



NORDcanopy

HR Grease Canopies

Laser welded structure

"AirGrip" air intake system

Efficient HFK grease filters protected by utility patent

Energy efficient LED lights

Registered design no. 007972823-0001

HACCP certified (no. I-PE-106-ETS-R4-01)

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).

HACCP International certifies the equipment listed above as food-safe and suitable for use in food facilities that operate in accordance with a HACCP based Food Safety Programme.



HR Grease Canopies

HR-C

Grease canopy – standard

5

aSAP



HR-C is our standard HR canopy and satisfies the needs of most commercial kitchens.

HR-V

Grease canopy – island

11

aSAP



Island installations should be symmetrical in form. Our HR-V canopy includes all the features available in our other canopies, in an effective and attractive package.

HR-G

Grease canopy HIGH CAPACITY

16

aSAP



The HR-G high-capacity grill canopy makes it easy to exhaust the high volumes of cooking gases and smoke often found above grills and broilers. It can support up to an amazing 520 l/s per linear meter!

HR-E

Grease canopy – dual exhaust

22

aSAP

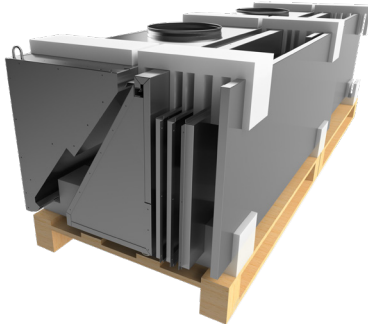


When high volumes of exhaust air are needed, and supply air will be provided by other devices, the HR-E dual-exhaust canopy is the perfect solution.

HR Options & Accessories

aSAP Solution

30



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 are no longer a problem with our aSAP-packaged canopy sections, which are easily assembled at the job site.

FET "Helping Hand"

Grease filter removal tool

30



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.

Cover Plates

30



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

HFK

Grease filter

31



HFK is a high efficiency grease filter designed for use in ventilation canopies of commercial kitchens or other food production facilities.

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

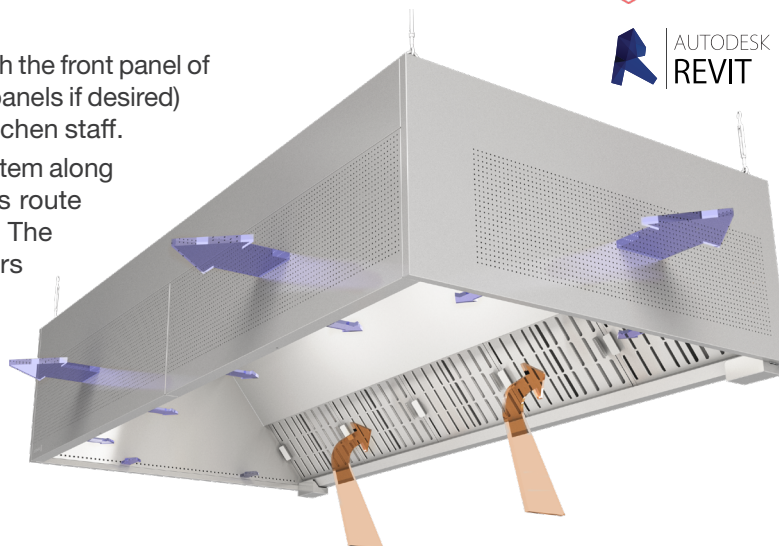
HR-C Grease Canopy – Standard

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

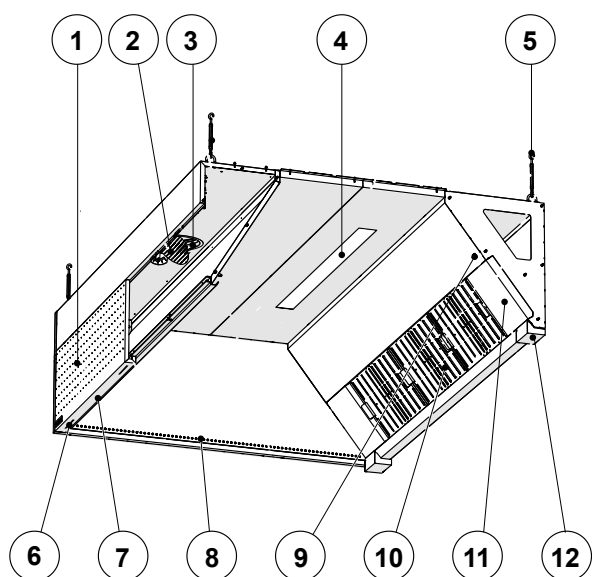
- Supply air is supplied into the room through the front panel of the kitchen canopy (also through its side panels if desired) providing fresh air in the vicinity of the kitchen staff.
- Air supplied by the "AirGrip" air intake system along the lower perimeter of the canopy helps route the kitchen effluent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



Recommended data

Section 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				
1500	210-390	10-61 Pa	10-40 Pa	10-28 Pa	10-40 Pa
2000	280-520	71-175 l/s	110-220 l/s	165-275 l/s	22-40 l/s
2500	350-650				

Construction



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

- 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 canopy 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 canopy. Exhaust pipes can be connected and insulated via the removable ceiling panel.
- A sectioned canopy is supplied without partition walls.
- Adjustable suspension hooks are included.



Lighting

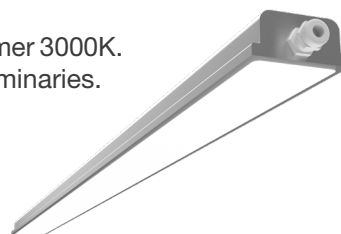
Professional kitchens require functional lighting to ensure that employees have a safe and effective work environment.

ETS NORD professional kitchen canopies use the next generation of energy-efficient LED luminaries, which can save as much as 50% more energy compared to old technologies.

Canopies include LED luminaries integrated into their ceilings, protected by an aluminum and plastic 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.

LED luminaries have two color temperature options - colder 4000K and warmer 3000K.

It is also possible to choose between regular LED and DALI2 (dimnable) luminaries.



LED luminaries (standard), IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
1000 ≤ L < 1300	LED-4000-600	600	17	4000	90	2907
1000 ≤ L < 1300	LED-3000-600	600	17	3000	90	2907
1400 ≤ L < 2900	LED-4000-1200	1200	34	4000	90	6498
1400 ≤ L < 2900	LED-3000-1200	1200	34	3000	90	6498

DALI2 luminaries, IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
1000 ≤ L < 1300	DALI2-4000-600	600	20	4000	90	3000
1000 ≤ L < 1300	DALI2-3000-600	600	20	3000	90	3000
1400 ≤ L < 2900	DALI2-4000-1200	1200	37	4000	90	6000
1400 ≤ L < 2900	DALI2-3000-1200	1200	37	3000	90	6000

Spot LED lighting fixtures, IP65

Light colour: 4000K (colder), 3000K (warmer)

Housing material: Aluminium

Colour separation index: > 80 (Ra)

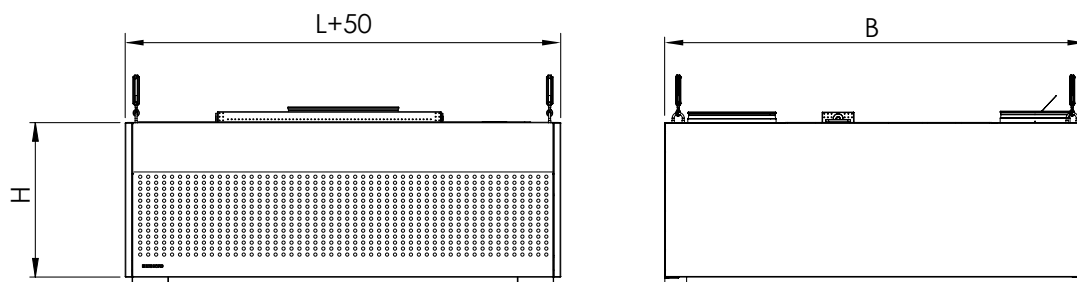


Canopy length (mm)	Spot LED quantity	Energy use (W)	Flux 4000K (lm)	Flux 3000K (lm)	Radiation angle
$1000 \leq L < 1200$	2	16	1340	1240	36°
$1300 \leq L < 1700$	3	24	2010	1860	36°
$1800 \leq L < 2300$	4	32	2680	2480	36°
$2400 \leq L \leq 2900^*$	5	40	3350	3100	36°

*In sectional canopies the amount of SpotLEDs may differ.

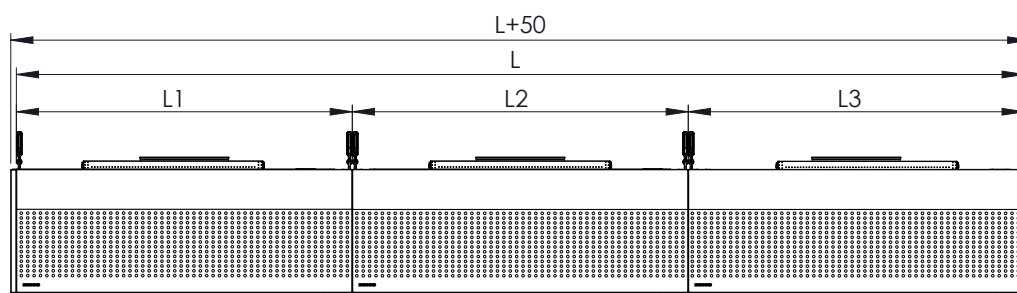
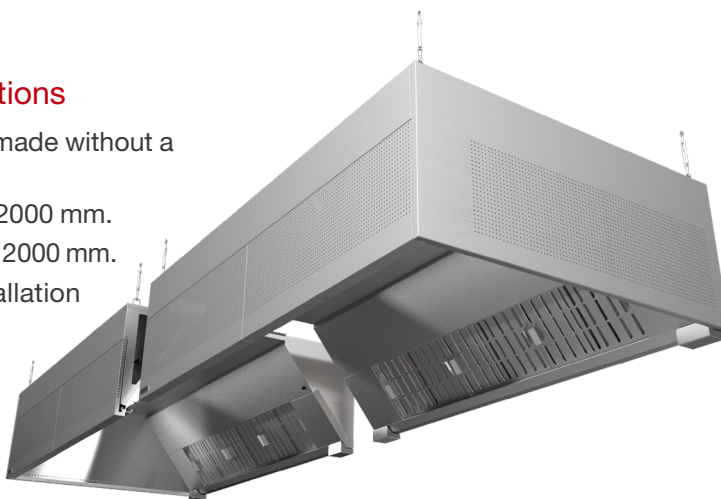
Section dimensions

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

- Canopy consisting of several sections are made without a partition wall.
- The maximum size of one section is 2500×2000 mm.
- Preferred length dimensions are 1000, 1500, 2000 mm.
- For connecting the sections see the installation manual.

