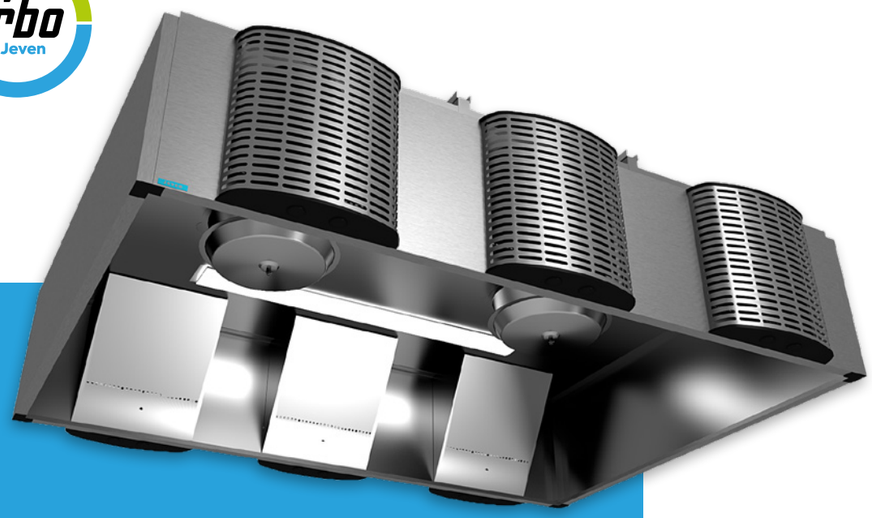
UV-TURBO™ HOODS

Product Brochure

CYCLONE VENTILATION

Jeven
Top ventilation for top chefs



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UV-TURBO™ HOODS

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

UV-Turbo™ hood have been developed for professional kitchens requiring energy efficiency and versatility, as well as a safe and comfortable kitchen climate for the staff. The excellent filtration efficiency of UV-Turbo™ keeps the ventilation ducts clean, even from the smallest particles of contamination and gaseous grease. UV grease filtering also significantly reduces the odours of cooking.

The UV light, in the grease filter unit, is an ozone-free, safe and environmentally friendly solution. UV-Turbo™ can be used to utilize variable air flow energy saving systems and kitchen exhaust air energy by heat recovery.

FUNCTIONING PRINCIPLE

1. Dirty air rises due to temperature differences against the ceiling of the hood.

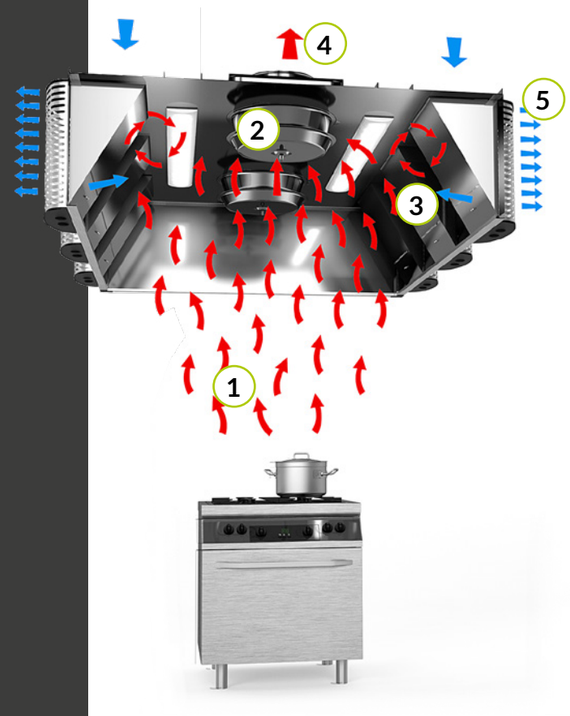
2. Dirty air is exhausted immediately through the UV-Turbo™ units. Since UV-Turbo's™ air intake is placed close to the ceiling, the warmest dirty air is always exhausted through it. Ventilation efficiency is of the highest rate because of the correct position of UV-Turbo™ with respect to the kitchen equipment.
When the separator plate of UV-Turbo™ rotates, the grease and impurities are separated into the collecting vessel.

