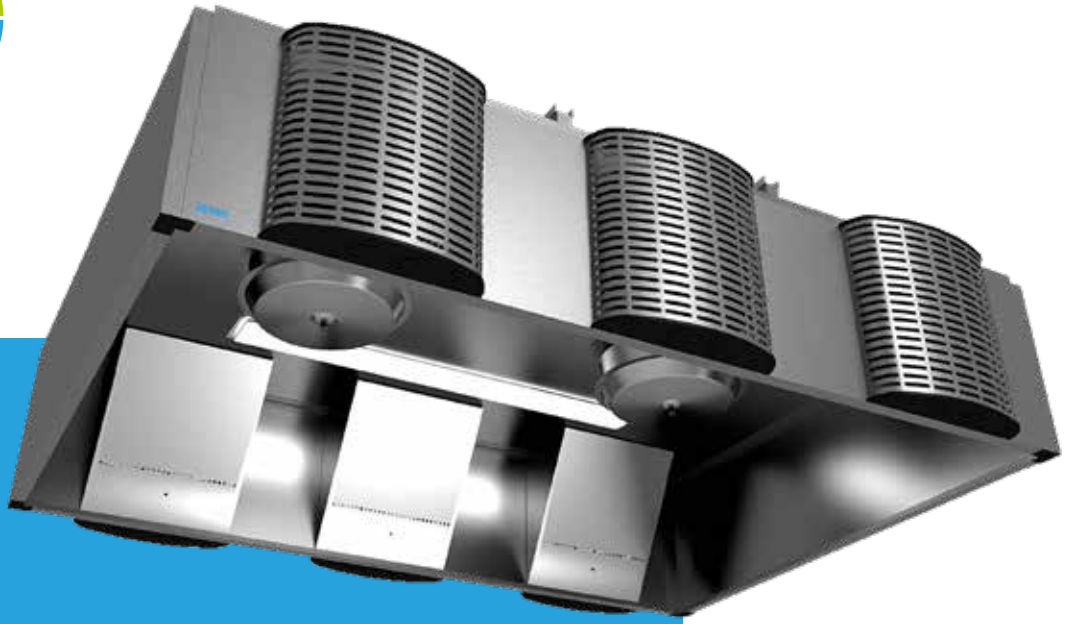
UV-TURBO® HOODS

Product Brochure

Jeven

Top ventilation for top chefs



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JEVEN UV-TURBO® HOODS

— helping professionals to enjoy their work and give their best.

UV-Turbo® hoods have been developed for proffesionals kitchens requiring energy efficiency and function, as well as a safe and comfortable kitchen climate for the staff. The UV-TurboSwing® filter combines with the high-efficiency mechanical separation of TurboSwing and the ozone-free UV-light purification. UV-TurboSwing® has an constant separation regardless of air flow and can be used to utilize variable air flow energy saving systems and kitchen extract air energy by heat recovery.
The excellent filtration efficiency of UV-Turbo keeps the ventilation ducts clean, even from the smallest particles of contamination and gaseous grease.

