AlpinePure

WE ARE CONTINUOUSLY ADDING TO AND
IMPROVING OUR INDOOR AIR QUALITY PRODUCTS TO
PROTECT YOUR FAMILY'S HEALTH.

ARE YOU WINNING THE WAR ON INDOOR AIR QUALITY?

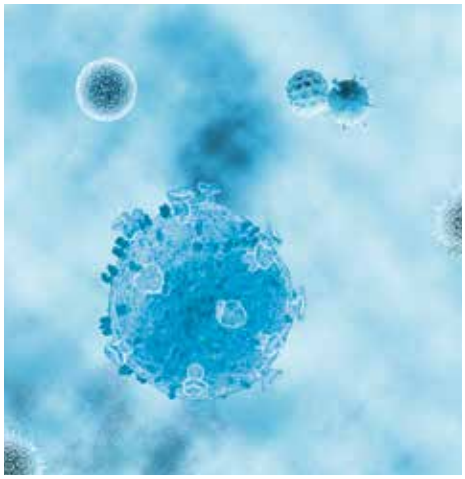
Are you putting up a fight?

Due to the high percentage of time we spend indoors at home, work, or at school, the scientific community has placed a new focus on indoor air quality. The U.S. Environmental Protection Agency has determined that indoor air can actually have 2-5 times higher concentrations of harmful pollutants than outdoor air. Although some individual pollutants may not pose a significant risk to our health, a combination of sources can, over time, create serious health problems.

A common source for these hazards is the building materials used in new homes. These materials can release airborne particles or fumes for several years, giving a home that "new home smell." With builders constructing tighter homes to reduce energy costs, these fumes cannot escape. Meanwhile, owners of older homes face concerns from wood, furnishings, and fabrics which naturally break down over time, radon and mold from previously damp duct systems or carpet.

Other pollutants like pollen, smog, plant spores, tobacco smoke, and bacteria are creating health problems ranging from dizziness to asthma. As a result, WaterFurnace is continuously adding to and improving its indoor air quality line of products to protect your family's health.

WaterFurnace has developed its products based on the EPA's three strategies to improve indoor air quality:



Neglecting your filtration system can expose your family to higher levels of indoor pollution - and potential health risks..

Filter the Air

High efficiency filtration is key to improving indoor air quality. Since forced air heating and cooling systems circulate your home's air, it is essential that its filters are changed and/or cleaned. Neglecting your filtration system can expose your family to higher levels of indoor pollution, along with higher heating and cooling costs. WaterFurnace units utilize slower air speeds and when used in combination with AlpinePure Series filters, achieve dramatically improved air filtration and lower maintenance than regular HVAC systems. The WaterFurnace AlpinePure Series offers a great selection of premium air cleaners, purifiers and media filters.

Ventilate the Space

Concentrations of indoor pollutants are dramatically reduced when they mix with fresh outdoor air. Although ventilation can be achieved by opening a window, the outdoor air is unfiltered, and enters the home at a different temperature than the indoor air. This mixing of air temperatures increases the cost of heating and cooling your home. With an AlpinePure Energy Recovery Ventilator, you'll breathe fresh air while reducing your energy bills.

Eliminate the Source

Many indoor air contaminants can be managed by the homeowner. You should focus on proper use of bathroom and kitchen exhaust fans, proper ventilation of gas stoves and furnaces, safe storage of cleaning supplies, fuels and chemicals, and proper maintenance of the air conditioning and duct system. Products like the AlpinePure drain pan treatment will eliminate any bacteria or mold in the unit's drain pan.

"The AlpinePure HEPA captures 99.97% of all particles down to 0.30 microns in size, which are responsible for 80% of all allergies"

AlpinePure HEPA

Filter the Air

For ultimate air filtration, choose the AlpinePure Series HEPA filter. It uses the same filtration technology required in hospitals and operating rooms.

Many less effective filter technologies capture only the larger contaminates (more than 5 microns) that account for less than 1% of the pollutants in the air. The vast majority of particles go unfiltered, even though these smaller pollutants can be more detrimental to your health. The AlpinePure Series HEPA captures 99.97% of all particles down to 0.30 microns in size, which are responsible for 80% of all allergies and respiratory problems.

Additionally, the AlpinePure Series HEPA incorporates Turbulent Flow Precipitation (TFP) filters. When particle-laden air is forced through a narrow airway, the particles are repeatedly hurled against the internal walls. The airway walls of the AlpinePure Series HEPA are made of a specialized fabric that traps pollutants as they are cast from the airstream. The result is a high rate of removal of the smallest debris before HEPA filtration even occurs.

Provide your family with the strongest line of defense against airborne allergens and contaminants with an AlpinePure Series HEPA filter.

