

i.COOL COMMERCIAL

EFFICIENT WASTE HEAT MANAGEMENT:

Cooling Solutions for Heat Removal from Illustration Printing Presses.

www.cofely.de



BUILDING SERVICES

ENERGY SERVICES

FACILITY SERVICES

REFRIGERATION

OPTIMAL USE OF ENERGIES.

COFELY
GDF SUEZ

i.COOL COMMERCIAL

SPECIALIZED SYSTEMS FOR EFFICIENT HEAT REMOVAL FROM ILLUSTRATION PRINTING PRESSES.

"The quality of our objectives determines the quality of our future." Josef Schmidt

More than three decades of experience in the printing industry combined with trend-setting expertise in systems and building technology have made it possible for Cofely to develop specialized systems for efficient heat removal from printing presses. These systems create the perfect working climate for people, materials and production processes in printing works. For many years we have been particularly committed to reducing energy consumption and environmental impact.

In line with these economic and environmental concerns, Cofely's i.Cool® systems provide constant temperatures during the printing process. They also help to guarantee the productivity of the entire process. Cofely assumes total responsibility for eliminating the heat from your printing process, starting with the design of the system, through to ensuring long-term operation and the lowest possible life cycle costs.

SUPERIOR SERVICE FOR MAN AND MACHINE

"Upgrade your press" is the slogan that epitomises the efficiency of the i.Cool® systems and services: Cofely will look after your equipment all over the world for its whole service life.

- You will receive detailed feasibility and ROI reports right from the design phase.
- Our technical service ensures totally efficient operation thanks to regular preventive maintenance and telemonitoring.
- Cofely Service is at your service 24/7 so that your equipment is always operating in a safe, economical and environmentally-friendly way.



Cofely gets involved with the creation of the perfect working environment for people, material and production processes in printing works.

i.COOL® COMMERCIAL – Solutions with System

i.COOL® AQUACENTER

Water for energy-saving cooling of printing presses. Ensure efficiency, reliability and top quality in your operations.

i.COOL® AQUACENTER S

Hot climates are a particular challenge. Make sure you always have optimal printing conditions and increase your production through high levels of reliability.

i.COOL® COMPACTCENTER

Integrate a system into your existing refrigeration supply that ensures printing quality at the same high level while reducing wear and tear on your machine parts.

i.COOL® AIRCENTER

Air for eliminating printing press waste heat. Use the natural thermal current, work economically and efficiently.

i.COOL® VARIOAIRCENTER

Adjustable ventilation system for all production areas in your printing works. Optimum air changes, reduced dust and energy-saving heat recovery are standard. And we'll tailor the system to suit your particular requirements.

i.COOL AQUACENTER



SUCCESSFULLY IN USE FOR MANY YEARS

The i.Cool® AquaCenter combines economy and ecology in one superior concept. Efficiency, reliability and top quality have made it a worldwide recognized classic. If it were possible to come up with a better product for eliminating waste heat from printing presses then Cofely would develop it.

EFFICIENT AND UNIQUE

The closed cooling tower allows energy savings of up to 70 % compared to conventional systems. This lowers your production costs noticeably. Two independent refrigerating circuits also safeguard against failure. Since its launch Cofely has consistently continued developing this Twin Chill Concept (TCC), thus guaranteeing a unique product.

HIGHEST PRECISION

All the components of the i.Cool® systems are assembled, tested and perfected for you at our Cofely plant in Freiburg. Our highly-qualified technicians and engineers perform the commissioning under production conditions. This quality management ensures that the system is tuned precisely to your particular printing press. All actions which have to be carried out by the customer are described in great detail and documented with detailed plans.

CONTINUAL IMPROVEMENT

For more than 30 years we have been partners to the printing industry and have installed more than 900 systems all over the world. This vouches for the enduring quality of Cofely's work and provides its strongest motivation for continuing to improve its i.Cool® systems to meet the technical and commercial demands of printing presses.

Upon request, Cofely also offers its proven solutions in turnkey versions. The i.Cool® AquaCenter can be combined with the i.Cool® AirCenter.

