



**COOK**

**MAC - Mobile Air Cleaner**

## PERFORMANCE AND OPERATION SUPPLEMENT

### HOW MUCH AIR?

The Cook MAC can move up to 2000 CFM. Enough to filter the air in an average classroom 4-5 times an hour.

Or it can be dialed down easily with just a screwdriver to as low as 500 CFM. See chart below:

RPM	CFM
500	539
700	770
900	1000
1100	1200
1300	1400
1500	1620
1700	1850
1800	1960



**ANYONE CAN DO IT!**

### MAINTENANCE

Primarily consists of filter changes

### PRE-FILTER

Change every 2,500 hours of run-time

### HEPA FILTER

Replace every 10,000 hours of runtime

### EASY

Just check the run-time meter!



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## MAC AIRFLOW CALCS

### **CLASSROOM**

25' x 25' x 10' ceiling height = 6,250 cubic feet

6,250 cubic feet / 12 minutes per air change (5 changes per hr) = 520 CFM

See chart on first page of this document to determine fan speed in RPM for correct airflow.

### **LUNCH ROOM OR GYMNASIUM**

50' x 30' x 18' ceiling height = 27,000 cubic feet

27,000 cubic feet / 15 minutes per air change (4 changes per hr) = 1800 CFM

One (1) unit at 1800 CFM or two (2) units at 900 CFM

See chart on first page of this document to determine fan speed in RPM for correct airflow.

## MAC FAQ'S

### **WHY A FAN IN EACH CLASSROOM?**

The shorter path between the particle and the filter, the better!

HEPA filters capture 99.97% of the particles that pass through the unit. Each time particles pass through the unit, the air becomes cleaner and cleaner. This includes virus particles, bacteria, dust, pollen and other allergens!

This unit turned down to 500 CFM is so quiet, you will forget it is running.

### **WHY IS THE UNIT THIS LARGE?**

The large cabinet means lower fan speed and related operating noise! It also allows a for larger filter size and lower airflow velocity, ensuring the best chance of particle capture by the filters, and less frequent filter changes!



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## **MAC FAQ'S (CONTINUED)**

### **WHY THE COOK MAC FAN OVER OTHER CHOICES?**

Cook has been in the ventilation business since 1941 and will be here long into the future. You probably already have Cook fans on your building. This product is designed to be economical to operate and robust enough to last for years!

### **WHAT'S INSIDE THE UNIT?**

A tried-and-true centrifugal wheel that Cook has made for decades mounted directly on an EC motor for energy efficiency and ease of control! Direct drive reduces maintenance requirements!

A 1" pre-filter. This gets changed every 2,500 operating hours. The run-time meter on the unit tells you how many hours the unit has operated. Easy!

A HEPA filter. If the pre-filter is changed out as directed, the HEPA filter will last for years!

All this in a sturdy steel housing on casters. Simple!

### **WHAT ARE THE FILTER EFFICIENCIES?**

The MERV 8 pre-filter is 85% efficient at collecting particles larger than 3 microns. This includes dust, lint, pollen, mites and mold.

The HEPA filter is 99.97% efficient at capturing particles 0.3 microns and larger and even more efficient at capturing particles down to 0.01 microns through a process known as diffusion. This includes virus particles such as COVID-19

### **DOES THE FILTERS KILL VIRUS PARTICLES?**

Virus particles need a live host to survive. The HEPA filter takes them out of the airstream where they become neutralized and eventually disintegrate.

### **HOW MUCH POWER DOES IT USE?**

At full speed, the MAC uses 12.4 amps. This allows the MAC to operate on a 15 or 20 amp circuit and to plug into a standard power outlet. At 900 RPM, the MAC uses approximately 2 amps and at 500 rpm, less than one amp!