

**VASCO**GROUP

IT'S A VASCO GROUP  
RESPONSIBILITY

The most sustainable response to the energy transition

# AN ENERGY TRANSITION FOR A SUSTAINABLE FUTURE

**The time for talking is over. It is time to apply the extensive know-how that we have accumulated as a trendsetting player in our industry in our product development, so as to offer a response for the current energy transition, which will be good for the climate - and therefore for us. Although it may still seem a long time away, our energy supply needs to be obtained entirely from sustainable and renewable sources by 2050. So it is high time to take action. With our technical know-how, innovative products and production processes, Vasco Group is living up to its responsibilities more than ever in the endeavour to achieve a sustainable as well as aesthetically pleasing future.**

We are gradually reaching the end of the line for fossil fuels. They are literally finite, but often they harm the environment. Our shared goal is an energy-neutral society in which we meet our energy requirements in a sustainable way - without damaging the climate. This transition is already under way, but is scheduled to become reality in Europe by 2050 - and in some countries even in 2030. For buildings and homes this transition will mean, first and foremost, goodbye to gas. Gas-fired central heating boilers will be phased out, and often replaced by heat pumps, which will enable us to heat at lower temperatures in an efficient way. Heat pumps have tremendous advantages. This system in combination with solar panels will lower energy consumption, because the heat pump uses sustainably generated electricity. Maintenance is barely necessary and a heat pump has a long working life. CO<sub>2</sub> emissions are minimal and, if green electricity is used, even zero. Because heat pumps work at lower temperatures, they do require a different approach. A building or home needs to be well insulated to obtain optimal performance from the pump, and the heating or cooling via radiators and underfloor heating needs to be arranged differently. Vasco Group has suitable solutions for this. As a company, Vasco Group has much broader specialisations than just heating. Our extensive product range and technical expertise covers the entire indoor climate: design and panel radiators, ventilation, underfloor heating, cooling & heating. At Vasco Group, together with our partners, we can provide any well-insulated home optimally with an ideal and comfortable indoor climate.

We love using our know-how to make the energy transition energy-efficient, green, comfortable and above all sustainable. Together with our installers and energy professionals, who put the new comfortable living and working into practice every day.

*it's a Vasco*

## VASCO GROUP TOTAL SUPPLIER OF INNOVATIVE SOLUTIONS FOR A COMFORTABLE INDOOR CLIMATE



**Since we spend a large proportion of our time at home, our indoor climate has a substantial influence on our health and therefore our well-being. An optimal indoor climate gives a cosy, comfortable feeling, gives us energy and boosts our resistance. Vasco Group has been contributing to this for decades and provides innovative heating and ventilation solutions to give you an ideal indoor climate. Whether we are talking heating, ventilation or cooling, Vasco Group always has the right solution for you.**



Vasco Group's target is always the ideal indoor climate. When it comes to heating, our product range is versatile: Vasco offers aluminium, design, bathroom, electric and panel radiators. Suitable for low-temperature systems and, if necessary, in combination with central, district and hybrid heating and heat pumps.



For ventilation solutions in both new-build (compulsory) and renovation projects, Vasco also offers wide-ranging choices in quiet and energy-efficient systems. For heating and cooling, our Niva fan-coil unit is the ideal 2-in-1 solution. This convector works at low temperatures from 35°C upwards and can be combined with a heat pump. For underfloor heating, which is also ideal in combination with low-temperature radiators and heat pumps, our product range is just as broad.



Our underfloor heating systems are tailored to all sorts of different building situations, for new-build and renovation projects. So with Vasco, you are always certain of the most energy-efficient, user-friendly and convenient solution.





## AN ENERGY-EFFICIENT TOTAL SOLUTION

It is easier to achieve optimal energy performance coefficients (EPC) in new-build projects than in renovations. For both situations, Vasco Group offers solutions for achieving EPC reductions using a combination of systems, with energy-neutral as one of the possibilities. Good insulation and an energy-efficient ventilation system are the keywords here. These systems can be used to contribute to meeting new lower national energy consumption standards.

