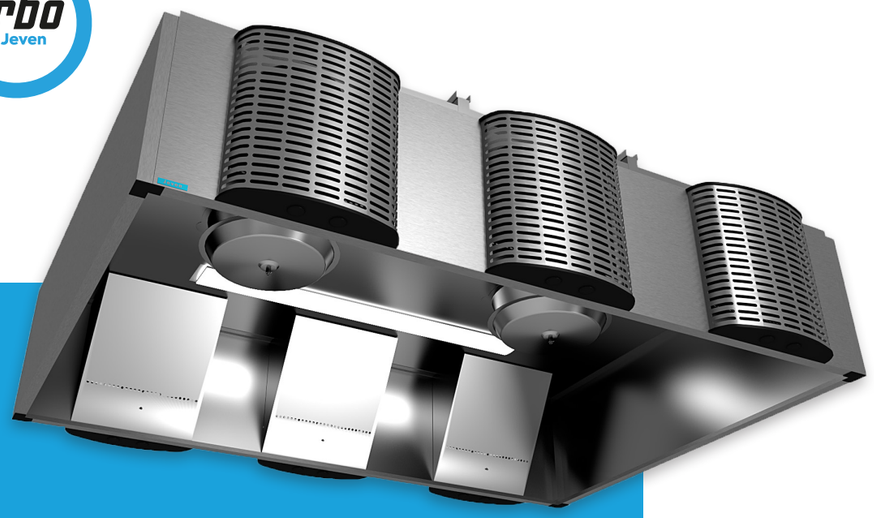
# TURBO HOODS

Product Brochure

Jeven

*Top ventilation for top chefs*



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## TURBO HOODS

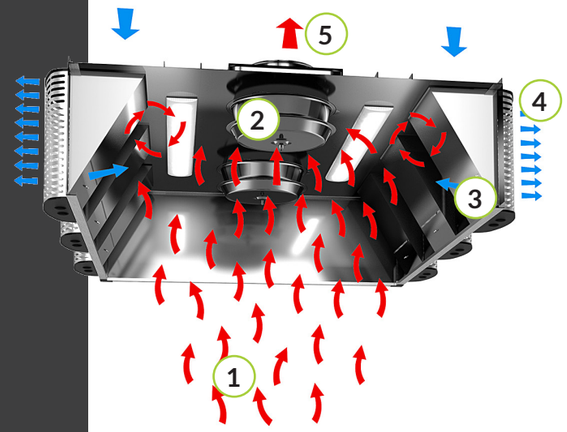
### —helping professionals to enjoy their work and give their best.

**Turbo hoods have been developed for professional kitchens requiring energy efficiency and versatility, as well as a safe and comfortable kitchen climate for the staff. Turbo hoods can be used to utilize variable air flow energy saving systems and kitchen exhaust air energy by heat recovery. The excellent filtration efficiency of Turbo hoods keeps the ventilation ducts clean, even from the smallest particles of contamination and gaseous grease.**

## FUNCTIONING PRINCIPLE

1. Dirty air rises due to temperature differences against the ceiling of the hood.
2. Dirty air is exhausted immediately through the TurboSwing® units. Since TurboSwing'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 TurboSwing® with respect to the kitchen equipment. When the separator plate of TurboSwing® rotates, the grease and impurities are separated into the collecting vessel.
3. Direction air prevents leakage and directs steam and impurities towards TurboSwing®.
4. 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.
5. Clean air is exhausted into the ducts.

