高效率滤网 High Efficiency Air Filter

高效率滤网 - 隔板型 (AR301)

滤材为疏水性超细玻璃纤维，连续性折滤材以波浪状铝为隔板。效率依MIL-STD-282 0.3μm 99.97%，99.99%及99.999%（或依EN1822 MPPS H10 – H14）高效率过滤网。供应标准风量（STD）及高风量（HI）两种系列。外框材质可选用木框、金属框之箱型或法兰型。依特殊使用性质，可选用耐高温型滤网。

High Efficiency Particulate Air Filter – Deep Pleat Type (Cat. #AR 301)

HEPA media is made from ultra fine glass formed into a high density paper. The media is water-resistant and can withstand temperature up to 500°C. Corrugated aluminum separators maintain uniform spacing between each pleat to allow free air flow easily through the filter to ensure all media to have more effective use and increase the strength of filter pack.

All HEPA filter efficiency is tested in accordance with US MIL-STD-282 (EU Standard) and EN1822. On 0.3μm particles, there are consisted 3 efficiencies: 99.97%, 99.99% and 99.999% (EU12-EU14) or H10-H14 (per EN-1822 standard in MPPS Test).

The filter provides Standard (STD series) and High (HI series) capacity series.

The frame is available for Wooden Frame (High Particle Board Frame) and Metal Frame (Galvanized Steel, Stainless Steel or Aluminum) in box type or header type. Deep pleat type HEPA can specially designed in high temperature type.

高效率滤网 –隔板型

High Efficiency Particulate Air Filter – Deep Pleat Type

	粒径 Particle Size	效率 Efficiency (%)
测试方法 Testing Method	0.1-0.2um	99.999% above
	0.3um	95% 99.97% 99.99% 99.999%
	依欧规EN1822标准 By European Standard EN1822	
*依特殊使用性质，可制成耐高温滤网 *High Temperature Resistant Filter can be option for special use.		

- 特色：隔板型滤网以至少0.038mm厚度波折状区隔，波折状铝隔板维持每一折滤纸之等距间隔，气流易于穿过，确保滤材有效利用及增加强度。铝隔板双折边防止插破滤纸，提供最大的安全性。另有高风量系列之滤网，因多折数有较大的过滤面积，于相同压损下可处理较大的风量。
- 效率：依欧规EN1822标准测试，即测试滤网之上风处与下风处粒子浓度，HEPA级效率从95~99.999%通过0.3um。
- 滤材：滤材由超细高密度之玻璃纤维所制成，此滤材耐水且耐温至摄氏500度，连续性折以提供高比率之滤材面积，滤网滤材均被特殊密封剂密封，确保滤材四周气密。
- 外框： 框材可选用木框、镀锌铁框、铝框或不锈钢框。可选择箱型、单法兰和双法兰。滤网两侧可提供加装金属护网。

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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?. 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.

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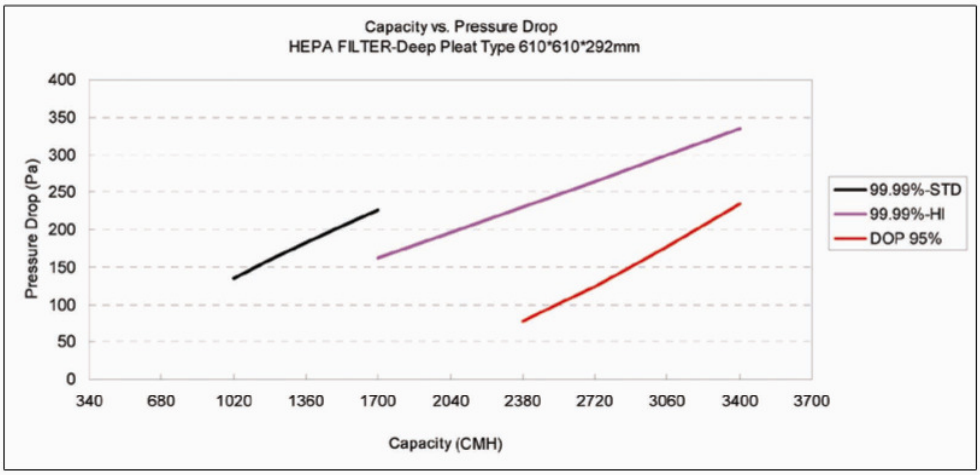
风量关系曲线图



材质和使用条件 Material and Service Conditions

型式 Type			说明 Description	
总成 Construction	滤材 Media		超细玻璃纤维滤纸 Ultra-Fine Glass Fiber	
	支撑材 Support Grid		波浪隔板 Corrugated Aluminum Separator	
	密封胶 Sealant		PU BASE	
	垫片材质 Gasket Material		新平橡胶 Neoprene Rubber	
	外框材质 Frame Material		木框 Wooden Frame	金属框 Metal Frame
	外框型式 Frame Type		箱型 Box Type	单法兰 Single Header
使用条件 Service Conditions	连续使用最高温度 The maximum continuous use temperature	℃	60	
	使用瞬间最高湿度 Instant Highest Humidity	% RH	100（无结露状态下） 100 (No condensation state)	

高效率滤网性能表 High Efficiency Filter Performance Data

效率 Efficiency (%)	通称尺寸 Nominal Size (W*H*D) (inch)	实际尺寸 Actual Size (W*H*D) (mm)	额定风量 Rated Capacity (CMH)	压力损失 Pressure Drop (Pa)	
				初压损 Initial Resistance	末压损 Final Resistance
标准风量 Standard Capacity					
99	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		
高风量 High Capacity					
99.97 99.99	12*24*12	305*610*292	1700	336	500
	24*24*12	610*610*292	3400		

* Special Sizes are available upon request.
※特殊规格可生产制造。