

# EFFICIENT AIR FILTRATION IN CLEANROOMS – HEPA FILTERS WITH ALUMINUM FRAME

## FILTER CLASS H 13, FROM PLEAT DEPTH 125 MM

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H13	ISO 35 H	150	125	305 × 610 457 × 457	6
H13	ISO 35 H	292	175	593 × 593* 610 × 610	6



### The application

Viledon® HEPA filters of filter class H 13 are used in intake, exhaust and recirculating air filtration in air-conditioning systems with high and ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning applications (operating theatres/intensive care units of hospitals, labs, cleanrooms, etc.)
- in sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food/beverages, micro-electronics, etc.)

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed ensures flow-friendly geometry and



equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation.

- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting, thanks to high twist strength and a continuous, homogeneously foamed-on polyurethane gasket.
- Each filter element is tested for leak-

proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

- Viledon® HEPA filters feature protection grids on both sides made of powdercoated expanded metal.

\* Only available in frame depth 292 mm

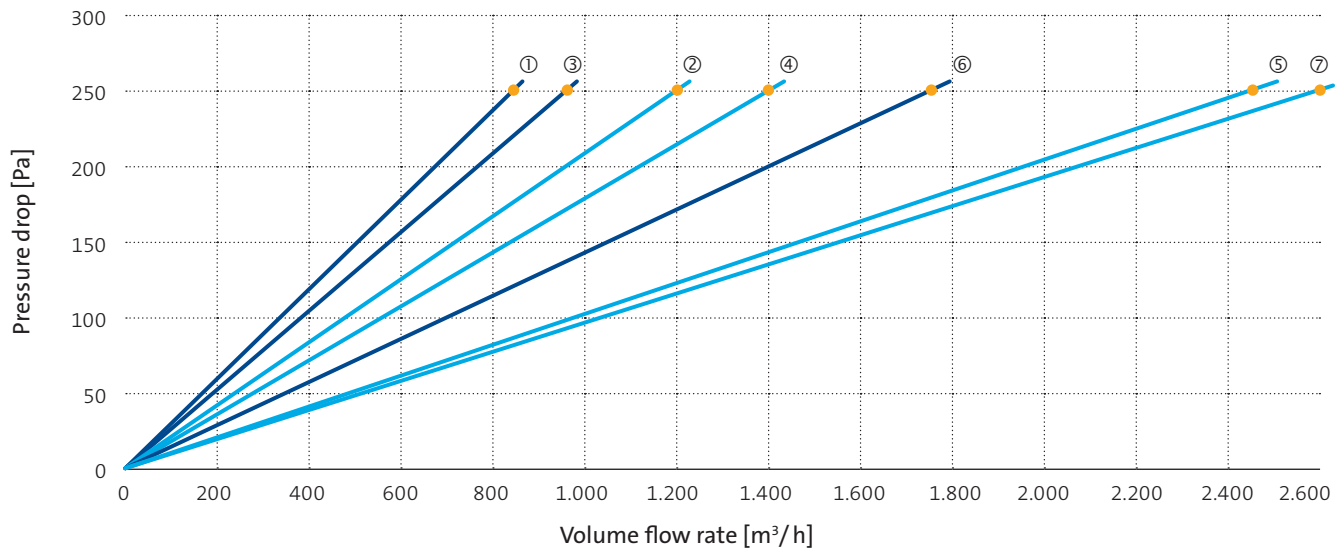
\*\* Most Penetrating Particle Size

\*\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610 × 610	593 × 593	457 × 457	305 × 610
Frame depth	mm	150   292	292	150   292	150   292
Pleat depth	mm	125   175	175	125   175	125   175
Nominal volume flow rate ●	m³/h	1,750   2,600	2,450	950   1,400	860   1,196
Initial pressure drop	Pa	250	250	250	250
Arrestance efficiency MPPS**	%	≥ 99.95	≥ 99.95	≥ 99.95	≥ 99.95
Recommended final pressure drop***	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



- ① 305 mm × 610 mm / Frame depth 150 mm    ③ 457 mm × 457 mm / Frame depth 150 mm    ⑤ 593 mm × 593 mm / Frame depth 292 mm  
 ② 305 mm × 610 mm / Frame depth 292 mm    ④ 457 mm × 457 mm / Frame depth 292 mm    ⑥ 610 mm × 610 mm / Frame depth 150 mm  
 ⑦ 610 mm × 610 mm / Frame depth 292 mm

— Pleat depth 125 mm    — Pleat depth 175 mm    ● Nominal volume flow rate

## Item code of product line H 13 (Example)

SF 13 - A - 0610 × 0610 × 150 × 12 - N 1 3 N  
 ▼    ▼    ▼    ▼    ▼    ▼    ▼    ▼    ▼    ▼  
 ①    ②    ③    ④    ⑤    ⑥    ⑦    ⑧    ⑨    ⑩

- ① HEPA filter class H13
- ② Frame material: A = aluminum
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Pleat depth [cm]: 2-stellig  
12 = 125 mm  
17 = 175 mm
- ⑦ Type of gasket:  
N = PU semicircular profile gasket  
Z = without
- ⑧ Position of gasket:  
0 = without  
1 = one side  
3 = both sides
- ⑨ Protection grid:  
3 = both sides / powdercoated metal mesh
- ⑩ Execution:  
N = standard  
S = special version

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. Subject to technical alterations. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

# EFFICIENT AIR FILTRATION IN CLEANROOMS – HEPA FILTERS WITH ALUMINUM FRAME

## FILTER CLASS H 13, UP TO PLEAT DEPTH 60 MM

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H13	ISO 35 H	68	50	305 × 305	6
H13	ISO 35 H	78	60	457 × 457 610 × 610	6
H13	ISO 35 H	150	50	610 × 1,220	6



### The application

Viledon® HEPA filters of filter classes H13 are used in intake and recirculated air filtration for cleanrooms and in laminar flow boxes with ultra-stringent requirements for clean air and sterility, e.g.

- in sophisticated air-conditioning applications (operating theatres/intensive care units of hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.)
- in sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food/beverages, micro-electronics, etc.)
- in ceiling outlets and modules for flexible cleanroom systems

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.

- The **MiniPleat** technology employed ensures **flow-friendly geometry** and **equi-distance of the pleats**, with **homogeneous media velocity** coupled with a very **low pressure drop**. This means particularly **cost-efficient and dependable operation** plus a **quasi-laminar out-flow**.
- The **frame** consists of **extruded, anodized aluminum** and is extremely **solid and moisture-resistant**.
- Viledon® HEPA filters are **microbiologically inactive** and **meet all hygiene requirements** of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- **Easy handling and mounting**, thanks to **high twist strength** and a contin-

uous, homogeneously foamed-on polyurethane gasket.

- Each filter element is tested using state-of-the-art scanning equipment for **arrestance efficiency** and **leak-proofing** in accordance with EN 1822, and delivered together with the corresponding test certificate.
- Viledon® HEPA filters feature **protection grids on both sides** made of powdercoated expanded metal.

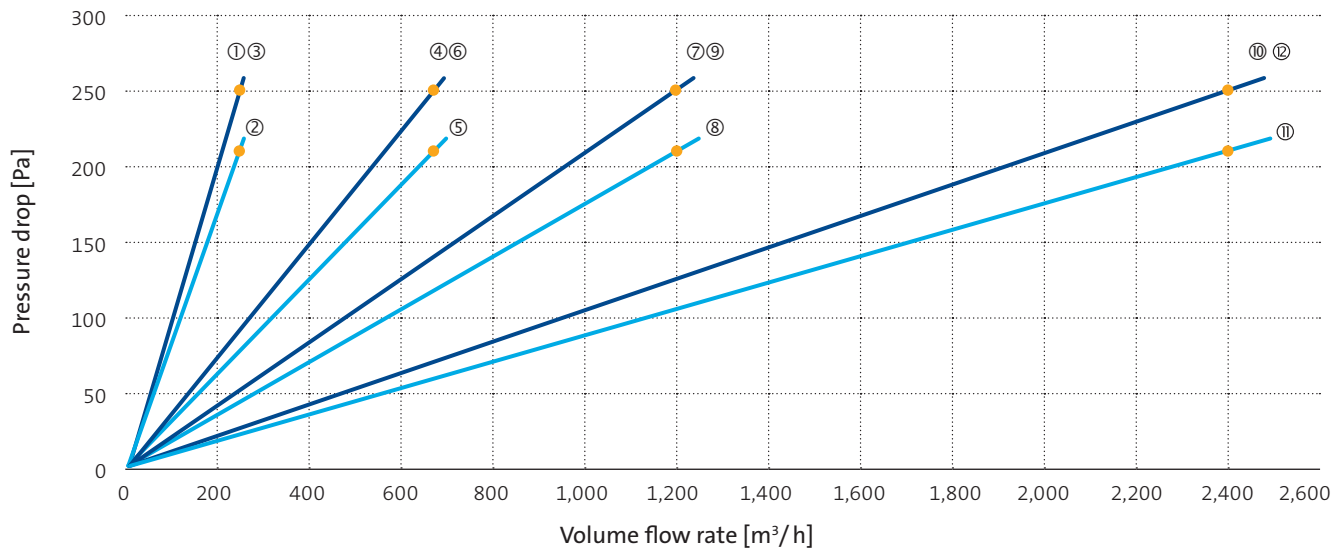
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610 × 1,220	610 × 610	457 × 457	305 × 305
Frame depth	mm	68   78   150	68   78   150	68   78   150	68   78   150
Pleat depth	mm	50   60   50	50   60   50	50   60   50	50   60   50
Nominal volume flow rate ●	m³/h	2,400	1,200	670	250
Initial pressure drop	Pa	250   210   250	250   210   250	250   210   250	250   210   250
Arrestance efficiency MPPS*	%	≥ 99.95	≥ 99.95	≥ 99.95	≥ 99.95
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



