

# MAKE UP AIR SOLUTIONS

Residential - Light Commercial - Heavy-Duty Commercial



**BETTER AIR. PEACE OF MIND.**



Smart Heating Solutions



## WHY INDOOR AIR QUALITY IS IMPORTANT TO YOU

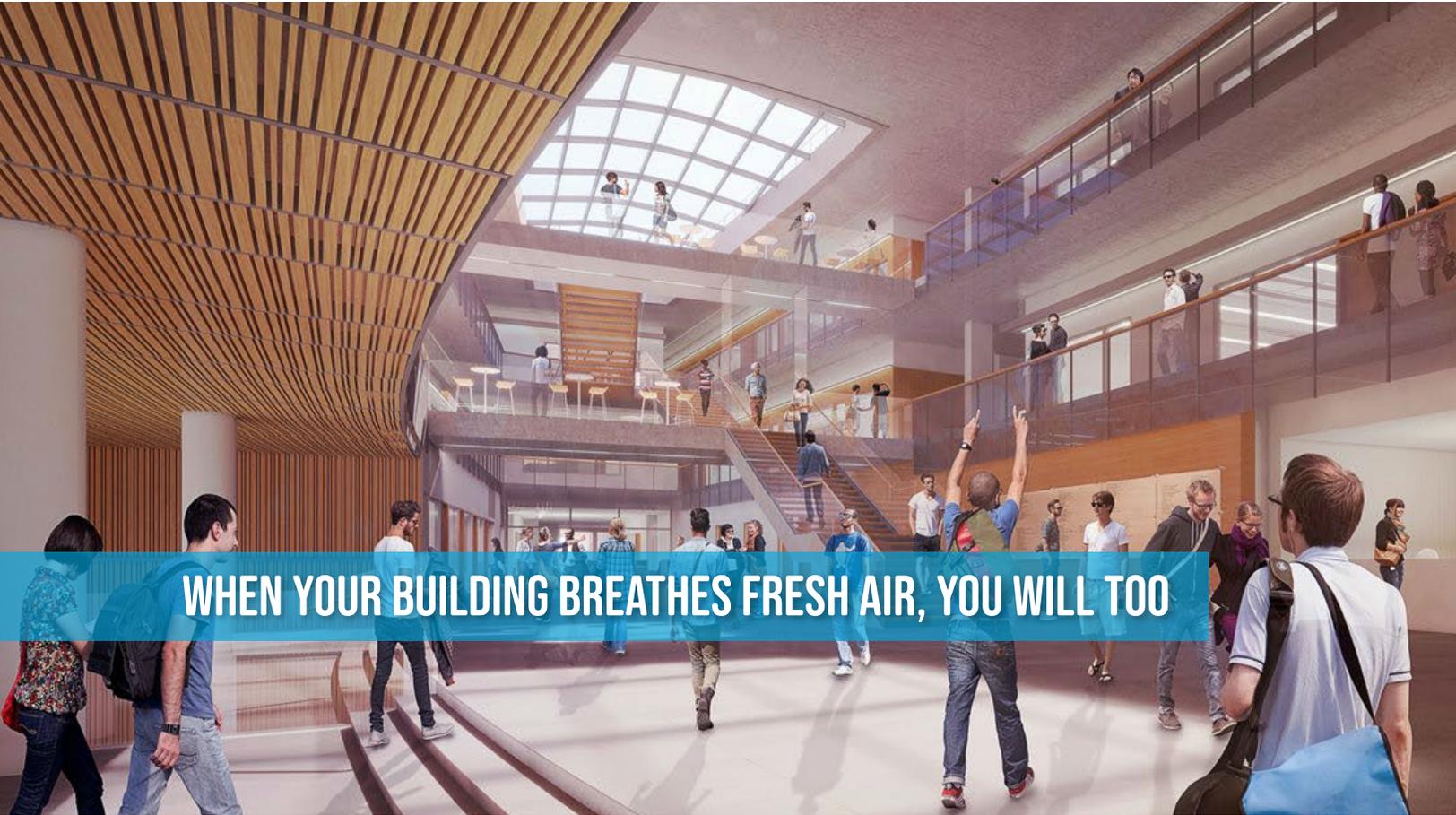
According to the EPA ([epa.gov](http://epa.gov)), indoor air quality is five times worse than outdoor air quality. Fresh, clean air is essential to good health. But with today's airtight construction techniques, excess humidity and airborne pollutants can easily get trapped in indoor air. This can result in serious consequences for the structure of your home or business and for the health of its occupants.

### GO ABOVE THE MINIMUM STANDARDS

The American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), who sets the standards for ventilation rates now recommends flushing spaces with fresh air two hours before and after occupancies. This includes operating the exhaust fans as well as outside for maximizing fresh air.

Under most current codes, a building should replace all inside air with outside air about once every hour, or what's called an "air exchange rate" of one. ASHRAE is now recommending upping that to 3 times an hour.

