

*Good climate,  
better performance!*

# Innovative solutions for air and climate technology



Air handling • Climate ceilings • Air distribution technology • Fire safety products • Chilled beams



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Solid Air provides innovative solutions in the fields of indoor climate and air technology, thus contributing towards a more comfortable and healthier indoor climate. Solid Air provides a range of services, from the supply of components to delivering turnkey projects.

The success story started with the development, production and sale of high-quality ceiling grilles. The product range steadily expanded with a wide selection of air distribution and interior climate products. Since 2000, Solid Air has developed its own unique range of chilled beams which are market leading products in the Netherlands regarding quality and numbers sold.

Solid Air also specialises in the field of air handling units and has integrated climate ceilings into the range of products and services. Solid Air has developed into a total supplier of climate solutions.

Where necessary, our products are certified in accordance with the most stringent of regulations and European standards. Extensive selection software and BIM libraries are available. Since 1998, Solid Air International has focused on the international market via branches in Germany and France, with coverage in Europe and beyond increased via a network of agents.

Solid Air has considerable in-house knowledge and experience and if required can call on additional specialist knowledge from its sister companies in the Nijburg Industry Group.

This includes product development, custom-made specials, production, engineering and the supply and installation of turnkey projects, etc.

### **Certification**

Solid Air is certified under the ISO 9001, Eurovent (Range KEK AHU No. 14.10.004 en Active and Passive chilled beams No. 09.11.431), CE and VCA standards. Our products are assessed and tested by TNO, Peutz, Efectis, TÜV and WSP, who can also conduct independent testing.





# Specialist in indoor climate solutions

As the specialist in indoor climate solutions, Solid Air supplies a complete range of high-quality products for air and climate technology, thus contributing towards a more comfortable and healthier indoor climate at home and at work. Our clients value our reliable, flexible and fast service.

Solid Air supplies virtually everything for indoor climate control. If a product doesn't yet exist we'll produce it in close consultation with you. Many Solid Air products are developed and produced in house.

Solid Air supplies an extensive range of products, spread across five product groups including commercial buildings, healthcare, education and industrial sectors to name just a few.

## OUR PRODUCT RANGE CONSISTS OF 5 PRODUCT GROUPS:

- **Air handling**
- **Climate ceilings**
- **Air distribution technology**
- **Fire safety products**
- **Chilled beams**



## RELIABLE

By reliable we mean we deliver on our promise, and offer reliable advice. What is agreed is agreed, and that goes without saying! Many clients rely on us for advice about climate systems, air distribution and comfort, installation options, energy saving and much more. Our office and field-based staff are very experienced and monitor the latest developments to ensure they are always up to date. If you need reliable advice, our people will work proactively with you! Call our office staff or make an appointment for one of our account managers to visit you on site.

## FLEXIBLE

Solid Air's product range is very extensive but despite this, clients often have very specific requirements. Modifications and customised solutions, such as alternative dimensions and/or designs are not a problem for Solid Air. And if necessary, we're happy to work with you to develop an entirely new product.

## FAST

We can offer you fast delivery times, including for custom-made products, due to our efficient production process, intelligent stock control, back office and our outstanding logistics department.

# Air handling

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The Air Handling product group includes customised modular air handling units and compact high efficiency heat recovery units.

In addition to a wide range of modular air handling units, with or without integrated controls, there is an increasing demand in the market for a more compact, integrated solution.



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That is why we have developed the Aeolus: the only compact and truly plug-and-play high efficiency heat recovery unit. Even greater top performance in heat recovery can be achieved using our regenerative-based or adiabatic-based heat recovery units. The range is completed with Solid Air's dehumidifying systems which have been especially developed for swimming pools. This product group consists of a complete range of Eurovent-certified product families:

## AEOLUS

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The compact, truly plug-and-play Aeolus has been developed, using the very latest technologies. The models with counter-flow heat exchanger are available with air flows of 600 – 22000 m<sup>3</sup>/h; the models with heat wheel are available with air flows of 900 – 38000 m<sup>3</sup>/h. The unit is fitted with EC-technology plug fans and a very advanced and integrated digital control with a simple user interface and options for incorporating

into Building Management Systems. High efficiencies (up to 93%) is of course guaranteed. This is emphasised with the Class A energy label and optimum SFP ratio. The units can be used flexibly and can be expanded with a range of options and accessories. All models in the Aeolus range are compliant with ErP 2018.