- |  |  |  |
|--|--|--|
| ① 305 mm × 305 mm / Frame depth 68 mm  | ⑤ 457 mm × 457 mm / Frame depth 78 mm  | ⑨ 610 mm × 610 mm / Frame depth 150 mm   |
| ② 305 mm × 305 mm / Frame depth 78 mm  | ⑥ 457 mm × 457 mm / Frame depth 150 mm | ⑩ 610 mm × 1,220 mm / Frame depth 68 mm  |
| ③ 305 mm × 305 mm / Frame depth 150 mm | ⑦ 610 mm × 610 mm / Frame depth 68 mm  | ⑪ 610 mm × 1,220 mm / Frame depth 78 mm  |
| ④ 457 mm × 457 mm / Frame depth 68 mm  | ⑧ 610 mm × 610 mm / Frame depth 78 mm  | ⑫ 610 mm × 1,220 mm / Frame depth 150 mm |

— Pleat depth 50 mm    — Pleat depth 60 mm    ● Nominal volume flow rate

## Item code of product line H 13 (Example)

SF13 - A - 0610 × 0610 × 068 × 05 - N 1 3 N

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①      ②      ③      ④      ⑤      ⑥      ⑦      ⑧      ⑨      ⑩

- |  |  |  |
|--|--|--|
| ① HEPA filter class H13  | ⑦ Type of gasket:<br>N = PU semicircular profile gasket<br>Z = without | ⑨ Protection grid:<br>3 = both sides / powdercoated metal mesh |
| ② Frame material: A = aluminum   | ⑧ Position of gasket:<br>0 = without<br>1 = one side<br>3 = both sides | ⑩ Execution:<br>N = standard<br>S = special version            |
| ③ Frame width [mm]: 4 digits   |  |  |
| ④ Frame length [mm]: 4 digits  |  |  |
| ⑤ Frame depth [mm]: 3 digits   |  |  |
| ⑥ Pleat depth [cm]: 2 digits<br>05 = 50 mm<br>06 = 60 mm<br>07 = 70 mm |  |  |

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. Subject to technical alterations. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

# EFFICIENT AIR FILTRATION IN CLEANROOMS – HEPA FILTERS WITH ALUMINUM FRAME

## FILTER CLASS H 14, FROM PLEAT DEPTH 125 MM

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H14	ISO 45 H	150	125	305 × 610 457 × 457 593 × 593*	6
H14	ISO 45 H	292	175	610 × 610	6



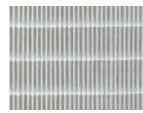
### The application

Viledon® HEPA filters of filter class H 14 are used in intake, exhaust and recirculating air filtration in air-conditioning systems with high and ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning applications (operating theatres/intensive care units of hospitals, labs, cleanrooms, etc.)
- in sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food/beverages, micro-electronics, etc.)

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed ensures flow-friendly geometry and



equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation.

- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 "Hygiene requirements for HVAC systems and units".
- Easy handling and mounting, thanks to high twist strength and a continuous, homogeneously foamed-on polyurethane gasket.
- Each filter element is tested for leak-

proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

- Viledon® HEPA filters feature protection grids on both sides made of powdercoated expanded metal.

\* Only available in frame depth 292 mm

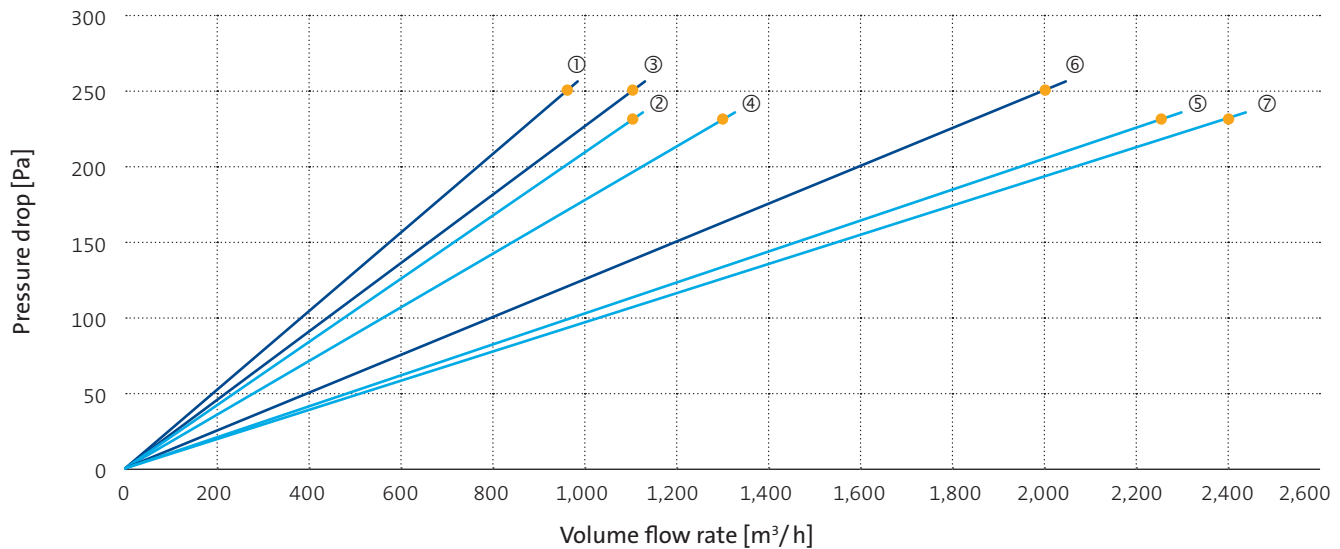
\*\* Most Penetrating Particle Size

\*\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610 × 610	593 × 593	457 × 457	305 × 610
Frame depth	mm	150   292	292	150   292	150   292
Pleat depth	mm	125   175	175	125   175	125   175
Nominal volume flow rate ●	m³/h	2,000   2,400	2,250	1,100   1,300	950   1,100
Initial pressure drop	Pa	250   230	230	250   230	250   230
Arrestance efficiency MPPS**	%	≥ 99.995	≥ 99.995	≥ 99.995	≥ 99.995
Recommended final pressure drop***	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



- ① 305 mm x 610 mm / Frame depth 150 mm      ③ 457 mm x 457 mm / Frame depth 150 mm      ⑤ 593 mm x 593 mm / Frame depth 292 mm
- ② 305 mm x 610 mm / Frame depth 292 mm      ④ 457 mm x 457 mm / Frame depth 292 mm      ⑥ 610 mm x 610 mm / Frame depth 150 mm
- ⑦ 610 mm x 610 mm / Frame depth 292 mm

— Pleat depth 125 mm      — Pleat depth 175 mm      ● Nominal volume flow rate

## Item code of product line H 14 (Example)

SF 14 - A - 0610 x 0610 x 150 x 12 - N 1 3 N

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①      ②      ③      ④      ⑤      ⑥      ⑦      ⑧      ⑨      ⑩

- ① HEPA filter class H 14
- ② Frame material: A = aluminum
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Pleat depth [cm]: 2 digits  
12 = 125 mm  
17 = 175 mm
- ⑦ Type of gasket:  
N = PU semicircular profile gasket  
Z = without
- ⑧ Position of gasket:  
0 = without  
1 = one side  
3 = both sides
- ⑨ Protection grid:  
3 = both sides / powdercoated metal mesh
- ⑩ Execution:  
N = standard  
S = special version

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# EFFICIENT AIR FILTRATION IN CLEANROOMS – HEPA FILTERS WITH ALUMINUM FRAME

## FILTER CLASS H 14, UP TO PLEAT DEPTH 70 MM

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H14	ISO 45 H	68	50	305 × 305	6
H14	ISO 45 H	78	60	457 × 457	6
H14	ISO 45 H	88	70	610 × 610	6
H14	ISO 45 H	150	50	610 × 1,220	6



### The application

Viledon® HEPA filters of filter classes H14 are used in intake and recirculated air filtration for cleanrooms and in laminar flow boxes with ultra-stringent requirements for clean air and sterility, e.g.