A well-insulated home does not have any 'leaking' (warm) air, thermal bridges or damp problems. To achieve this, it is essential to have a ventilation system that keeps the air quality constantly in balance. In a well-insulated building, underfloor heating may seem sufficient to maintain an even, comfortable temperature. But in practice, as the home's user and resident, the human factor must definitely be taken into account too. The feeling of warmth radiating from a radiator stimulates our human senses, just like an open fire or the sun. However, unpleasant airflows (draughts) make the indoor climate uncomfortable. That is why good design and maintenance of the ventilation system is an absolute requirement to achieve an optimal indoor climate.

All these factors are taken into account in the composition of our product range. A high-quality, versatile and innovative product range that offers a suitable response to technical and installation challenges in every situation.

Electric panel radiator

2IN1 Heating & Cooling fan-coil unit

Thermostat for Climate Control system

Des Steel design radiator

alu Aluminium design radiator

Ventilation air vents

Vasco EasyFlow ventilation air ducts

Electric bathroom radiator

Solar panels

Heat pump

Underfloor heating

Vasco ventilation unit

Vasco house

08

## LOW-TEMPERATURE RADIATORS

Energy-efficient heating with panel radiators



**If you want to optimally exploit the cost-cutting potential of your heating system, opt for low-temperature (LT) heating.**

A modern heating system must be sustainable and energy efficient. The general principle is the lower the supply temperature, the more efficient the heating system. Even at low water temperatures, radiators create pleasant, comfortable warmth. Radiators that work at a low supply temperature are the ideal combination with underfloor heating in well-insulated buildings. This combination brings the indoor climate into an optimal balance. Particularly under the influence of environmental factors (e.g. variable outdoor temperatures, radiant heat from electric appliances indoors, incident sunlight from large windows) the indoor climate remains even and constant.

*Verti M Line Superia*



*Brugman Piano Centric*

**Where a supply temperature of up to 75°C used to be needed, with low-temperature heating a supply temperature of 35°C-45°C will suffice. An LT heating boiler, heat pump or solar boiler functions flawlessly at these low supply temperatures and is energy-saving into the bargain.**

Thanks to the combination of convection and radiation, low-temperature radiators keep the air present moving. Air circulation ensures natural ventilation of the room. The result is a pleasant indoor climate which people need yet don't perceive as dry, as well as avoiding irritation of airways and eyes.

Good insulation is an important prerequisite for LT heating. Besides acoustic and thermal comfort, good insulation also ensures considerably lower energy consumption (as much as 30% less), due to more efficient use of the heating source.

In addition, the heating surface of the radiator must be sufficiently large to emit enough heat. Both our design radiators and our panel radiators have been developed to work without the slightest problem in a low-temperature system.

VASCO  
BRUGMAN  
SUPERIA

### THE ADVANTAGES OF LT HEATING:

**Heating more efficiently and using less energy**

In a well-insulated home, the heat requirement is quite a lot lower and LT heating can cut energy consumption by as much as 30%.

**Even heat distribution**

No annoying draughts or thermal bridges because the indoor air throughout the room, even at different heights, is at a constant, even temperature.

**Healthier indoor climate**

LT heating causes less suspended matter, due to the lower airflows caused by rising hot air. The air doesn't dry everything out and there is no dust vortex.

**Thermostat**

No need to turn down the thermostat when you go out or go to bed. Even better, by operating continuously, LT heating is more even and energy-efficient. Only if you will be away for a prolonged period, such as a holiday, is it recommended to turn down the thermostat.

superia  BRUGMAN 

VASCOGROUP

## SUPERIOR PERFORMANCE DUE TO INNOVATIVE HEATING TECHNOLOGY



### Maximum flexibility with 8 connectors

Vasco proves that low-temperature heating can also be beautiful with its FlatLine radiators. This elegant radiator with its flat front panel and white structural paint finish (S600) will enhance any interior. The FlatLine is available in a wide range of sizes and types. The water-bearing front panel is directly linked to the water channels. This not only has an aesthetic function, but also further increases the heat output, even in low-temperature systems.

Thanks to the 8 universal connectors and the integrated valve, Vasco's FlatLine is a flexible and easy-to-install heating solution. Particularly because for renovation work, the dismantling of the existing pipework is kept to a minimum. The convenient central connector means that the installation can be done extremely precisely. An additional advantage is that the supply of hot central heating water and the drainage of cooling central heating water happens optimally, so that the performance of the radiator is optimised too. The wall console is lockable for easy, fast and secure installation.

