



OKNH

Ventilate, cool and heat

High capacity

For use in modular ceilings

Low built-in height, removable faceplate

Use

The chilled beam type OKNH has a higher capacity and is suitable for ventilation, cooling or heating rooms with a height of up to approximately 3 metres.

The unit has been designed as an insert module for modular ceilings with a few T-bars or Omega profiles, with a module size of 600 mm. Every length available between 1195 and 2995 mm at intervals of 5 mm.

The closed version brings in the supply air on two sides and its highly efficient supply effect means it can be fitted in offices in the middle of the rooms parallel to the facade. The choice of different nozzle types enables an optimum combination of ventilation air and cooling capacity in every situation.

For cleaning purposes of the coil and the nozzles, our patented construction allows the front to be removed easily and without tools; see [page 25](#)

The chilled beam type OKNH "extravent" (nozzle type AD00 to AD14), is fitted with additional nozzles that allow a group change from small to large nozzles. It is operated at the front by sliding a magnetic closing strip. This patented system guarantees complete closure and prevents undesirable noise production. The use of extravents allows significant adjustments to the primary air quantity without the unit moving outside its operating range on the air or the water side. Changing an office area into a meeting room, or the other way around, at a later stage is easy with this unit.

Available types

OKNH----

- O** chilled beam
- K** closed version
- N** ventilate and cool
- H** high capacity

- **Type**

600

- **Model**

1200/1500/1800/2400/3000

- **Nozzle**

- **Permanent**

A1/A2/B1/B2/B3/C1/C2

- **Adjustable (extravent)**

AD00 to AD14 (depending on choice of model)

- **Coil**

K cooling only

V heating and cooling (double circuit)

For detailed order information, see [page 26](#).

[Check SA-select](#) to create extended order codes and selection details online. **NB!** At this moment, SA-Select is only available in Dutch. But it is possible to create extended order codes and selection details online.

Finish

Housing

material:	steel
treatment:	electrogalvanised
finish:	visible parts; epoxy varnish
colour:	white (RAL 9010)

Coil

tubes:	copper
fans:	aluminium
post-treatment:	none
test/operating pressure:	15/10 bar



