



OFFICE - HOTEL - SENIOR
↑

HYSYS

Energy system for heating, cooling and indoor air quality

DELIVER THE FULL POTENTIAL
OF YOUR PROJECTS WITH WATER,
THE BEST HEAT TRANSFER FLUID



Construction standards are constantly being updated to better meet the needs of individuals in terms of well-being in their living areas and places of work.

Increasingly stringent, they are designed not only with the comfort of occupants in mind, but also aim to protect their health, while reducing energy consumption and environmental impacts.

Over and above the architecture, materials, and insulation, HVAC equipment has a key role to play in this research.

As an expert in indoor climate systems for buildings, CIAT understands this and has responded by creating the HYSYS system solution which combines efficient equipment to ensure comfort, air quality and energy optimisation.

Hysys® system solutions

All CIAT's Expertise



Drawing on its specialist market experience, CIAT has extended this system solution with Hysys Office for office spaces, Hysys Hotel for hotel accommodation and Hysys Senior for retirement homes.

Packaged in this way, these solutions make the design and installation phases significantly easier. They also play an active role in obtaining and complying with certification, energy standards or environmental standards for the buildings in which they are fitted and lower their running costs.

HQE **BREEAM** **LEED** **BBC**



With Hysys, the installation's **TEWI** (Total Equivalent Warming Impact) index is reduced by two-thirds

Hysys, the advantages of the water loop

Using water, the best heat transfer fluid, Hysys establishes itself as a real alternative to direct expansion systems by offering tangible benefits:

- **Comfort:**

Water ensures progressive-ness and precise comfort for the occupants.

- **Energy efficiency:**

the homogeneity and the thermal stability of water reduce the energy requirements for transferring heat.

- **Ecology:**

no refrigerant on the premises, only a minimal amount in the heat pump outside the buildings' occupied spaces (-70% compared with direct expansion equipment).



• **Competitiveness:**
equipment in the water loop solution is less expensive to purchase and requires less maintenance than direct expansion systems.

Hysys®

3 guarantees of excellence

- **Greater comfort**

Because they are tailored to each application, Hysys active comfort units guarantee the well-being of occupants more effectively. These integrated, silent solutions with their Coanda-effect diffusion also reduce consumption levels.

- **Improved indoor air quality**

The Epure function (exclusive to CIAT), which is integrated into Hysys comfort units, ensures optimal Indoor Air Quality by reducing particulates. Well-being, health and hygiene are guaranteed.

- **Greater energy efficiency**

With heat pumps offering a high coefficient of performance, dual-flow heat recovery air handling units and High Energy Efficiency (HEE) comfort units, Hysys lowers buildings' energy consumption levels.



Hysys,
supports you at every stage of your projects.

• **Before:** at the design stage, our exclusive CIATSystem Design software facilitates your design work: the costs and time spent on studies is reduced.

• **During:** the experts at CIAT can offer you advice during installation.

• **After:** Support from the CIAT Service team (training, commissioning, preventive maintenance contracts, spare parts etc.) optimise operations.



Hysys® Office

Modularity Design Productivity



COADIS LINE

Coadis Line meets office space requirements in terms of heating or cooling. This latest generation comfort unit adds a stylish and innovative touch to your projects. With Coanda-effect diffusion for uniform temperature and the Epure function for Indoor Air Quality, Coadis Line creates a climate which guarantees productivity.

v3000 terminal



Connect 2 Terminal

Hysys® Hotel

Comfort Silence Reliability

COMFORT and AIR QUALITY

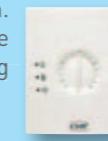
Hysys excellence: active comfort units tailored to every requirement
Comfort class A or B according to standard EN 7730



MAJOR LINE

Major Line is the reference in comfort units for the hotel industry. The control unit's proven reliability, precision and simplicity guarantee customer satisfaction. Integrated into a suspended ceiling at the entrance to the room, Major Line provides heating and cooling in silence.

