



Better Air is Our Business®

# AmericanAirFilter® VariCel® HT (High Temperature)

*Extended Surface Supported Pleat Filters, Designed for Automotive Paint Drying Oven Filtration Systems*



## Applications

VariCel HT (High Temperature) filters are designed for continuous operation at temperatures from 350°F to 900°F. They are widely used in automotive paint drying ovens to filter recirculated air.

## Operating Temperatures

- HT-500 – For operation up to 500°F
- HT-725 – For operation up to 725°F (Can be operated at 750°F)
- HT-900 – For operation up to 900°F

Performance is based on testing after exposure to the rated temperature for eight hours. The filters continued to meet rated efficiency under these grueling test conditions.

The additional media area contained in the HT-725 and HT-900 filters results in increased dust holding capacity for longer service life.

## Special High Temperature Construction

All steel components of VariCel HT filters, including the cell sides, header, faceguards, and retaining straps, are aluminized. Aluminized steel resists spalling or flaking of the coating which sometimes occurs with galvanized steel at elevated temperatures.

### Cell Sides and Header

The header and cell sides are mechanically interlocked, not welded, to maintain the integrity of the assembly and prevent internal thermal stresses and corrosion at high temperatures.

VariCel HT contains no adhesives, sealants or glues which can break down at high temperatures, weakening the filter and causing leakage. Sealants used on some competitive filters, such as silicone, may prevent paint from adhering if any traces were to be transmitted into the paint booth.

### Faceguards

Expanded aluminized steel faceguards are installed on both sides of the filter to retain the media pack at elevated temperatures.



### Retaining Straps

To secure the faceguards and increase overall rigidity, VariCel HT has retaining straps installed on both sides of the filter. A horizontal bar is fastened across the air entering side; two bars crossed at right angles are fastened to the air leaving side.

### Fiberglass Media

VariCel media is made from ultra-fine fiberglass formed into microglass paper with a water resistant binder. The media is pleated to provide a high ratio of media area to face area for maximum efficiency and dust holding capacity with minimum resistance. VariCel media is non-flammable.

### Aluminum Separators

Corrugated aluminum separators maintain uniform spacing between pleats to allow free flow of air into and through the filter. The separators also add rigidity to the filter construction. VariCel HT filters should be installed with the separators aligned vertically.

### Gaskets

The filters can be supplied with special high temperature fiberglass gaskets on the header.

## Other AAF Products for High Temperature Applications

### Pleated Panel Filters

AmAir® HT pleated filters are designed for continuous operation up to 500°F. The AmAir HT contains ultra-fine fiberglass media and  $MERV\ 7$  (30-35%) efficiency per ASHRAE Test Standard 52.1. The steel frame is aluminized.

Brochure AFP-1-165

### High Temperature Panel Filters

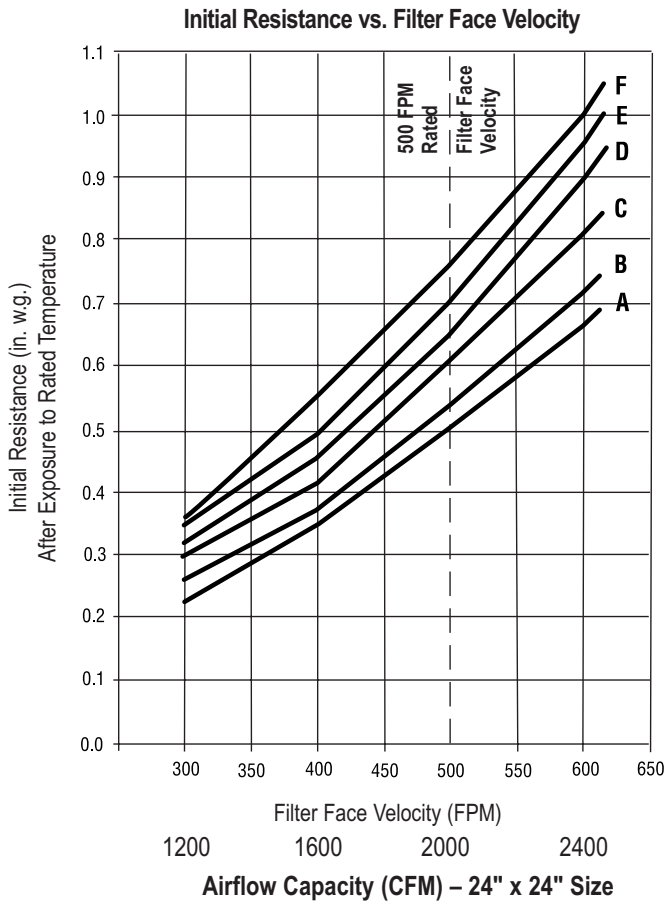
AAF manufactures special filters for installation in Delbag Universal Air Filter Housings. These filters are designed for continuous operation up to 600°F, and contain continuous filament fiberglass media encased in expanded aluminum retainers.

