AstroCel® II

HIGH QUALITY HEPA FILTER

Features and Benefits

- Available in efficiency classes H14 - U17 (EN1822)
- Individually tested for certified performance
- Reduces operating costs with lowest possible pressure drop from microglass media
- Dry seal, gel seal and knife-edge designs available
- Available with media ribbon or hot melt separators
- Available in a range of efficiencies
- Lightweight and compact

Applications

AstroCel II filters are designed for use in cleanrooms, cleanbenches, biohazard benches and other clean work stations. These filters ensure the necessary levels of contamination control in cleanroom environments.

The filters are compact, lightweight and easy to install in open plenum, terminal and in-line housing systems and cleanbenches.

AstroCel® II Dry Seal

AstroCel II dry seal filters can be fitted with various dry gaskets to suit a wide range of applications. A single piece polyurethane foam gasket is available for maximum integrity.

AstroCel® II Gel Seal

AstroCel II gel seal filters feature an integral groove filled with polyurethane gel on the air inlet side which ensures a perfect seal in housing systems. Like all AstroCel II type filters, they are compact, lightweight and easy to install - particularly in terminal hood and fan filter modules.

AstroCel® II Knife-Edge

The AstroCel II knife-edge filters provide a perfect seal in liquid channel ceiling grid systems. Knife-edge filters are also useful for alignment with fan filter units such as the AAF AstroFan range. The filters are available in a wide range of sizes to meet various application requirements.

All AstroCel II filter executions offer many benefits:

- Factory tested to meet the most stringent legal and industry requirements.
- High efficiency safeguards processes, products and workers.
- Functional reliability: leak or scan tested.

Efficiency

Efficiency Class (EN1822)	Integral Efficiency Value at MPPS
H13	99.95%
H14	99.995%
U15	99.9995%
U16	99.99995%
U17	99.999995%

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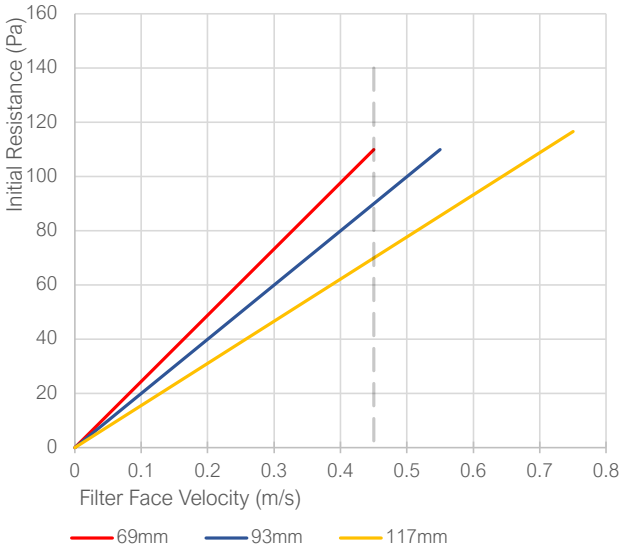
AstroCel® II - Dry Seal

Selection Table

Dry Seal	Options
Gasket	**5 mm, half round profile, one-piece gasket*** 6 mm, flat profile neoprene, jointed gasket.
Gasket Location	**One side** Both sides No gasket
Faceguard	**Galvanised steel with epoxy coating** Stainless steel AISI 304 Stainless steel AISI 316
Faceguard Location	No faceguard Faceguard on air leaving side **Faceguard on both sides**
Tested Efficiency	H13 min, 99.95% @ MPPS acc. to EN1822 **H14 min, 99.995% @ MPPS acc. to EN1822** U15 min, 99.9995% @ MPPS acc. to EN1822 U16 min, 99.99995% @ MPPS acc. to EN1822 U17 min, 99.999995% @ MPPS acc. to EN1822

** Bold typeface: standard execution*

Resistance vs Face Velocity (H14 Efficiency)



Data shows performance of standard filter execution.

