Cinier
Radiateurs contemporains

Greenor

Top energy-efficient heating & cooling fan coil technology

for low-temperature systems

The **Art** of Heating

Michel Cinier

Greenor
ROSEGREY

Cool Comfort:

A constant flow of eco-friendly cool air (refrigerant-free) for a draft-free comfort and cooling sensation.

Warm Comfort :

The Greenor® fan coil saves energy while optimizing low-temperature heating systems (water at 50°C/ 122°F) operating with heat pumps using renewable energy or condensing boilers.
Its unique concept offers comfort, high-end design and top-efficiency.

Greenor
CHEYENNE

A one-off custom made piece
to dress-up your interior …

Greenor
TRIBAL

For low-temperature systems

Greenor®, a product engineered for low-temperature systems able to operate with different heating systems: conventional boiler, heat pump, chiller, or solar and geothermal energy.

Key benefits:

Technology and Quality

Driven by their passion for excellence in technology and in design, Ateliers Cinier have dedicated two full years in R&D to conceive and create a trend-setting and innovative product meeting today's environmental requirements in terms of energy efficiency and using renewable energy for the highest quality in indoor heating and cooling.

The direct result is the launch of the first ever reversible fan coil product combining top energy-efficiency and unique design to optimize low-temperature systems using renewable energy: Greenor®

Greenor® is a concentrate of technology in a fan coil and features:

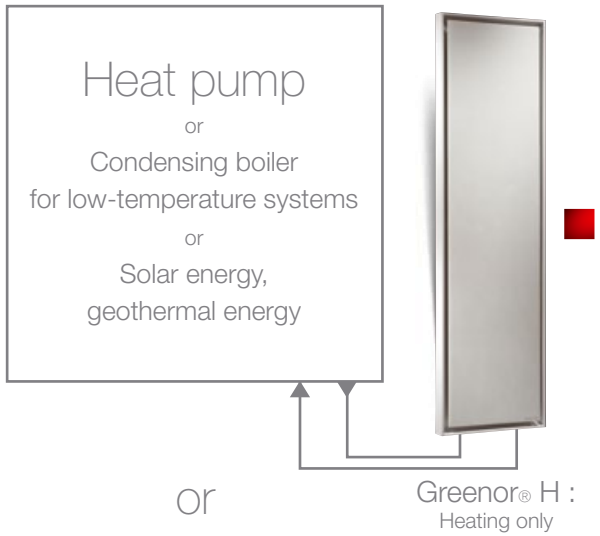
- a high-performance heat exchanger made from copper and aluminium
- a low-voltage transformer delivering an average energy consumption of 10 watts to power the fans
- 3 operating speeds
- an auto-regulator to maximize the ratio of energy output to the surface area
- a remote control
- a 3-way bypass valve
- a radiant, decorative and interchangeable front panel in Olycale® stone
- a high-quality steel frame in a white, gray or black color finish

Environmentally friendly

The Greenor® fan coil circulates chilled or low-temperature water (55°C/122°F) through a coil for indoor cooling or heating using renewable energy generators (biomass energy, heat pumps, chillers or condensing boilers) for low-temperature systems.
Unlike the traditional air conditioning systems, Greenor® is refrigerant-free for a better respect of the environment.

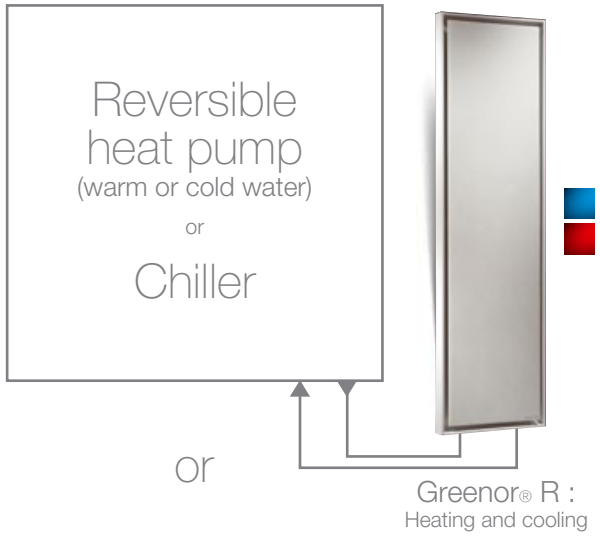
Powerful

Greenor® is also engineered to operate with conventional boilers (water at 70°C/158°F, 75°C/167°F or 80°C/176°F). In such applications, it operates strictly as a very powerful radiator delivering an energy output up to 3740 W./12760 Btu/h – measured according to the EN442-2 norm.