- in sophisticated air-conditioning applications (operating theatres/intensive care units of hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.)
- in sensitive and highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food/beverages, micro-electronics, etc.)
- in ceiling outlets and modules for flexible cleanroom systems

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar out-flow.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 "Hygiene requirements for HVAC systems and units".



- Easy handling and mounting, thanks to high twist strength and a continuous, homogeneously foamed-on polyurethane gasket.
- Each filter element is tested using state-of-the-art scanning equipment for arrestance efficiency and leak-proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- Viledon® HEPA filters feature protection grids on both sides made of powdercoated expanded metal.

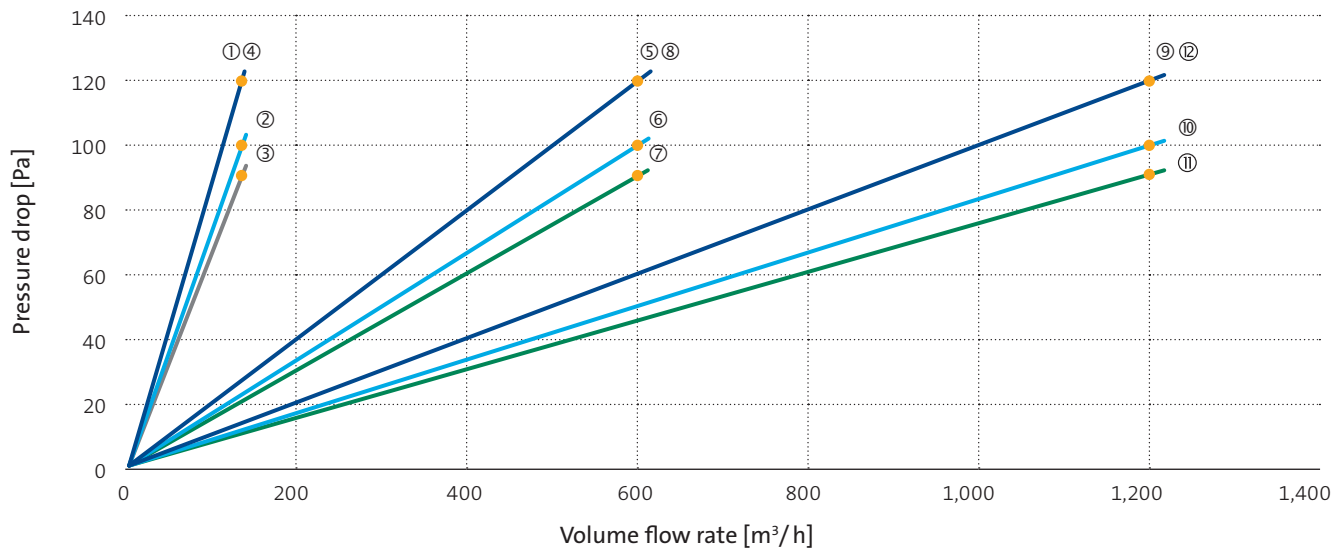
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610 × 1,220	610 × 610	457 × 457	305 × 305
Frame depth	mm	68   78   88   150	68   78   88   150	68   78   88   150	68   78   88   150
Pleat depth	mm	50   60   70   50	50   60   70   50	50   60   70   50	50   60   70   50
Nominal volume flow rate ●	m³/h	1,200	600	335	135
Initial pressure drop	Pa	120   100   90   120	120   100   90   120	120   100   90   120	120   100   90   120
Arrestance efficiency MPPS*	%	≥ 99.995	≥ 99.995	≥ 99.995	≥ 99.995
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



- |  |  |  |
|--|--|--|
| ① 305 mm × 305 mm / Frame depth 68 mm  | ⑤ 610 mm × 610 mm / Frame depth 68 mm  | ⑨ 610 mm × 1,220 mm / Frame depth 68 mm  |
| ② 305 mm × 305 mm / Frame depth 78 mm  | ⑥ 610 mm × 610 mm / Frame depth 78 mm  | ⑩ 610 mm × 1,220 mm / Frame depth 78 mm  |
| ③ 305 mm × 305 mm / Frame depth 88 mm  | ⑦ 610 mm × 610 mm / Frame depth 88 mm  | ⑪ 610 mm × 1,220 mm / Frame depth 88 mm  |
| ④ 305 mm × 305 mm / Frame depth 150 mm | ⑧ 610 mm × 610 mm / Frame depth 150 mm | ⑫ 610 mm × 1,220 mm / Frame depth 150 mm |

— Pleat depth 50 mm    — Pleat depth 60 mm    — Pleat depth 70 mm    ● Nominal volume flow rate

## Item code of product line H 14 (Example)

SF 14 - A - 0610 × 0610 × 068 × 05 - N 1 3 N

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- |  |  |  |
|--|--|--|
| ① HEPA filter class H 14   | ⑦ Type of gasket:<br>N = PU semicircular profile gasket<br>Z = without | ⑨ Protection grid:<br>3 = both sides / powdercoated metal mesh |
| ② Frame material: A = aluminum   | ⑧ Position of gasket:<br>0 = without<br>1 = one side<br>3 = both sides | ⑩ Execution:<br>N = standard<br>S = special version            |
| ③ Frame width [mm]: 4 digits   |  |  |
| ④ Frame length [mm]: 4 digits  |  |  |
| ⑤ Frame depth [mm]: 3 digits   |  |  |
| ⑥ Pleat depth [cm]: 2 digits<br>05 = 50 mm<br>06 = 60 mm<br>07 = 70 mm |  |  |

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# HIGH VOLUME FLOW FILTERS FOR CLEANROOMS

## FILTER CLASS H13

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H13	ISO 35 H	292	305 × 305 305 × 610 610 × 610 762 × 610	6




### The application

Viledon® high volume flow filters are used in intake, exhaust and recirculated air filtration in cleanrooms in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e.g.

- in sophisticated air-conditioning technology (operating theaters/intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.)
- in sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.)

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.

- The MiniPleat technology employed,  plus the V-shaped configuration of the pleat package, ensure a particularly large filtering area

for maximum air flow rate per filter element together with homogeneous media velocity, coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation with a very long lifetime.

- Viledon® high volume flow filters feature recessed grips at the side and a gripping lug for easier handling and installation.
- The frame consists of galvanized steel or stainless steel sheeting and is extremely solid and moisture-resistant.

- Each filter element is tested for leak-proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

- Viledon® high volume flow filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 "Hygiene requirements for HVAC systems and units".

- A continuous and homogeneously foamed-on profile gasket made of polyurethane. Also available with a flat gasket on request.

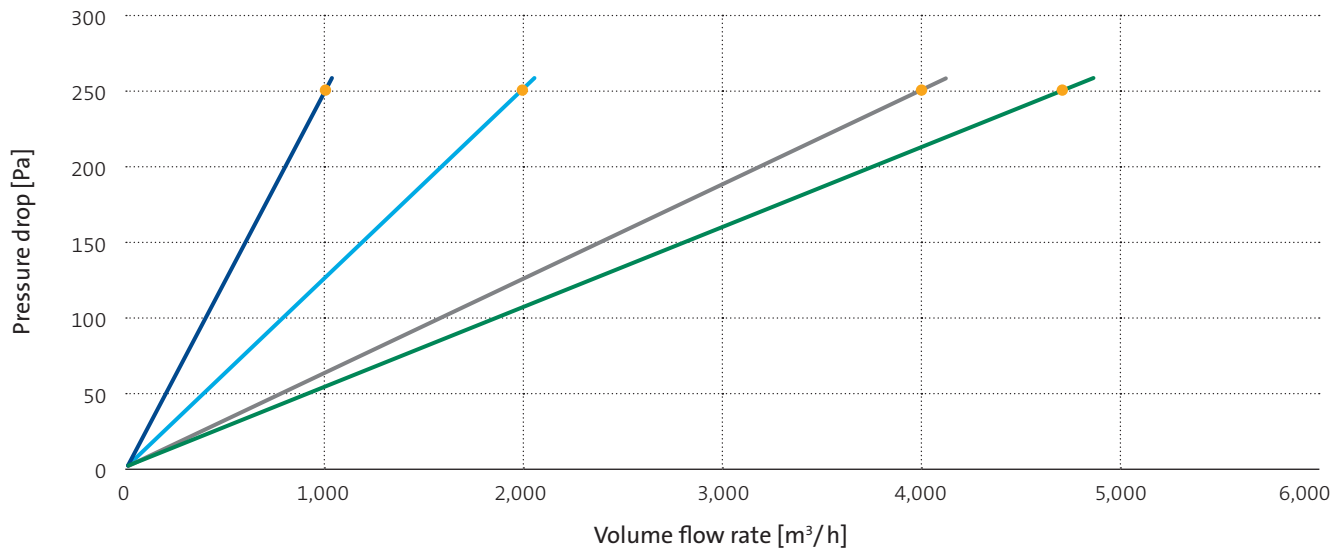
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		762 × 610	610 × 610	305 × 610	305 × 305
Frame depth	mm	292	292	292	292
Filtering area	m <sup>2</sup>	44	38	19	9
Nominal volume flow rate ●	m <sup>3</sup> /h	4,700	4,000	2,000	1,000
Initial pressure drop	Pa	250	250	250	250
Arrestance efficiency MPPS*	%	≥ 99.95	≥ 99.95	≥ 99.95	≥ 99.95
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



