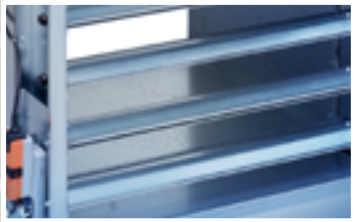


*Good climate,  
better performance!*



## Active chilled beams



*Good climate,  
better performance!*

Solid Air Climate Solutions is an indoor climate and air technology specialist that contributes to creating an optimal indoor climate.

Solid Air can be of service in many ways, for the supply of components and for total projects.

The success story began with the development, manufacture and sale of high quality climate ceilings, after which the range of products was gradually extended by air diffusion and indoor climate products. Since 2000 Solid Air has developed a unique range of chilled beams that are among the very best in the Netherlands when it comes to quality and sales volume.

Solid Air has also specialised in air-handling units, and has integrated climate ceilings in its range of products and services.

Solid Air has grown to be a total supplier of climate solutions. Where necessary our products are certified in accordance with the strictest regulations and European standards.

Extensive selection software and BIM libraries are available. Since 1998 Solid Air International has entered the international market by opening establishments in Germany and France, and the scope has been further extended towards Europe and beyond via agents.

Solid Air has plenty of knowledge and experience at its disposal and is able if necessary to make use of the additional specialist knowledge of its sister companies in the Nijburg Industry Group. This includes product development, options for generating specials, production, engineering and delivery and assembly in complete projects, and so on.

### **Certification**

Nijburg is NEN-EN-ISO 9001:2015 and VCA certified. All of our products bear the legally mandatory CE mark. Our products are also assessed and tested by TNO, Peutz, Efectis, TÜV (Eurovent) and WSP, which can also perform independent tests. Various Solid Air products are Eurovent certified (AHU range KEK under certificate No. 14.10.004 and Active and Passive Chilled Beams under certificate No. 09.11.431).



# Good climate, better performance

We are one of the most pioneering producers of advanced and sustainable indoor climate solutions in the Netherlands.

Since 1986 our products have been used successfully in non-residential building, industry, housing, retail, education and healthcare. Innovating and delivering the best possible quality comes naturally to us.

We are a reliable partner for consultants and contractors and we like to consider the issues together with architects. With our knowledge, our comprehensive product range and attractive pricing, we contribute to a more comfortable and healthier indoor climate in living and working environments in the Netherlands and abroad.

## SOLID AIR KNOWS NINE PRODUCT CATEGORIES:

- **Air handling units**
- **Climate ceilings**
- **Air diffusers**
- **Weather/penthouse louvres**
- **Volume control units**
- **Duct Heaters/Coolers**
- **Acoustics**
- **Fire protection systems**
- **Active and passive chilled beams**



## TARGET GROUPS

Important target groups include non-residential building, industry, housing, retail, education and healthcare. At Solid Air, we know that a good indoor climate is essential to optimum performance. That explains our motto: Good climate, better performance!

## SOLID AIR AS A KNOWLEDGE PARTNER

- From our nine product categories we supply a total solution for a comfortable indoor climate.
- Having our own design and production capacity makes us extremely flexible. Even when it comes to custom products.
- Our efficient production process, intelligent stock management and our excellent logistics department enable us to offer short lead times.





# Chilled beam system

Chilled beams create a comfortable and healthy living and working environment, high energy efficiency, minimal maintenance costs and extensive architectural options.

One of the defining features of designs with chilled beam systems is that the space requirement in the building is minimised.

That is why chilled beams are being used more and more in modern buildings for ventilation and climate control. The extensive range of chilled beams for many different building types means that a good solution is always available. The Solid Air range of chilled beams is very complete and includes units for every application. Active chilled beams can be supplied as a cooling and/or heating model.