Water-bearing  
flat front panel



# SUSTAINABLE HEATING WITH ALUMINIUM DESIGN RADIATORS



Vasco Beams



ONI-NP ONI-P BEAMS BRYCE ALU-ZEN ZAROS MONO

Aluminium is particularly good at conducting heat and is totally recyclable. Vasco aluminium radiators are characterised by their high-quality, eye-catching design. These design radiators form a perfect combination with underfloor heating in low-temperature systems.



Bryce Mono



VASCO BRUGMAN SUPERIA

## CIRCULAR TRANSITION WITH ALUMINIUM

### Circular installation

Circular installation refers to the total life cycle of equipment and construction materials, with the emphasis on re-usability. In terms of materials, products must be recyclable according to the principle of the closed circuit. Vasco applies the cradle-to-cradle philosophy by using recyclable aluminium for its aluminium design radiators.

### High heat output

Due to rapid heat conduction and output, our aluminium radiators are excellently suited for low-temperature systems, such as condensation boilers, heat pumps or hybrid systems. In comparison with a conventional radiator, an aluminium radiator of the same size has a heat output that is about 30% higher. The energy saving with aluminium radiators can be up to 20%, depending on the conditions. Both aspects make aluminium a very attractive choice.

### Pleasant radiant heat

Aluminium conducts heat four times as well as steel, for example. Vasco's design radiators made of aluminium give out pleasant radiant heat on the front, and convect at the back. This means that the temperature of the supply water is used optimally.

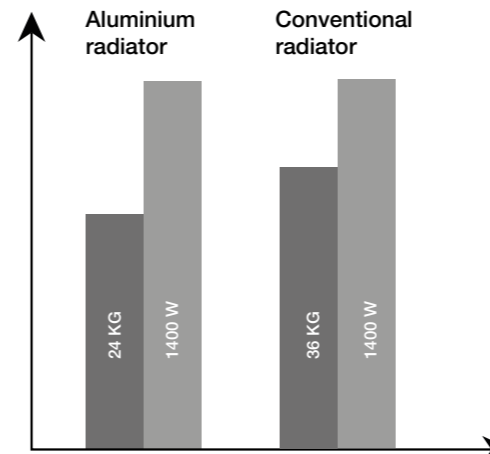
### Fast reaction time

The core of all Vasco aluminium radiators contains about 1.5 litres of water, compared with about 7 litres in conventional radiators. This makes the radiator's reaction time much faster.

### Silent operation

The patented Vasco system with pressed and seamless joints does not have any internal stresses. So there are no annoying ticking noises and no internal corrosion with aluminium radiators.

### Weight vs. heat output



	Weight	Heat output
Potential energy-saving		
due to reaction speed		✓
due to radiant heat		✓
due to low temperature		✓
Total		15-20%

ELECTRIC HEATING IS GREEN



Vasco Carré Bath



movement sensor  
control screen  
electric resistance

ELECTRIC RADIATORS, A SUSTAINABLE ALTERNATIVE

**Electricity is the energy of the future**

Due to the sun, wind and water, there is an inexhaustible supply of electricity, without the environmentally harmful emissions associated with fossil fuels. This green electricity is therefore an excellent alternative for a comfortable and above all sustainable indoor climate.

**Heating comfort and functionality**

A low-temperature system with underfloor heating and electric radiators is sufficient to heat well-insulated buildings energy-efficiently to a constant, pleasant temperature. Without compromising on comfort and functionality. It's only human to enjoy pleasant radiant heat. So a Vasco electric bathroom radiator is the perfect solution. And especially if there is green electricity available, this radiator is barely counted in calculating energy performance coefficients in some national systems, while providing maximum heating comfort.

Of course, Vasco's electric radiators meet the latest energy-saving guidelines under the European Eco-Design standard, such as weekly and daily programming, consumption indicator, presence and open window detection.



Blower



E-Volve



E-Panel







## ULTRA-QUIET VENTILATION FOR RESIDENTIAL AND PROJECT APPLICATIONS

### A healthy indoor climate starts with Vasco ventilation

Comfort and well-being in our living and working environment is not only due to a constant, pleasant indoor temperature, but above all to the air quality. Healthy, clean air is a decisive element of our quality of life, just like clean drinking water. Particularly in today's well-insulated buildings, constant ventilation with clean air is essential. The European Energy Performance of Buildings (EPB) standard sets strict requirements for ventilation of homes and buildings and associated heat losses. Of course, our ventilation systems meet these requirements. So we not only make sure that the air quality and energy performance is optimal, our systems also have a positive impact when calculating energy performance according to national standards.



