NORDcanopy

HR-C Grease Canopies

- Replacement room air provided through front and side panels
- "AirGrip" air intake system
- Laser welded structure
- Efficient HFK cyclone filters protected as a utility model
- Energy efficient LED lights
- Registered design no. 007972823-0001

www.nordcooking.com

ETS NORD

General

The NORDcanopy product portfolio consists of canopies and related air treatment products for use in commercial and industrial kitchen ventilation to create a comfortable and hygienic work environment.

Our products combine stylish design with highly effective grease, heat and odor removal performance for your project. Thanks to our highly efficient HFK centrifugal filters, 95% of cooking greases can be eliminated from the kitchen exhaust airstream.

We at ETS Nord know that no projects are exactly alike. We have designed our canopies to be modular, so we can custom design and manufacture a NORDcanopy solution to meet your each and every project requirement or technical need.

NORDcanopy products are manufactured from stainless steel according to standards EN 10088- 2:2014, EN 1.4301 or AISI 304 (AISI 304, surface 2K).

HR Grease Canopies

HR-C
Grease canopy

aSAP

HR-E
Grease canopy

aSAP

HR-V
Grease canopy

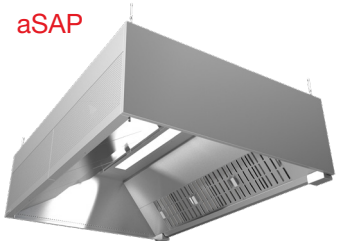
aSAP

HR-G
Grease canopy HIGH CAPACITY

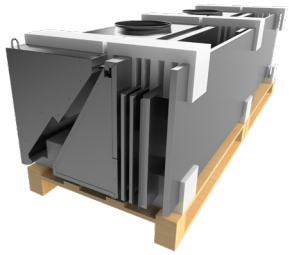
aSAP

HR-H
Hybrid canopy

aSAP



aSAP Solution



FET "Helping hand"
Grease filter removal tool

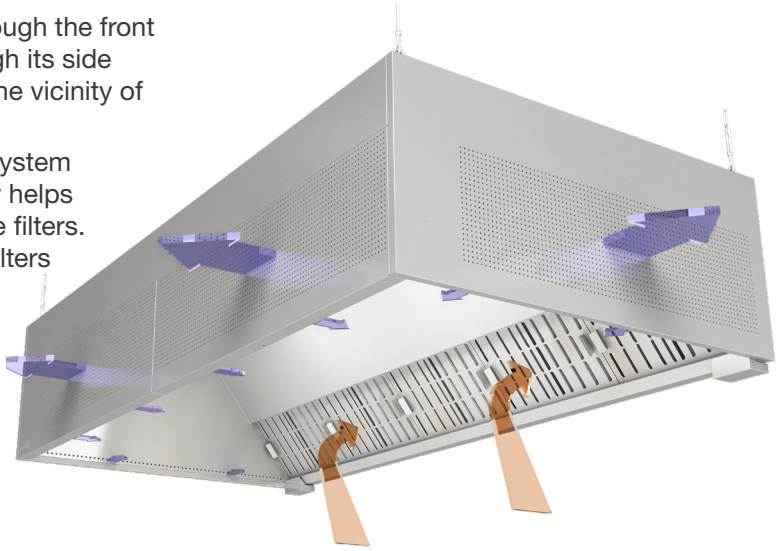
Cover plates

HR-C Grease Canopy

HR-C kitchen canopy ensures a clean, hygienic and comfortable work environment by removing pollutants, excessive heat and grease from your commercial kitchen operation. The same unit supplies fresh replacement air into the room to provide ultimate worker comfort.

Operation

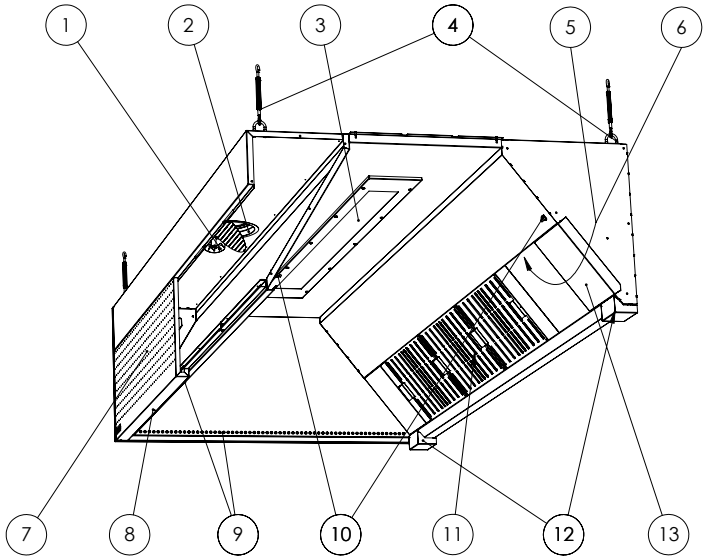
- Supply air is supplied into the room through the front panel of the kitchen canopy (also through its side panels if desired) providing fresh air in the vicinity of the kitchen staff.
- Air supplied by the "AirGrip" air intake system along the lower perimeter of the canopy helps route the kitchen effluent into the grease filters. The grease then drains down from the filters into the collection channel leading to its collection container.



