The challenge path to a bacteria free humidifier

The shocking fact: 2011 deadly humidifier sterilizer scandal

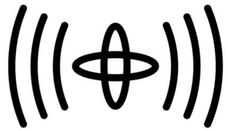
The Asian Citizen's Center for Environment and Health released a report showing that a total of 7,535 people -- 1,687 deceased and 5,848 survivors -- had reported they were victims of toxic humidifier sterilizer products as of Aug. 20 2021.

Nearly 1 in 4 recognized victims of toxic humidifier sterilizer products dead published by the Korea Herald on Sept 5th 2021



Air Murder

Different Humidification Technologies

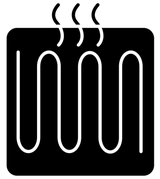


Ultrasonic

The water molecules are dispersed into air by the ultrasonic vibration

Simple & Common,
Widely accepted

1. Wet surface incubates bacteria and dispersed into air;
2. Big water molecules, drop off quickly nearby;
3. Hard to travel and spread the moisture into the entire room

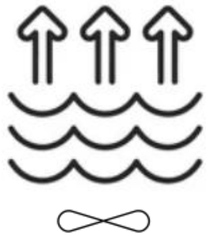


Heating

The water are heated and vapors were spread into the air

No bacteria concerns

1. High energy consumption due to heating,
2. High temperature vapor easily condense on other surfaces



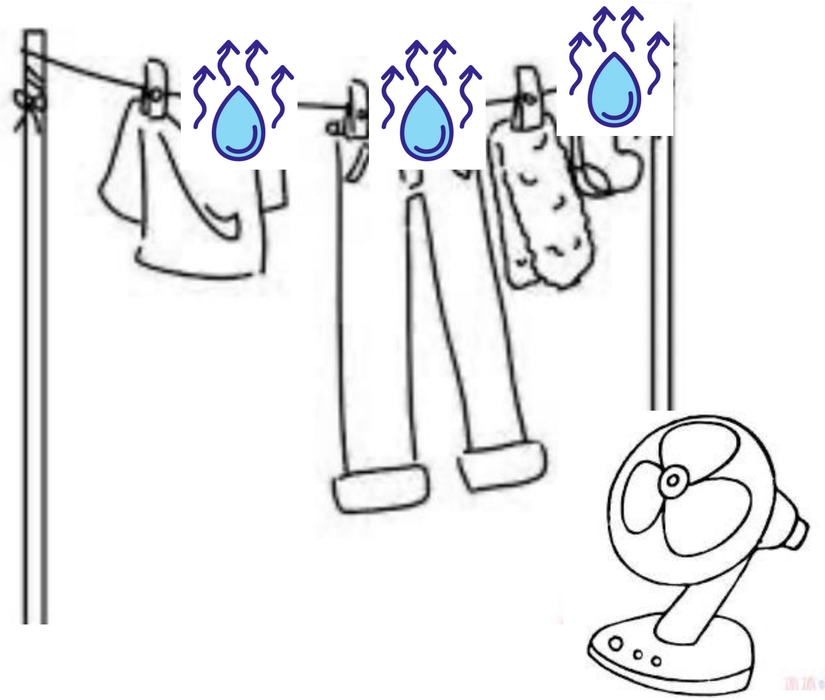
Evaporating

Water will naturally evaporates in air, and moisture evaporation is enhanced through circulating fan and spread into air