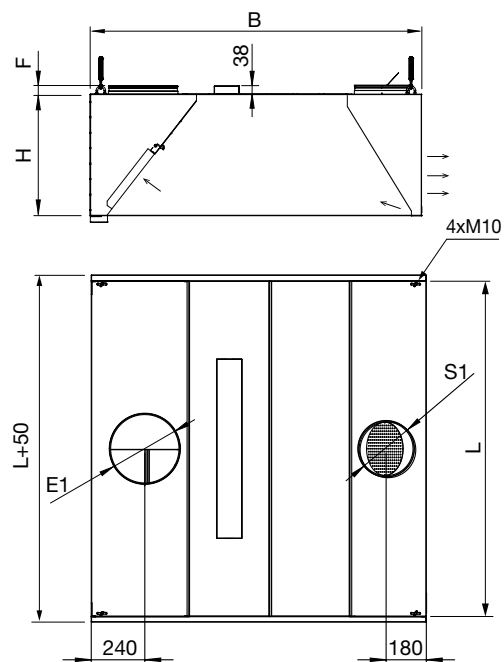


HR-C wall installation, 1-part, E1 – one exhaust air chamber



Dimensions (mm)

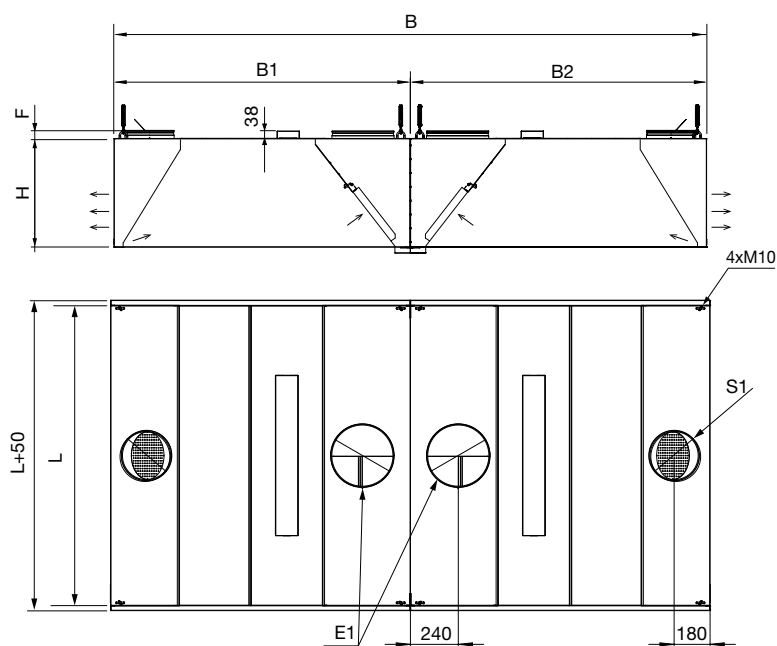
L Length	1000, 1100, ..., 2400, 2500
B Width	900 (available with Spot LED) 1000, 1100, ..., 1900, 2000
H Height	400, 550
S1, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E1, Ød	200 (F=40), 250 (F=43), 315 (F=43)



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

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, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E1, Ød	200 (F=40), 250 (F=43), 315 (F=43)

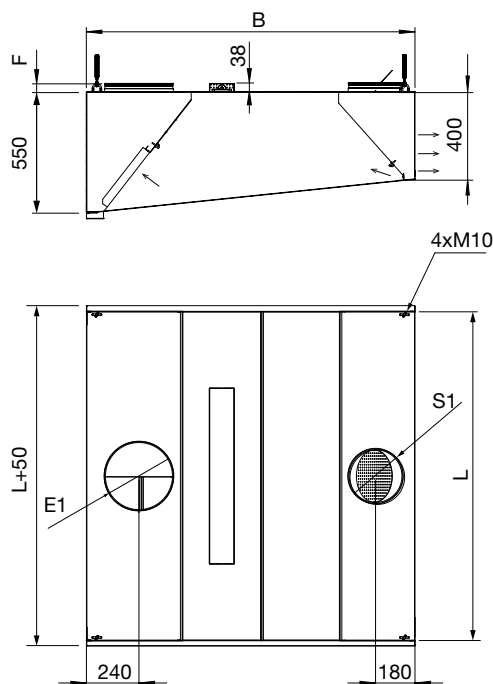


HR-C trapezoid canopy wall installation, 1-part, E1 – one exhaust air chamber



Dimensions (mm)

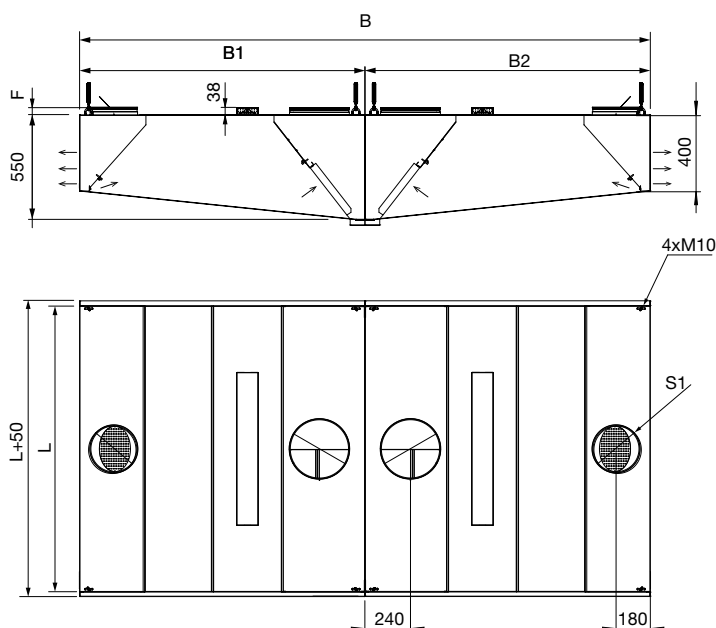
L Length	1000, 1100, ..., 2400, 2500
B Width	900 (available with Spot LED) 1000, 1100, ..., 1900, 2000
H Height	400/550
S1, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E1, Ød	200 (F=40), 250 (F=43), 315 (F=43)



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

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, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E1, Ød	200 (F=40), 250 (F=43), 315 (F=43)



Product marking

HR-C - aSAP - LxBxH - S1=dxn - E1=dxn - SPx0 - HFKxn - XXXxn - RAL 9005

Marking

- HR-C - 1 section in width
- HR-C-2 - 2 sections in width

aSAP

- aSAP - a Self Assembly Package

Dimensions

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

Supply air

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

Exhaust air

- E1 - One exhaust air chamber
- Ød - Diameter of exhaust air connection
- n - 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
- n - Grease filter quantity

Lighting

- LED-4000-600 - L=600, 17W, 4000K
- LED-3000-600 - L=600, 17W, 3000K
- LED-4000-1200 - L=1200, 34W, 4000K
- LED-3000-1200 - L=1200, 34W, 3000K
- DALI2-4000-600 - L=600, 20W, 4000K
- DALI2-3000-600 - L=600, 20W, 3000K
- DALI2-4000-1200 - L=1200, 37W, 4000K
- DALI2-3000-1200 - L=1200, 37W, 3000K
- SpotLED-3000 - 8W, 3000K
- SpotLED-4000 - 8W, 4000K
- n - Quantity of lighting fixtures

RAL Colour

- RAL colour, when coated

Example:

HR-C 4000x1500x550 - S1=250x4 - E1=315x2 - SPx2 - HFKx6 - LED-4000-1200x2

HR-C-aSAP 4000x1500x550 - S1=250x4 - E1=315x2 - SPx2 - HFKx6 - DALI2-3000-1200x2 - RAL9005