## BENEFITS

- High efficiency, highly flexible
- ErP 2018 compliant
- Low noise
- High level of finish
- Easy to install and maintain

## AEOLUS CPL-C

This is a ceiling-mounted high efficiency heat recovery unit (plug-and-play), fitted with a counter-flow plate heat exchanger with fully-integrated control. Available with air flows of 600 – 2,100 m<sup>3</sup>/h and fitted with EC-technology plug fans. Class A energy label, optimum SFP ratio and high efficiencies up to 93%. All models in the Aeolus CPL-C range are compliant with ErP 2018.

## MODUL

Modular air handling unit, with optional field equipment and/or controls fitted. Air flows of 400 – 190000 m<sup>3</sup>/h. A complete range of possibilities, with or without heat recovery, recirculation, supply only or return only. Various components such as suction and discharge section, filter section, mixing section, blank section, WW heater, E heater, KW cooler, DX cooler, DX cooler/heater, change-over cooler/heater, integrated cooling, cross-flow or counter-flow

plate heat exchanger, heat wheel, twin coil, humidifier, silencers, etc. Available in horizontal, stacked or vertical arrangement. Standard, hygienic, swimming pool and explosion-proof (ATEX) types available. Modular units can be designed in such a way that they are ErP 2018 compliant in addition to being ErP 2016 compliant already.





# Climate ceilings

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Climate ceilings operate using a water-based system installed in the top section of metal ceiling panels to cool or heat a space.

The air supply and discharge is realised by diffusers integrated into the ceiling.



The benefit of this system compared to all other climate systems is that the heating, cooling and air replenishment are all realised in one place.

Solid Air climate ceilings therefore can achieve the highest Class A Comfort Class in accordance with EN 7730!

Climate ceilings do away with the need to install additional elements such as radiators or air-conditioners. The heat output from a climate ceiling is comparable with that of radiators. Even more important is that a climate ceiling does not cause any draught, while the cooling capacity is higher than that of other systems. Furthermore, a climate ceiling allows you to create thermal comfort because cooling from above is much more comfortable than cooling from below.

## WHY CHOOSE A CLIMATE CEILING?

People function best with a cool head and warm feet. An additional benefit of climate ceilings is that less energy is used compared to other indoor climate systems. All ceiling systems are capacity tested by independent laboratories and are CE certified. This product group consists of 4 product lines.



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## METAL CLIMATE CEILINGS WITH COPPER ACTIVATION

Available in a range of formats and sizes and suitable for a range of modular ceilings.

Features include:

- High cooling and heating capacity
- Cooling capacity: 75 – 100 W/m<sup>2</sup>
- Heating capacity: 100 – 175 W/m<sup>2</sup>
- Favourable EPN, good sound absorption, NRC values 0.75 ~ 0.95
- Quick response time and excellent control