## MODELS

Solid Air chilled beams can be split into 5 categories in terms of installation and location in the room:

1. **Installation in the ceiling**  
1 or 2-sided spread pattern (OKNI & OKNH)
2. **Installation in wall**  
horizontal spread pattern (OKNB)
3. **Installation in the ceiling**  
1, 2, 3 or 4 sided spread pattern (OKNM)
4. **Suspended**  
1 or 2-sided spread pattern (OKNH)

“Ventilation, cooling and heating by 1 system”

## BENEFITS

- **Wide range**
- **Ventilation, cooling and heating by 1 system**
- **Ventilation according to need based on CO<sup>2</sup> measurement**
- **Low noise level**
- **Extra options with variable air volume (smart system)**
- **Configuring the air flow direction by means of Flow Pattern Control**
- **Optimal flexibility through the use of Extravent nozzle systems**





“All chilled beams are Eurovent certified”

## Combining the best of water and air

Chilled beams combine the big advantages of water and air. The correctly configured air volume takes care of the ventilation requirements and contributes to the conditioning. The extensive range for many different building types means that a good solution is always available.



## ACTIVE CHILLED BEAMS

Active chilled beams have the following functions:

- Ventilation
- Cooling
- Heating

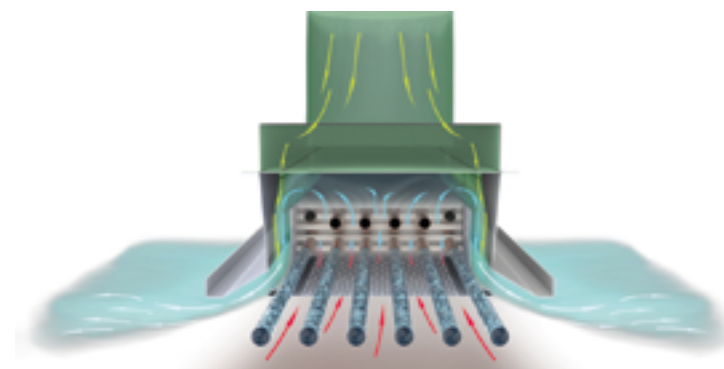
They can be used for offices, hospitals, hotels, schools and shops. There are standard solutions for high ceilings, low ceilings and for rooms without suspended ceilings. Solid Air supplies a wide range of comfort beams, high-capacity beams, suspended beams, and units built into walls or recesses.

The strength of Solid Air chilled beams:

- Comfortable and healthy living and working environment
- High energy efficiency
- Minimum space required for the installation
- Minimum maintenance costs
- Extensive architectural possibilities

### CHILLED BEAMS SELECTION PROGRAMME

To ensure that the correct chilled beams are chosen we have designed a selection tool for you: [selectietool.solid-air.nl](http://selectietool.solid-air.nl)



*Operation of active chilled beams*

### EUROVENT CERTIFICATION



Solid Air is a member of the Eurovent certification programme for chilled beams. The products are certified under number 09.11.431 and are listed on the Eurovent website: [euroventcertificatie.com](http://euroventcertificatie.com). Participation in the programme gives you a high degree of certainty and reliability regarding our products.



# OKNI

The OKNI 300, 400, 450 and 600 ceiling chilled beams are active chilled beams for use in suspended ceilings, covered ceilings, dropped ceiling tiles and fixed ceilings with nominal values of 300 mm, 400 mm, 450 mm and 600 mm. They are suitable for ventilation, cooling and heating in offices, meeting rooms, classrooms and general areas.



## OKNI OPERATION

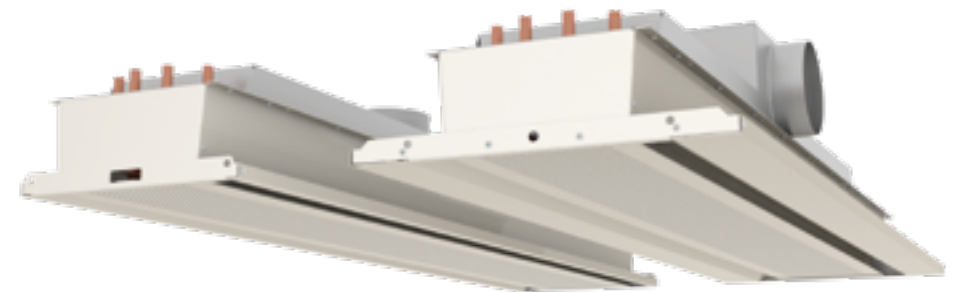
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The ventilation air is pushed at high speed through nozzles from a pressure chamber. This spread creates induction, and room air is drawn in and conditioned via the heat exchanger.

