

Jeven

Top ventilation for top chefs

Supply air hood JSI-UV Installation-, adjustment and user guide





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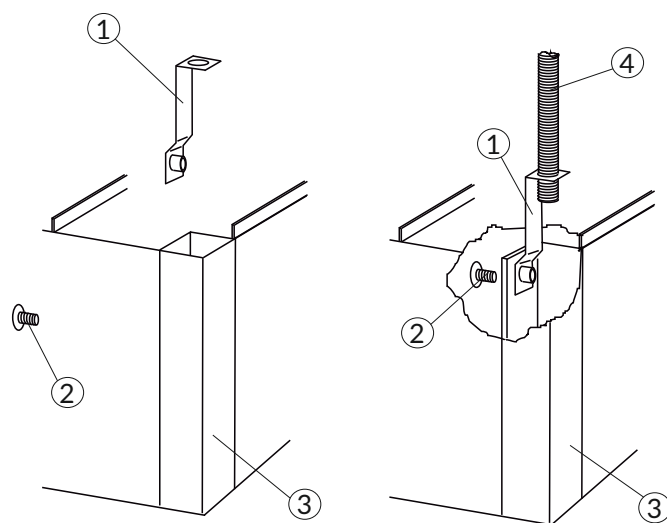
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Supply Air Hood JSI-UV

INSTALLATION OF HANGING BRACKETS

1. Hanging bracket
2. Bolt
3. Corner profile
4. Hanging bar (not included in the delivery)

Hanging brackets should be mounted in the corner profiles with help of the bolts.

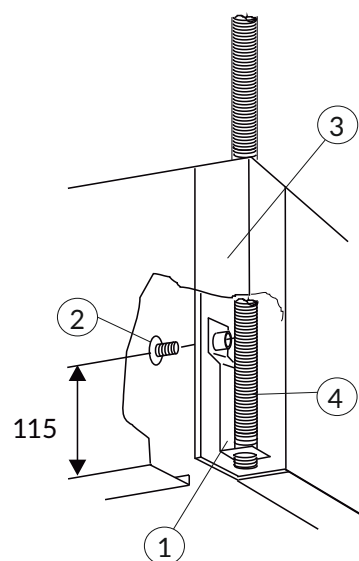


ALTERNATIVE

1. Hanging bracket
2. Bolt
3. Corner profile
4. Hanging bar (not included in the delivery)

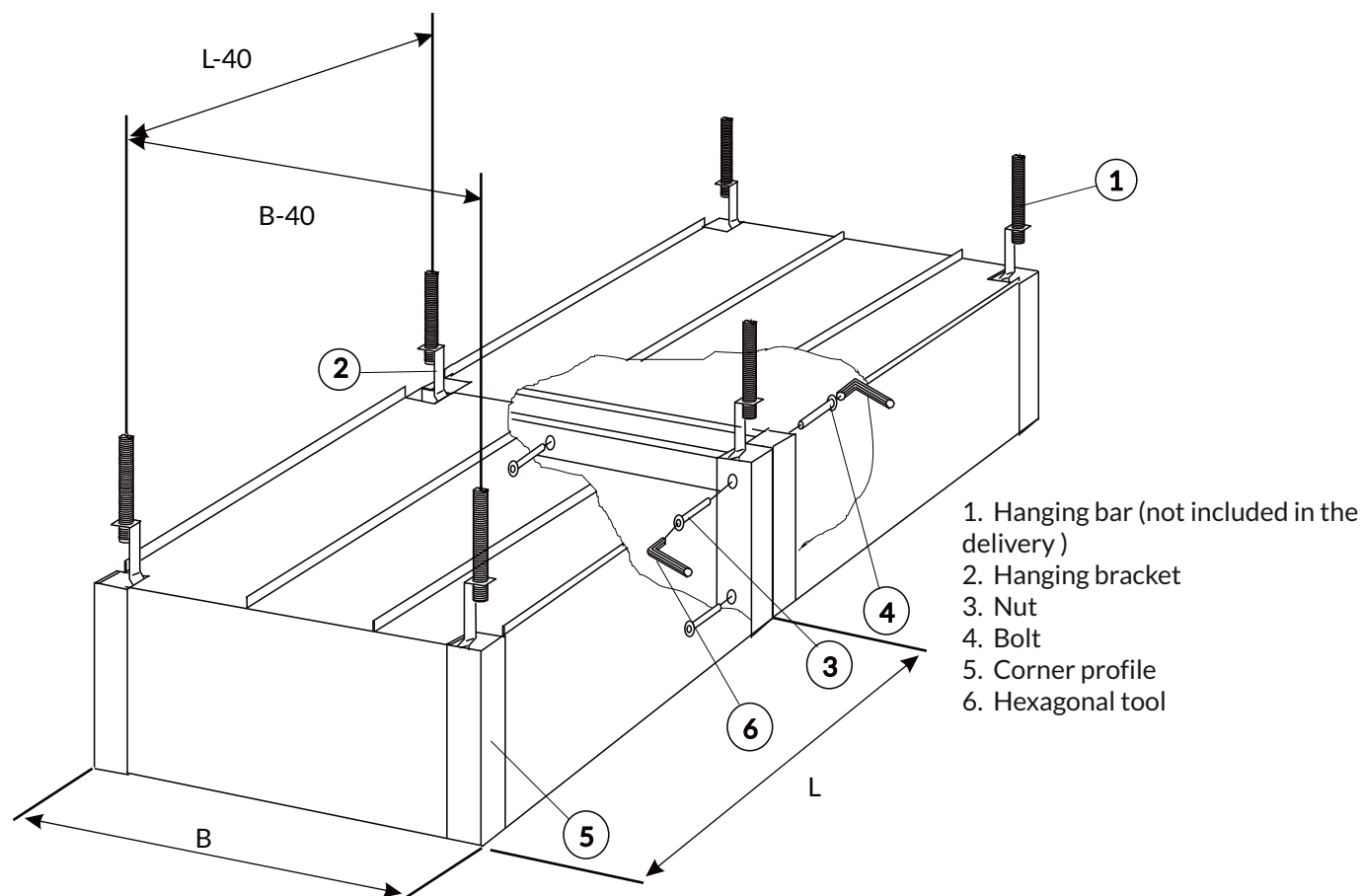
Hanging bracket can be also mounted inside the corner profile close to the lower edge of the hood. Holes for this installation should be drilled to the profile on the site.

