

## Skywell Story

The Skywell 5T is the only *SMART* atmospheric water generator for office and residential use that features a proprietary comprehensive 8 step water quality sanitation and monitoring protocol to ensure the freshest and cleanest drinking water in each dispense [hot or cold].

1. Air Filtration
2. Particle Removal
3. Main Water Filtration
4. Ultraviolet Light
5. Ozone
6. Dispense Filtration
7. Real Time Monitoring
8. Self Cleaning



US 15/ 217,971  
US 9,561,451 B2



(NSF-42, 53, 55, 61)

# 1. Air Filtration

Electrostatic air filter removes particles in the air before water condenses on the coil.

Features include:

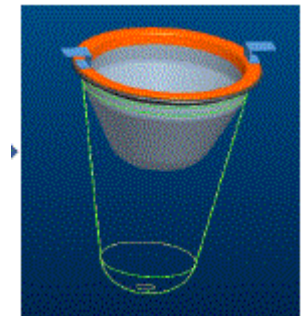
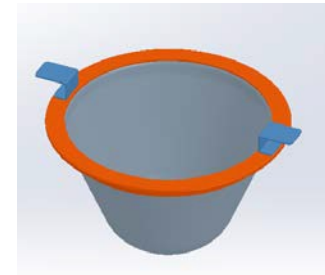
- Certified **ASHRAE 52.1** Protocol.
- Peak arrestance rate of **94.7%**
- Dust holding capacity of **165 grams**



## 2. Removal of Additional Airborne Particulate

Any remaining particles are removed by passing through progressively more restrictive media.

- First Stage Particle Strainer
  - 100 mesh
- Second Stage Particle Strainer
  - 125 mesh
- Suction Line Pre-Filter
  - Removes additional particles and adds minerals



### 3. Main Water Filtration

- **Granular Activated Carbon Filter (GAC)**
  - Removes VOCs and phthalates, rust, sand, dust, and other impurities in 5 to 30 um sizes
- **Carbon Block Filter (CB)**
  - Removes Heavy Metals (Pb, Fe, etc), Volatile Organic Compounds (VOC), Removes Trihalomethane (THM), and particles down to 2 microns.
- **Ultrafine Filter (UF)**
  - Filters down to 0.1 micron creating a comprehensive barrier against viruses and bacteria.



## 4. Ultraviolet Light Disinfection

The collection and top tanks expose the water to a patented UV light disinfection protocol.

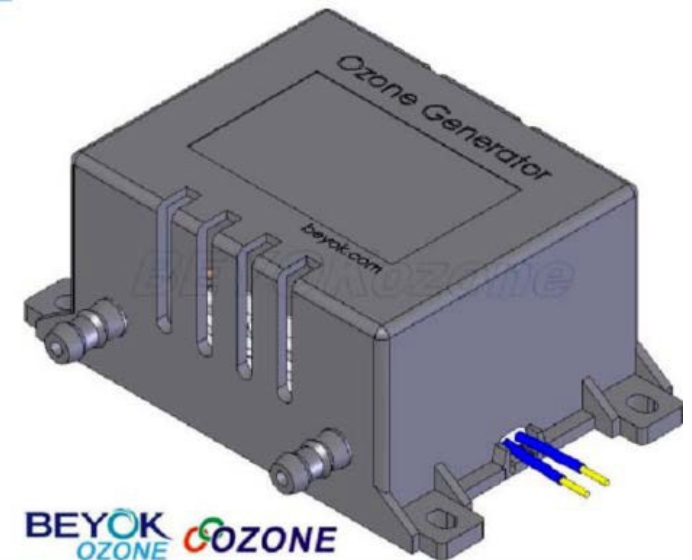
- The light exposes the water to 50,000  $\mu\text{W}/\text{cm}^2$  of 254 nm ultra violet light every 2 hours.
- Skywell exceeds the requirements of NSF-55 by always exposing Skywell water to 50,000 vs 40,000  $\mu\text{W}/\text{cm}^2$  of UV light (Class A System)



## 5. Ozone Protection

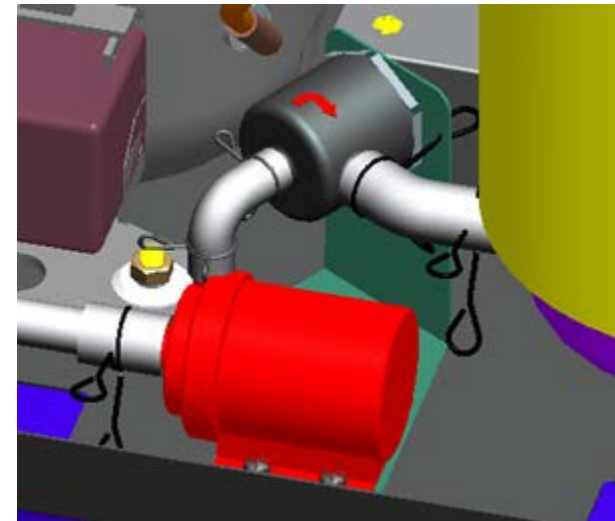
As an additional layer of water quality protection ozone is introduced into the top tank.

- Dosage: 15 seconds every 3 hours
- Concentration: 50-100 mg/hr
- Voltage: 24 VDC
- Generates ozone using the Corona Discharge method



## 6. Final Filtration Stage: Pre-Dispense Lines

- Cold and Hot Line Filtration
  - A 0.2 micron “Ultra Fine” filter in the cold line and a 200 mesh filter in the hot line just before dispense, ensures that the purest and cleanest water reaches our customers glass each and everytime.



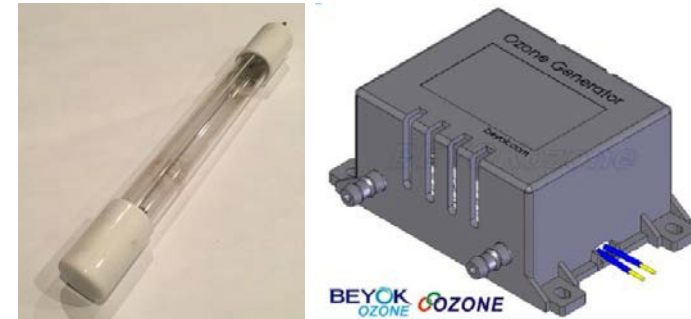


SKYWELL™

## 7. Daily Self Cleaning Feature

To maintain high quality water at all times the Skywell 5T features a daily self cleaning feature.

- Recirculation
  - Duration: 2 Hours
  - Frequency: Daily
  - Ozone Dosage: 15 seconds every 3 hours
  - Concentration: 50-100 mg/hr
- UV Lights
  - The light exposes the water to 50,000  $\mu\text{W}/\text{cm}^2$  of 254 nm ultra violet light every 2 hours.
  - Skywell exceeds the requirements of NSF-55 by exposing water to 50,000  $\mu\text{W}/\text{cm}^2$  of UV light.





## 8. Real Time *SMART* Water Quality Monitoring

- The Total Dissolved Solids (TDS) are a measurement of water quality. While Skywell water is consistently pure with a low TDS, it's TDS Sensor can quickly detect any water quality changes.
- The UV Light is critical to maintain clean water. The top and bottom tanks have two UV Sensors that ensure the UV Light is always functioning within prescribed effectiveness ranges.
- The pH Sensor continuously monitors the pH levels of our water and logs and records the values.
- The Skywell monitors pre and post filter flow rates to ensure that Skywell filters are functioning optimally.
- If a fault occurs with any of these sensors the machine will “lock-out” dispense, display an alarm, and provide a reassuring message to the user.

