Hepatex N
The Space Saver

CLEAN AIR

POWER GENERATION

CLEAN ROOM

INDUSTRIAL

Rigid, robust and compact; Hepatex N is designed to provide assured performance and safety in all types of applications.

Hepatex N filters are manufactured to international standard dimensions based on 609 x 609 x 292 mm. They are designed for the separation of suspended matter in supply and exhaust air systems in industry, clean room applications, medical and nuclear installations.

For face velocities up to 3 m/s (air volumes up to 4,000 m³/h) Hepatex N with V-design filter mats (Fig. 1) are available in various pack densities as well as with various casing and gasket materials.

Hepatex N filters are unique in regard to their compact and robust construction with a one-piece front and end plate, minimising risk of damage and maximising service life by allowing a large active media area.

KEY FACTS

- Compact design: Saves space and simplifies handling
- Rigid and robust with one-piece front and end plate: Minimises risk of damage and ensures ultimate performance
- Large active media area: Maximises service life and reduces disposal and maintenance costs
- Low pressure drop: Reduces energy consumption
- Leak tested: Guaranteed leak-free for assured safety and performance
- Air flows up to 4,000 m³/h and efficiencies of F7 to U15: For assured performance in all types of applications
- Integrated handle: For ease of installation and transportation

EUROVENT CERTIFIED PERFORMANCE
AIR FILTERS CLASS M5-F9
www.eurovent-certification.com

MANN+HUMMEL participates in the ECC programme for Air Filters. Check ongoing validity of certificate: **www.eurovent-certification.com or www.certiflash.com**

Hepatex N Design and Prefilter Options

DESIGN

Hepatex N filters are manufactured by a process that provides for extremely careful treatment of the material. The basic element in all filter types is the filter mat (Fig. 2) which is manufactured from a high quality glass fibre filter medium.

The pleats of the filter medium allow for a flow velocity at the filter mat that is approximately 100 times higher than for unfolded material. The number of storage cells for trapping dust particles is also increased by the same factor. To keep the pleats uniformly spaced, special threads or a high temperature hot melt are inserted.

Thus, the filter mat not only achieve high strength but also excellent elasticity. It is assembled as a self supporting element into a solid wood or steel casing. The filter medium is sealed with its frame using a two-component Polyurethane compound. EPDM is used as gasket material. It is particularly resistant to acids, brines, light and ageing. In high temperature versions Silicone can replace Polyurethane or EPDM.

PREFILTER FOR HEPATEX N

The service life of the Hepatex N filters can be extended by pre filtering larger particles. In general (depending on the application), the choice of a pre filter 3 classes lower than that of the final filter results in a service life of the final filter of approximately double. We recommend the Compatex FP fine dust filters as pre filters for Hepatex N filters of groups E, H or U.

Special Constructions

Various Hepatex N filters for special applications are available on request.

Operating Limits

The maximum relative humidity is 100%, however, the air temperature must remain higher than the dew point. Continuous operating temperature can be exceeded up to a max. of 1 hour and 10 °C.

Disposal

Filters contaminated by exterior air can be disposed of in the same way as normal industrial refuse in accordance with local regulations. Filters contaminated with bacterial, toxic and/or radioactive matter must be disposed of as harzardous waste in accordance with local regulations.

