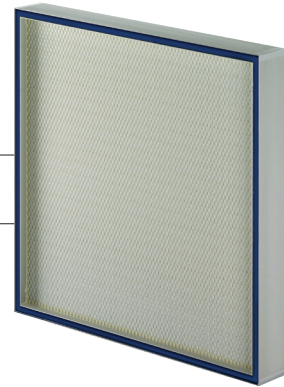


# AstroCel® II

## HIGH QUALITY HEPA FILTER



### Features and Benefits

- Dedicated cleanroom and cleanbench filters
- Filter classes H14, U15, U16 and U17 to EN1822
- Lightweight and easy to install
- Filters for ultra clean environments

### AstroCel® II Dry Seal

AstroCel II one-piece gasket dry seal 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 Fluid Seal

AstroCel II Fluid Seal filters feature an integral groove filled with gel at 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® Knife Edge

The AstroCel II Knife-Edge filters provide a perfect seal in liquid channel ceiling grid systems. Due to their high efficiency classification, the filters are extremely effective in providing the necessary levels of contamination control in cleanrooms. The filters are available in a wide range of knife-edge 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.

# AstroCel® II Filter - Dry Seal

## Selection Table

| Item | Component          | Component Code Definition   |
|------|--------------------|---|
| A    | Media**            | <b>A= Waterproof glass fibre</b><br>E= Waterproof glass fibre<br>M = Waterproof glass fibre   |
| B    | Cell Sides         | <b>99 = Anodized aluminium extrusion, standard profile</b>  |
| C    | Separators         | <b>C = Thermoplastic</b>  |
| D    | Bond               | <b>9 = Cold cured resin</b>   |
| E    | Gasket             | P = No gasket<br><b>S = 5 mm, half round profile, one-piece foamed</b><br>T = 6 mm, flat profile  |
| F    | Gasket Location    | 0 = No gasket<br><b>2 = One face</b><br>3 = Both faces  |
| G    | Acceptance Level   | <b>R = H14 Min. 99.995%, @ MPPS acc. to EN1822</b><br>M = U15 Min. 99.9995%, @ MPPS acc. to EN1822<br>N = H16 Min. 99.99995%, @ MPPS acc. to EN1822<br>T = H17 Min. 99.999995%, @ MPPS acc. to EN1822   |
| H    | Faceguard Location | 0 = No faceguard, maximum size 610 x 1220 mm and/or 762 x 915 mm<br>1 = Non-gasket side only, media pack non-gasket side<br>2 = Gasket side only, media pack gasket side<br><b>3 = Both sides, media pack gasket side</b><br>4 = Both sides, media pack non-gasket side |
| I    | Options            | Consult local sales office  |

\* Bold typeface: standard execution.

\*\* To be determined by AAF engineering.

## How to Order

Below is a typical example of how to order a standard AstroCel II Dry Seal filter using the Component Code Definition System.

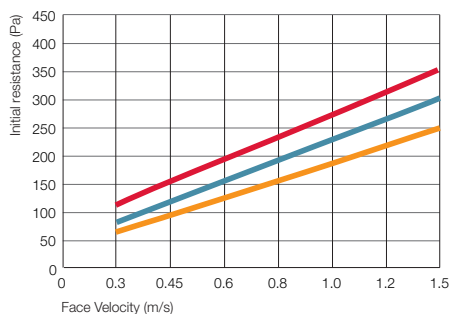
| Item      | A | B  | C | D | E | F | G | H | I |
|-----------|---|----|---|---|---|---|---|---|---|
| Component | A | 99 | C | 9 | S | 2 | R | 3 | - |

## Standard Sizes and Ratings

| Size in mm without gasket |      |     | Nominal airflow (0,45 m/s) |      |
|---------------------------|------|-----|----------------------------|------|
| H                         | W    | D   | m³/h                       | m³/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

## Resistance vs Face Velocity



U16, U15, H14 - 72 mm media pack

## Initial resistance (Pa) at nominal airflow

| Depth (mm) | Class |     |     |     |
|------------|-------|-----|-----|-----|
|            | H14   | U15 | U16 | U17 |
| 69         | 125   | 145 | 165 | -   |
| 93         | 90    | 105 | 125 | -   |
| 117        | 75    | 80  | 90  | 110 |