3. Direction air prevents leakage and directs steam and impurities towards UV-Turbo™.

4. The purified air flows in the catalyst-coated chamber, where UV light transforms remaining grease to carbon dioxide and water. Clean air is exhausted into the ducts.

5. Fresh and draught-free supply air is brought into the kitchen through the supply air columns placed on the outside walls of the supply air hood. This results in very effective ventilation in the kitchen.

SUPPLY AIR HOOD
JSI-R-UV-TURBO



JLI-R-UV-TURBO

PRODUCT CODE

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

JSI=Supply air hood
(incl. supply air)
JLI=Exhaust air hood

Wall material
R=Stainless steel AISI 304
S=Laminated glass

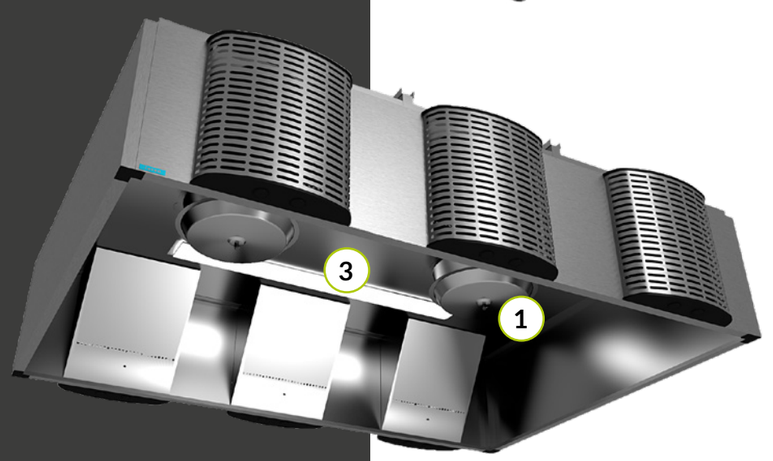
Grease filter
Length
Width
Height

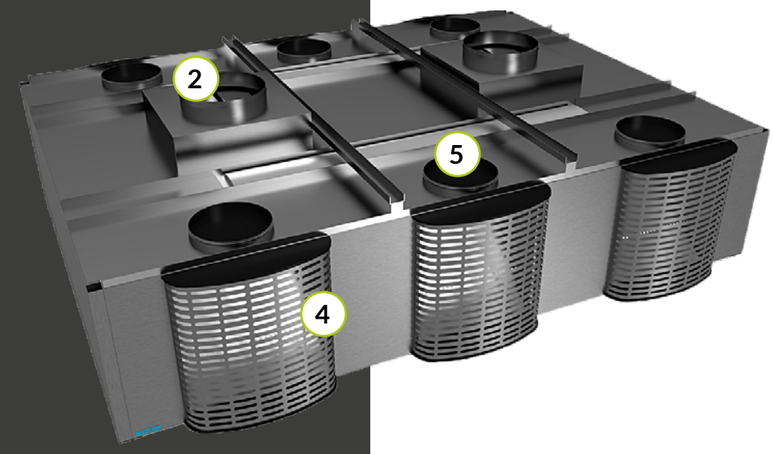
Number and size of the supply air connections
Number and size of the exhaust air connections
Supply air flow, l/s
Exhaust air flow, l/s

ACCESSORIES
CB=Covering boards
UV-SC=UV-SwingControl
VK=Covering box
FP=Ansul R102 Fire Suppression System

