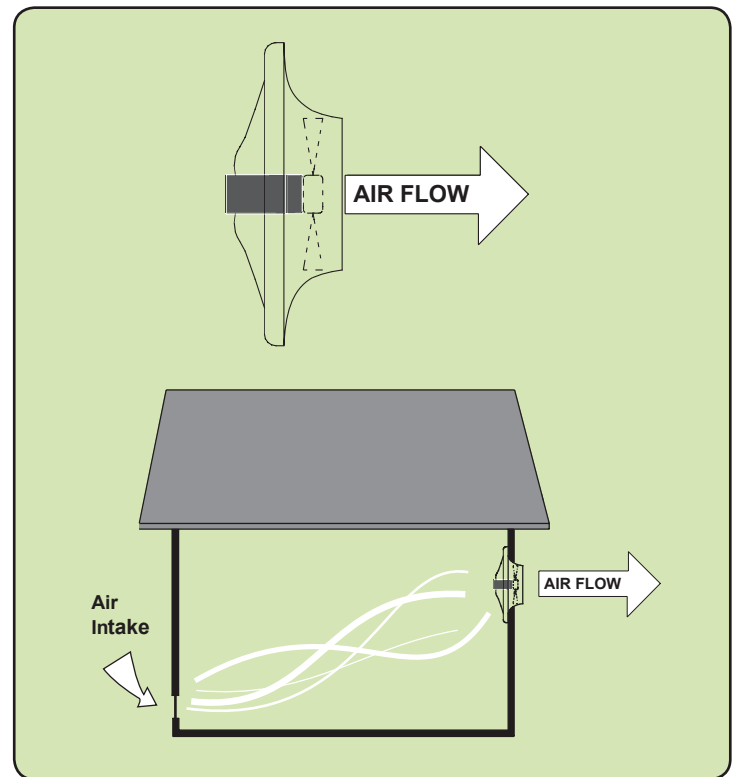


# AIRFLOW

## Air Exchange

The industry guideline for greenhouse fan capacity is to size your ventilation system so that it is capable of performing one complete air exchange per minute during the warmest months of the year. Replacing all the warm stale air in your greenhouse once each minute should keep the inside temperature about 8-10 degrees Fahrenheit warmer than the temperature outside. The total cubic feet of your greenhouse will be equal to the total Cubic Feet per Minute (CFM) of fan capacity you will need available for exhaust.

For cooler climates or similar applications choose 2 or 3 minute air exchange when applicable.



## Static Pressure

### Snap-Fan exhaust fans are specifically designed to exhaust air

Static pressure (vacuum) results when air is forced out of a structure by the exhaust fans. As the warm stale air is pushed out, fresh outside air will be drawn in through the intake vents to replace it. When the incoming air is restricted, and cannot enter as rapidly as the air is being discharged, static pressure occurs and the air exchange rate is reduced. This reduction occurs when the intake surface area is obstructed or of insufficient size, such as when air intake vents are too small or airflow is impeded by things such as screens or light traps. If the correct amount of intake surface area is available the static pressure in the structure will be 0, resulting in maximum airflow with least power draw.

We recommend sizing the air intake so that there is 1.5 sq ft per 1,000 CFM produced by the exhaust fan(s). See chart below for recommended intake size for each Snap-Fan:

<b>DC Snap-Fans</b> at 24 volts:	Intake:	Intake Vent:	
12" DC Snap-Fan	1.50 sq ft	15 in x 15 in	or one 16" Snap-Fan Shutter
16" DC Snap-Fan	2.58 sq ft	19 in x 19 in	or one 20" Snap-Fan Shutter
20" DC Snap-Fan	4.20 sq ft	25 in x 25 in	or one 24" Snap-Fan Shutter
24" DC Snap-Fan	5.25 sq ft	28 in x 28 in	or one 28" Snap-Fan Shutter
<b>DC Snap-Fans</b> at 30 volts:			
28" DC Snap-Fan	9.42 sq ft	37 in x 37 in	or two 24" Snap-Fan Shutters
50" DC Snap-Fan	19.33 sq ft	53 in x 53 in	or three 28" Snap-Fan Shutters
<b>AC Snap-Fans</b>	Intake:	Intake Vent:	
12" AC Snap-Fan	1.50 sq ft	15 in x 15 in	or one 16" Snap-Fan Shutter
16" AC Snap-Fan	2.58 sq ft	19 in x 19 in	or one 20" Snap-Fan Shutter
20" AC Snap-Fan	3.98 sq ft	24 in x 24 in	or one 24" Snap-Fan Shutter
20" HLE AC Snap-Fan	5.80 sq ft	29 in x 29 in	or one 28" Snap-Fan Shutter
24" AC Snap-Fan	5.67 sq ft	29 in x 29 in	or one 28" Snap-Fan Shutters
28" AC Snap-Fan	9.42 sq ft	37 in x 37 in	or two 24" Snap-Fan Shutters