SUPPLY AIR HOOD
JSI-R-TURBO



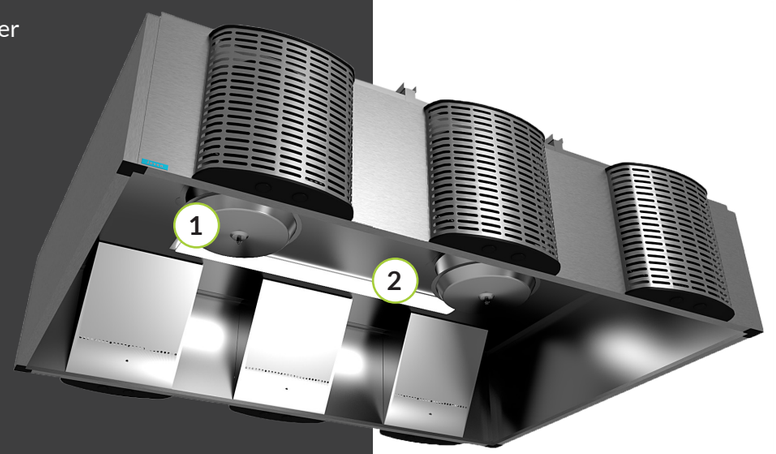

JLI-R-TURBO

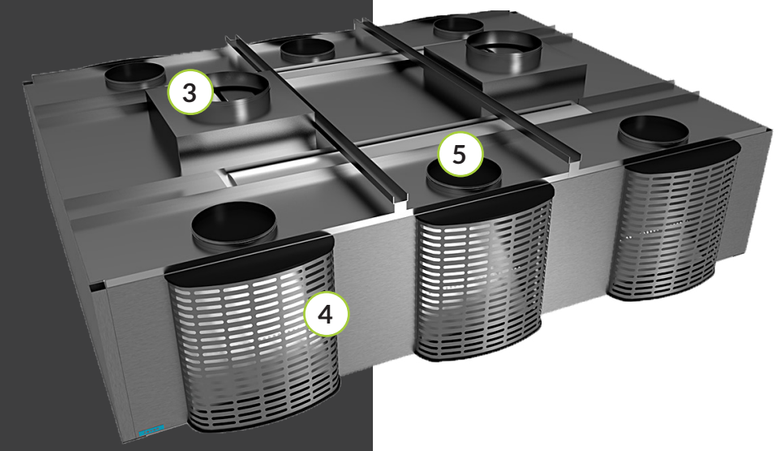



## PRODUCT STRUCTURE

TURBO HOODS

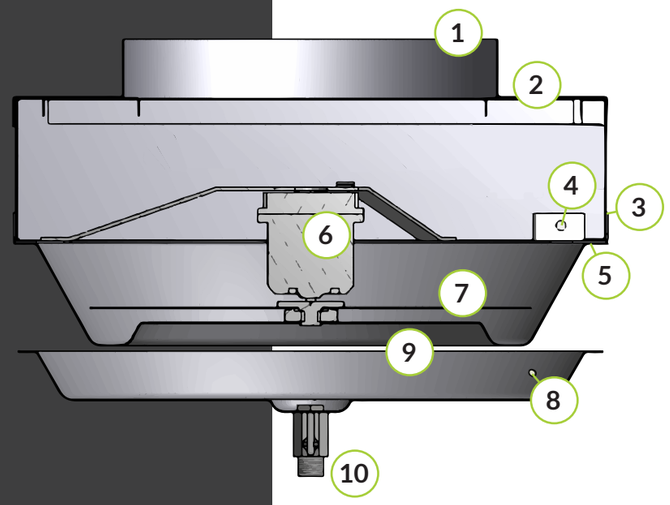
1. TurboSwing® grease filter
2. LED lights
3. Exhaust air connection and damper plates
4. Supply air unit with removable front panel
5. Supply air connection and damper unit

# TURBOSWING® GREASE FILTER

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

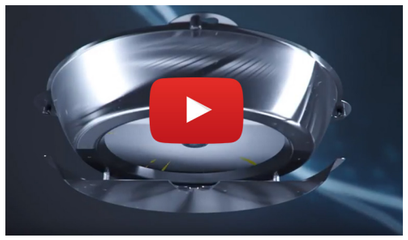



## An innovative solution for demanding grease filtration in professional kitchens

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.

TurboSwing® is very well suited for energy saving applications with heat recovery from the kitchen and/or changing air flows. TurboSwing's® filter efficiency remains very high even at low airflows. TurboSwing® is a 99.8 % tight filter solution.

Liquid grease and impurities separated by TurboSwing® are removed with the opening of the tap, which is made depending on the kitchen load weekly or less frequently.