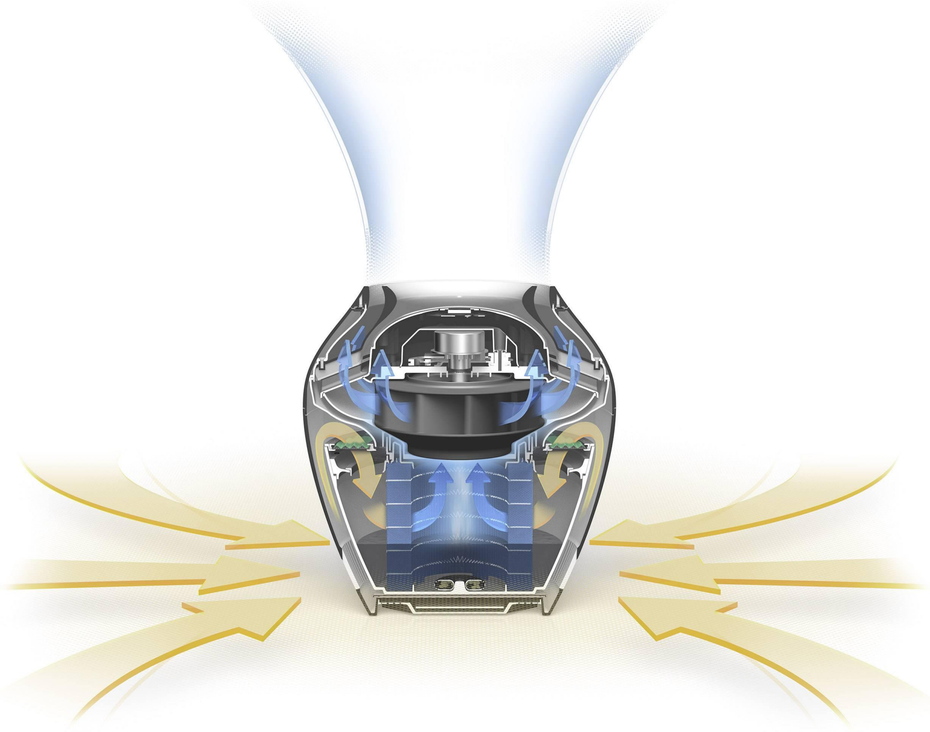
Clean and filtered moisture
Low energy consumption
Nature and comfort

Constant changing filters
More expensive design

Evaporative humidification is the most natural and healthy way to add moisture into air



What are the drawbacks of existing evaporative humidifier?



Problem 1: Constant change of filters

Airdog MOI solutions: Washable filters — non consumable

- Say "Bye" to replacement filters





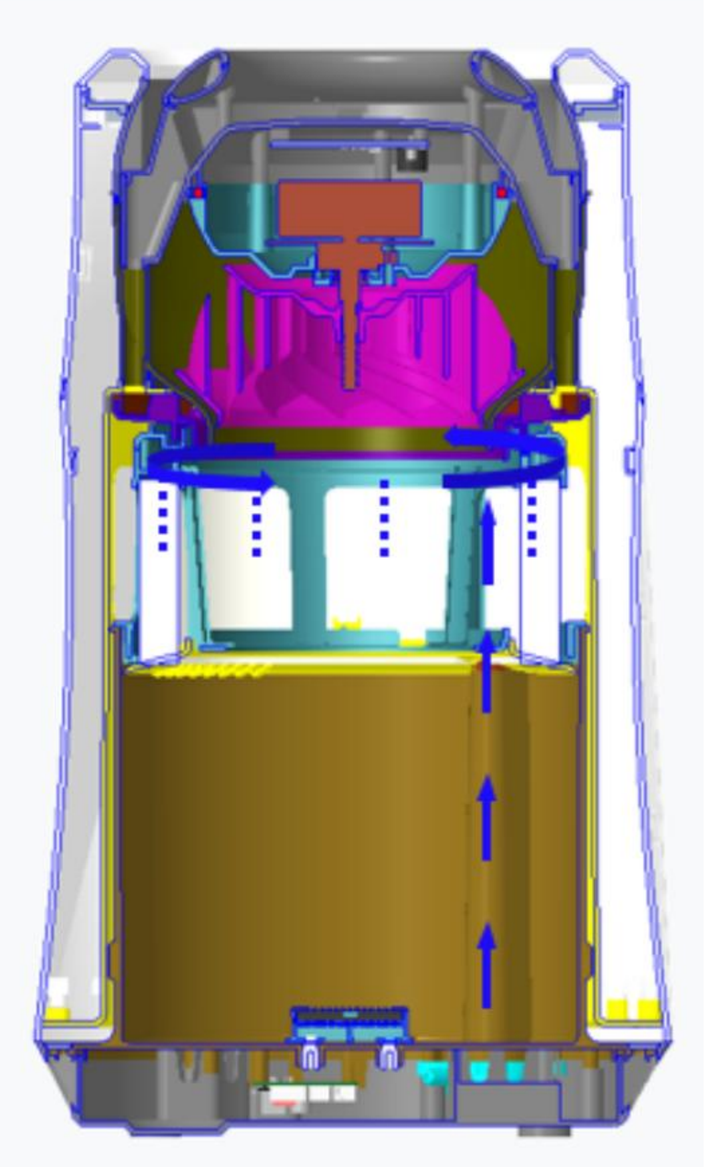


Problem 2: Inconsistent moisture level



As water level going down, the water saturated filter surface reduces,
thus the evaporation level goes down.