## METAL CLIMATE CEILINGS WITH PLASTIC ACTIVATION

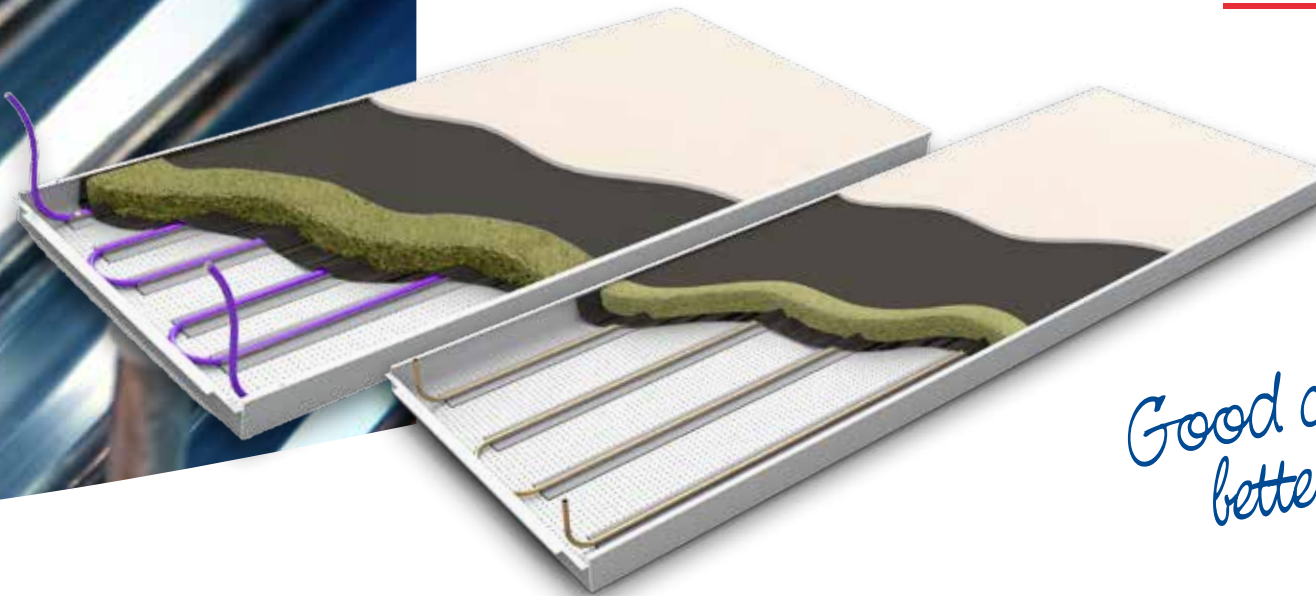
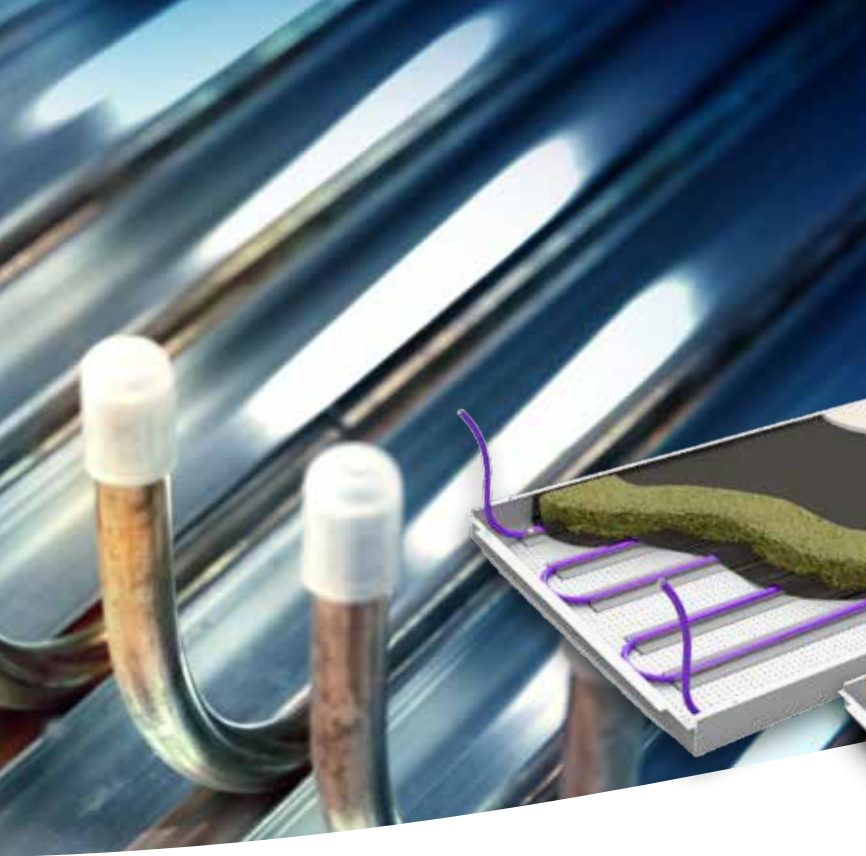
- Cooling capacity: 70 – 90 W/m<sup>2</sup>
- Heating capacity: 80 – 140 W/m<sup>2</sup>
- Energy efficient
- Flexible design
- Favourable EPN

## PLASTER CLIMATE CEILING WITH PLASTIC ACTIVATION

- Cooling capacity: 55 – 70 W/m<sup>2</sup>
- Heating capacity: 80 – 100 W/m<sup>2</sup>
- Interesting price/energy ratio
- Low-profile height of approx. 45 mm
- Numerous finishing options

## NEW: HYBRID CEILINGS

Combination of climate ceiling and active ventilation with high cooling and heating capacity. Ideal for BREEAM projects.