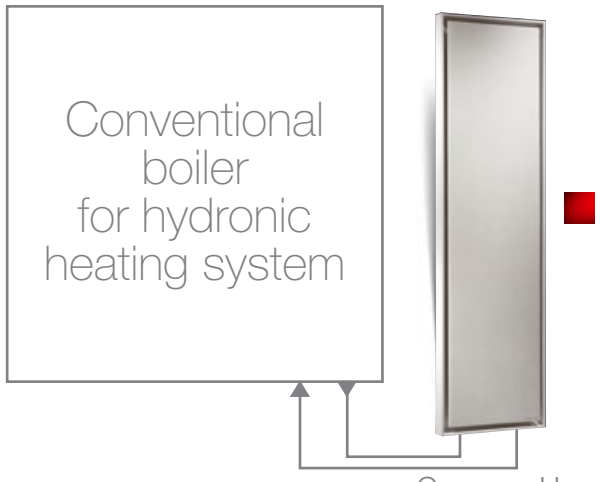
or

Greenor® H :
Heating only



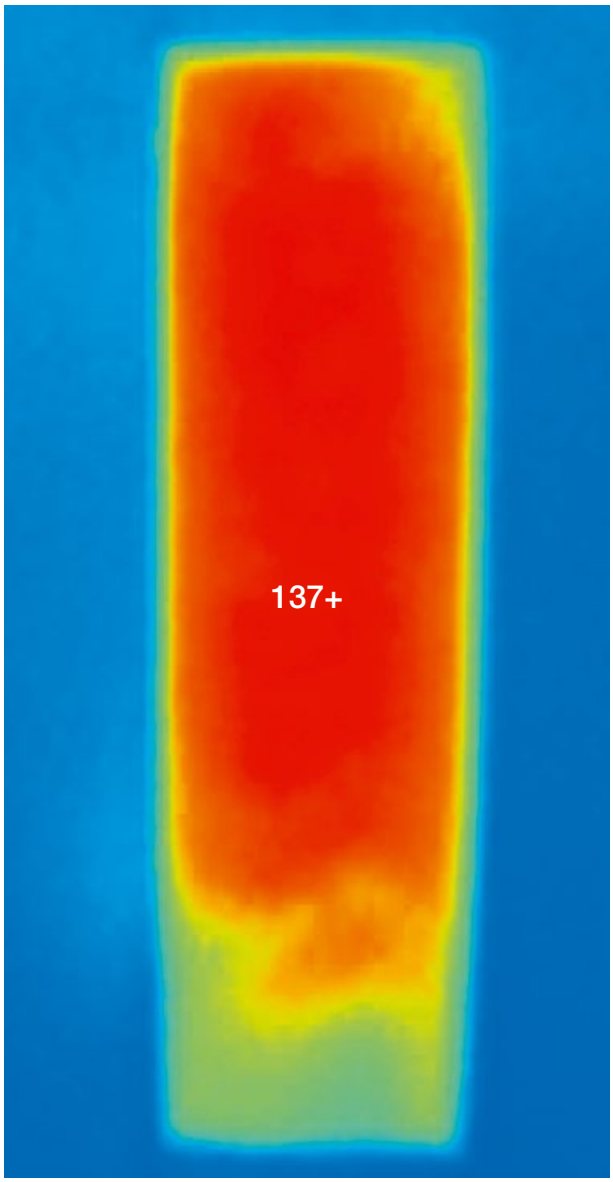
or

Greenor® R :
Heating and cooling



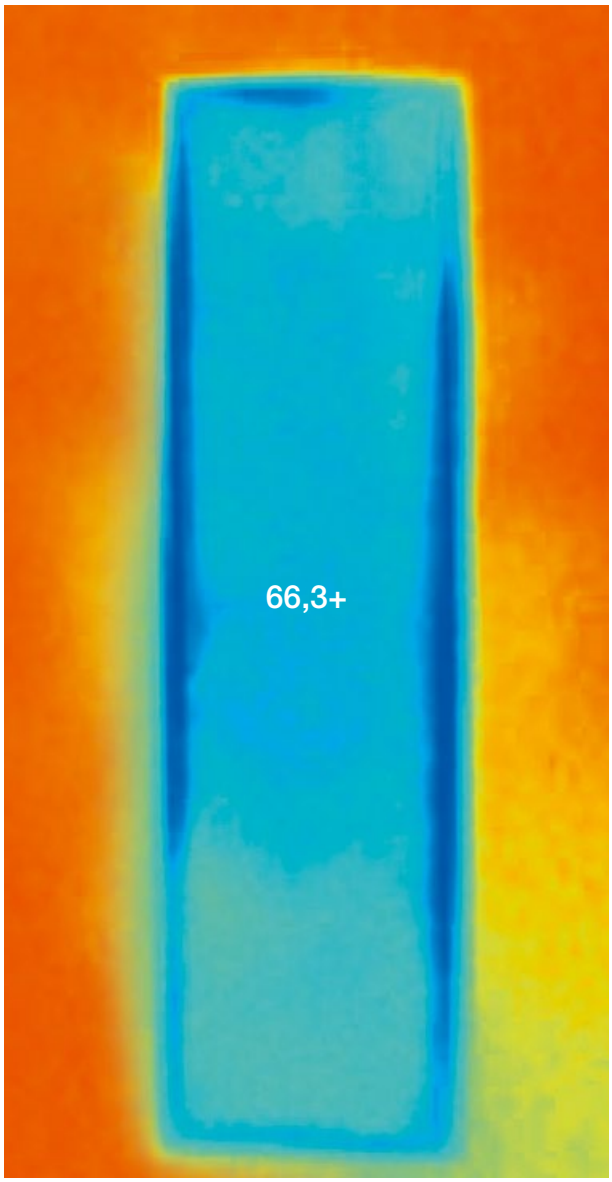
Greenor® H :
Heating only

Engineered Comfort



Infrared picture «Warm »

