

u n i v e r s a l p e r f o r m a n c e



HELIO THERME 4000



New range

Performance & Silence

The expertise of a leading manufacturer



→ Hear the **difference**



ROTOREX Technology: silent fan motor assembly with streamlined impeller providing the best compromise between air handling efficiency and acoustic comfort.

The windings are inserted in the fan hub to ensure perfect cooling of the motor, and therefore optimum performance.

Double deflector diffuser with JET+ technology.



→ Feel the **power**



CIAT's excellence in the field of coils offers you the best combination of tube geometry and fin design on the market.

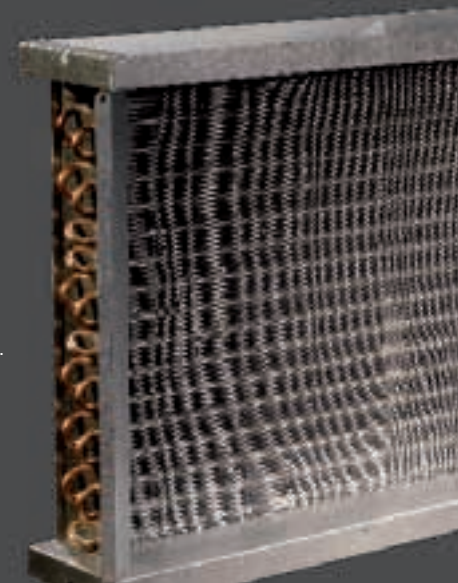
Purification of the suction or discharge airstream for efficient transfer and improved acoustics thanks to the cone suction chicanes.

→ Enjoy the **performance**



All the advantages of CIAT in this HELIOTHERME 4000 range allow you to fully enjoy:

- All the benefits of a high performance standard diffuser.
- The quiet operation and efficiency of a high-efficiency ROTOREX fan motor.
- The heating capacity of the high-performance coil.



→ Experts in **air handling**

For CIAT, comfort, silence and energy saving are not optional.

It is for these reasons that all HELIOTHERMES are fitted **as STANDARD** with the double deflection diffuser with JET+ technology.

What is **JET+** technology?

A CIAT innovation based on Bernoulli's principle on fluid dynamics and on the NACA0012 type aeroplane wing profile.

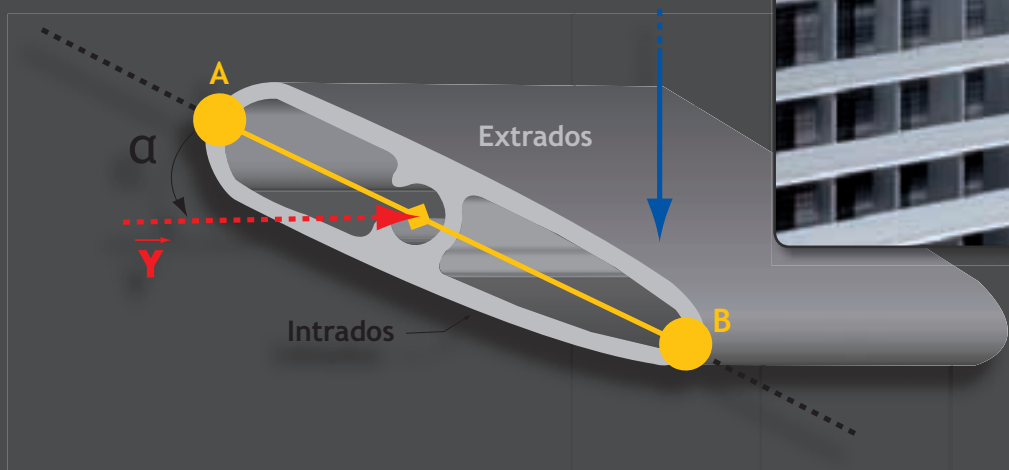
The advantages of **JET+** technology:

- Adjustable airstream distribution in four directions for optimum coverage of the occupied space while eliminating draughts.
- Laminar flow of the airstream for improved acoustic comfort (no turbulence at the diffuser outlet).
- Increased velocity of the air streams thanks to the aerodynamics of the curved airfoil (low pressure on the underside of the wing) increases the coverage of the air streams and the induction rate.
- Double induction zone thanks to two layers of blades (double deflection).
- Limits stratification.

