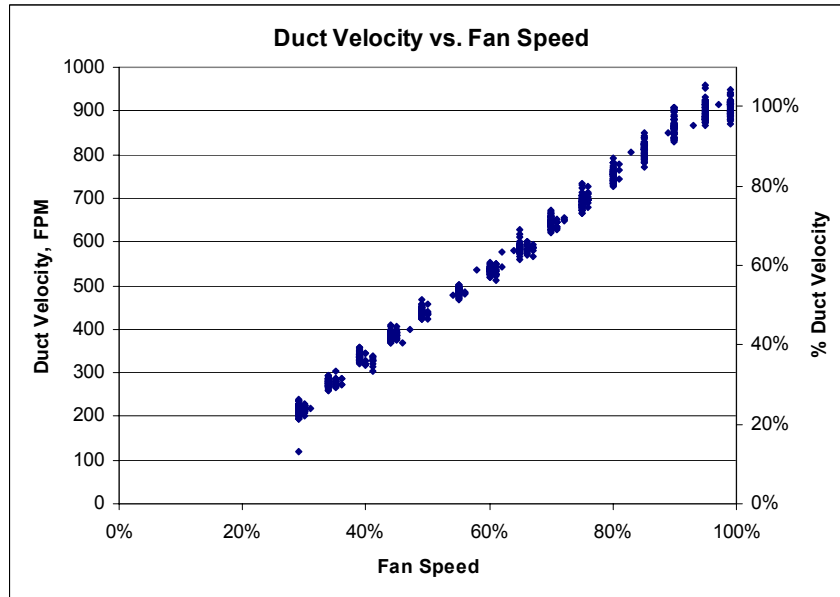


Air Flow and Fan Speed

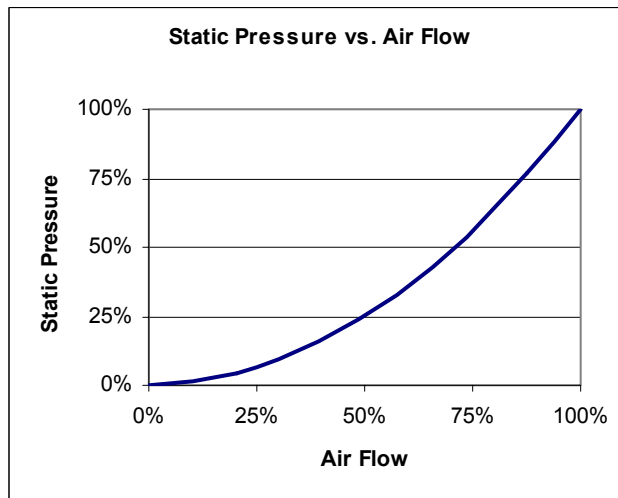
Q. How does air flow vary with fan speed?

A. Air flow is approximately proportional to fan speed. That is, at 50% fan speed, you can expect about 50% air flow. This has been verified numerous times. The data below was taken in Pocatello Idaho in a 150,000 sack Behlen Curvet, designed at 154,000 CFM (20.5 CFM/Ton). Duct air velocity was measured 6' into the duct.



Q. What happens to static pressure when the fan speed is varied?

A. Static pressure is proportional to flow². At 50% flow, static pressure should be about 25% (50% Squared).



Q. At reduced fan speeds, will the air still be distributed evenly?

A. Testing performed by the University of Idaho has shown that a building with good air distribution at full flow will also have good distribution at reduced flow. Buildings requiring booster fans or that have air distribution problems at full flow will continue to have problems at reduced fan speeds.