This alternative installation is advisable when the hood should be mounted on the corner of the kitchen.



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FIXTURE POINTS AND CONNECTING THE HOOD MODULES

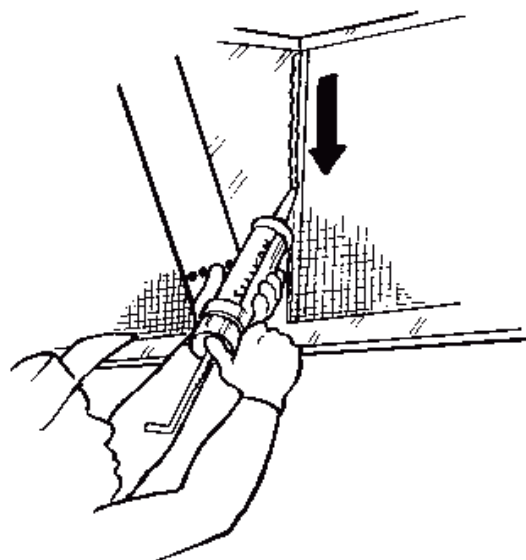


The hood shall be installed by hanging bars (f.ex. M8).
 These bars are not included in the delivery. Holes for the hanging bars should be drilled to the ceiling of the kitchen by using the shown fixture points.
 Recommended height position of the hood is 2100-2200 mm.
 Install plastic protective corner profiles on the lower end.

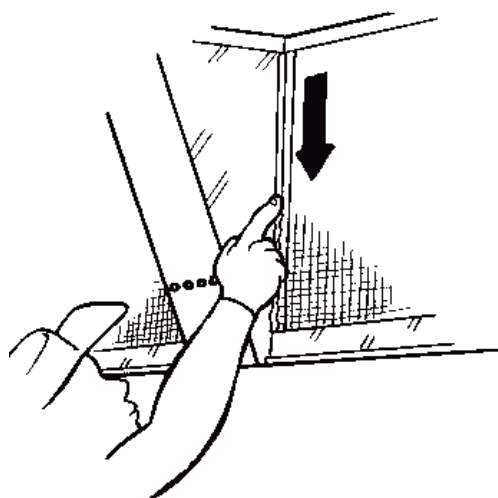
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INSTALLATION OF GLASSES

Lift up the glass into upper moulding and let it down into lower moulding. Stroke silicon on the corners of the glass.



Stroke silicon by using a wet finger.



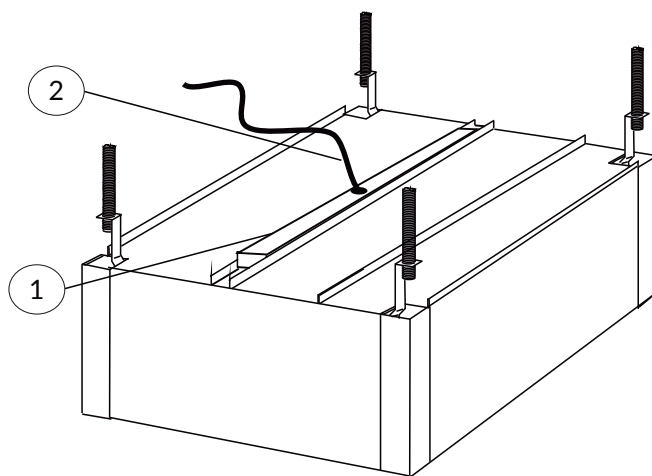
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LIGHT FITTING

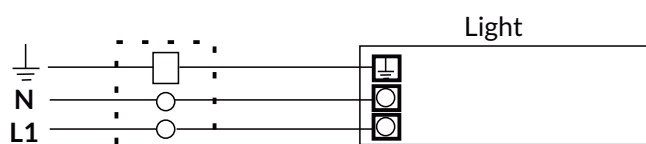
1. Light fitting
2. Cable 2,0m

Every hood module incorporates as standard a recessed fluorescent light fitting. Light fitting (IP 65-67) is supplied with cable, which should be connected to branch box (not included in the delivery) and light tubes.

All tubes are standard white fittings.