*Water for energy-saving cooling of printing presses.
Make sure your operations are efficient, reliable and top quality.*



i.COOL® AQUACENTER – Characteristics

TWIN CHILL CONCEPT (TCC)

- Lowers operating costs by up to 70 %
- Redundancy - two independent cooling circuits for increased operational dependability
- Hermetic dual-circuit refrigeration engine
- Increased operational reliability
- Reduced refrigerating agent content
- Connection pipelines between the separate components conduct water only

COLD WATER STORAGE TANK

- Longer lifetime of all components as refrigeration engine needs to be switched on less often
- Refrigerating machine operates at a consistent and optimum level

MAXIMUM EFFICIENCY

- Extremely low operating costs
- Compact dimensions
- Clean cooling tower with reduced water consumption due to conductance-controlled blowdown (optional)
- Long life cycle

AXI.COS® HIGH-TECH CONTROL

- Precise regulation and control
- Telemonitoring
- Remote service
- Control panel connection (optional)

OPTIMUM OPERATIONAL DEPENDABILITY

- International service organisations

i.COOL AQUACENTER S

PERFECT PRINTING – EVEN IN EXTREME HEAT

The iCool AquaCenter S uses water to eliminate heat from printing presses in regions with particularly hot climates such as southern Europe, Africa, Asia, Australia, Latin America and everywhere else in the world. Even if your production conditions are extreme you do not have to change the way you think about cost-efficiency and quality.

GLOBAL EXPERIENCE

i.Cool® systems guarantee printing quality worldwide. This is based on Cofely's many years experience in manufacturing, improving, installing and maintaining these systems. Now you can benefit directly from this experience.

RELIABILITY COMES FIRST

Perfect chill water management in the i.Cool® AquaCenter S guarantees strict adherence to the chill water temperatures, water levels and water pressures required by the production process. This allows the reproducibility of the printed product and lowers production costs considerably.

HIGHLY SPECIALIZED HEAT ELIMINATION

The i.Cool® AquaCenter S has been optimally designed to meet the high demands of hot areas of the globe. It has been developed especially for printing presses and it operates in a closed circuit, completely free of any corrosion or contamination. The i.Cool® AquaCenter S is a peripheral component which can be matched to the colour of your printing press.

The i.Cool® AquaCenter S can be combined with the i.Cool® AirCenter.



i.COOL® AQUACENTER S – always convincing

HERMETIC HIGH-EFFICIENCY REFRIGERATING MACHINE

- Developed for cooling of printing presses
- At least two independent refrigeration cycles for a high level of operating reliability
- Reduced refrigerating agent content
- Connection pipelines between the separate components conduct water only

COOL WATER STORAGE TANK

- Longer lifetime of all components as refrigeration engine needs to be switched on less often
- Refrigerating machine operates at a consistent and optimum level

AXI.COS® HIGH-TECH CONTROL

- Precise regulation and control
- Telemonitoring
- Remote service
- Control panel connection (optional)

OPTIMAL OPERATIONAL DEPENDABILITY

- International service organisations



Hot climates are a particular challenge. Make sure you always have optimal printing conditions and increase your production through high levels of reliability.

i.COOL COMPACTCENTER



Integrate a system into your existing refrigeration supply that ensures printing quality at the same high level while reducing wear and tear on your machine parts.

PRECISE PARAMETER CONTROL

The i.Cool® CompactCenter supports your printing press with its existing separate refrigeration supply. Its tried-and-tested technology ensures precise and reliable adherence to the parameters called for by the machine manufacturer – and consequently ensures quality and efficiency in your operations.

A REAL TEAM PLAYER

The perfect complement to your existing refrigeration supply, whatever your circumstances. Whether you have a separate refrigerating machine or use well water, whether you use absorption refrigeration or a central refrigeration supply, the i.Cool® CompactCenter means your printing press always operates under consistent conditions.

MUCH LONGER SERVICE LIFE

There are huge advantages for you and your clients: with the i.Cool® CompactCenter you can ensure consistent printing quality and at the same time reduce the wear and tear on the moving parts of your printing press thanks to its closed machine circuit. This extends its service life and means long-lasting cost reductions.