Specifications:

- Captures 99.97% of all particles down to 0.30 microns
- Low maintenance—TFP replace annually, HEPA media up to three years
- Foil faced interior cabinet is easily cleaned
- Whisper-quiet operation
- High efficiency fan motor uses less than 50 watts on low speed

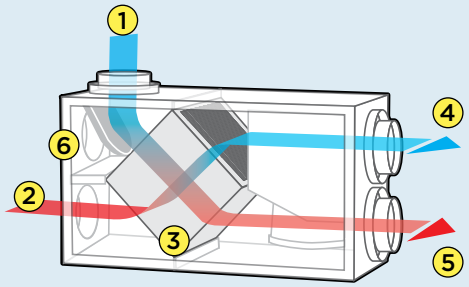
AlpinePure HRV/ERV

Ventilate the Space

The AlpinePure Heat Recovery Ventilator (HRV) and Energy Recovery Ventilator (ERV) are two similar devices that were designed to improve the indoor air quality and comfort levels of your home. They both remove stale contaminated air from inside the home and replace it with fresh outdoor air. As the indoor and outdoor air streams pass each other, they don't mix. Instead, they travel on opposite sides of an internal core that transfers heat between the two. Efficiency is high enough that virtually all heat energy is transferred and little extra energy is needed to re-condition the incoming fresh air.

These devices are usually connected to bathroom and kitchen exhaust ducts, replacing noisy fans and providing almost silent air circulation. Ventilators can be set to activate when the WaterFurnace unit is in operation, by independent bathroom or kitchen switches for 20-minute periods, or for continuous operation. The volume of stale discharged air and incoming fresh air is equal, providing a balanced system. Other ventilation strategies may cause depressurization of the home, causing air infiltration into wall cavities and can lead to moisture damage, rot, or harmful mold.

Which ventilator is right for me?
Choosing the right ventilator depends on your home's comfort needs and climate. If you live in an area with cold winters, the Heat Recovery Ventilator is a great choice. An HRV comes with an aluminum core to exchange thermal energy and an automatic defrost cycle to prevent ice build-up during cold weather. For climates that are generally warm and/or humid, the Energy Recovery Ventilator is ideal. The ERV's special core will help remove both heat and moisture from the incoming fresh air and exhausts them to the outgoing stale air, thereby reducing the sensible and latent loads for the HVAC system. The AlpinePure Series ERV is designed for use in warm humid areas with heavy cooling loads and is not recommended where outside temperatures drop below 25°F (4°C) for more than 5 days.



Heat Recovery Ventialtor (HRV)

1. **Fresh outdoor air**
2. **Stale indoor air**
3. **Aluminum Heat Exchange Core**
   Highly conductive aluminum transfers 83% of heat. Easy clean filters. Just rinse and return.
4. **Stale exhaust air to outdoors**
5. **Fresh conditioned air to home**
6. **Automatic Defrost**
   Electronic control opens and closes damper to prevent ice build-up.

Energy Recovery Ventilator (ERV)

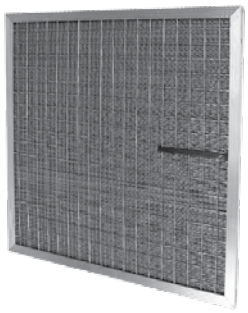
1. **Fresh outdoor air**
2. **Stale indoor air**
3. **Enthalpic Exchange Core**
   Transfers both sensible and latent heat. Easy clean filters. Just rinse and return.
4. **Stale exhaust air to outdoors**
5. **Fresh conditioned air to home**

AlpinePure Filters

For homeowners who don't require the extreme efficiency levels of the AlpinePure HEPA filter, there are four additional varieties of premium filters.

ELECTRONIC AIR CLEANERS

The AlpinePure ET creates an active electric field to capture airborne particles with efficiencies of 97% at 0.30 microns. Electronic media air cleaners do an excellent job of removing submicron particles by the process of *agglomeration*—polarized particles bond with other charged particles in the air and are easily removed through the filter. Carbon center screens are included to trap odors and volatile organic compounds. The AlpinePure ET is easily cleaned and the media is easy to replace. Unlike other electronic air cleaners, the AlpinePure ET creates no harmful ozone or annoying "zapping" noises.



ELECTROSTATIC AIR FILTERS

The AlpinePure ES provides up to 90% arrestance of dusts, pollens and molds. As the air moves through the patented configuration of polypropylene filtration media, static electric charges are naturally created to attract and hold particles. This 1 inch thick filter fits easily into the existing filter rack of your WaterFurnace unit. The AlpinePure ES is designed for permanent use—there is no media to replace. Because the AlpinePure ES creates its own static electrical charge, there are no wires to connect or reconnect for cleaning, and no additional cost of operation. Periodic cleaning is simply accomplished using a mild household cleaner and a garden hose.