## Efficiency

| Efficiency | Efficiency EN1822 |            |
|------------|-------------------|------------|
|            | @ 0,3 µm          | @ MPPS     |
|            | H14               | 99,995%    |
|            | @ 0,3 µm          | @ MPPS     |
|            | U15               | 99,9995%   |
|            | U16               | 99,99995%  |
|            | U17               | 99,999995% |

# AstroCel® II Filter - Fluid Seal

## Selection Table

| Item | Component          | Component Code Definition   |
|------|--------------------|---|
| A    | Media**            | <b>A= Waterproof glass fibre</b><br>E= Waterproof glass fibre<br>M = Waterproof glass fibre   |
| B    | Cell Sides         | <b>96 = Anodized aluminium extrusion with fluid seal</b>  |
| C    | Separators         | <b>C = Thermoplastic</b>  |
| D    | Bond               | <b>9 = Cold cured resin</b>   |
| E    | Gasket             | <b>B = Fluid seal trough</b>  |
| F    | Gasket Location    | <b>2 = One face</b>   |
| G    | Acceptance Level   | <b>R = H14 Min. 99,995%, @ MPPS acc. to EN1822</b><br>M = U15 Min. 99,9995%, @ MPPS acc. to EN1822<br>N = U16 Min. 99,99995%, @ MPPS acc. to EN1822<br>T = U17 Min. 99,999995%, @ MPPS acc. to EN1822 |
| H    | Faceguard Location | 0 = No faceguard, maximum size 610 x 1220 mm and/or 762 x 915 mm<br>1 = Non-gasket side only, media pack non-gasket side<br><b>3 = Both sides</b>   |
| I    | Options            | Consult local sales office  |

\* Bold typeface: standard execution.

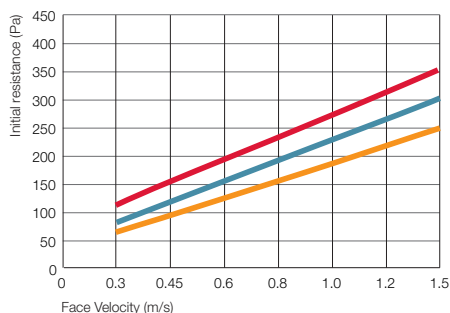
\*\* To be determined by AAF engineering.

## How to Order

Below is a typical example of how to order a standard AstroCel II Fluid Seal filter using the Component Code Definition System.

| Item      | A | B  | C | D | E | F | G | H | I |
|-----------|---|----|---|---|---|---|---|---|---|
| Component | A | 96 | C | 9 | B | 2 | R | 3 | - |

## Resistance vs Face Velocity



U16, U15, H14 - 72 mm media pack

## Initial resistance (Pa) at nominal airflow

| Depth (mm) | Class |     |     |     |
|------------|-------|-----|-----|-----|
|            | H14   | U15 | U16 | U17 |
| 80         | 125   | 145 | 165 | -   |
| 104        | 90    | 105 | 125 | -   |
| 128        | 75    | 80  | 90  | 110 |

## Standard Sizes and Ratings

| Size in mm without gasket |      |     | Nominal airflow (0,45 m/s) |      |
|---------------------------|------|-----|----------------------------|------|
| H                         | W    | D   | m³/h                       | m³/s |
| 610                       | 610  | 80  | 600                        | 0,16 |
| 610                       | 915  | 80  | 900                        | 0,25 |
| 610                       | 1220 | 80  | 1200                       | 0,33 |
| 1220                      | 1220 | 80  | 2400                       | 0,67 |
| 610                       | 610  | 104 | 600                        | 0,16 |
| 610                       | 915  | 104 | 900                        | 0,25 |
| 610                       | 1220 | 104 | 1200                       | 0,33 |
| 1220                      | 1220 | 104 | 2400                       | 0,67 |
| 610                       | 610  | 128 | 600                        | 0,16 |
| 610                       | 915  | 128 | 900                        | 0,25 |
| 610                       | 1220 | 128 | 1200                       | 0,33 |
| 1220                      | 1220 | 128 | 2400                       | 0,67 |

Recommended final resistance 500 Pa.

