

What should you pay attention to when purchasing UV disinfection equipment?

1. Before purchasing UV disinfection equipment, you need to understand the following basic knowledge of disinfection

(1) Wet (chemical) disinfection:

- A single-targeted disinfection method for killing bacteria and viruses.
- Chemicals (including alcohol) need sufficient concentration, spray area, film thickness, contact time, and friction to kill pathogenic microorganisms.
- Spraying alcohol in the air has almost zero effect on eliminating bacteria and viruses.

(2) Dry (ultraviolet) disinfection:

- The evaluation of ultraviolet disinfection equipment focuses on illuminant intensity, irradiation area, and volume.
- Only through ultraviolet irradiation and air purification can realize actual disinfection.

2. What are your disinfection objects?

- (1) Bacteria / Virus / Bacterial Spore / Fungal Spore
- (2) PM2.5 / Dust / Allergens

3. What is the expected disinfection effect you require?

- (1) Sterilization: the most stringent requirement, all microorganisms must eliminate to achieve an utterly sterile state
- (2) Bactericidal: it can kill microorganisms so that they cannot grow and reproduce
- (3) Bacteriostatic: inhibits the growth and reproduction of microorganisms and will resume growth and reproduction once it stops
- (4) Disinfection: eliminate most microorganisms, but not all of them
- (5) Sanitization: only reduce the number of most microorganisms to meet the minimum safety requirements

4. Has the UV disinfection equipment you evaluated been validated by the P4 highest level biological laboratory?

- (1) Is there a laboratory report with a qualified disinfection effect?
- (2) Do you have a complete verification report for COVID-19, MRSA, CDI, and other highly infectious bacteria/viruses?
- (3) Does the verification report show that bacteria/viruses no longer multiply and completely lose transmission ability after disinfection?

5. What's the photoelectric radiation power (ultraviolet disinfection intensity) of the illuminant of the disinfection equipment you evaluate?

- (1) Intense pulsed light: Rapid!xp Solis 1,530 W/m² (single light source);
Rapid!xp Duplex 3,570 W/m² (dual light source)
- (2) LED UVC: 0.0008 W/m² (per piece)
- (3) UVC: 11.6 W/m² (per tube)



6. What conditions should you evaluate to achieve the complete disinfection effect of UV

disinfection equipment?

- (1) (Surface or volume) × irradiation intensity × irradiation time
- (2) Surface disinfection calculates according to the area size; air disinfection calculates according to the volume size.
- (3) Set up a sufficient amount of disinfection equipment for surface/volume disinfection
- (4) Adequate exposure time for surface/volume disinfection

7. You must also consider the following vital points when evaluating UV disinfection equipment.

- (1) Does it provide the correct disinfection method and 365-day fully automated operation?
- (2) Are there safety protection measures and electrical safety certification?
- (3) Estimate the cost of consumables and long-term use cost

