

Our story ...

... Our Innovations

VANEECKE Mécanique Générale de Tissage <i>(Armentières (59) FRANCE)</i> founded	1946		
VANEECKE specialised in the manufacture of Hot Air Generators <i>(Avia Therm / Amya Therm / Home Air)</i>	1960		
		1965	Manufacture of generators and Make-up for the French automotive industry <i>(Citroën Aulnay / Ford Bordeaux, etc.)</i>
SOLARONICS founded by ANTARGAZ <i>(Biblisheim (67) FRANCE)</i>	1970	1970	Manufacture of portable radiant appliances to mount of gas cylinders
ELF purchases VANEECKE	1974		
		1974	SOLARONICS R&D programme launched under the initiative of ELF
SOLARONICS takes over VANEECKE <i>(installation at Armentières (59) FRANCE)</i>	1976		
DML Industries purchases SOLARONICS	1984		
TRIATHERM acquired	1990	1990	New generation BRT <i>(Continuous radiant tube heating system)</i> launched
The IRT <i>(Process)</i> division becomes a subsidiary. This SOLARONICS IRT subsidiary specialises in gas infrared drying for the paper pulp industry, providing design, marketing, fitting and maintenance	1993		
		1996	UNIDRYER launched for the paper industry
The Heating Division, specialising in heating systems for large volume premises, purchases SDC, distributor of thermo-ventilation products <i>(based on Verrière (78) FRANCE)</i>	1997		
		1998	New range of tubular heat exchanger thermo-ventilation appliances launched
Anxious to diversify its Thermal Process technology and its markets, the SOLARONICS group creates SOLARELEC, specialising in electrical infrared drying for the automotive industry	1998		
SOLARONICS TECHNOLOGIES together with its subsidiaries SOLARONICS IRT and SOLARELEC are acquired by BEKAERT COMBUSTION TECHNOLOGY N.V. BEKAERT is the world leader in the pre-mixing burner market	2004		
SOLARONICS Chauffage and the property company IMLYS, are not involved in this transaction			
Philippe OUTREQUIN joins the group FIMARNE as a shareholder and takes on the general management of SOLARONICS Chauffage	2007	2007	ECOENERGIE offer launched for building renovation
SOLARONICS Chauffage purchases its Hungarian distributor and founds its subsidiary SOLARONICS CENTRAL EUROPE Kft. in Budapest	2008		
SOLARONICS Chauffage reformats its R&D team and invests the equivalent of 4% of annual turnover	2009		
The Service business of the company exceeds 30% of annual turnover <i>(maintenance contracts, spare parts, repair service, public contract work)</i>		2010	Condensation generators launched
		2011	Tactile thermostats TM2 Evo launched
SOLARONICS Chauffage expands its Production site at Armentières	2012	2012	Condensation thermo-ventilation appliances launched <i>(with integrated condensation boiler)</i> launched
Mobility scheme introduced for maintenance technicians	2013	2013	RayLine radiant strips launched <i>(from 55 kW to 300 kW)</i>
		2014	Condensation hot air curtain launched
SOLARONICS Chauffage redesigns its range of radiant products	2015	2015	Radiant tube SolarHP <i>(High Performance)</i> / SolarHP ^R <i>(High Efficiency)</i> / SolarHP ^{RC} <i>(Condensation)</i> launched

Contents

Company	4
Solutions	10
Radiant Heating	14
Hot air	56
Hot air generators	102
Air curtains	112
Custom control	126
Renewable energy	132
Technical guide	138
General terms of business	150

Solaronics, at your service

- French specialist in **Decentralised Gas Heating**
- Heating and cooling solutions for **Industrial and Tertiary buildings**
- Buildings from **500 m²** to **25 000 m²**

THE MANY REASONS FOR PREFERRING THE DECENTRALISED TECHNIQUE:

- | | |
|---|--|
| Overall efficiency of the installation
<i>(no losses on the line)</i> | Fast warm-up time |
| Comfort | Little dependence on building inertia
<i>(significant in the case of renovation)</i> |
| Investment cost <i>(specifically in new installations)</i> | Zoning: flexible and optimised management of the comfort level temperature in the building |
| The least polluting fossil fuel primary energy <i>(gas)</i> | Homogeneous temperatures
<i>(hot air = air mass heating)</i> |
| Low operating costs | Low breakdown risk <i>(continuous operation)</i> |
| Lightweight products installed <i>(roofing considerations)</i> | Easy new air compensation <i>(as hot air)</i> |
| Radiation: no direct heating of the air mass
<i>(= low stratification)</i> | |

Since **1947** in France and internationally,
our customers have purchased:

- 150 000** Radiant plaque heaters
- 200 000** Gas fired radiant tubes
- 300** Gas fired radiant strips
- 70 000** Hot air unit heaters
- 30 000** Destratification fans
- 10 000** Hot air generators
- 25 000** Boxes and controls

INNOVATION

Every year, Solaronics Chauffage invests **4%** of its turnover in **R&D** in order to offer the best products in each category at very competitive prices