General

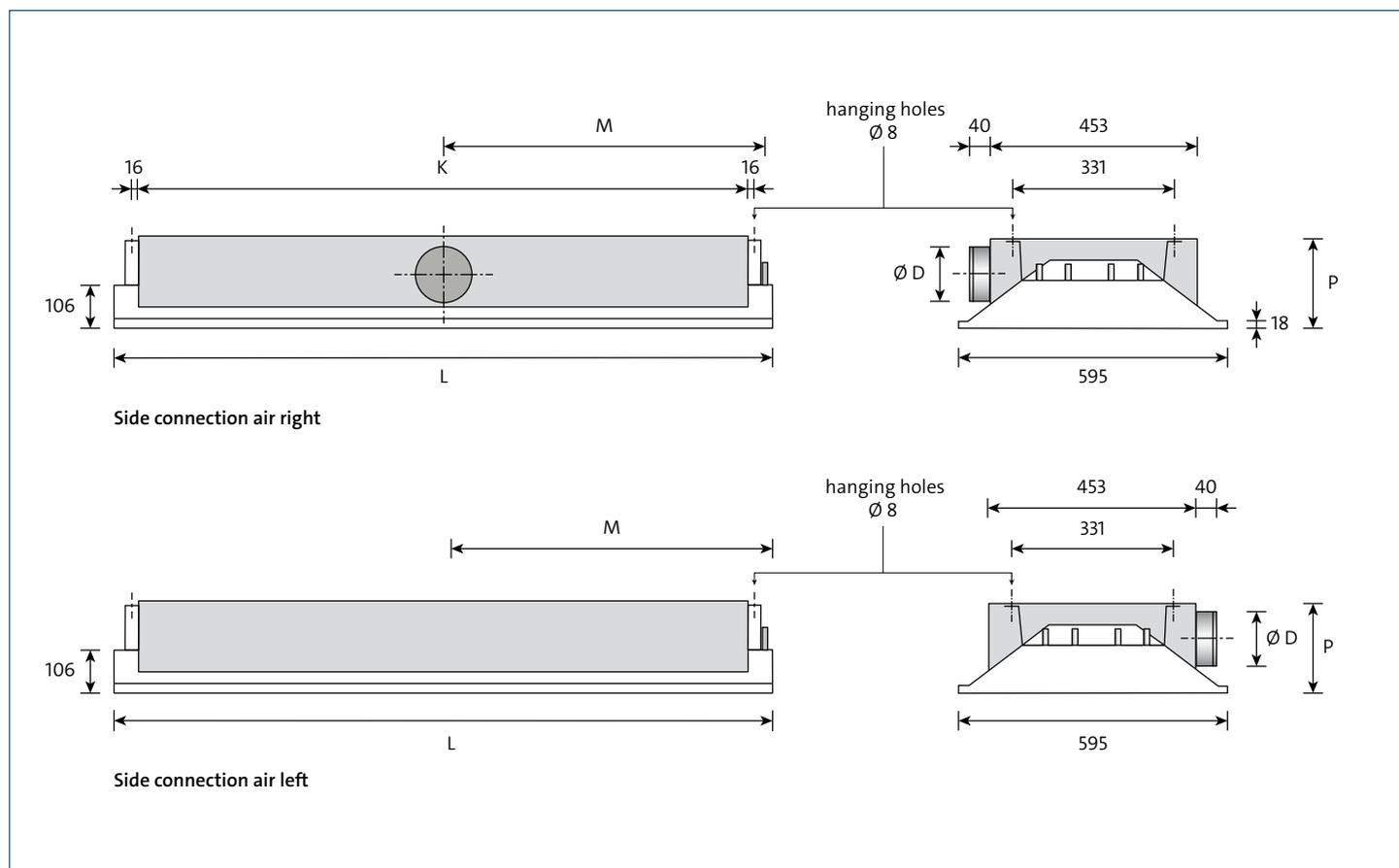
We recommend a straight flow length of 3 x D in the connection size of the chilled beam.

For condensation-free operation, we recommend supplying the primary air with a dehumidifying capacity of 1 to 2 g/kg dry air. For specific information, please check the Mollier diagram.

Comment

- The listed dimensions are in mm.
- The weight is given in kg.