D275 II / D275EP II



D150EP II



D350 / D425 (Belgium)  
T350 / T500 (The Netherlands)  
X350 / X500 (Germany & Poland)



DX4 / DX5 / DX6 (Belgium & The Netherlands)



### Installation plan and price quote

The flow rate calculation for hygienic ventilation in homes is worked out in accordance with the prevailing standards. These make a distinction between 3 types of room: supply, exhaust and through-flow rooms. The air balance is determined by the total of the flow rates in the various supply and exhaust rooms. Based on this, Vasco develops a detailed installation plan and price quote.

## VASCO VENTILATION WITH HEAT RECOVERY

The new DX generation rates highly on all important aspects: highly efficient performance, ultra-quiet operation, extraction of damp and dirty air, all without losing heat. The result is clear: the new generation DX units are the reference when it comes to efficient and quiet ventilation. During development, particular attention was paid to ease of installation for installers. The result is that DX units can be installed either horizontally or vertically. In addition, the front and the rear are reversible and they have 2 interior connectors, top and bottom.

DX units are equipped as standard with the completely-upgraded Octagon heat exchanger and ultra-silent fans, which means that they lose the least possible heat and energy.



## UNDERFLOOR HEATING & RADIATORS, AN IDEAL COMBINATION

Whereas there is a widely held view that in well-insulated homes, underfloor heating is adequate for creating a pleasant and energy-efficient indoor climate, we always recommend a combination of underfloor heating and radiators. Underfloor heating ensures constant, even heat distribution, while radiators offer immediate heating comfort through their pleasant radiant heat and fast reaction time.

By combining underfloor heating and radiators, you will enjoy a comfortable indoor climate. Underfloor heating serves as basic heating, while radiators provide that quick, extra heat. Due to the weather-dependent adjustment of your condensation boiler, you can set up two separate heating systems depending on the outdoor temperature. So you would leave your underfloor heating operating at a temperature of 30 to 45°C, while the radiators would operate at a higher temperature. Moreover, it is possible to provide cooling with an underfloor system.

## VASCO UNDERFLOOR HEATING, OPTIMAL HEATING COMFORT AT LOW TEMPERATURE

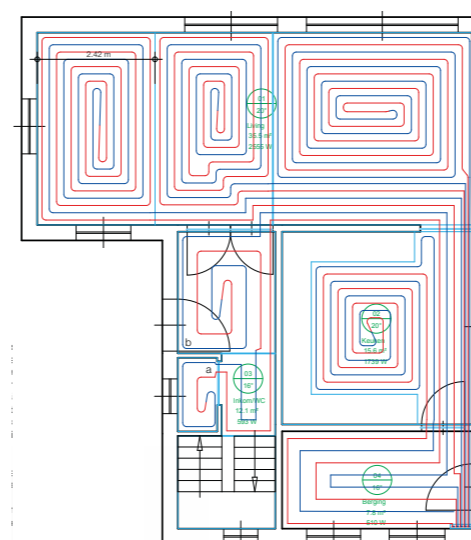


### Energy-efficient heating with underfloor heating

The answer to this question is simple: yes. But it is even more energy-efficient in combination with radiators, because then we can really heat at low temperatures, without compromising on comfort. The temperature of the heating water in this kind of solution in principle never exceeds 45°C, which means we need less energy. And because floors not only retain their heat for a long time once they have reached the right temperature but also distribute it, you can feel it in the whole room. In combination with low-temperature radiators and/or fan-coil units, the indoor climate can be adjusted more accurately and flexibly than ever. With more efficient use of energy.

### Technical advice and support

A heat loss calculation is worked out according to European standard EN 1283. The heat losses of a room consist of transmission and ventilation losses. Based on these, the required heat output is defined to achieve the target comfort temperatures. The underfloor heating calculation determines the water temperature and flow rates, the pipe diameter, the number of circuits and circuit lengths the installation distances and the expansion joints. Based on the underfloor heating calculation, Vasco develops a detailed installation plan.