Recommended Data

Modul length L	Extraction airflow l/s (Δp_{tot} 14-48 Pa)	Supply airflow (with "AirGrip" air nozzle system) per linear meter of panel, l/s			
		SPx1	SPx2	SPx3	Side panel
1000	140-260	10-61 Pa 71-175 l/s	10-40 Pa 110-220 l/s	10-28 Pa 165-275 l/s	10-40 Pa 22-40 l/s
1500	210-390				
2000	280-520				
2500	350-650				

Construction



1 - Supply air adjustment plate
2 - Supply air connection
3 - Lighting
4 - Suspension points
5 - Exhaust air connection
6 - Exhaust air regulating plate
7 - Front panel
8 - Front panel lock
9 - "AirGrip" air nozzle system
10 - Airflow measuring nipples
11 - HFK grease filters
12 - Grease collection container
13 - Blind panel for grease filter rail

- The canopy is made from stainless steel (AISI 304, surface 2K).
- Duct connections are equipped with rubber gaskets.
- Supply air chambers are heat insulated to prevent condensation of steam on the inner surface of the canopy.
- The laser welded end walls of the exhaust chamber prevent the possible spillage of grease from the inside of the chamber, thereby reducing the possibility of bacteria forming in the joints of the parts.
- The side walls of the hood are a closed structure and air tight allowing for routing supply air and the use of the "AirGrip" air capture on the sides, contributing thereby to more efficient removal of pollution.
- Easy-to-clean surfaces.
- Access to the chamber and the possibility to clean the supply pipes is ensured through the easy-to-remove front panel of the hood. Exhaust pipes can be connected and insulated via the removable ceiling panel.
- A modular hood is supplied without partition walls.
- Adjustable suspension hooks are included.

Lighting

Professional kitchens require functional lighting to ensure that employees have a safe and effective work environment. ETS NORD professional kitchen canopies use the next generation of energy-efficient recessed LED fluorescent lamps and LED-Spot luminaires, which can save as much as 50% more energy compared to old technologies.
Grease removal canopies include light fixtures integrated into their ceilings, protected by an aluminum and glass casing.
The size and number of light fixtures are determined by the size of the canopy, to ensure there is enough light output for the entire workspace.

Luminaries:

Canopy modul length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Light color	Color temperature (K)	Color render-ing index (Ra)	Flux (lm)
1000 ≤ L <1600	LED770	769	17	840	4000	80	2250
1600 ≤ L <1900	LED1370	1350	41	840	4000	80	4900
L ≥1900	LED1670	1669	54	840	4000	80	6800

Spot LED lighting fixtures

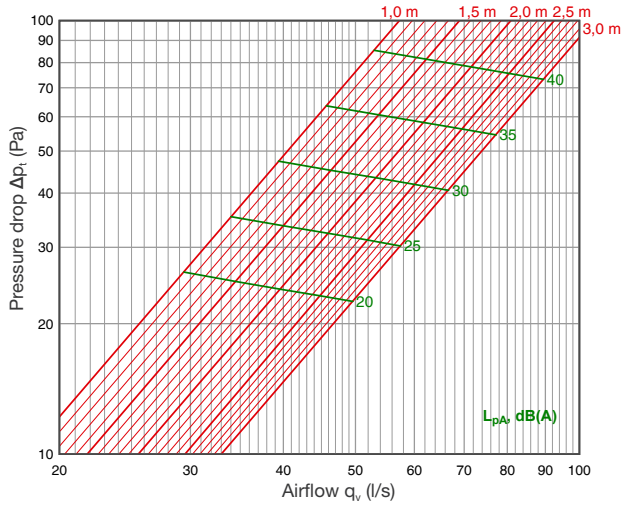
Light colour (designation) - Cool White
Light colour - 4000 K
Housing material - Aluminium
Colour separation index - > 80 (Ra)