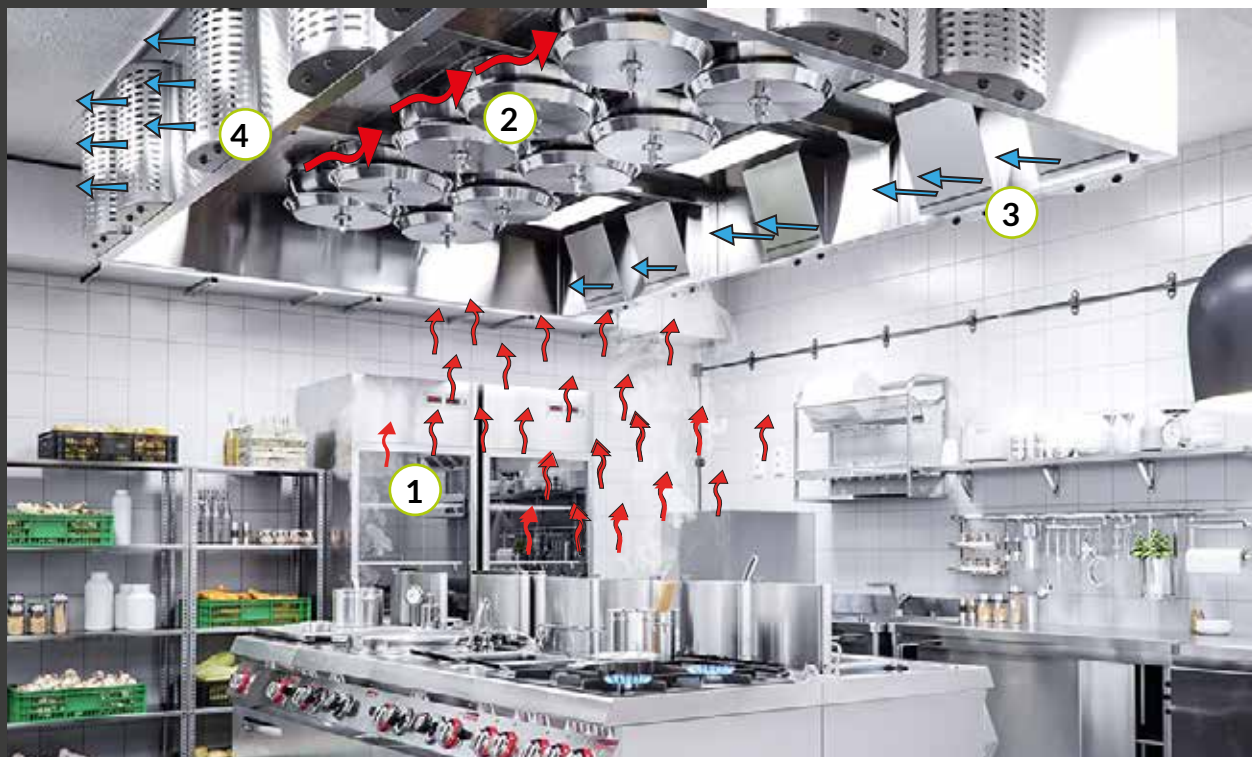
FUNCTION

1. Contaminated air rises against the ceiling of the hood

2. Since UV-TurboSwing® filter's air intake is placed closed to the ceiling, the warmest contaminated air is always exhausted through it.

3. In hoods with direction air devices (JSI and JVI), the oset is caught by the direction air beam, that directs the oset to the grease filter and prevents contaminated air from ending up outside the hood.

4. In hoods with supply air (JSI), air is supplied to the room draft-free by removable supply air devices.



SPECIFICATION

JSI - R- UV-Turbo - 3000 x 1500 x 540 - 4 x 250 - 3 x 315 + 480 l/s - 550 l/s

JSI=Supply air Hood
JVI=Direction air Hood
JLI=Exhaust air Hood

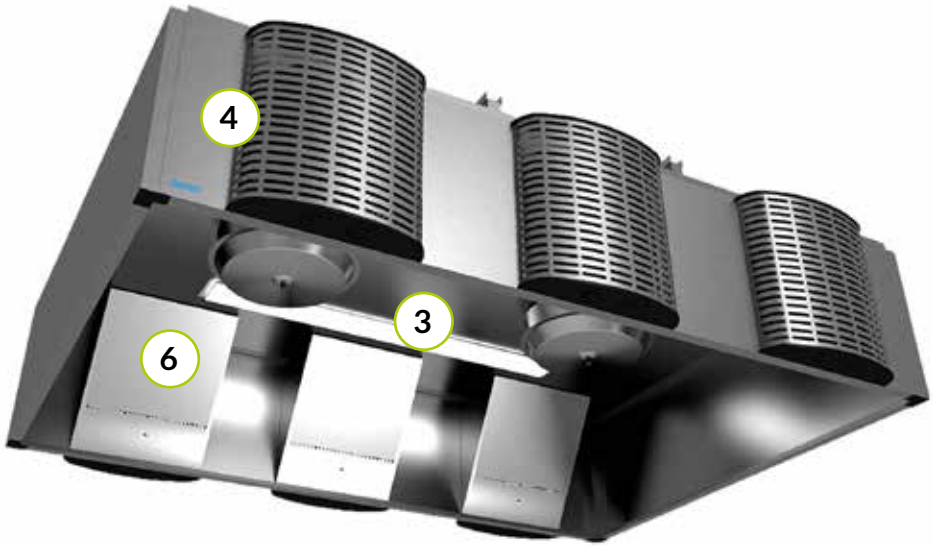
Material
R=Stainless steel
S=Laminated Glass

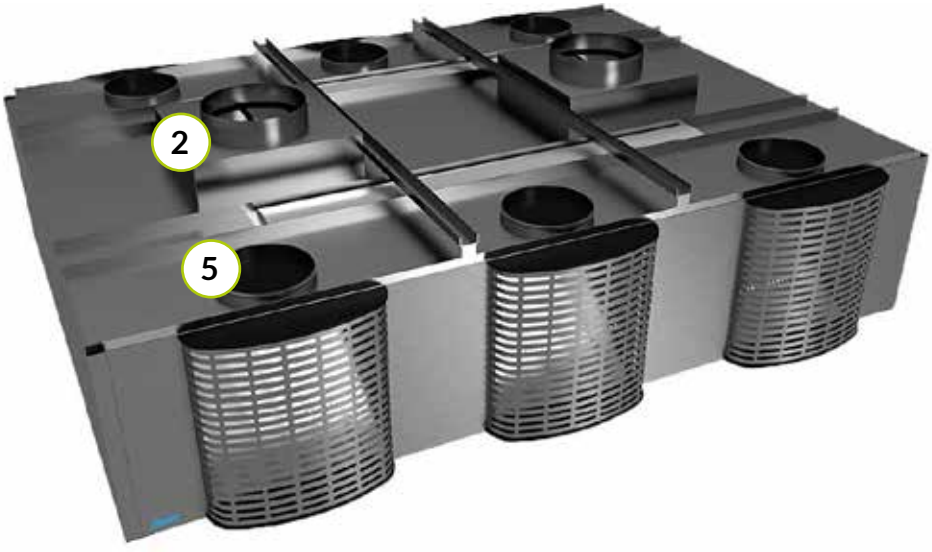
Grease filter
Length
Depth
Height

Number and size of the supply air connections
Number and size of the exhaust air connections
Supply airflow, l/s
Exhaust airflow, l/s

