

KITCHEN HOOD CATALOG

Venues Breathe with DOGU HVAC Systems!

DOGU HVAC founded in 1999, and ever since has been manufacturing energy and cost efficient products as Air Handling Units, Air Distribution & Management & Movement Systems [HVAC Components] and constantly enhancing to provide an integrated solution for well-being. DOGU HVAC's core business products which are subsumed under 6 major groups as Air Handling Units, Rooftop Units, Heat/Energy Recovery Units, Air Purifiers, Air Distribution & Management Products and Kitchen Ventilation Equipments are all produced under the compliance with EU standarts. Particularly AHU and HRU-ER units are entitled under the "FOUR SEASONS" brand name for domestic and foreign markets. DOGU HVAC's, headquarter in Izmir/Turkey, operates in a large-sized plant spread over 2 factories, in total area of 32.000 sqm in which 17.500 sqm indoor space that enables DOGU HVAC manufactures 180 various type of products. Additionally, DOGU HVAC has a powerful sales network with 4 sales offices located in İstanbul, Ankara, Antalya and Adana in Turkey as well as authorized dealers in many other countries for sales and after sales operations. DOGU HVAC has been exporting to more than 55 countries.

Thanks to our "Customer Satisfaction", "Zero-Defect Policy" motto and reinforced by complete certified products, more than 250 employees. DOGU HVAC R&D center developed exclusive products, such as Double Skin Make-Up Kitchen Hood, Recirculated Laminar Airflow Unit, Single Piece Square Ceiling Diffuser and Ecology Units, for the first time have brought to the sector. DOGU HVAC R&D has the ability to make customized production which can meet the requirement of the customers by means of special software such as "ANSYS FLUENT". DOGU HVAC guaranteed its quality of management by having advantages of ISO 9001, ISO 14001, ISO 18001 certifications. Air Handling Units have EUROVENT, TUV Hygiene [in accordance with DIN1946-4, VDI 6022-1, DIN EN 13053 standarts], CE, TSEK, GOST-R certifications; Fire Dampers have EN 1366-2 and EN 13501-3 CE certifications; Smoke Control Dampers have EN 1366-10 and 12101-8 CE certifications; Kitchen Ventilation Products have TSEK, CE and GOST-R quality certifications.



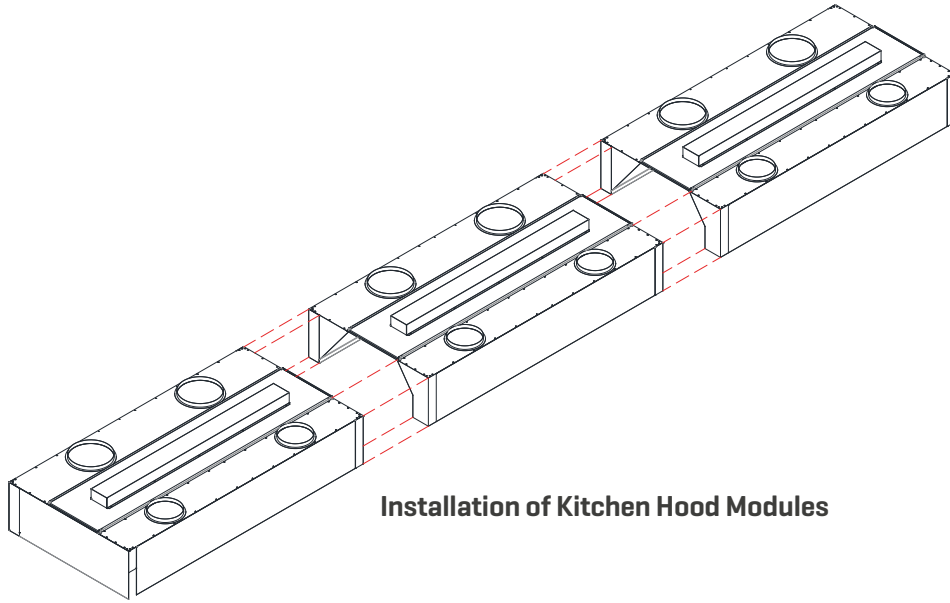
INTRODUCTION

Since 2005, DOGU HVAC has been directing the sector with its projects on industrial hoods, which are the most important part of kitchen ventilation, and new products it has developed, and exports to European, Asian, Middle Eastern and African countries. It is the first domestic company in Turkey to produce high performance kitchen hoods, which are the most preferred industrial hood types in the world, and to produce high performance kitchen hoods with water wash with the TÜBİTAK project in 2012.

1-GENERAL FEATURES

All kitchen hoods are manufactured from AISI 304 quality stainless steel as island and wall type in desired dimensions and modularly. It can also be produced from galvanized or AISI 316 stainless steel upon request. All parts are joined by TIG welding and welding traces are completely removed. Corners and all kinds of joints are felted in such a way that the joint traces will not be visible, and a uniform appearance is provided by polishing the top. IP 65 class lighting modules are used in kitchen hoods. Lighting under the hood is made with LED lamps. There is a tempered glass protector on the lamps that allows it to work between -40 and +300°C. The minimum and maximum dimensions of the hoods produced are given in the table below. Hoods that are larger than these values are produced as modular and assembled on site.

