



Ei

Elemental

IMPACT

MANAGE YOUR EXHAUST HOOD THE SAFE WAY



Proactive Airborne Grease Management

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Grease Lock System – Rationale

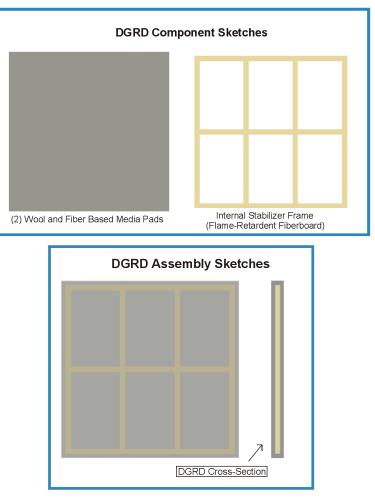


- Dramatically reduces buildup of grease contamination throughout Commercial Kitchen Ventilation (CKV) system which is a major foodservice operation management issue
- Either proactively manage CKV grease contamination when it is easy to get at or continue reactively when it is difficult to get to and causing problems
- > The Grease Lock System's new disposable Grease Lock Filters offer Proactive Airborne Grease Management
- > Also good for our Environment ...
 Conserves Water -- Reduces Pollution -- Saves Energy

Grease Lock System – Grease Lock Filters



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Patent Pending

Model: Grease Lock Filters

- 2nd Generation, <u>D</u>isposable <u>G</u>rease <u>R</u>emoval <u>D</u>evice (DGRD), Patent Protected, US Patent No.: 8,277,530
- Completely **Disposable** Design...solid waste stream
- Fiber-based Media with Embedded Stabilizer Frame made of Flame-Retardant Fiberboard...certified as UL1046 Recognized Component, patent pending
- <u>Unique Add-On Device</u>...does not replace UL1046 Baffle Filter
- <u>High-Efficiency</u>...removes 98+% of Grease Particles in 8 to 10 micron size range from air stream
- <u>No significant air flow reduction and pressure drop</u> <u>increase across grease loaded DGRD</u>...no exhaust fan upgrade required
- <u>Flame Barrier</u>...capable of withstanding normal flareups



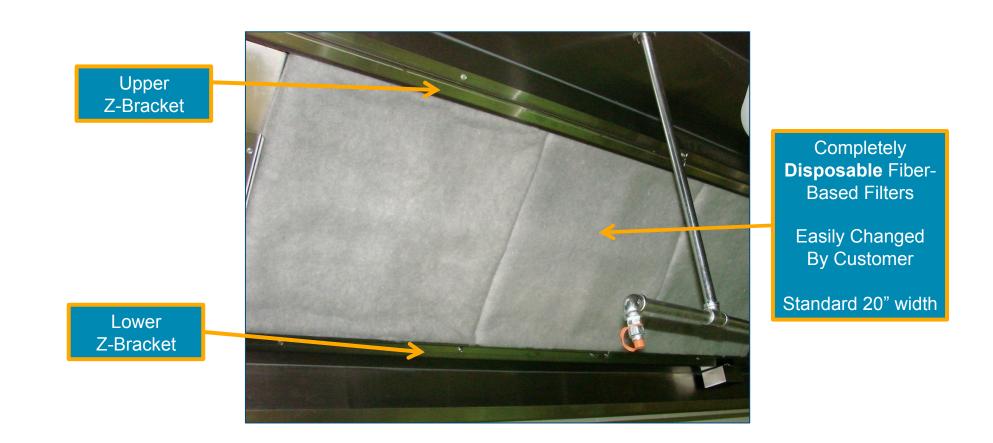




Grease Lock System

Simple Installation





Grease Lock System Benefits



Reduce fire risk

- A grease-free duct will not burn!
- <u>Reduce costs</u> related to cleaning and maintaining of exhaust system
- <u>Reduce costs</u> related to maintaining roof and building
- Reduce frequency of messy exhaust system cleanings
 - A grease-free exhaust system does not need cleaning
- Environmentally "Green"
 - <u>Conserve water</u>...device is disposable, no cleaning required
 - Reduce air pollution...fewer grease effluents released into air
 - Reduce water pollution...no grease contaminants or chemicals released into wastewater
 - Save electricity...more energy-efficient exhaust fan (no grease load)