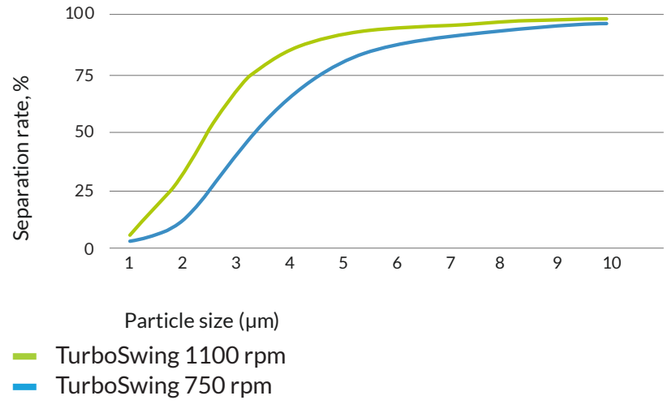
SeeTurboSwing video in YouTube



# EXHAUST AIR

## TURBOSWING® GREASE FILTER

### Separation rate of TurboSwing

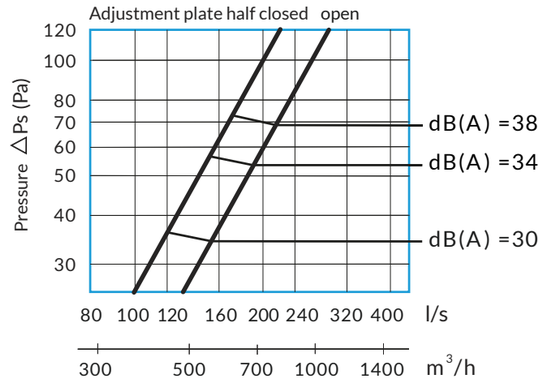



Recommended exhaust flow/spigot

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

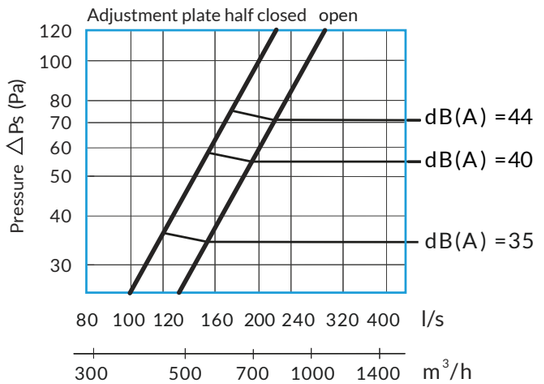
### Pressure loss and sound data

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 |

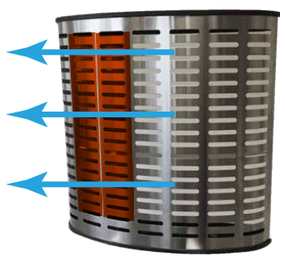
# SUPPLY AIR

## SUPPLY AIR HOOD JSI-R-TURBO

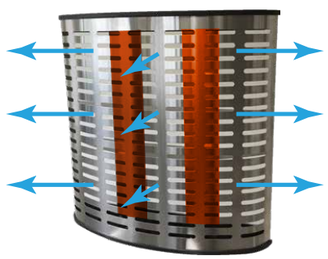
Jeven supply air columns deliver a controlled and flexible distribution of the supply air. It is possible to wash the supply air columns in a dishwasher and the inside of the supply air chambers is easy to clean.

### Horizontal alignment of the supply air

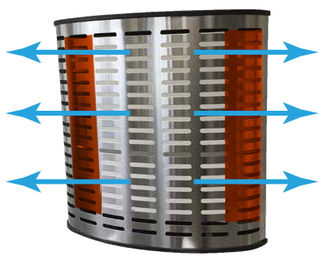
The supply air blow direction can be aligned left or right by moving the air control plates inside the supply air units. The air control plates are marked in red in the pictures.