Airdog MOI solutions: Patented "shower spray" technology



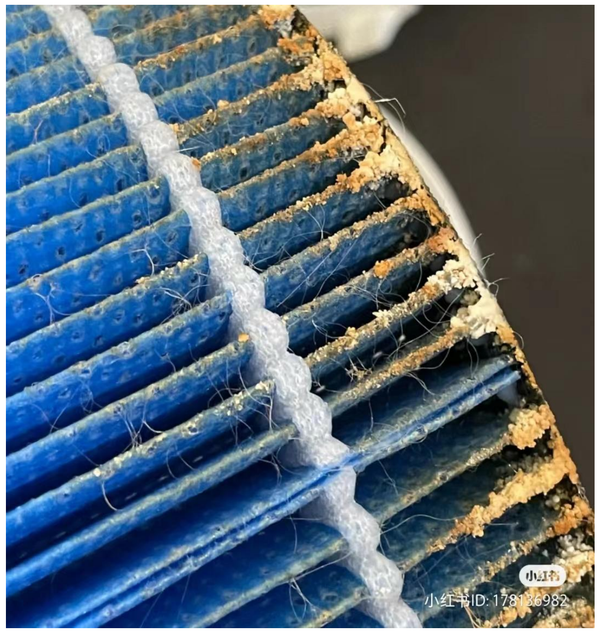
The water is pumped up to the top of the filter ring and then rinsing down like a shower.
In this way, it keeps the filter fully water saturated the entire time regardless of water level in the tank.