Canopy modul length (mm)	Spot LED Quantity	Energy use (W)	Flux (lm)	Radiation angle
1000 ≤ L <1500	2	16	1340	36°
1500 ≤ L <2000	3	24	2010	36°
L ≥2000	4	32	2680	36°

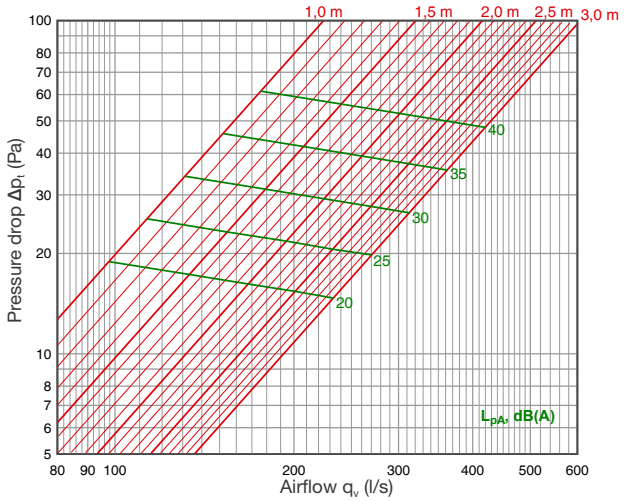
Technical data

The supply panels always contain the "AirGrip" air capture system.

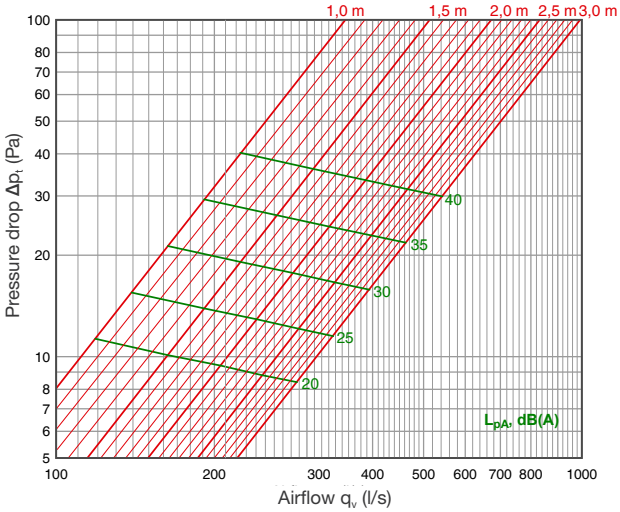
Supply air: "AirGrip"