KITCHEN HOOD CODE		MODEL SIZE	
		WALL TYPE	ISLAND TYPE
		L x W	L x W
HDD	Min.	650x800	1000x1700
	Max.	2600x2000	2900x2800
HYH	Min.	1000x1000	1000x1700
	Max.	2600x2100	2900x2800
HWW	Min.	1000x1300	2900x2200
	Max.	2900x2800	2900x2800
HDS	Min.	1000x1000	-
	Max.	2950x1800	-
HDX	Min.	500x500	-
	Max.	2950x1800	-
HYH-UV	Min.	1000x1000	1000x1700
	Max.	2600x2100	2900x2800



Installation of Kitchen Hood Modules

All kitchen hoods are put into use by the expert technical personnel of DOGU HVAC after they are assembled on site and system settings are made. It is under the guarantee of our company against production faults for 2 years from its installation.

KITCHEN HOOD GENERAL FEATURES

	Standard	Option
Material	AISI 304 Quality Stainless Steel	AISI 316 Quality Stainless Steel Sheet or Galvanized
Body Sheet Thickness	0,8 mm	1 or 1,2 mm
Height	400-600 mm	-
Exhaust Outlets	Circular Section [ø 315 mm]	Square or Rectangular Section
Fresh Air Intakes	Circular Section [ø 250 mm]	Square or Rectangular Section
Lighting	LED Lamp	-

FILTERS

The filters are produced from 0.60 mm thick AISI 304 quality stainless steel material. Oil trap filters are produced as percussion and cyclone type. All filters are detachable and can be easily cleaned. The filters are flame-retardant and prevent the passage of flame into the kitchen hood.

BAFFEL TYPE FILTER

Baffle type filters are one of the most used filter types in kitchen hoods. Approximate holding efficiencies for 10 µm particles are around 30%. In these filters, the exhaust air passes through the curtains. Together with the exhaust air, the oil particle rotates due to its momentum and hits the plate and filtration is provided. They have flame retardant properties. Pollution does not change the pressure drops too much.



Baffel Type Filter

CYCLONE FILTER

It has just started to be used in kitchen hoods. It has a non-clogging design; In this way, it can be used for long periods without cleaning. When it is full, it can be easily removed and washed easily. It has a long service life. It creates a constant and low pressure loss in the system.

With the cyclone type filter, approximately 60% of 5 μm particles and 95% of 10 μm particles are captured.

In cyclone type filters, the air entering the filter starts to rotate due to the structure of the filter and the oil particles collide with the filter surface and are collected in the condensation pan under the filter. The air leaves the filter from the top and bottom of the filter.



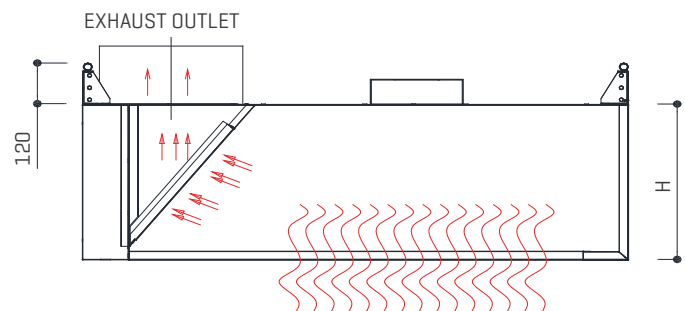
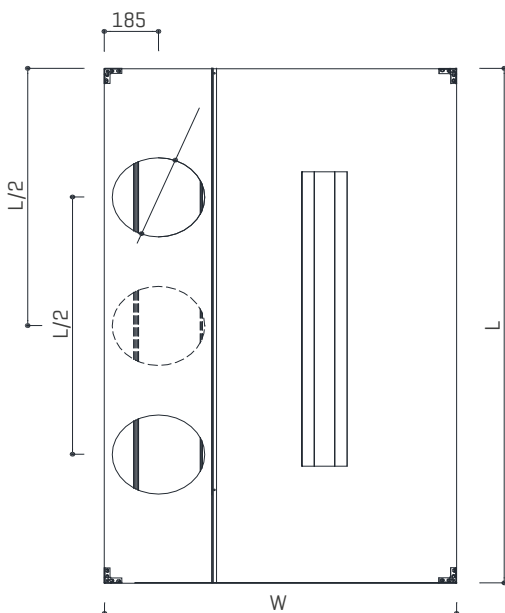
Cyclone Filter

2-HDD CLASSIC FILTER KITCHEN HOOD

- Classic type hoods are generally used in kitchens where small exhaust flow rates occur. The hood only removes the greasy fumes generated during cooking from the environment.
- Classic type hoods exhaust the air from the environment with a single aspirator with the help of the duct and give it to the outside air. It has a condensation pan that covers the hood all around.
- This type of hoods are produced with filters to be used instead of high performance hoods if high performance hoods are not used.
- All parts of the classic type hoods are made of 100% AISI 304 stainless steel. It can also be produced from galvanized or AISI 316 stainless sheet according to the customer's request.
- The body of the hood is produced from AISI 304 quality stainless sheet with brushed appearance. The main elements are assembled with easy-to-assemble sealed connections. Sealing elements or welded connections are used where necessary. The hood has a condensation pan with rounded corners, free from burrs and covering the hood all around. The lower corners are combined with leak-proof welded manufacturing to prevent harmful water from dripping.