Infrared Fluke camera showing the Incoming water at 46°C/ 114°F



Infrared picture «Cold»

Infrared Fluke camera showing the Incoming water at 7°C/44.6°F

An innovative way to distribute heat:

The diffused flow of warm air is distributed over a perimeter of 16,1 Ft / 492 cm.
A warm radiant front panel in Olycale® stone allows greater comfort and higher energy-efficiency. Horizontal distribution of the even-flow substantially reduces the vertical temperature difference between the floor and ceiling unlike what is observed with standard convection systems. It creates nearly no dust movement and no unsightly marks above the radiator.

An innovative way to distribute cool air

The draft-free flow of cool air is distributed over a perimeter of 16,1 Ft / 492 cm.
A cool radiant front panel in Olycale® stone allows greater comfort and higher energy-efficiency.
It creates nearly no dust movement and no unsightly marks above the radiator.

What makes the difference:

- 11,5cm / 4-1/2” thick : the slimmest fan coil on the market.
- Optimal energy-efficient solution for low temperature systems using renewable energy (heat pumps, condensing boilers, chillers)
- Horizontal draft-free and diffused even flow of warm or cool air distributed over a 492 cm perimeter/16.1 feet. No sensation of draft.
- A radiant front panel in Olycale® stone for greater comfort and higher energy-efficiency
- 3 operating speeds
- International patent # PCT/FR2010/00321
- Ideal for large areas
- Reversible fan coil for total comfort all year around
- Energy consumption divided by 3 compared to a conventional fan coil; average total energy consumption: 10W
- Inverter automatically adjusts the energy output to the surface area, also includes a remote control and a 3-way bypass valve.
- Quiet, (see chart of pressure levels below)
- Easy to maintain: filters can be cleaned in less than 10 seconds
- Hand-finished one-off pieces
- Front panels can be custom-made upon client’s own design.
- Decorative stone panels in Olycale® stone can be easily changed without taking any mechanical element apart.
- Made in France at the Ateliers Cinier

Energy-efficiency

The Greenor® delivers multiple energetic benefits

- Energy consumption divided by 3 compared to a standard fan coil. The low-voltage transformer with only 10 Watt of energy consumption is sufficient to power the fans
- Integrated 3-way bypass valve for a constant water flow
- In Winter, ventilation begins when water temperature reaches 30°C/86°F to avoid any diffusion of cool air.
- The low flow of warm or cool air can be adjusted as it is evenly distributed all around the perimeter of the front panel in Olycale® stone.
  It substantially reduces the vertical temperature difference between floor and ceiling unlike what is observed with standard convection systems. It allows more comfort and generates significant energy savings.
- A Radiant front panel in Olycale® stone for greater comfort

Applications:

To replace hydronic radiators or fan coil systems

New installations

Residential & Commercial Applications:

Single family homes

Apartments

Restaurants, boutiques, hotels

Lobbies

Offices

… and where architecture wants to meet energy efficiency, comfort and modern design aesthetic.

Greenor® is available as a reversible heating and cooling system or as a heating system only.

Thermostats: control and simplicity

Options of :

- The infrared remote control: easy to use

Choose your operating speed

Choose your room temperature set point

Program your ideal room temperature

- Hand/hard-wired control panel: easy heating and cooling control

Choose your operating speed

Control your room temperature set point

Control one or several Greenor® with one unique control panel

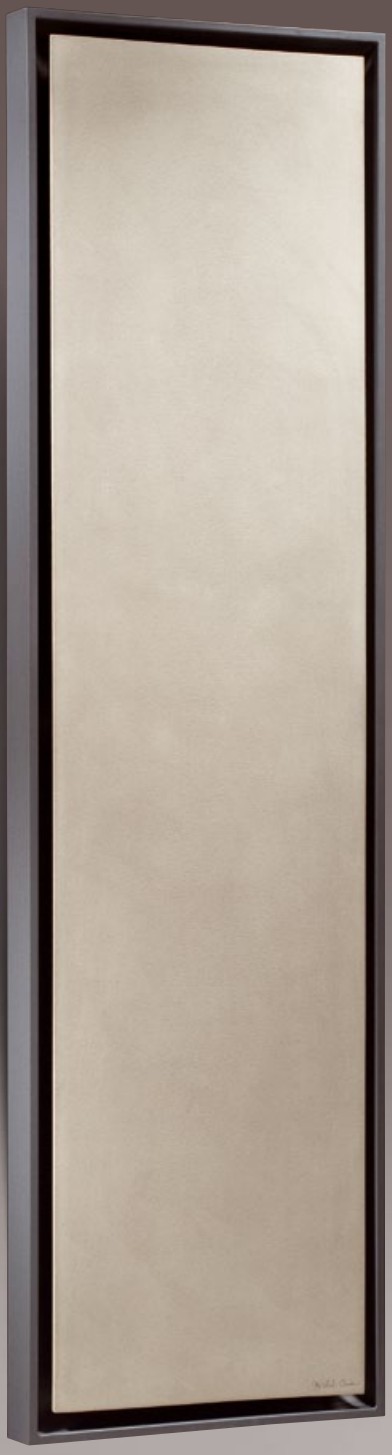
The IR remote control can also program all the Greenor® linked to the same control panel

Greenor©
FAN COIL

Greenor UNIS
by **Michel Cinier**

Simplicity and minimalism.