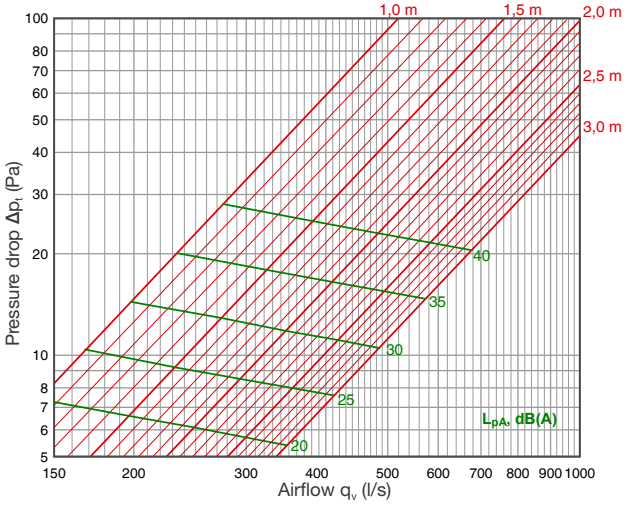
Supply air: SPx1



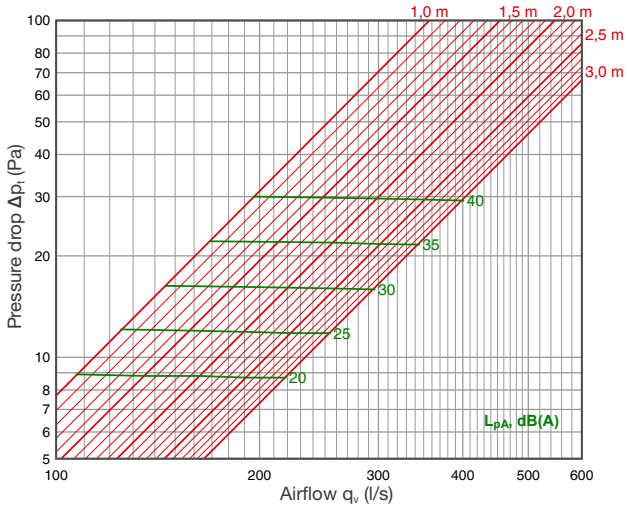
Supply air: SPx2



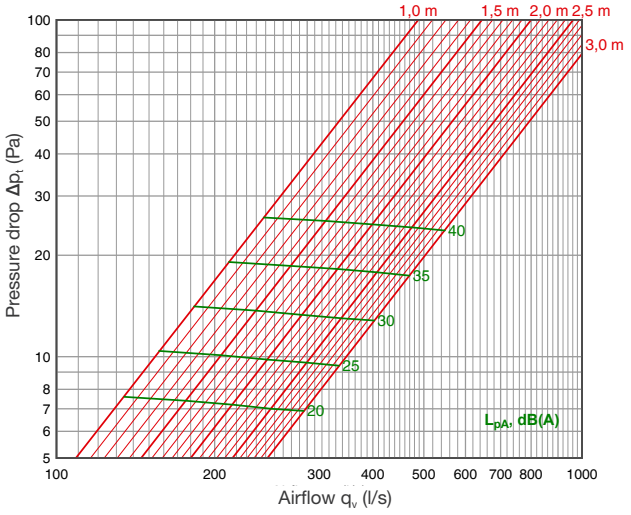
Supply air: SPx3



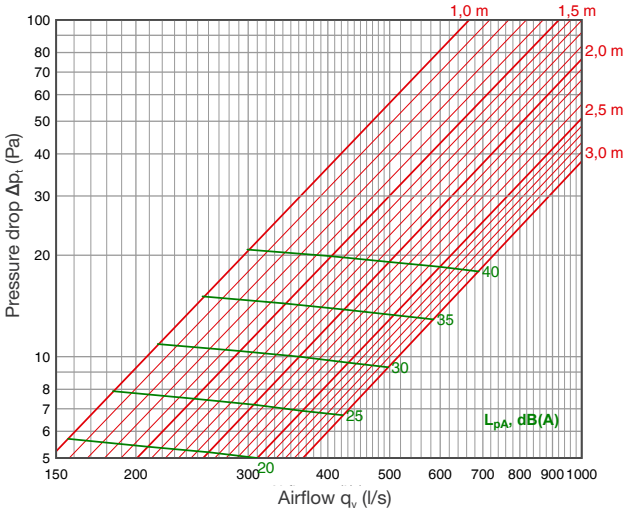
Supply air: SPx1+side panels



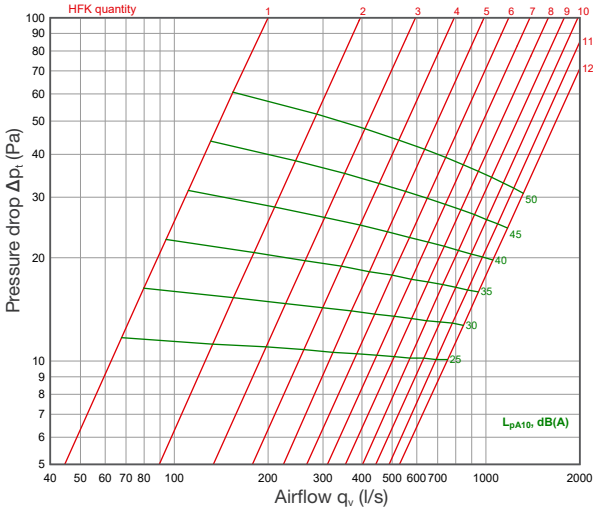
Supply air: SPx2+side panels



Supply air: SPx3+side panels



HFK - grease filter

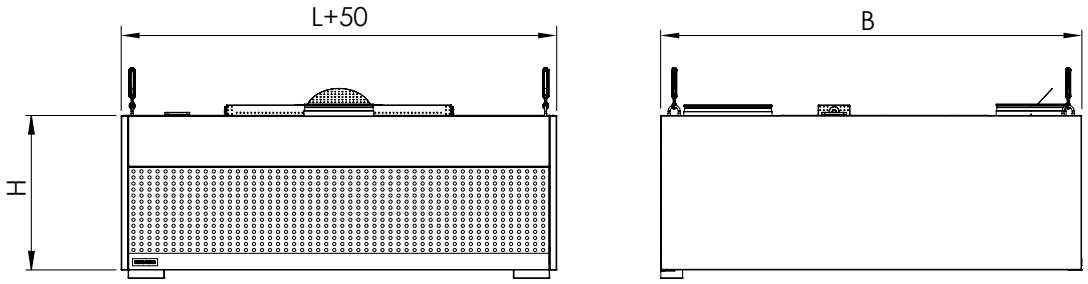


Acoustic data

Supply air	Correction of sound level K_{okt} [dB] (Hz)							
	63	125	250	500	1000	2000	4000	8000
"AirGrip"	-6	-8	-5	-3	0	-1	-7	-20
SPx1	-1	0	3	2	-1	-3	-11	-23
SPx2	0	1	5	4	-1	-8	-20	-27
SPx3	7	5	6	4	-2	-13	-21	-30
SPx1+side panels	-1	-1	2	2	0	-5	-15	-28