CONSTRUCTION

UV-TURBO® HOOD

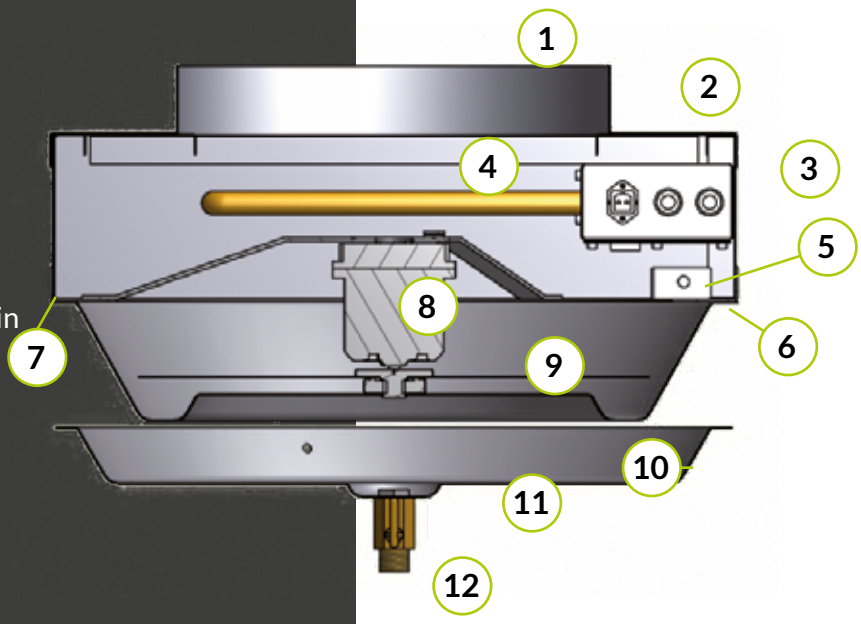




1. UV-TurboSwing® Grease filter
2. Exhaust air connection with damper plates
3. LED lights
4. Supply air device with removable spreader (JSI)
5. Connection for supply- and direction air with silencer damper (JSI)
6. Direction air device (JSI, JVI)

UV-TURBOSWING® GREASE FILTER

1. Spigot
2. Balancing dampers
3. Limit switch
4. UV light
5. Operation indicator
6. Dome fixing
7. Locking screw for collection basin
8. EC Motor
9. Separation plate
10. Air flow measuring tap
11. Collection basin
12. Valve for drain



An innovative solution for demanding grease filtration in professional kitchens.

UV-TurboSwing® consists of an effective mechanical separation and an unique ozon-free UV-light purification.

TurboSwing®, based on rotary motion, mechanically separates fat particles. The rapid rotating separating disc separates even small particles and throws them at a high speed to the outer edges of the separation chamber, from which grease and other impurities flow into the collection basin. Already at particle size over 5 µm, are the separation rate over 90%, which surpasses any other technology.

Thanks to ozone-free UV light and catalysts, the UV-TurboSwing® filter also effectively removes small particles and gaseous grease.

The UV-TurboSwing® filter is internally coated with TiO2 wich acts as a catalyst. When the surface is illuminated with UV light, hydroxide ions are released on the surface which reacts with grease particles. The particles are converted into a powder-like carbon compound, carbon dixoide and water.

Unlike ozone based solutions titanium oxide does not have any health hazards. The catalyst used by UV-TurboSwing®, titanium oxide, is safe and naturefriendly catalyst.

THIS IS HOW THE TURBOSWING® GREASE FILTER WORKS.

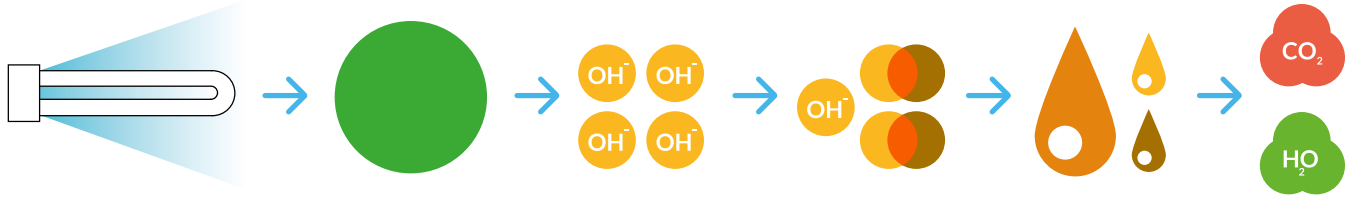
Contaminated air is sucked into the filter.

The air is sucked through a rotating perforated separation plate.

The particles collide with the rotating plate and are thrown toward the sides of the filter housing.

Liquid grease and impurities separated by TurboSwing® are removed with the opening of the tap.