Also available in Gray Quartz and Olycale White finish.
Other finishes upon request.



Greenor
UNIS
BLANC

Greenor
UNIS
GRIS QUARTZ

Greenor©
FAN COIL

Pure and minimalist, the hand-finished blue waves dance between sky and sea on an ocean blue background.

The brown ochre symbolizes the clay of the earth.

Greenor
UNIS
BLEU PATINE

Greenor
UNIS
OCRE BRUN PATINE

Greenor CONTEMPORARY

by **Michel Cinier**

SCULPTURAL

Architectural sensitivity.

Sculptural and dressed in red, contemporary design by Michel Cinier.
Also available in Olycale white and other finishes upon request.

JEUX D'OMBRES

Games of Shadows.

Where light and shade play games.

Greenor
SCULPTURAL
ROUGE

Greenor
JEUX D'OMBRES
GRIS QUARTZ

Greenor©
FAN COIL

ECUME

A minimalist design for this very contemporary piece where the purest lines are hand-drawn directly on the stone.

We recommend renderings in white Olycale stone or in slate gray.

ORIGINE

Making sense of the raw material, echo of a vision of the world as felt by the artist.

Greenor
ECUME
BLANC OLYCALE

Greenor
ORIGINE
IVOIRE

Greenor ONE-OFF COLLECTION

by **Johanne Cinier**

Each one-off piece is created by artist Johanne Cinier.
Upon special order and together with the artist, you can create your own personalized Greenor.

CHEYENNE

With reference to Cheyenne traditions, this one-off design is organized in a series of rhythmical and colourful structural patterns. Black and deep blue with accents of powerful greens, symbol of the prairie, home to the Cheyenne.

AMADHY

This imaginary blue-tinted garden of serenity, Amadhy, shows raw elements bursting like a thirst-quenching spring.

Greenor CHEYENNE

Greenor AMADHY

Greenor©
FAN COIL

TRIBAL

Mineral Inspiration.

DOCK GRANIT

Using an overlay of bright and deep reds with a white finish patina that reflects a gray sheen, Dock Granit portrays the marriage of the post industrial era with the world of minerals.

Greenor
TRIBAL

Greenor
DOCK GRANIT

Greenor ONE-OFF COLLECTION

by **Johanne Cinier**

ROCK

An explosion of high-voltage colors in this very New-York graffiti-inspired creation.

BARCELONA

Powerful profusion of colors … inspired by challenge, courage, physical strength and mental energy.

Greenor ROCK

Greenor BARCELONA

Greenor©
FAN COIL

HAWAII

Floral, invigorating.

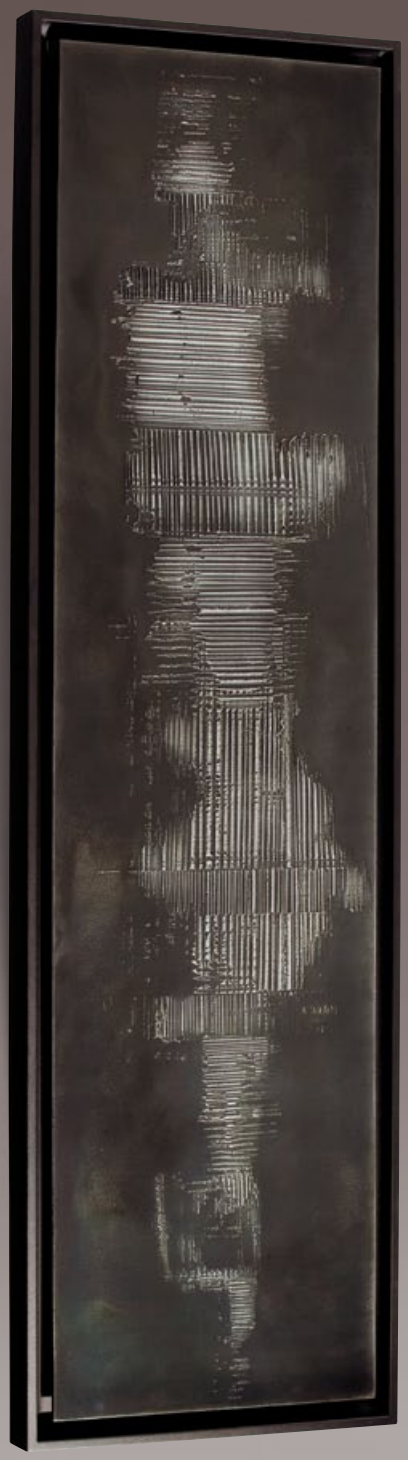
ROSEGREY

Inspiration, substance, creation.