More pleasant facility environment

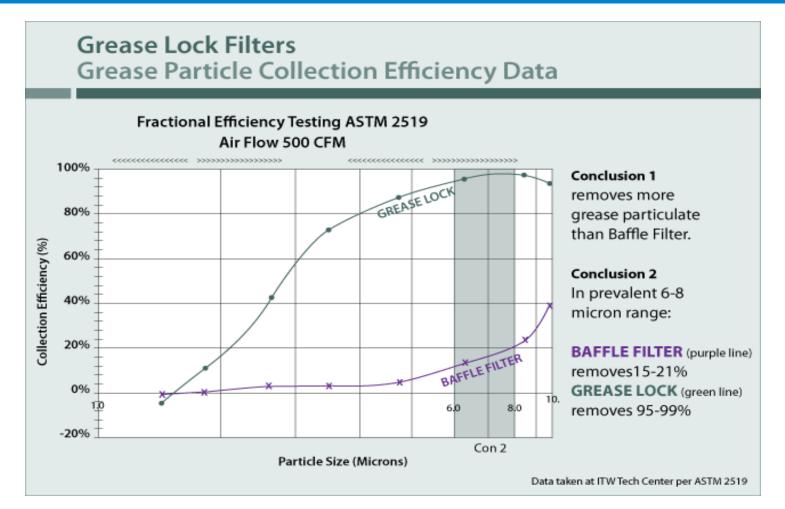
• <u>Move grease pollution</u> from air, roof, and wastewater to landfill or incinerator

Grease Lock Filters

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Grease Particle Collection Efficiency Data



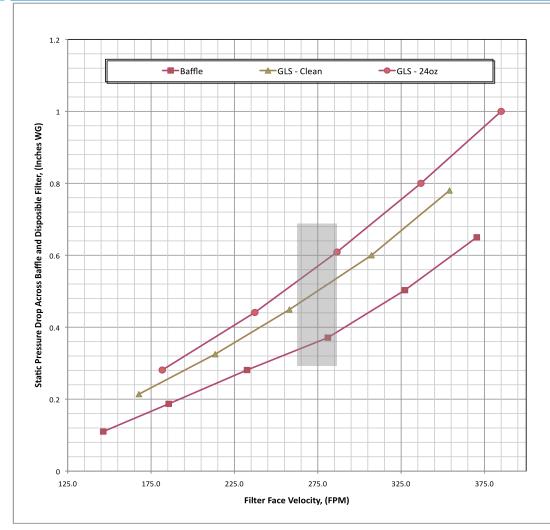


Data taken at ITW Tech Center per ASTM 2519

Grease Lock Filters Collection Capacity and Air Flow Data



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Observation – Adding a GLF in an exhaust hood running an average velocity of 275 FPM results in less than a .15" increase in static pressure when Clean and only .30" increase when Soiled versus using a baffle only. The static pressure change is even less at a lower operating velocity.

<u>Conclusion</u> - No significant increase in Static Pressure results from use of GLF. Therefore, no upgrade of fan motors should be required.

US Patent 8,277,530, Patent Pending

Data taken at ITW Gaylord

Grease Lock Filters Fiber-based Media Attributes



Environmentally-responsible

- Natural material
- Easy, bio-degradable disposability (landfill)



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Cost-effective

Plentiful and renewable resource

Low air flow resistance

No exhaust fan upgrade required

Inherently flame retardant

- Tends to smolder or char
- Self-extinguishing



- > Reduce fire risk
- > Reduce frequency of messy exhaust system cleanings
- > Reduce maintenance costs (exhaust system, roof, building)
- > Go "Green" ... Conserve Water Reduce Pollution Save Energy



> Save \$\$\$



Grease Lock System