v30 terminal



Hysys® Senior

Well-being Health Hygiene



COMFORT LINE SENIOR

Designed to meet the needs of health facilities, Comfort Line Senior offers well-being and peace of mind to occupants and managers of retirement homes. Perfect control of Indoor Air Quality and air flow eliminate possible bio-effluents.



v3000 terminal



pco Terminal

ENERGY OPTIMISATION

Environmentally-friendly equipment with proven performance

AQUACIAT

Reversible air-to-water heat pump
Heating and cooling

Aquaciat, the highly efficient heat pump, offers excellent ratios in terms of energy efficiency (EER), SEER (Seasonal Energy Efficiency Ratio) and SCOP (Seasonal Coefficient of Performance). It thereby helps control consumption levels and reduce the system's TEWI. **Energy class A.**



FLOWAY

Dual-flow
air handling unit

This air handling unit ensures air flow is controlled, filtered and renewed. A heat recovery unit on extracted air (contraflow system) delivers **energy savings of up to 85%**. Floway complies with standards EN 13779 (filtration) and EN 15251 (energy performance).



Contraflow technology

Easy CIATControl and Smart CIATControl

Intelligent control of the Hysys system

With its colour touch-screen, **Easy CIATControl** enables managers or occupants to configure and control all of Hysys' integrated equipment (up to 180 comfort units) simply and easily: temperatures for heating and cooling, daily and weekly programming with occupancy scenarios... Easy CIATControl easily adapts to updates of layout or redevelopments of your building.



Using a single touch-screen, **Smart CIATControl** enables up to 3 water loops to be controlled for multiple vertical or horizontal configurations. It can also control a heat pump dedicated to the production of domestic hot water. Smart CIATControl features advanced scenarios for tracking consumption levels, measuring energy performance and managing maintenance. Finally, Smart CIATControl can remotely control an installation via a computer, a tablet or a smartphone.

Easy CIATControl and Smart CIATControl communicate for the export of data in OPC server and BACNet languages.

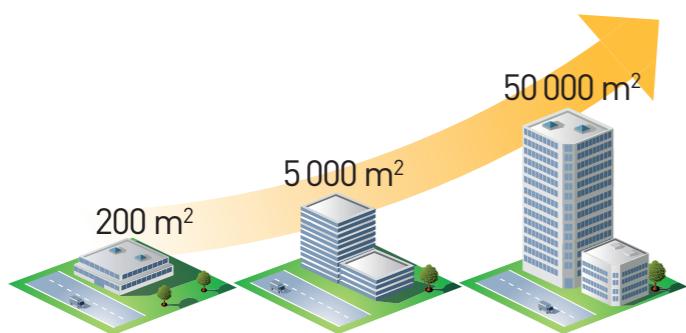


Everything you need to **customise** your **Hysys®** system

Hysys, packaged for office buildings, hotels or retirement homes, can be tailored to the specific needs of each project. Whether it be a new building which must strictly comply with RT 2012, a renovation project following the redesign of interior spaces or one aiming to improve energy performance, everything is possible with Hysys®.

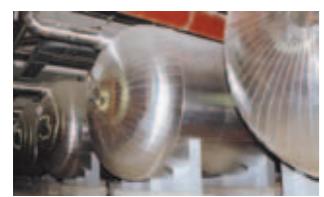
From 200 to 50,000 m², there is a **Hysys®** solution for all applications

In single buildings, semi-detached buildings in business parks or in High Rise Buildings, the modularity of the Hysys® system solution on water loop allows it to adapt to all configurations.



HYSYS POWER: enhanced energy optimisation for high capacity installations

For installations over 500 kW, CIAT offers a Hysys Power configuration, including an energy system which significantly reduces consumption levels, lowers carbon emissions and anticipates future environmental regulations.