SPx2+side panels	3	1	5	4	-1	-9	-21	-27
SPx3+side panels	8	5	6	4	-3	-13	-22	-30
	± 4 dB	± 4 dB	± 4 dB	± 2 dB	± 2 dB	± 2 dB	± 2 dB	± 2 dB

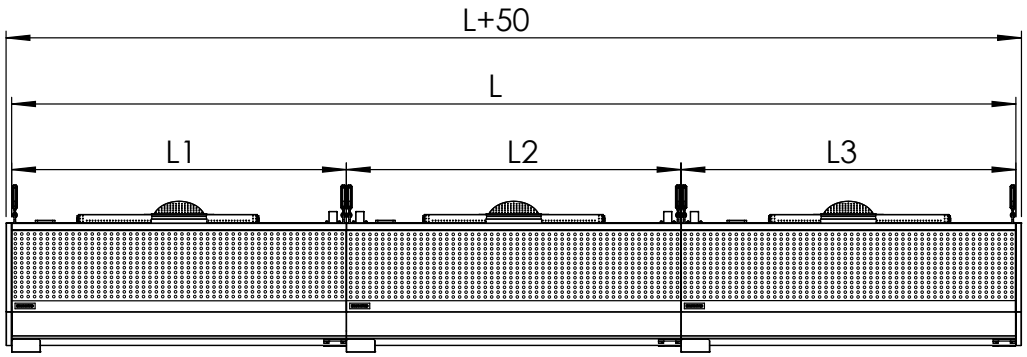
Modul dimensions

Dimensions, mm	
L Length	1000, 1100, ..., 2400, 2500
B Width	900 (available with Spot LED) 1000, 1100, ..., 1900, 2000
H Height	400, 550, 400/550

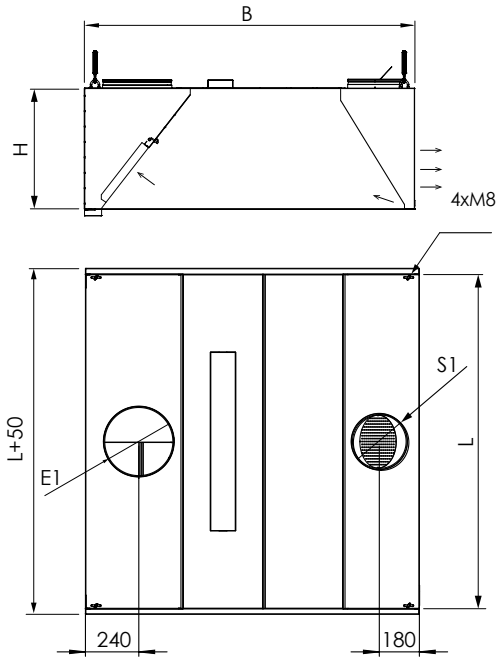


Canopy lengthening with modular sections

- Hoods consisting of several modules are made without a partition wall.
- The maximum size of one module is 2500x2000 mm.
- Preferred length dimensions are 1000, 1500, 2000 mm.
- For connecting the modules see the installation manual.