PRODUCT STRUCTURE

UV-TURBO™ HOODS



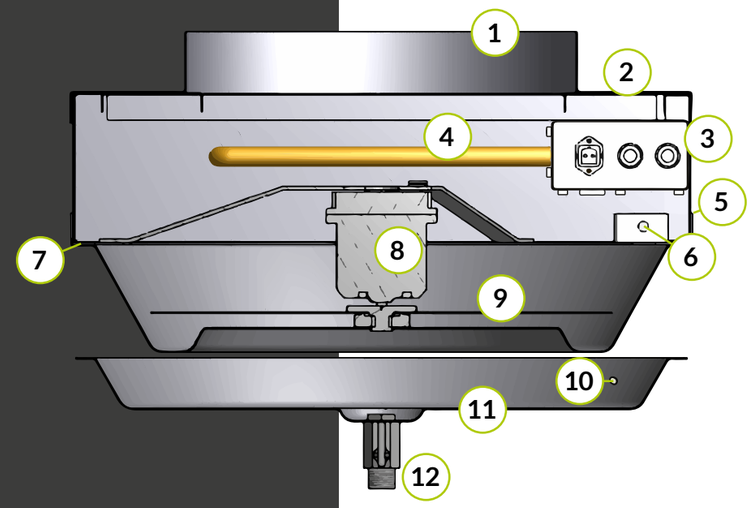


1. UV-Turbo™ grease filter
2. Exhaust air connection and damper plates
3. Lights
4. Supply air unit with removable front panel
5. Supply air connection and damper unit

Jeven

UV-TURBO™ GREASE FILTER

1. Collar saddle
2. Balancing dampers
3. Motor connection box
4. UV light
5. Limit switch
6. Signal light
7. Dome fixing
8. EC motor
9. Separation plate
10. Airflow measuring tap
11. Collection basin
12. Tap



An innovative solution for demanding grease filtration in professional kitchens

UV-Turbo ™ consists of an effective mechanical TurboSwing® grease filter and UV light.

TurboSwing®, based on rotary motion, mechanically separates fat particles - even as small as 2 µm. 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.

Thanks to ozone-free UV light and catalysts, the UV-Turbo™ grease filter also effectively removes small particles and gaseous grease. UV-Turbo ™ significantly reduces cooking smells.

The UV light is housed in a TurboSwing® grease filter chamber coated with a catalyst (TiO2). In a catalytic-coated chamber the grease is polymerized into a powder-like carbon compound, carbon dioxide and water as a result of UV light.

The catalyst used by UV-Turbo™, titanium oxide, is safe and nature-friendly catalyst.

Unlike ozone based solutions titanium oxide does not have any health hazards.

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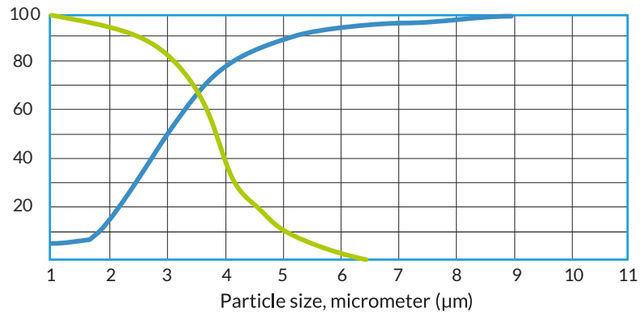
EXHAUST AIR

UV-TURBO™ GREASE FILTER

TurboSwing and UV light combined filtering efficiency



- TurboSwing separation rate 90-95 %
- UV light's effect to separation rate (ozone free UV light)

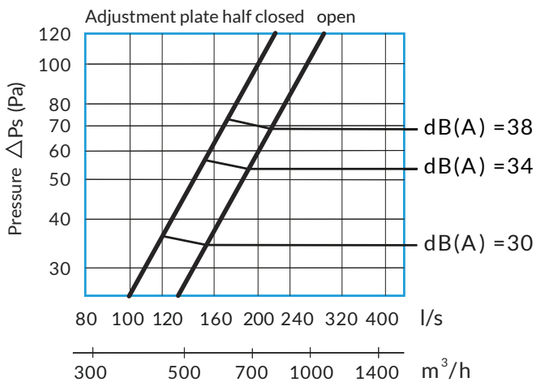
Combined separation rate 95-99 %.
Kitchen equipment and manufacturing process affect separation rate.

