

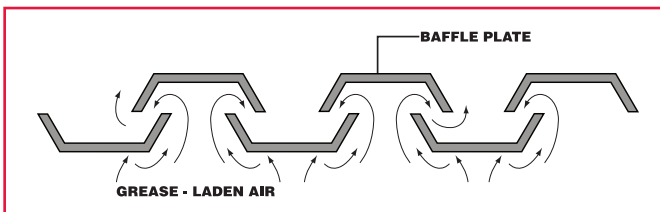
# FLAME GARD—TYPE III

## TYPE III STAINLESS, ALUMINUM AND GALVANIZED FILTERS STATIC PRESSURE SELECTION CHART

CFM - Static Pressure  
Static Pressure - Inches of H<sub>2</sub>O

	10 x 16	10 x 20	16 x 16	16 x 20	16 x 25	20 x 16	20 x 20	20 x 25	25 x 16	25 x 20
200	.34	.19	.12	.07	.05	.09	.04	.03	.05	.03
300	.84	.48	.33	.19	.12	.23	.11	.07	.13	.07
400	1.46	.83	.57	.33	.21	.41	.19	.13	.23	.13
500	2.27	1.28	.86	.50	.32	.61	.29	.195	.355	.195
600	3.27	1.86	1.27	.73	.46	.90	.42	.28	.52	.29
700	4.45	2.53	1.73	.99	.63	1.23	.57	.38	.70	.39
800	5.73	3.32	2.26	1.30	.82	1.59	.74	.49	.92	.505
900	7.38	4.19	2.87	1.64	1.04	2.04	.94	.64	1.17	.65
1000	9.13	5.15	3.47	2.03	1.28	2.49	1.17	.78	1.425	.79
1100		6.24	4.27	2.44	1.55	3.04	1.40	.95	1.74	.97
1200		7.38	5.08	2.92	1.84	3.59	1.67	1.13	2.07	1.15
1300		8.74	5.98	3.42	2.17	4.26	1.97	1.33	2.44	1.35
1400			6.92	3.95	2.52	4.93	2.28	1.54	2.82	1.56
1500			7.95	4.55	2.89	5.66	2.61	1.77	3.24	1.80

ALL TESTS CONDUCTED BY CEDRT-AIRE TECHNICAL SERVICES TO AMCA STANDARD 500-89



### HOW FLAME GARD® WORKS

The affluent from cooking processes contains aerosols of water vapor mixed with evaporated fat or oil. These are carried from the cooking surface by the moving air being drawn into the exhaust hood. Although small, each aerosol is much heavier than the air molecules surrounding it. Thus, when the air stream containing these aerosols strikes the Flame Gard® Baffle System, the inertial force of the moisture-grease aerosol is considerably greater than that of the air molecule. While the air molecule changes direction easily, the aerosol strikes the baffle with considerable force, causing it to "splatter" on the surface.

Whereas the heaviest aerosols, because of their greater inertial force, impinge on the surfaces of the baffles facing and perpendicular to the air flow, the lighter ones remain in the air stream. As the air stream is drawn through the baffle system, the restrictions in area created by the baffles cause the air to increase in velocity while changing direction by 180 degrees. Since the inertial force is a product of the mass and the square of the velocity, this increase in velocity serves to increase the inertial force of the remaining smaller aerosols, causing them to impinge on the inner surfaces of the baffles in the same manner in which the heavier aerosols impinged on the entering surfaces. The design of the baffle system provides several impingement surfaces and two rapid

180-degree direction changes. The grease slides down to the grease trough and then to the collection container.

### STANDARDS

The National EVALUATION SERVICES Committee of the Council of American Building Officials, a co-operative consisting of a consolidation of these former organizations: Building Officials and Code Administrators International, Inc.; International Conference of Building Officials; and Southern Building Code Congress International, Inc.; and which now provides uniform standards for the entire United States, recognizes Flame Gard® when installed with the manufacturer's recommendation and the following table:



File No. R10173  
NFPA #96

### TABLE 1 HEIGHT OF GREASE FILTERS

Type of Cooking Equipment	Height Above Cooking Surface(ft.)
Without Exposed Flame	0.5
Exposed Flame	2.0
Charcoal Burning	2.0

A complete list of governmental and industry approvals is available on request.

See National Evaluation Service report No. NER-255 for allowable values and or conditions of use concerning material presented in this document. It is subject to re-examination, revisions, and possible cancellation. NER-255, "Condition of Use" - filters to be used in a kitchen exhaust system that is protected with an automatic fire suppressions system.

UNDERWRITERS' LABORATORIES, INC., Flame Gard® Grease filters are classified by Underwriters' Laboratories, Inc., as to flammability after exposure to grease-laden air only. Guide AKUS, File #R10173, see Underwriters' Laboratories Classified Building Materials Index.

UNDERWRITERS' LABORATORIES OF CANADA Guide No. 440E13; File No. CR1157.

Accepted for use, CITY OF NEW YORK DEPARTMENT OF BUILDINGS NO. MEA481-7.1-SM.

Meets the requirements of NATIONAL FIRE PROTECTION ASSOCIATION, Standard No. 96.

### SIZES/INSTALLATION

Flame Gard® should always be installed with the baffles in a vertical position, in order to allow the grease particles to be drawn into the collection system by gravity.

Standard sizes are ordered with the vertical (top to bottom) dimension stated first, and the horizontal (left to right) dimension second. For information on sizes not listed, contact the factory, your representative, or your food-service equipment dealer.