

FUME HOOD FACE VELOCITY FACTORS TO CONSIDER

NC State University conducts testing of the face velocity on fume hoods to determine how the measured velocity (measured with the hood sash open 18 inches) compares to University design guidelines of 90-125 fpm airflow.

It should be noted that measurements of face velocity are only one indicator of hood performance. Visual testing with smoke and the use of the ASHRAE 110 tracer gas test are additional methods for evaluating hood performance. Recent research has shown that hoods which have face velocities within the range listed above, and which have shown good containment when smoke tested, may fail the ASHRAE 110 test. For this reason, one should carefully consider which test method(s) they choose to employ.

Also, one recent study has shown that hoods in a full open position do not contain contaminants as well as hoods, which have their sash at a one half open or lower position. For this reason, it is important to remember to avoid keeping the hood sash open. Crossdrafts in front of hoods are also to be avoided as they negatively affect hood performance.