— 305 × 305 mm — 305 × 610 mm — 610 × 610 mm — 762 × 610 mm ● Nominal volume flow rate

## Item code of product line H13 (Example)

SF13 - B - 0610 × 0610 × 292 / V12×25 - N 1 0 N

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① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① HEPA filter class H13
- ② Frame material:  
B = galvanized steel sheets  
S = stainless steel sheets
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Number and pleat depth of the panels [mm]: e.g. V12×25 = 12 panels, 25 mm pleat depth
- ⑦ Type of gasket:  
N = PU semicircular profile gasket  
W = glued-on flat gasket  
Z = without
- ⑧ Position of gasket:  
0 = without  
1 = one side  
3 = both sides
- ⑨ Protection grid:  
0 = without
- ⑩ Execution:  
N = standard  
S = special version

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# HIGH VOLUME FLOW FILTERS FOR CLEANROOMS

## FILTER CLASS H13

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H13	ISO 35 H	292	305 × 305 305 × 610 610 × 610 762 × 610	6



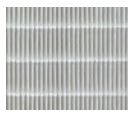
### The application

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- in sophisticated air-conditioning technology (operating theaters/intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.)
- in sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.)

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.

- The MiniPleat technology employed,  plus the V-shaped configuration of the pleat package, ensure a particularly large filtering area

for maximum air flow rate per filter element together with homogeneous media velocity, coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation with a very long lifetime.

- Viledon® high volume flow filters feature recessed grips at the side and a gripping lug for easier handling and installation.
- The frame consists of galvanized steel or stainless steel sheeting and is extremely solid and moisture-resistant.

- Each filter element is tested for leak-proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

Viledon® high volume flow filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 "Hygiene requirements for HVAC systems and units".

- A continuous and homogeneously foamed-on profile gasket made of polyurethane. Also available with a flat gasket on request.

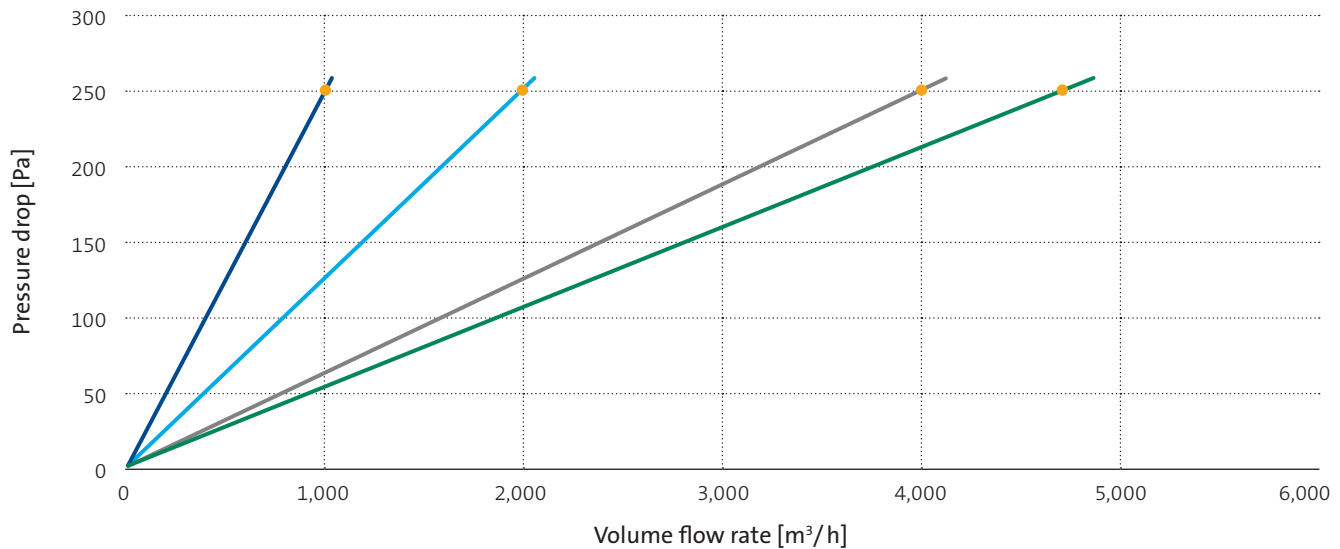
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		762 × 610	610 × 610	305 × 610	305 × 305
Frame depth	mm	292	292	292	292
Filtering area	m <sup>2</sup>	44	38	19	9
Nominal volume flow rate ●	m <sup>3</sup> /h	4,700	4,000	2,000	1,000
Initial pressure drop	Pa	250	250	250	250
Arrestance efficiency MPPS*	%	≥ 99.95	≥ 99.95	≥ 99.95	≥ 99.95
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



— 305 × 305 mm — 305 × 610 mm — 610 × 610 mm — 762 × 610 mm ● Nominal volume flow rate

## Item code of product line H13 (Example)

SF13 - B - 0610 × 0610 × 292 / V12×25 - N 1 0 N

▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① HEPA filter class H13
- ② Frame material:  
B = galvanized steel sheets  
S = stainless steel sheets
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Number and pleat depth of the panels [mm]: e.g. V12×25 = 12 panels, 25 mm pleat depth
- ⑦ Type of gasket:  
N = PU semicircular profile gasket  
W = glued-on flat gasket  
Z = without
- ⑧ Position of gasket:  
0 = without  
1 = one side  
3 = both sides
- ⑨ Protection grid:  
0 = without
- ⑩ Execution:  
N = standard  
S = special version

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. Subject to technical alterations. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

# HIGH VOLUME FLOW FILTERS FOR CLEANROOMS



## FILTER CLASS H14

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H14	ISO 45 H	292	305 × 305 305 × 610 610 × 610 762 × 610	6



### The application

Viledon® high volume flow filters are used in intake, exhaust and recirculated air filtration in cleanrooms in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e.g.

- in sophisticated air-conditioning technology (operating theaters/intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.)
- in sensitive and highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.)
- in dust-removing machines and devices, where hazardous dust is filtered and the air is circulated back to the working environment

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed, plus the V-shaped configuration of the pleat package, ensure a particularly large filtering area for maximum air flow rate per filter element together with homogeneous media velocity, coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation with a very long lifetime.
- Viledon® high volume flow filters feature recessed grips at the side and a gripping lug for easier handling and installation.
- The frame consists of galvanized steel or stainless steel sheeting and is extremely solid and moisture-resistant.
- Each filter element is tested for leak-proofing in accordance with EN 1822,

and delivered together with the corresponding test certificate.

- Viledon® high volume flow filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- A continuous and homogeneously foamed-on profile gasket made of polyurethane. Also available with a flat gasket on request.
- Meet the requirements laid down in DIN EN 60335-2-69 for filters being used in dust-eliminating machines and equipment of dust class “H”.