Undirectional thrown pattern



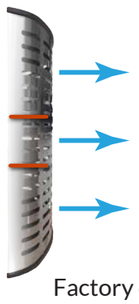
Displacement thrown pattern



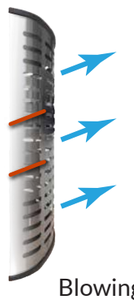
Bidirectional thrown pattern

### Vertical alignment of the supply air

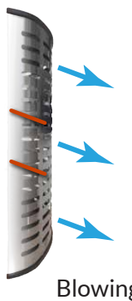
The supply air blow direction can be aligned up or down by turning the horizontal air control plates inside the supply air units. The air control plates are marked in red in the pictures.



Factory default



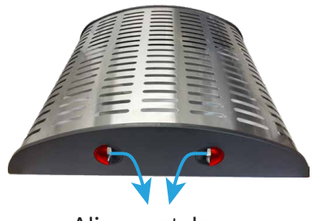
Blowing up



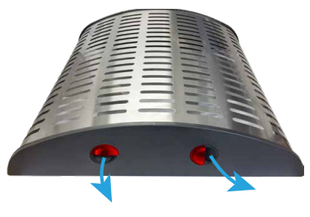
Blowing down

### Air blow directions alignment nearby supply air column

Supply air blowing direction can be aligned by turning the rotatable blowing nozzles at the bottom of the supply air column.
The rotatable nozzles are marked in red in the pictures.



Alignment down



Alignment in and sideways





SUPPLY AIR

SUPPLY AIR HOOD JSI-R-TURBO

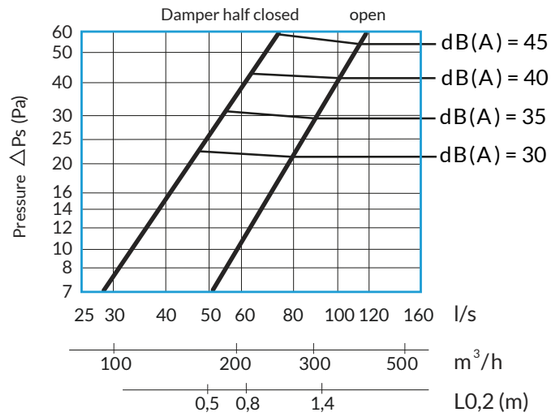
The canopies are supplied from the factory with suitable air flow rates for a pressure level of 25-35 Pa.

The amount of supply air/supply air unit

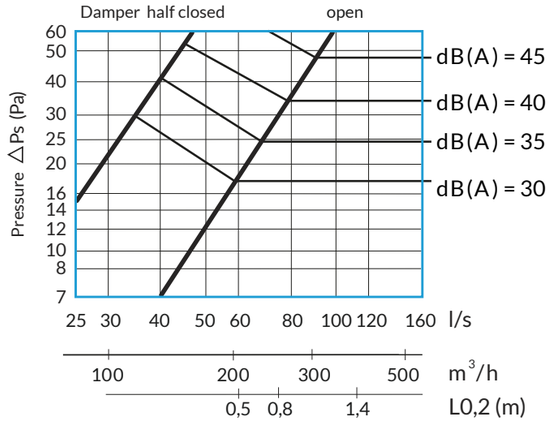
| Hood height | Supply air unit width, B | |
|---|---|---|
| mm | 200 mm | 500 mm |
| 330 | - | 50-90 l/s |
| 540 | 40-70 l/s | 100-150 l/s |

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

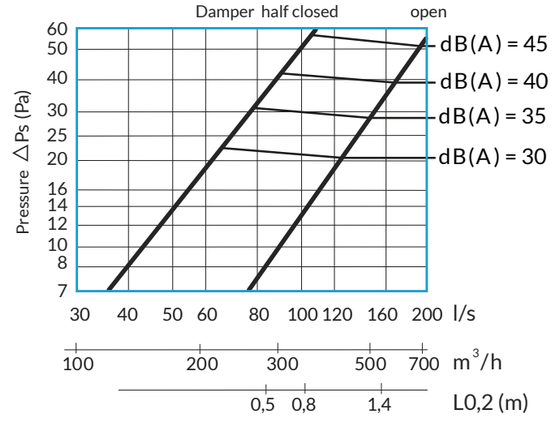
**Spigot ø200 mm**
Unit width 500 mm. Hood height 330 mm.
Measurement after 90 ° curve.