Temperature limit: 70 °C.

Other sizes available on request.

## Efficiency

| Efficiency | Efficiency EN1822 |            |
|------------|-------------------|------------|
|            | @ MPPS            |            |
| @ 0,3 µm   | H14               | 99,995%    |
| @ 0,3 µm   | @ MPPS            |            |
|            | U15               | 99,9995%   |
|            | U16               | 99,99995%  |
|            | U17               | 99,999995% |

# AstroCel® II Filter - Knife Edge

## Selection Table

| Item | Component          | Component Code Definition   |
|------|--------------------|---|
| A    | Media**            | <b>A = Waterproof glass fibre</b><br>E = Waterproof glass fibre<br>M = Waterproof glass fibre   |
| B    | Cell Sides         | <b>98 = Anodized aluminium extrusion with fluid seal</b>  |
| C    | Separators         | <b>C = Thermoplastic</b>  |
| D    | Bond               | <b>9 = Cold cured resin</b>   |
| E    | Gasket             | <b>L = Knife-edge for liquid seal grid system</b>   |
| F    | Gasket Location    | 0 = No gasket<br><b>2 = One face</b>  |
| G    | Acceptance Level   | <b>R = H14 Min. 99,995%, @ MPPS acc. to EN1822</b><br>M = U15 Min. 99,9995%, @ MPPS acc. to EN1822<br>N = U16 Min. 99,99995%, @ MPPS acc. to EN1822<br>T = U17 Min. 99,999995%, @ MPPS acc. to EN1822 |
| H    | Faceguard Location | 0 = No faceguard, maximum size 610 x 1220 mm and/or 762 x 915 mm<br>2 = Gasket side only, media pack knife-edge side<br><b>3 = Both sides</b>   |
| I    | Options            | Consult local sales office  |

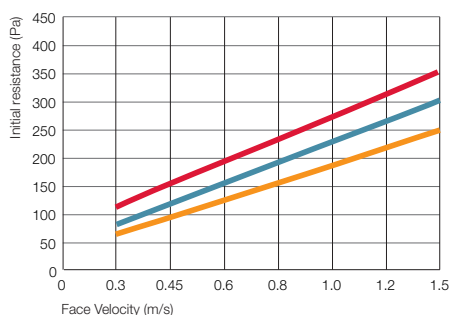
\* Bold typeface: standard execution.  
\*\* To be determined by AAF engineering.

## How to Order

Below is a typical example of how to order a standard AstroCel II Fluid Seal filter using the Component Code Definition System.

| Item      | A | B  | C | D | E | F | G | H | I |
|-----------|---|----|---|---|---|---|---|---|---|
| Component | A | 98 | C | 9 | L | 2 | R | 3 | - |

## Resistance vs Face Velocity



U16, U15, H14 - 72 mm media pack

## Initial resistance (Pa) at nominal airflow

| Depth (mm) | Class |     |     |     |
|------------|-------|-----|-----|-----|
|            | H14   | U15 | U16 | U17 |
| 86         | 125   | 145 | 165 | -   |
| 110        | 90    | 105 | 125 | -   |
| 134        | 75    | 80  | 90  | 110 |

## Standard Sizes and Ratings

| Size in mm without gasket |      |                 | Nominal airflow (0,45 m/s) |                   |
|---------------------------|------|-----------------|----------------------------|-------------------|
| H                         | W    | D <sup>2)</sup> | m <sup>3</sup> /h          | m <sup>3</sup> /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.

## Efficiency

| Efficiency | Efficiency EN1822 |            |
|------------|-------------------|------------|
|            | @ MPPS            |            |
| @ 0,3 µm   | H14               | 99,995%    |
| @ 0,3 µm   | @ MPPS            |            |
|            | U15               | 99,9995%   |
|            | U16               | 99,99995%  |
|            | U17               | 99,999995% |

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