

OC Innovations – Ozone Dispersion

Ozone Dispersion Tests

The OC Innovations OC1 and OC2 units are designed to inject ozone into ductwork at a concentration of 1ppm. Ozone is consumed during the odour control process, and concentrations of 0.06ppm are routinely measured at the egress point. The concentration is further reduced by a process of degradation to molecular oxygen and dispersion in the air.

Test Protocol

A series of measurements were taken to monitor the ozone concentration at the termination point to a distance of 3 metres and at various heights. This is particularly relevant for applications where extraction is at street level. The following tests were performed outside in sheltered conditions with little or no wind dispersion. For the purpose of this test, ozone concentrations were set higher than normally found in commercial applications (set at 0.6ppm instead of 0.06ppm), and the linear flow rate was set to half that normally found (4.5m/s instead of 9m/s). This was to produce an ozone concentration well above that normally found in most applications, and to reduce dispersive effects.

Result

The results confirm that ozone is dispersed and degraded rapidly in air. At a linear distance of 3 meters and at 1 meter above or below the level of the extraction point, ozone concentration drops by a factor of ten. At this point and moving further away from the extraction point the level of ozone becomes unmeasurable due to low levels.

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