Recommended exhaust flow/spigot

Spigot size ø	Exhaust flow		Pressure loss
mm	l/s	m3/h	Pa
315	100-200	360-720	20-60

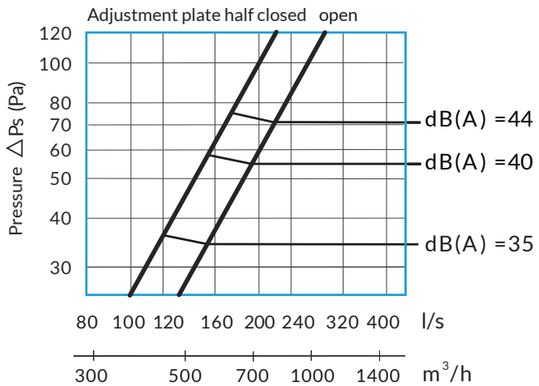
Pressure loss and sound data

TurboSwing 750 rpm



Sound pressure level 4 dB (A) with room suppression. Match 10 m²-sab total absorption.

TurboSwing 1100 rpm



Sound pressure level 4 dB (A) with room suppression. Match 10 m²-sab total absorption.

Sound power level, Lw
Sound power level Lw in each octave band is computed by adding the corresponding factor, Kok to the sound power level **LpA**
Lw= LpA+Kok.

Factor, Kok

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

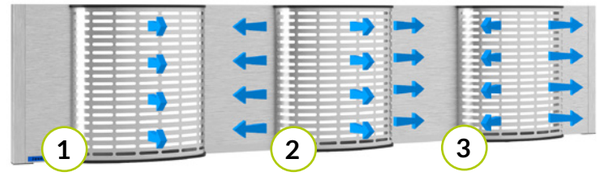
SUPPLY AIR

SUPPLY AIR HOOD JSI-R-UV-TURBO

Jeven supply air columns deliver a controlled and flexible distribution of the supply air. It is possible to wash the supply air columns in a dishwasher and the inside of the supply air chambers is easy to clean. These columns allow individual adjustment of air patterns and airflows, which means better indoor climate for the kitchen staff. The canopies are supplied from the factory with suitable air flow rates for a pressure level of 25-35 Pa.

The supply air blow direction can be aligned up or down by turning the horizontal air control plates inside the supply air units.

1. Unidirectional thrown pattern
2. Displacement thrown pattern
3. Bidirectional thrown pattern



The amount of supply air/supply air unit

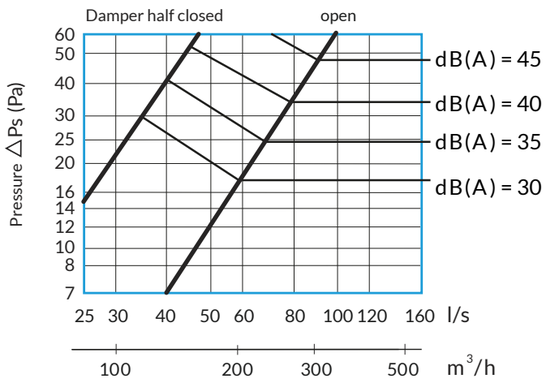
Hood height mm	Supply air unit width, B	
	200 mm	500 mm
330	-	50-90 l/s
540	40-70 l/s	100-150 l/s

Supply air unit, damper open

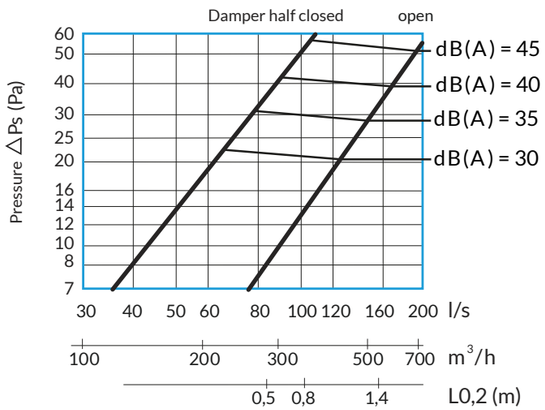
Sound attenuation, dB		Hz					
Hood height	Spigot	125	250	500	1000	2000	4000
330 mm	ø200	17	10	10	11	18	24
540 mm	ø160	24	8	5	12	17	24
	ø250	16	9	7	11	16	23

Pressure loss, sound data & throw lenght/supply air unit

Spigot ø160 mm. Unit width 200 mm.
Hood height 540 mm.
Measurement after 90 ° curve.