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




**Spigot ø250 mm**
Unit width 500 mm. Hood height 540 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 ø200**

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

**Spigot ø160**

| Hz | 125 | 250 | 500 | 1000 | 2000 | 4000 |
|---|---|---|---|---|---|---|
| Kok | -2 | 1 | 2 | 1 | -7 | -16 |
| tol. | ±3 | ±3 | ±2 | ±2 | ±3 | ±4 |

**Spigot ø250**

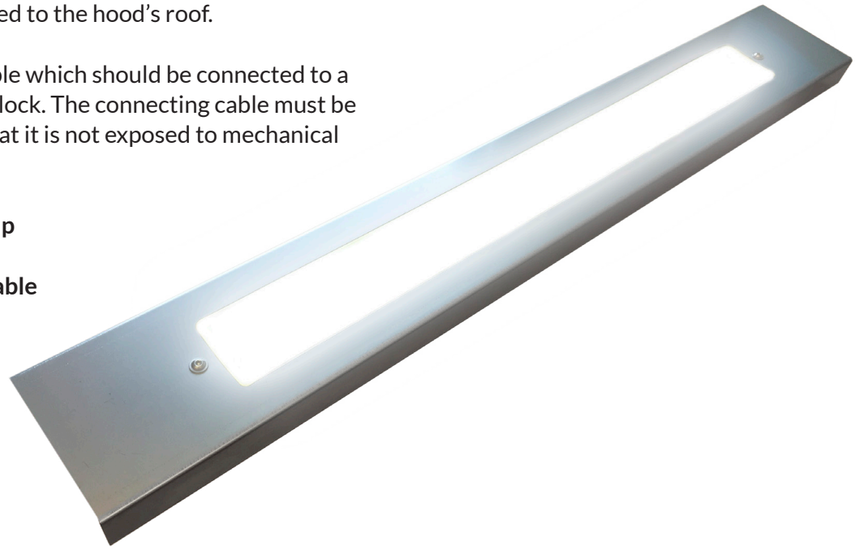
| Hz | 125 | 250 | 500 | 1000 | 2000 | 4000 |
|---|---|---|---|---|---|---|
| Kok | 6 | 8 | 4 | -5 | -10 | -18 |
| tol. | ±3 | ±3 | ±2 | ±2 | ±3 | ±4 |

## LIGHTS

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 connecting cable must be positioned in such way that it is not exposed to mechanical or thermal stress.

**IP 66 integrated LED lamp**
**4000 K, CRI >84**
**inc 2 m HF-connection cable**
**(Halogen Free,**
**type 3x1,5 mm$^2$)**

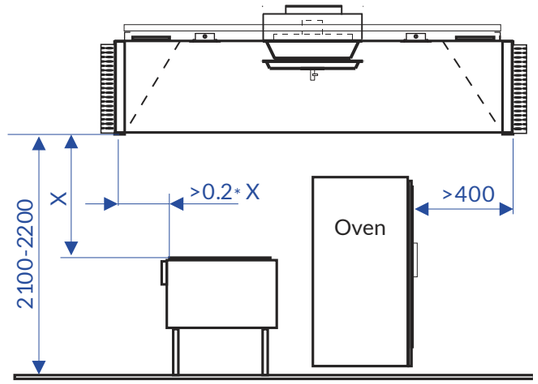



## POSITIONING

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.



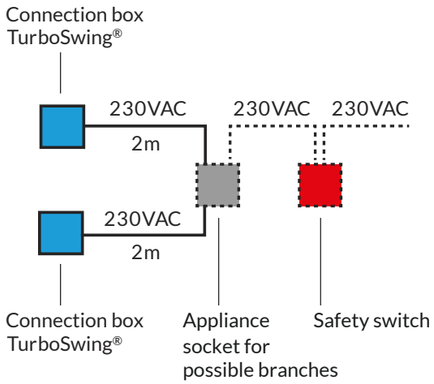

## ELECTRICAL AND AUTOMATION PLANNING

The HPAC designer records in the plans the types and locations of the products to be wired.