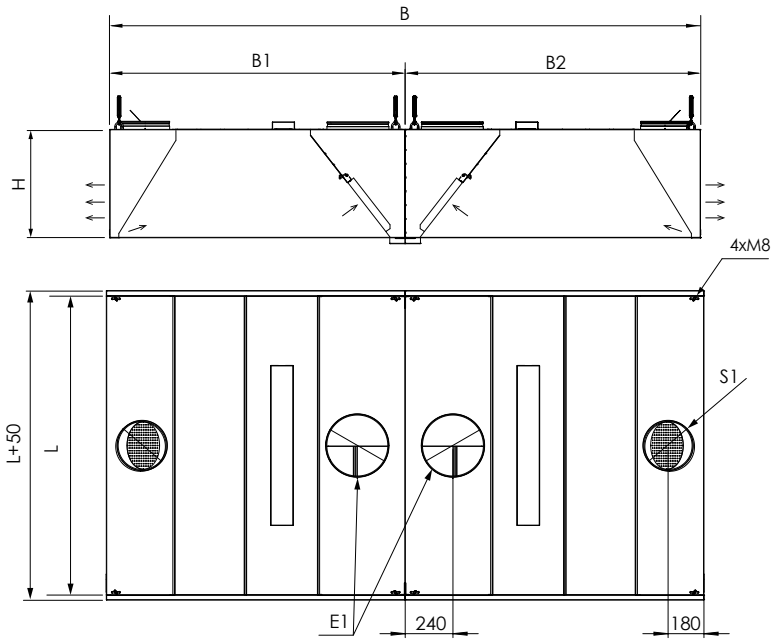
HR-C Wall installation, 1-part, E1 - one exhaust air chamber



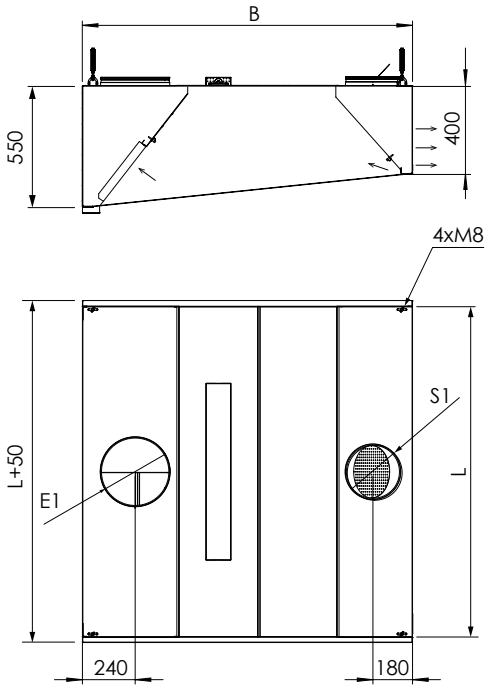
Modul dimensions, mm	
L Length	1000, 1100, ..., 2400, 2500
B Width	900 (available with Spot LED) 1000, 1100, ..., 1900, 2000
H Height	400, 550
S1	160, 200, 250
E1	200, 250, 315

HR-C-2 island installation, 2-part, E1 - one exhaust air chamber

Modul dimensions, mm	
L Length	1000, 1100, ..., 2400, 2500
B Width	1800 (available with Spot LED) 2000, 2200, ..., 3800, 4000
B1/B2 Width	900 (No lighting) 1000,1100, ..., 1800
H Height	400, 550
S1	160, 200, 250
E1	200, 250, 315



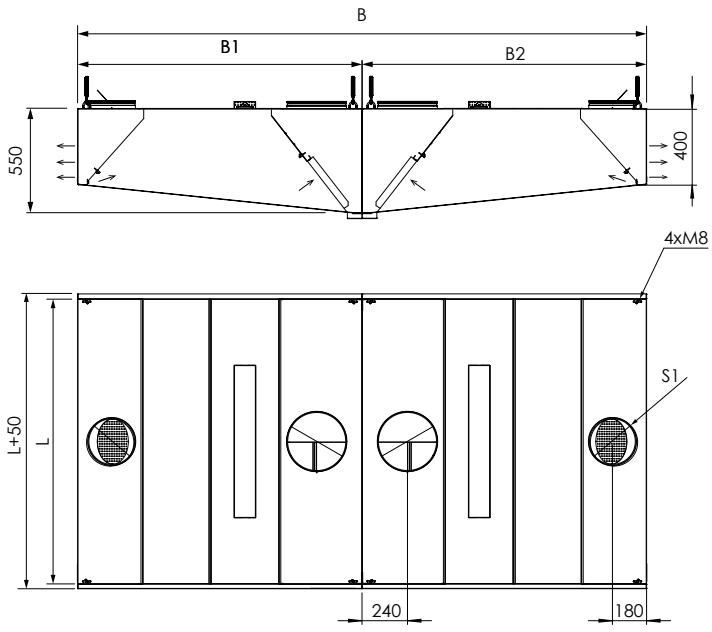
HR-C Trapezoid canopy wall installation, 1-part, E1 - one exhaust air chamber



Modul dimensions, mm	
L Length	1000, 1100, ..., 2400, 2500
B Width	900 (available with Spot LED) 1000, 1100, ..., 1900, 2000
H Height	400/550
S1	160, 200, 250
E1	200, 250, 315

HR-C-2 Trapezoid canopy island installation, 2-parts, E1 - one exhaust air chamber