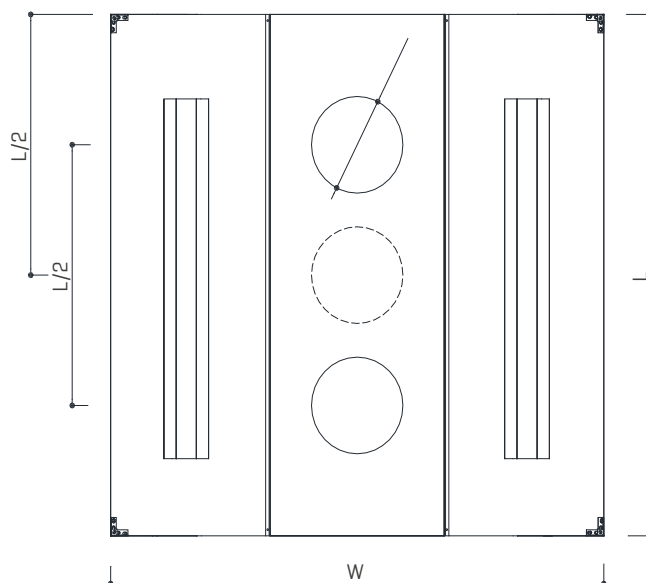
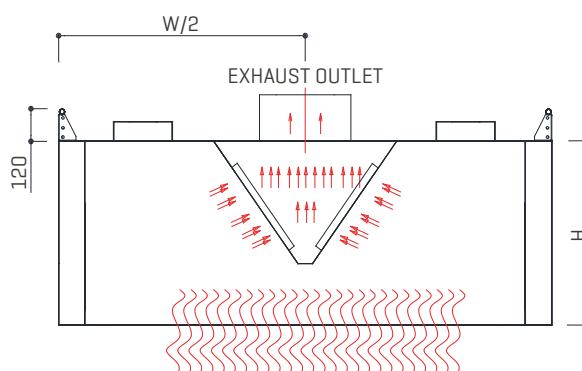


Classic Filtered Hood Selection Wall Mounted



LENGTH (L)	WIDTH (W)	HEIGHT (H)	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
650...1500	800...2000	400/600	ø 315	-	750x150x85	1	1	-
1500...1700		400/600	ø 315	-	1250x150x85	1	1	-
1700...2000		400/600	ø 315	-	1250x150x85	1	2	-
2000...2600		400/600	ø 315	-	1750x150x85	1	2	-

2-HDD CLASSIC FILTER KITCHEN HOOD



LENGTH (L)	WIDTH (W)	HEIGHT (H)	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
1000...1500	1700...2000	400/600	ø 315	-	750x150x85	2	2	-
1500...1700		400/600	ø 315	-	1250x150x85	2	2	-
1700...2000		400/600	ø 315	-	1250x150x85	2	4	-
2000...2600		400/600	ø 315	-	1750x150x85	2	4	-

3-HYH HIGH PERFORMANCE KITCHEN HOOD

High performance kitchen hoods, which provide energy savings of around 30-40%, pay for themselves within 1 year after the first investment in many projects. They also provide hygienic and quality environments in the cooking and show sections of kitchens and restaurants.

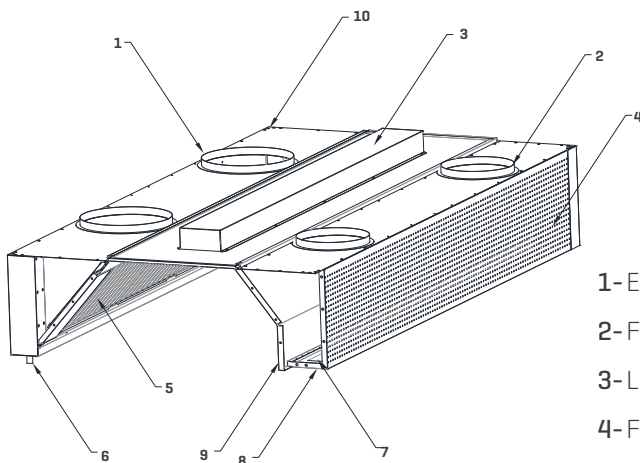


Unlike the classical type hood, the high performance hood supply fresh air over itself to the space and downwards to form an air curtain. In this way, less conditioned air is thrown out and some of the fresh air needed by the place is met.