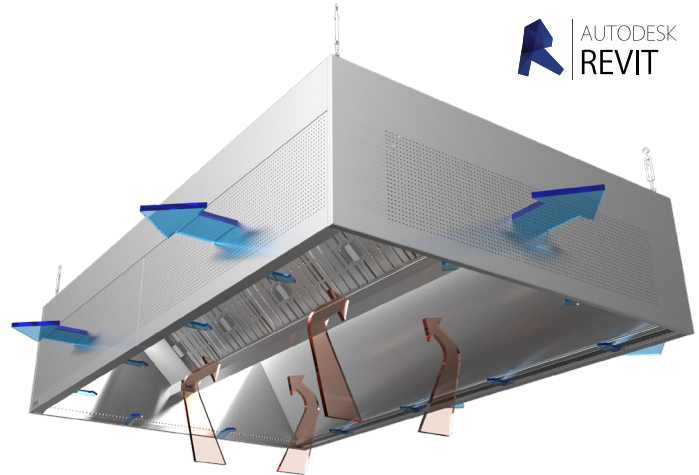
HR-V Grease Canopy – Island

HR-V 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

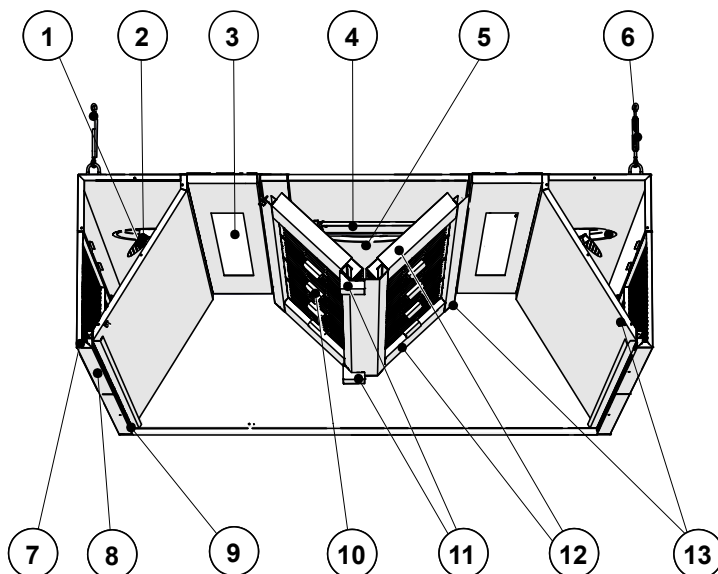
- Supply air is supplied into the room through the front panel of the kitchen canopy (also through its side panels if desired) providing fresh air in the vicinity of the kitchen staff.
- Air supplied by the "AirGrip" air intake system along the lower perimeter of the canopy helps route the kitchen effluent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



Recommended data

Section 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	280-520				
1500	420-780	10-61 Pa	10-40 Pa	10-28 Pa	10-40 Pa
2000	560-1040	71-175 l/s	110-220 l/s	165-275 l/s	22-40 l/s
2500	700-1300				

Construction



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

- 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 canopy 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 canopy. Exhaust pipes can be connected and insulated via the removable ceiling panel.
- A sectional canopy is supplied without partition walls.
- Adjustable suspension hooks are included.



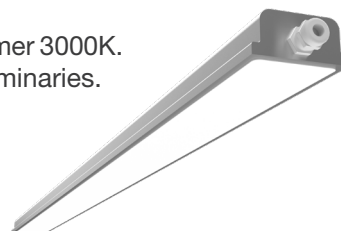
Lighting

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 LED luminaries, which can save as much as 50% more energy compared to old technologies.

Canopies include LED luminaries integrated into their ceilings, protected by an aluminum and plastic 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.

LED luminaries have two color temperature options - colder 4000K and warmer 3000K. It is also possible to choose between regular LED and DALI2 (dimnable) luminaries.



LED luminaries (standard), IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
1000 ≤ L < 1300	LED-4000-600	600	17	4000	90	2907
1000 ≤ L < 1300	LED-3000-600	600	17	3000	90	2907
1400 ≤ L < 2900	LED-4000-1200	1200	34	4000	90	6498
1400 ≤ L < 2900	LED-3000-1200	1200	34	3000	90	6498

DALI2 LED luminaries, IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
1000 ≤ L < 1300	DALI2-4000-600	600	20	4000	90	3000
1000 ≤ L < 1300	DALI2-3000-600	600	20	3000	90	3000
1400 ≤ L < 2900	DALI2-4000-1200	1200	37	4000	90	6000
1400 ≤ L < 2900	DALI2-3000-1200	1200	37	3000	90	6000

Spot LED lighting fixtures, IP65

Light colour: 4000K (colder), 3000K (warmer)

Housing material: Aluminium

Colour separation index: > 80 (Ra)



Canopy length (mm)	Spot LED quantity	Energy use (W)	Flux 4000K (lm)	Flux 3000K (lm)	Radiation angle
$1000 \leq L < 1200$	2	16	1340	1240	36°
$1300 \leq L < 1700$	3	24	2010	1860	36°
$1800 \leq L < 2300$	4	32	2680	2480	36°
$2400 \leq L \leq 2900^*$	5	40	3350	3100	36°

*In sectional canopies the amount of SpotLEDs may differ.

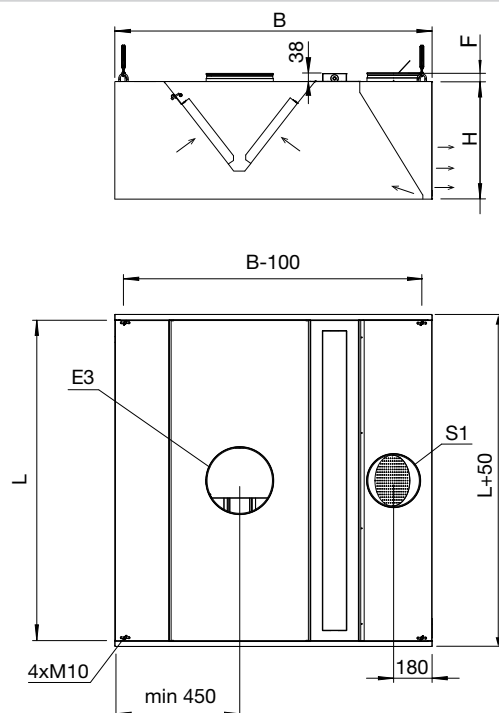
Section dimensions

HR-V wall installation, 1-part , S1 - supply air, E3 – with HCI exhaust air module

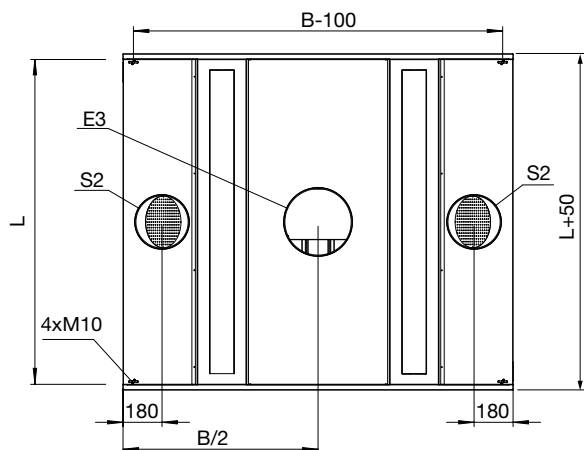
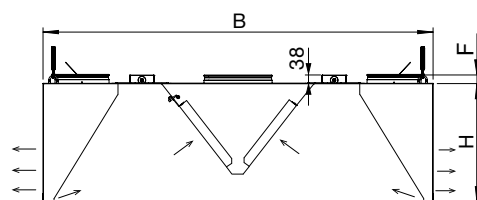


Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	1100 (No lighting) 1200 (available with Spot LED) 1300, 1400,...,1900, 2000
H Height	400, 550
S1, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E3, Ød	200 (F=40), 250 (F=43), 315 (F=43)



HR-V island installation, 1-part, S2 – supply air, E3 – with HCl exhaust air module

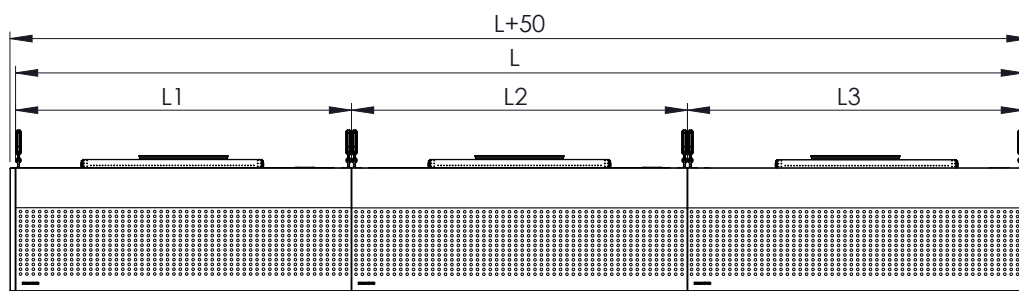
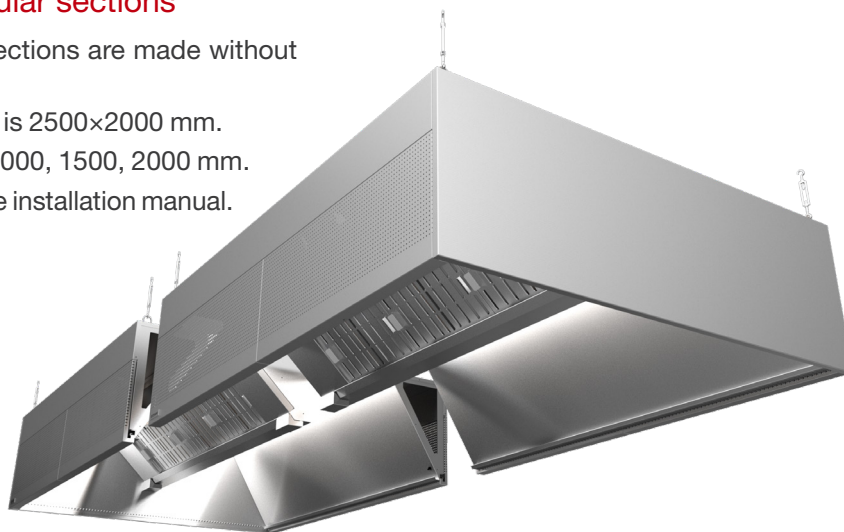


Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	1500 (No lighting) 1600, 1700 (1 row lightings) $B/2^*=670$ mm 1800, 1900, 2000 (2 row lightings)
H Height	400, 550
S2, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E3, Ød	200 (F=40), 250 (F=43), 315 (F=43)

Canopy lengthening with modular sections

- Canopies consisting of several sections are made without a partition wall.
- The maximum size of one section is 2500×2000 mm.
- Preferred length dimensions are 1000, 1500, 2000 mm.
- For connecting the sections see the installation manual.