Reduced building warm-up time:

- **Energy savings of 15 to 20%.**

JET + // H⁴



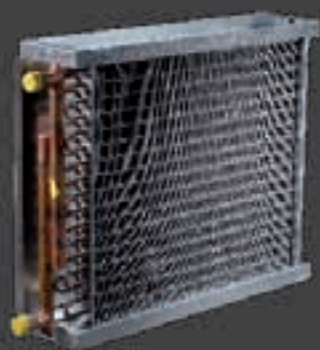
→ Fields of application

For your heating applications (water or electrical) or cooling, for wall or ceiling unit installations, the HELIOTHERME 4000 is the best technical and economic compromise for all your tertiary or industrial projects.

- **Industries:**
workshops, garages, storage warehouses, distribution centres, etc.
- **Tertiary:**
shops, sports halls, multipurpose rooms, etc.



→ A fundamental advantage: the heat exchanger



Low pressure water (hot or cold) coil version

- Available in 1, 2 or 3 row(s)
- Copper tube Ø 9.52 mm
- Aluminium honeycomb fins
- Fin spacing 2.1 mm
- Equilateral geometry 32 mm

- **Advantage:**
excellent thermal efficiency (dry exchange coef. >50 W/m².k)

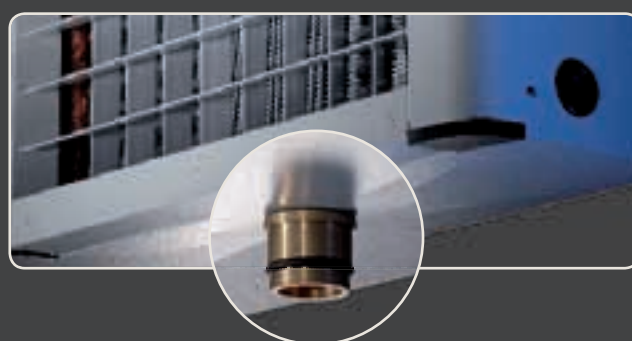
Made
by
CIAT

→ Performance

Model	Heating		Cooling		Electrical	
	Flow rate (m ³ /h)	Power (kW)	Flow rate (m ³ /h)	Power (kW)	Flow rate (m ³ /h)	Power (kW)
4350	2600	12 to 27	1640	4.5	2600	9.6
4400	4200	17 to 40	2160	6	4200	18.9
4450	5400	22 to 58	3025	8.5	-	
4500	7500	30 to 76	4060	11	7500	28.8
					6900	43.2
4630	11150	45 to 110	5960	18	-	

→ Usage in cooling

- Built-in condensate drain pan with antibacterial design (perforated bottom for complete draining).
- Nautical drain coupling, quick and extremely simple installation, no more need for clamps.



→ A complete range of accessories

For each of your projects, we can provide the accessory adapted to your needs

for fitting:

- Wall mounting plate, on IPN or ceiling unit to facilitate fitting
- Filter box for indoor environments with loaded air
- Mixture unit to manage the essential supply of fresh air
- Intake duct to homogenise the indoor environment temperature and improve comfort
- Specific diffusers (high mounted, on door, etc.)



for monitoring and control:

- 2 speed switch for Three-Phase motors
- 5 speed autotransformer for Single-Phase motors
- Room thermostats for tertiary and industrial applications

→ Control adapted to each application

THREE-PHASE BOX RANGE

“PLUG & HEAT” control unit for THREE-PHASE motor.

Regulation for 1 or 2 supply air speeds in automatic or manual to control one or several HELIOTHERMES.

- No sizing of electrical components (circuit breaker, thermal relay, proximity switch, switch etc.) and wiring required, everything is integrated with the IP54 unit.
- “Master / slave” type control of your HELIOTHERME assembly.



Eco+ MONO BOX RANGE

Electronic regulation unit for SINGLE-PHASE motors.

The supply air velocity and water supply to the coil are managed proportionally in relation to the difference between the measured indoor environment temperature and the programmed temperature setpoint (summer or winter).

Integrated clock allowing 3 usage modes: COMFORT ECO and FROST PROTECTION.

- Managing your installation by zone.
- Economic and environmentally responsible use of your entire installation. You control, your heating or cooling resources according to the operating slots, as and when required.



ELEC BOX RANGE

Control unit for electric heater.

