GastroFlow

Energy-saving commercial kitchen hood for equipment that generates grease, such as skillets, deep fryers and hobs.

- Factory-assembled hood with supply and exhaust air
- Control air for better fume extraction performance
- Recessed supply air vents on the front of the hood with adjustable comfort nozzle at the bottom
- High-efficiency cyclone filters for increased fire safety and easier cleaning of exhaust ducts
- Unit in stainless steel sheet
- Easy installation with small modules and rail system
- **Accessories:** Recessed LED lighting with IP 65 enclosure class, extra filtering with UV-C light and fire suppression system.

Function

Fresh air is supplied to the kitchen via the hood's supply air terminal. With the adjustable comfort nozzle at the bottom of the air nozzle, kitchen staff can direct a small amount of air in any desired direction.

Contaminated air is sucked into the hood and effectively retained by the control air. The control air amplifies the effect of the hood and prevents contaminated air from leaking out under the hood.

Grease and particles are filtered through efficient cyclone filters.

Filtered air is evacuated into the exhaust air duct.

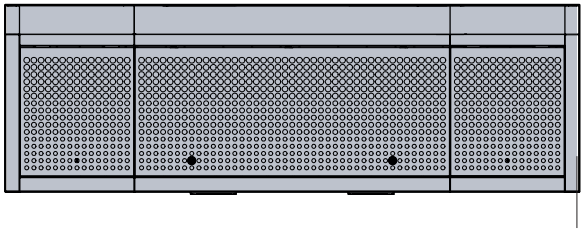
Construction

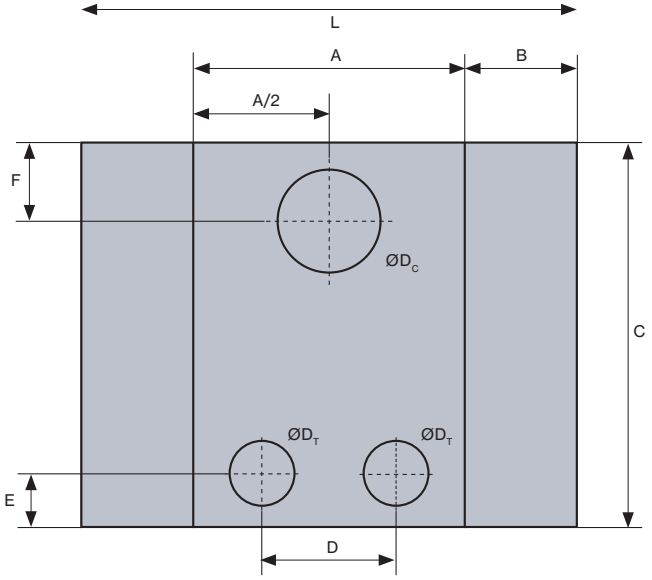
Hoods can be produced with any number of sides. Hoods are supplied in modules with lengths increasing in increments of 100 mm up to 1100 mm long.

- Sides in stainless steel sheet
- Cyklotec cyclone filter with damper and measurement socket
- Recessed LED lighting, IP 65 enclosure class
- Integrated supply air terminal with damper, measurement socket, inspection hatch and adjustable comfort nozzle
- Built-in fan for control air

Dimensions

The hood has a height of 550 mm (H). Length (L) and width (C) can be specified. Hoods are available in smaller modules, with the largest modular dimensions 1100 x 1800 mm. Supply and exhaust air flange connections with rubber ring seals. The height of the upper shroud (h) is adjusted to the distance between the top of the hood and the suspended ceiling.





A - Length of active module 1100 mm

B - Length of passive module

C - Depth of hood

D - CC dimension of supply air box 550 mm

E - Distance from front to centre supply air connection 220 mm

F - Distance from rear edge to centre exhaust vent 310 mm

H - Height of hood

h - Upper shroud height

$ØD_C$- Exhaust air connection diameter
$ØD_T$ - Supply air connection diameter

Exhaust air

The number of filter cartridges in Cyklotec cyclone filters is determined by exhaust air flow. For effective filtering, a pressure drop across Cyklotec of at least 20 Pa is recommended, which corresponds to the lower exhaust air flow in the table below. At the higher airflow the pressure drop is 80-90 Pa.