Dimensions



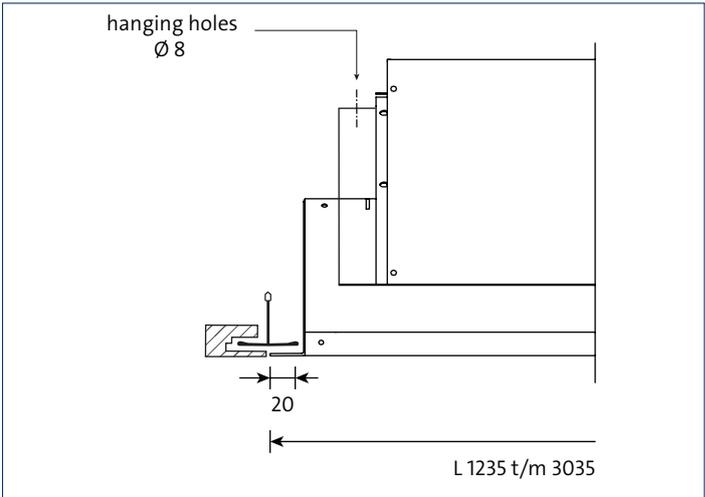
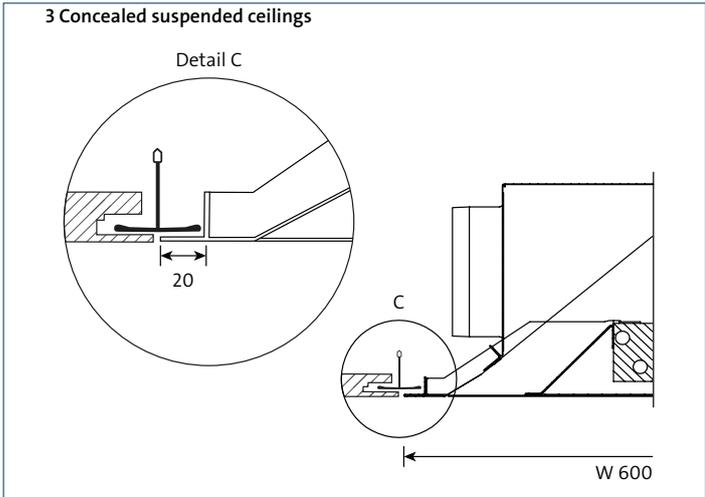
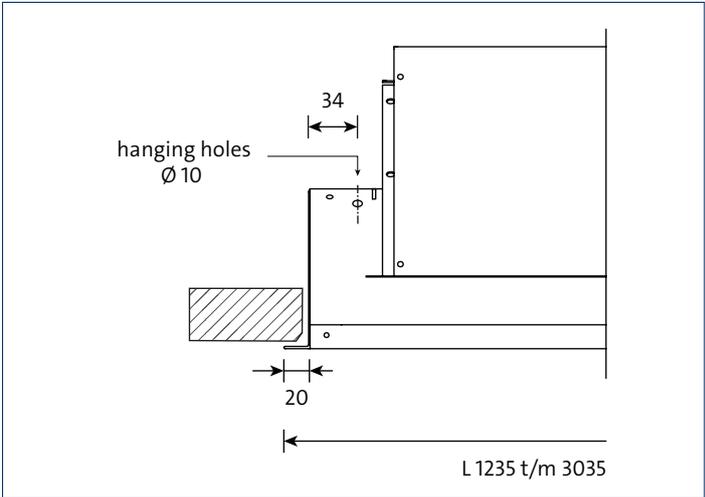