When the air passes the heat exchanger, it is cooled or heated depending on the requirement in the room.

## PROPERTIES:

- **Can be used in offices, meeting rooms, classrooms, open-plan offices and treatment rooms**
- **Available in the most common ceiling system dimensions**
- **Very limited visibility and shadow effect**
- **The perforated model has the same look as the Solid Air perforated diffusers, which allows for attractive combinations in one room**
- **Heat exchanger for cooling and heating**



## EXTRAVENT NOZZLE SYSTEM

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All of the chilled beams in the OKNI series can be supplied with an Extravent nozzle system. This patented system provides adjustable air flow without the risk of unwanted noise. This gives the designer complete freedom over the layout of a building storey.

“The OKNI series is suitable for ventilation, cooling and heating in offices”

A modern office interior featuring a high ceiling with exposed wooden beams and industrial-style lighting. Large, rectangular, white OKNV active chilled beams are suspended from the ceiling. The office space includes white desks, green fabric partitions, and ergonomic office chairs. The background shows a dark wall and a glass partition.

# OKNV

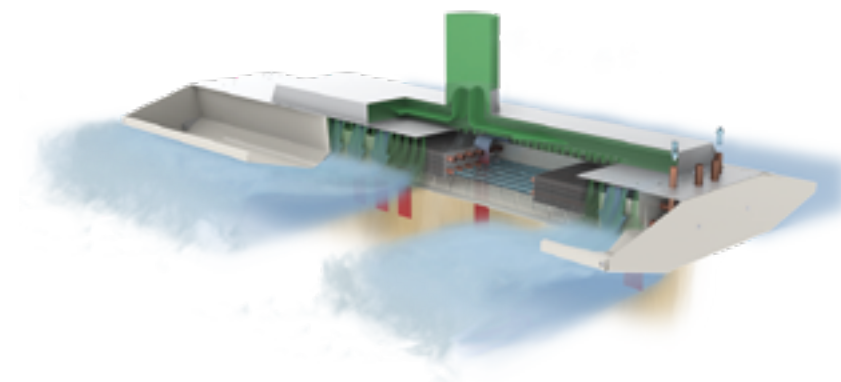
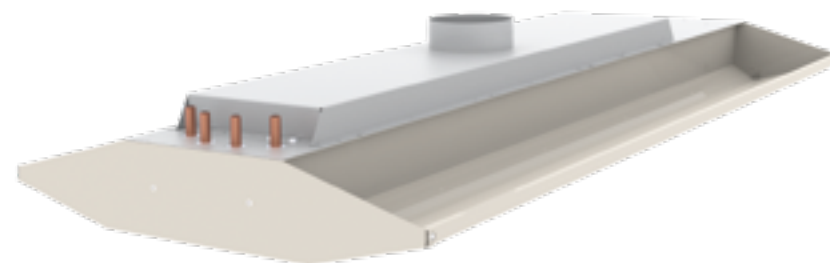
The OKNV series is designed for suspended applications. An industrial appearance is achieved by making all or some of the installation components visible. This gives the architect plenty of freedom. This active chilled beam can be used in modern, dynamic offices without a ceiling and where a flexible layout is required. A flexible climate control system is a must for an optimum and efficient indoor climate.

## **OKNV OPERATION**

The induction part of the units is entirely the same as the standard OKN equipment. The air flow component has been adapted in such a way that the air is properly distributed even by the suspended model. The Coanda effect created by ceiling installation is replaced by the lift effect resulting from the specific, characteristic wing shape.

## **PROPERTIES:**

- **Suitable for rooms without modular ceilings**
- **Industrial look for renovation projects**
- **Heat exchangers for cooling and heating**
- **CO<sup>2</sup> control possible with VAV air control**
- **Available with higher and extra high capacity as well as the standard model**



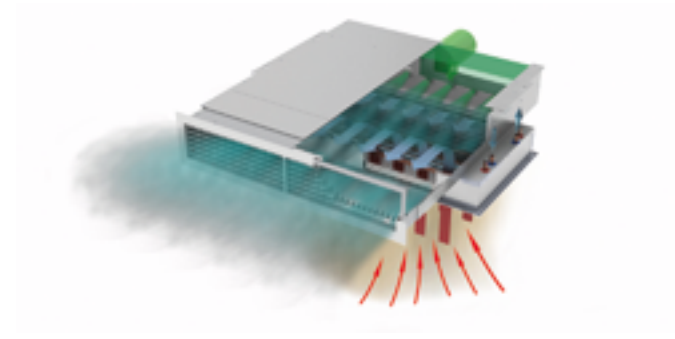


## OKNB

The OKNB 400 is designed as a compact chilled beam with a low installation height. The high capacity chilled beam is suitable for ventilation, cooling and heating rooms of 2.4 to 3.5 metres in height.