Spigot ø 250 mm. Unit width 500 mm.
Hood height 540 mm.
Measurement after 90 ° curve.

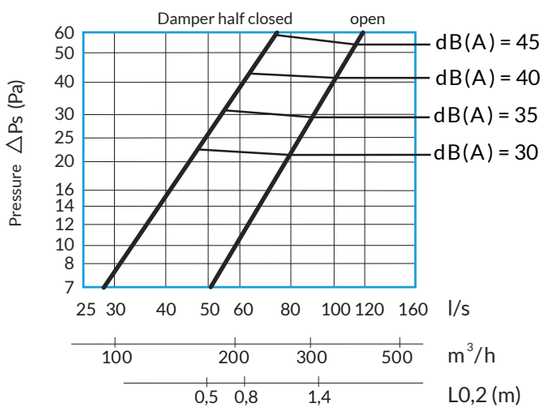


SUPPLY AIR

SUPPLY AIR HOOD JSI-R-UV-TURBO

Pressure loss, sound data & throw length/supply air unit

Spigot ø 200 mm. Unit width 500 mm.
Hood height 330 mm.
Measurement after 90 ° curve.



The sound power level (Lw) in each octave band is computed by adding the corresponding factor Kok to the sound pressure level (LpA), as in
Lw= LpA+Kok

Spigot ø160

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

Spigot ø200

Hz	125	250	500	1000	2000	4000
Kok	-2	7	4	-5	-19	-26
tol.	±6	±4	±2	±2	±3	±5

Spigot ø250

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

LIGHTS

By default, every hood module comes with a light fixture. The light fixture has a cable which should be connected to a junction box with a cable lock.

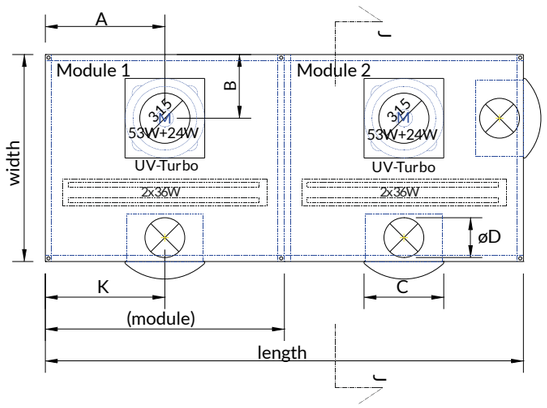
The lighting solution is approved by an electric inspection centre. The connecting cable must be positioned in such a way that it is not exposed to mechanical or thermal stress.

IP 66 embedded LED lamp
Colour temperature 840 (Cool White)
2 m cable, type EKK 3x1,5