Wiring diagram

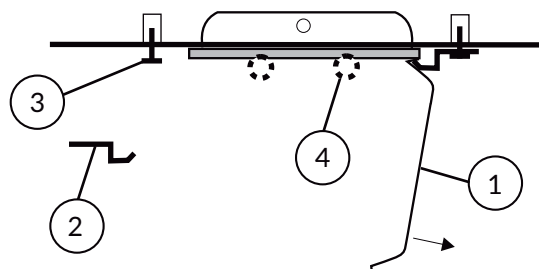
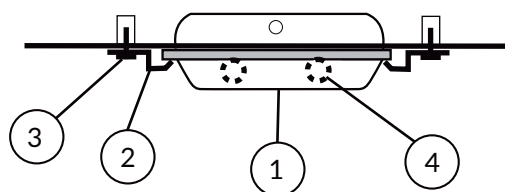


branch box (not included in the delivery)

REMOVING TUBES

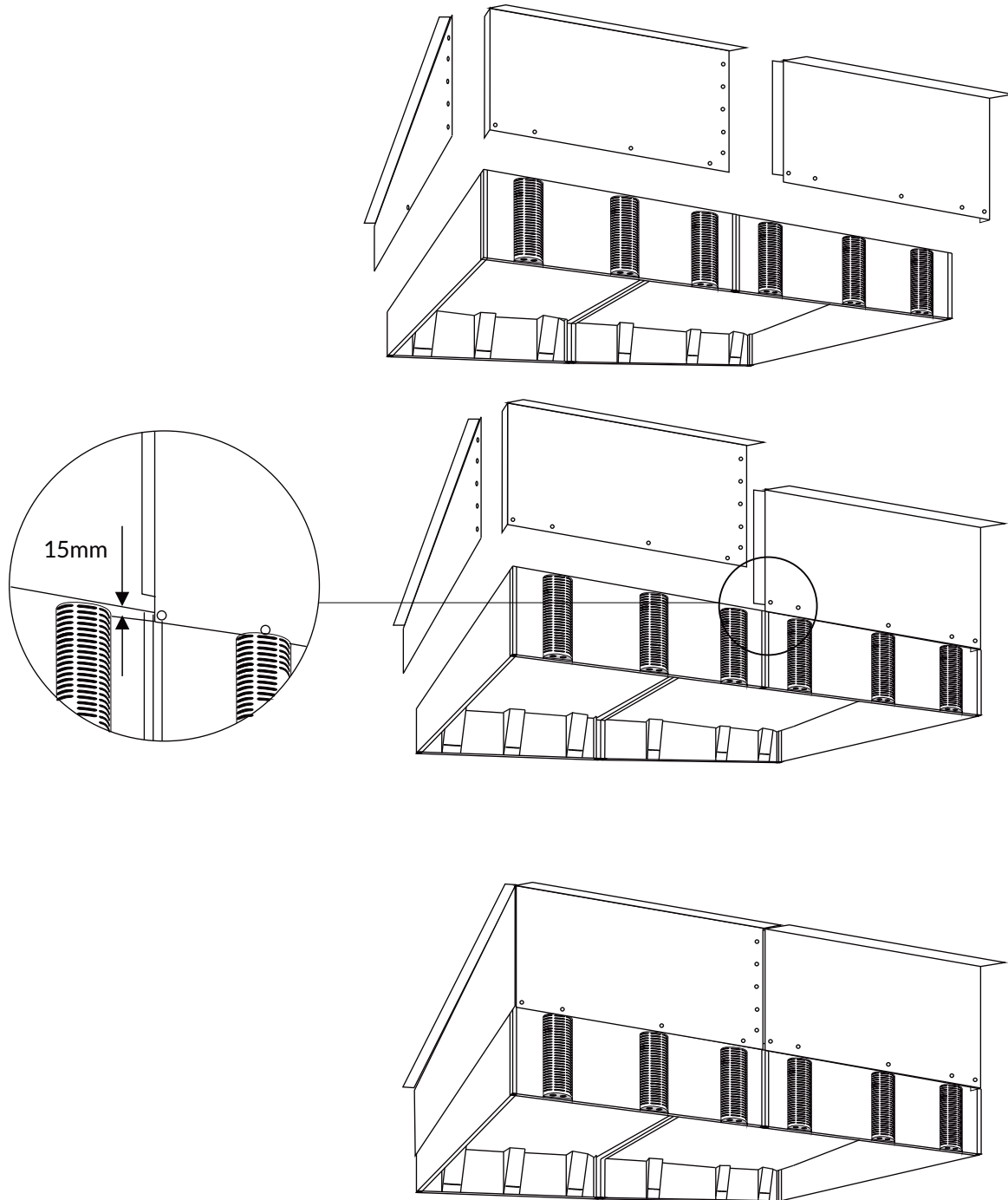
1. Cover
2. Lath
3. Screw
4. Tube

Loose both screws (3) of the lath (2). Remove the lath. Turn the cover (1) to other side. Remove the tubes.



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INSTALLATION OF COVERING BOARDS



Boards shall be placed to right height and the holes shall be drilled and the board shall be riveted.

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UV-UNIT INSTALLATION

Delivery:

UV-filtering system consist of power unit, integrated into the display cover, pressure sensors for monitoring the pressure and flow, the filter with cyclone filter, wire net and UV-light frame. Filter units are supplied either separately or mounted on the roof of a kitchen hood. Cyclo filter, fine filter and UV-light frame is packed separately for mounting and wiring in the workplace. The system consist of one or more filter units, an UV-light frame for each filter unit, a pressure sensor for each filter unit and a single power unit to control up to five filter units and it's controlled with a touch panel.

Unpacking:

At delivery check the wrapping for any damage during transport. Any damages must be notified immediately. UV light frames should be unpacked and carefully placed on a flat surface since the UV lights are very sensitive. Make sure all the lights are intact. Keep the UV light framework in a dust-free environment.