MAXIMUM INDIVIDUAL BENEFIT

For many years Cofely has been working all over the world to produce and develop systems which provide the greatest on-site benefits for printing works and which give you the best possible usefulness thanks to flexible and adaptable products. An excellent example of this is the i.Cool® CompactCenter.

The i.Cool® CompactCenter can be combined with the i.Cool® AirCenter.



i.COOL® COMPACTCENTER – Your Benefits

EFFICIENCY THROUGH OPTIMIZATION

- Optimal parameter control because the cooling capacity is adapted to the machine
- Precisely maintained temperatures
- Less spoilage

SUSTAINABILITY

- Optimal product quality and reproducibility, even for large runs
- Reduced wear and tear on moving parts because of constant temperature conditions and a closed, dirt-free refrigeration circuit

INTEGRATED INTO THE IN-HOUSE NETWORK – BUT STILL INDEPENDENT

- Hydraulic separation from the local cold water network using plate heat exchangers
- Independent of pressure fluctuations and potentially dirty water

AXI.COS® HIGH-TECH CONTROL

- Precise regulation and control
- Telemonitoring
- Remote service
- Control panel connection (optional)

i.COOL AIRCENTER

A SAFE INVESTMENT

The i.Cool® AirCenter takes on a typical Achilles' heel of modern printing presses. Because of sound protection or crowded production areas, uncontrolled radiated heat often leads to malfunctions. The ink-water balance changes, the printing quality fluctuates, in extreme cases the machine electronics even break down. Here the i.Cool® AirCenter offers a professional solution.

CONSTANT OPERATING CONDITIONS

The large amount of radiated heat is efficiently carried off without a draught. The parameters that can be affected by heat remain stable throughout the entire production cycle. This allows you to increase your productivity, reduce costs and minimize fluctuations in printing quality.

FLEXIBLE INTEGRATION

When developing the i.Cool® AirCenter Cofely put special emphasis on the flexibility of the modules. Even when the spatial conditions are difficult and the machine configurations are complex, the supply air columns can be optimally fitted into your operation – to make sure, we stick to the standard grid of the market's common sound protection walls.