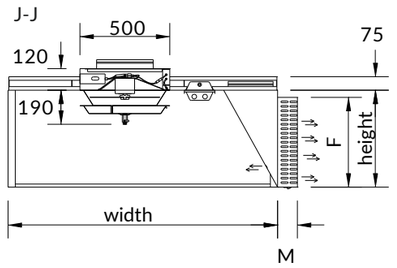
DIMENSIONS

UV-TURBO™ HOODS

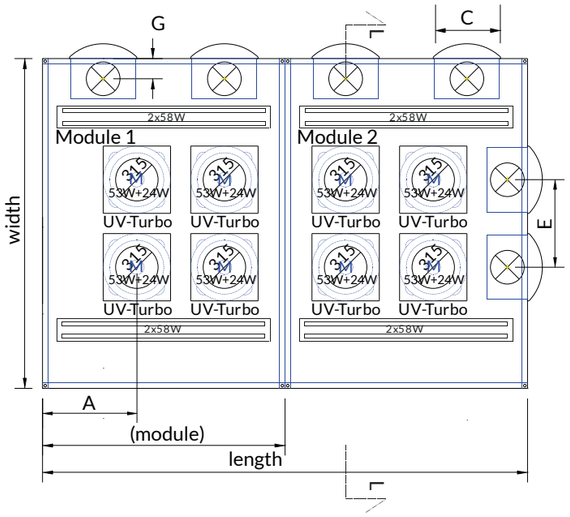
Wall hood

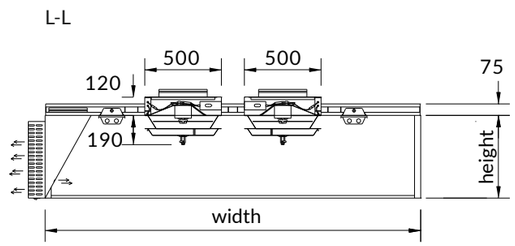


UV-Turbo ™ hoods are made on a project-by-project basis, according to the planned dimensions.
Hoods length and width can be chosen freely.
A and B dimensions shall be at least 300 mm.



Island type hood





Size and placement of supply air units – supply air hood JSI-R-UV-Turbo

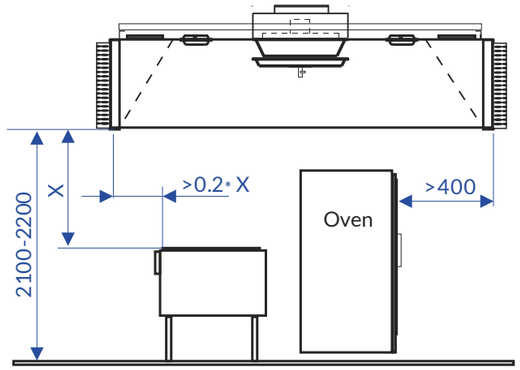
Hood height	C	F	øD	G	E min	K min	M
540	200	500	160	100	400	340	65
330	500	290	200	125	550	350	110
540	500	500	250	150	550	350	110

POSITIONING

The size of the canopy is determined by the size of the kitchen equipment.

The overhang depends on the type of equipment and the distance between the hood and the equipment. For this type of equipment, the overhang should be at least 300 mm.

The typical distance between the hood side and the floor is 2100–2200 mm. If the equipment has any doors that open upwards, make sure there is enough distance to the canopy.



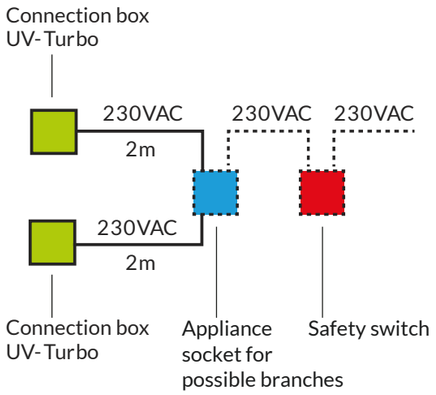
ELECTRICAL AND AUTOMATION PLANNING

The HPAC designer designates the types and locations of wired products in the plans.

The electrical designer designates to the plans, the location of the safety switch (compulsory), the necessary appliance sockets and the required wiring from the group switchboard or kitchen switch to the safety switch.

The Automation designer records, in the plans, that the running time of the UV-Turbo™ will match the running time of the exhaust fan.

A safety switch is compulsory and it should be situated close to the hood and in a visible place in the kitchen.



The safety switch, appliance sockets and the cables marked with the dotted line are not included in the Jeven delivery.

UV Turbo by Jeven

CYCLONE VENTILATION

Contact us 0113 263 2900 sales@cycloneventilation.co.uk