Greenor
HAWAII

Greenor
ROSEGREY

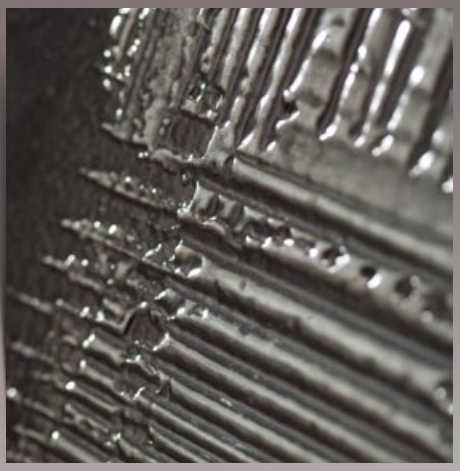
Greenor TITANE
by **Johanne Cinier**



TITANE SILVER
TITANE BRONZE

2 exceptional pieces.

Fusion and matter for a unique metal finish.



Greenor©
FAN COIL

Greenor
TITANE BRONZE

Technical Data

Greenor® reversible heating and cooling system

Ref : **Greenor R**

A/* Temperature : 7/12°C - 70/60°C eq. 44°/54°F - 158°/140°F

Speed	Air flow (cfm)	Energy consumption (W/h)	Energy output Heat mode W / Btu/h	Energy output Cool mode W / Btu/h	Load loss factor (kpa)	Sound pressure dB (A)	Sound power dB (A)
V1 - Mini	73,6	6	1500 / 5118 ■	600 / 2047 ■	6,2	14,3	28,3
V2 - Moy.	122,13	10	2500 / 8530 ■ ■	1200 / 4095 ■ ■	5,6	25,5	39,5
V3 - Maxi.	174	17	3300 / 11260 ■ ■ ■	1600 / 5459 ■ ■ ■	14	35,7	49,7

B/** Température : 7/12°C - 50°C eq. 44°/54°F - 122°F

Speed	Air flow (cfm)	Energy consumption (W/h)	Energy output Heat mode W / Btu/h	Energy output Cool mode W / Btu/h	Load loss factor (kpa)	Sound pressure dB (A)	Sound power dB (A)
V1 - Mini	73,6	7	900 / 3070 ■	600 / 2047 ■	1,6	14,3	28,3
V2 - Moy.	122,13	11	1500 / 5118 ■ ■	1200 / 4095 ■ ■	5,6	25,5	39,5
V3 - Maxi.	174	17	2040 / 6961 ■ ■ ■	1600 / 5459 ■ ■ ■	9,4	35,7	49,7

Required water flow: 1.28 GPM
Power supply: 120 V - 60 Hz for the US and Canada markets. 220 V - 50Hz for the others markets.

Performance tested under the following conditions:

A* : Heat mode : room temperature 20°C-68°F, inlet water temperature 70°C-158°F – delta T water 10°C-50°F
A* : Cooling mode : room temperature 27°C-80.6°F, inlet water temperature 7°C-44.6°F – delta T water 5°C-41°F
B** : Heat mode : room temperature 20°C-68°F, inlet water temperature 50°C-122°F

Air flow sound level measured using a reverberating room at a distance of 1m - 39" from the device.
Energy performances and technical data controlled and tested by TUV laboratories, Munich, Germany.
Test report N°FCP106-1 as per Eurovent standards and regulations 6C/002-2007.
European norms - Electromagnetic Compatibility (EMC) and Electrical safety – low voltage (LVD) controlled by TUV laboratories, France.

Greenor® Heating System

Ref : **Greenor H**

A/* Température : 75°/65°C eq. 167°/149°F

Speed	Air flow (cfm)	Energy consumption (W/h)	Energy output Heat mode W / Btu/h	Load loss factor (kpa)	Sound pressure dB (A)	Sound power dB (A)
V1 - Mini	67	6	1700 / 5800 ▪	2,6	14,8	28,8
V2 - Moy.	114	10	2750 / 9383 ▪▪	5,7	25,6	39,6
V3 - Maxi.	170	17	3740 / 12761 ▪▪▪	10	35,7	49,7

B/* Température : 55°/45°C eq. 131°/113°F

Speed	Air flow (cfm)	Energy consumption (W/h)	Energy output Heat mode W / Btu/h	Load loss factor (kpa)	Sound pressur dB (A)	Sound power dB (A)
V1 - Mini	67	7	830 / 2832 ▪	0,9	14,8	28,8
V2 - Moy.	114	10	1500 / 5117 ▪▪	1,6	25,6	39,6
V3 - Maxi.	170	17	2200 / 7506 ▪▪▪	3,2	35,7	49,7

Required water flow: 1.28 GPM

Power supply: 120 V - 60 Hz for the US and Canada markets. 220 V - 50Hz for the others markets.