Product marking

HR-V - aSAP - LxBxH - S1=dxn - E3=dxn - SPx0 - HFKxn - XXXxn - RAL 9005

Marking

HR-V - 1 section in width

aSAP

aSAP - a Self Assembly Package

Dimensions

L - Length

B - Width

H - Height

Supply air

S1 - Supply air chamber on one side

S2 - Supply air chambers on two sides

Ød - Diameter of supply air connection

n - Quantity of supply air connections

Exhaust air

E3 - HCl exhaust air module

Ød - Diameter of exhaust air connection

n - 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

n - Grease filter quantity

Lighting

LED-4000-600 - L=600, 17W, 4000K

LED-3000-600 - L=600, 17W, 3000K

LED-4000-1200 - L=1200, 34W, 4000K

LED-3000-1200 - L=1200, 34W, 3000K

DALI2-4000-600 - L=600, 20W, 4000K

DALI2-3000-600 - L=600, 20W, 3000K

DALI2-4000-1200 - L=1200, 37W, 4000K

DALI2-3000-1200 - L=1200, 37W, 3000K

SpotLED-3000 - 8W, 3000K

SpotLED-4000 - 8W, 4000K

n - Quantity of lighting fixtures

RAL Colour

RAL colour, when coated

Example:

HR-V 3000x1800x550 - S2=250x8 - E3=400x2 - SPx2 - HFKx12 - LED-4000-1200x2

HR-V-aSAP 3000x1500x550 - S1=250x4 - E3=400x2 - SPx2 - HFKx12 - DALI2-3000-1200x2 - RAL9005

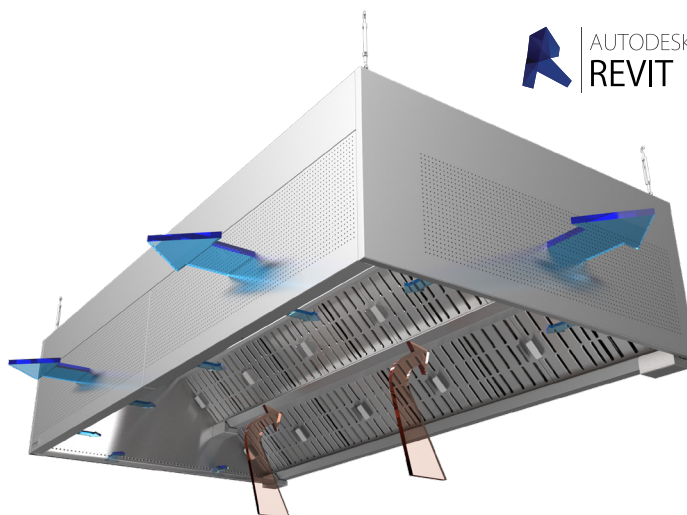
HR-G Grease Canopy – HIGH CAPACITY

HR-G 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

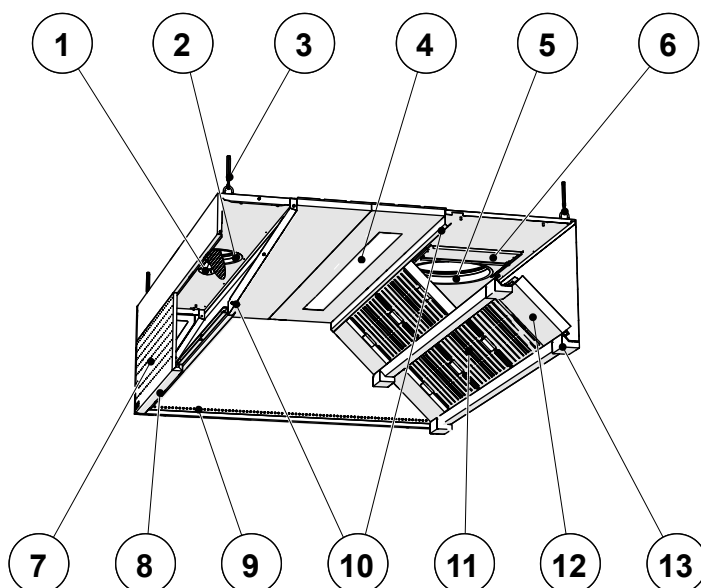
- Supply air is supplied into the room through the front panel of the kitchen canopy (also through its side panels if desired) providing fresh air in the vicinity of the kitchen staff.
- Air supplied by the "AirGrip" air intake system along the lower perimeter of the canopy helps route the kitchen effluent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



Recommended data

Section 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
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1500	420-780	10-61 Pa	10-40 Pa	10-28 Pa	10-40 Pa
2000	560-1040	71-175 l/s	110-220 l/s	165-275 l/s	22-40 l/s
2500	700-1300				

Construction



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

- 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 canopy 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 canopy. Exhaust pipes can be connected and insulated via the removable ceiling panel.
- A sectional canopy is supplied without partition walls.
- Adjustable suspension hooks are included.



Lighting

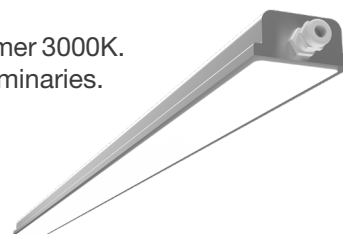
Professional kitchens require functional lighting to ensure that employees have a safe and effective work environment.

ETS NORD professional kitchen canopies use the next generation of energy-efficient LED luminaries, which can save as much as 50% more energy compared to old technologies.

Canopies include LED luminaries integrated into their ceilings, protected by an aluminum and plastic 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.

LED luminaries have two color temperature options - colder 4000K and warmer 3000K.

It is also possible to choose between regular LED and DALI2 (dimnable) luminaries.



LED luminaries (standard), IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
1000 ≤ L < 1300	LED-4000-600	600	17	4000	90	2907
1000 ≤ L < 1300	LED-3000-600	600	17	3000	90	2907
1400 ≤ L < 2900	LED-4000-1200	1200	34	4000	90	6498
1400 ≤ L < 2900	LED-3000-1200	1200	34	3000	90	6498

DALI2 LED luminaries, IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
1000 ≤ L < 1300	DALI2-4000-600	600	20	4000	90	3000
1000 ≤ L < 1300	DALI2-3000-600	600	20	3000	90	3000
1400 ≤ L < 2900	DALI2-4000-1200	1200	37	4000	90	6000
1400 ≤ L < 2900	DALI2-3000-1200	1200	37	3000	90	6000

Spot LED lighting fixtures, IP65

Light colour: 4000K (colder), 3000K (warmer)

Housing material: Aluminium

Colour separation index: > 80 (Ra)

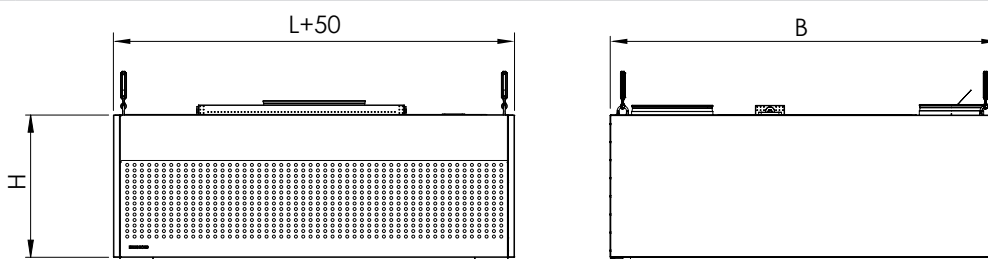


Canopy length (mm)	Spot LED quantity	Energy use (W)	Flux 4000K (lm)	Flux 3000K (lm)	Radiation angle
$1000 \leq L < 1200$	2	16	1340	1240	36°
$1300 \leq L < 1700$	3	24	2010	1860	36°
$1800 \leq L < 2300$	4	32	2680	2480	36°
$2400 \leq L \leq 2900^*$	5	40	3350	3100	36°

*In sectional canopies the amount of SpotLEDs may differ.

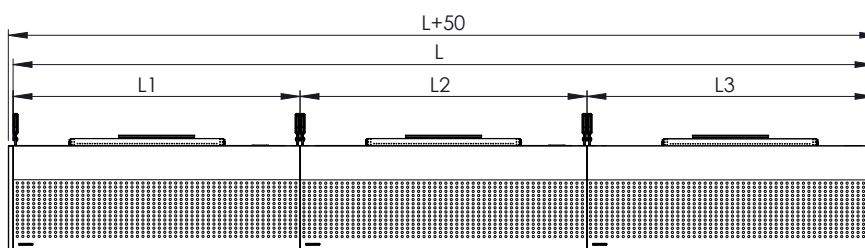
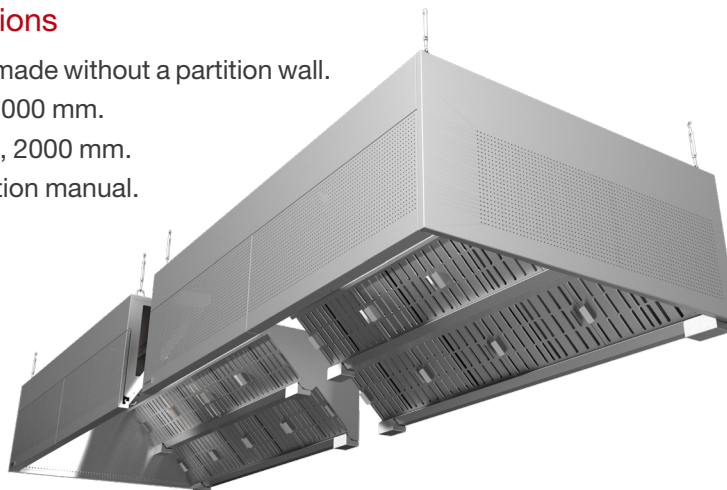
Section dimensions

