

Title:

Development of ASTM F2519-05: Standard Test Method for Grease Particle Capture Efficiency of Commercial Kitchen Filters and Extractors

Speaker:

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Abstract:

Grease filters and extractors are used in commercial kitchen exhaust systems to capture a portion of the grease effluent before it enters the exhaust duct. Historically these devices were primarily flame arresters to prevent grease fires. Evidence of significant grease accumulation in exhaust ductwork, on fan blades, and on nearby exterior surfaces of buildings led to the conclusion that existing filters were not very effective in removing grease from the exhaust stream. This study was initiated to develop a standard method of test to determine the grease particle removal efficiency of these filters as a function of particle size. Initial measurements with hamburger cooked on a griddle were closely simulated using an artificial effluent consisting primarily of oleic acid and water. As a result of the poor performance of traditional baffle filters, manufacturers are developing and marketing the next generation of filters that are much more effective at grease effluent removal.