# Air distribution technology

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This product group covers the development, production and supply of high-tech air distribution technology products, ranging from weather louvres and penthouse louvres to internal grilles and all components in between, such as VAV's, sound attenuators, etc.



## CEILING DIFFUSERS

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Solid Air supplies an extensive range of perforated, swirl, louver, slotted and conical diffusers, etc. which are available in a wide choice of designs and colours. A wide range of designs (including suspended) for supply and return use, with low noise levels and plenums, suitable for various ceiling systems including concealed ceilings.

## WALL, FLOOR AND DUCT GRILLES

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The wide range of wall, floor and displacement grilles provides solutions for all situations, from high induction to displacement and extraction with adjustment possibilities using adjustable vanes or volume controllers.

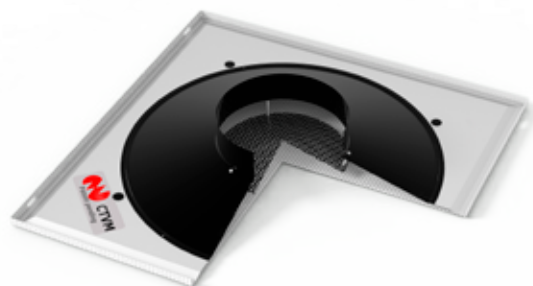






## WEATHER LOUVRES AND PENTHOUSE LOUVRES

Weather louvres and penthouse louvres are available in galvanised and aluminium designs, with or without powder coating, and with mounting frame. Intruder-proof designs are also available.



## VAV/CAV CONTROLLERS

The wide range of VAV and CAV controllers allows any required air velocity to be adjusted in every part of the ventilation system, with constant or variable air volume. Calibration of the variable units ensures precision. Various models are available with re-heaters.

## VOLUME CONTROL DAMPERS

Volume control dampers allow manual or actuator operated air volume adjustment, including complete sealing of the entire valve section

## SOUND ATTENUATORS

The Solid Air sound attenuators are available in many designs. The square models can be selected using the Solid Air sound attenuator selection software, SA-select, which you can download. Visit our website [www.solid-air.com](http://www.solid-air.com) for details.

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# Fire safety products

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These days, buildings are divided into fire and smoke compartments that can be isolated individually, each contain ventilation ducts connected to the air handling system. Without appropriate measures incorporated in these ducts there is no sense in making floors, walls and ceilings fire resistant.



It's not just fire that can spread via the air ducts; smoke can also spread easily throughout the building via the air ducts and during a fire it is generally the inhalation of toxic smoke that causes most casualties. Solid Air supplies a wide range of fire and smoke resistant products which ensure that fire and smoke are confined for as long as possible to the room in which the fire started.

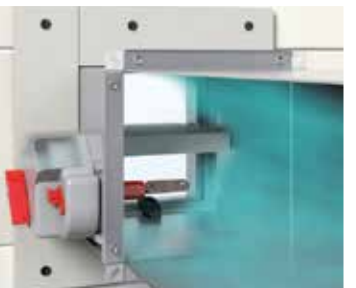
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## FIRE DAMPERS

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Solid Air supplies a complete range of European fire dampers, all of which are tested and classified in accordance with EN 13662 and EN 135013, and which are CE-certified in accordance with EN15650:2010. The fire resistance, thermal insulation and smoke resistance (depending on the type and installation situation) can be certified up to 180 minutes.