Contents of the package:

1. Pressure sensor
Used to make sure unit is running with proper pressure and flow. Should there be something wrong with the fan or for example a hatch is opened on the filter unit, the specific UV framework will shutdown to prevent injuries.
2. UV- frame
is made from stainless steel and contains 6 UV lamps. Connector for 230v is mounted on the right side.
3. Control panel
3,5" touch panel with Windows CE 6.0 OS, integrated to hood
4. Power unit
Power supply
In: 230V AC
Out: Control panel(display): 12V
Pressure sensors (pressure 1-5): 12V
UV-frame (filter 1-5): 230V/8A relay controlled
Fan control (fan): 230V/8A NO relay for external connections
Alarm (alarm): 230V/8A NO relay for external connections

Connections

- In: Schuko-connector (230V)
Out: UV-frame (filter): Mini-Fit Jr 3-pol 230V
Control panel (display): Micro-Fit 5-pol, feed RJ45, communication I²C to the display unit
Pressure sensors (pressure 1-5): Micro-Fit 3-pol 12V
Fan (fan): Mini-Fit Jr 2-pol (1x2)
Alarm (alarm): Mini-Fit Jr 2-pol (1x2)



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UV-UNIT INSTALLATION

5. Mesh filter
for air equalization, steady air speed improves UV light's power. ⑤

6. Cyclone filters
Used as first filter before the wire net and UV-frame.

Warning:

Ultraviolet light is harmful to the eyes.
UV light can not be watched without approved safety goggles.
UV unit must always be switched off during maintenance.

Installation:

- Open the filter unit cleaning door by lifting it up and pulling it out.
- Install UV connection with external connector outward and to the right side, connect the power cable which is in the filter unit to the connector on the UV part.
- Push the UV frame inside the filter unit on the top of upper L-lists.
- Install mesh filter below the UV-frame, on top of the lower L-lists.
- Close cleaning door.



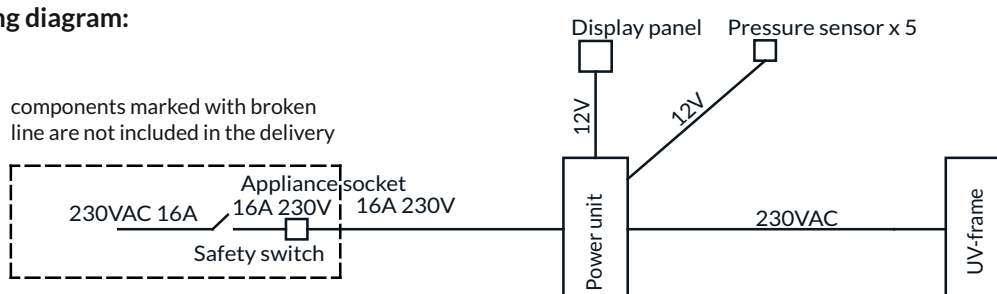
Pressure sensors are mounted from the factory in each filter, the distance between pressure sensors and power unit can be extended with the splice cables that are enclosed. Each cable is numbered so that the no. 1 is connected to the no. 1 etc.

Power unit and control panel are pre-installed on the hood at the factory.
Electric cables between the power unit and the UV frame will be included in the package and the cables are numbered and the numbering corresponds to the UV frame numbering.
Power unit is designed such that it must be installed indoors where the ambient temperature is below 30°C.
The display panel is mounted on the right side of the hood.
Power unit is plugged to 230v 16A AC outlet with the included cable.

Commissioning:

- Make sure all the cables are correctly fitted and that they are intact.
- Check that the pressure hoses are in good condition, are not pinched or become detached from the transport.
- The power unit has access to control start and stop of the fan through relay: connection "Fan"
- Connect the power unit with the supplied plug into a 230V outlet which is secured to 10A and turn on the power unit with the switch mounted on the chassis of the power unit.
- When the device is switched on, the display panel starts.
- Make sure that the exhaust fan is on and is operating at the right air flow.

Wiring diagram:



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UV-UNIT MAINTENANCE

UV-frame:

UV- lamps are mounted in a stainless steel frame. The frame includes two special transformers. Each frame has its own electrical power cable connection which must be removed for maintenance.

Only an electrician may open the electrical components of the frame.

UV-lamps:

UV- lamps must be clean to provide full effect. If they aren't clean, fat will burn onto the tube which reduces air purification.

Spray tubes with a detergent with high pH(>13). Since this is aggressive protective gloves and goggles are required.

Then rub the pipes gently with a damp cloth. The frequency of cleaning should be done depending on the production in the kitchen. Normally once a month.

Replacement of UV lamps:

Contact retailer for more information.

System should be resetted after replacing the lamps. Only qualified service person shall reset the system.

Always switch off UV lights before starting maintenance. Blue light is harmful to the eyes.

Switch off the lamps by pressing 'Stop' button in display panel.

Open the filter unit cleaning door by lifting it up and pulling it out.

Remove cyclone filters by dragging them out and wash them in dishwasher.

Dry filters before installing them back.

Install cleaning door back to its place.

Press 'Start' button to start up the system.

Cleaning interval for different parts of the UV filter unit is kitchen specific.

On the next page there are some examples of maintenance intervals.

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UV-UNIT MAINTENANCE

Mesh filter:

School kitchen	every other month
Restaurant kitchen	once a month
Wok- / Asian cuisine	once a week

Open cleaning door and pull mesh filter out of the chamber.
Wash the filter in dishwasher.
Let the filter dry before installing it back.