Efficiency Class (EN1822)	Resistance at 0.45 m/s (Pa)**		
	69 mm	93 mm	117 mm
H14	110	90	70
U15	145	105	80
U16	165	125	90
U17	-	130	110

***Resistance tolerance ±15%*

Standard Sizes and Ratings

Size in mm without gasket			Nominal airflow (0.45 m/s)	
H	W	D	m^3/h	m^3/s
203	203	69	70	0.02
305	305	69	150	0.04
305	610	69	300	0.08
305	762	69	380	0.11
305	915	69	450	0.13
457	457	69	340	0.09
457	610	69	450	0.13
610	610	69	600	0.16
610	762	69	750	0.21
610	915	69	900	0.25
610	1220	69	1200	0.33
610	1524	69	1500	0.42
610	1830	69	1800	0.50
762	762	69	940	0.26
762	915	69	1130	0.31
762	1220	69	1500	0.42
762	1524	69	1880	0.52
762	1830	69	2260	0.63
915	915	69	1360	0.38
915	1220	69	1800	0.50
915	1524	69	2260	0.63
915	1830	69	2710	0.75
1220	1220	69	2400	0.67
305	305	93	150	0.04
305	610	93	300	0.08
610	610	93	600	0.16
610	762	93	750	0.21
610	915	93	900	0.25
610	1220	93	1200	0.33
762	762	93	940	0.26
305	305	117	150	0.04
457	457	117	340	0.09
610	610	117	600	0.16
610	762	117	750	0.21
610	915	117	900	0.25
610	1220	117	1200	0.33

Recommended final resistance 500 Pa.
Temperature limit: 70 °C

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AstroCel® II - Knife-Edge

Selection Table

Kinfe Edge	Options
Gasket	**5 mm, half round profile, one-piece gasket*** 6 mm, flat profile neoprene, jointed gasket.
Gasket Location	**One side** Both sides No gasket
Faceguard	**Galvanised steel with epoxy coating** Stainless steel AISI 304 Stainless steel AISI 316
Faceguard Location	No faceguard Faceguard on air leaving side **Faceguard on both sides**
Tested Efficiency	H13 min, 99.95% @ MPPS acc. to EN1822 **H14 min, 99.995% @ MPPS acc. to EN1822** U15 min, 99.9995% @ MPPS acc. to EN1822 U16 min, 99.99995% @ MPPS acc. to EN1822 U17 min, 99.999995% @ MPPS acc. to EN1822

** Bold typeface: standard execution*

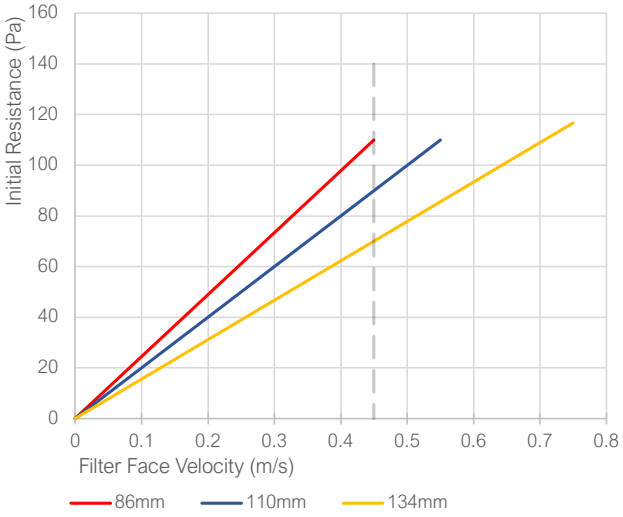
Standard Sizes and Ratings

Size in mm without gasket			Nominal airflow (0.45 m/s)	
H	W	D	m^3/h	m^3/s
570	570	86	525	0.15
570	870	86	805	0.22
570	1170	86	1070	0.30
1170	1170	86	2220	0.62
570	570	110	525	0.15
570	870	110	805	0.22
570	1170	110	1070	0.30
1170	1170	110	2220	0.62
570	570	134	525	0.15
570	870	134	805	0.22
570	1170	134	1070	0.30
1170	1170	134	2220	0.62

1) Other sizes and executions available on request.
2) Based on 20 mm knife-edge. Also available with other knife-edge lengths.

Recommended final resistance 500 Pa.
Temperature limit: 70 °C.

Resistance vs Face Velocity (H14 Efficiency)



Data shows performance of standard filter execution.