Ensures the electric resistance heater stages are engaged according to the difference between the temperature setpoint and the temperature measured by the indoor environment sensor (remote).

Timed relay set to ventilation when the electric heater stops (post-ventilation).

Double temperature limiter with auto and manual rearming to conform with fire safety standards.

- Your installation is fire regulation compliant for public places in an IP54 enclosure.



→ round-the-clock technical support

CIAT is partner to industries, committed to their needs and in tune with their requirements and the specific aspects of their activities. That is why this HELIOTHERME range is also available with a large range of motor, heat exchanger or casing variants.



CORROBLOC motor variant

- Protection index: IP 65.
- TEFLON coating for 700 hour resistance in a saline mist.

Tube coils steel, cupronickel or STAINLESS STEEL variant

- Applications for superheated water, steam, oil.
- Finned aluminium block for industrial indoor environments (dirty air) that can be cleaned with a high pressure water jet.

Model	Flow rate (m³/h)	Power (kW)	
		Heated water	Steam
4350	2600	36	40
4400	4200	50	58
4500	5400	100	100
4630	11150	155	150

Specific treated surface for the heat exchanger:

- HERESITE coating
- Precoated fins

STAINLESS or EPOXY painted casing

HERESITE coating



EPOXY painted casing + specific motor



STAINLESS tube coil



→ HELIOTHERME, an answer to ATEX directives

CIAT has put all its expertise into this special series of **HELIOTHERME**, ATEX certified under the number LCIE 03 ATEX 6392X /1. Issued by an external independent body, this certification is your guarantee that your unit **complies fully with the ATEX directives**.



The ATEX HELIOTHERME range is certified for your applications:

- In the presence of explosive gas or dust.
- In Zone 1 or 2.
- For explosion groups IIA, IIB or IIC.
- For temperature classes from T1 to T6.
- Low pressure water, superheated water, steam, oil, compressed air...

What is ATEX?

ATEX or explosive atmosphere can be caused in atmospheric conditions by flammable gases, vapours or mists or by combustible dusts mixed with air. After ignition, combustion spreads through the whole of the non burnt mixture.

How is an ATEX zone defined?

An ATEX environment is defined according to the probability and length of formation of an explosive atmosphere. This risk analysis enables zones, the explosion groups and maximum surface temperature classes to be defined. Such atmospheres are mainly found in paint workshops, metal processing workshops, waste recycling, wood processing, etc.

Who defines ATEX zones?

All persons managing a production unit that may be subject to an explosive atmosphere must take responsibility for defining the zones, the explosion groups and the temperature classes. This risk analysis will also enable the manager to implement preventive measures.

ZONE		Category	The explosive agent is:
Gas (G)	Dust (D)		
0	20	0	constant, frequent or extended presence NO CIAT PRODUCTS
1	21	1	occasional presence during normal use
2	22	2	rarely or briefly present

GAS - EXPLOSION GROUP AND TEMPERATURE CLASS						
Temperature class	T1	T2	T3	T4	T5	T6
Max surface temp	450°C	300°C	200°C	135°C	100°C	85°C
Explosion group						
II A	Acetone, ammonia, benzene, acetic acid, ethane, ethyl acetate, ethyl chloride, methanol, naphthalene, phenol, propane.	i-Amyl, acetate, butane, butyl alcohol.	Petrol, diesel, hot oil, hexane.	Acetaldehyde		
II B	Town gas.	Ethylene	Hydrogen sulphide	Ethyl ether		
II C	Hydrogen.	Acetylene				Carbon disulphide



→ The heat exchange specialist



Over the past 70 years, CIAT has become Europe's leading name in the fields of air conditioning, air-handling, heat exchange and heating using renewable energy.

A genuine industrial group, CIAT designs, manufactures and commercialises solutions for the mid and large scale tertiary, residential, healthcare and, of course, industrial markets.

Today, over 10 million units in operation throughout the world offer universal comfort to all.

→ A comprehensive range of air heaters:



→ SILENTHERME



→ CIATGAZ CGU

CIAT Group

Avenue Jean Falconnier - B.P. 14
01350 - Culoz - France
Tel: +33 (0)4 79 42 42 42
Fax: +33 (0)4 79 42 42 10
info@ciat.fr - www.ciat.com



Compagnie Industrielle d'Applications Thermiques - S.A. with a registered capital of 26,000,000 Euros - R.C.S. Belley B 545 620 114

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