# **S**delos\*

## Delos Compact Air Purification System

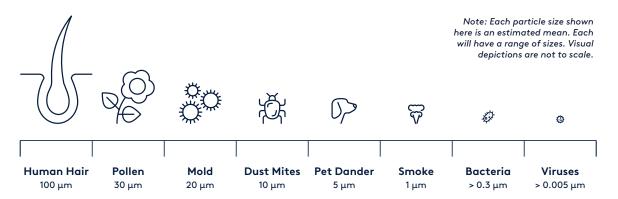
Patented technology: The Delos Compact air purification system has patented technology which utilizes electrostatic precipitation combined with mechanical filtration to capture and deactivate particles, bacteria, and viruses. It also creates a bacteriostatic environment, where microorganisms are unable to multiply inside the filter.

#### Performance verified by third-party lab testing:

The technology deployed in the air purification system captures viruses and bacteria, particulate matter (PM2.5 and PM10), and ultrafine particles as small as 0.007 microns at 99.99% efficiency\* (SARS-CoV-2, the virus that causes Covid-19, ranges in size from 0.06-0.14 microns).

#### NOT ALL FILTRATION SYSTEMS ARE CREATED EQUAL

Tested to remove particles 40x smaller than HEPA filter standards



DELOS STAND-ALONE SOLUTION - 99.99% efficient down to 0.007 microns<sup>1</sup>

DELOS STAND-ALONE SOLUTION - 99.997% efficient at 0.3 microns<sup>2</sup>

HEPA FILTER - 99.97% efficient at 0.3 microns<sup>3</sup>

MERV 13 FILTER - less than 75% efficient at 0.3 microns

- 1 Individual particle sizes and specific particle size ranges may have different filtration efficiency rates.
  The 2000IL was tested using the EN-1822 Standard. The Ultrafine 468 unit was tested using a condensation particle counter by IUCB.
- 2 The Delos Healthway Compact device has been tested using the EN-1822 Standard.
- 3 The removal efficiency of HEPA filters for particles smaller than 0.3 microns is not included in standard HEPA testing.



#### CARB certified safe levels of ozone as a byproduct:

The filtration process may produce ozone as a byproduct; however, third-party laboratory test results show the ozone emission concentration to be less than 0.050 parts per million (ppm), and the compact air purification system has been certified by the California Air Resources Board (CARB) as meeting their standards for ozone emission.

**Portable but powerful:** The Delos Compact air purification system is a modular, plug-and-play solution that is perfect for bedrooms, hotel rooms, offices and classrooms. Each unit covers up to 550 square feet, and multiple units may be deployed to increase air turnover, particularly in larger or more densely occupied spaces.

### **Air Filtration Technology Comparison**

|  | Delos Compact<br>Air Purification<br>System | Mechanical<br>Filtration  | Sorbent Media<br>Filtration | Bipolar<br>Ionization | Ultraviolet<br>Germicidal<br>Irradiation<br>(UVGI) |
|--|---|---|-----------------------------|-----------------------|--|
| Deactivates Bacteria and Viruses (antimicrobial treatment) | •   | ×   | ×                           | Varies <sup>1</sup>   | 2  |
| Captures Bacteria<br>(> 0.3 μm)                            | <b>✓</b>                                    | equires MERV 13 or higher ratin                                 | <b>X</b>                    | Varies <sup>1,3</sup> | 8  |
| Captures Viruses<br>(> 0.005 μm)                           | •   | (requires HEPA filter)  | 8                           | Varies <sup>1,3</sup> | ×  |
| Removes PM10<br>(particle size 2.5 μm - 10 μm)             | •   | •   | 8                           | •                     | ×  |
| Removes PM2.5<br>(particle size 0.1 μm - 2.5 μm)           | (n  | equires MERV 13 or higher ratin                                 | <b>X</b>                    | •                     | 8  |
| Removes Ultrafine particles<br>(particle size <0.1 μm)     |   | (requires HEPA filter; testing is needed to determine efficacy) |                             | Varies <sup>3</sup>   | ×  |
| Removes Volatile Organic<br>Compounds (VOCs)               | •   | 8   | •                           | •                     | •  |
| Meets Ozone Emission Standards⁴                            |   |   |                             | 1 5                   | <b>Varies</b> <sup>6</sup>                         |

- Laboratory and real-world efficacy testing would need to be evaluated to determine if they support claims of antimicrobial efficacy. Deactivates microorganisms on-the-fly as they pass through the irradiated zone. However, due to limited exposure time, this process requires high doses of UV light. This makes the implementation of UV irradiation in the HVAC system complicated. As a result of bipolar ionization, bacteria, viruses, and ultrafine particles may stick together, becoming larger particles, and fall from the air to surfaces more quickly. While this process may remove the particles from the air (which in effect is similar to particle capture), the particles may then still be transmittable if encountered on the surface.

  Ozone generation/emission testing is required for air purifiers in order to satisfy applicable safety requirements (e.g., ozone safety limits required V CABN)

- required by CARB).

  Different designs and modes of engineering of bipolar ionization technologies vary in ozone emissions. In addition, the ions released into the air can react with oxygen and other particles, leading to additional production of ozone, as well as generation of ultrafine particles.
- UV-C technologies may generate ozone.