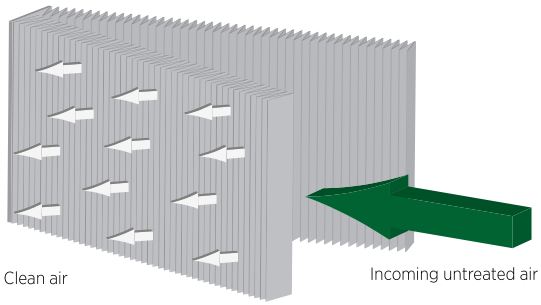


Fig. 1: V-shaped arrangement of filter mats in Hepatex N filters

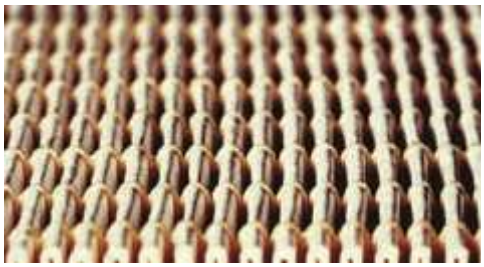


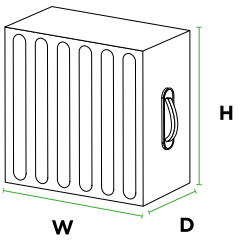
Fig. 2: Filter mat

Hepatex N
Technical Data

Filter type	N-	F7-V40	F9-V40	E11-V35	H13-V30	H13-V34-T	H13-V40	H14-V35	U15-V30
Rated Air Flow[1] (V_N)	m³/h	4,000	4,000	3,500	3,000	3,400	4,000	3,500	3,000
Rated Face Velocity	m/s	3.0	3.0	2.6	2.25	2.55	3.0	2.6	2.25
Initial Pressure Drop[1] at V_N[2]	Pa	140	170	190	250	270	290	250	250
Recommended Final Pressure Drop[3]	Pa	450	450	600	600	600	600	600	600
Continuous Operating Temperature	°C	125	125	125	125	220	125/100[7]	125	125
Typical Efficiences									
EN 779 (average efficiency)	%	83	97	-	-	-	-	-	-
EN 1822 (typ. MPPS[4] integral value)	%	–	–	98	99.97	99.99	99.98	99.998	99.9998
EN 1822 (min.MPPS[4] integral value)	%	–	–	95	99.95	99.95	99.95	99.995	99.9995
EN 1822 (min. MPPS[4] local value[5])	%	–	–	-	99.75	99.75	99.75	99.975	99.975
Filter Class acc. to EN 779 / EN 1822[1]		F7	F9	E11	H13	H13	H13	H14	U15
Flam. Classification acc. to DIN 53 438		K1/F1	K1/F1	K1/F1	K1/F1	K1/F1	K1/F1	K1/F1	K1/F1

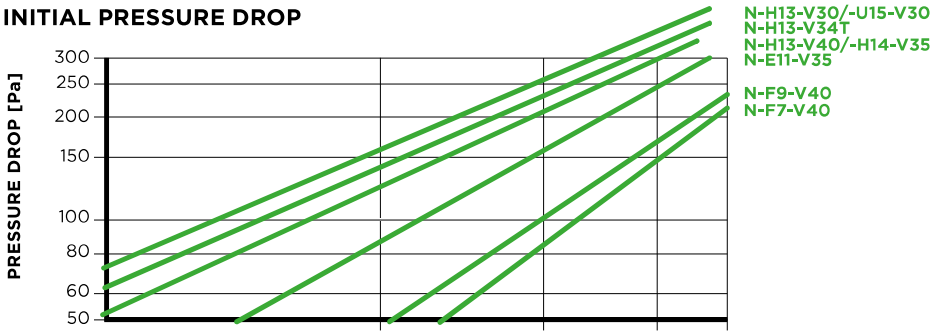
1) For cell size "610". Rated values for other filter sizes see "Available Types". 2) Tolerance ± 15%. 3) Maximum final pressure drop < 900 Pa
4) MPPS = Most Penetrating Particle Size. Aerosol DEHS = to (2-ethylhexyl) sebacate. 5) Local value = minimal value of efficiency at a leakage, tested with scanning.

DIMENSIONS (mm)



Type	610	305	762	205	595
H (mm)	609 (±1)/ 595 (±1)	609 (±1)/ 595 (±1)	609 (±1)/ 595 (±1)	609 (±1)/ 595 (±1)	609 (±1)/ 595 (±1)
D (mm)	292 (±1)	292 (±1)	292 (±1)	292 (±1)	292 (±1)
W (mm)	609 (±1)	304 (±1)	762 (±1)	205 (±1)	595 (±1)

INITIAL PRESSURE DROP



Type						Dimensions W x H
610/595	1,000	2,000	3,000	4,000	5,000	610 x 610 mm
305	500	1,000	1,500	2,000	2,500	305 x 610 mm
762	1,200	2,400	3,600	4,800	6,000	762 x 610 mm
205	333	666	1,000	1,333	1,666	205 x 610 mm

For related air flows only. Please contact us for values at other flow rates.

AIR FLOW [m³/h]