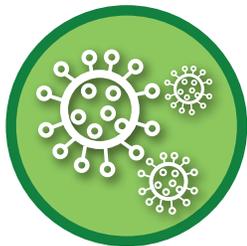
**“ MANAGING INDOOR AIR QUALITY  
IS THE SIMPLEST WAY TO SHOW CUSTOMERS  
AND EMPLOYEES YOU’RE TAKING ACTION & KEEPING THE SPACE SAFE,  
PRODUCTIVE, AND ENERGY-EFFICIENT. ”**



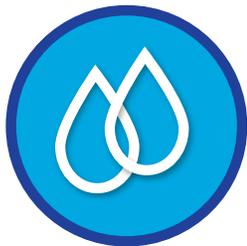
## WHEN YOUR BUILDING BREATHES FRESH AIR, YOU WILL TOO



Airborne Contamination transmission is one of the main spread routes for a number of infectious diseases according to the CDC. They now recommend increasing the percentage of outdoor air that circulates into the system to cut down on recycled contaminated air. This outside air dilutes or removes contaminants in the space faster.



Particulates from dust, allergens, pet dander, and more can contribute to poor indoor air quality up to 100 times dirtier than outside air. With a properly ventilated building, you create a more enjoyable, comfortable and healthier environment.



Moisture that is not properly ventilated can cause mildew and mold formation, which can potentially lead to structural problems and health problems.



Off-gassing from construction materials, carpeting, adhesives and synthetic materials—as well as solvents from common household cleaners—can accumulate in tightly built buildings. Look to King for continuous ventilation solutions that meet ASHRAE 62.2.

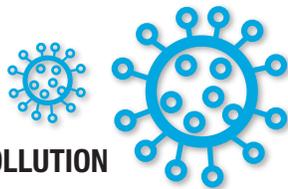


## LET THE FRESH AIR IN

Fresh air is essential in every room of our homes and buildings. King fresh air systems are the centerpiece of today's tightly constructed, energy-efficient homes, providing an efficient method of providing a continuous supply of fresh air to improve indoor air quality and overall building comfort.

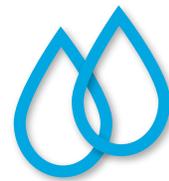
Most essential to providing fresh air to your building is properly managing incoming and outgoing air for your climate conditions, seasons, and temperature. If not managed efficiently, indoor air quality, energy bills and overall building comfort can suffer.

## KING FRESH AIR SOLUTIONS CAN HELP



### CONTROL INDOOR AIR POLLUTION

Replacing stale air with fresh, outdoor air removes and dilutes dangerous concentrations of VOCs (volatile organic compounds).



### PROTECT YOUR BUILDING

Excess humidity is a breeding ground for mold and mildew, which destroys the surfaces on which they grow.



### CONTROL COMFORT

A fresh air system helps exchange odors caused by pets, cooking and everyday activities with fresh, clean-smelling outdoor air.



### SAVE ENERGY

By preheating incoming air, air that is too cold never enters the building, which keeps your HVAC System operating efficiently.