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

The Automation designer records, in the plans, that the running time of the TurboSwing® 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.

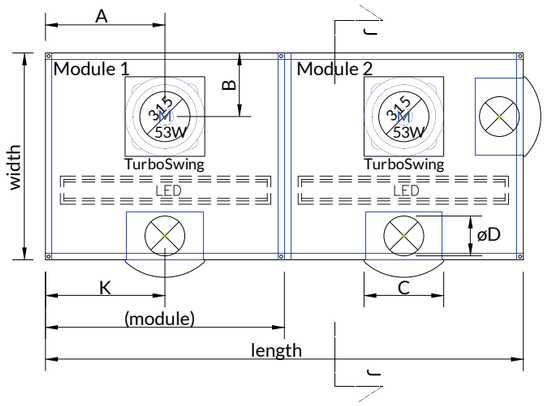



*The safety switch, appliance sockets and the cables marked with the dotted line are not included in the Jeven delivery.*

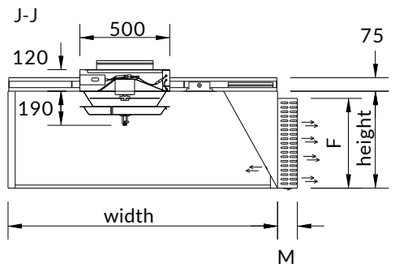
# DIMENSIONS

## TURBO HOODS

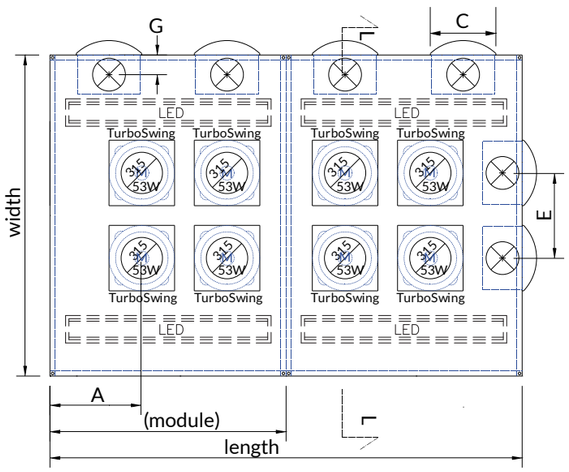
### Wall hood

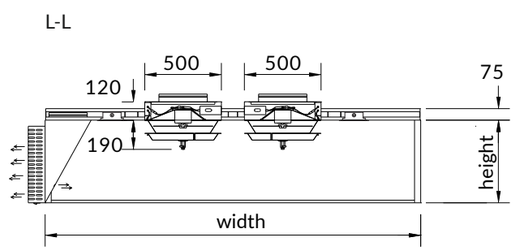



Turbo hoods are made on a project-by-project basis, according to the planned dimensions.
Hoods length and width can be chosen freely.
A and B dimensions shall be at least 300 mm.




### Island type hood




Size and placement of the supply air units – supply air hood JSI-R-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 |

# PRODUCT CODE

JSI - R - Turbo - 3000 x 1500 x 540 - 4x250 - 3 x 315 + 480 l/s - 550 l/s - CB - SC - FP

**MODEL**
JSI=Supply air hood
JLI=Exhaust air hood

**MATERIAL**
R=Stainless steel AISI 304
S=Glass

**TURBO=**TurboSwing

**EXHAUST AIR FLOW** l/s

**SUPPLY AIR FLOW** l/s

**NUMBER AND SIZE OF THE EXHAUST AIR CONNECTIONS**

**NUMBER AND SIZE OF THE SUPPLY AIR CONNECTIONS**

**SIZE**
Length x Width x Height

**ACCESSORIES**
**CB**=Covering boards between the top of the hood and the ceiling
**SC**=SwingControl
**FP**=Ansul R102 Fire Suppression System

- Turbo hoods are equipped with TurboSwing filters and integrated LED lights.
- The canopy's base material is stainless steel, AISI 304
- The side panels can also be made of polycarbonate.



# Turbo

by Jeven

Jeven

*Top ventilation for top chefs*

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Turbo

by Jeven

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