Hepatex N
Available Types

Filter type	Dimensions W x H x D [mm]	Rated Airflow	Filtering Area	Frame Material	Sealant Material	Gasket Material	Weight [kg]
N-F7-V40-610-vz	610 x 610 x 292	4,000 m³/h	26 m²	Galv. Steel	PU	EPDM	19 kg
N-F7-V40-305-vz	305 x 610 x 292	2,000 m³/h	13 m²	Galv. Steel	PU	EPDM	12 kg
N-F7-V40-305-vz	610 x 610 x 292	4,000 m³/h	26 m²	Galv. Steel	PU	EPDM	19 kg
N-F9-V40-305-vz	305 x 610 x 292	2,000 m³/h	13 m²	Galv. Steel	PU	EPDM	12 kg
N-E11-V35-610-vz	610 x 610 x 292	3,500 m³/h	26 m²	Galv. Steel	PU	EPDM	19 kg
N-E11-V35-305-vz	305 x 610 x 292	1,750 m³/h	13 m²	Galv. Steel	PU	EPDM	12 kg
N-E11-V35-762-vz	762 x 610 x 292	4,100 m³/h	30 m²	Galv. Steel	PU	EPDM	23 kg
N-H13-V30-610-vz	610 x 610 x 292	3,000 m³/h	26 m²	Galv. Steel	PU	EPDM	19 kg
N-H13-V30-305-vz	305 x 610 x 292	1,500 m³/h	13 m²	Galv. Steel	PU	EPDM	12 kg
N-H13-V34-T-610-rf	610 x 610 x 292	3,400 m³/h	37 m²	Stainless Steel	Silicone	Silicone	20 kg
N-H13-V34-T-305-rf	305 x 610 x 292	1,700 m³/h	18.5 m²	Stainless Steel	Silicone	Silicone	13 kg
N-H13-V40-610-vz	610 x 610 x 292	4,000 m³/h	37 m²	Galv. Steel	PU	EPDM	20 kg
N-H13-V40-305-vz	305 x 610 x 292	2,000 m³/h	18.5 m²	Galv. Steel	PU	EPDM	13 kg
N-H13-V40-762-vz	762 x 610 x 292	4,700 m³/h	43 m²	Galv. Steel	PU	EPDM	24 kg
N-H13-V40-205-vz	205 x 610 x 292	1,300 m³/h	12.5 m²	Galv. Steel	PU	EPDM	10 kg
N-H13-V40-595-vz	595 x 595 x 292	4,000 m³/h	18.5 m²	Galv. Steel	PU	EPDM	19 kg
N-H13-V40-610-rf	610 x 610 x 292	4,000 m³/h	37 m²	Stainless Steel	PU	EPDM	20 kg
N-H13-V40-305-rf	305 x 610 x 292	2,000 m³/h	18.5 m²	Stainless Steel	PU	EPDM	13 kg
N-H13-V40-762-rf	762 x 610 x 292	4,700 m³/h	43 m²	Stainless Steel	PU	EPDM	24 kg
N-H13-V40-610-sp	610 x 610 x 292	4,000 m³/h	37 m²	Chipboard	PU	EPDM	15 kg
N-H13-V40-305-sp	305 x 610 x 292	2,000 m³/h	18.5 m²	Chipboard	PU	EPDM	10 kg
N-H13-V40-762-sp	762 x 610 x 292	5,000 m³/h	46 m²	Chipboard	PU	EPDM	18 kg
N-H14-V35-610-vz	610 x 610 x 292	3,500 m³/h	40 m²	Galv. Steel	PU	EPDM	21 kg
N-H14-V35-305-vz	305 x 610 x 292	1,750 m³/h	20 m²	Galv. Steel	PU	EPDM	14 kg
N-H14-V35-762-vz	762 x 610 x 292	4,100 m³/h	47 m²	Galv. Steel	PU	EPDM	25 kg
N-H14-V35-610-rf	610 x 610 x 292	3,500 m³/h	40 m²	Stainless Steel	PU	EPDM	21 kg
N-H14-V35-305-rf	305 x 610 x 292	1,750 m³/h	20 m²	Stainless Steel	PU	EPDM	14 kg
N-H14-V35-762-rf	762 x 610 x 292	4,100 m³/h	47 m²	Stainless Steel	PU	EPDM	25 kg
N-U15-V30-610-rf	610 x 610 x 292	3,000 m³/h	40 m²	Stainless Steel	PU	EPDM	21 kg
N-U15-V30-305-rf	305 x 610 x 292	1,500 m³/h	20 m²	Stainless Steel	PU	EPDM	14 kg

ORDER CODE AND EXAMPLE

N - **U15** - **V30** - **305** - **-rf**

Filter Range

Filtering efficiency:
Filter class acc. to EN 779 or EN 1822

Design:
V: Filter mats in V arrangement
Rated airflow, etc.:
30: VN = 3,000 m³/h
35: VN = 3,500 m³/h
40: VN = 4,000 m³/h
For filter size 610 mm:
T: High temp. version

Filter dimension W
H = 610/595 mm
D = 292 mm

Frame Material:
sp: chipboard
vz: galvanized steel
rf: stainless stee