## ENERGY-EFFICIENT HEATING & COOLING

Heat pumps are rapidly gaining in popularity. Both in existing and new homes and buildings. A heat pump not only benefits from its low operating temperatures and energy efficiency. This solution is ideal in combination with fan-coil units that can both heat and cool. Vasco's fan-coil units can create an optimal, pleasant indoor climate in summer and winter.

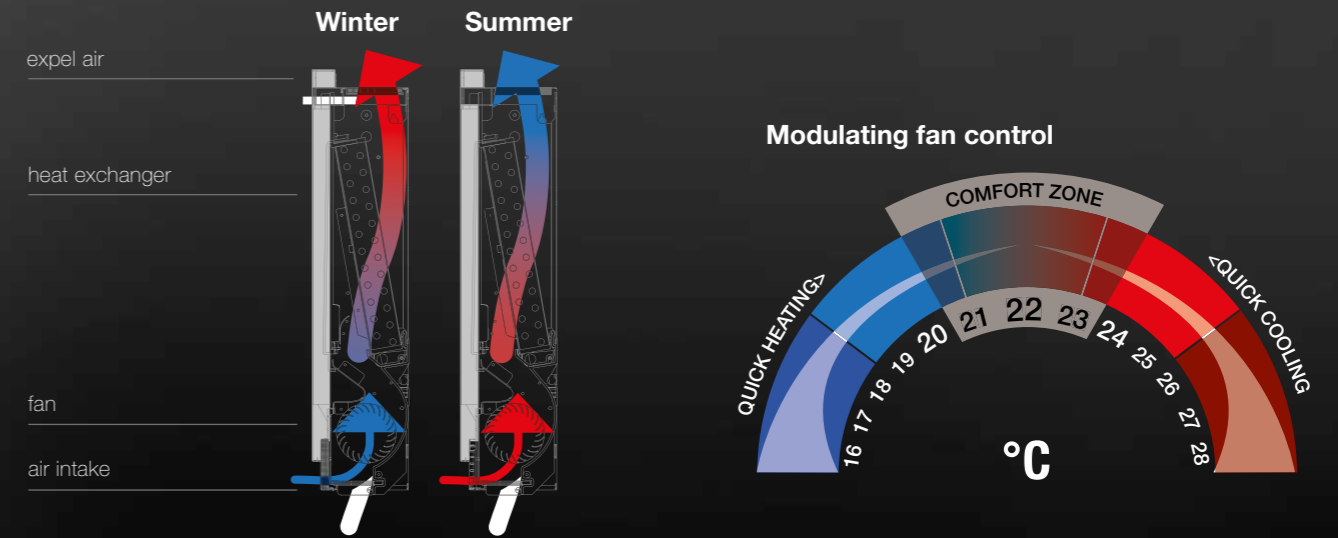


Niva fan-coil unit

The Niva fan-coil unit is fitted with a heat exchanger with fins and an integrated fan. The fan operates at low water temperatures to 40°C, which is an ideal match for energy-efficient heat pumps. The cooling water temperature of the heat pump is optimally used too. Due to this dual operation, they contribute to the energy-saving operation of the heat pump which uses water temperatures of 7 to 12°C. The ideal solution during cool winters and hot summer nights!









### The ideal 2-in-1 solution

The fan-coil unit can cool a room quickly and energy-efficiently (from 28 to 24°C) or heat it (from 18 to 22°C). This makes the system a perfect solution for bedrooms, for example, as well as rooms with large windows such as family kitchens. Air is taken in on the underside, and cooled or heated in the heat exchanger. The fan brings this air in the room at the desired temperature.



Vasco Niva fan-coil units are supplied with DC fan motors. This not only gives even lower energy consumption, but also ultra-quiet operation. The copper and aluminium heat exchanger guarantees high performance. Control via the integrated display is intuitive and simple, and the fan control modulates over a wide comfort range. The Niva is connected to insulated pipes to save energy and avoid formation of condensation.



