



## HVAC Formulas: VAV Box Air Flow Rate (CFM)

The following equation calculates the refrigeration output in Tonns of a chiller.

INPUT VARIABLES	
A	Duct area in sq. ft
PV	Pressure in inches of H <sub>2</sub> O from PV3

OUTPUT VARIABLES	
V	Velocity of the air
CFM	Cubic feet of air per minute

EQUATION	
Q	AV
0.0763 IS THE DENSITY OF DRY AIR AT 60° F THE DUCT DIAMETER UNITS ARE IN FT.	
CFM	$1096\pi(\text{Duct Diameter}/2)^2(\sqrt{(Pv/.0763)})$