Problem 3: Mold/bacteria grown in water and on filters

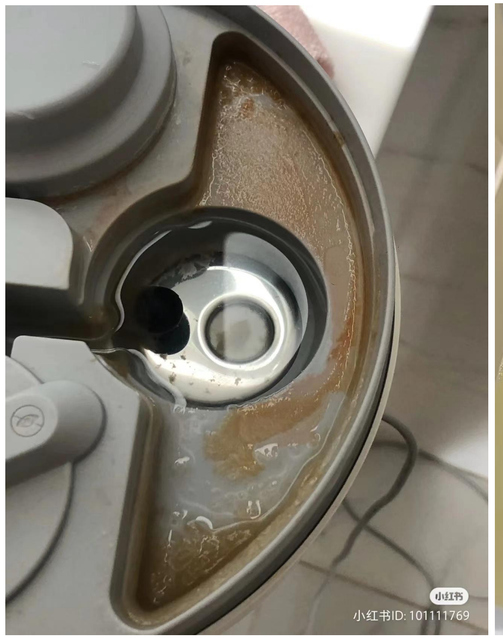


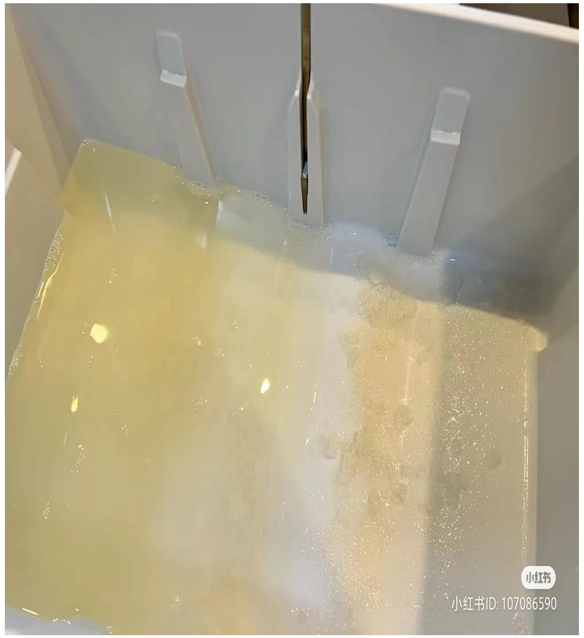
White mold in water

Photo from Alamy.com



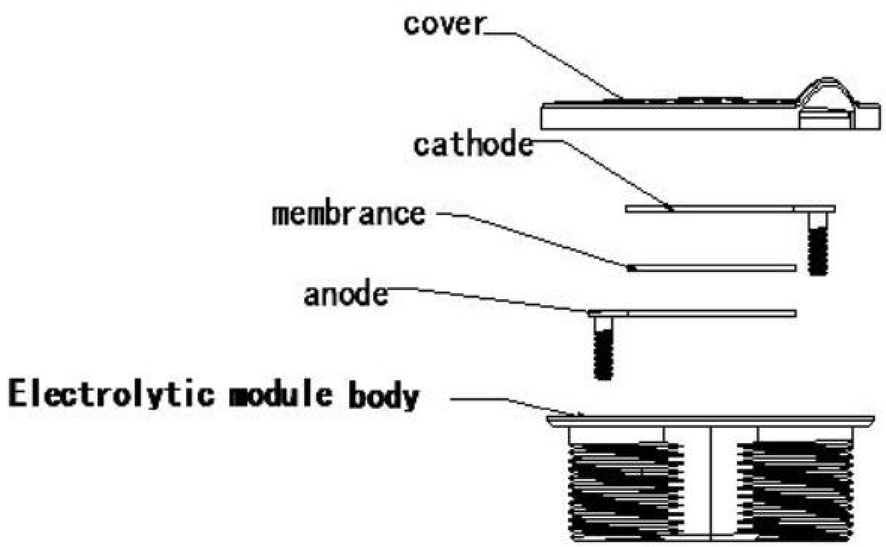
Mold grown on filter





Gross and smell tank

Airdog MOI solutions: Electrolyte purifying module

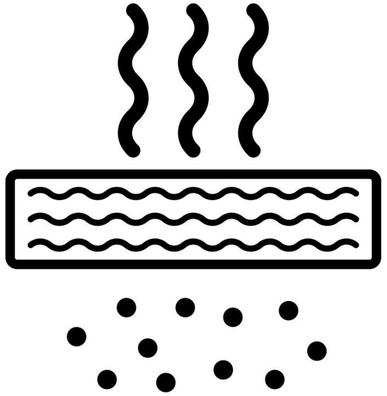


Engineering Designed Electrolyte module
1. The electrolyte of water generates HCL+,O-,
OH-, O-, O3- etc. strong but natural disinfectants
2. MOI will activate the electrolyte disinfection five mins every hour to inactivates bacteria grown in water and prevents odor;
3. There's no harmful residue

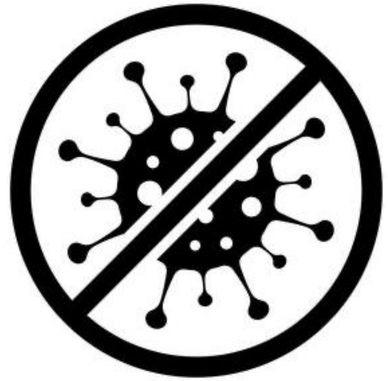
Airdog MOI solutions: Simple but effective operation modes