Exhaust air l/s	Number filter cartridges	$ØD_C$ mm	L_C mm
60 - 150	1	250	1100
120 - 250	2	250	1100
170 - 340	3	400	1100
215 - 430	4	400	1100
250 - 520	5	400	1100

Supply air

Integrated supply air terminal in the front of the 1100 mm modules. The front can be opened for inspection and fine-tuning of the airflow.

Supply air flow per module is 90-350 l/s distributed over two 250 mm connections.

Air flow, l/s	Length of panels, mm	Connections, ØDT mm
90-350	1100	2 st x 250

Control air

The control air flow rate is 5.5 l/s per metre at 25Pa, along all hood panels. The control air is pressurised by an integrated fan that takes circulation air from the top of the hood. Inspection of the fan is accessible from the front door of the hood.

Number of fans	Length of panels, m	Flow per metre, l/s/m
1	0-10	5,5
2	10-20	5,5

Recessed lighting

The lights are fully recessed and approved to IP 65, which means dust-tight and flushable. The light fittings are equipped with energy-saving LED. The light temperature is 4000 K and with a colour rendering value RA(CRI) of 90.

The fittings are equipped with a 2 m extension cord with connector for easy series connection. Quick installation with only one connection point. The drive is equipped with DALI support as standard.

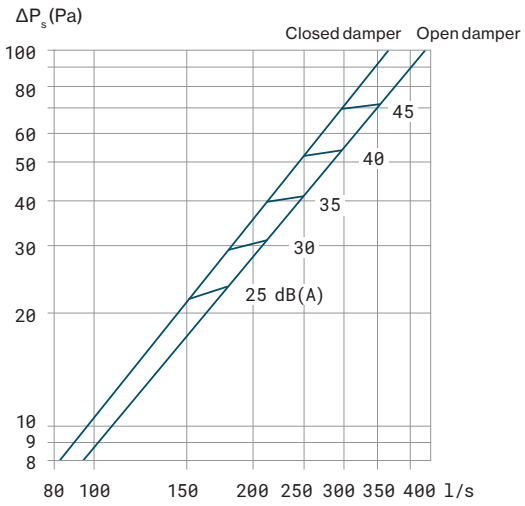
Amount of light lm	Length mm	Output W
2000	710	18
3000	1010	27

Supply air

The diagrams below apply to air supply units with open and closed fine adjustment damper.

Air flow - Pressure drop - Noise level

Reported dB(A) values apply to 10 m² Sabine, which corresponds to a room attenuation of 4 dB.

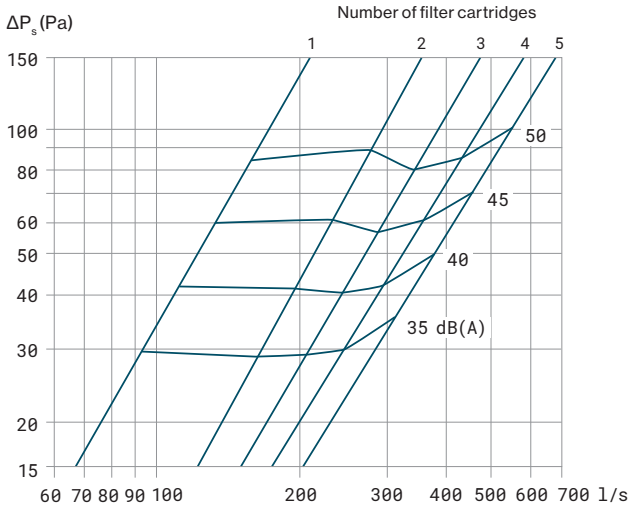


Exhaust air

The following pressure drop applies to filter solution with integrated UV-safe. For filtration with cyclone filter only, see separate product sheet.

Airflow - Pressure drop - Noise level

Reported dB(A) values apply to 10 m² Sabine, which corresponds to a room attenuation of 4 dB.