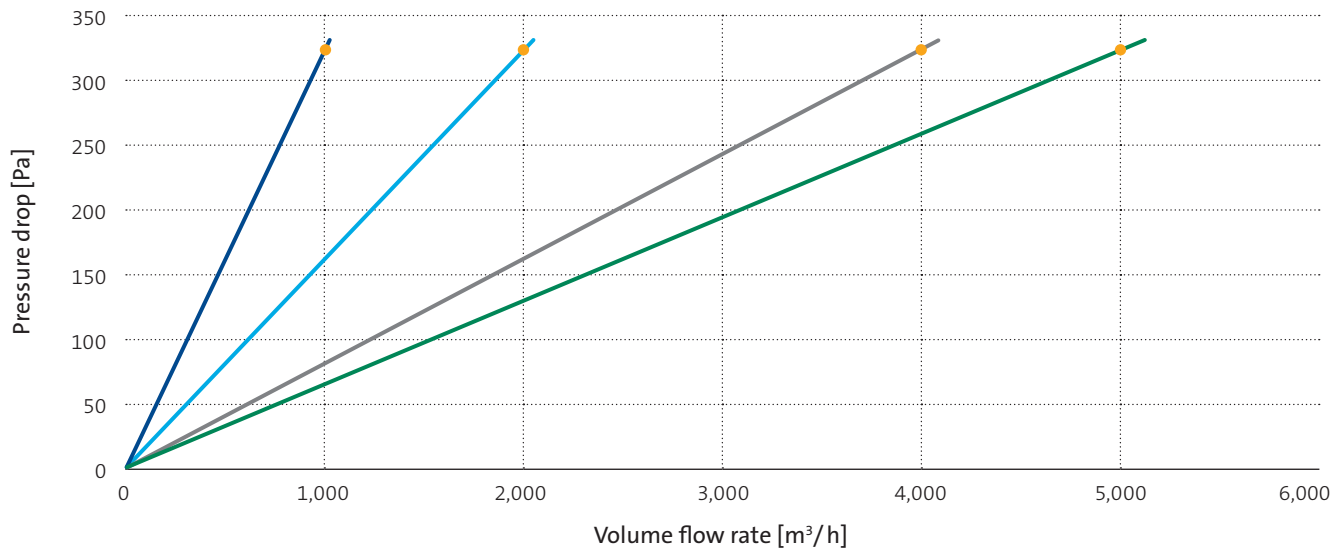
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		762 × 610	610 × 610	305 × 610	305 × 305
Frame depth	mm	292	292	292	292
Pleat depth	m <sup>2</sup>	44	38	19	9
Nominal volume flow rate ●	m <sup>3</sup> /h	5,000	4,000	2,000	1,000
Initial pressure drop	Pa	320	320	320	320
Arrestance efficiency MPPS*	%	≥ 99.995	≥ 99.995	≥ 99.995	≥ 99.995
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



— 305 × 305 mm — 305 × 610 mm — 610 × 610 mm — 762 × 610 mm ● Nominal volume flow rate

## Item code of product line H 14 (Example)

SF 14 – B – 0610 × 0610 × 292 / V12 × 25 – N 1 0 N

▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① HEPA filter class H 14
- ② Frame material:  
B = galvanized steel sheets  
S = stainless steel sheets
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Number and pleat depth of the panels [mm]: e.g. V12 × 25 = 12 panels, 25 mm pleat depth
- ⑦ Type of gasket:  
N = PU semicircular profile gasket  
W = glued-on flat gasket  
Z = without
- ⑧ Position of gasket:  
0 = without  
1 = one side  
3 = both sides
- ⑨ Protection grid:  
0 = without
- ⑩ Execution:  
N = standard  
S = special version

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. Subject to technical alterations. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

# HIGH VOLUME FLOW FILTERS FOR CLEANROOMS



## FILTER CLASS H14

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H14	ISO 45 H	292	305 × 305 305 × 610 610 × 610 762 × 610	6



### The application

Viledon® high volume flow filters are used in intake, exhaust and recirculated air filtration in cleanrooms in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e.g.

- in sophisticated air-conditioning technology (operating theaters/intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.)
- in sensitive and highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.)
- in dust-removing machines and devices, where hazardous dust is filtered and the air is circulated back to the working environment

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed, plus the V-shaped configuration of the pleat package, ensure a particularly large filtering area for maximum air flow rate per filter element together with homogeneous media velocity, coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation with a very long lifetime.
- Viledon® high volume flow filters feature recessed grips at the side and a gripping lug for easier handling and installation.
- The frame consists of galvanized steel or stainless steel sheeting and is extremely solid and moisture-resistant.
- Each filter element is tested for leak-proofing in accordance with EN 1822,

and delivered together with the corresponding test certificate.

- Viledon® high volume flow filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- A continuous and homogeneously foamed-on profile gasket made of polyurethane. Also available with a flat gasket on request.
- Meet the requirements laid down in DIN EN 60335-2-69 for filters being used in dust-eliminating machines and equipment of dust class “H”.

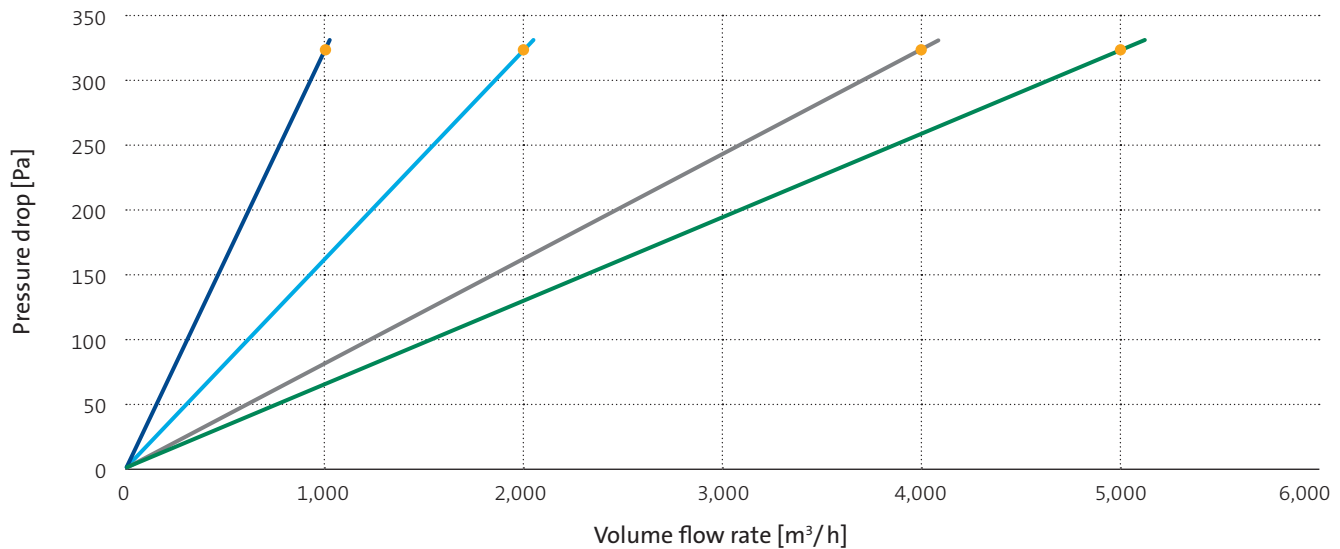
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		762 × 610	610 × 610	305 × 610	305 × 305
Frame depth	mm	292	292	292	292
Pleat depth	m <sup>2</sup>	44	38	19	9
Nominal volume flow rate ●	m <sup>3</sup> /h	5,000	4,000	2,000	1,000
Initial pressure drop	Pa	320	320	320	320
Arrestance efficiency MPPS*	%	≥ 99.995	≥ 99.995	≥ 99.995	≥ 99.995
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



— 305 × 305 mm — 305 × 610 mm — 610 × 610 mm — 762 × 610 mm ● Nominal volume flow rate

## Item code of product line H 14 (Example)

SF 14 – B – 0610 × 0610 × 292 / V12 × 25 – N 1 0 N

▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① HEPA filter class H 14
- ② Frame material:  
B = galvanized steel sheets  
S = stainless steel sheets
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Number and pleat depth of the panels [mm]: e.g. V12 × 25 = 12 panels, 25 mm pleat depth
- ⑦ Type of gasket:  
N = PU semicircular profile gasket  
W = glued-on flat gasket  
Z = without
- ⑧ Position of gasket:  
0 = without  
1 = one side  
3 = both sides
- ⑨ Protection grid:  
0 = without
- ⑩ Execution:  
N = standard  
S = special version

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# EFFICIENT AIR FILTRATION IN CLEANROOMS – HEPA FILTERS WITH MDF FRAME

## FILTER CLASS H 13

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H13	ISO 35 H	78	50	305×305	6
H13	ISO 35 H	150	50 125	305×610 457×457	6
H13	ISO 35 H	292	200	610×610	6



### The application

Viledon® HEPA filters of filter class H 13 are used in intake, exhaust and recirculated air filtration in air-conditioning systems with stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters, intensive care units in hospitals, laboratories, cleanrooms, etc.)
- in sensitive industrial processes
- as final filters in ceiling air outlets
- as "police filters" in dust removal systems

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with ho-



homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.

