

Filters

Table 1: Quick selection table according to filter class

Filter group	Filter Class	According to standard	Average arrestance (Am) of synthetic dust	Average efficiency (Em) of 0,4 µm particles	Minimum efficiency of 0,4 µm particles	Filter type
Coarse	G1	EN 779:2011	50 % ≤ Am < 65 %	-	-	Bag filters (FV)
	G2		65 % ≤ Am < 80 %	-	-	Panel filters (KA)
	G3		80 % ≤ Am < 90 %	-	-	Roll filters (FR)
	G4		90 % ≤ Am	-	-	
Medium	M5		-	40 % ≤ Em < 60 %	-	Bag filters (FV)
	M6		-	60 % ≤ Em < 80 %	-	Panel filters (KA)
Fine	F7		-	80 % ≤ Em < 90 %	35	Compact filters (KO)
	F8		-	90 % ≤ Em < 95 %	55	
	F9		-	95 % ≤ Am	70	

Table 2: Quick selection table according to filter class EPA, HEPA, ULPA

Filter group	Filter class	According to standard	Value Efficiency (MPPS)	Filter type
E ... EPA filters Efficient Particulate Air Filter	E10	EN 1822-1:2010	≥ 85 %	Compact filters (KO) EPA, HEPA, ULPA filters (H)
	E11		≥ 95 %	
	E12		≥ 99,5 %	
H ... HEPA filters High Efficiency Particulate Air Filter	H13		≥ 99,95 %	
	H14		≥ 99,995 %	
U ... ULPA filters Ultra Low Penetration Air Filter	U15		≥ 99,9995 %	
	U16		≥ 99,99995 %	
	U17		≥ 99,999995 %	

Table 3: Quick selection table according to application for carbon filters

Application type	Contaminants	Filter type
C1	Airports, Pharms & Food / Hydrocarbons	Carbon filters (FO)
C2	Industry / Mineral acids	
C3	Industry / Ammonia, amines	
C4	Industry & Waste water / (H ₂ S), (SO ₂)	
C5	Museums & Libraries / H ₂ S, S _{ox} , NO _x formaldehyde	
C6	General Purpose / General Gas Removal	
C7	Nuclear industry / Radioactive dust particles	

Equation 1: Quick calculation of fan energy consumption for one filter

$$E = \frac{q_v \times \Delta p \times t}{\eta_f \times 1000}$$

Definition of symbols

- E [kWh]** energy consumed by fan
- q_v [m³/s]** air flow rate at filter
- Δp [Pa]** filter pressure drop
- t [h]** operating time
- η_F [/]** fan efficiency (usually from 0.6 - 0.8)

■ EPA, HEPA, ULPA filters

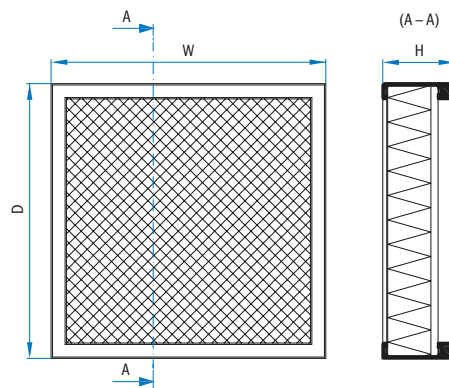
Liquid gasket, gel

- filter version: Filter ... standard
- manufacturer: American Air Filter
- frame material: aluminum
- temperature limit: 70 °C
- recommended final pressure: 500 Pa
- suitable for: AFV-8G

Table 4: Filter technical data H-H14/G/ALU/AAF/F_

Nominal size	Filter dimension			Filter class H14	
	Width W [mm]	Depth D [mm]	Height H [mm]	Pressure drop Δp_s [Pa]	Airflow Q [m³/h]
F10	305	x 305	x 80	125	150
F20	305	x 610	x 80	125	300
F30	457	x 457	x 80	125	340
F50	610	x 610	x 80	125	600
F60	610	x 915	x 80	125	900
F70	610	x 1220	x 80	125	1200
F80	545	x 545	x 80	125	480
F51	610	x 610	x 128	75	600