Brochure AFP-1-270

# AmericanAirFilter®

## VariCel® HT (High Temperature)

### Operating Data



### Operating Temperature Limits (Continuous)

HT-500: 500°F (260°C)

HT-725: 725°F (385°C) (Can be operated up to 750°F)

HT-900: 900°F (482°C)

### MERV 11 (60-65%) Efficiency

A – HT-500

B – HT-725

C – HT-900

### MERV 14 (90-95%) Efficiency

D – HT-500

E – HT-725

F – HT-900

### Product Information (Standard Sizes)

<sup>(2)</sup> Rated Filter Face Velocity (FPM)	<sup>(1)</sup> Nominal Size (Inches) (W x H x D)	<sup>(1)</sup> Actual Size (Inches) (W x H x D)	<sup>(2)</sup> Rated Airflow Capacity (CFM)	<sup>(2)</sup> Rated Initial Resistance (In. w.g.)		<sup>(3)</sup> Recommended Final Resistance (In. w.g.)	Gross Media Area (Sq. Ft.)		Filters Per Carton	Shipping Weight (Lbs. per carton)	
				MERV 14	MERV 11		MERV 14	MERV 11		MERV 14	MERV 11
<b>HT-500</b>											
500	24 x 24 x 12	23 <sup>3</sup> / <sub>16</sub> x 23 <sup>3</sup> / <sub>16</sub> x 11 <sup>1</sup> / <sub>2</sub>	2000	.65	.50	1.2	125	105	1	19.0	14.0
500	12 x 24 x 12	11 <sup>3</sup> / <sub>16</sub> x 23 <sup>3</sup> / <sub>16</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	.65	.50	1.2	57	47	1	11.5	11.0
<b>HT-725</b>											
500	24 x 24 x 12	23 <sup>3</sup> / <sub>16</sub> x 23 <sup>3</sup> / <sub>16</sub> x 11 <sup>1</sup> / <sub>2</sub>	2000	.70	.55	1.2	140	140	1	20.0	20.0
500	12 x 24 x 12	11 <sup>3</sup> / <sub>16</sub> x 23 <sup>3</sup> / <sub>16</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	.70	.55	1.2	62	62	1	12.0	12.0
<b>HT-900</b>											
500	24 x 24 x 12	23 <sup>3</sup> / <sub>16</sub> x 23 <sup>3</sup> / <sub>16</sub> x 11 <sup>1</sup> / <sub>2</sub>	2000	.75	.60	1.2	175	175	1	21.3	21.3
500	12 x 24 x 12	11 <sup>3</sup> / <sub>16</sub> x 23 <sup>3</sup> / <sub>16</sub> x 11 <sup>1</sup> / <sub>2</sub>	1000	.75	.60	1.2	79	79	1	13.1	13.1

(1) VariCel HT filters should be installed with the separators vertical. For maximum dust holding capacity, the filters must be installed with the airflow in the direction indicated on the filter.

(2) All performance data is based on the ASHRAE 52.2 and 52.1 test methods. Performance tolerances conform to Section 7.4 of the ARI Standard 850.93.

(3) VariCel HT filters should not be operated beyond the recommended final resistance of 1.2" w.g.

### Underwriters Laboratories Classification

All VariCels are classified UL Class 1. Testing was performed according to UL Standard 900.



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ISO-9001 Certified Firm

AAF has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

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