Modul dimensions, mm	
L Length	1000, 1100, ..., 2400, 2500
B Width	1800 (available with Spot LED) 2000, 2200, ..., 3800, 4000
B1/B2 Width	900 (No lighting) 1000,1100, ..., 1800
H Height	400/550
S1	160, 200, 250
E1	200, 250, 315



Product marking

Marking - Dimensions - Supply air - Exhaust air - Front panel - Grease filters - Lighting

Marking
- HR-C - 1 module in width
- HR-C-2 - 2 modules in width
- HR-C-3 - 3 modules in width

Dimensions
- L - Length
- B - Width
- H - Height

Supply air
- S1 - Supply air chamber on one side
- Diameter of supply air connection
- Quantity of supply air connections

Exhaust air
- E1 - One exhaust air chamber
- Diameter of exhaust air connection
- Quantity of exhaust air connections

Front panel
- SPx0 - No Perforation, only "AirGrip" supply air curtain system
- SPx1 - Perforation pattern 1 - (per L=1000mm) 130 l/s, 40 Pa, 40 dB(A)
- SPx2 - Perforation pattern 2 - (per L=1000mm) 190 l/s, 37 Pa, 40 dB(A)
- SPx3 - Perforation pattern 3 - (per L=1000mm) 250 l/s, 25 Pa, 40 dB(A)
- SPxK - Perforation pattern on L/R side panels - (SPxKL, SPxKR, SPxKLR)

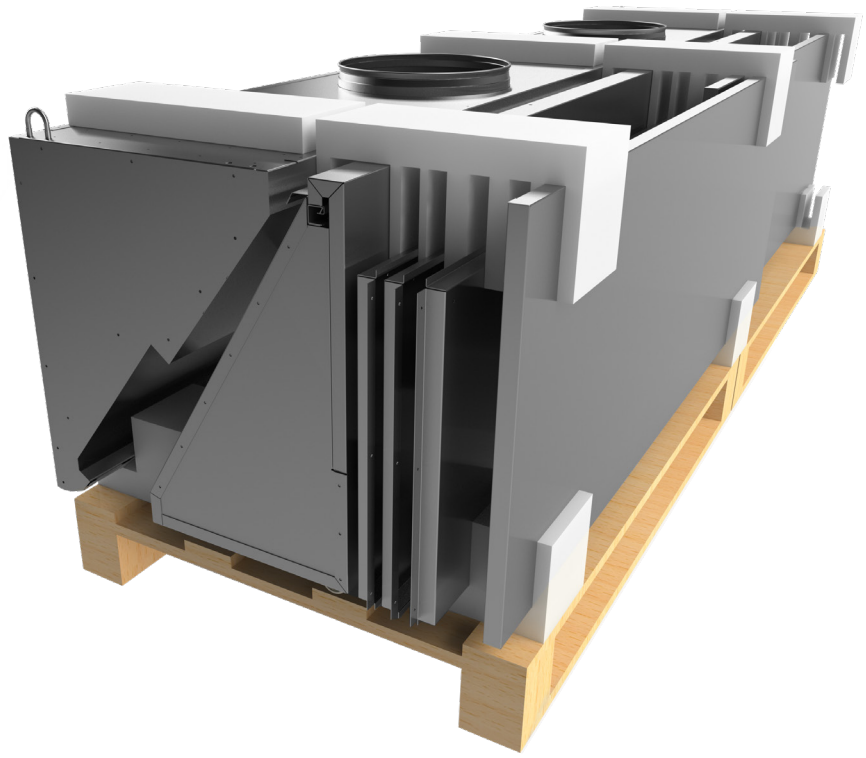
Grease filters
- HFK
- Grease filter quantity

Lighting
- LED770 - L=769, 17W
- LED1370 - L=1369, 41W
- LED1670 - L=1669, 54W
- SpotLED - 8W
- Quantity of lighting fixtures

Example: HR-C 4000x1500x550 - S1=250x4 - E1=315x2 - SPx2 - HFKx6 - LED1670x2

aSAP solution – a Self Assembly Package

- When access to the job site or kitchen space is limited, an ETS NORD aSAP self-assembly package can be the perfect solution.
- Narrow passageways and complex floor plans no longer get in the way!
- This is a compact, easy to ship, 5-step assembly version of our canopies to be put together at the job site.
- The canopy is delivered as ready-made modules with installation instructions.



Accessories

Cover plates

Mounted in the area between canopy and ceiling, when conduits and other components are to be concealed.