THIS IS HOW THE CATALYTIC PURIFICATION WORKS



Ozon-free UVC-Light

Filters with TiO2 are illuminated with UV-light

OH^- radicals are released

OH^- reacts with differents contamination

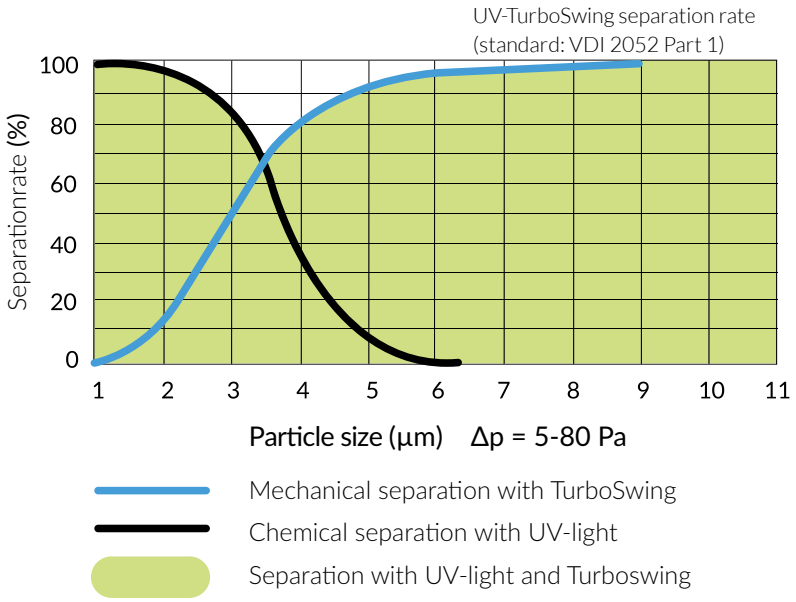
Grease and other contaminants decompose

Final product - CO_2 och H_2O

EXHAUST AIR

UV-TURBOSWING® GREASE FILTER

TurboSwing® and UV-light combined separation rate

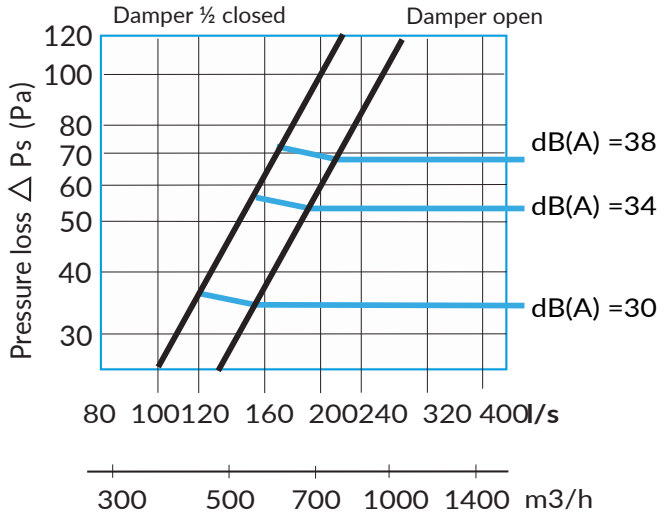


Recommended air flow

Spigot size	Extract air flow		Pressure loss
mm	l/s	m3/h	Pa
Ø 315	0-200	0-720	0-60

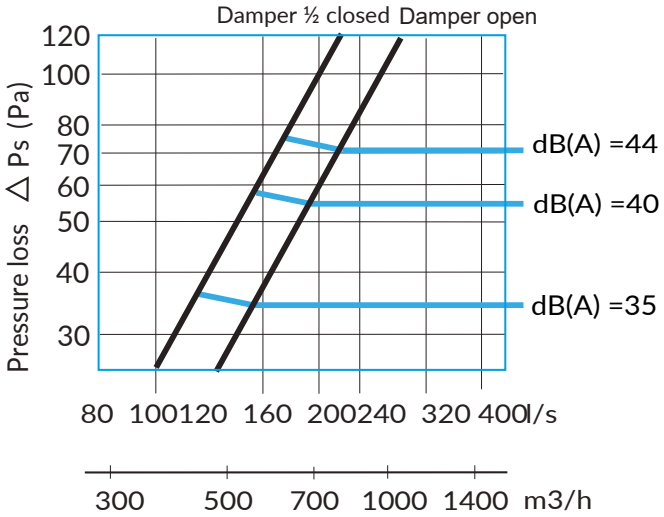
Pressure loss and sound data

TurboSwing® 750 rpm



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

TurboSwing®1100 rpm



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

The sound power level **Lw** in each octave band is obtained by adding the correction factor **Kok** to the actual sound level. **LpA**

Lw= LpA+Kok.

Correction factor Kok

Hz	125	250	500	1000	2000	4000
Kok	7	-1	-5	-5	-7	-6
tol.	±3	±3	±2	±2	±3	±4

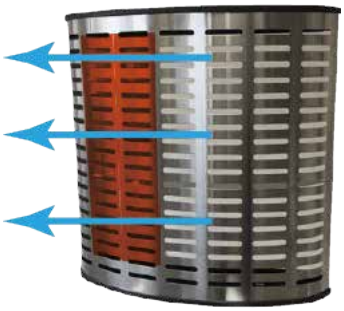
ADJUSTABLE SUPPLY AIR DEVICES

SUPPLY AIR HOOD JSI UV-TURBO

Jeven supply air columns deliver a controlled and flexible distribution of the supply air. Since the supply air columns can be placed on all sides of the hood , air can be supplied to all parts of the kitchen. The number of supply air devices is determined by the total flow to be supplied to the hood. The supply air columns are easy to disassemble for cleaning in the dishwasher.

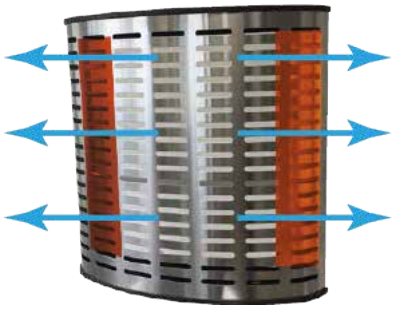
Horizontal alignment of the supply air

By adjusting the position of the vertical control plates in the spreader, the air can be adjusted laterally.