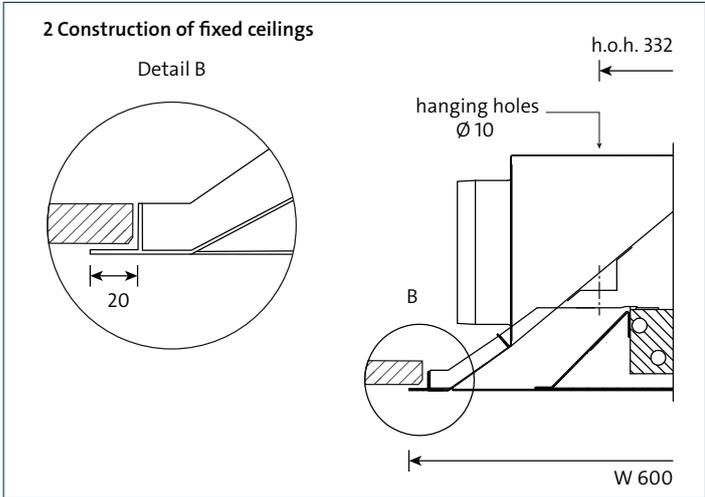
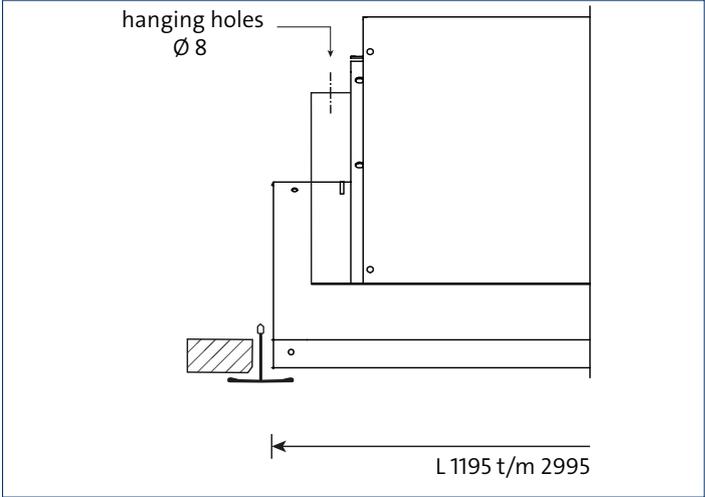
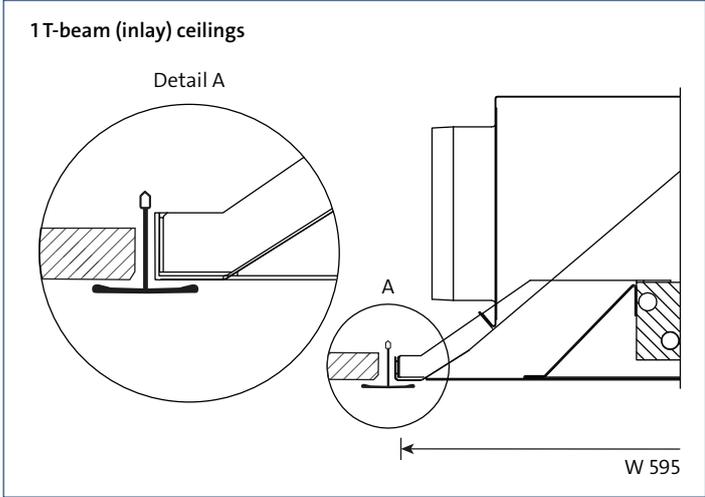
Available dimensions