Auto Mode
MOI runs automatically with a target humidity level of 65%



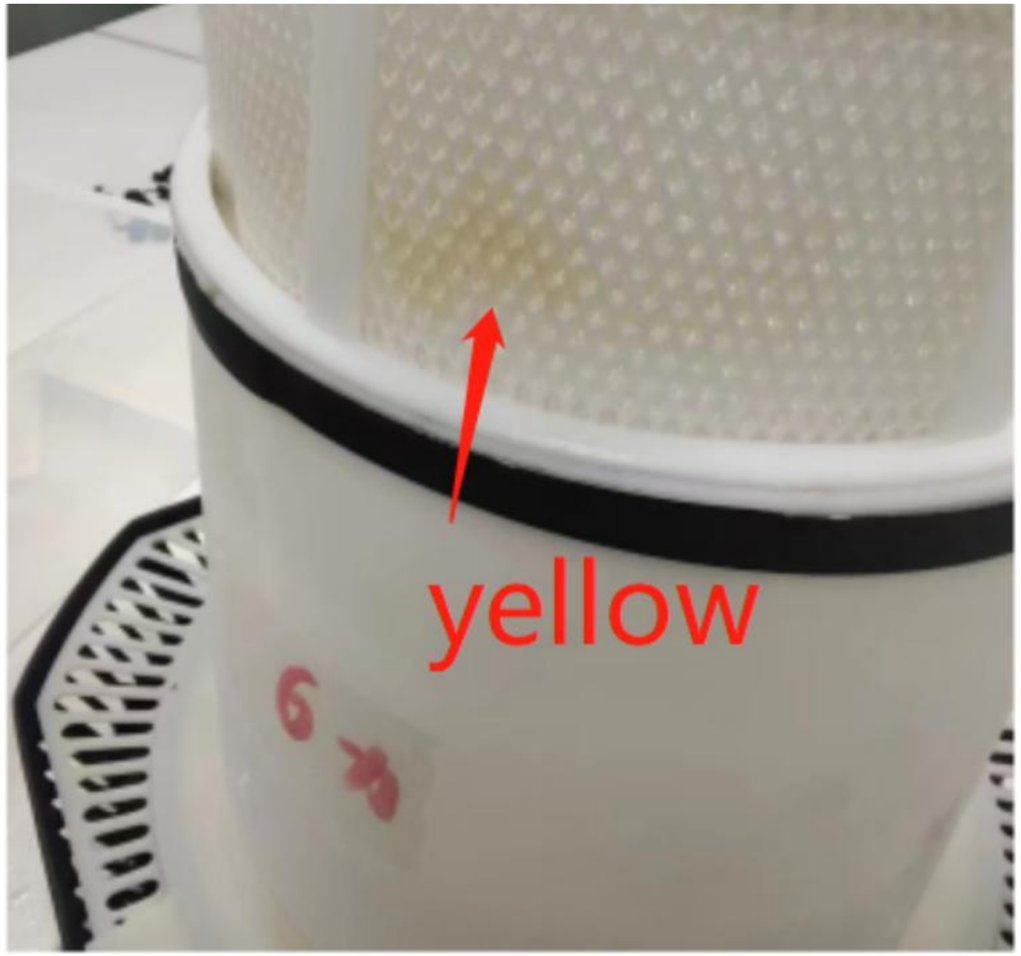
Drying mode
MOI will keep the fan running 40mins to make sure filter is fully dried whenever you left it unattended



Purifying mode
MOI keeps running the electrolyte module for 40 mi to disinfect the water, clean t filter and remove any odor

Airdog MOI innovative evaporative humidifier

- Enhanced disinfectio





after purifying 40 min

Disinfection Results

Suzhou Institute of Metrology

Test Result

100007235

No.	Test Items	Unit	Technical Requirements	Result	Single Conclusion
1	Sterilization performance (Staphylococcus albus)	—	The antibacterial (sterilizing) rate is greater than or equal to 50% when it runs for 1 hour under simulated field and field test conditions	99.99%	Measured data
remarks	1.Water for humidifier test is deionized water. 2. The volume of the test chamber is one cubic meter.				

Blank Below

检测报告

TEST REPORT

No. WTS2022-21170

除菌试验

检测方法： GB/T 23332-2018 附录 E 加湿器除菌试验方法

测试菌种： 大肠埃希氏菌 AS 1.90

测试程序： Purifying

检测结果：

除菌试验检测结果

样品名称	试验菌种	对照组菌落数（CFU/mL）	试验组菌落数（CFU/mL）	除菌率（%）
加湿器	大肠埃希氏菌（AS 1.90）	7.7×10^{5}	2.0×10^{4}	97.4