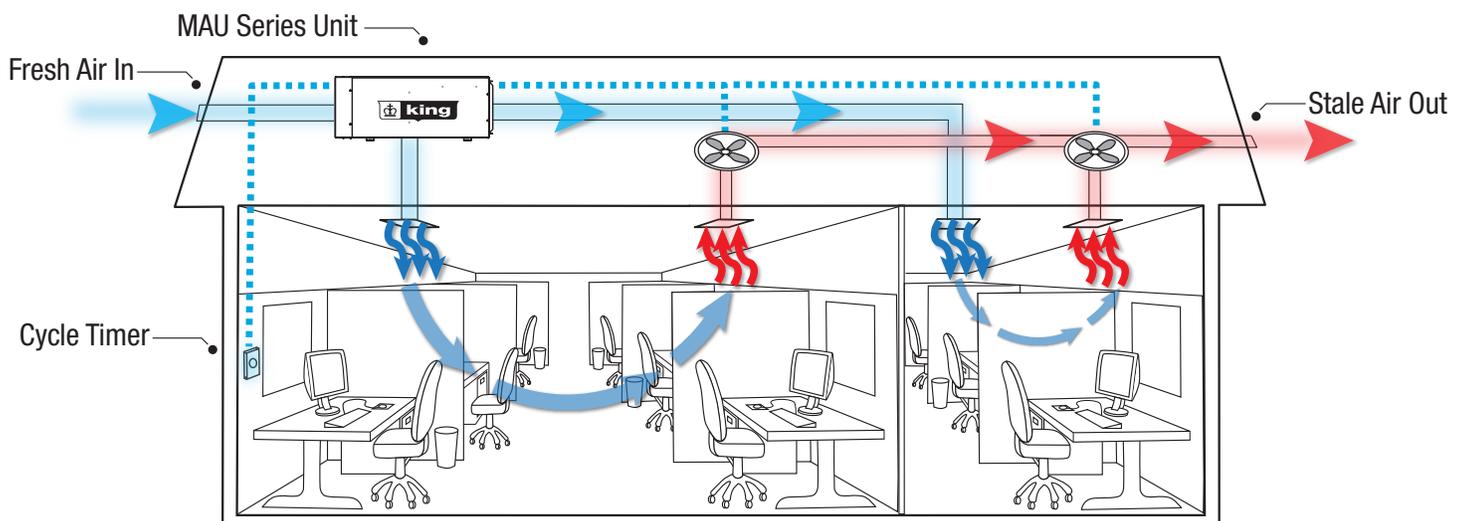
## MAKE UP AIR SYSTEMS MAU Series

Designed to “make up” the air in your interior space that has been removed due to process exhaust fans. The building ventilation and the make-up air system work together to ensure the building pressure is maintained, while eliminating temperature fluctuations and a number of air quality issues. Without Make Up Air, depressurization occurs lowering the pressure indoors with respect to the outside. This negative pressure can cause various problems in a house, such as hindering the natural draft from vented combustion appliances and lead to backdrafting, which in turn can result in combustion gases spilling into the indoor airspace, such as carbon monoxide.

## MAU SERIES MAKE-UP AIR UNIT

700 – 1770 CFM @ 0.2" Static Pressure  
3.8kW to 34.5kW Models, 1-3 Phase  
Dimensions: 41" Width x 23.75" Length x 20" Depth

MORE THAN **50%** OF THE POSSIBLE BENEFIT OF FRESH AIR IS ACHIEVED BY INCREASING AIR CHANGES PER HOUR (ACH) FROM 2 ACH TO 4 ACH





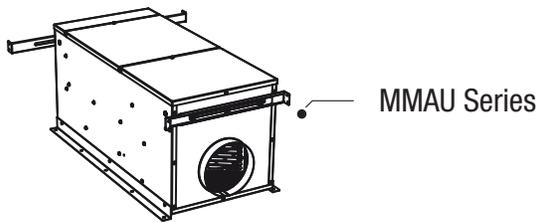
# MMAU SERIES MINI MAKE-UP AIR UNIT

(For Smaller Spaces)

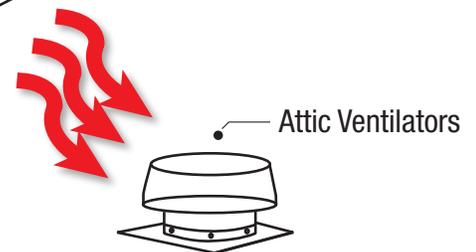
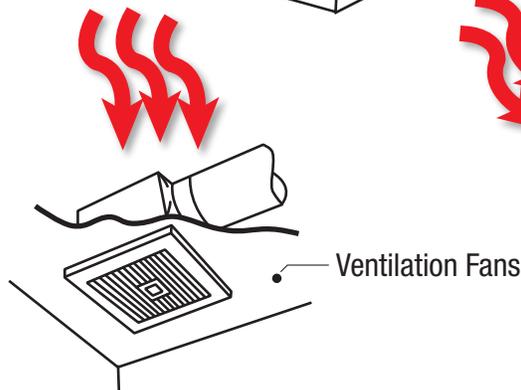
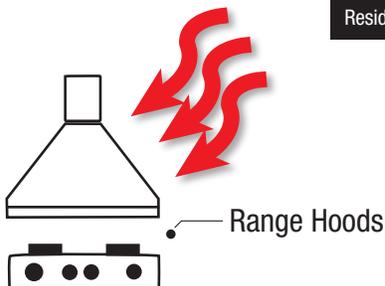
175 – 530 CFM @ 0.0" Static Pressure  
2kW to 12kW Models, 1-3 Phase  
Dimensions: 12.3" Width x 20.75" Length x 11.375" Depth

The MMAU compact make-up air unit combines a fan-driven, fully modulating electric heater with an integrated fresh-air relay logic control circuit, delivering a highly versatile, all-in-one packaged solution.

An onboard timer controls Air Changes per Hour (ACH), while adjustable CFM, temperature rise, and static pressure tailor the unit to each application.



**REPLACES EXHAUSTED AIR FROM  
EXISTING HVAC SYSTEMS FOR  
A WELL-BALANCED BUILDING**





**\*150%**

**LATEST RECOMMENDATIONS TO  
INCREASE AIR EXCHANGE RATE  
PER HOUR BY 150% MINIMUM**

**Preheat Incoming Air for HVAC Systems to  
Meet Increased Air Exchanged Requirements\***

# **MAKE UP AIR SOLUTIONS**

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**King Electrical Manufacturing Company**

9131 10th Avenue South, Seattle, WA 98108 • phone 206.763.0400 fax 206.763.7738

**king-electric.com**