Picture 1: Filter drawing H-H14/G/ALU/AAF/F_



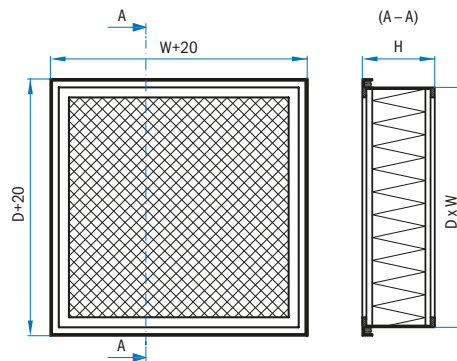
Liquid gasket, gel

- filter version: Filter ... standard
- manufacturer: CamfilFARR
- frame material: aluminum
- temperature limit: 70 °C
- recommended final pressure: 450 Pa
- suitable for: AFV-8C

Table 5: Filter technical data H-H14/G/ALU/AAF/F90

Nominal size	Filter dimension			Filter class H14	
	Width W [mm]	Depth D [mm]	Height H [mm]	Pressure drop Δp_s [Pa]	Airflow Q [m³/h]
F90	508	x 508	x 86	168	700

Picture 2: Filter H-H14/G/ALU/CAF/F90



Dry gasket, U-shaped profile

- filter version: Filter ... standard
- manufacturer: American Air Filter
- frame material: MDF wood
- temperature limit: 70 °C
- recommended final pressure: 600 Pa
- suitable for: AFV-8B

Table 6: Filter technical data H-H_/U/MDF/AAF/F_

Nominal size	Filter dimension			Filter class			
	Width W [mm]	Depth D [mm]	Height H [mm]	H13		H14	
				Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]
F10	305	x 305	x 78	250	250	320	250
F20	305	x 610	x 78	250	500	320	500
F30	457	x 457	x 78	250	570	320	570
F40	535	x 535	x 78	250	770	320	770
F50	610	x 610	x 78	250	1000	320	1000
F80	545	x 545	x 78	250	800	320	800

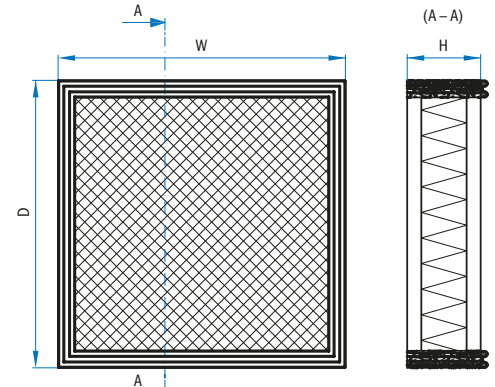
Liquid gasket, gel

- filter version: Filter ... standard
- manufacturer: CamfilFARR
- frame material: aluminum
- temperature limit: 70 °C
- recommended final pressure: 450 Pa
- suitable for: AFV-8C

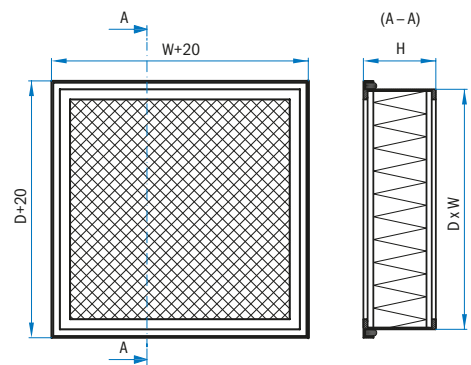
Table 7: Filter technical data H-H14/G/ALU/AAF/F90

Nominal size	Filter dimension			Filter class	
	Width W [mm]	Depth D [mm]	Height H [mm]	H14	
				Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]
F90	508	x 508	x 86	168	700

Picture 3: Filter H-H_/U/MDF/AAF/F_



Picture 4: Filter H-H14/G/ALU/CAF/F90



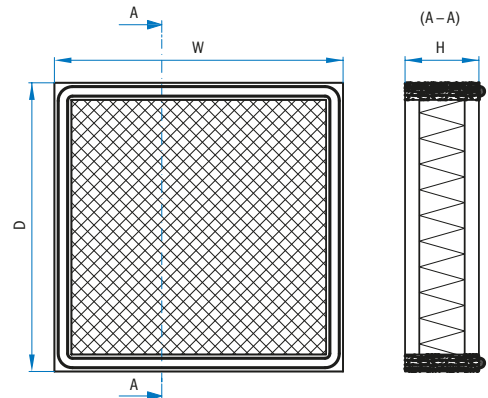
Dry gasket, semicircular profile

- filter version: Filter ... standard
- manufacturer: Lindab
- frame material: MDF wood
- temperature limit: 70 °C
- recommended final pressure: 600 Pa
- suitable for: AFV-8B, AKF, DPS, DSS