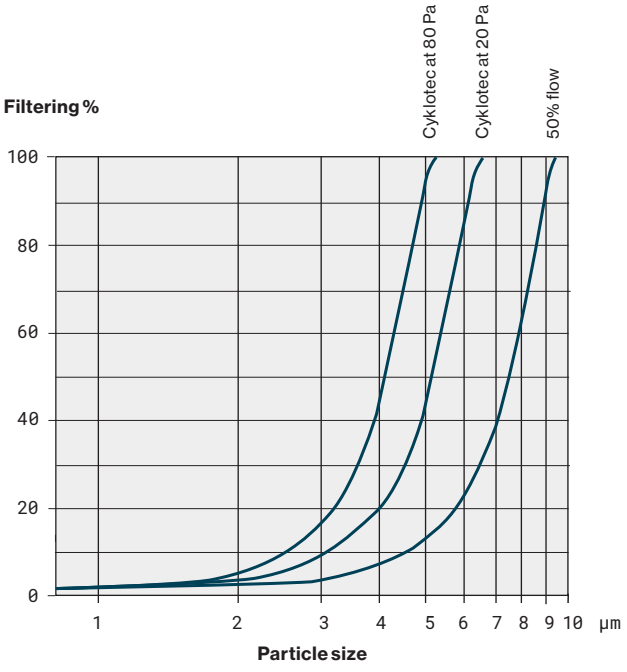


Measured on freely suspended cyclone cartridges

Filtering efficiency

The efficiency of the filter has been measured by a certified testing institute according to the VDI 2052 standard. The diagram shows the particle removal efficiency of the filter at the recommended (80 Pa) and half flow (20 Pa).

Please note that even at half flow rate all particles > 9 µm are filtered out.



Sound pressure level

The sound pressure level Lw (dB) divided into octave bands is obtained by adding the Kw correction below with the actual sound pressure level.

Sound pressure level KW - supply air

	Frequency, Hz							
	63	125	250	500	1K	2K	4K	8K
1100	-8	-3	-2	0	-4	-14	-22	-27

Sound pressure level KW - exhaust air

Cyclon filter	Frequency, Hz							
	63	125	250	500	1K	2K	4K	8K
Cyklotec	1	10	4	-6	-7	-12	-19	-26

Sound attenuation

Reported sound attenuation ΔL (dB) refers to the total sound reduction between duct and room incl. end reflection.

Sound attenuation ΔL (dB) - supply air

	Frequency, Hz							
	63	125	250	500	1K	2K	4K	8K
Open damper	10	7	3	3	4	4	5	6
Closed damper	10	7	3	3	5	5	5	5

Sound attenuation ΔL (dB) - exhaust air

Number of filter cartridges	Frequency, Hz							
	63	125	250	500	1K	2K	4K	8K
1	10	9	12	8	9	11	11	14
2	10	7	9	8	11	13	12	15
3	9	6	8	6	7	10	11	13
4	9	5	6	8	10	13	12	14
5	9	5	6	5	7	10	11	13

Accessories

UV Safe

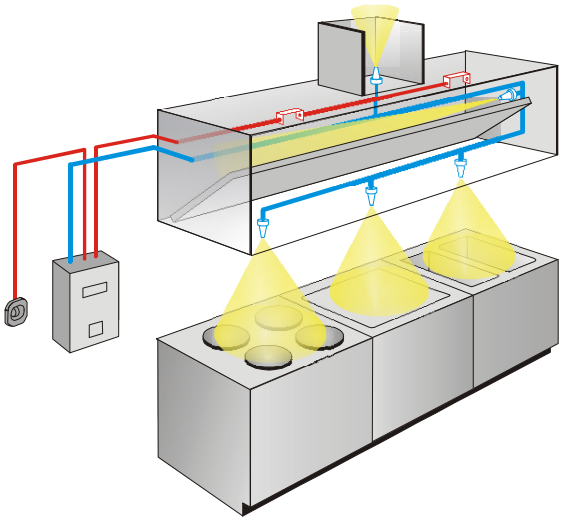
Filtration system with UV light and ozone for grease elimination and odour reduction.

- Used for very high demands for filtering kitchen exhaust air, e.g. to enable heat recovery
- Reduces odours from kitchens that can affect the surroundings
- Air-cooled electronics and LED display ensure optimal function
- Easy installation and maintenance
- The system meets the highest possible safety requirements

Filter housing with lockable inspection door and LEDs indicating which UV tubes are illuminated.

Ansulex

Fire suppression system.



Ansulex fire suppression system.
First the kitchen cabinet is installed, then Ansulex.