MATERIALS | **COMBUSTION** | **EFFICIENCY** | **DESIGN** | **PERFORMANCE** | **RELIABILITY** | **FITTING** | **LOGISTICS** | **REGULATION**

SERVICE

Solaronics Chauffage handles over **2 000** maintenance contracts in France and every year provides 24 h delivery of over **25 000** spare parts over the whole country. We advise our **8 000 customers** with over **6 000** quotations and technical design studies every year

ADVICE | **EXPERTISE** | **STUDIES** | **REPAIRS** | **SIMULATIONS** | **MAINTENANCE** | **SPARE PARTS** | **RENOVATION** | **COMMISSIONING**

ENERGY SAVING

Solaronics' new products and regulation solutions enable **5% to 50%** energy savings per year without compromising comfort

REGULATION | **AIR DESTRATIFICATION** | **FAN** | **CONDENSATION** | **METERING** | **ENERGY SAVINGS** | **CERTIFICATES** | **ROI** | **DOOR AND WINDOW MANAGEMENT**

INTERNATIONAL

Solaronics Chauffage markets its products in over **30 countries** throughout the world and supports its major customers in their development projects internationally

GERMANY | **RUSSIA** | **CHINA** | **HUNGARY** | **SPAIN** | **SWITZERLAND** | **ROUMANIA** | **BULGARIA** | **PORTUGAL** | **BELGIUM**

Energy savings

AN ESSENTIAL CHALLENGE FOR YOUR COMPANY AND THE ENVIRONMENT

Buildings alone account for **40%** of final energy consumption (2/3 of which is for heating) and **25%** of CO₂ emissions

Energy prices are set to rise for the duration

Energy is a heavy component of **company operating costs**

Directly or indirectly, **companies** account for **55%** of the total final energy consumed

The highest energy consumers among the economic sectors:

- Industry (21%)
- Private tertiary (11%)
- Goods transport (10%)
- Workers' and professionals' travelling (9%)
- Agriculture (2%)

THE QUESTIONS YOU SHOULD BE ASKING ABOUT YOUR BUILDING:

- Do you know your annual energy consumption and the associated costs?
- Do you monitor the energy consumptions of the main items?
- Do you know your price per kWh?
- Can you estimate your gas over-consumption?
- On what date was your heating installation commissioned?
- What is the date of your last maintenance report (combustion analysis)?
- Do you know what ESC-eligible (Energy Savings Certificate) improvements you can make to your installation?
- Do you know how to estimate the possible gains by introducing Regulation?
- How is the opening of doors and windows managed in your building?

TOWARDS PERFORMANCE

The renovation or replacement of existing heating installations requires expertise and know-how in various fields:

DIAGNOSIS | REGULATIONS | STUDIES | BUDGET | DIMENSIONING | REGULATION | PLANNING | SAFETY | WORK ON SITE | SITE MANAGEMENT | ACCEPTANCE OF WORK



Solaronics and its installer partners work with you to save energy **when renovating your building** or **taking measures to reduce consumption**.

The **Ecoenergy** offer helps you **prepare for the future** by making the right choices today.

At each stage towards performance
**Solaronics supports
and advises you**

THE REGULATORY CONTEXT OF ENERGY EFFICIENCY IN EUROPEAN COMPANIES:

- **The Energy Efficiency directive (2012/27/EU)** establishes a common framework for promoting energy efficiency in the Union. In particular, it introduces the obligation for energy audits *(in the context of the transposition of article 8 of the directive, the principle of the energy audit has become obligatory every 4 years for all companies except SMEs)*. This measure comes alongside the other existing schemes, including the obligation for legal persons governed by private law employing more than 500 people *(250 people in the overseas regions and departments)*, to produce an evaluation of their greenhouse gas emissions every 3 years.
- Furthermore, **directive 2008/1/CE on the integrated prevention and reduction of pollution of 15 January 2008 (IPPC directive)** requires companies to ensure that energy is used efficiently in installations and de-pollution systems in certain industrial activities *(the energy industry, the production and transformation of metals, the mineral, chemical and waste management industries)*.
- The **directive IED 2010/75/EU of 24 November 2010** also requires numerous operators in numerous industrial sectors to introduce the best available techniques *(BREF: Best References)* for reducing polluting emissions and for energy efficiency.

Spare parts

In the field of decentralised gas heating, Solaronics is the ideal partner for **installers, operators, maintenance departments and repair professionals**.

8 000 CUSTOMERS IN FRANCE AND INTERNATIONALLY



In paperback format (easy to use on site), our **Professional price catalogue** is available to help you to quickly identify and select your spare parts without wasting time and with no risk of error.

RECENT OR OLD APPLIANCES

25 000 PARTS

MULTI-BRAND

DARK RADIANT TUBES | GAS AND WATER UNIT HEATERS | HOT AIR GENERATORS |
BURNERS | RADIANT STRIPS | FAN-COILS | LUMINOUS RADIANT HEATERS | CONTINUOUS
RADIANT HEATING SYSTEMS | REGULATION | ACCESSORIES



The quality of our service depends on **implacable logistics** appreciated by all our customers. We deliver the ordered parts **to site** in record time, **to your premises** or **to a pickup point**.

