SUBZERO RS-170 HIGH-POWER PORTABLE UV-C RAPID SANITISER

Designed to inactivate biomolecules and micro-organisms including the elimination of Coronavirus, the ultra-compact, lightweight SubZeroRS-170 is for use on all surfaces in applications posing a high risk of public cross contamination.

Target applications include ambulances and blue light services, buses, aircraft and cruise ship cabins, train carriages, and other public transport, and hospitals, schools, offices and hotel rooms.

The SubZeroRS-170 is the latest product in the Portable-UV programme from Integration Technology and follows the 2019 launch of the AC-850 series of portable hand-held high powered LED units for curing fillers, primers and coatings.

Easy to use and maintain, the 285 x 85 x 142mm, 3 kg air-cooled unit can be plugged into a standard electrical wall socket, offers rapid warm-up and cool-down and comes with a quick-change lamp cassette for reduced downtime on site.

SUBZERORS-170 AT A GLANCE

- Ultra compact "footprint"
- Ultra light weight (~ 3 kg)
- High intensity reflector system
- Double quartz filter system with replaceable front quartz

INTEGRATION TECHNOLOGY

- Quick change Cassette
- Rapid Warm up and Cool down
- Integrated air-cooling
- High Flex cable up to 15 m
- Long service life of the shutter > 30 million cycles
- One Year Integration Technology Warranty
- Comprehensive warranty backed by global support direct from Integration Technology and through its IST Metz



www.IntegrationTechnology.com





HOW DOES IT WORK?

- DNA is blocked by UVC (254 nm)
- Cell division of micro-organism is prevented
- Decay of products is not possible

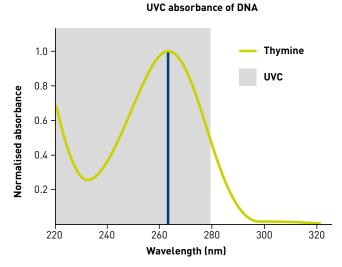


Exposing DNA to UV light triggers a photochemical process. In the case of two adjacent thymines, UVC light absorption destroys the connection to the opposite strand and the thymines are linked to form stable dimers.

The RS-170 offers a 1700 W input power with a high intensity reflector system. Four times more powerful than competing solutions means it significantly reduces the UV exposure time required to achieve the same virus elimination results. Its widespread illumination capability also achieves greater overall decontamination rates, faster.

The RS-170 draws on proven technology from Integration Technology's SubZero Series UV lamp technology, introduced to the print industry sector by the company in 2005.

The mode of action of UV-light sterilisation is based on the fact that the DNA of viruses, bacteria and moulds absorbs UVC radiation in the broadband range of 200 – 280 nm. The absorption maxima lies at approx. 265 nm.



UVC

[mW/cm²]

Max.

93

44

13

4

0,1

Typ.

40

25

10

3

0,05

Measured using a UV irradiance Opsytec RM-12 All readings in mW/cm² and all dimensions in mm

Irradiated area

mm

200 x 350 250 x 400

350 x 450 750 x 500

7000 x 10000

| | | Inactivation Rate | | SubZero RS-170 @200 mm | | | |
|----------|----------------------------|----------------------------|-----------------|------------------------|-----------------|-----------------|-------------------|
| | | Dose [mJ/cm ²] | | | Time [sec] | | |
| | | D ₉₀ | D ₉₉ | D _{99.9} | D ₉₀ | D ₉₉ | D _{99.9} |
| Bacteria | Legionella (dumoffi) | 2.4 | 4.8 | 7.2 | 0.3 | 0.5 | 0.8 |
| | Salmonella (typhil) | 2.1 | 4.2 | 6.3 | 0.2 | 0.5 | 0.7 |
| | Streptococcus (pneumoniae) | 46.8 | 93.6 | 140.4 | 5.2 | 10.4 | 15.6 |
| Virus | Coronavirus (SARS-Cov1) | 22.6 | 45.2 | 67.8 | 2.5 | 5.0 | 7.5 |
| | Measles (vrus) | 2.2 | 4.4 | 6.6 | 0.2 | 0.5 | 0.7 |
| | Pollovirus (type 1) | 4.1 | 8.2 | 12.3 | 0.5 | 0.9 | 1.4 |
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| Source: Ultraviolet Germicidal Irradiation Handbook, Kowalski, 200 | 9 |
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% WE HAVE THE CURE

Integration Technology Ltd.

Heyford Park | Upper Heyford | Oxfordshire | OX25 5HA, UK Tel.: +44 (0) 1869 233611 | Fax: +44 (0) 1869 233599 E-Mail: mail@integrationtechnology.com

www.IntegrationTechnology.com

Integration Technology North America | NorthAmerica@integrationtechnology.com Integration Technology Latin America | LAM@integrationtechnology.com Integration Technology Korea | Korea@integrationtechnology.com Integration Technology Japan | Japan@integrationtechnology.com Integration Technology (China) Ltd. | China@integrationtechnology.com

Distance

[mm]

100

200

400

800

5000