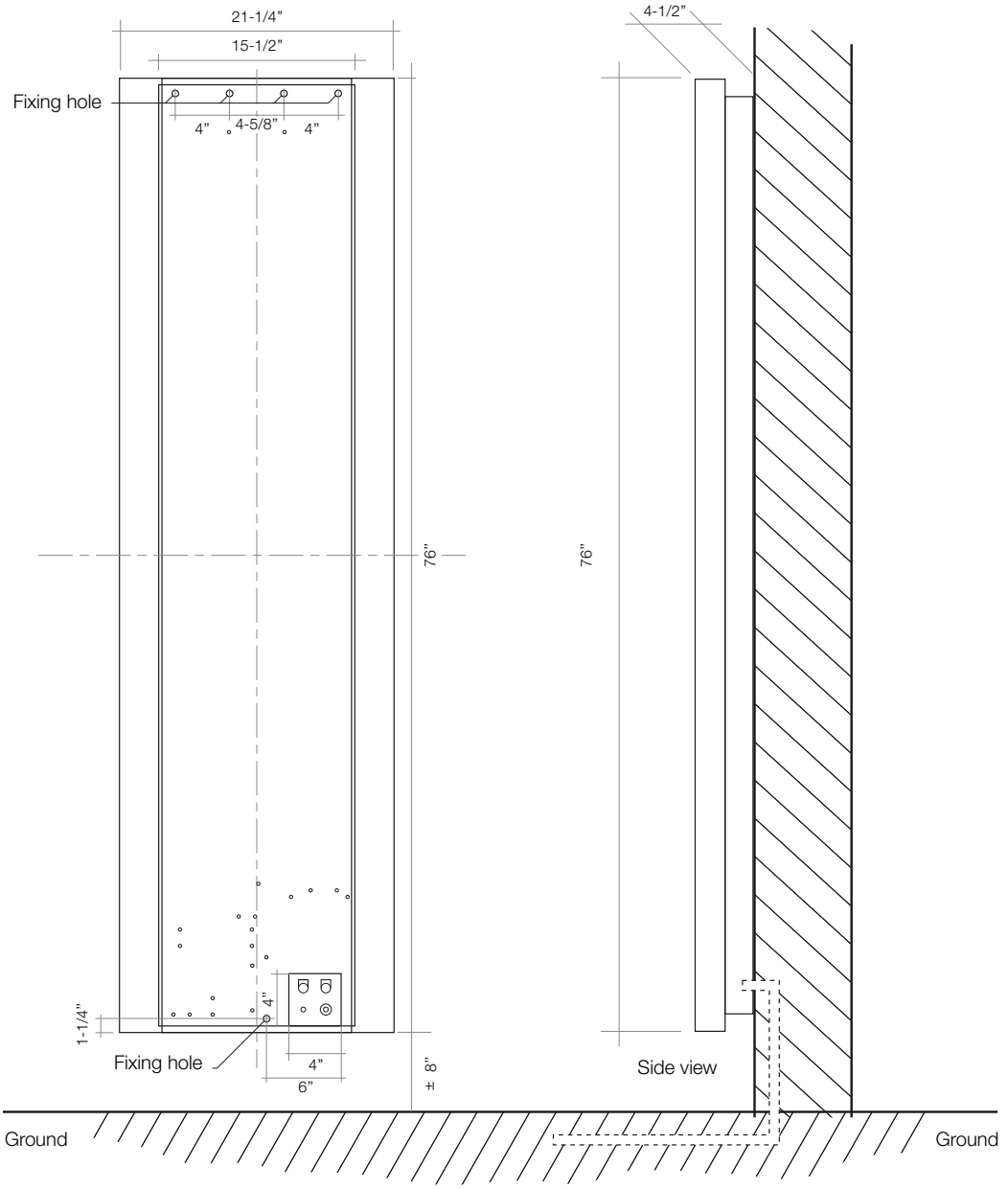
Performance tested under the following conditions:

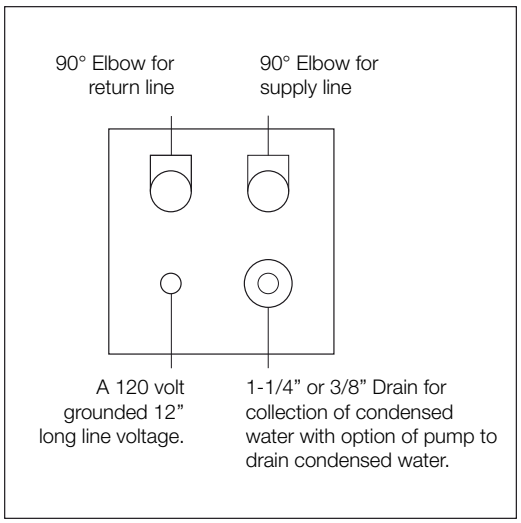
A* : Heat mode : room temperature 20°C-68°F, inlet water temperature 75°C-167°F – delta T water 10°C-50°F
B* : Heat mode : room temperature 20°C-68°F, inlet water temperature 55°C-131°F

Air flow sound level measured using a reverberating room at a distance of 1m - 39" from the device.
Energy performances and technical data controlled and tested by TUV laboratories, Munich, Germany.
Test report N°FCP106-2 as per Eurovent standards and regulations 6C/002-2007.
European norms - Electromagnetic Compatibility (EMC) and Electrical safety – low voltage (LVD)
controlled by TUV laboratories, France.