Undirectional thrown

Displacement thrown pattern

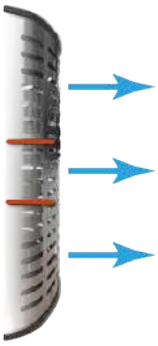


Bidirectional thrown

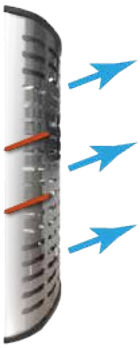
Vertical alignment of the supply air

By adjusting the position of the horizontal control plates in the spreader, the air can be vertically regulated.

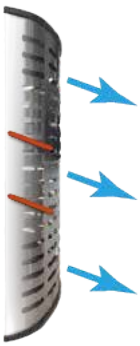
Horizontal control plates



The air is directed forward



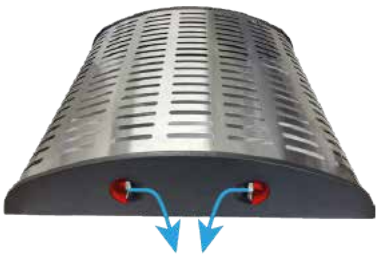
The air is directed upwards



The air is directed downwards

Adjustment of comfort nozzle

In each supply air columns there is a comfort nozzle that can be adjusted to give the kitchen staff extra supply air.



SUPPLY AIR

SUPPLY AIR HOOD JSI UV-TURBO

In each supply air devices there is a sound reducing damper plates for individual regulation of the supply air flow. The damper is adjusted from the factory for the current flow with a pressure loss of 25-35 Pa.

The patented damper plates is made of a sound-absorbing material

Recomended air flow

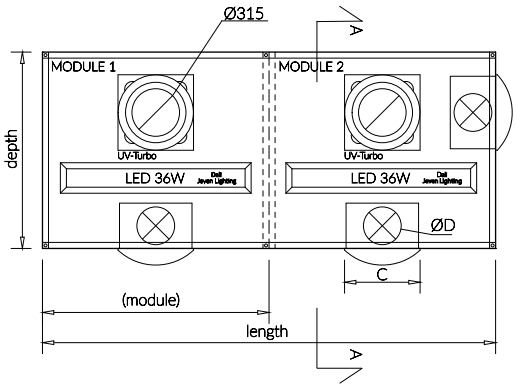
Hood height	Supply air unit widht	
mm	**200 mm**	**500 mm**
330	20-45 l/s	50-90 l/s
540	40-75 l/s	100-150 l/s

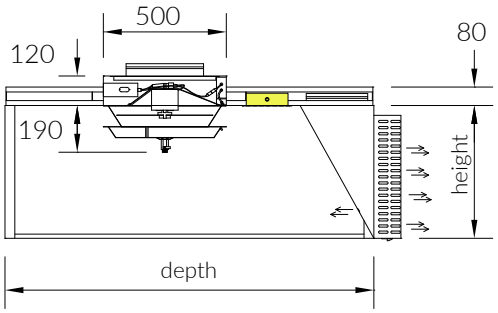
Sound reduction with open damper

dB		Hz					
Hood height	width	125	250	500	1K	2K	4K
330 mm	500 mm	17	10	10	11	18	24
540 mm	200 mm	24	8	5	12	17	24
	500 mm	16	9	7	11	16	23

DIMENSIONS

SUPPLY AIR HOOD JSI-UV TURBO



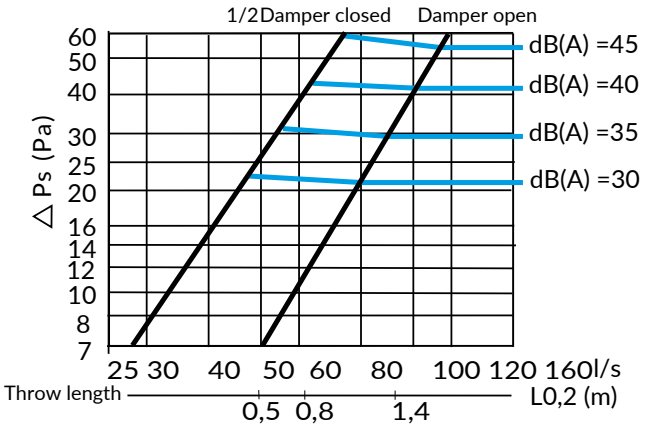


SUPPLY AIR

SUPPLY AIR HOOD JSI UV-TURBO

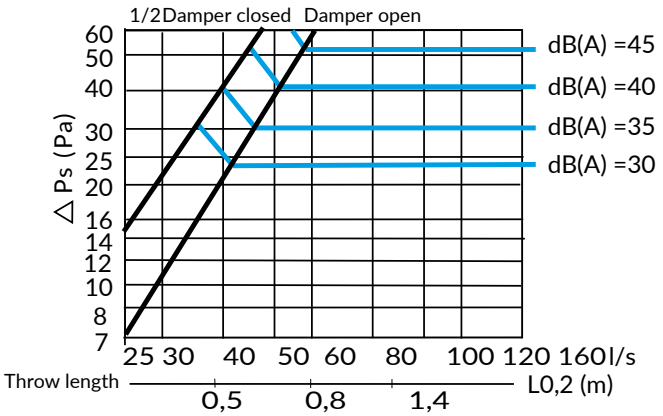
Pressure loss, sound data and throw length for supply air devices. Hood height 330 mm.

