OKNB

Ventilate, cool and heat
Bulkhead use
Low built-in height

Available types
O K N B - - - -

- **O** chilled beam
- **K** closed version
- **N** ventilate and cool
- **B** incorporated into a bulkhead

- **Type**
  400

- **Model**
  1000

- **Nozzle**
  L1 to L8

- **Coil**
  - **K** cooling only
  - **V** heating and cooling (double circuit)

SA-Select
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.

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Use
The chilled beam type OKNB has a high capacity and is suitable for ventilating, cooling or heating rooms with a height of up to approximately 3 metres.

The chilled beam is designed for fitting into a bulkhead. The OKNB is perfect for use in hotel rooms or patient rooms in hospitals.

The choice of different nozzle types enables an optimum combination of ventilation air and cooling capacity in any situation.

The return diffuser can be opened to clean the coil.

Finish
Housing

Material:	steel
Treatment:	electrogalvanised

Return diffuser

Material:	steel/aluminium
Finish:	visible parts; epoxy varnish
Colour:	white (RAL 9010)

Wall diffuser

Material:	aluminium or steel
Finish:	blank anodised or epoxy varnish white (RAL 9010)

Coil

Tubes:	copper
Fins:	aluminium
Post-treatment:	none
Test/operating pressure:	15/10 bar

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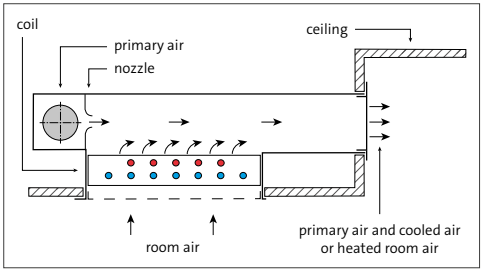
General
We recommend a straight flow length of 3 x D in the connection size of the chilled beam. We recommend studying our document "Solid Air recommendations for waterquality". For condensation-free operation, we recommend supplying the primary air with a dehumidifying capacity of 1 to 2 g/kg dry air. For specific information, please check the Mollier diagram.

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

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.



Tangible
Chilled beams only produce 'tangible' capacity, the units do not have a drip tray. In systems with chilled beams, the required 'latent' capacity is supplied by the dehumidifying capacity of the air-handling unit.

Selection process
Many factors play a role when you select a chilled beam. The unit has to be selected properly on the air and the water side. For the air side, we consider pressure and noise. On the water side, we consider the required volume of water, water-side resistance, "temperature difference (delta-T) on the water" and supplied output.

For a detailed selection procedure, we refer to the Appendix "Selection process Solid Air chilled beam".

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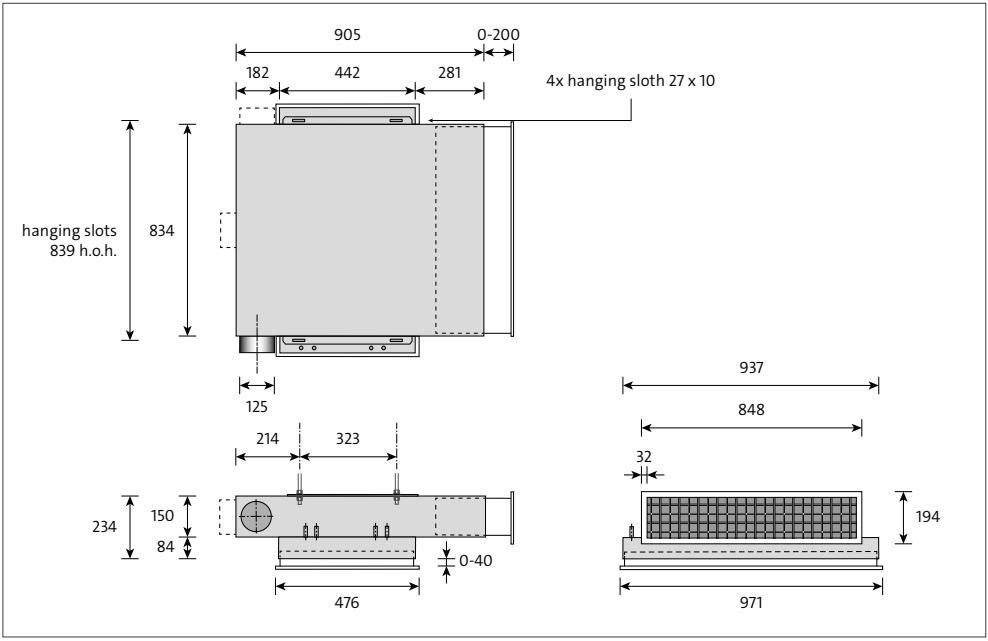
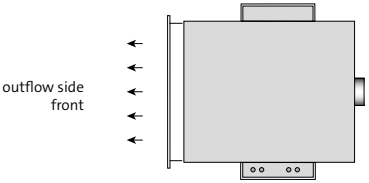
Maatvoering