- The frame consists of MDF (medium-density fiber board) and is fully incinerable.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Protection grids on request.
- Continuous, homogeneously foamed-on polyurethane gasket; on request also available with a flat gasket.
- Each filter element is tested for leak-proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

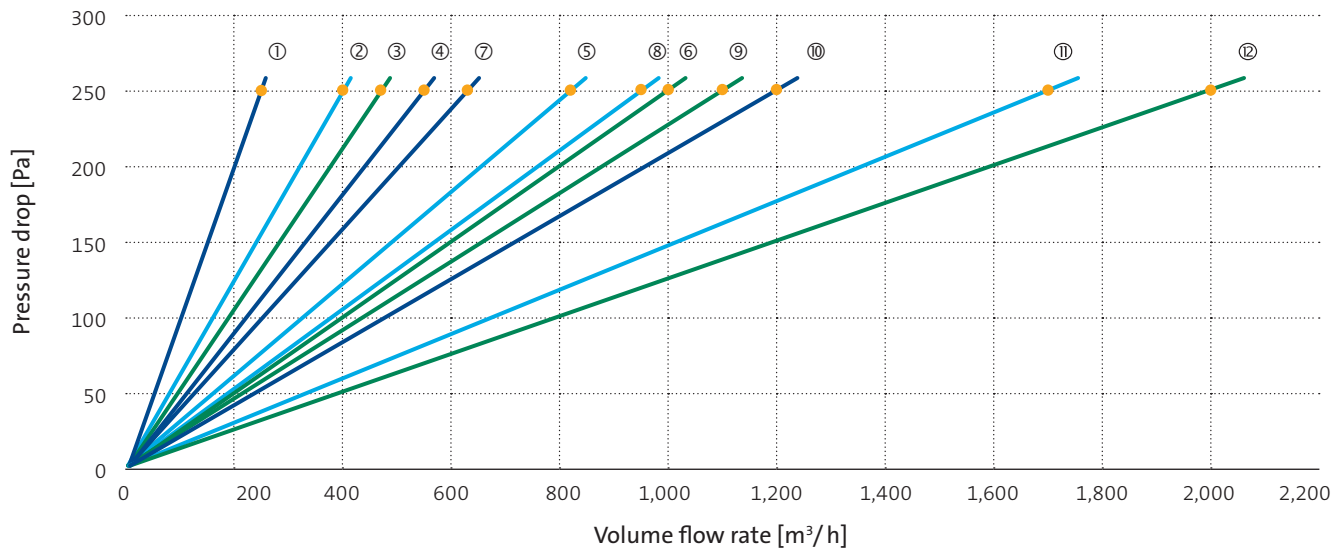
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610×610	457×457	305×610	305×305
Frame depth	mm	78 150 150 292	78 150 150 292	78 150 150 292	78 150 150 292
Pleat depth	mm	50 50 125 200	50 50 125 200	50 50 125 200	50 50 125 200
Nominal volume flow rate ●	m³/h	1,200 1,200 1,700 2,000	630 630 950 1,100	550 550 820 1,000	250 250 400 470
Initial pressure drop	Pa	250	250	250	250
Arrestance efficiency MPPS*	%	≥99.95	≥99.95	≥99.95	≥99.95
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



① 305 mm × 305 mm / Frame depth 78 mm	⑤ 305 mm × 610 mm / Frame depth 150 mm	⑨ 457 mm × 457 mm / Frame depth 292 mm
② 305 mm × 305 mm / Frame depth 150 mm	⑥ 305 mm × 610 mm / Frame depth 292 mm	⑩ 610 mm × 610 mm / Frame depth 78 mm
③ 305 mm × 305 mm / Frame depth 292 mm	⑦ 457 mm × 457 mm / Frame depth 78 mm	⑪ 610 mm × 610 mm / Frame depth 150 mm
④ 305 mm × 610 mm / Frame depth 78 mm	⑧ 457 mm × 457 mm / Frame depth 150 mm	⑫ 610 mm × 610 mm / Frame depth 292 mm

— Pleat depth 50 mm    
 — Pleat depth 125 mm    
 — Pleat depth 200 mm    
 ● Nominal volume flow rate

## Item code of product line H 13 (Example)

**SF 13 – M – 0610 × 0610 × 292 × 20 – N 1 0 N**  
 ▼            ▼            ▼            ▼            ▼            ▼            ▼            ▼            ▼  
 ①            ②            ③            ④            ⑤            ⑥            ⑦            ⑧            ⑨            ⑩

- |  |   |  |
|--|---|--|
| <p>① EPA filter class H 13</p> <p>② Frame material:<br/>M = MDF</p> <p>③ Frame width [mm]: 4 digits</p> <p>④ Frame length [mm]: 4 digits</p> <p>⑤ Frame depth [mm]: 3 digits</p> <p>⑥ Faltentiefe [cm]: 2-stellig<br/>05 = 50 mm<br/>12 = 125 mm<br/>20 = 200 mm</p> | <p>⑦ Pleat depth [cm]: 2 digits<br/>05 = 50 mm<br/>12 = 125 mm<br/>20 = 200 mm</p> <p>⑧ Type of gasket:<br/>N = PU semicircular profile gasket<br/>W = flat gasket</p> <p>⑨ Position of gasket:<br/>1 = one side<br/>3 = both sides</p> | <p>⑩ Protection grid:<br/>0 = without<br/>3 = both sides / powder-coated metal mesh</p> <p>⑪ Execution:<br/>N = standard<br/>S = special version</p> |
|--|---|--|

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# EFFICIENT AIR FILTRATION IN CLEANROOMS – HEPA FILTERS WITH MDF FRAME

## FILTER CLASS H 14

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H 14	ISO 45 H	78	50	305×305	6
H 14	ISO 45 H	150	50   125	305×610 457×457	6
H 14	ISO 45 H	292	200	610×610	6



### The application

Viledon® HEPA filters of filter class H 14 are used in intake, exhaust and recirculated air filtration in air-conditioning systems with stringent requirements for clean air quality and sterility, e.g.

- in sophisticated air-conditioning technology (operating theaters, intensive care units in hospitals, laboratories, cleanrooms, etc.)
- in sensitive and highly sensitive industrial processes
- as final filters in ceiling air outlets
- as “police filters” in dust removal systems

### The special features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with ho-



homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.

- The frame consists of MDF (medium-density fiber board) and is fully incinerable.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Protection grids on request.
- Continuous, homogeneously foamed-on polyurethane gasket; on request also available with a flat gasket.
- Each filter element is tested for leak-proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

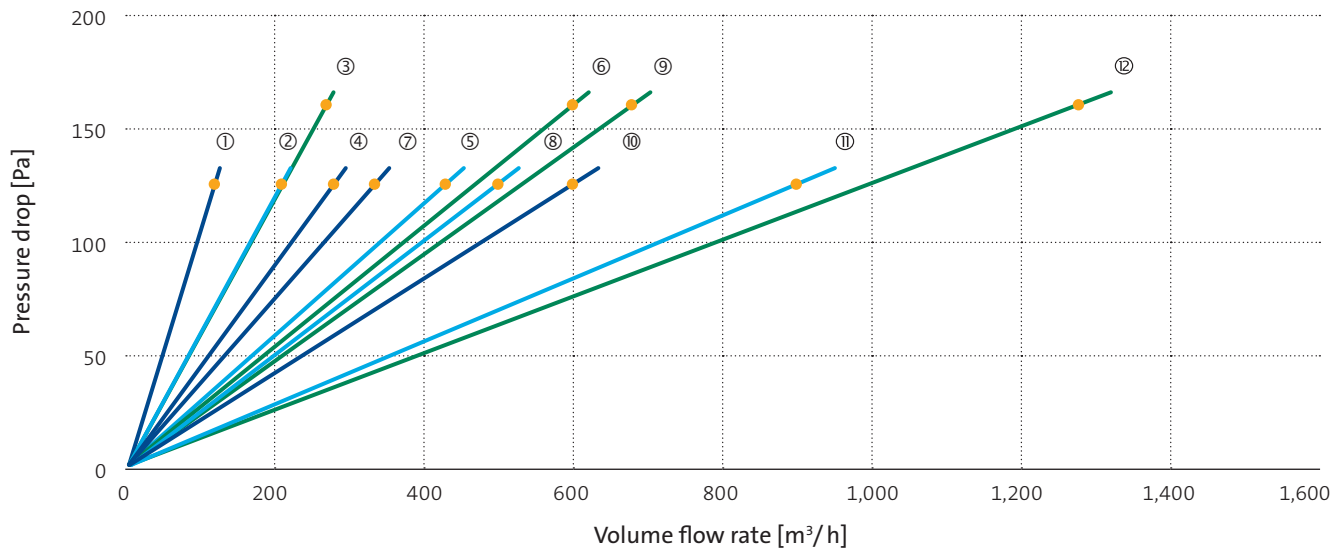
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610×610	457×457	305×610	305×305
Frame depth	mm	78   150   150   292	78   150   150   292	78   150   150   292	78   150   150   292
Pleat depth	mm	50   50   125   200	50   50   125   200	50   50   125   200	50   50   125   200
Nominal volume flow rate ●	m³/h	600   600   900   1,280	335   335   500   680	280   280   430   600	120   120   210   270
Initial pressure drop	Pa	125   125   125   160	125   125   125   160	125   125   125   160	125   125   125   160
Arrestance efficiency MPPS*	%	≥ 99.995	≥ 99.995	≥ 99.995	≥ 99.995
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	1,000	1,000	1,000	1,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