### OKNB FEATURES

- Specifically intended for hotel rooms, hospital wards and sleeping quarters
- The OKNB has no fan and is therefore soundless
- It has no filters, movable parts or vulnerable parts such as electronics, condensate pumps, and so on



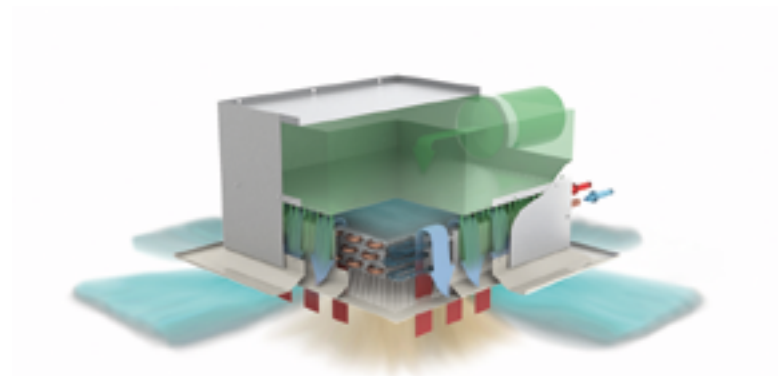
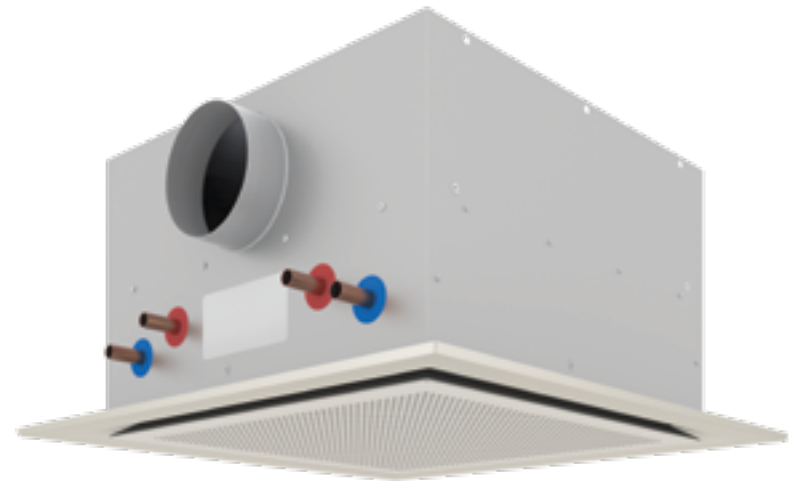
## **OKNM**

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The OKNM is designed as a compact chilled beam with a low installation height. It has high capacity and is suitable for ventilation and cooling, also for heating rooms of 2.4 to 3.5 metres in height.

### **OKNB FEATURES**

- High comfort level thanks to the stable spread pattern, adjustable on 4, 3 or 2 sides
- Very limited visibility and shadow effect
- The perforated front has the same look as the Solid Air perforated diffusers, which allows attractive combinations in one room

