet rays, and ensure adequate ventilation around the unit to avoid overheating. All connected equipment must comply with IEC standards for safety.

Warranty

Our products (except Compact Flash®, light tubes and filters) are warranted against faulty construction or defective material for a period of two years from the date of supply. Our products are not warranted for damage due to carelessness, incorrect use or bad maintenance.

Declaration of Conformity

The lamps comply with the requirements of the EC Directive 2004/108/EEC, 2006/95/EEC and EN 61010-1 (electro-magnetic compatibility and low voltage). The electro-magnetic susceptibility has been chosen at a level that gains proper operation in residential areas, on business and light industrial premises and on small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterized by their connection to the public low voltage power supply system.

WARNING: UV radiation can be dangerous for unprotected eyes and skin, therefore we recommend the user to wear UV protective glasses (LP-70) or face-shield (MP-1000).