Table 8: Filter technical data H-H_/PO/MDF/LIN/F_

Nominal size	Filter dimension			Filter class			
	Width W [mm]	Depth D [mm]	Height H [mm]	H13		H14	
				Pressure drop Δp_s [Pa]	Airflow Q [m³/h]	Pressure drop Δp_s [Pa]	Airflow Q [m³/h]
F10	305	x 305	x 78	250	300	120	150
F20	305	x 610	x 78	250	600	120	300
F30	457	x 457	x 78	250	680	120	340
F50	610	x 610	x 78	250	1200	120	600
F80	545	x 545	x 78	250	950	120	475
F12	305	x 305	x 150	250	300	120	150
F22	305	x 610	x 150	250	600	120	300
F32	457	x 457	x 150	250	680	120	340
F52	610	x 610	x 150	250	1200	120	600
F13	305	x 305	x 292	250	500	280	500
F23	305	x 610	x 292	250	1000	280	1000
F33	457	x 457	x 292	250	1100	280	1100
F53	610	x 610	x 292	250	2000	280	2000

Picture 5: Filter drawing H-H_/PO/MDF/LIN/F_



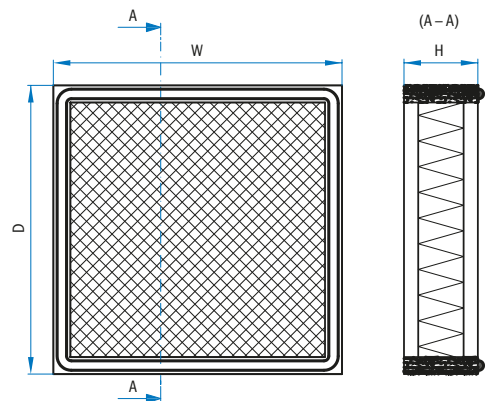
Dry gasket, semicircular profile

- filter version: Filter ... standard
- manufacturer: American Air Filter
- frame material: MDF wood
- temperature limit: 70 °C
- recommended final pressure: 600 Pa
- suitable for: AKF

Table 9: Filter technical data H-H_/PO/MDF/AAF/F_

Nominal size	Filter dimension			Filter class			
	Width W [mm]	Depth D [mm]	Height H [mm]	H13		H14	
				Pressure drop Δp_s [Pa]	Airflow Q [m³/h]	Pressure drop Δp_s [Pa]	Airflow Q [m³/h]
F12	305	x 305	x 150	250	250	320	250
F22	305	x 610	x 150	250	500	320	500
F32	457	x 457	x 150	250	570	320	570
F52	610	x 610	x 150	250	1000	320	1000
F13	305	x 305	x 292	250	500	320	500
F23	305	x 610	x 292	250	1000	320	1000
F33	457	x 457	x 292	250	1130	320	1130
F53	610	x 610	x 292	250	2000	320	2000

Picture 6: Filter drawing H-H_/PO/MDF/AAF/F_



Dry gasket, semicircular profile

- filter version: FilHF ... high flow
- manufacturer: American Air Filter
- frame material: POC galvanized steel
- temperature limit: 70 °C
- recommended final pressure: 750 Pa
- suitable for: AKF

Table 10: Filter technical data H-H_/PO/POC/AAF/F_

Nominal size	Filter dimension			Filter class			
	Width W [mm]	Depth D [mm]	Height H [mm]	H13		H14	
				Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]
F23	305	x 610	x 292	250	1500	380	1500
F53	610	x 610	x 292	250	4000	380	4000

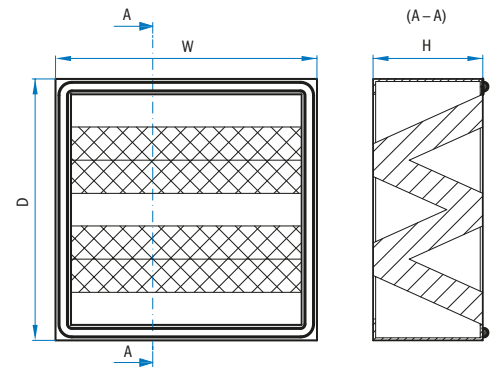
Dry gasket, flat profile

- filter version: Filter ... standard
- manufacturer: Lindab
- frame material: MDF wood
- temperature limit: 70 °C
- recommended final pressure: 600 Pa
- suitable for: AFV-8, AFH-1

