

UV-Vortex-1L R&D system for sanitation of powders in the Ni-enriched air flow by UVC light.

for evaluation tests in food,
pharmaceutical, cosmetic, bio-medical,
and tech. Applications.



UV chamber:

- diameter-30cm, height is 50cm, volume - 45l, polished stainless steel, a powder collector at its bottom,
- a manually driven quartz cleaner and Ultrasonic quartz cleaner,

UVC Lamp:

273nm LED 30cm string with 360° flux.

Controls:

- an adjustable speed of powder circulation with Volt and Amp- controls,
- viewing the powder flow through the UV absorbing top window,
- a timer,
- T°C controllers.

Maintenance:

top flange, blower, collector, return tubes are de-assembled for cleaning.

The work principle:

Powder is moved around this lamp by the Ni-enriched air flow with a pre-selected flow density providing a full UV exposure to a powder flow.

Application:

it is only for homogeneous and preferably one component powders, spices, shreds or small seeds.

Available UVC Sources:

- 1- a 254 nm low pressure 30 cm long low pressure Mercury vapour lamp, major output is 254nm, 32W, UVC ca. 9W as a current standard.
2. a UVC LED source is on request.
3. Pulsed (UV) light source as per a special order.

Evaluation tests

are necessary for finding optimal UV doses and circulation parameters for each powder. Indeed, powders etc. vastly differ in particle sizes, its shapes, moisture content, colors, UV absorption, micro-biological contaminations and its spread within the bulk of powder, plus in oil content, density in g/cm³, or if is it a mixed or one-type powder. Each of above affects sanitation one way or another.

Safety features:

- 1: no UVC leaks,
2. Pre-filled Nitrogen gas fully excludes the powder igniting.

El connection:

208-240 VAC, 1-phase, 50-60 Hz, max ca. 50W.

Size, Weight, Enclosure Material:

60cm wide x 40cm high x 53cm deep,
Polished stainless-steel, weight 42 kg.

SPECIAL:

wek-tec offers long-term rents
as our DONATION with our help included
to a university or a government lab for their R&D
Please contact us for details.

This is the unique non-invasive UVC sanitation method/system for uniform powders.

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