① 305 mm × 305 mm / Frame depth 78 mm	⑤ 305 mm × 610 mm / Frame depth 150 mm	⑨ 457 mm × 457 mm / Frame depth 292 mm
② 305 mm × 305 mm / Frame depth 150 mm	⑥ 305 mm × 610 mm / Frame depth 292 mm	⑩ 610 mm × 610 mm / Frame depth 78 mm
③ 305 mm × 305 mm / Frame depth 292 mm	⑦ 457 mm × 457 mm / Frame depth 78 mm	⑪ 610 mm × 610 mm / Frame depth 150 mm
④ 305 mm × 610 mm / Frame depth 78 mm	⑧ 457 mm × 457 mm / Frame depth 150 mm	⑫ 610 mm × 610 mm / Frame depth 292 mm

— Pleat depth 50 mm    
 — Pleat depth 125 mm    
 — Pleat depth 200 mm    
 ● Nominal volume flow rate

## Item code of product line H 14 (Example)

**SF14 - M - 0610 × 0610 × 292 × 20 - N 1 0 N**  
 ▼        ▼        ▼        ▼        ▼        ▼        ▼        ▼        ▼  
**①        ②        ③        ④        ⑤        ⑥        ⑦        ⑧        ⑨        ⑩**

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>① EPA filter class H 14</li> <li>② Frame material:<br/>M = MDF</li> <li>③ Frame width [mm]: 4 digits</li> <li>④ Frame length [mm]: 4 digits</li> <li>⑤ Frame depth [mm]: 3 digits</li> </ul> | <ul style="list-style-type: none"> <li>⑥ Pleat depth [cm]: 2 digits<br/>05 = 50 mm<br/>12 = 125 mm<br/>20 = 200 mm</li> <li>⑦ Type of gasket:<br/>N = PU semicircular profile gasket<br/>W = flat gasket</li> <li>⑧ Position of gasket:<br/>1 = one side<br/>3 = both sides</li> </ul> | <ul style="list-style-type: none"> <li>⑨ Protection grid:<br/>0 = without<br/>3 = both sides / powder-coated metal mesh</li> <li>⑩ Execution:<br/>N = standard<br/>S = special version</li> </ul> |
|---|--|---|

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. Subject to technical alterations. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

# EFFICIENT AIR FILTRATION IN CLEANROOMS – EPA FILTERS WITH PLASTIC FRAME

## FILTER CLASS E 11

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
E 11	ISO 15 E	150	100	610 × 305 610 × 610 610 × 762	6
E 11	ISO 15 E	292	200   280		6

VDI  
6022



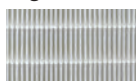
### The application

Viledon® Efficient Particulate Air (EPA) filters of filter class E 11 are used for intake, exhaust and recirculating air filtration of ventilation systems with special requirements for clean air quality, such as

- in sophisticated air-conditioning applications (hospitals, labs, cleanrooms, museums, etc.)
- in sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food/beverages, micro-electronics, etc.)
- as downstream policing filters in dust removal applications

### The special features and benefits

- High-efficiency micro-glassfiber papers with a special thermo-plastic bonding system are used as filter media.



- Our patented thermal embossing technique ensures the optimum V-shaped geometry and equidistance of the pleats, and therefore maximum, homogeneous air passage at a very low pressure drop. This results in a remarkably economical and reliable operation.
- The frame consists of halogen-free plastic and is exceptionally distortion-resistant, moisture-resistant and fully incinerable. Also available with a galvanized or stainless steel sheet frame on request.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Protection grids on both sides minimize the risk of damage to the filter medium. Plastic protection grids on both sides for filters with 280 mm

pleat depths, for filters with 100 and 200 mm pleat depths available upon request.

- Easy handling and mounting, thanks to exceptionally low weight and a continuous, homogeneously foamed-on polyurethane gasket.
- Viledon® Efficient Particulate Air (EPA) filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 "Hygiene requirements for HVAC systems and units".

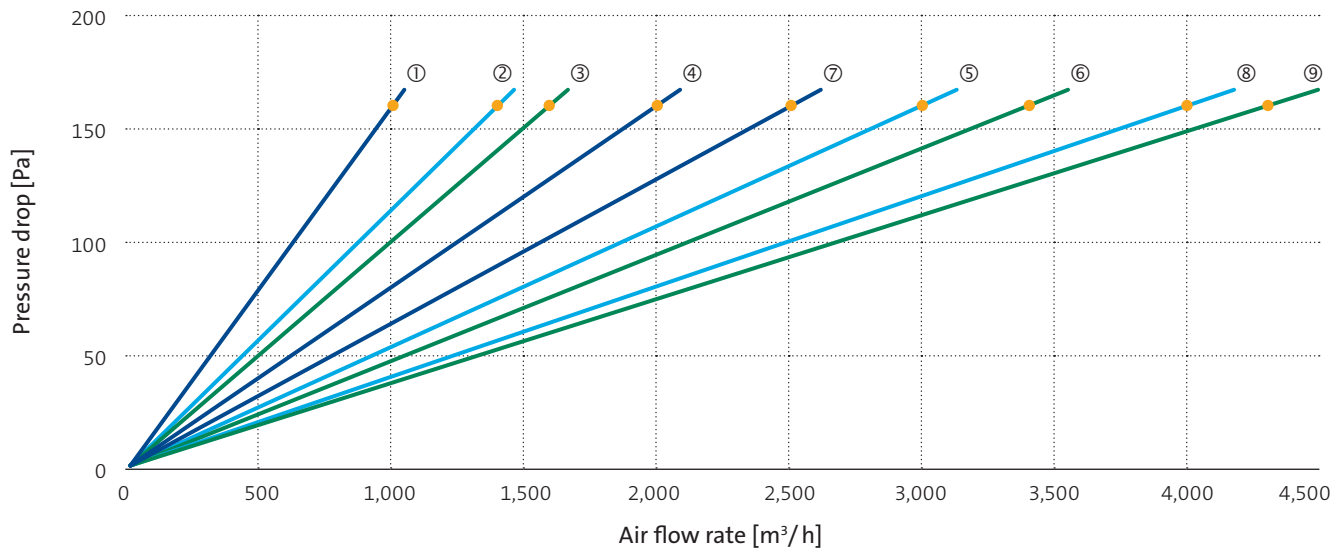
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610 × 762	610 × 610	610 × 305
Frame depth	mm	150   292   292	150   292   292	150   292   292
Pleat depth	mm	100   200   280	100   200   280	100   200   280
Nominal volume flow rate ●	m³/h	2,500   4,000   4,300	2,000   3,000   3,400	1,000   1,400   1,600
Initial pressure drop	Pa	160	160	160
Arrestance efficiency MPPS*	%	≥ 95	≥ 95	≥ 95
Recommended final pressure drop**	Pa	600	600	600
Max. permissible pressure drop	Pa	3,000	3,000	3,000
Thermal stability	°C	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



- ① 610 mm × 305 mm / Frame depth 150 mm      ④ 610 mm × 610 mm / Frame depth 150 mm      ⑦ 610 mm × 762 mm / Frame depth 150 mm
- ② 610 mm × 305 mm / Frame depth 292 mm      ⑤ 610 mm × 610 mm / Frame depth 292 mm      ⑧ 610 mm × 762 mm / Frame depth 292 mm
- ③ 610 mm × 305 mm / Frame depth 292 mm      ⑥ 610 mm × 610 mm / Frame depth 292 mm      ⑨ 610 mm × 762 mm / Frame depth 292 mm

— Pleat depth 100 mm      — Pleat depth 200 mm      — Pleat depth 280 mm      ● Nominal air flow rate

## Item code of product line E11 (Example)

SF 11 – K – 0610 × 0610 × 292 × 20 – N 1 0 N

▼            ▼            ▼            ▼            ▼            ▼            ▼            ▼            ▼  
 ①            ②            ③            ④            ⑤            ⑥            ⑦            ⑧            ⑨            ⑩

- ① EPA filter class E 11
- ② Frame material:  
K = halogen-free plastic  
B = galvanized steel sheets  
S = stainless steel sheets
- ③ Frame width [mm]: 4 digits
- ④ Frame length [mm]: 4 digits
- ⑤ Frame depth [mm]: 3 digits
- ⑥ Pleat depth [cm]: 2 digits  
10 = 100 mm  
20 = 200 mm  
28 = 280 mm
- ⑦ Type of gasket:  
N = PU semicircular profile gasket  
W = flat seal
- ⑧ Position of gasket:  
1 = one side  
3 = both sides
- ⑨ Protection grid:  
0 = without (only for 100 and 200 mm pleat depth)  
3 = both sides / powdercoated metal mesh  
4 = both sides / aluminium mesh  
8 = both sides / halogen-free plastic
- ⑩ Execution:  
N = standard  
S = special version

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case. Subject to technical alterations. You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.