type	model	L from/to	D	M	P	K	weight
600	1200	1195/2995	123	602	205	1100	22
	1500	1495/2995	123	752	205	1400	29
	1800	1795/2995	123	902	205	1700	34
	2400	2395/2995	158	1202	240	2300	46
	3000	2995	158	1502	240	2900	57

Tolerances: width W : $+2/-2$ mm, length L : $+0/-4$ mm.

Different sizes available on request.

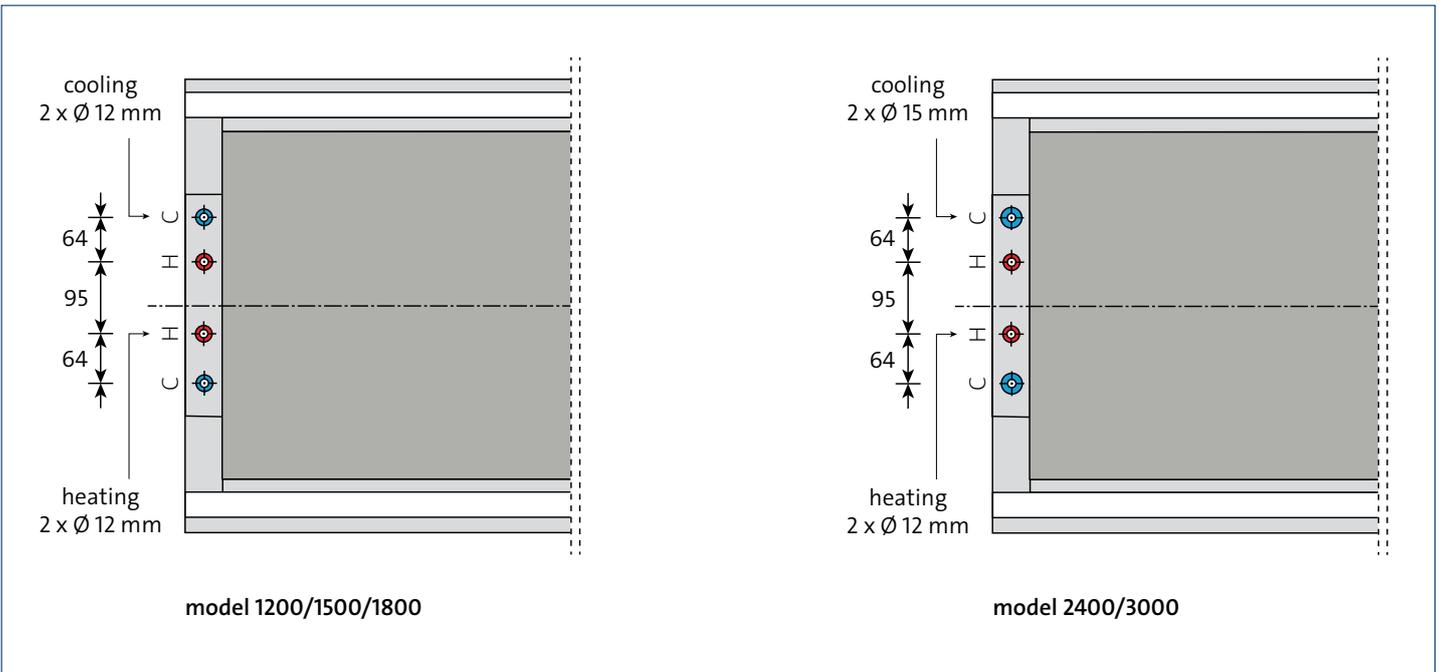
Side-edge configuration



Tolerances: width W: + 2/- 2 mm, length L: + 0/- 4 mm.



Water connections OKNH



Standard water parameters

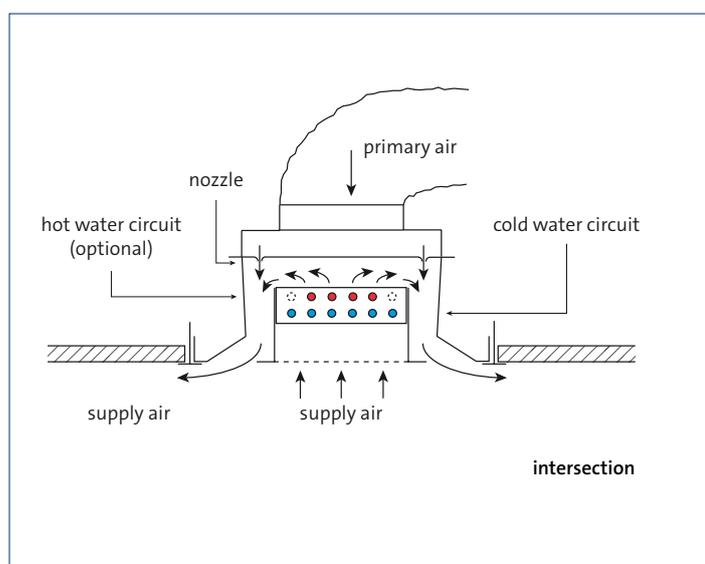
- Water-side pressure loss: 0 - 10 kPa.
- Water speed: 0.2 - 0.8 m/s.
The local flow speed in the tubes may never exceed 1.5 m/s.
- The water must circulate at least once every 3 days.
- Water inlet temperature (in cooling mode): approx. 15 - 18 °C.
The temperature of the water must always be above freezing. If this cannot be guaranteed, anti-freeze fluid must be added.
- Water inlet temperature (in heating mode): approx. 35 - 60 °C
Water temperature may not exceed 90 °C.
- Test pressure: 15 bar
All Solid Air water circuits are 100 % tested at this testing pressure.
- Operating pressure: 10 bar

Water quality

To keep your water-fed system in optimum condition, it is essential to flush the system regularly and to check the water quality regularly. For more information, we refer to our document "[Solid Air recommendations for water-fed systems.](#)"

Operating principle

The primary air is brought to high speeds via the venturi plates. This produces a powerful pump effect and secondary air is drawn in via the coil. The total of room air and primary air is brought into the room through the outflow openings integrated into the unit. When the air passes the coil, it is cooled or heated (optional) in function of the need in the room.