Unit width 500 mm, hood height 330 mm.
Spigot Ø 200 mm. LpA



Hz	125	250	500	1K	2K	4K
Kok	-2	7	4	-5	-19	-26
tol.	±6	±4	±2	±2	±3	±5

Unit width 200 mm, hood height 330 mm.
Spigot Ø 160 mm. LpA

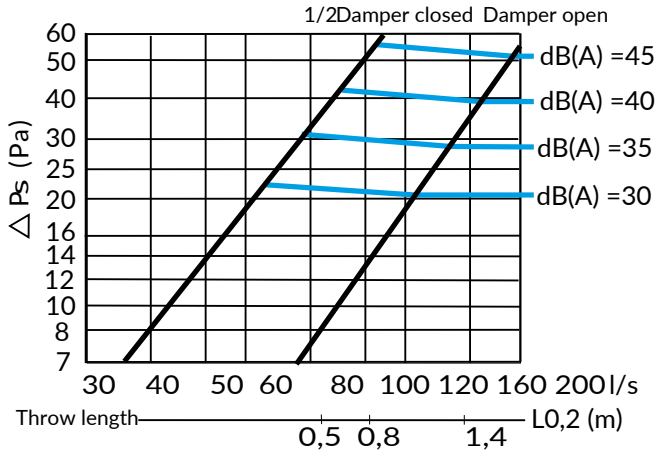


Hz	125	250	500	1K	2K	4K
Kok	-3	0	2	1	-6	-16
tol.	±3	±3	±2	±2	±3	±4

The sound power level (**Lw)** in each octave band is obtained by adding the correction factor (**Kok)** to the actual sound level. (**LpA) Lw = LpA+Kok.**

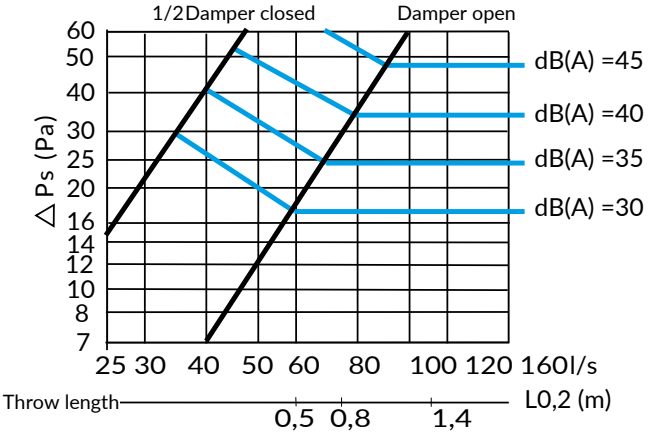
Pressure loss, sound data and throw length for supply air devices. Hood height 540 mm.

Unit widht 500 mm, hood height540 mm.
Spigot Ø 250 mm. LpA



Hz	125	250	500	1K	2K	4K
Kok	6	8	4	-5	-10	-18
tol.	±3	±3	±2	±2	±3	±4

Unit width 200 mm, hood height 540 mm.
Spigot Ø 160 mm. LpA



Hz	125	250	500	1K	2K	4K
Kok	-2	1	2	1	-7	-16
tol.	±3	±3	±2	±2	±3	±4

DIRECTION AIR

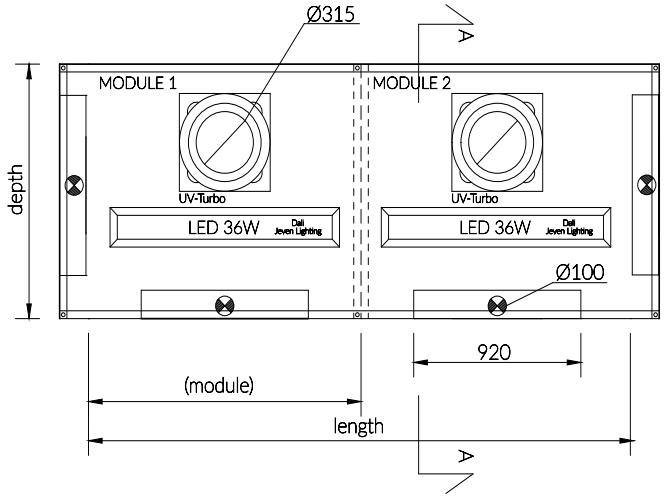
DIRECTION AIR HOOD JVI UV TURBO

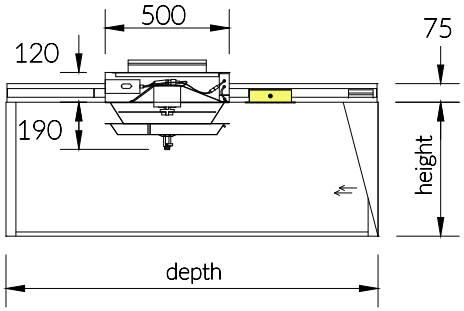
Jeven's direction air diffuser can be placed on all sides of the hood if needed. The direction air diffuser effectively captures the contaminated air and pushes it into the hood towards the grease filter.
The direction air diffuser can also be mounted together with supply air devices in a supply air hood.

Direction air unit mounted on the short side in a supply air hood.

