



## USEFUL FORMULAS

Area – Is the calculation of the size of a room or building for determining the correct unit to place based on area – for example, the Eagle 5000 is generally for areas up to 3500 square feet (ft<sup>2</sup>).

- Area = length times (X) width of a room or building
- Area is almost always given in
  - square feet (ft<sup>2</sup>)
  - square meters (m<sup>2</sup>)
- Since length and width are in feet, therefore ft x ft = square feet (ft<sup>2</sup>)
- Example 1:
  - You are given an application for a reception area in a nursing home with moderate odors. The area measures 50 by 60 feet.
  - The area equals: 50 ft x 60 ft = 3000 ft<sup>2</sup>.
  - Therefore a Fresh Air SE which is rated up to 3000 ft<sup>2</sup> could be used in this application.

Volume – Is the calculation of the size of a room or building in volume for the purpose of determining the correct unit to place based on volume – for example the EcoAir 4000 is generally for coolers or freezers, volumes of up to 4000 cubic feet (ft<sup>3</sup>).

- Volume = length times (X) width times (X) height of a room, cooler, freezer, or building
- Volume is almost always given in
  - cubic feet (ft<sup>3</sup>)
  - cubic meters (m<sup>3</sup>)
- Since length, width, and height are in feet, therefore ft x ft x ft = cubic feet (ft<sup>3</sup>)
- Example 2:
  - A fruit cooler needs an air purifier
  - You are told that the width is 10 feet and the length is 30 feet
  - The area is 10 feet wide x 30 feet long = 300 ft<sup>2</sup> total area
  - You measure the floor to ceiling height and discover it's 8 feet
  - Now, 10 feet x 30 feet x 8 feet = 2400 cubic feet (ft<sup>3</sup>)
  - Therefore the cooler can be serviced by an EcoAir 4000

Converting “Tons” and “CFM” – Some of our Commercial equipment is recommended for a range of air flows usually given in CFM. For example, the activTek INDUCT 5000 120VAC is recommended for 18,000 to 26,000 CFM.

- Since: One (1) ton = 550 CFM/ton
- 18,000 CFM/550 CFM/ton = up to approximately (~) 32 tons capacity
- Given: A 20 ton unit services this building
  - 20 tons X 550 CFM/ton = 11,000 CFM
  - This means that (1) activTek INDUCT 5000 will work

1 These examples do not take any special circumstances into consideration – such as mold, previous flooding, and etc. These calculations merely serve as an example.  
2 Although different authorities use different equivalents ranging from 400 to 800 CFM/ton, activTek Environmental chooses to use the most widely accepted standard of 550 CFM/ton.



Active Air Care

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