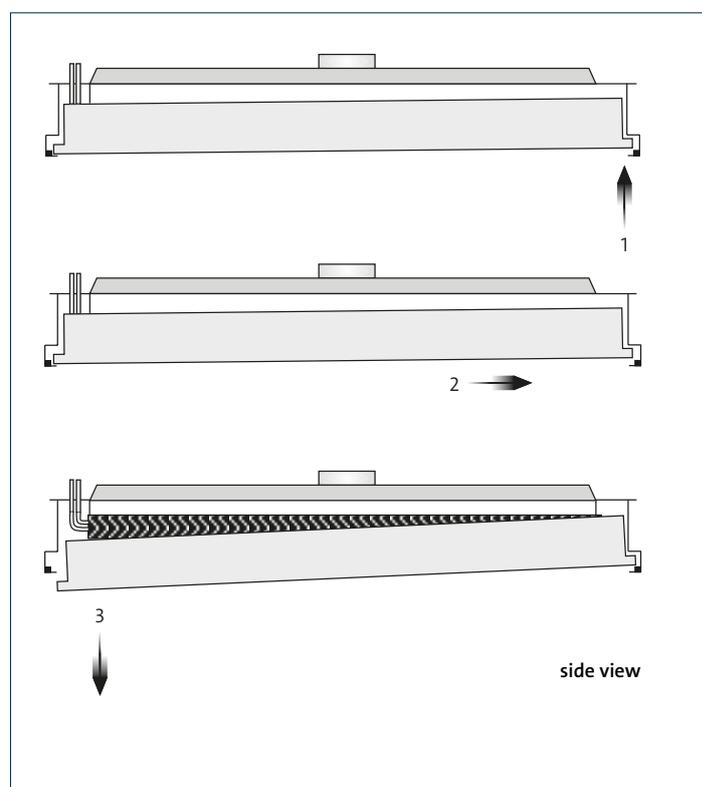


Removing the middle segment

In view of cleaning the coil and the supply nozzles, it is possible to remove the middle segment of the unit in a simple fashion. This works as follows:

1. Push the perforated part of the middle segment, in the middle, next to one of the ends, approximately 5 mm up.
2. At the same time, push the entire middle segment lengthways into the relevant end.
3. NB: The other side of the middle segment is now released from the opposite end and can be removed from the unit. It remains connected to the unit with two safety cables.

Fit in reverse order.



Factory setting extravents

When the nozzle type AD (extravent version) is selected, the chilled beams will be set in the factory in accordance with a set protocol. This means that from the outside to the inside, the extravents will be put in the high position. See the figure on the right for an example for an OKNH 600/1800 nozzle type AD06.

If the units need to have a different ex-factory setting, we recommend you contact our sales department.

Operating the extravents

With extravents, which can be changed from small to large nozzles in groups, it is possible to increase or reduce the net nozzle surface. When the inlet pressure stays the same, the primary airflow can be increased or reduced, or the relationship between the primary airflow and the inlet pressure can be changed.

One extravent consists of a magnetic sliding strip on the plenum side of the nozzle plate. At the ends of this strip are 2 socket head screws, the heads of which are visible and can be accessed through the outflow gap of the unit. This requires an "socket-head screwdriver" of sufficient length. Net length 110 mm, for example type 206 S/4 of PB Tools.