Dimensions (mm)	
L Length	1000, 1100, ..., 2400, 2500
B Width	1100, 1200, ..., 1900, 2000
H Height	400, 550, 400/550

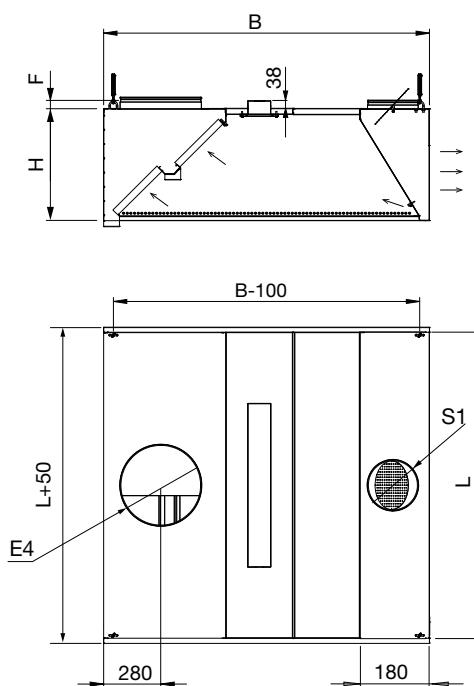


Canopy lengthening with modular sections

- Canopies consisting of several sections are made without a partition wall.
- The maximum size of one section is 2500×2000 mm.
- Preferred length dimensions are 1000, 1500, 2000 mm.
- For connecting the sections see the installation manual.



HR-G wall installation, 1-part, E4 – one exhaust air chamber, HFK filters in dual row



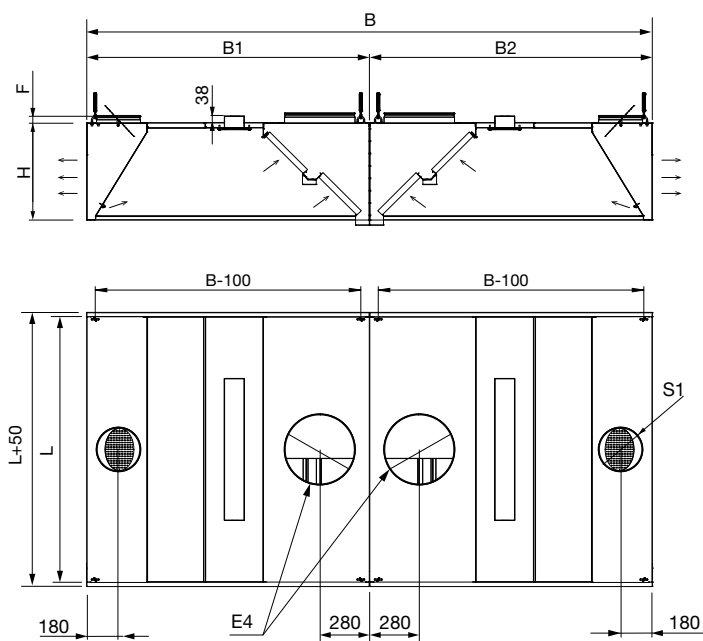
Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	1100, 1200, ..., 1900, 2000
H Height	550
S1, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E4, Ød	200 (F=40), 250 (F=43), 315 (F=43), 400 (F=55)

HR-G-2 island installation, 2-part, E4 – one exhaust air chamber, HFK filters in dual row

Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	2200, 2400, ..., 3800, 4000
B1/B2 Width	1100, 1200, ..., 1900, 2000
H Height	550
S1, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E4, Ød	200 (F=40), 250 (F=43), 315 (F=43), 400 (F=55)

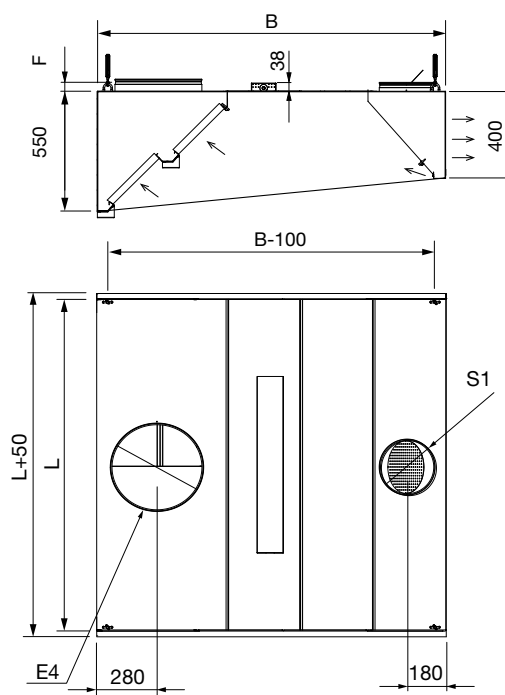


HR-G trapezoid canopy wall installation, 1-part, E4 – one exhaust air chamber, HFK filters in dual row



Section dimensions (mm)

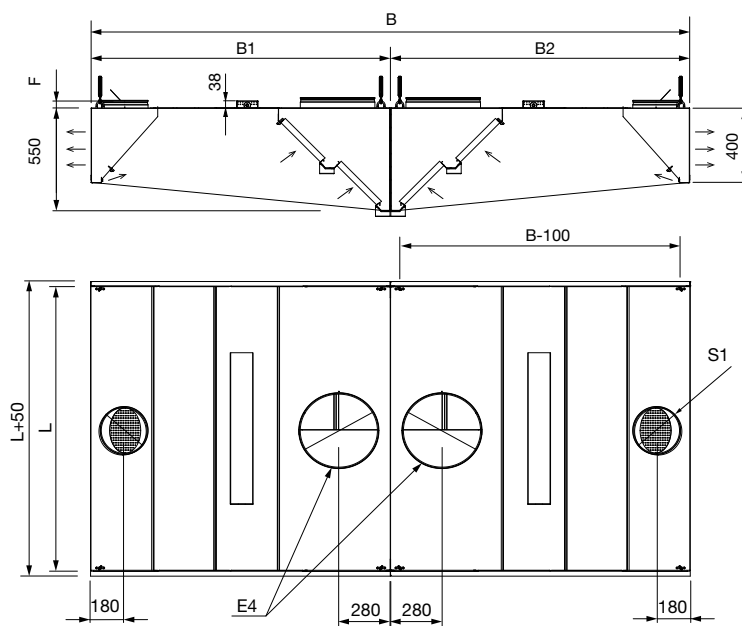
L Length	1000, 1100, ..., 2400, 2500
B Width	1100, 1200, ..., 1900, 2000
H Height	400/550
S1, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E4, Ød	200 (F=40), 250 (F=43), 315 (F=43), 400 (F=55)



HR-G-2 trapezoid canopy island installation, 2-parts, E4 – one exhaust air chamber, HFK filters in dual row.

Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	2200, 2400, ..., 3800, 4000
B1/B2 Width	1100, 1200, ..., 1900, 2000
H Height	400/550
S1, Ød	160 (F=40), 200 (F=40), 250 (F=43)
E4, Ød	200 (F=40), 250 (F=43), 315 (F=43), 400 (F=55)



Product marking

HR-G - aSAP - LxBxH - S1=dxn - E4=dxn - SPx0 - HFKxn - XXXxn - RAL 9005

Marking

- HR-G - 1 section in width
- HR-G-2 - 2 sections in width

aSAP

- aSAP - a Self Assembly Package

Dimensions

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

Supply air

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

Exhaust air

- E4 - one exhaust air chamber, HFK filters in dual row
- Ød - Diameter of exhaust air connection
- n - 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
- n - Grease filter quantity

Lighting

- LED-4000-600 - L=600, 17W, 4000K
- LED-3000-600 - L=600, 17W, 3000K
- LED-4000-1200 - L=1200, 34W, 4000K
- LED-3000-1200 - L=1200, 34W, 3000K
- DALI2-4000-600 - L=600, 20W, 4000K
- DALI2-3000-600 - L=600, 20W, 3000K
- DALI2-4000-1200 - L=1200, 37W, 4000K
- DALI2-3000-1200 - L=1200, 37W, 3000K
- SpotLED-3000 - 8W, 3000K
- SpotLED-4000 - 8W, 4000K
- n - Quantity of lighting fixtures

RAL Colour

- RAL colour, when coated

Example:

HR-G 4000x3000x550 - S1=250x12 - E4=400x4 - SPx3 - HFKx24 - LED-4000-1200x2

HR-G-aSAP 4000x3000x550 - S1=250x12 - E4=400x4 - SPx3 - HFKx24 - DALI2-3000-1200x2 - RAL9005

HR-E Grease Canopy – Dual Exhaust

The kitchen canopy ensures a clean, hygienic and comfortable work environment by removing pollutants, excessive heat and grease from your commercial kitchen operation.