You have a choice between two types of fire dampers, whereby the thickness of the damper blade determines the fire resistance: the 25-range with thin damper blade and the 45-range with the thick damper blade are, both available in square or round design and in sizes from 100 to 800 mm for round and 100x200 mm to 1500x800 mm for square. The fire dampers are available with optional end switches, electro-magnetic or an actuator blade (Belimo or Siemens).



## BUTTERFLY VALVES

In addition to the conventional fire damper, Solid Air also supplies fire-resistant, certified butterfly valves which are specially developed for small diameter air ducts. These round fire damper elements, which can be supplied with a plastic extraction valve, are suitable for installation in fire compartment walls and floors.

## FIRE-RESISTANT TRANSFER GRILLES

The operation of these grilles is based on the expanding properties of the intumescent material which is located in the wall or door. When the ambient temperature reaches 100°C, the intumescent material is activated and seals up the grille. The slats and framing components swell to many times their original thickness, fusing together to create an effective barrier to the passage of fire and hot smoke.



# Chilled beams

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Chilled beams combine the major conduction benefits of water and air. Air provides the ventilation needs and water acts as an efficient transport medium for cold and/or heat. Providing a comfortable and healthy environment at home and work, with high energy efficiency, compact design, minimal maintenance costs and extensive architectural possibilities.



That's why chilled beams are increasingly used for ventilation and climate control in modern buildings. The extensive range of chilled beams means an excellent solution is available for many types of buildings. The Solid Air range of chilled beams is very complete and includes units for any type of application.

These units are all characterised by the high comfort, high efficiency, outstanding quality, ease of maintenance and modern design. Active chilled beams can be supplied in cooling and cooling/heating versions.

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## MODELS

The Solid Air range of chilled beams consists of: OKNI, OKNV (free suspended), OKNM (4 side outflow), OKNH (high capacity) and the OKNB (bulk head or hotel unit). The OKNP is the passive unit.

Various models are available as T-bar mounted and surface mounted designs. The entire range is Eurovent-certified. A user-friendly selection software is available and can be downloaded at [www.solid-air.com](http://www.solid-air.com). Special designs can also be developed in consultation with your Solid Air adviser. The OKNI is also available with fluorescent or LED lighting.

## BENEFITS

- Wide range of solutions
- Ventilation, cooling and heating in one system
- High level of comfort at a constant ventilation rate
- Low noise levels
- Adjustable nozzle system (Extravent) option provides extra flexibility

# Why is Solid Air the best partner for you?

Solid Air contributes towards a more comfortable and healthier indoor climate at home and at work by producing and supplying advanced, energy-efficient and sustainable indoor climate solutions with associated components. We aim to achieve maximum quality.

## Our markets

Solid Air has been the market leader in the Netherlands for many years and we aim to further expand this position to the rest of the EU. Internationally, Solid Air supplies a complementary and complete package of climate technology services and products in France, the United Kingdom and Germany. We are also developing more and more activities in other European countries, including the Middle East, the USA, Australia via distributors.

## What makes Solid Air a strong partner?

- The ability to respond to client wishes quickly during the advice and design phase
- Flexible and fast production and supply of existing and custom-made products
- Strong research & development as well as in-house product development and test facilities
- Wide and well-known product range, at competitive prices and high quality

- Energy-saving product performance thanks to efficient heat/cold transport, low temperature heating, high leak proof class and sustainable materials
- Motivated and experienced team which is always ready to help our clients

## Important features of Solid Air:

- Outstanding team, both field and office based
- Outstanding documentation for all of our products
- Revit BIM library allowing consultants and installers to design complete systems quickly
- Extensive website with selection software downloads for chilled beams and attenuators

## OUR CLIENTS INCLUDE:

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- Offices
- Education
- Healthcare
- Industry
- Retail
- Housing





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## Member of Nijburg Industry Group:

The Nijburg Industry Group is an organisation that provides air and climate technology solutions both nationally and internationally. The group is formed by Solid Air Climate Solutions, Velu Klimaattechnische Groothandel, Nijburg Klimaattechniek (air technology systems and installation company) and our own factory.

**Due to the synergy between the three business units, each with their own specialism, the Nijburg Industry Group is a much-sought-after partner for installers, housing corporations, industrial clients and shipbuilders.**

**Nijburg  
Industry Group:**

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

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