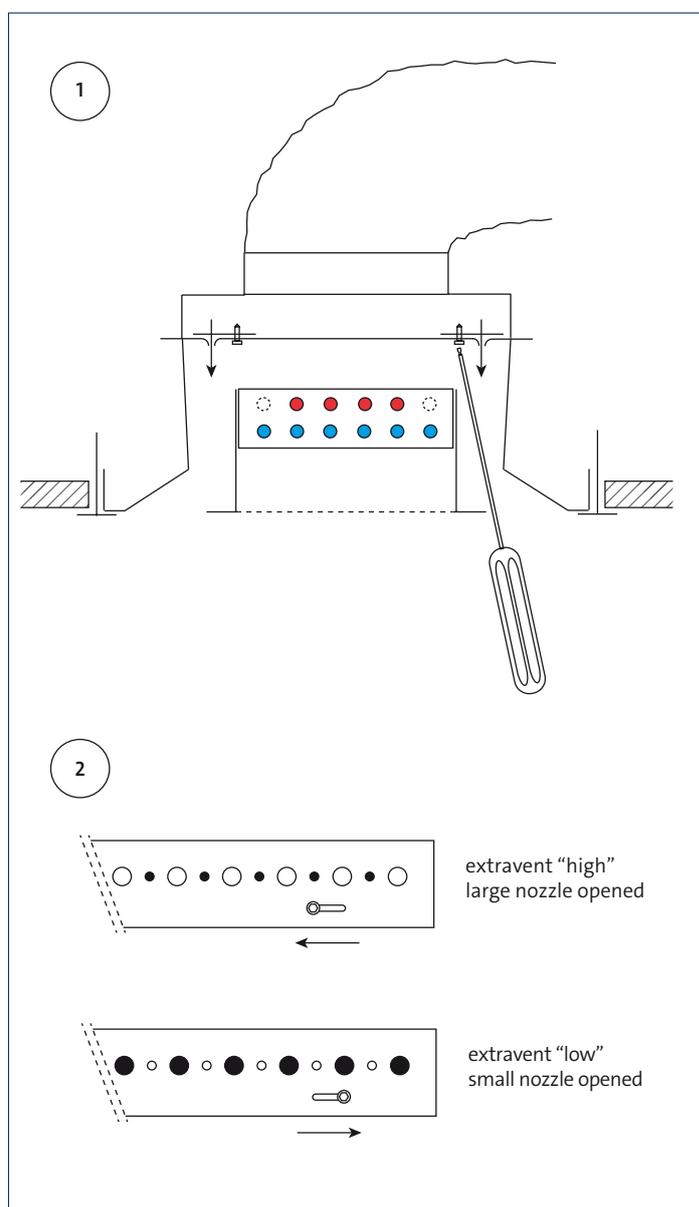
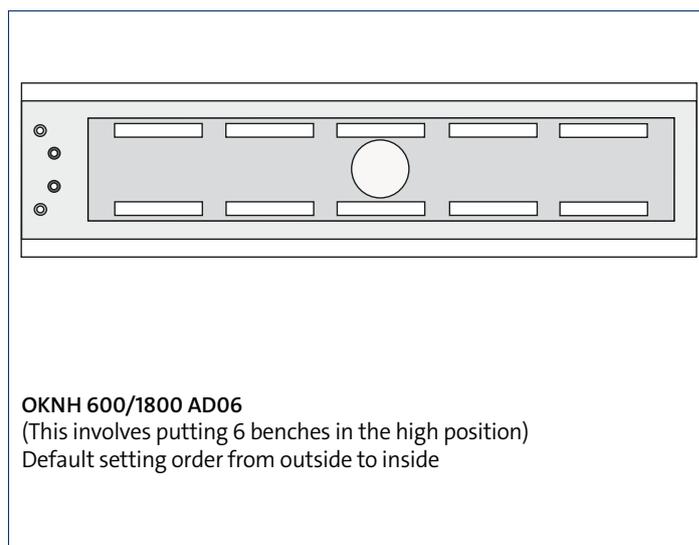
Setting the extravents

- Loosen both socket head screws loose by one turn. ①
- Move one of the screws, and in doing so the sliding strip, to the 'high' or 'low' position. ②
Interim positions are not permitted!
- Turn both screws fingertight.

See the table below for the number of extravents per model.

Extravents per model

model	number of extravents
1200	6 (AD00 to AD06)
1500	8 (AD00 to AD08)
1800	10 (AD00 to AD10)
2400	12 (AD00 to AD12)
3000	14 (AD00 to AD14)



Order and options codes

OKNH 600/1200	A1 K 2	L O - -	O 1 O	595 x 1195	9010 55
Type _____ 600					
Model _____ 1200 - 1500 - 1800 - 2400 - 3000					
Nozzle plate _____ A1 - A2 B1 - B2 - B3 C1 - C2 AD00 to AD14 (depending on choice of model)					
Coil _____ K cooling V cooling and heating O none (dummy)					
Outflow configuration _____ 2 2-sided outflow 3 1-sided outflow to the left 4 1-sided outflow to the right					
Air connection _____ L left R right					
Water connection _____ O standard					
Air-connection diameter _____ - standard in accordance with size table on page 20					
Plenum version _____ O standard					
Diffuser _____ O not applicable					
Side-edge configuration _____ 1 Suitable for T-bar 2 Suitable for surface mounting 3 Suitable for covered T-bar					
FPC (outflow direction element) _____ O not applicable F FPC					
Actual width _____ 595 mm (depending on side-edge configuration)					
Actual length _____ depending on the model size and the side-edge configuration					
Colour _____ RAL 9010 (standard), a different colour on request					
Gloss level _____ 55 % (standard)					

Position of air and water connection