-   
 The ideal 2-in-1 solution
-   
 Ideal in combination with heat pump
-   
 For low water temperature systems
-   
 Ultra-quiet operation
-   
 Modulating fan control
-   
 copper/aluminium heat exchanger
-   
 Energy-efficient operation
-   
 Touch display with intuitive operation

# VASCO CLIMATE CONTROL MORE COMFORT, LESS ENERGY

## Adjust your indoor climate with the Vasco Climate Control system

Vasco Climate Control is simple and user-friendly, with 4 standard profiles and individually programmable daily patterns per room. The system also takes account of weather conditions, as well as previous measurements and individual settings. This keeps energy consumption to a minimum, without compromising on comfort! Climate Control controls all Vasco radiators, ventilation and underfloor heating in combination or separately, in 1 or multiple heating zones. This is done via the Vasco Gateway, which sets up a wireless link to the Internet and the various components and modules.



CREATE THE IDEAL  
INDOOR CLIMATE

RADIATORS  
VENTILATION  
UNDERFLOOR HEATING

### Efficient climate control

Radiators, underfloor heating and ventilation are connected to each other via the Vasco Climate Control, but the system also makes it possible to control the various systems individually. The Vasco Gateway sets up a wireless Internet connection.

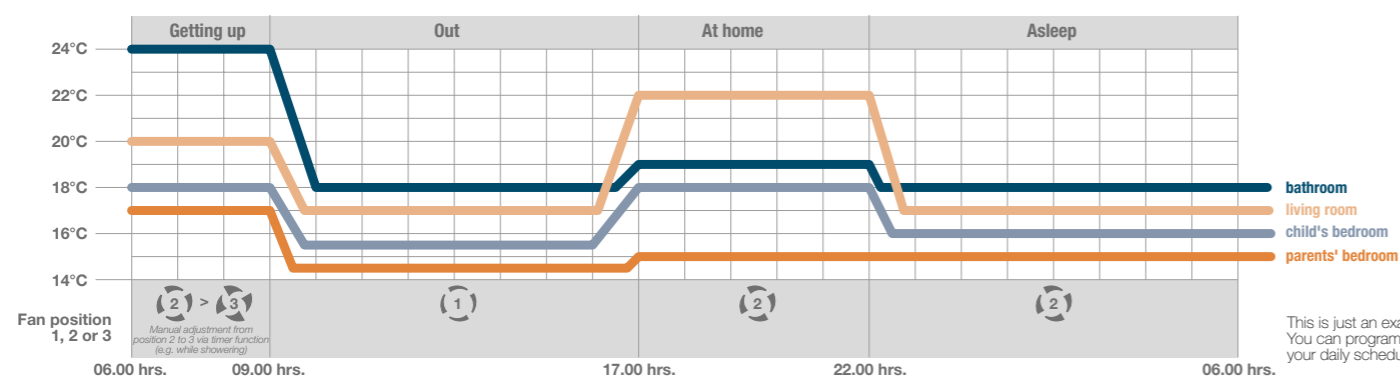
- Radiators are controlled by digital RF thermostat knobs
- Ventilation is supported by wireless RF switches
- Underfloor heating is controlled by the underfloor heating controller with zonal control



Vasco Climate Control app can be downloaded free for iOS and Android.



Temperature and ventilation control according to your individual lifestyle



Niva Soft Vasco

## SUSTAINABLE & FORWARD- LOOKING INVESTMENT IN A NEW CIRCULAR ECONOMY

In the context of circular construction, Vasco Group is committed to adopt more energy-efficient solutions, renewable energy and sustainable materials, without compromising the comfort of the indoor climate. For years, the sustainability aspect has been a central focus of our R&D into innovative products, business processes and investments. Vasco Group doesn't only operate in the residential sector. Our heating and ventilation solutions have established themselves over decades in the international project market in Europe.



Materials



Solar energy



Wind energy



Project market

# STRIVING TOGETHER FOR A SUSTAINABLE FUTURE

Smart modern homes and buildings are not just energy neutral, but also generate energy. All the conditions for optimum indoor comfort are increasingly monitored and controlled interactively by intelligent, self-adjusting applications that reflect our lifestyles.

If we use our common sense and not allow ourselves to be swayed by habits and emotions, we must acknowledge that anyone can contribute to a more sustainable world.

Making use of sustainable energy sources such as wind, water, sun and geothermal energy, we can all have a positive impact on the climate. In that way, we can strive together for a sustainable future, which Vasco Group is already working on.

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# VASCOGROUP

RADIATORS | VENTILATION | UNDERFLOOR HEATING | COOLING

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