TNT PARTNER (4 200 PICKUP POINTS)



Our Hotline is available on **+33 891 701 802** for real-time advice and guidance.

GUARANTEED ORIGINAL
MANUFACTURER’S PARTS
KEEN PRICES

Heating and cooling solutions for Industry and the Tertiary sector



1 **SRII** | Radiant plaque heater

4 **PEC** | Radiant hot water panel

7 **AEC / AECF** | Hot/cold water unit heaters

10 **Series X / Series G** | Hot air generators

2 **Solar HP / HP^R / HP^{RC}** | Gas fired radiant tubes

5 **AC-H / ARH / MH** | Gas unit heaters

8 **CA / DR** | Destratification fans

11 **MRX / MRA-H / SE / SW** | Air curtains

3 **RayLine** | Gas fired radiant strip

6 **MCF** | Reversible gas unit

9 **Dynagaz / Termogaz** | Gas fan coils

12 **AirSolar** | Thermal solar heater

A team of specialists
alongside you
in your projects

Selection guide

Radiation, Condensation, Hot Air?

The choice of technique depends on:

- Building characteristics (dimensions, insulation, leaks, etc.)
- Building typology (activity, regulations, safety, etc.)
- Desired level of comfort (interior temperature, homogeneity of temperature or zoning, humidity control, etc.)
- Economical criteria (investment, operating costs)

RADIATION

Heat is transmitted to the floor in the form of electromagnetic radiation (comparable to the Sun’s radiation) which is transformed into heat on contact with a body.

The ambient temperature can be lowered without affecting people’s comfort.

With this technique, energy savings of **up to 30%** can be made in comparison with the hot air system.

Product range		Energy	Construction	Field of application	Application	Power density	Variants
Radiation	Radiant plaque heater SRII	Gas	Height > 4 m	Industry Tertiary Places of worship	General heating Zone heating Work station heating	150-400 W/m²	Aesthetic casing
	Gas fired radiant tubes SolarHP / HP^R	Gas	Height > 4 m	Industry Tertiary	General heating Zone heating Work station heating	70-220 W/m²	High efficiency Linear version
	Gas fired radiant strip RayLine	Gas	Height > 4 m	Industry Tertiary Logistics	General heating Zone heating Burner fitted externally	40-130 W/m²	Industry version
	Radiant hot water panel PEC	Hot water	Very good insulation	Industry Tertiary Logistics	General heating	10-70 W/m²	Aluminium panel

CONDENSATION

Because of its very high efficiency and power modulation, the saving in gas consumption is:

- **15%** compared with a new standard appliance
- **45%** compared with a properly maintained standard appliance from the 1990s

Product range	Energy	Construction	Field of application	Use	Power density	Variants
Condensation	Gas fired radiant tube SolarHP^{RC}	Gas	Height > 4 m	Industry Tertiary	General heating Zone heating Work station heating	70-220 W/m²
	Gas unit heater AC-H	Gas	Height < 6 m Good insulation	Industry / Tertiary Storage racks	General heating	- Centrifugal fan
	Hot air generator Series X	Gas	Height < 6 m Good or medium insulation	Industry / Tertiary Storage racks Places of worship	General heating Compensation Exterior mounting	- Horizontal version
	Hot air curtain MRX	Gas	Door height < 6 m	Industry / Tertiary Logistics	Doors and windows in heated building	-

HOT AIR - DESTRATIFICATION

The air in the building or coming from outside is heated by the heater unit or by hot air generators. To save energy, it is highly recommended to install destratification fans for heights above 6 metres.

By using heat trapped under the ceiling, **energy savings of 30%** can be made.

These products are eligible for ESC Energy Savings Certificates - standardised sheets IND-BA-110 and BAT-TH-142.

Product range	Energy	Construction	Field of application	Use	Variants
Hot air	Gas unit heaters MH / ARH	Gas	Height < 6 m Good insulation	Industry / Tertiary Storage racks	General heating Modulating Centrifugal fan Vertical blowing
	Reversible gas unit MCF	Gas	Height < 6 m Good insulation	Industry / Tertiary Storage racks	General heating Cooling
	Hot/cold water unit heater AEC / AECF	Hot water	Height < 6 m Good insulation	Industry / Tertiary Logistics	General heating Cooling Reversible version with chilled water
	Destratification fans CA / DR	Electrical	Height < 12 m	Industry / Tertiary Storage racks	General heating Mixing
	Fan coils DynaPAC Dyngaz / Termogaz	Gas / Electric	Volumes up to 300 m³	All	Heating Cooling (model DynaPAC) Ceiling version
	Hot air generator Series G	Gas	Height < 6 m Good or medium insulation	Industry / Tertiary Storage racks Places of worship	General heating Compensation Exterior mounting Horizontal version
	Air curtains MRA-H / SE / SW	Gas / Electric / Hot water	Door height < 6 m	Industry / Tertiary Logistics	Doors and windows in heated building