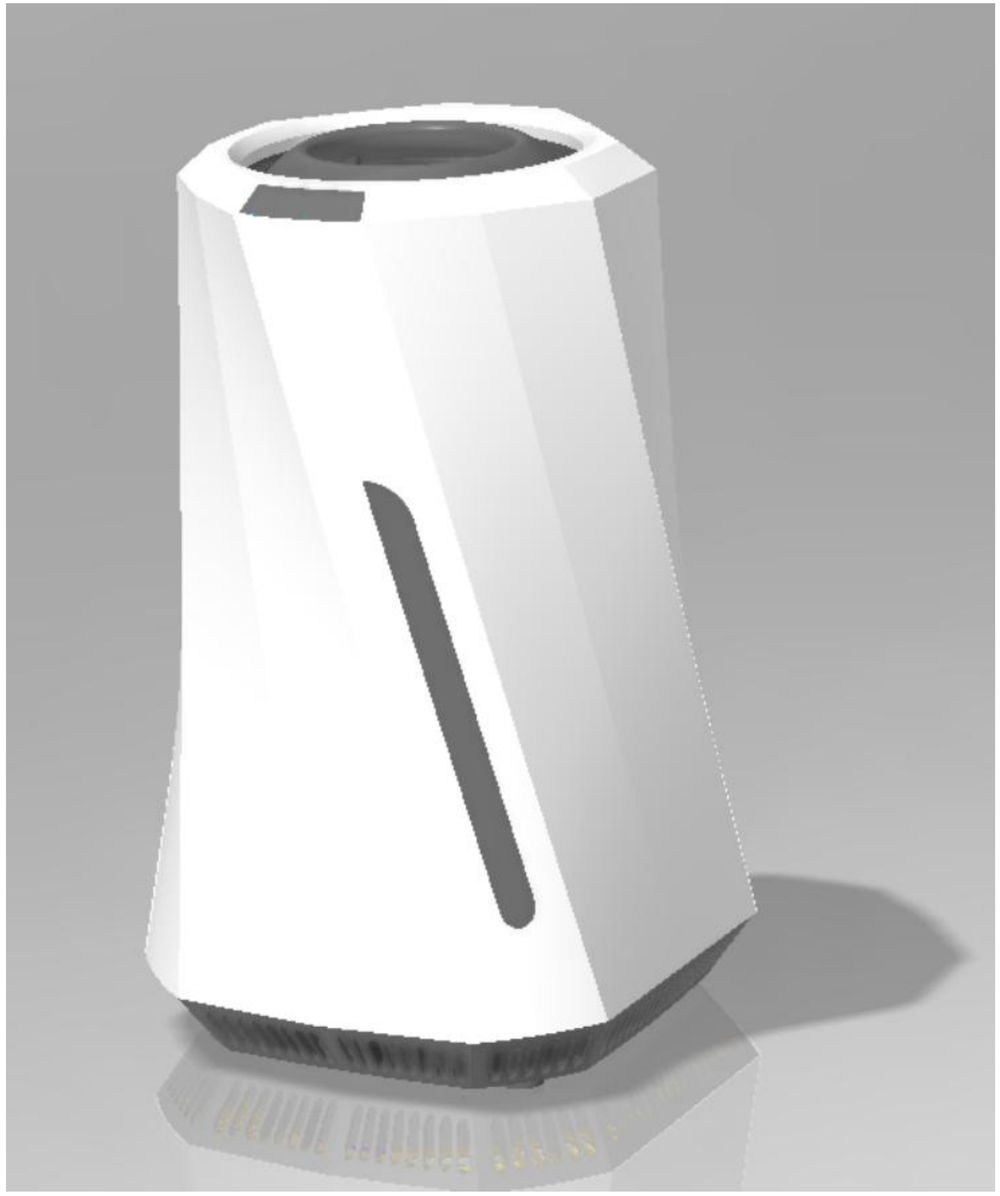
样品检测



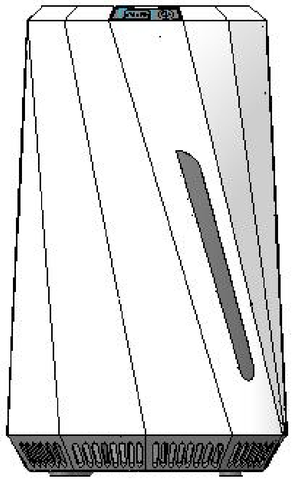
Maximum Energy Consumption:

18~21 watts

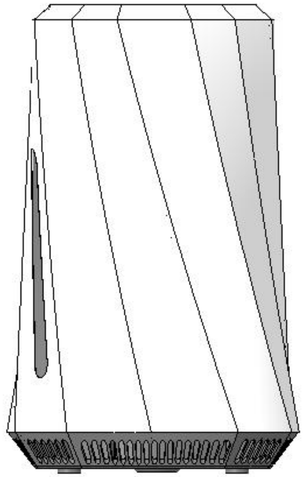




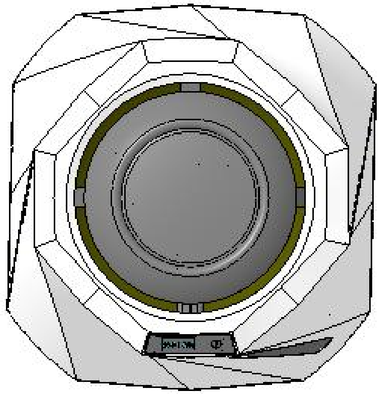
Dimensions



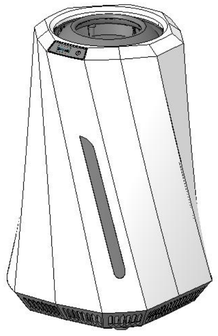
正视



侧视



俯视



Product Demo

Easy setup



Simple to add water



Uniform air flow