Efficiency Class (EN1822)	Resistance at 0.45 m/s (Pa)**		
	86 mm	110 mm	134 mm
H14	110	90	70
U15	145	105	80
U16	165	125	90
U17	-	130	110

***Resistance tolerance ±15%*

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AstroCel® II - Gel Seal

Selection Table

Gel Seal	Options
Gasket	**PU Gel***
Gasket Location	**One side**
Faceguard	**Galvanised steel with epoxy coating** Stainless steel AISI 304 Stainless steel AISI 316
Faceguard Location	No faceguard Faceguard on air leaving side **Faceguard on both sides**
Tested Efficiency	H13 min, 99.95% @ MPPS acc. to EN1822 **H14 min, 99.995% @ MPPS acc. to EN1822** U15 min, 99.9995% @ MPPS acc. to EN1822 U16 min, 99.99995% @ MPPS acc. to EN1822 U17 min, 99.999995% @ MPPS acc. to EN1822

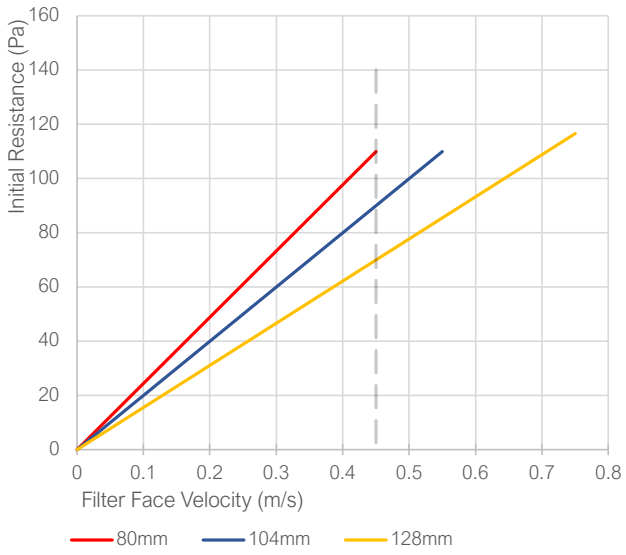
** Bold typeface: standard execution*

Standard Sizes and Ratings

Size in mm without gasket			Nominal airflow (0.45 m/s)	
H	W	D	m^3/h	m^3/s
610	610	80	525	0.16
610	915	80	805	0.25
610	1220	80	1070	0.33
1220	1220	80	2220	0.67
610	610	104	525	0.16
610	915	104	805	0.25
610	1220	104	1070	0.33
1220	1220	104	2220	0.67
610	610	128	525	0.16
610	915	128	805	0.25
610	1220	128	1070	0.33
1220	1220	128	2220	0.67

Recommended final resistance 500 Pa.
Temperature limit: 70 °C.
Other sizes available on request.

Resistance vs Face Velocity (H14 Efficiency)



Data shows performance of standard filter execution.

Efficiency Class (EN1822)	Resistance at 0.45 m/s (Pa)**		
	80 mm	104 mm	128 mm
H14	110	90	70
U15	145	105	80
U16	165	125	90
U17	-	130	110

***Resistance tolerance ±15%*

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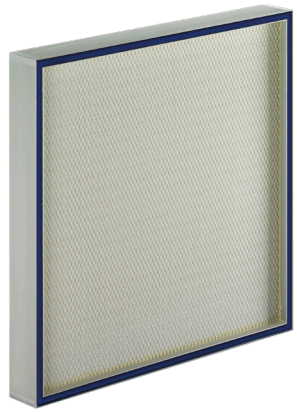
AstroCel® II

Related Products

MEGAcel® II



Features and Benefits

AAF's MEGAcel products offer class-leading energy efficiency for the cleanest environments. Designed for terminal housings, laminar downflow and clean bench applications, the MEGAcel II's membrane media provides extremely low resistance along with high mechanical strength and durability.

- **MEGAcel II** provides the energy saving benefits of traditional membrane media whilst maintaining compatibility with oil-based aerosols for filter validations.
- **MEGAcel II ME**, designed especially for the microelectronics industry, provides even greater energy savings for applications where oil-based aerosols are not used.

Upgrade to the MEGAcel product family for unrivalled low operating costs and durability.

AstroPak

Features and Benefits

The AstroPak is the high velocity HEPA panel filter. A highly versatile platform, it utilises thermoplastic separator technology to provide high performance in many applications from air handling units to terminal housings and containment systems. Available in low depth panel forms up to 292 mm box form, the AstroPak product range provides:

- Uniform airflow in efficiencies from E12 to H14.
- High performance at velocities up to 2.25 m/s

With many available options in dimensions, frames and sealing, the AstroPak product family is a versatile solution to providing clean air.

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