Air velocity in Paint booth

Example from GFS

<http://gfsboothblog.com/2013/03/26/air-changes-vs-air-velocity-gauging-paint-booth-ventilation-performance/>

Typical speed is for cross draft is 100ft/min = 30.48m/min = 0.5m/sec

Typical down draft is 50-100ft/min = 0.25 -0.5m/sec

3.2808ft = 1m

Original spec for the CCC oven

Flow rate = XXX [m3/hr]

Now down rated after motor change from XXX rpm to ZZZrpm

If proportional to motor speed we can expect YY [m3/h]

Over pressure of Cabin as estimated by the force on the small door.

Pressure (P) = 2 x F/area of door

A = Area of door opening

F = Force measured on opening edge of door

P = 2 x XX / ZZZ [kg/cm2]

Air change volumes per unit time.

Here the rate is given at x4

<http://www.toolsusa.com/blog/how-much-air-flow-does-my-spray-paint-booth-require/>