UV-frame / UV-lamps:

The annual need for maintenance:

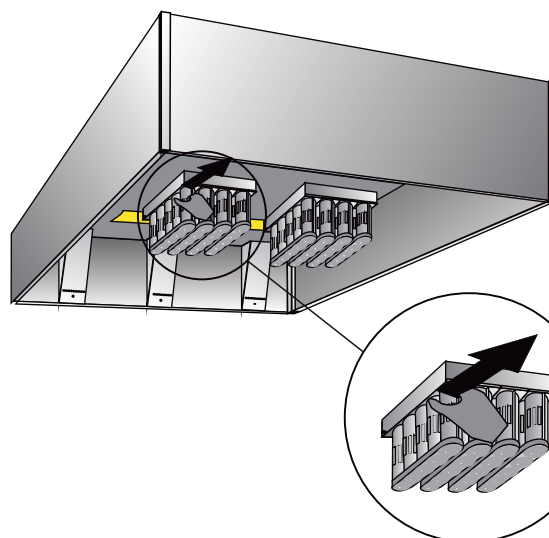
School kitchen	1-2 times a year
Restaurant kitchen	3-4 times a year
Wok- / Asian cuisine	8-12 times a year

Clean the frame and lamps with dishwashing liquid and damp w
DO NOT put the frame in dishwasher.
If the frame is particularly dirty use a cleaning agent with
a high PH value (>PH 13).

Cyclone filters:

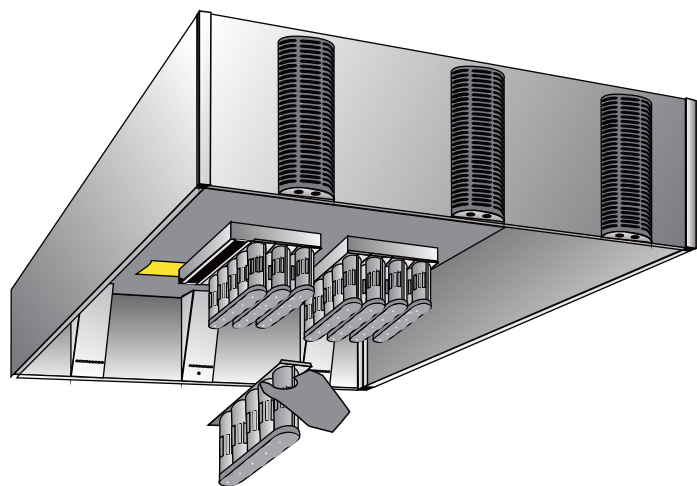
School kitchen	once every two weeks
Restaurant kitchen	once a week
Wok- / Asian cuisine	every day

Filters cleaning interval depends on the kitchen utilization.
In general, filters should be cleaned on the basis of appearance.
Wear protective gloves when handling the filters.
The filters are removed one by one by pulling them out gently
along the rails
Grasp the filters as shown.
Do not touch the top or bottom edges of the filters.
Low-viscosity grease is poured into a grease collection container.
Filters are washed in the dishwasher turned upside down.
Clean filters are pushed along the rails back in place.

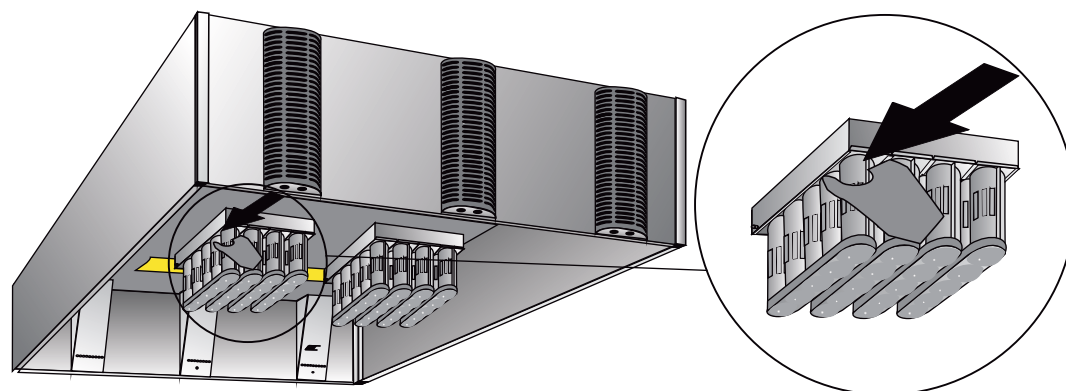


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INSTALLATION OF THE GREASE FILTERS



Grease filters should be mounted by sliding them in the filter housing carefully one after one. The blind filters should be mounted as same as normal filters.