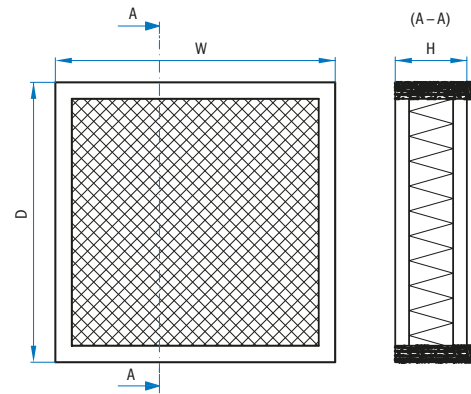
Table 11: Filter technical data H-H_/PL/MDF/LIN/F_

Nominal size	Filter dimension			Filter class			
	Width W [mm]	Depth D [mm]	Height H [mm]	H13		H14	
				Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]
F10	305	x 305	x 78	250	300	120	150
F20	305	x 610	x 78	250	600	120	300
F30	457	x 457	x 78	250	680	120	340
F50	610	x 610	x 78	250	1200	120	600
F80	545	x 545	x 78	250	950	120	950
F12	305	x 305	x 150	250	300	120	150
F22	305	x 610	x 150	250	600	120	300
F32	457	x 457	x 150	250	680	120	340
F52	610	x 610	x 150	250	1200	120	600
F13	305	x 305	x 292	250	500	280	500
F23	305	x 610	x 292	250	1000	280	1000
F33	457	x 457	x 292	250	1100	280	1100
F53	610	x 610	x 292	250	2000	280	2000

Picture 7: Filter drawing H-H_/PO/POC/AAF/F_



Picture 8: Filter drawing H-H_/PL/MDF/LIN/F_



■ Bag filters

Without gasket

- filter version: Filter ... standard
- manufacturer: Lindab
- frame material: galvanized steel
- temperature limit: 80 °C
- recommended final pressure: 450 Pa (exception is 250 Pa for G3, G4, M5)
- suitable for: KPF

Picture 9: Filter drawing FV-G_/-/POC/HID/F_

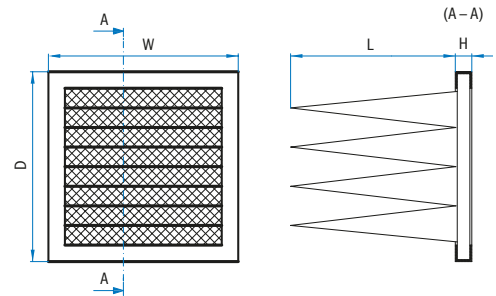


Table 12: Filter technical data FV-G_/-/POC/LIN/F_ ... coarse and medium filters

Filter dimension					Filter class										
Nominal size	Width W		Depth D		Height H	Pocket length-number L-n	G3		G4		M5		M6		
	[mm]	[mm]	[mm]	[mm]			Pressure drop Δps [Pa]	Airflow Q [m³/h]	Pressure drop Δps [Pa]	Airflow Q [m³/h]	Pressure drop Δps [Pa]	Airflow Q [m³/h]	Pressure drop Δps [Pa]	Airflow Q [m³/h]	
F300	287	x	287	x	25	/	630-3	30	850	40	850	60	850	68	850
F310	287	x	490	x	25	/	630-3	30	1400	40	1400	60	1400	68	1400
F320	287	x	592	x	25	/	630-3	30	1700	40	1700	60	1700	68	1700
F330	490	x	490	x	25	/	630-5	30	2400	40	2400	60	2400	68	2400
F340	490	x	592	x	25	/	630-5	30	2800	40	2800	60	2800	68	2800
F350	592	x	592	x	25	/	630-6	30	3400	40	3400	60	3400	68	3400