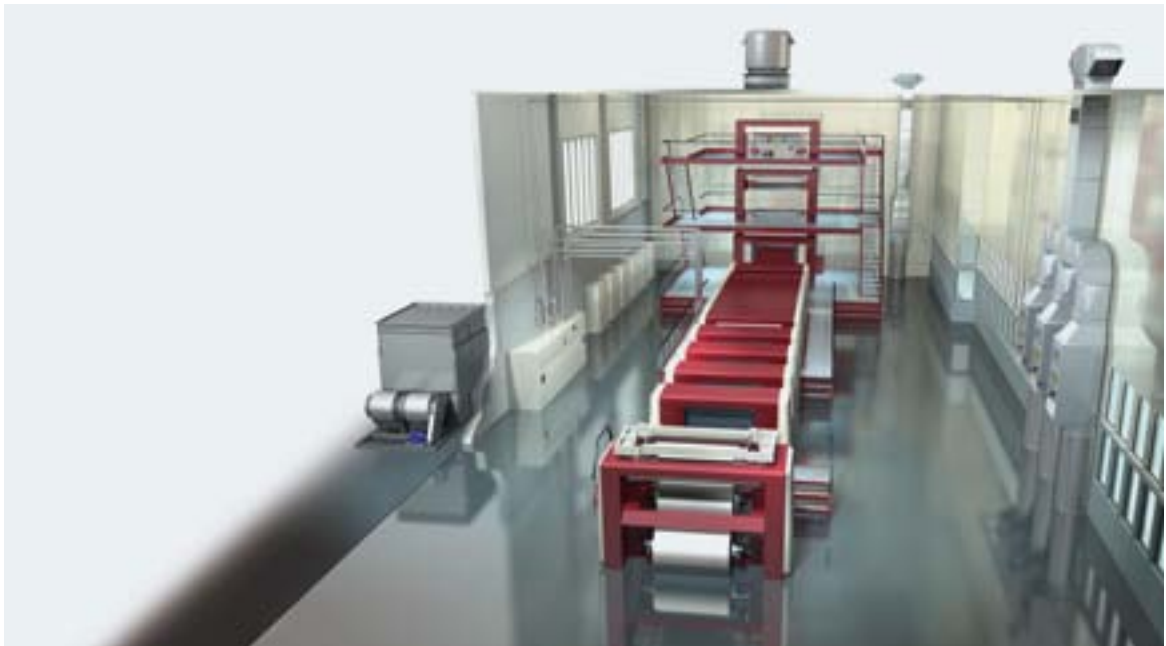
THE SPECIAL DETAIL

Environment protection is the watchword of Cofely's corporate philosophy – especially when it allows savings for our customers. By using the natural thermal current, you attain energy costs savings of up to 50 % compared to conventional systems. Furthermore, you use the machine's waste heat to warm up cold outside air and you can switch automatically to or from each supply air column. These innovations lead to distinct savings in your company. Upon request we can also provide turnkey system concepts, all under one roof.

The i.Cool® AirCenter can also be combined with the i.Cool® AquaCenter, the i.Cool® AquaCenter S or the i.Cool® CompactCenter.



*Air for eliminating printing press waste heat.
Use the natural thermal current, work economically
and efficiently.*



i.COOL® AIRCENTER – the clean solution

ECONOMICAL AND ENVIRONMENTALLY-FRIENDLY

- Increased productivity for your printing press
- Up to 50 % savings on energy costs thanks to the use of natural thermal current
- Reduction of printing costs on every run
- Meets all legal requirements
- Energy recovery by using production heat to heat the surrounding air
- Selective Air Supply (SAS) of primary air columns as required
- Reduced IPA usage through stable ink-water balance and draught-free ventilation, particularly around the printing units

SPACE-SAVING AND FLEXIBLE

- Compact, stand-alone primary air columns
- Can be retrofitted
- Modules can be expanded or repositioned
- Fits in the standard grid of the market's common sound protection walls

CONSTANT, OPTIMUM OPERATING CONDITIONS

- Optimum ventilation, even for complex machinery or difficult locations
- No thermal influence of areas outside the sound capsule through microprocessor-controlled pressure adjustment of the printing machinery
- Draught-free air intake
- Specially developed to meet the ventilation requirements of the printing process
- Uniform conditions around the printing units
- Reduced isopropyl alcohol usage

EASY ASSEMBLY

- Simple installation of the air columns
- Short connection air ducts
- Can be installed by local technicians

AXI.COS® HIGH-TECH CONTROL

- Precise regulation and control
- Telemonitoring
- Remote service
- Control panel connection (optional)

i.COOL VARIOAIRCENTER



CLEAN SOLUTIONS

The i.Cool® VarioAirCenter offers a professional remedy for all the typical ventilation problems to be found in printing works. Whether around the printing press or in the post-press area, our solutions always guarantee the perfect production conditions for people, machinery and products.

The modular components can be combined to suit every need.

PERFECT CLIMATE

Heat build-up and exposure to solvents and dust are things of the past. Cooling of supply air and circulating air adapted to your needs, optimised air changes and large filter surfaces ensure uniform operating conditions. This means you can increase your productivity, reduce costs and minimise fluctuations in product quality.

UNIVERSAL USE

The modular construction means that the system can be used in all print production areas. Your i.Cool® VarioAirCenter can be adapted to suit any location or technical requirements and its system components, primary air columns and Temcoil devices mean that it is re-usable at any time.

COST REDUCTION AND PROTECTING THE ENVIRONMENT

Care for the environment is one of our company's fundamental values. Alongside the responsibility we bear towards our generation and the generations to come, we are committed to developing products which meet our customers' needs. Using an i.Cool® VarioAirCenter will save you money because of its low energy consumption compared to conventional machines. Minimal loss of pressure due to short air ducts, the use of thermal updrafts to transport the air and waste heat from the machinery for heating in winter – all these are good for both your pocket and the environment. The i.Cool® VarioAirCenter can be combined with the i.Cool® AquaCenter, the i.Cool® AquaCenter S and the i.Cool® CompactCenter.

i.COOL® VARIOAIRCENTER – for optimum results

ECONOMICAL AND ENVIRONMENTALLY-FRIENDLY

- Increased productivity
- Up to 50 % savings on energy costs thanks to innovative solutions
- Reduction of printing costs on every run
- Meets all legal requirements
- Energy recovery by using production heat to heat the surrounding air
- Selective Air Supply (SAS) of primary air columns and Temcoil devices as required
- Healthy working climate for both man and machine