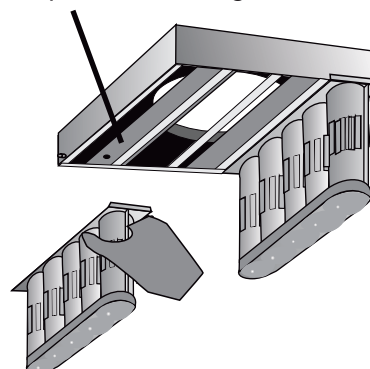


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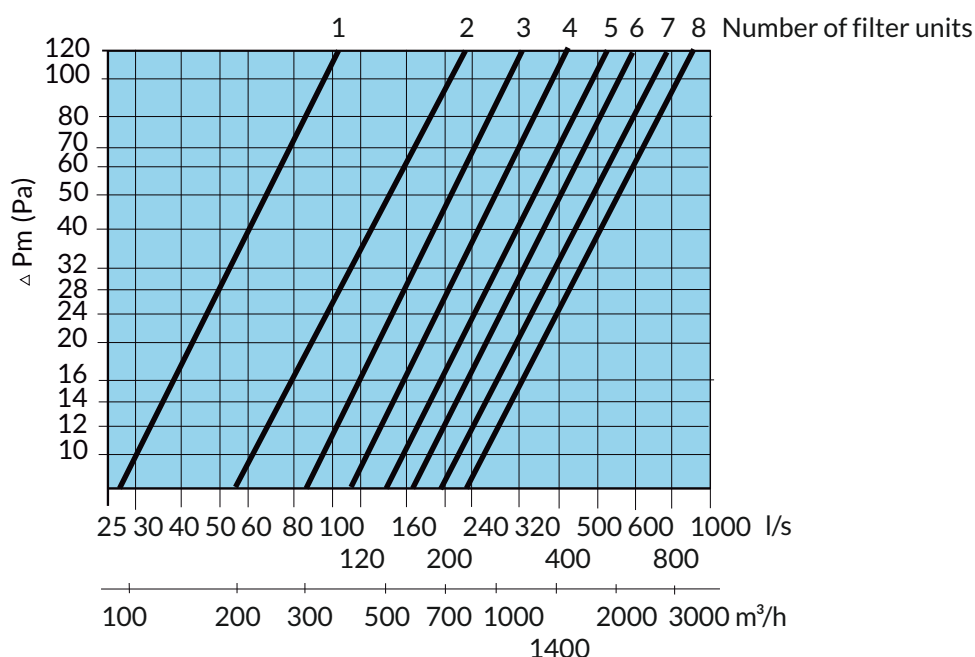
ADJUSTMENT OF THE EXHAUST AIR

Hoods are supplied with exhaust dampers. Dampers are situated behind the filters inside the filter box. All dampers should be open before when starting the adjustment work. These dampers are only for balancing the hoods. Use other dampers and fan adjustment when adjusting the total airflows.

Dampers with locking screws



K-COEFFICIENT EXHAUST AIR



$$Q = K \times \sqrt{P_m} \quad P_m = (Q/K)^2 \text{ Pa}$$

Number of filter units	1	2	3	4	5	6	7	8
K1(m³/h)	34.6	72.4	104	141	176	207	245	282
K2(l/s)	9.62	20.1	28.8	39.2	48.9	57.6	68.0	78.4



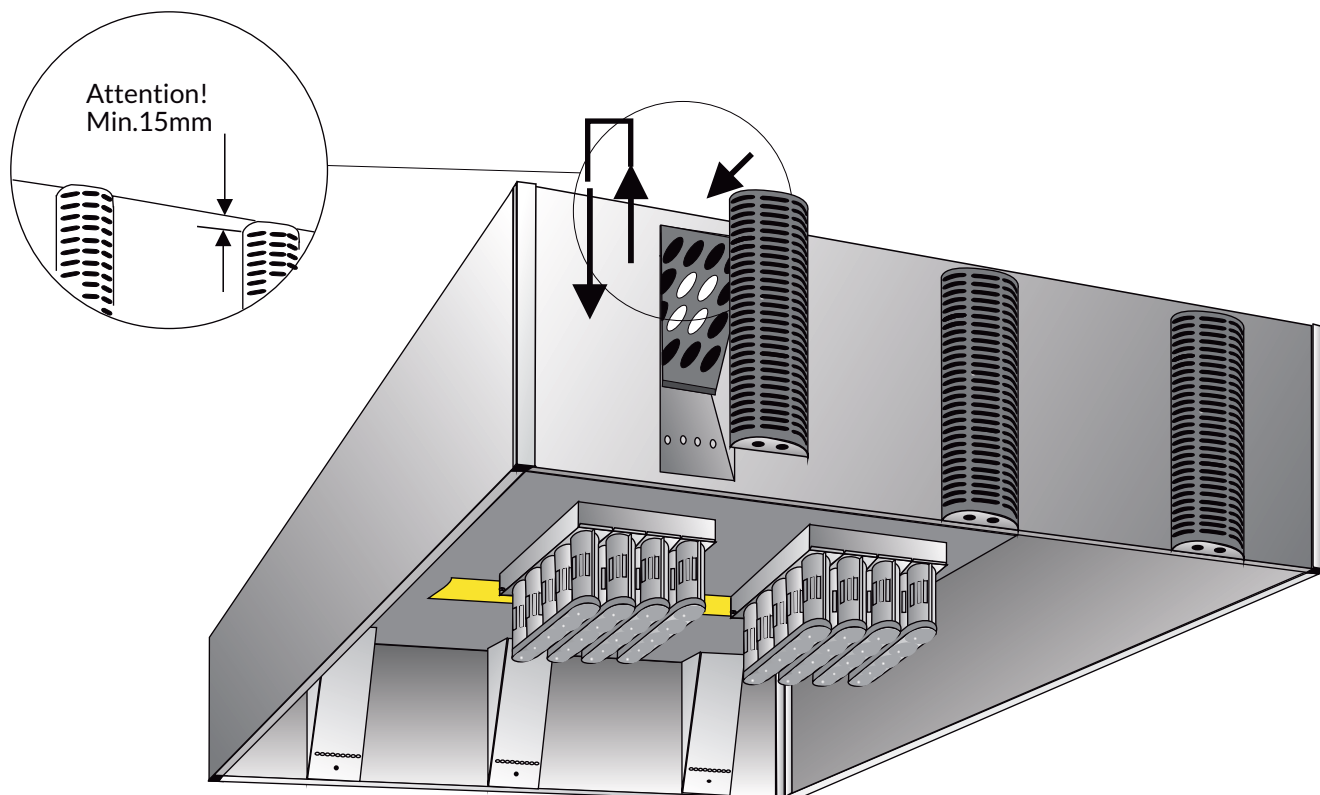
Recommended pressure difference 40-60 Pa

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INSTALLATION OF THE FASCIAS

Attention!