General Features of High Performance Kitchen Hoods

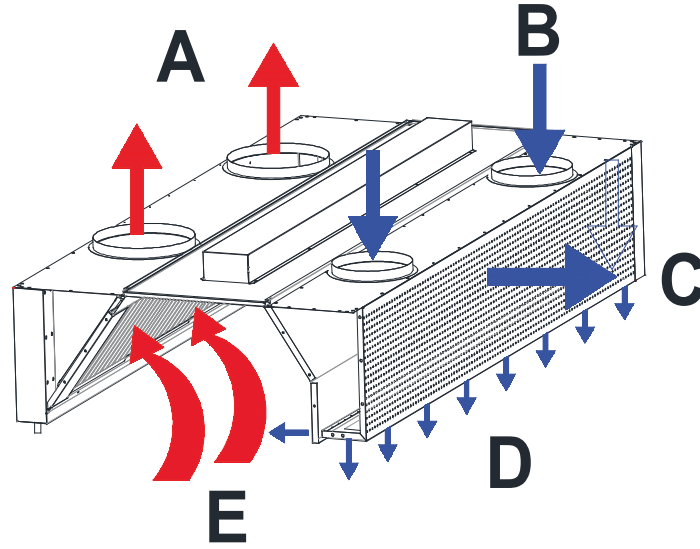
- ☞ Production as modular in every dimension
- ☞ Flame retardant cyclone type filter
- ☞ 30% 40% reduction in exhaust air flow compared to conventional hood
- ☞ The fresh air side of the hood is insulated against internal condensation

Yüksek Performanslı Davlumbaz Elemanları



- | | |
|--------------------------------------|------------------------------|
| 1- Exhaust duct connection point | 6- Drain valve |
| 2- Fresh air duct connection | 7- Air curtain supply damper |
| 3- Lighting module | 8- Bottom supply diffuser |
| 4- Fresh air supply perforated sheet | 9- Internal supply diffuser |
| 5- Exhaust filter | 10- Hanger holes |

WORKING PRINCIPLE OF HIGH PERFORMANCE KITCHEN HOOD



A-Exhaust air

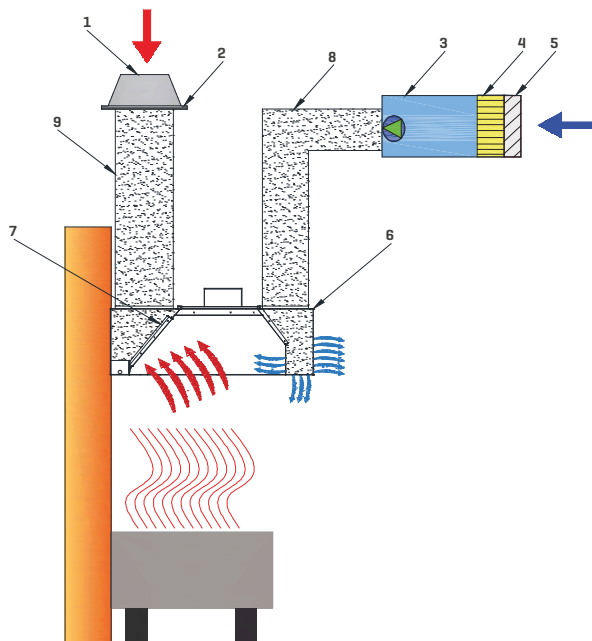
B-Fresh air

C-Fresh air is supply from the front surface towards the room with a homogeneous and low air velocity, both wrapping the hood and supporting the fresh air requirement of the space.

D- Fresh air is supply from the bottom of the hood vertically to the floor, preventing the pollutant air from the cooking units escaping into the space by forming an air curtain and directing it towards the exhaust side.

E- Fresh air is supply towards the filter, creating a pushing force on the pollutant air coming out of the cooking units and providing a better grip on the exhaust. Thanks to the fresh air, the conditioned air around the hood cannot be directed towards the hood and as a result, energy savings are achieved.

Yüksek performanslı davlumbaz uygulaması aşağıdaki şekilde gösterilmiştir.



1- Aspirator

2- Aspirator Filter

3- Ventilator

4- Dust Filter [F7]

5- Coarse Filter [G4]

