



A Complete Air Purification System Specifically for  
Advanced Roof Top and 4" High Efficiency Applications

# ACS-Slim Line 4

**At the heart of every SecureAire Air Purification System is SecureAire's ACTIVE Particle Control (APC), a revolutionary breakthrough in air purification technology. With this system, every aspect of indoor air pollution is addressed: removing airborne particulates, dangerous pathogens, and toxic VOCs (volatile organic compounds).**

ACTIVE Particle Control Technology is based on the same particle-control technology used in semiconductor manufacturing cleanrooms, some of the most rigorously clean environments on the planet. APC has also been deployed in hospital operating rooms, greatly reducing infection rates. Now, this same advanced air purification technology is providing everyone with the safest, healthiest, and cleanest indoor air possible.

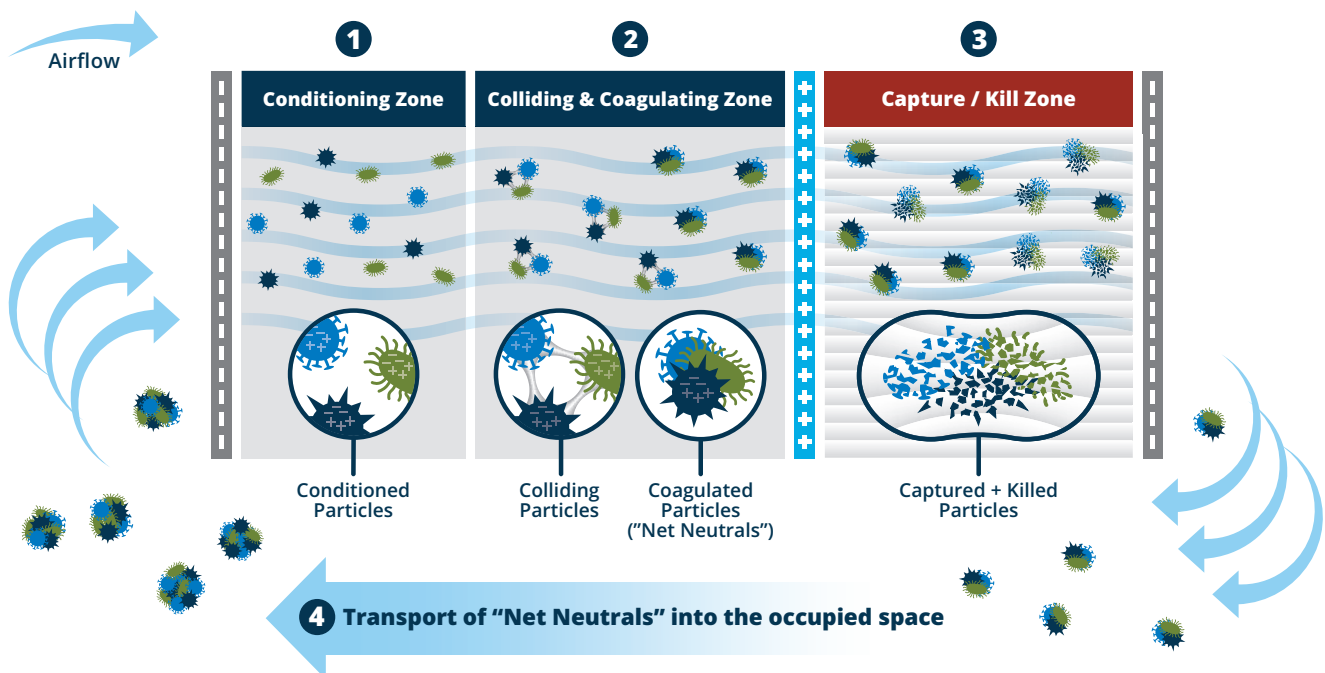
Research has shown that some of the smallest airborne particles can also be the most harmful. Viruses, bacteria, and VOCs are on that list. Yet the smallest particles are also the least susceptible to airflow and, due to electro-static forces remain suspended in the air, nearly unaffected by air currents.

SecureAire's ACTIVE Particle Control technology conditions the smallest particles to attract to each other forming ever-larger clusters that can then be brought to the filter by air currents. Once these airborne contaminants are attracted to the filter, they are held there and can't escape. The charged media within the filtration cartridge creates oxidative cellular stress on any pathogens, killing them, and rendering them harmless.