There should be min. 15 mm free place between the ceiling and the upper point of the fascia.



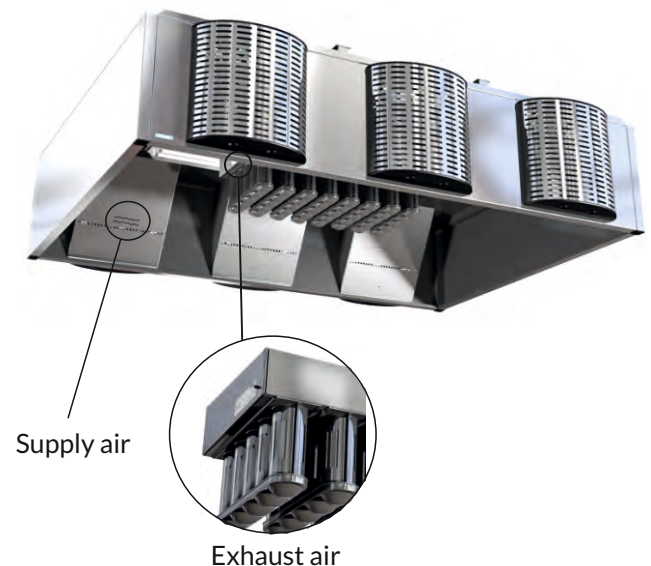
The fascias are easily installed by lifting them up so that the upper lip of the fascia goes inside the hood opening. Tilting the lower edge towards the hood and then lowering the fascia until its lower edge is on the same level as the hoods lower edge.

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AIRFLOW MEASURING POINT

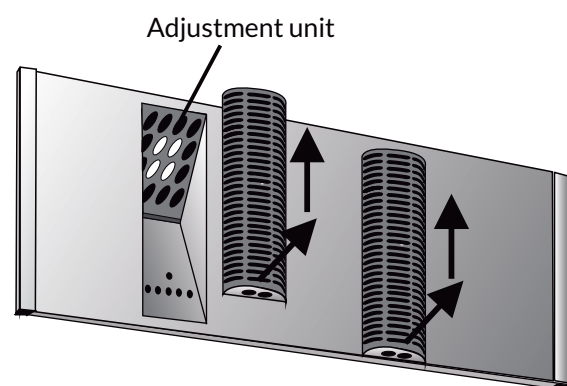


K-COEFFICIENT



ADJUSTMENT OF THE SUPPLY AIR

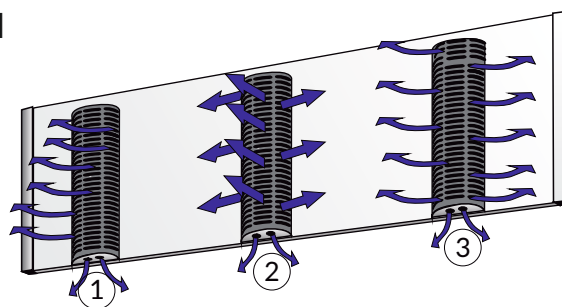
Hoods are supplied from factory with suitable air flow rates for pressure loss 25-35 Pa. When fine adjustment is needed, detach the supply air fascia and adjustment units. All supply air fascias should be placed on when the measuring of the air flows is in operation. Adjustment units in the canopies are only for balancing the air flows of the supply air units. The dampers should be placed on the main and branch ducts for adjustment of the total air flows.



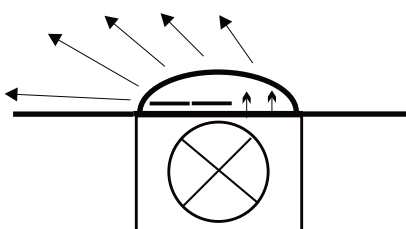
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ADJUSTMENT OF THE SUPPLY AIR PATTERN

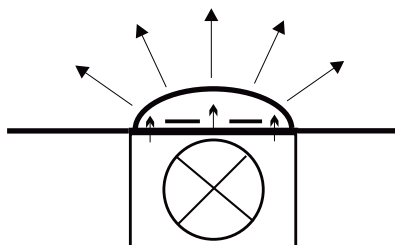
By turning the vertical guide profiles inside the fascia, pattern of the air flow can be changed



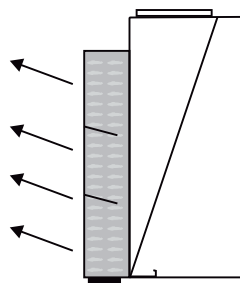
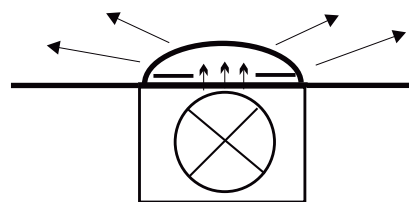
① 1-way throw