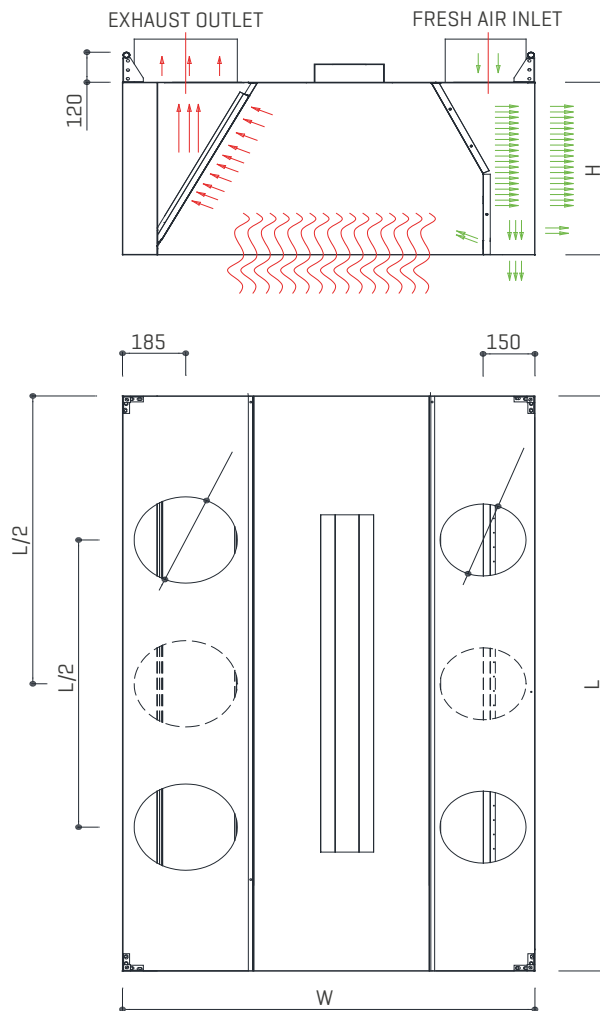
6- Kitchen Hood

7- Kitchen Hood Filter

8- Fresh Air Line

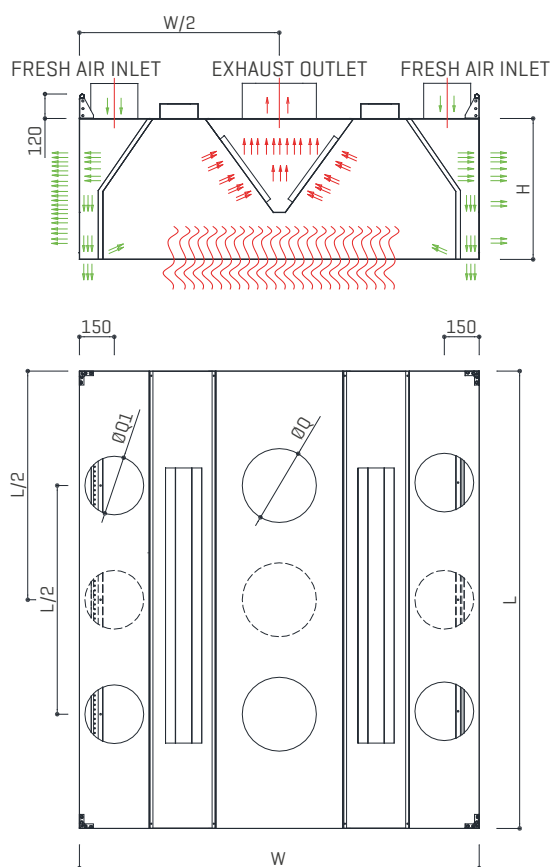
9- Egzoz Air Hattı

HIGH PERFORMANCE HOOD SELECTION [WALL MOUNTED]



LENGTH [L]	WIDTH [W]	HEIGHT [H]	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
1000...1500	1000...2100	400/600	ø 315	ø 250	750x150x85	1	1	1
1500...1700		400/600	ø 315	ø 250	1250x150x85	1	1	1
1700...2000		400/600	ø 315	ø 250	1250x150x85	1	2	2
2000...2600		400/600	ø 315	ø 250	1750x150x85	1	2	2

ISLAND TYPE



LENGTH [L]	WIDTH [W]	HEIGHT [H]	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
1000...1500	1700...2800	400/600	Ø 315	Ø 250	750x150x85	2	2	2
1500...1700		400/600	Ø 315	Ø 250	1250x150x85	2	2	2
1700...2000		400/600	Ø 315	Ø 250	1250x150x85	2	4	4
2000...2900		400/600	Ø 315	Ø 250	1750x150x85	2	4	4

4-HWW HIGH PERFORMANCE KITCHEN HOOD WITH WATER WASH

The high performance kitchen hood with water wash, developed with the TÜBITAK project in 2012, also includes all the features of the high performance kitchen hood.

With the washing installation in the exhaust line, filters, condensation pan and the line through which oily smoke passes are completely washed, preventing many problems such as the fire hazard that is frequently encountered in kitchens and not washing the filters.

The hood has a washing facility to wash the exhaust side and the back of the filters. All washing installation elements and connections used are leakproof. Panels and electrical components with IP55 protection class are used for the automation system.