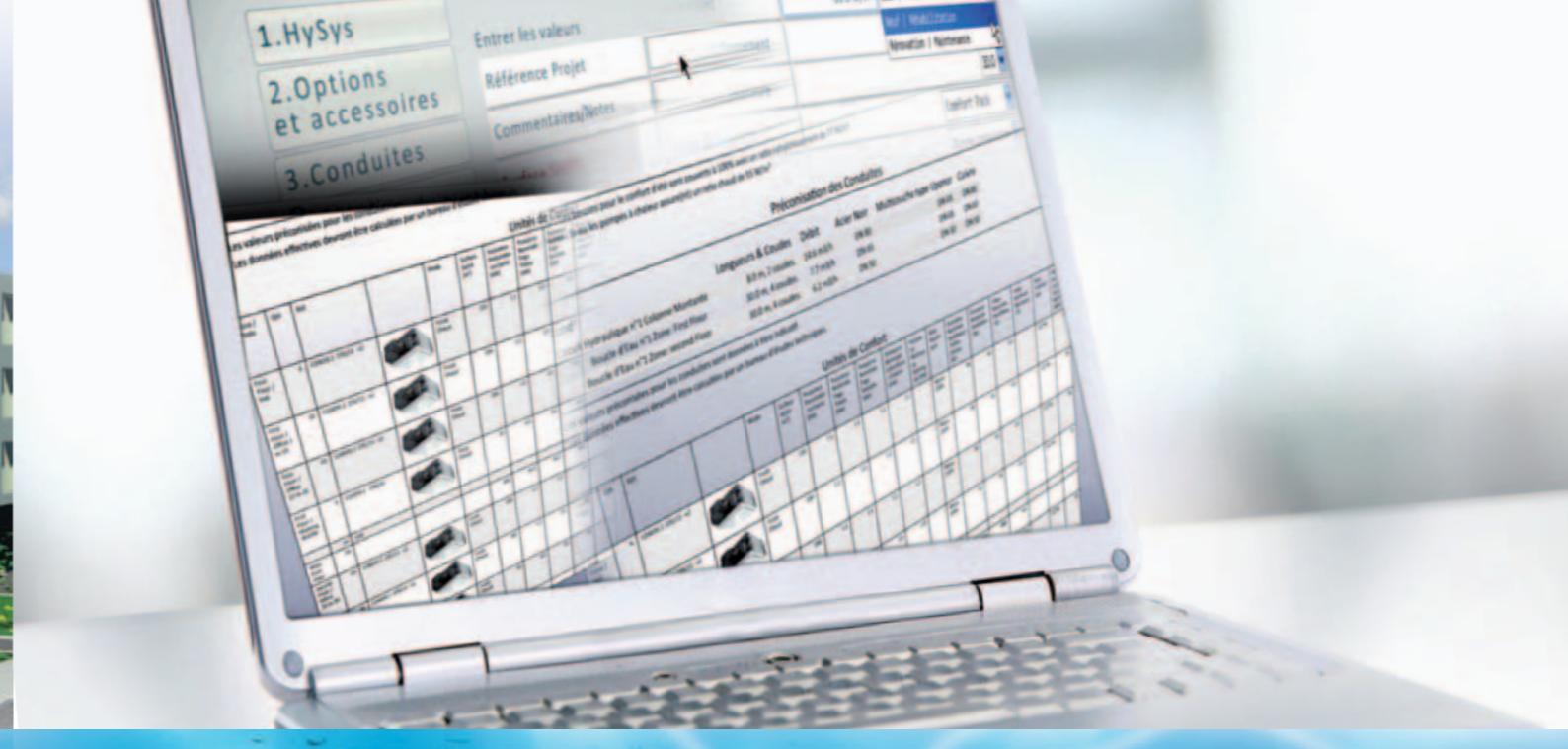


The concept? To produce heating or cooling when energy costs are lower, store this is a Cristopia tank with PCM nodules exclusive to CIAT, so that it can be circulated without operating the heat pumps, when energy is more expensive.

Hysys Power also features drycoolers to provide Free cooling and high capacity air source or geothermal heat pumps.