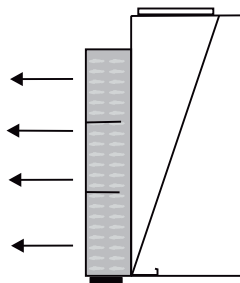
② Displacement throw



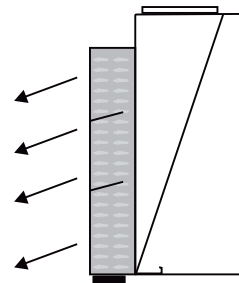
③ 2-way throw



Throw upside



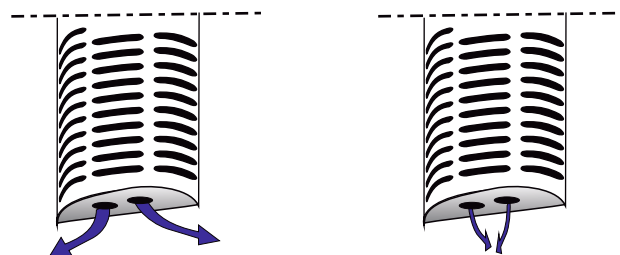
Factory setup



Throw downside

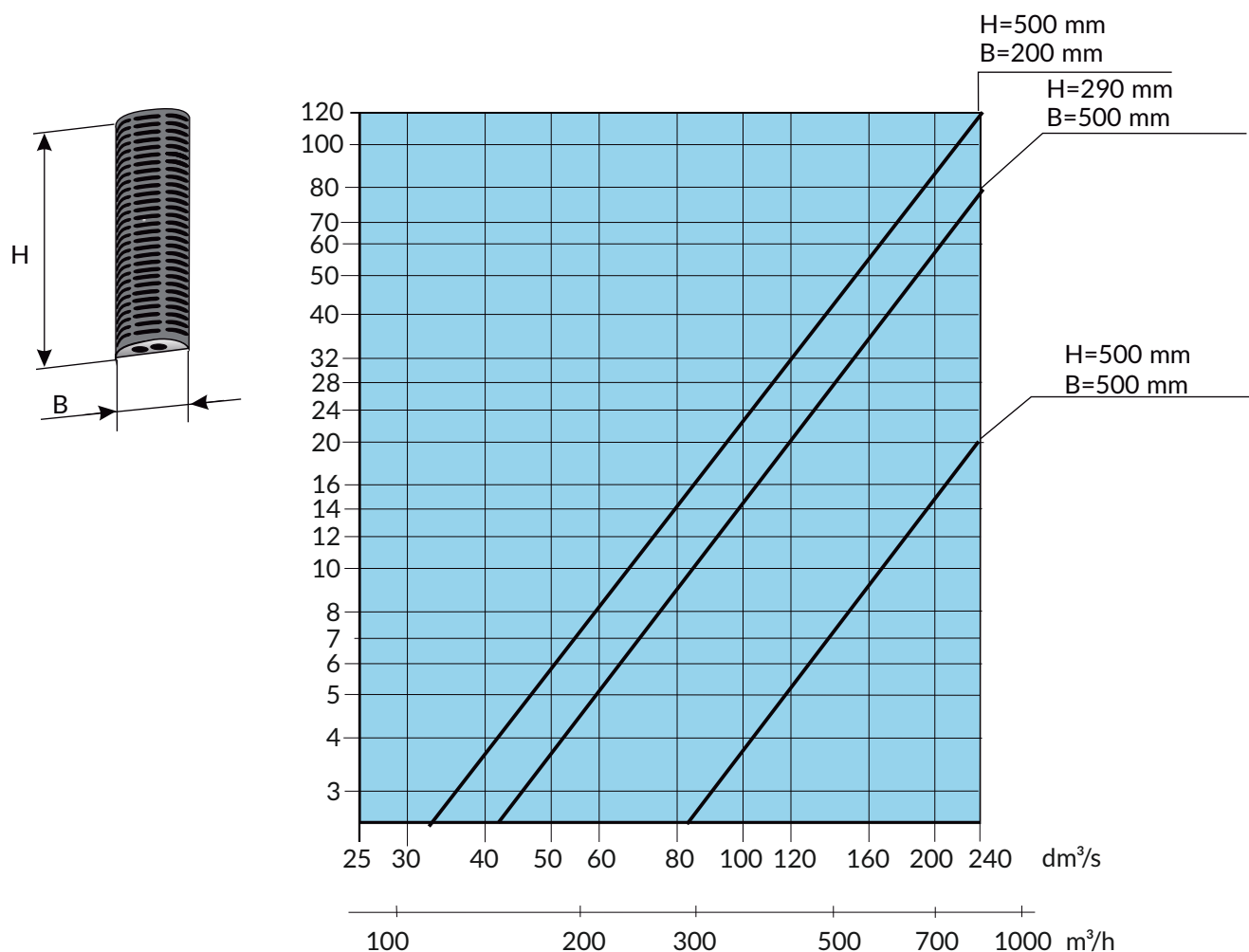
By turning the horizontal guide profiles inside the fascia can throw direction be changed.

The fascias are supplied with adjustable personal supply air nozzles. The kitchen staff can personally adjust the air flow pattern with the help of these nozzles.



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SUPPLY AIR MEASUREMENT CHART AND K-COEFFICIENT



P_m (Pa) = Measured pressure difference, Pa

H = Height of the supply air unit, mm

B = Width of the supply air unit, mm

K-coefficient supply air

Supply air unit	Hood height		
	540	330	540
Width, mm	200	500	500
Height, mm	500	290	500
K_1 (m^3/h)	77.0	96.0	192
K_2 (l/s)	21.4	26.7	53.3
$Q = K \sqrt{P_m}$ $P_m = (Q/K)^2 \text{ Pa}$			

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CLEANING OF THE HOOD SURFACES

Hood surfaces should be cleaned during normal kitchen cleaning. Normal washing detergent of the stainless steel may be used.

CLEANING OF THE FASCIAS

Fascias should be cleaned during normal kitchen cleaning. About twice a year it is advisable to detach the fascias and wash them in a commercial dishwasher.

These fascias are easily removed by lifting them up, tilting the lower edge towards you and then lowering the fascia out of the canopy.