GENERAL FEATURES OF HIGH PERFORMANCE KITCHEN HOODS WITH WATER WASH

- ☞ Realizing fresh air supply over itself with double-skin design
- ☞ 30-40% lower exhaust flow requirement compared to conventional hoods
- ☞ Uninterrupted hygiene and safety in kitchens with washable filter and condensation pan
- ☞ Automatically controlled 7 days and 24 hours programmable detergent washing function
- ☞ Flame retardant cyclone type filter
- ☞ Production as modular in every dimension

OPERATION PRINCIPLE

The hood, which is controlled by the automation system, can be programmed and can be washed for the desired time and duration. In the system with short, medium and long programs, the washing steps are as follows:

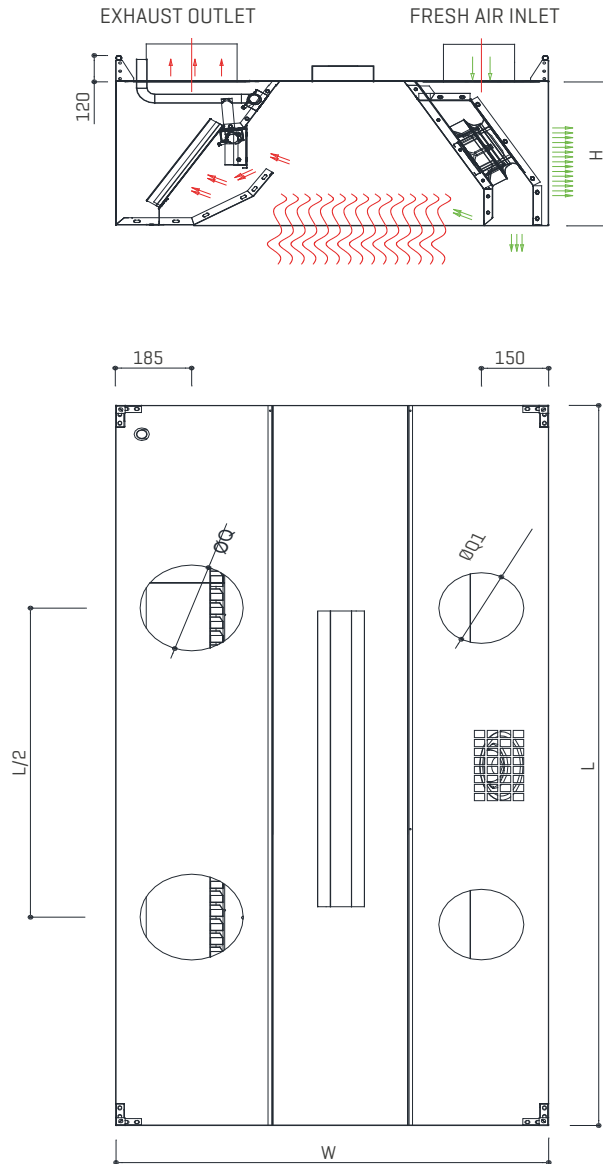
- 1-Pre-wash:** The oil accumulated on the exhaust side of the hood is softened with hot water.
- 2-Washing with detergent:** The washing liquid and water are mixed with the dosing pump and sent to the hoods and washing is carried out.
- 3-Rinsing:** After washing, the remaining detergent and dissolved oil in the hood are washed and discharged.

Note: The desired special program can also be created by the user.



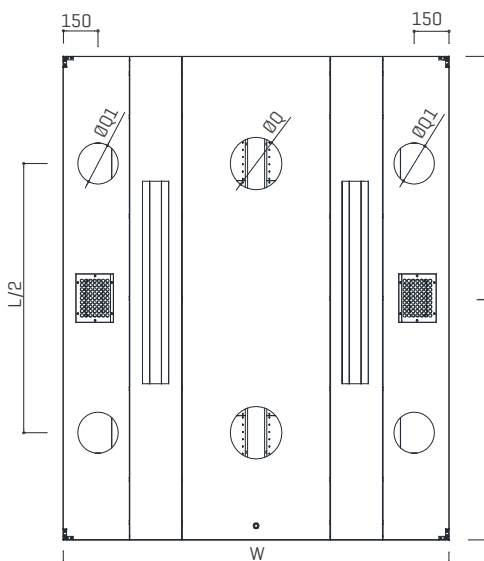
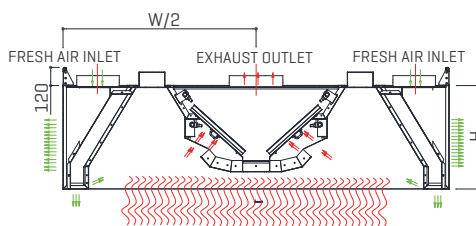
High Performance Kitchen Hood with Water Wash Top View

SELECTION OF HIGH PERFORMANCE KITCHEN HOOD WITH WATER WASH



LENGTH (L)	WIDTH (W)	HEIGHT (H)	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
1000...1500	1700...2800	400/600	ø 315	ø 250	750x150x85	1	1	1
1500...1700		400/600	ø 315	ø 250	1250x150x85	1	1	1
1700...2000		400/600	ø 315	ø 250	1250x150x85	1	2	4
2000...2900		400/600	ø 315	ø 250	1750x150x85	1	2	2