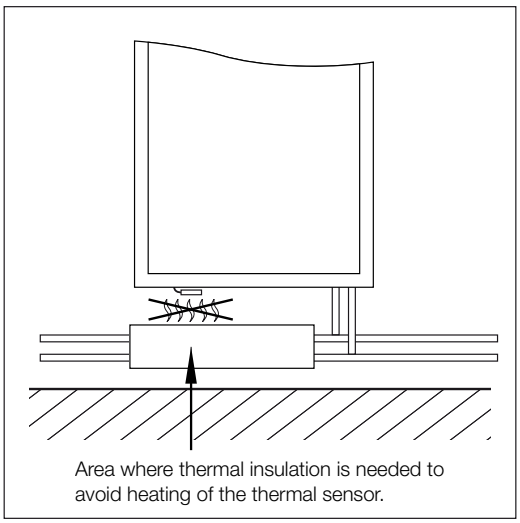
Greenor®
FAN COIL

Technical drawings & Connections





Connections for a concealed installation



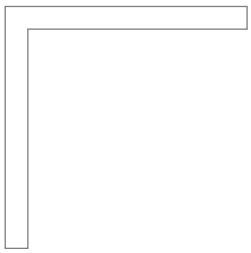
Connections for an exposed installation

Craftsmanship and creativity

Hand-finished with natural pigments
Each piece is on special order

Colors and finishes

High-quality sanded steel-frame available in:



White

Gray

Black

UNIS SCULPTURAL

Custom-finish available upon request

* sea effect

White Olycale | C8

Ivory* | C7

Sienna | C23

Brown Ochre* | C1

Gray Quartz | C9

Prussian Blue* | C20

Deep Red | C19

Anthracite Gray | C5

GAME OF SHADOWS

Custom-finish available upon request

Gray Quartz | C9

Ivory | C7

Ochre Provence | C3

ORIGINE

Custom-finish available upon request

Gray Quartz | C9

Ivory | C7

Brown Ochre | C1

Titane | C17

Main characteristics:

Fan coil with very high energy efficiency, mounted on a thermo-lacquered steel frame with a decorative front panel in Olycale® stone:

- Smooth finish (Unis collection)
- Sculpted finish (Contemporary collection)
- Designer finish («one-off» collection)

Extra quiet

Ideal for low-temperature systems or if high output is required

Detailed characteristics:

- Dimensions : 1900 x 540 mm - 74-3/4" x 21-1/4"
- Weight : 51 to 58 kg – 122 lbs
- Fan motor's average energy consumption: 10 W
  3 speeds for manual or automatic ventilation
- Power supply:120 Volts
- Heat energy output with inlet water at 75°C/ 167°F: 3740 W-12761 Btu/h
- Heating output with inlet water at 50°C/122°F (low temp.): 2040 W-6961Btu/h
- Cooling capacity with inlet water at 7°C/44°F : 1600 W-5460 Btu/h
- Eco-friendly water circulation (refrigerant-free)
- Very quiet, the airflow is distributed over a perimeter of 16.1 feet around the high-quality steel frame. No sensation of draft.
- A warm radiant front panel in Olycale® stone allows greater comfort and higher energy-efficiency.
- Easy to maintain: filters can be cleaned in less than 10 seconds
- High quality materials:
  8 low voltage EBM-Papst fans
  a 3-way bypass valve
  Copper tube of the heat exchanger lined with aluminium band.
  Electronic control.
  High-performance filters
- French craftsmanship developed in Ateliers Cinier.

Included Accessories:

- 2 flexible hoses to connect to the system
- 1 IR remote control (in black or white)
- 1 cleaning accessory to attach to the vacuum cleaner

Installation requirements:

- The unit must be handled by two persons

WARNING: Electric shock hazard can cause injury or death. Before attempting to install the unit, turn OFF the electrical power.

- Supplies needed for an easy and successful installation:

  Raw-plugs, screws, collars and all necessary fasteners adequate to bear the 61kg/134.50lb weight of the radiator.
  Clamping, fastening and connecting tools (including elbows, flat joints, wires…) and miscellaneous hardware.

- Greenor® must have at least a 15 cm/6" clearance on each side of the radiator (floor, ceiling, wall) and at least 50cm/ 20" in front of the panel.

- When positioning the appliance, make sure the air intakes are free from obstructions and far enough from potential hazards such as curtains.

- Greenor® must not be installed below a power outlet.

- Water inlet (drawing 1&2).

- The incoming heating water is set at a maximum temperature of 80°C/176°F.

- The incoming cooling water is set at a minimum temperature of 7°C/44.6°F.

- The maximum service pressure is: 101 PSI -700kPa or 7bar.

- Do not forget :

  The unit must be installed in a position where there is sufficient strength in the structure to support the weight of the unit.

  Two male ½" 90° bend fittings with flat joint to hook up the flexible hoses (2 extensible flexible hoses are furnished with the radiator.).

  A drain for the condensation (for reversible systems' installation).

  A grounded monophase power supply 120V/60Hz.