DIMENSIONS

DIRECTION AIR HOOD JVI-UV TURBO



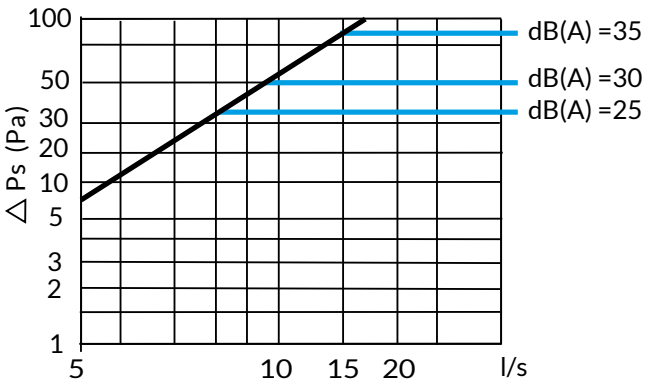


DIRECTION AIR

DIRECTION AIR HOOD JVI-UV TURBO

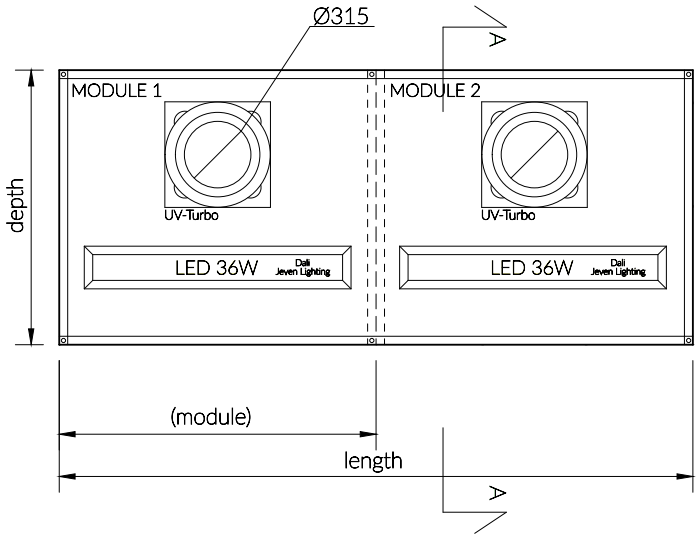
The recomended air flow for each direction air device is 8-15l/s.

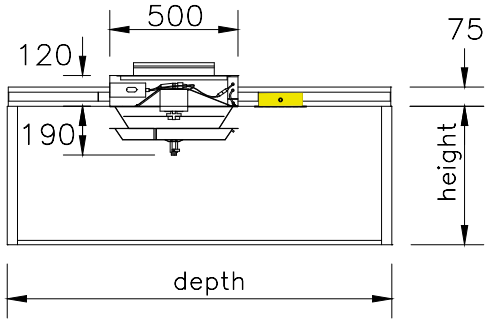
Unit width920 mm,
Hood height 330 or 540 mm.
Spigot Ø 100 mm. LpA



DIMENSIONS

EXHAUST AIR HOOD JLI UV TURBO



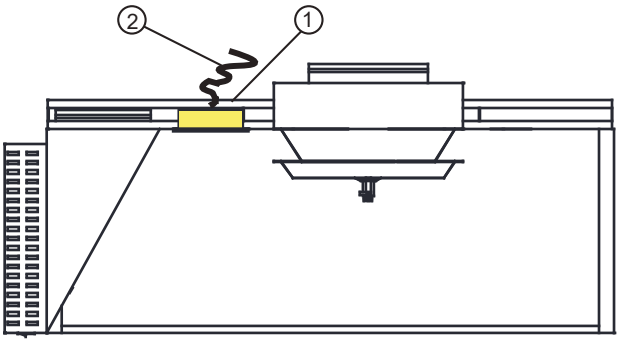


LIGHTING

UV-TURBO® HOOD

By default, every hood module comes with an energy efficient LED light fixture integrated to the hood's roof.

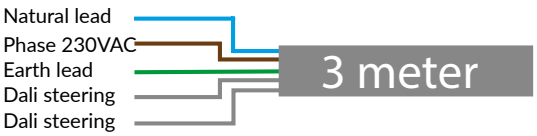
The light fixture has a cable which should be connected to a junction box with a cable lock.
The connection cable must be positioned in such way that it is not exposed to mechanical or thermal stress.
The connection cable is not included in the delivery.



1. integrated LED light fixture
2. Connection cable

Technical data

Protection class:	IP 65
Light sources:	LED
Colour Temperature:	4000K
Connection:	3 m cable, type EKK 5x1,5

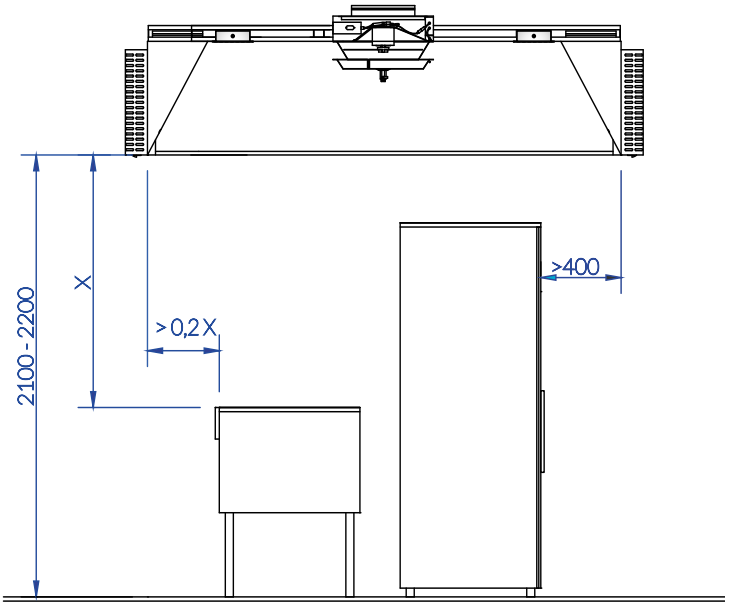


DIMENSIONING OF HOODS

The size of the hood depends of size and placement of the kitchen equipment.