# EFFICIENT AIR FILTRATION IN CLEANROOMS – HEPA FILTERS WITH PLASTIC FRAME

## FILTER CLASS H13

FILTER CLASS ACC. TO EN 1822:2009	FILTER CLASS ACC. TO ISO 29463	FRAME DEPTH [mm]	PLEAT DEPTH [mm]	STANDARD DIMENSIONS [mm]	GASKET [mm]
H13	ISO 35 H	150	100	305 × 305 457 × 457	6
H13	ISO 35 H	292	200   280	610 × 305 610 × 610	6



### The application

Viledon® High Efficient Particulate Air (HEPA) filters of filter class H13 are used for intake, exhaust and recirculating air filtration of ventilation systems requiring the highest clean air quality and sterility, such as

- in sophisticated air-conditioning applications (operating theatres/intensive care, units of hospitals, labs, cleanrooms, etc.)
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food/beverages, micro-electronics, etc.)
- in the treatment of dangerous substances (asbestos disposal, heavy metals, carcinogenic dusts, etc.)
- as downstream polishing filters in dust removal applications

### The special features and benefits

- High-efficiency micro-glassfiber papers with a special thermoplastic bonding system are used as filter media.

- Our patented thermal embossing technique ensures the optimum V-shaped geometry and equidistance of the pleats, and therefore maximum, homogeneous air passage at a very low pressure drop. This results in a remarkably economical and reliable operation.
- The frame consists of halogen-free plastic and is exceptionally distortion-resistant, moisture-resistant and fully incinerable. Also available with a galvanized or stainless steel sheet frame on request.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Protection grids on both sides minimize the risk of damage to the filter medium. Plastic protection grids on both sides for filters with 280 mm pleat depths, for filters with 100 and 200 mm pleat depths available upon request.
- Easy handling and mounting, thanks to exceptionally low weight

and a continuous, homogeneously foamed-on polyurethane gasket. On request also with a flat gasket.

- Viledon® Efficient Particulate Air (EPA) filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Each filter element is leakproofed in accordance with DIN EN 1822 and delivered together with the corresponding test certificate.
- Filters with a pleat depth of 280 mm meet the requirements laid down in DIN EN 60335-2-69 for filters being used in dust-eliminating machines and equipment of dust class “H”.

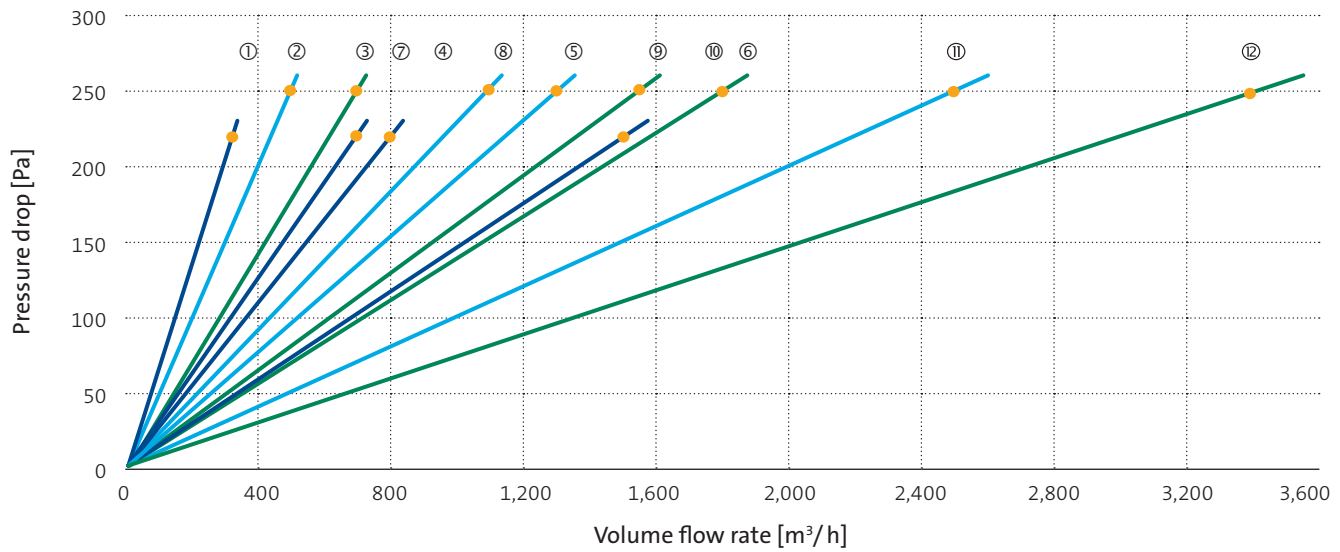
\* Most Penetrating Particle Size

\*\* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

KEY DATA		610 × 610	610 × 305	457 × 457	305 × 305
Frame depth	mm	150   292   292	150   292   292	150   292   292	150   292   292
Pleat depth	mm	100   200   280	100   200   280	100   200   280	100   200   280
Nominal volume flow rate ●	m³/h	1,500   2,500   3,400	700   1,100   1,550	800   1,300   1,800	325   500   700
Initial pressure drop	Pa	220   250   250	220   250   250	220   250   250	220   250   250
Arrestance efficiency MPPS*	%	≥ 99.95	≥ 99.95	≥ 99.95	≥ 99.95
Recommended final pressure drop**	Pa	600	600	600	600
Max. permissible pressure drop	Pa	3,000	3,000	3,000	3,000
Thermal stability	°C	70	70	70	70
Moisture-resistance (rel. hum.)	%	100	100	100	100

# TECHNICAL FILTER TEST DATA TO EN 1822

## Initial pressure drop curves



- |  |  |  |
|--|--|--|
| ① 305 mm × 305 mm / Frame depth 150 mm | ⑤ 457 mm × 457 mm / Frame depth 292 mm | ⑨ 610 mm × 305 mm / Frame depth 292 mm |
| ② 305 mm × 305 mm / Frame depth 292 mm | ⑥ 457 mm × 457 mm / Frame depth 292 mm | ⑩ 610 mm × 610 mm / Frame depth 150 mm |
| ③ 305 mm × 305 mm / Frame depth 292 mm | ⑦ 610 mm × 305 mm / Frame depth 150 mm | ⑪ 610 mm × 610 mm / Frame depth 292 mm |
| ④ 457 mm × 457 mm / Frame depth 150 mm | ⑧ 610 mm × 305 mm / Frame depth 292 mm | ⑫ 610 mm × 610 mm / Frame depth 292 mm |

— Pleat depth 100    — Pleat depth 200    — Pleat depth 280    ● Nominal volume flow rate

## Item code of product line H 13 (Example)

SF 13 - K - 0610 × 0610 × 292 × 20 - N 1 0 N

▼      ▼      ▼      ▼      ▼      ▼      ▼      ▼      ▼      ▼

①      ②      ③      ④      ⑤      ⑥      ⑦      ⑧      ⑨      ⑩

- |  |   |   |
|--|---|---|
| ① EPA filter class H 13  | ⑥ Pleat depth [cm]: 2 digits<br>10 = 100 mm<br>20 = 200 mm<br>28 = 280 mm | ⑨ Protection grid:<br>0 = without (only for 100 and 200 mm pleat depth)<br>3 = both sides / powdercoated metal mesh<br>4 = both sides / aluminium mesh<br>8 = both sides / halogen-free plastic |
| ② Frame material:<br>K = halogen-free plastic<br>B = galvanized steel sheets<br>S = stainless steel sheets | ⑦ Type of gasket:<br>N = PU semicircular profile gasket<br>W = flat seal  | ⑩ Execution:<br>N = standard<br>S = special version   |
| ③ Frame width [mm]: 4 digits   | ⑧ Position of gasket:<br>1 = one side<br>3 = both sides                   |   |
| ④ Frame length [mm]: 4 digits  |   |   |
| ⑤ Frame depth [mm]: 3 digits   |   |   |

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