ISLAND TYPE



LENGTH (L)	WIDTH (W)	HEIGHT (H)	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
1000...1500	2200...2800	600	∅ 315	∅ 250	750x150x85	2	2	2
1500...1700		600	∅ 315	∅ 250	1250x150x85	2	2	2
1700...2000		600	∅ 315	∅ 250	1250x150x85	2	4	4
2000...2900		600	∅ 315	∅ 250	1750x150x85	2	4	4

HDS HIGH PERFORMANCE CONDENSING KITCHEN HOOD

High performance condensing kitchen hoods are designed to be used in places where water vapor is concentrated (laundry, dishwashing room and tea stoves). In order to capture the water vapor at the maximum level, the inner walls of the hood are covered with condensation pans. The exhaust air coming with the dense amount of steam hits the condensation pans and the water vapor turns into water particles. These particles are collected and accumulated in condensation pans. The accumulated water is discharged through the valves in the condensation pans.



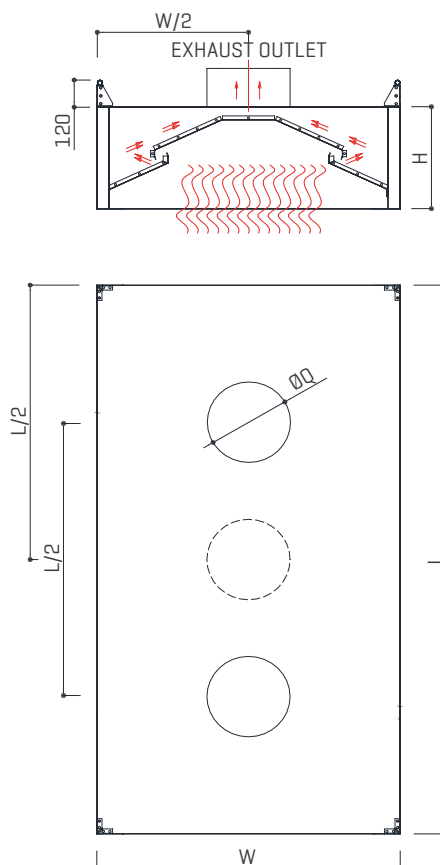
HDS High Performance Condensing Kitchen Hood

Condensing hood is produced from AISI 304 quality stainless sheet. The main elements are assembled with easy-to-assemble sealed connections. Where necessary, sealing elements and welded connections are used.

The hood has a condensation duct with rounded corners, free from burrs and covering the hood all around. There are two condensation pans in the hoods. This pan is produced as welded and sealed.

There are drainage valves on both sides to drain the collected water. The lower corners are produced as welded to prevent harmful water from dripping.

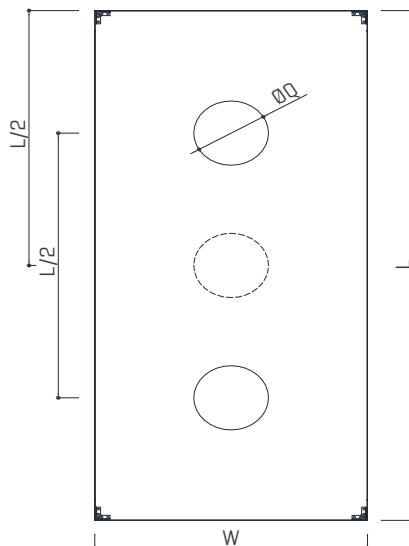
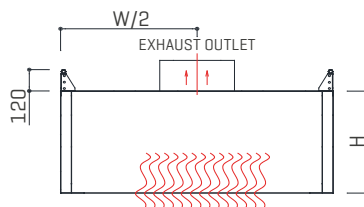
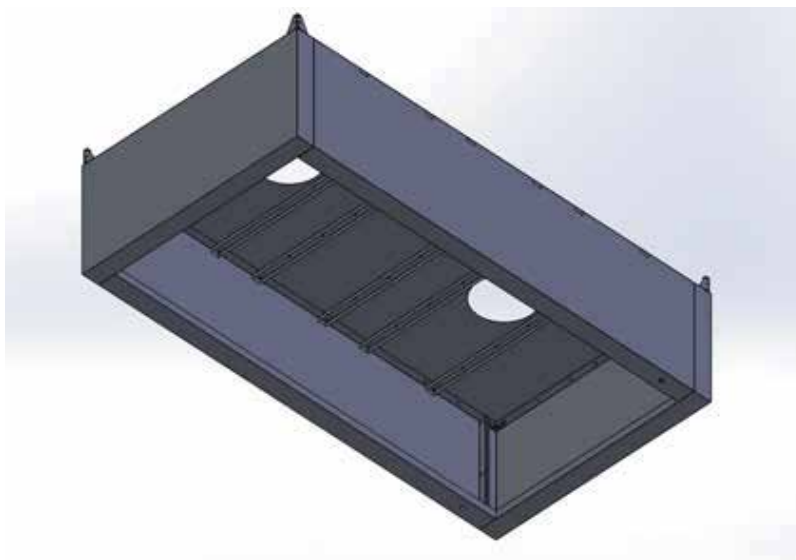
SELECTION OF HDS HIGH PERFORMANCE CONDENSING KITCHEN HOOD