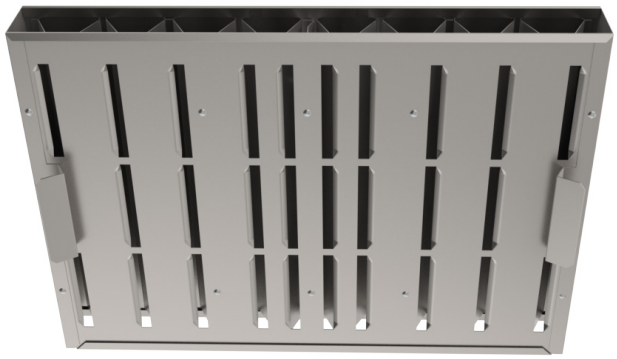
"Helping Hand" filter removal tool

- With the ETS NORD "Helping Hand" filter tool, professional kitchen operators can safely and easily service their grease filters.
- Helping Hand allows grease filters to be removed and replaced without the cumbersome need to climb on or reach over kitchen equipment.
- The daily filter washing process is significantly simplified, thus ensuring its completion by the responsible staff.
- The tool's length is fully adjustable, thereby enhancing ergonomic comfort.

HFK Grease Filter

HFK is a high efficiency grease filter designed for use in ventilation hoods of commercial kitchens or other food production facilities. They are positioned in the hood exhaust plenum above cooking appliances (stoves, grills, etc.) and separate grease and other particles out from the exhaust air stream.

The ETS NORD HFK grease filter is protected by utility patent no. 01310.



- High efficiency captures 97% of 10 micron particles
- Functions well even with variable air volume systems
- Low pressure drop provides energy-efficient operation
- Flame resistance class A according to DIN 18869-5
- Easy to maintain

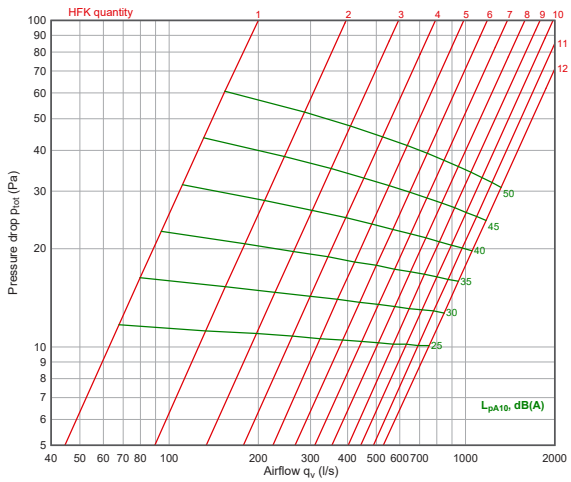
Material and Design

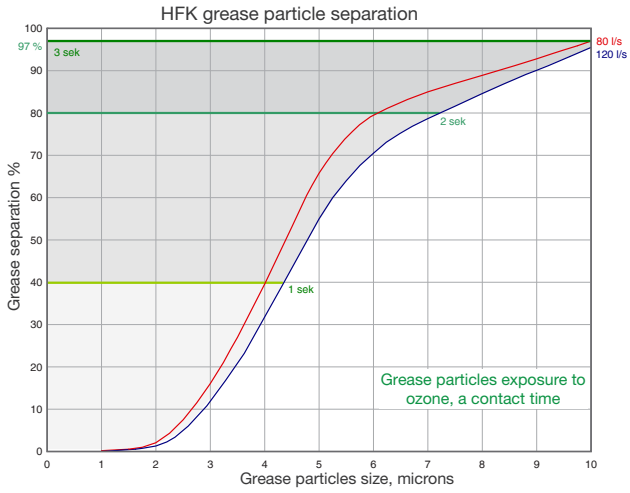
HFK filters are manufactured from AISI 304 stainless steel. They are assembled with rivets to ensure their durability through many years of use in challenging kitchen environments.

Operation

The greasy effluent from cooking appliances is pulled through the openings in the front panel of the filter. Our patented double-triangular cross-section within the chamber causes a high speed centrifugal swirling of the air. The rapid change of trajectory of the grease particles causes them to collide with the filter surfaces, resulting in their effective separation from the air stream. The grease then drains from the filter down and into the grease collection channel of the hood. The filtered air continues on into the kitchen exhaust system through the top and bottom orifices of the filter.

The optimal operating conditions of the HFK Grease Filter are under a pressure drop from 12-48 Pa with an airflow through each filter from 70-130 l/s, ensuring an energy efficient operation.





Installation

HFK Grease Filters are easily inserted into the filter installation rails extending across the entire length of the hood.

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