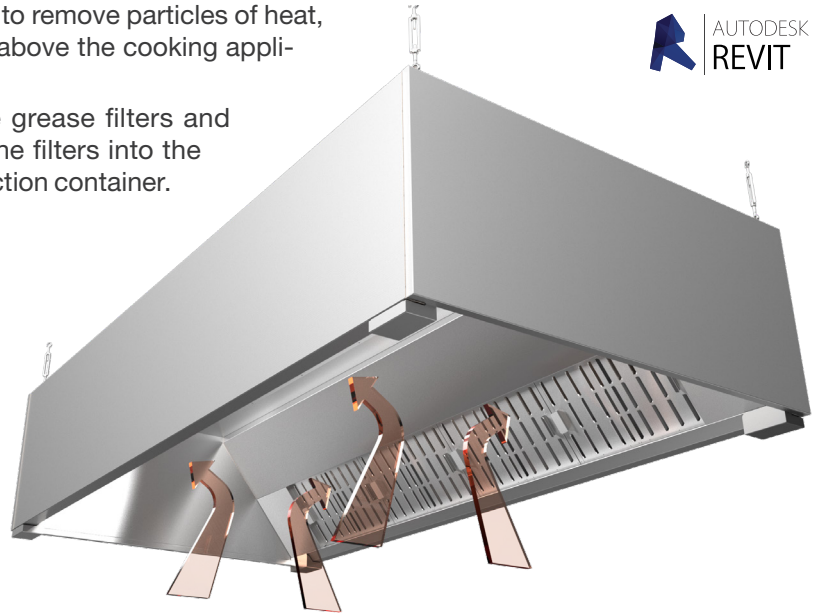
Operation

- The function of the kitchen canopy is to remove particles of heat, grease and other dirt from the room above the cooking appliances.
- Contaminated air is drawn into the grease filters and the grease drains then down from the filters into the collection channel leading to its collection container.

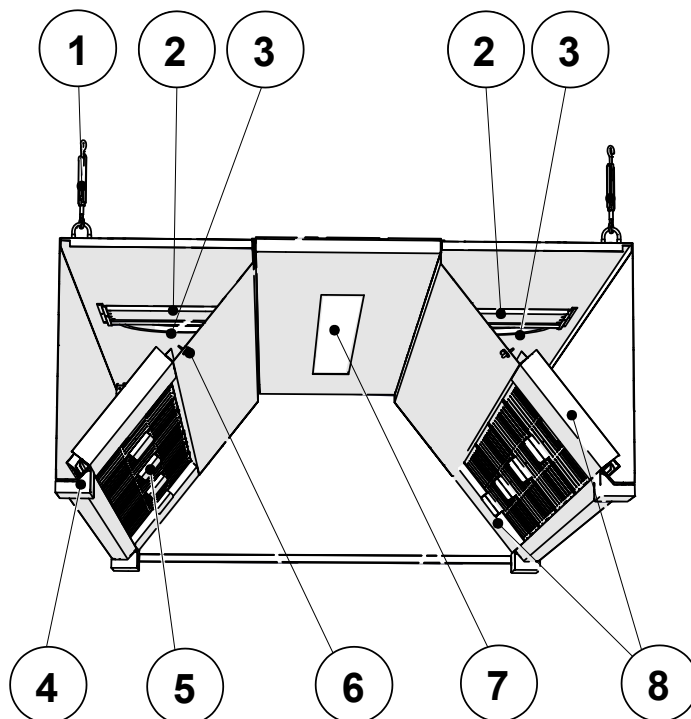


Recommended data

Length L	Extraction airflow (l/s) (Δp_{tot} 14-48 Pa)
1000	280-520
1500	420-780
2000	560-1040
2500	700-1300



Construction



- 1 – Suspension points
- 2 – Exhaust air regulating plate
- 3 – Exhaust air connection
- 4 – Grease collection container
- 5 – HFK grease filters
- 6 – Airflow measuring nozzle
- 7 – Lighting
- 8 – Blind panel for grease filter rail

- The canopy is made from stainless steel (AISI 304, surface 2K).
- Duct connections are equipped with rubber gaskets.
- 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 canopy are a closed structure and air tight.
- Easy-to-clean surfaces.
- Exhaust pipes can be connected and insulated via the removable ceiling panel.
- A sectional canopy is supplied without partition walls.
- Adjustable suspension hooks are included.



Lighting

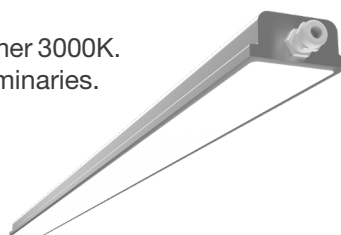
Professional kitchens require functional lighting to ensure that employees have a safe and effective work environment.

ETS NORD professional kitchen canopies use the next generation of energy-efficient LED luminaries, which can save as much as 50% more energy compared to old technologies.

Canopies include LED luminaries integrated into their ceilings, protected by an aluminum and plastic 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.

LED luminaries have two color temperature options - colder 4000K and warmer 3000K.

It is also possible to choose between regular LED and DALI2 (dimnable) luminaries.



LED luminaries (standard), IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
$1000 \leq L < 1300$	LED-4000-600	600	17	4000	90	2907
$1000 \leq L < 1300$	LED-3000-600	600	17	3000	90	2907
$1400 \leq L < 2900$	LED-4000-1200	1200	34	4000	90	6498
$1400 \leq L < 2900$	LED-3000-1200	1200	34	3000	90	6498

DALI2 LED luminaries, IP66

Canopy section length (mm)	Luminaries	Lighting length (mm)	Energy use (W)	Color temperature (K)	Color rendering index (Ra)	Flux (lm)
$1000 \leq L < 1300$	DALI2-4000-600	600	20	4000	90	3000
$1000 \leq L < 1300$	DALI2-3000-600	600	20	3000	90	3000
$1400 \leq L < 2900$	DALI2-4000-1200	1200	37	4000	90	6000
$1400 \leq L < 2900$	DALI2-3000-1200	1200	37	3000	90	6000

Spot LED lighting fixtures, IP65

Light colour: 4000K (colder), 3000K (warmer)

Housing material: Aluminium

Colour separation index: > 80 (Ra)

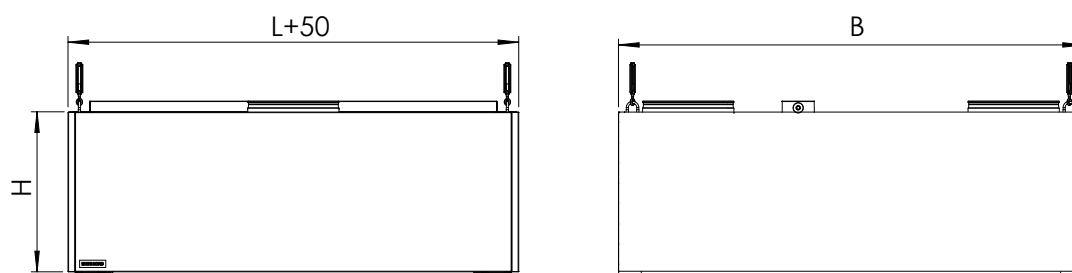


Canopy length (mm)	Spot LED quantity	Energy use (W)	Flux 4000K (lm)	Flux 3000K (lm)	Radiation angle
$1000 \leq L < 1200$	2	16	1340	1240	36°
$1300 \leq L < 1700$	3	24	2010	1860	36°
$1800 \leq L < 2300$	4	32	2680	2480	36°
$2400 \leq L \leq 2900^*$	5	40	3350	3100	36°

*In sectional canopies the amount of SpotLEDs may differ.

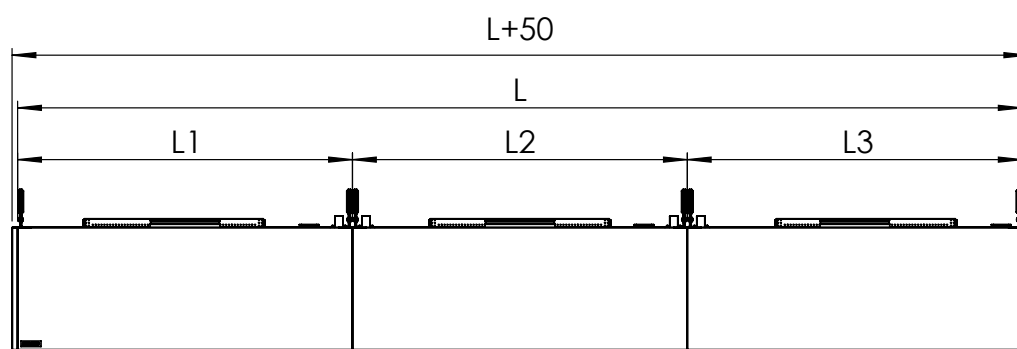
Section dimensions

Dimensions (mm)	
L Length	1000, 1100, ..., 2400, 2500
B Width	1000 (available with Spot LED) 1100, 1200, ..., 1900, 2000
H Height	400, 550



Canopy lengthening with modular sections

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

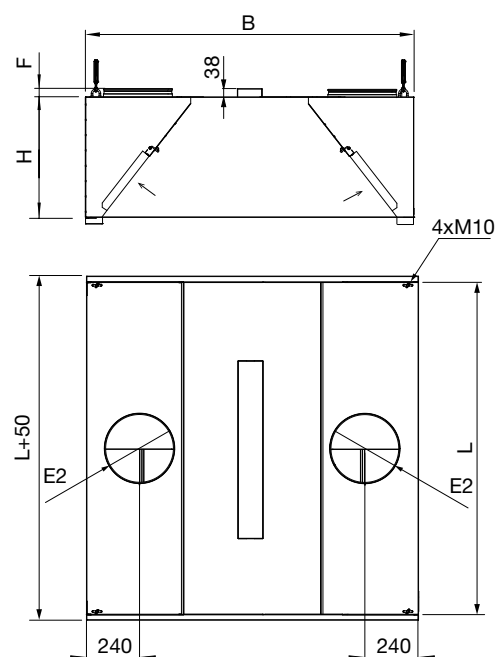


HR-E-E2 wall installation, 1-part, E2 – two exhaust air chambers



Section dimensions (mm)