The ACS Slim Line 4 Air Purification System consists of the ACTIVE Particle Control System and a replaceable SecureAire filter cartridge. This complete Air Purification system can be adapted to multiple RTU configurations and does not inhibit air flow through the system with excessive pressure drop characteristics and can handle up to 600 feet per minute air velocities.

## How it works

**A Patented Process creating the Safest, Healthiest and Cleanest Indoor Air Possible**



### Step 1: Condition

As particles in air move through the SecureAire system, they are Conditioned. The Conditioning step utilizes electrostatic fields that condition particles causing them to either: a) coagulate and/or b) “want” to move to the collector.

### Step 2: Collision

Once Conditioned, the particles are forced to collide with each other through inelastic collisions. These collisions create ionic bonds, one of the strongest bonds in nature, between the particles. Thousands to millions of times a second, conditioned particles are forced to collide, gaining weight in the process, and more importantly becoming “NET NEUTRAL” in charge.

### Step 3: Capture and Inactivate

Now, these airborne contaminants are TRANSPORTED via airflow to the SecureAire Cartridge, where they are captured and permanently held within the polarized filter due to strong ionic bonds. Once captured, viable pathogens are exposed to electrostatic fields that cause extreme oxidative cellular stress, destroying them and rendering them harmless.

### Step 4: Transport

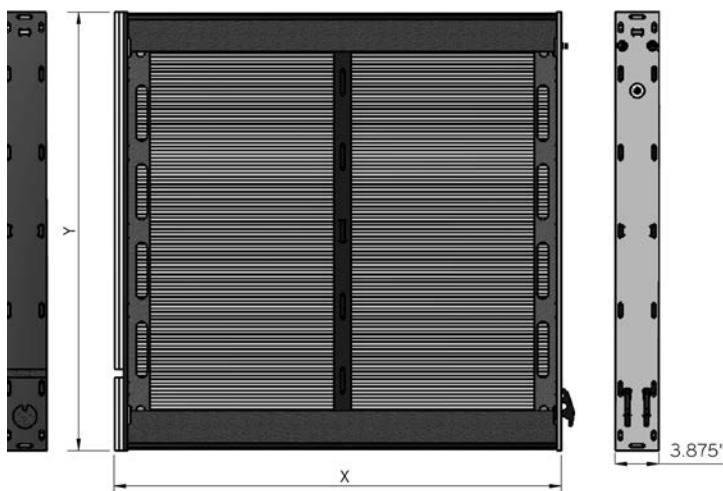
Perhaps the most critical step in the process, “THE TRANSPORT” step, begins with any particles that have escaped capture. These NET NEUTRAL particles work in the treated space by absorbing and adsorbing small and dangerous airborne contaminants, allowing them to be TRANSPORTED to the filter cartridge for capture or exhausted out of the treated space.

## The 4-Step ACTIVE Particle Control Process never stops.

The ACS Slim Line 4 is today’s most advanced electrically enhanced Air Purification System for Advanced RTUs and other 4” rack high efficiency applications. SecureAire’s Patented 4-Step Process is always working to create the Safest, Healthiest and Cleanest Indoor Air Possible.

### System Specifications

Standard Filter Sizes (Width/Height)	24"x12", 24"x20", 24"x24", 12"x24"
Filtration Efficiency Rating	MERV 14 per ASHRAE 52.2 Standard Test
Power Supply/Power Consumption	5 watts per filter position; 120/240 Single Phase VAC
Clean Pressure Drop	<0.1" WG at 500 fpm
Safety Current Protection	SB 0.5 A/250V fuses
Electrical Safety Ratings	UL 867: 2011 R8.13, CSA C22.2 NO. 187-09, and UL 2998
Humidity Range	< 95% Non-Condensing RH
Overall System Depth	4" airway length
Racking Requirements	4" U-channel (Nominal 4" ID, and 0.45" ID rise)
Blank-offs	As required to prevent air bypass
Safety Interlocks	Turns ACS system off if RTU filter access door is opened
BAS Integration	SCM easily integrates into a building’s automation system



Filter Size	Dimensions	Weight (lbs)
24x12	W=23.5" H=11.5"	6.5
24x20	W=23.5" H=19.5"	10.5
24x24	W=23.5" H=23.5"	12.5
12x24	W=11.5" H=23.5"	6.5

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