LENGTH (L)	WIDTH (W)	HEIGHT (H)	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
1000...1700	1000...2100	400/600	ø 315	-	-	-	1	-
1700...2950		400/600	ø 315	-	-	-	2	-

HDX CLASSIC KITCHEN HOOD WITHOUT FILTER

This type of kitchen hoods are used in places where there is no oil outlet, only for the purpose of removing the air in the environment. Absolutely no filterless hood should be used on a cooking counter. It is suitable to be used in the dishwasher, tea room or cold preparation sections. The body and duct connection elements of classical type hoods are produced from 100% AISI 304 stainless steel, as in other hoods. Classic type hoods without filter draw the exhaust air from the environment with a single aspirator with the help of a duct and give it to the outside air.



LENGTH (L)	WIDTH (W)	HEIGHT (H)	Q	Q1	LIGHTING MODULE SIZE	NUMBER OF LIGHTING MODULES	NUMBER OF EXHAUST CONNECTIONS	NUMBER OF FRESH AIR CONNECTIONS
500...1700	500...2100	400/600	ø 315	-	-	-	1	-
1700...2950		400/600	ø 315	-	-	-	2	-

High Performance Kitchen Hood With UV Lamp (HYH-UV)

Depending on the customer's request, a UV lamp can be added to the high performance kitchen hood. In this model, the filters and the section where the UV lamp is located are manufactured in a sealed structure to prevent UV rays from leaking. The hoods are delivered with the necessary electrical and automation infrastructure for the operation of the UV lamp.

HYH-UV model hoods are used in kitchens where there is intense oil and odor output, but where chimney problems are experienced. The ultraviolet rays and ozone gas created by the UV lamp break down the oil and odor molecules coming from the hood and prevent their passage to the exhaust duct. In this way, the exhaust ducts stay clean for longer and duct maintenance costs can be kept at a minimum. It also alleviates the load of filtered aspirators [air filtration units] to be used in the system.

In HYH-UV model hoods, V-UV type lamps producing rays with a wavelength of 185 nm are used. The light produced at this wavelength deforms the structure of organic molecules and neutralizes them, and also increases the filtration effect by producing ozone [O₃] gas.

HYY/Console Type Kitchen Hood

Console type kitchen hoods, also known as Köfteci hoods, are produced as double-skin and, on the one hand, they remove the exhaust fumes formed under the hood, on the other hand, they give fresh air to the space.

Console type high performance hoods are the hoods with high suction power preferred in fast food kitchens, grilling, frying and cooking areas of kitchens or narrow and small but high density kitchens. Thanks to its special design, it reduces the heat emitted in the cooking appliances. Due to this feature, it is a product that increases energy savings in air-conditioned kitchens.



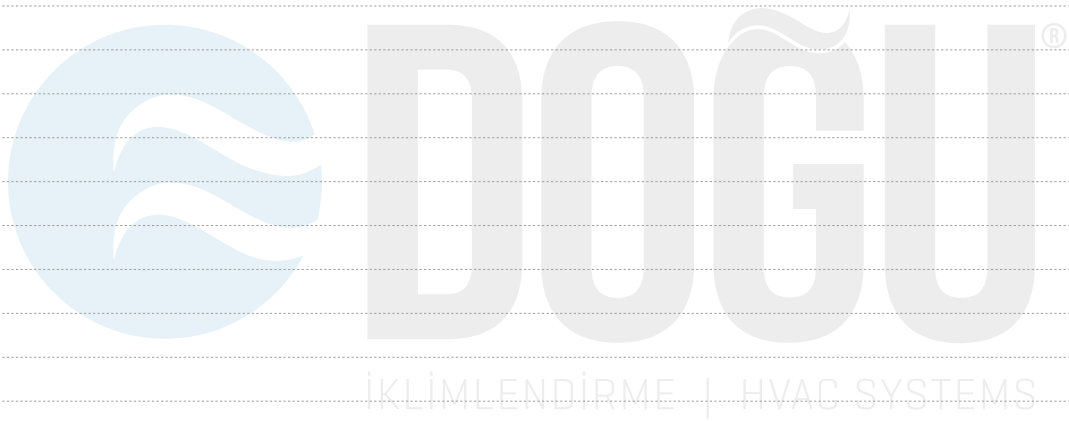
www.davlumbazsecim.com

Our kitchen hood selection program, prepared by our software engineers with the support of TUBITAK in 2012, is the first product selection program in our sector written by a local company. The program calculates the hood exhaust flow rate according to the VDI 2052 standard. It prevents the exhaust flow rates calculated with wrong methods and enables the correct flow rates to be easily calculated.

www.mutfakhavalandirmasi.com

You can also contribute with your comments on our page where we share information about kitchen ventilation with our articles that we add periodically.

NOTES





We make the difference with
180 different types of products.



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