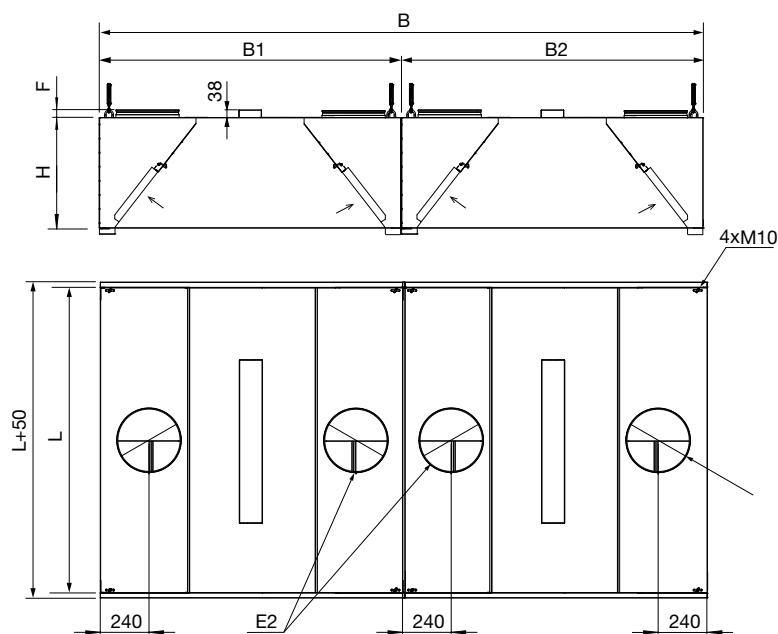
L Length	1000, 1100, ..., 2400, 2500
B Width	1000 (available with Spot LED) 1100, 1200 ..., 1900, 2000
H Height	400, 550
E2, Ød	200 (F=40), 250 (F=43), 315 (F=43)



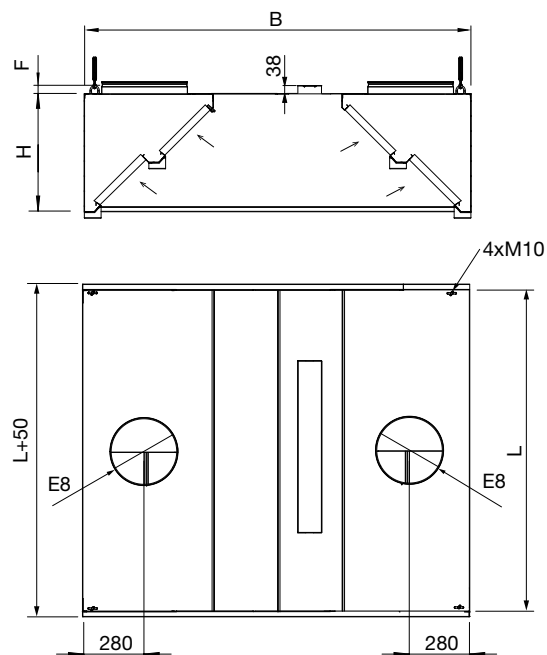
HR-E-2-E2 island installation, 2-part, E2 – two exhaust air chambers

Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	2000 (available with Spot LED) 2200, 2200, ..., 3800, 4000
B1/B2 Width	1000 (available with Spot LED) 1100, 1200, ..., 2000
H Height	400, 550
E2, Ød	200 (F=40), 250 (F=43), 315 (F=43)



HR-E-E8 wall installation, 1-part, E8 – two exhaust air chambers, filters in dual row



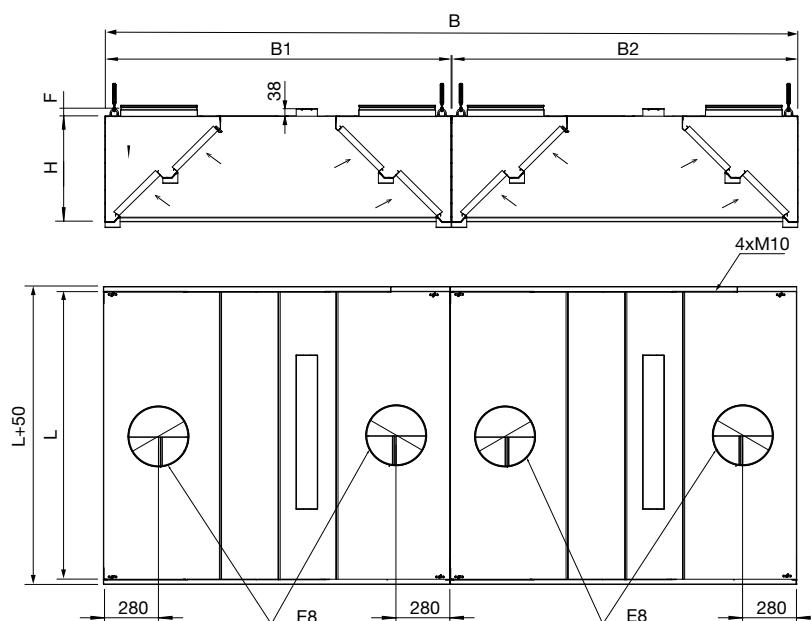
Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	1300 (available with Spot LED) 1400, 1500 ..., 1900, 2000
H Height	550
E8, Ød	200 (F=40), 250 (F=43), 315 (F=43), 400 (F=55)

HR-E-2-E8 island installation, 2-part, E8 – two exhaust air chambers, filters in dual row

Section dimensions (mm)

L Length	1000, 1100, ..., 2400, 2500
B Width	2600 (available with Spot LED) 2800, 3000, ..., 3800, 4000
B1/B2 Width	1300 (available with Spot LED) 1400, 1500, ..., 2000
H Height	550
E8, Ød	200 (F=40), 250 (F=43), 315 (F=43), 400 (F=55)



Product marking

HR-E - aSAP - LxBxH - E2=dxn - HFKxn - XXXxn - RAL 9005

Marking

- HR-E - 1 section in width
- HR-E-2 - 2 sections in width

aSAP

- aSAP - a Self Assembly Package

Dimensions

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

Exhaust air

- E2 - Two exhaust air chambers, filters in one row
- E8 - Two exhaust air chambers, filters in dual row
- Ød - Diameter of exhaust air connection
- n - Quantity of exhaust air connections

Grease filters

- HFK
- n - Grease filter quantity

Lighting

- LED-4000-600 - L=600, 17W, 4000K
- LED-3000-600 - L=600, 17W, 3000K
- LED-4000-1200 - L=1200, 34W, 4000K
- LED-3000-1200 - L=1200, 34W, 3000K
- DALI2-4000-600 - L=600, 20W, 4000K
- DALI2-3000-600 - L=600, 20W, 3000K
- DALI2-4000-1200 - L=1200, 37W, 4000K
- DALI2-3000-1200 - L=1200, 37W, 3000K
- SpotLED-3000 - 8W, 3000K
- SpotLED-4000 - 8W, 4000K
- n - Quantity of lighting fixtures

RAL Colour

- RAL colour, when coated

Example:

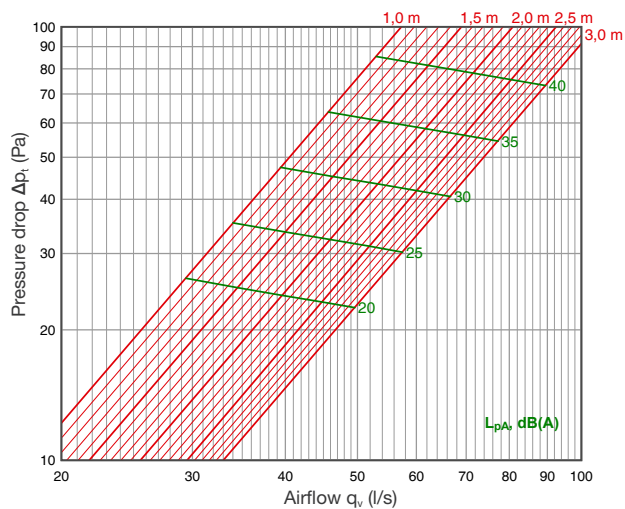
HR-E 3000x1500x550 - E2=315x4 - HFKx12 - LED-4000-1200x2

HR-E-aSAP 3000x1500x550 - E2=315x4 - HFKx12 - DALI2-3000-1200x2 - RAL9005

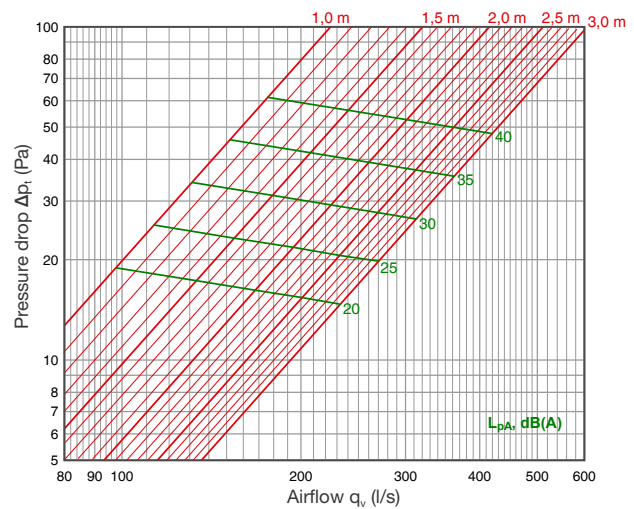
HR Canopy Technical Data

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

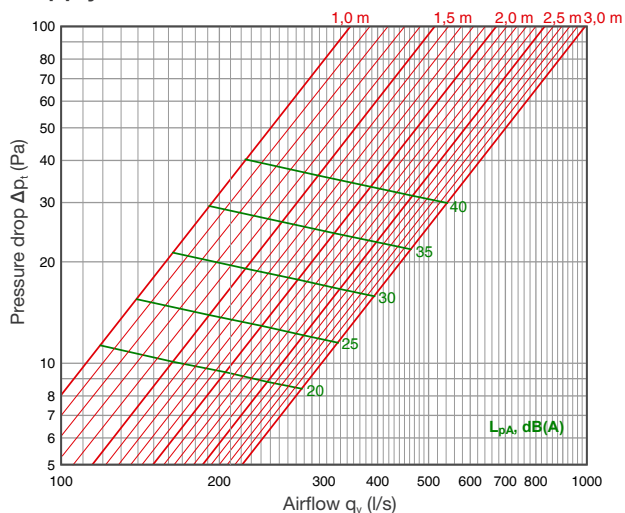
Supply air: "AirGrip"