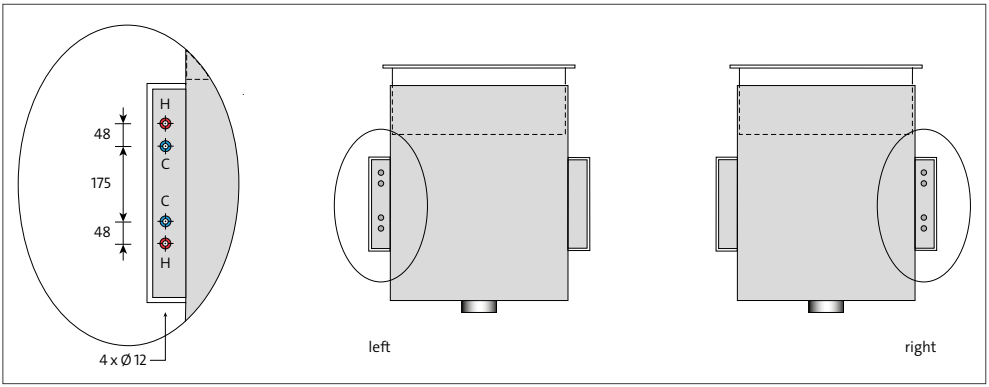
Position of air and water connection



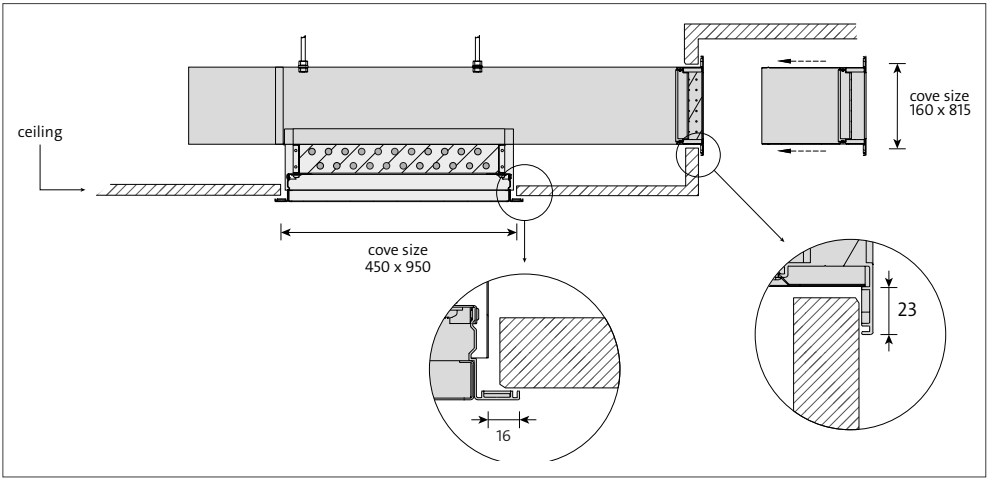
Determination of the left or right position is done from the direction of the arrow with the water connection on the opposite side