SPACE-SAVING AND FLEXIBLE

- Compact, stand-alone primary air columns and Temcoil devices
- Can be retrofitted
- Modules can be expanded or repositioned

CONSTANT, OPTIMUM OPERATING CONDITIONS

- Optimum ventilation, even for complex machinery or difficult locations
- Draught-free air intake
- Specially developed to meet the ventilation requirements of printing works
- Uniform conditions throughout all working and production areas
- Dust reduction and guarantee of perfect print quality

EASY ASSEMBLY

- Simple installation of components
- Short connection air ducts
- Can be installed by local technicians

AXI.COS® HIGH-TECH CONTROL

- Precise regulation and control
- Telemonitoring
- Remote service
- Control panel connection (optional)



*Air for removal of heat from printing press.
Circulating air for reduction of dust and heat recovery*

COFELY – EUROPE’S LEADING BRAND FOR ENERGY EFFICIENCY.

Virtually all areas of life require more efficient solutions when it is about dealing with energy - and this is a decisive factor of a company's competitiveness. Against this background, it makes sense to create service portfolios which are especially designed for this purpose. After the merger of Gaz de France and Suez to GDF Suez, one of the largest energy corporations in the world, Cofely, as European subsidiary, also merges the competencies of both companies in the area energy services and energy efficiency.

Cofely's mission is to be the one-stop shop which provides every customer with the exact kind of energy efficiency which they want and need.

Under the umbrella of the new European brand we now provide efficient technologies for machinery, buildings and refrigeration, along with energy production and distribution, commercial services and technical management. All these come together to create complete, tailored solutions which are good for both our customers and the environment.

The key is to have a breadth of expertise which covers all aspects of energy efficiency and which can justifiably be called unique. This is the foundation for Cofely's contribution towards optimising your business in three different areas:

- **Improving the efficiency of buildings and processes**

Design, construction, installation and maintenance of technology for systems and buildings – with special expertise in areas such as cooling technology, ventilation and equipment or building automation.

- **Solutions for local energy supply and production**

Design, installation and operation of the infrastructure, e.g. cooling and heating networks, combined heat and power plants, regenerative energy production and energy recovery.

- **Integrated services with guaranteed results**

Facility services, technical building management, energy supply contracting and energy procurement.

PROVEN COMPETENCE - TIGHTER NETWORKS – COFELY IN GERMANY.

Cofely has set itself the task of not only utilizing companies' primary and secondary energy in the most economical and efficient way possible, but also of working with our partners in the most energy-saving way possible. A comprehensive portfolio is the best way to run even complex projects in a responsible way, so that we can free up our customer's internal resources for other projects.



SYSTEMS TECHNOLOGY

- Technology for ventilation, cooling, sanitation, measuring, controlling, regulating, building automation, electronics and news, fire protection, energy, heating, pipeline construction
- Clean room and process technology
- Tailored technical infrastructure solutions for particularly complex applications, e.g. industrial manufacturing, laboratories or clinics, hospitals, nuclear power plants

FACILITY SERVICES

- Servicing, maintenance, replacements, warranty / incident / environmental management, technical, infrastructure and commercial building management

ENERGY SERVICES

- On-site energy and media management: production and distribution of steam, compressed air, heat, cooling and electricity
- Full-service contracting: total operations management, maintenance of technical equipment and management
- Energy supply contracting: cost reductions through energy-efficient technology and choice of primary energy suppliers

- Energy-saving contracting: design, financing, construction and maintenance of building technology retrofitting for guaranteed energy savings

COOLING TECHNOLOGY

- Cooling technology for industrial applications, open cold water systems, process cooling and special applications
- Cooling technology products: liquid chillers, cooling towers, heat pumps
- Cooling technology services: servicing, industrial and equipment services, maintenance, refurbishment, cooling equipment rental, training and spare parts

Cofely in numbers

- Representation in 20 countries
- 35,000 employees
- 8 billion euro turnover
- No. 1 in Europe for energy and environmental efficiency



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