



## High Efficiency Particulate Air Filter

### -Deep Pleat Type

Testing Method	Particle Size	Efficiency (%)
	0.1-0.2um	99.999% above
0.3um		95%
		99.97%
		99.99%
		99.999%
By European Standard EN1822		
*High Temperature Resistant Filter can be option for special use.		

The term of “HEPA” filter is defined as the filter to provide a minimum of 95% overall efficiency on thermally generated mono-disperse 0.3 micrometer particles.

AIRREX manufactures a complete line of HEPA filter and consists of efficiencies: 95%, 99.97%, 99.99%, 99.999% (EU12 - EU14). The filter provides Standard (STD series) and High (HI series) capacity series.

The STD Series HEPA Filter is generally operated at velocities 275 FPM (for depth 11-1/2 inches), 175FPM (for depth 5-7/8 inches); and the HI Series is operated at velocities up to 500FPM (for depth 11-1/2 inches).

STD Series HEPA Filter is rated for a max. 220 ° F temperature use. Temperature up to 750 ° F can be also available by using optional sealant, gasket and frame.

HI Series HEPA Filter is designed to handle higher air flow. Compare to STD Series, HI Series has more pleats and more filtration area. It handles higher air flow with the same resistance. The lower resistance can provide filter longer life span and reduce energy cost.

Each filter is individually tested with thermally generated DOP aerosol. The filter is certified to have a minimum guaranteed efficiency and the results of DOP test are indicated right on the label. This has been the industry standard test method for many years. It is conducted in accordance with EN-1822 using an Auto Scan System to test HEPA efficiency. By measuring the upstream and downstream concentration of these particles, the filter efficiency can be calculated. TDA-33 Leakage Test Equipment can scan to detect the pinhole leaks of HEPA by using liquid aerosol.

**Features:**

HEPA media is made of ultra fine glass fiber formed into a 0.038mm thick mat and is pleated to allow a larger surface area to be incorporated within the housing. The media is water-resistant and can withstand temperature up to 500 ° C. Deep Pleat Type Air Filter is spaced by corrugated aluminum separators, each separator has at least 0.038mm (0.0015”) thickness. The aluminum should conform to alloy type 5052-H39, 3003-H19, or 1145-H19, of QQ-A-250/11 or ASTM-B209.

**Corrugated Aluminum Separator:**

Corrugated aluminum separators maintain uniform spacing between each pleat to allow free flow of air through the filter to ensure all media to have more effective use and increase the strength of filter pack.

Both edges of aluminum separators are rolled to prevent media tearing and provide maximum integrity. Rolled edges can decrease the possibility of worker’s hands to be injured during installation.

**Efficiency:**

All HEPA filter efficiency is tested in accordance with US MIL-STD-282 (EU Standard) and EN1822. The series provide guarantee efficiency from 95%, 99.97%, 99.99% to 99.999% (EU12-EU14) or H10-H14 (per EN-1822 standard in MPPS Test) on 0.3 micrometer size particles HEPA filter; and 99.999% to 99.999999% or U15-U16 (per EN-1822 standard in MPPS Test) ULPA filter.

**Media:**

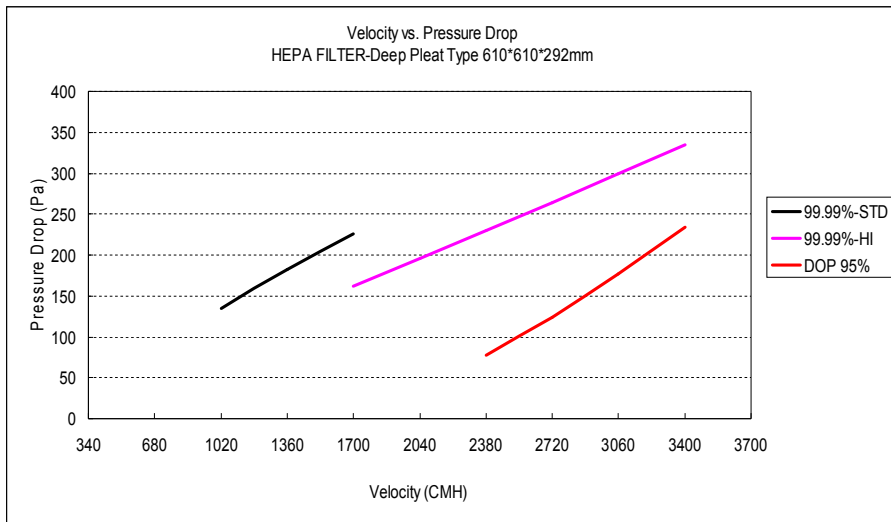
The ultra-fine glass fiber HEPA media is formed with high density papers. The media is water-resistant and can withstand temperature up to 500°C. Deep Pleat Type can provide more filtration area. Although the filter media is designed to withstand 100% humidity, it is not designed to operate in vapor environment. When the filter exposures to such condition for too long, the filter media will absorb and retain moisture, and thus the filter will be saturated and blocked. As time goes by, filter will fail due to excessive blockage. The function of the filter can be restored by blowing dry air through the filter.

**Sealant**

Each media pack is sealed with a special adhesive to ensure the filter media leakage free.

**Frame:**

The frame is available for Wooden Frame (High Particle Board Frame) and Metal Frame (Galvanized Steel, Stainless Steel or Aluminum) in Box Type, Double Turn Type or Single Header. Metal faceguard installed on both sides of the filter is available.



## High Efficiency Filter Performance Data - Deep Pleat Type HEPA Filter

Efficiency (%)	Nominal Size (W*H*D) (inch)	Actual Size (W*H*D) (mm)	Rated Capacity (CMH)	Pressure Drop (Pa)	
				Initial Resistance	Final Resistance
<b>Standard Capacity</b>					
95	12*24*6	305*610*150	850	150	374
	24*24*6	610*610*150	1700		
	12*24*12	305*610*292	1700	237	500
	24*24*12	610*610*292	3400		
99.97 99.99	12*24*6	305*610*150	600	250	500
	24*24*6	610*610*150	1200		
	24*48*6	610*1220*150	2380		
	12*24*12	305*610*292	950		
	24*24*12	610*610*292	1900		
<b>High Capacity</b>					
99.97 99.99	12*24*12	305*610*292	1700	336	500
	24*24*12	610*610*292	3400		

## Material and Service Conditions

Type		Description	
Construction	Media	Ultra-Fine Glass Fiber	
	Support Grid	Corrugated Aluminum Separators	
	Sealant	PU BASE	
	Gasket Material	Neoprene Rubber	
	Frame Material	Wooden Frame	Metal Frame
	Frame Type	Box Type	Single Header or Double Turn Type
Service Conditions	The maximum continuous use temperature	°C	60
	Instant Highest Humidity	% RH	100 ( No condensation state)



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