OKNB 400/1000 L6V1 AL30

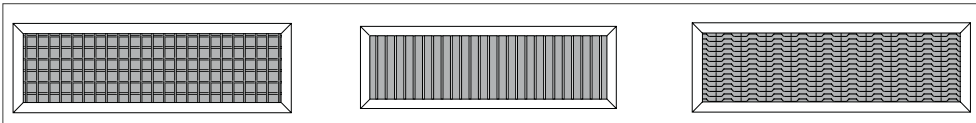
Position of the water connection (top view)



Position of chilled beam in bulkhead



Supply diffusers



Smooth vane (WUCA)
Horizontal and vertical vanes
(option D)

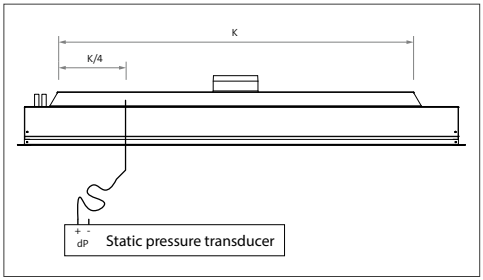
Smooth vane (WUAA)
Vertical vanes
(option U)

High induction (WTHA)
(option W)

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

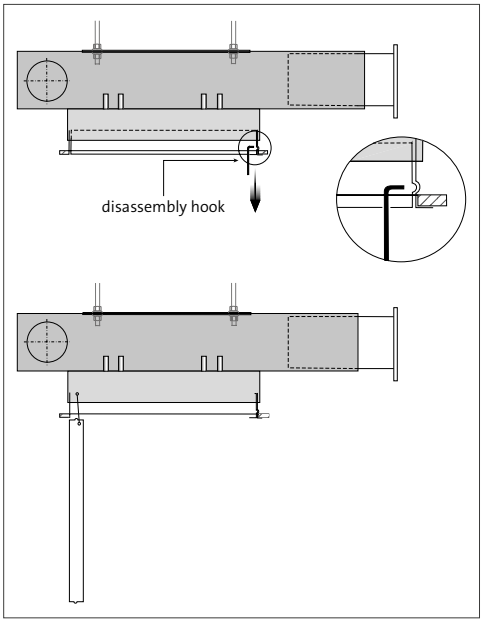
Operating principle
After installation of the chilled beams, they must be adjusted air-sided and water-sided. This work is usually carried out by a specialized balancing company.

For the airside adjustment, the static pressure in the plenum should be measured at a quarter of the length of the plenum.



This requires a thin tube to insert through the nozzle into the plenum. Please note that extravent units use an open nozzle to perform the measurement. Inserting the measuring tube into a closed hole can damage the seal of the extravent strip and cause noise problems.

Maintenance
The perforated return diffuser is fitted with a click system. In order to remove the perforated panel, you can use a small socket head screw that fits through the perforated panel. You can remove the perforated panel from the click system. The perforated panel remains connected to the unit with two safety cables.



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Order and options codes

OKNB 400/1000		L6	V	1		A	L	3	O		D	O	O		O	x	O		9010	55

Type
400

Model
1000

Nozzle plate
L1 t/m L8

Coil
K cooling
V cooling and heating

Outflow configuration
1 1-sided outflow

Air connection
A back
L left
R right

Water connection
L left
R right

Air-connection diameter
3 125 mm

Plenum version
O standard

Diffuser
A single deflection (horizontal WUBA)
U single deflection (vertical WUAA)
D double deflection (WUCA)
Whigh induction (WTHA)
O no diffuser

Side-edge configuration
O none applicable

FPC (outflow direction element)
O none applicable

Actual width
O see dimensions sketch on page 42

Actual length
O see dimensions sketch on page 42

Colour
RAL 9010 (standard), a different colour on request

Gloss level
55 % (standard)