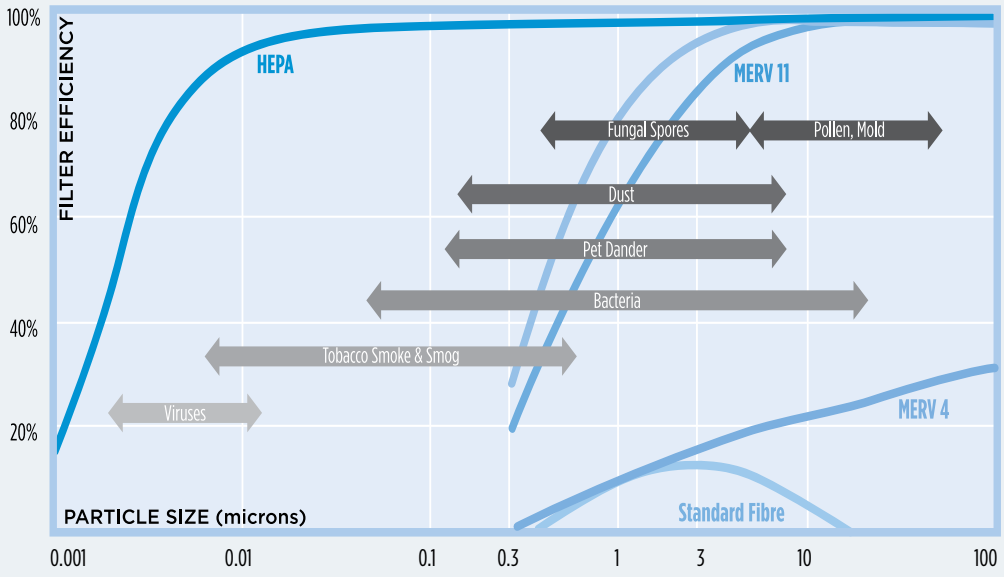
MERV 11 and MERV 13 FILTERS

AlpinePure MERV 11 filters are available in both 2-inch (211) and 4-inch (411) sizes. MERV 13 filters are only available with a depth of 2″. The MERV 13 filter provides points toward LEED certification and meets the LEED Green Building criteriea for minimum efficiency. *MERV* (Minimum Efficiency Reporting Value) is an industry standard which rates the ability of a filter to trap particles 0.3 to 10.0 microns from the air we breathe. Most ordinary, inexpensive filters found at hardware stores are MERV 4 or lower—they are simply ineffective in capturing smaller particles. In addition, AlpinePure 211 and 411 filters are pleated to increase the surface area allowing for more holding capacity and less frequent replacement. The AlpinePure 411 comes housed in a filter frame that includes a 1-inch slot for the optional high efficiency AlpinePure Carbon Filter.

ALPINE PURE CARBON FILTER

The Alpine Pure 411 can also eliminate odors and other air contaminants with the addition of its optional high efficiency Alpine Pure Carbon Filter. The key to this filter's excellent performance is its tightly bonded carbon granules that capture the odors from the return air. The carbon filter uses this innovative technology to effectively remove new home smell, cigarette smoke, and pet odors. Plus, the filter fits nicely in the 411 housing, and is easily accessed for its 3-month replacement. With its impressive odor removal capabilities and ease of replacement, the carbon filter is a must have for AlpinePure 411 owners.

Common Indoor Pollutant	**Typical Particle Size** (microns)
Pollen, mold, plant spores	7 - 70
Dust mites	3 - 10
Hairspray	3 - 10
Large bacteria	1 - 20
Auto emissions	1 - 3
Lead dust	1 - 3
Fungal spores	0.50 - 7
Cooking smoke/odors	0.30 - 1
Paint pigments	0.30 - 1
Dust	0.20 - 8
Pet dander	0.15 - 8
Small bacteria	0.08 - 1
Tobacco smoke	0.008 - 0.6
Viruses	0.005 - 0.01
Volatile organic compounds	less than 0.001



AlpinePure Pan Treatment

All cooling units, whether they are air conditioners, dehumidifiers, or geothermal systems, extract water from the air. Some undesirable consequences may result. Overflow from clogged drain pans can occur due to the formation of “slime.” This can cause expensive damage to the ceiling and other property. Contaminants found in the retained water can also cause foul-smelling odors or premature failure of the drain pan.

The AlpinePure Series Time-Release Drain Pan Treatment provides dependable, sustained time-release protection for only pennies a day. A solid-packaged strip fights corrosion and slime build-up, while it adds a light, pleasant scent to the air. The treatment stays dormant when the drain pan is dry. The product continues to activate and de-activate as moisture conditions change. After 90 days, simply remove the old strip and dispose.

Protect your geothermal system from mold and water damage with our new AlpinePure Pan Treatment to insure long lasting comfort and reliability.

Simply place the Time-Release Drain Pan Treatment in the condensate pan. The polyester sock absorbs water and stays where placed in the pan.

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