Table 13: Filter technical data FV-G_/-/POC/LIN/F_ ... fine filters

Filter dimension					Filter class								
Nominal size	Width W		Depth D		Height H	Pocket length-number L-n	F7		F8		F9		
	[mm]	[mm]	[mm]	[mm]			Pressure drop Δps [Pa]	Airflow Q [m³/h]	Pressure drop Δps [Pa]	Airflow Q [m³/h]	Pressure drop Δps [Pa]	Airflow Q [m³/h]	
F300	287	x	287	x	25	/	630-4	86	850	92	850	92	850
F310	287	x	490	x	25	/	630-4	86	1400	92	1400	92	1400
F320	287	x	592	x	25	/	630-4	86	1700	92	1700	92	1700
F330	490	x	490	x	25	/	630-6	86	2400	92	2400	92	2400
F340	490	x	592	x	25	/	630-6	86	2800	92	2800	92	2800
F350	592	x	592	x	25	/	630-8	86	3400	92	3400	92	3400

Panel filters

Without gasket

- filter version: Filter ... standard
- manufacturer: Lindab
- frame material: galvanized steel
- temperature limit: 80 °C
- recommended final pressure: 450 Pa (exception is 250 Pa for G3, G4, M5)
- suitable for: AKF, KPF

Picture 10: Filter drawing KA-G_/-/POC/LIN/F_

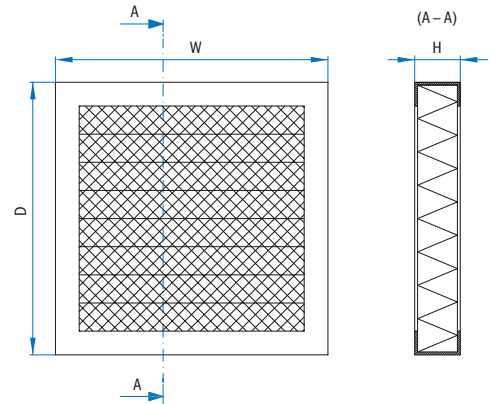


Table 14: Filter technical data KA-G_/-/POC/LIN/F_ ... coarse and medium filters

Filter dimension				Filter class							
Nominal size	Width W [mm]	Depth D [mm]	Height H [mm]	G3		G4		M5		M6	
				Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]
F102	287	x 287	x 48	30	460	40	460	60	460	68	460
F112	287	x 490	x 48	30	820	40	820	60	820	68	820
F122	287	x 592	x 48	30	985	40	985	60	985	68	985
F132	490	x 490	x 48	30	1440	40	1440	60	1440	68	1440
F142	490	x 592	x 48	30	1735	40	1735	60	1735	68	1735
F152	592	x 592	x 48	30	2130	40	2130	60	2130	68	2130
F103	287	x 287	x 98	30	755	40	755	60	755	68	755
F113	287	x 490	x 98	30	1280	40	1280	60	1280	68	1280
F123	287	x 592	x 98	30	1540	40	1540	60	1540	68	1540
F133	490	x 490	x 98	30	1935	40	1935	60	1935	68	1935
F143	490	x 592	x 98	30	2325	40	2325	60	2325	68	2325
F152	592	x 592	x 98	30	2720	40	2720	60	2720	68	2720

Table 15: Filter technical data KA-G_/-/POC/LIN/F_ ... fine filters

Filter dimension				Filter class					
Nominal size	Width W [mm]	Depth D [mm]	Height H [mm]	F7		F8		F9	
				Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]	Pressure drop Δp_s [Pa]	Airflow Q [m ³ /h]
F102	287	x 287	x 48	83	460	86	460	86	460
F112	287	x 490	x 48	83	820	86	820	86	820
F122	287	x 592	x 48	83	985	86	985	86	985
F132	490	x 490	x 48	83	1440	86	1440	86	1440
F142	490	x 592	x 48	83	1735	86	1735	86	1735
F152	592	x 592	x 48	83	2130	86	2130	86	2130
F103	287	x 287	x 98	83	755	86	755	86	755
F113	287	x 490	x 98	83	1280	86	1280	86	1280
F123	287	x 592	x 98	83	1540	86	1540	86	1540
F133	490	x 490	x 98	83	1935	86	1935	86	1935
F143	490	x 592	x 98	83	2325	86	2325	86	2325
F152	592	x 592	x 98	83	2720	86	2720	86	2720

Ordering key

Filter H-H13 / PO / MDF / AAF / size