  Connect the unit to the N & L terminals with a flexible wire cable of .15" to .31" inches diameter. One 5 cm/16" diameter grounded electrical wire is used to connect the Greenor® to the line, neutral and ground of the 120 V power supply.

  The unit can be installed using any other method considered appropriate by the installer, providing it is in accordance with current legislation and local building codes.

Easy to Maintain

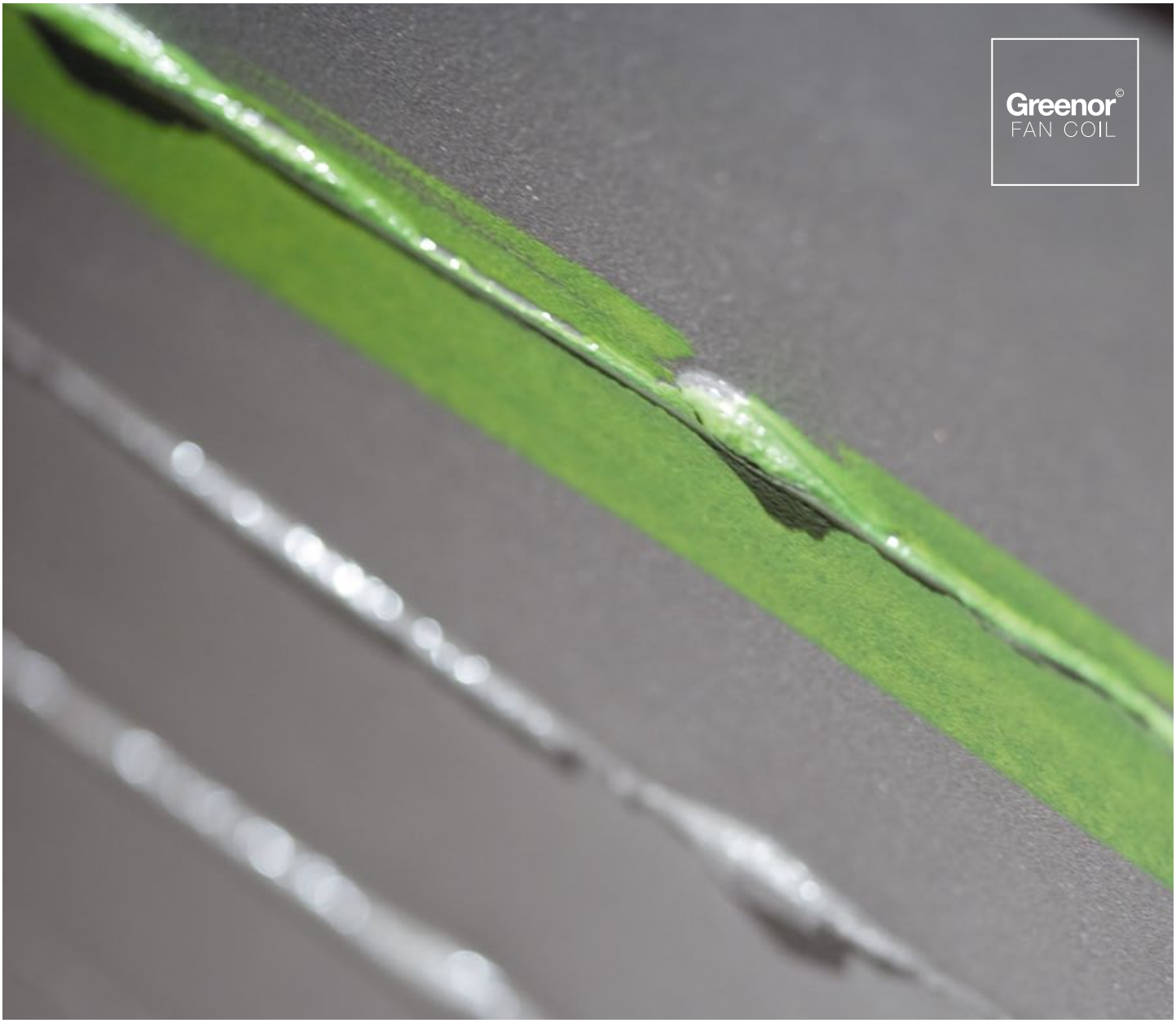
A Greenor® exclusive: filters can be easily cleaned without taking any element apart.

- One Greenor® cleaning accessory to attach to the vacuum cleaner is delivered with your unit to facilitate its maintenance.

- An easier and more frequent cleaning of the filters ensures that your system stays at an optimal performance level.

Engineered, designed & made in France

since 1975



Photos : O. Maynard | Graphic design : Pygmalis - www.pygmalis.com | September 2011

CINIER also offers:

A unique collection of radiators and bathroom heaters in Olycale stone with towel holders
"Cinier Outdoor"; outdoor wall art in Oycale® stone

Local distributor

Atelier & Showroom

Parc Aquatechnique
Angle rue de Londres - rue de Berlin
34200 SETE, France
Tél : (0033) 04 67 18 19 53
Fax : (0033) 04 67 74 91 28
E-mail : info@cinier.com

www.cinier.com