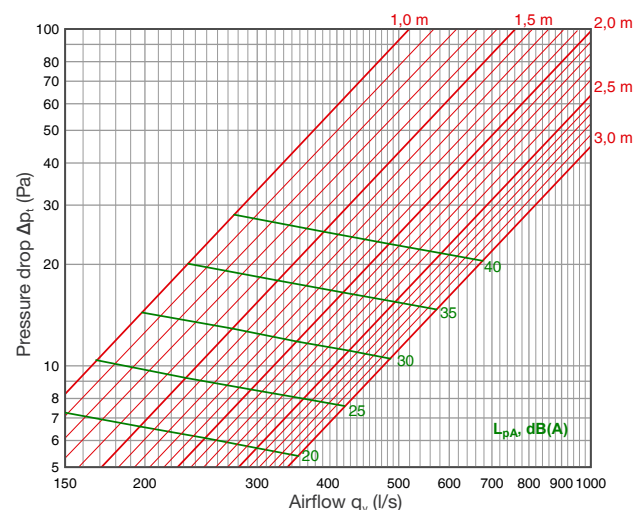
Supply air: SP×1



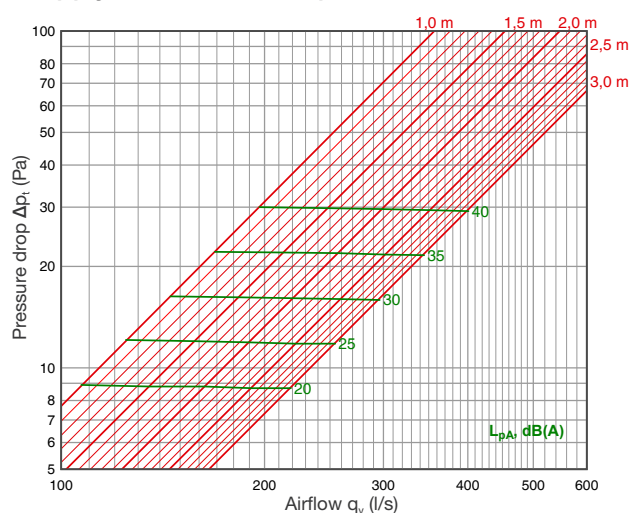
Supply air: SP×2



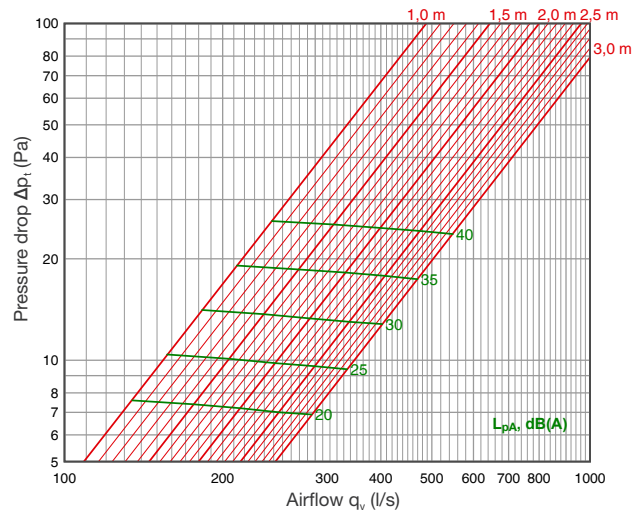
Supply air: SP×3



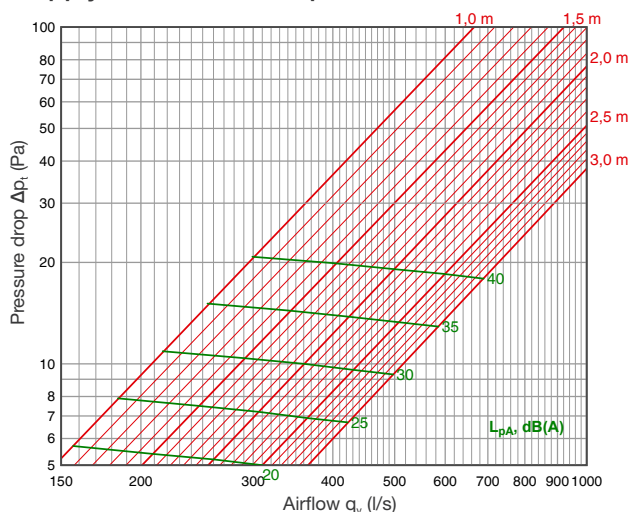
Supply air: SP×1 + side panels



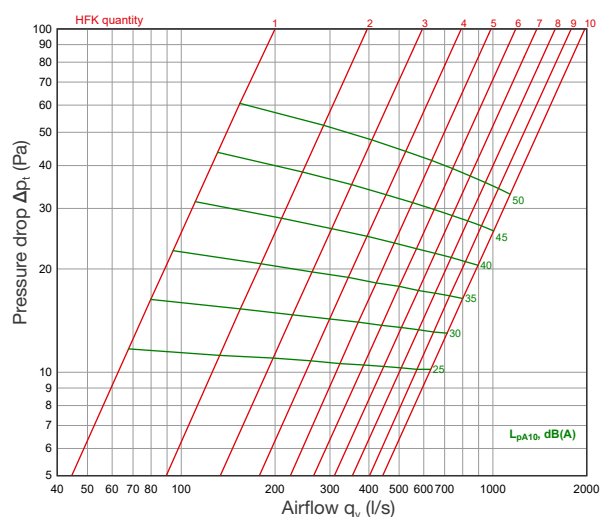
Supply air: SP×2 + side panels



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

Sound attenuation of HFK

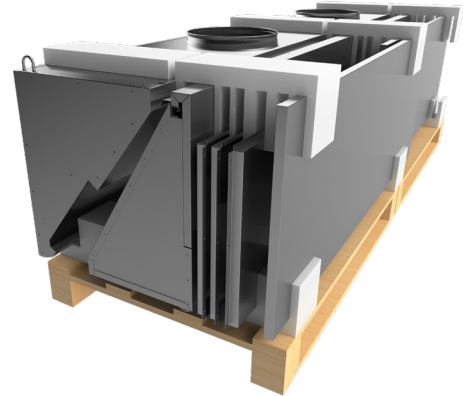
$$L_{wokt} = L_{pA} + K_{okt}$$

HFK	Sound level correction factor K_{okt} (dB)							
	Mean frequency of octave band (Hz)							
	63	125	250	500	1000	2000	4000	8000
K	4	3	0	1	0	-4	-15	-21

HR Options & Accessories

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.



CP Cover Plates

Cover plates are made of stainless steel (AISI 304, surface 2K).

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

- CP-F – Front plate
- CP-B – Back plate
- CP-L – Left plate
- CP-R – Right plate



FET "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 canopies of commercial kitchens or other food production facilities. They are positioned in the canopy 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
- Grease particle separation is measured according to VDI 2052 standard.



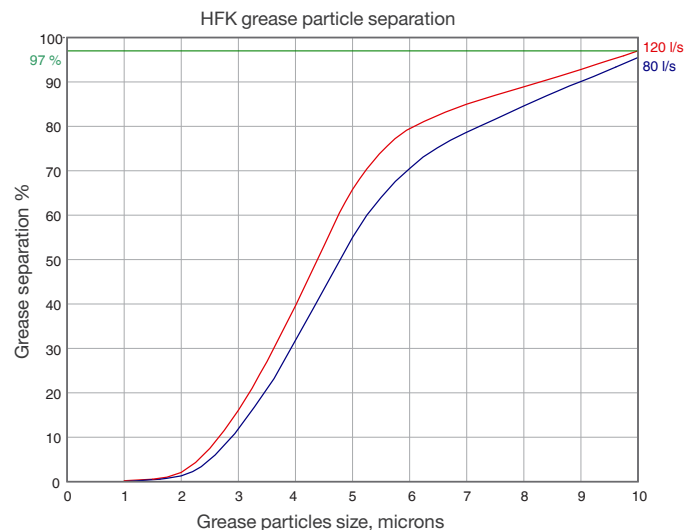
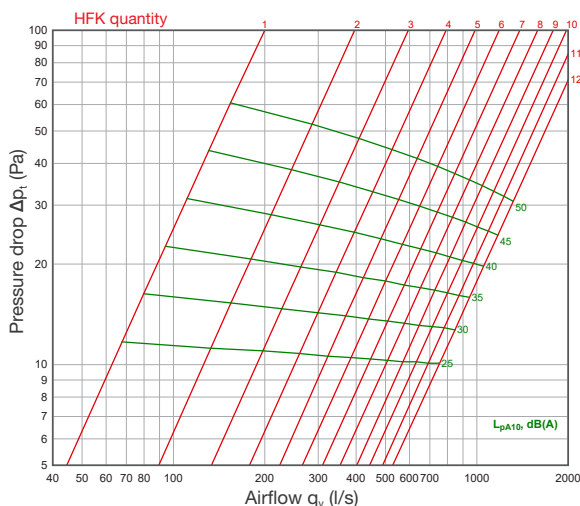
Material and design

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 canopy. 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.



Sound attenuation of HFK

$$L_{w\text{okt}} = L_{pA} + K_{\text{okt}}$$

HFK	Sound level correction factor K_{okt} (dB)							
	Mean frequency of octave band (Hz)							
	63	125	250	500	1000	2000	4000	8000
K	4	3	0	1	0	-4	-15	-21



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Let's move the air together!