The overhang depends on the type of equipment and the distance between the hood and the equipment. In general, for this type of equipment, the overhang of 400 mm is usually expected. For ovens, an overhang shall be suuicient to cover an open door.

The typical distance between the hood side and the floor is 2100-2200 mm.

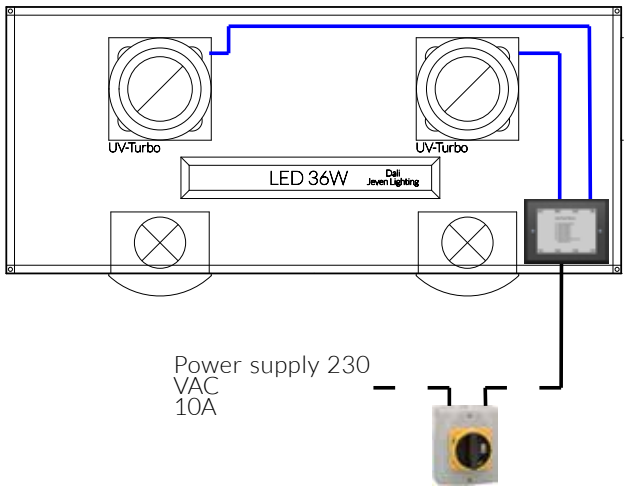


ELECTRICAL CONNECTION

UV-TurboSwing® filter come with cable connected to a branch box on the roof of the hood. Each hood module is equipped with a branch box that handles up to six filters.

UV-TurboSwing can be controlled for continuous operation, but it is recommended that it be witched on so that it operates in parallel with the extract air fan.

A safety switch must be mounted on supply line to ensure that service can be performed without power. Safety switches are not included in delivery from Jeven.



Electrical data UV-TurboSwing®

Supply voltage:	230VAC
Current draw:	0,46 A
Power:	77W
Degree of protection:	IP55

CE-confirmed

UV-CONTROL (optional)

MONITORING OF UV-PURIFICATION

Jeven UV-Control controls and monitors UV-TurboSwing filters. With continuous monitoring of operating time and UV-light sources ensures the function of the UV purification. UV-Control produces an immediate alert upon failure with flashing light and a text message on the unit.

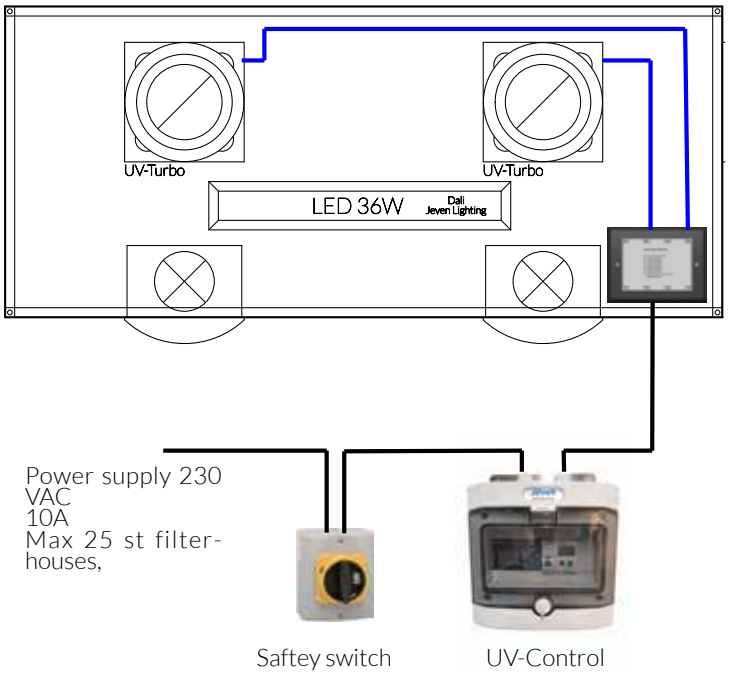
PROGRAMMABLE CONTROL SYSTEM

With Jeven UV-Control, the operation of UV-TurboSwing filter is also controlled . In the unit you can select manual control, time control or to start and stop filters by receiving an external signal from, for example air handling unit.

COMMUNICATION WITH SUPERORDINATE CONTROL SYSTEM

Operation status and alarms can be read on the unit's display, but Jeven UV-control can also communicate with the superordinate control system. Easiest through a sum alarm, but also by ProfiNet and Modbus.

UV-Control comes with a Plug & Playbox for each hood module. Several hood modules can be connected to the box.



Technical data

Dimension:	200x200x120 mm . (w x h x d)
Supply voltage:	230VAC
Degree of protection:	IP65
Ambient temperature:	<55°C

UV Turbo

by Jeven

Jeven

Top ventilation for top chefs

Please contact us for more information.

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