CIAT Energy system

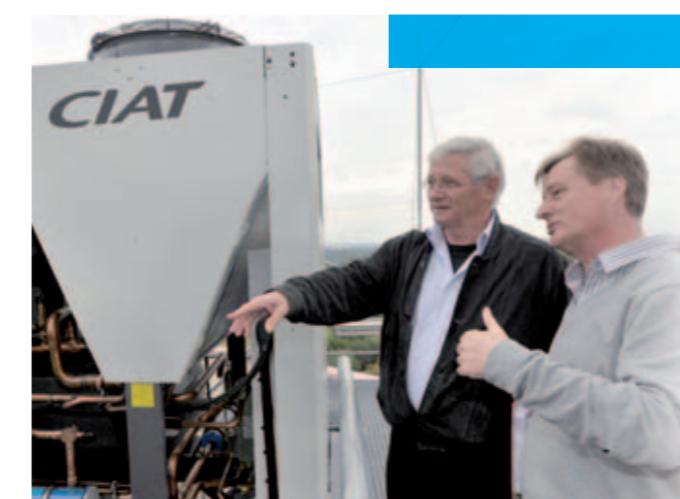


Tools and services to facilitate the design and management of your project

CIATSystem Design

Developed by CIAT, CIATSystem Design software simplifies the design of your HVAC project. Based on plans, CIATSystem Design automatically defines the entire installation:

- Selection of equipment required and simulation of comfort levels and IAQ
- Recommendation and sizing of vertical and horizontal hydraulic systems
- Global technical approach
- Solutions scaled to requirements



CIAT Service

To ensure that the performance of your installation is optimal and durable, Hysys benefits from high value-added services from the CIAT Service team, from commissioning and during operation:

- Start-up and adjustments to the entire system
- Preventive maintenance contracts
- Training
- Technical audit work
- Availability of spare parts

With 75 years' experience, more than 2,000 employees, and 6 production sites including a vast industrial complex in the Rhône-Alpes region, CIAT has obtained ISO 14001 certification and is renowned as a major player in the HVAC industry.



The CIAT Group: European leader in heating, cooling and indoor air quality



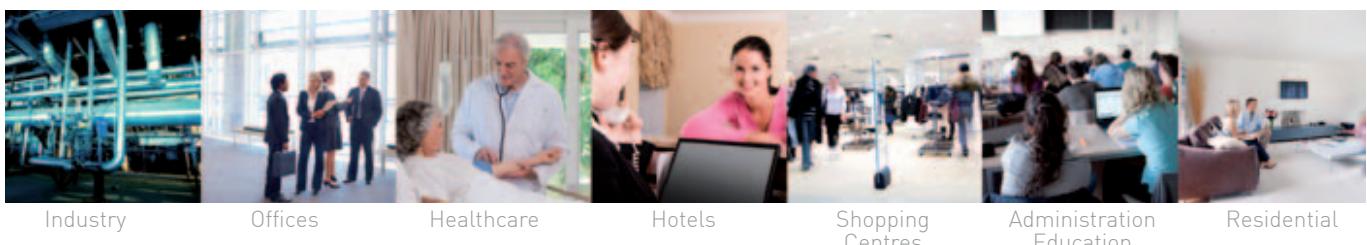
An environmentally-responsible company working towards a greener world

For many years, CIAT has been pursuing an industrial policy based on an ongoing strategy of continued sustainable development and eco-design in order to minimise the environmental impact of its equipment. The equipment integrated into Hysys system solutions benefit from this commitment.

A Group resolutely focused on innovation

CIAT's Centre for Research and Innovation, one of the largest in Europe, brings engineers and technicians together around a simulation platform dedicated to well-being. As a team, they constantly improve the comfort, Indoor Air Quality and energy performance levels of CIAT solutions to meet the requirements of consumer sectors.

An exclusive network of advisers



To ensure customer satisfaction, at CIAT we have organised our teams into seven centres of expertise. Operating in France and in Europe, our experts listen to your needs and, because they speak your language, they provide you with the best solution to meet your requirements.