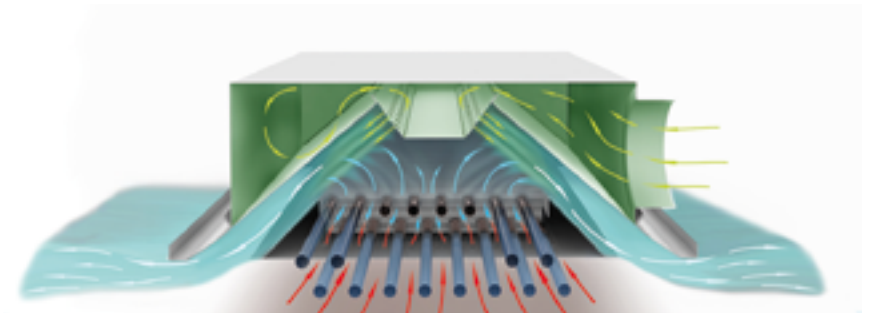




# OKNH

The OKNH has been designed as a high-capacity compact chilled beam with a low installation height and is suitable for ventilation and cooling, and for heating rooms of 2.4 to 4.0 metres in height. This chilled beam is especially suitable for rooms where many people gather together and where there are high internal heat loads. Examples include foyers, auditoriums, call centres, production areas and classrooms.





## OKNH OPERATION

The OKNH is a high capacity chilled beam. The increased capacity is achieved by the wider configuration. Stronger air flows are possible on the secondary side, which creates a considerable induction effect. The choice of various nozzle types facilitates an optimum combination of ventilation air and cooling capacity in every situation.

## PROPERTIES:

- **Unit with significant capacities**
- **Heat exchanger for cooling and heating**
- **CO<sup>2</sup> control possible with VAV air control**

“OKNH is ideal for environments with high internal heat loads”

## WHY IS SOLID AIR THE BEST PARTNER FOR YOU?

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Solid Air is a reliable partner for consultants and fitters. We like to consider the issues together with architects. With our knowledge, our comprehensive product range and attractive pricing, we contribute to a more comfortable and healthier indoor climate in living and working environments in the Netherlands and abroad.

## CUSTOMISED SOLUTIONS

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With our own R&D, production facilities and our own test area, we are able to provide a standard programme and to consider the issues with our clients and supply customised solutions. This applies to new-build projects, but to renovation projects in particular. These days old, existing buildings are often renovated to modern standards, with high requirements in terms of indoor climate and fire safety. That is all about our professional expertise.

## INNOVATION: STAY ALERT WITH A VIEW TO THE FUTURE

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Without innovation you simply don't count as a business. Our R&D Department is thoroughly aware of that and responds to changing market needs. By developing new products and taking a critical look at our existing products and improving them where possible, Solid Air takes the leading position in the Netherlands as the specialist in indoor climate solutions. We strive to expand this position towards the rest of the EU.

## WHAT MAKES SOLID AIR A STRONG PARTNER?

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- **Being able to respond quickly to client requirements during the advice and design stage, with the option for customer-specification**
- **Flexible and quick manufacture and supply of standard and customised products**
- **Strong research and development, own product development and own test facilities**
- **A broad and well-known product package with competitive price and quality levels**
- **Our selection tool enable you to select your products quickly, conveniently and reliably and to manage your specific projects**

## YOU WILL FIND OUR PRODUCTS IN

**Offices / Schools / Industry / Healthcare institutions  
and Hospitals / Retail and Hospitality companies /  
Residential building**



**NIJBURG INDUSTRY GROUP**

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*Good climate,  
better performance!*

## About Nijburg Industry Group:

Nijburg Industry Group comprises the Business Units Solid Air Climate Solutions, Solid Air International, Solid Air Klimaatplafonds, Velu Klimaattechnische Groothandel and Nijburg Klimaattechniek and its own factory. The strong synergy between the various companies, each with their own specialism, makes Nijburg Industry Group a reliable, strong partner in the field of air and climate technology.

Both for newbuild and renovation projects. Nationally and internationally.

**The synergy between the business units, each with their own specialism, makes the Nijburg Industry Group a much sought-after partner for installers, housing corporations, industrial customers and shipbuilders.**

**Nijburg Industry  
Group**

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Innovative in air and  
climate technology



*Good climate,  
better performance!*



We believe that people perform better if there is a comfortable and sustainable indoor climate. Our mission is to help organisations to achieve this.

We do this by offering a complete package of products and services in the field of climate and air distribution technology.

**[www.solid-air.com](http://www.solid-air.com)**



Solid Air International B.V. • Scheepswervenweg 1 • 9608 PD Westerbroek  
Postbus 14 • 9610 AA Sappemeer • Tel +31 598 36 12 21 • [mail@solid-air.com](mailto:mail@solid-air.com)