# Hamon® Air-Cooled Condensers


## The Power to Change the World

John Cockerill

# Our Commitment to Energy Production

**John Cockerill Hamon is the world leader manufacturer of Air-Cooled Steam Condensers for Energy Production.**

Our products condensate the steam of:

- Conventional Power Generation
- Waste to Energy Plants
- Biomass Power Plants
- Industrial Cogeneration Plants
- Oil & Gas Plants
- Thermal Solar Power Plants

We propose tailor-made solutions for any steam flow, vacuum requirement or noise restriction. We provide competitive solutions from very small units for 5 MW biomass plants to mega packages for 1100 MW Combined Cycle Power Plants.

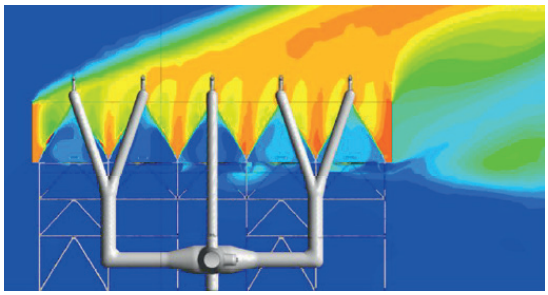
**Over 50 GW produced with John Cockerill Hamon Air-Cooled Condensers (ACC)**

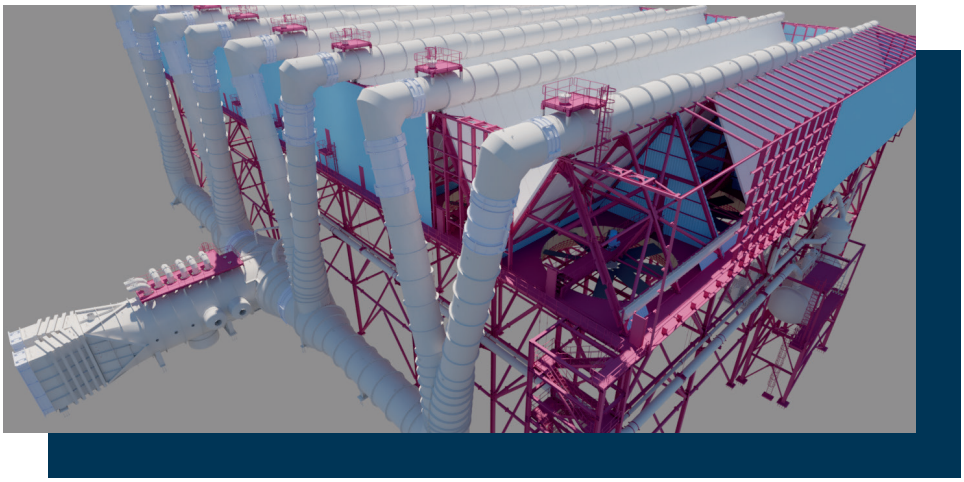
# Engineered by experts

John Cockerill Hamon offers state-of-the-art air cooled steam condensers supported by a talented staff who promoted the early single row tubes in the 1990.

We propose 8 different varieties of single row tubes. This allows selecting the best solution for every specific requirement.

Our Computer Fluid Dynamics experts can analyze the best configuration to minimize recirculation. We can optimize the layout using the best numeric technology validated by our field measurements in the existing equipment.





Our full 3D-design allows us a complete e-assembly of the full air-cooled condenser plant, minimizing interferences and assembly issues.

If your ambient conditions are extremely high or low, we incorporate in our design the required equipment to guarantee safe operations.

**Any flow, weather conditions or wind ... we have the right Air-Cooled Condenser for you.**

# Dry Cooling Systems

## «A» Frame **ACC** Metallic Structure

Our technological solution:

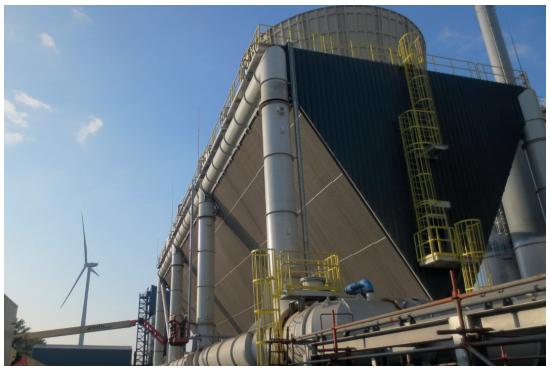
- Environment-friendly
- Winter freeze protection (-40°C and below)
- Lowest auxiliary power
- Lowest noise levels
- Appropriate for any external climate conditions
- Single row technology
- Minimum sub-cooling
- No dead zones (so minimum fouling)

## «A» Frame **ACC** Concrete Structure

It combines the following advantages:

- Concrete under-structure
- Bigger spam between columns
- Free space for routing high voltage underground cables

## «**MARS**» Induced Draft ACC



This is the best solution for:

- Lowest power consumption
- Higher constructability
- Gearboxes and motors in cold zone
- Extreme low vibrations
- Easy maintenance
- Optimum at any external ambient conditions
- Metallic structure

# A construction strategy for the most challenging projects


**Our Construction Department defines the erection strategy to fulfill the most challenging projects.**

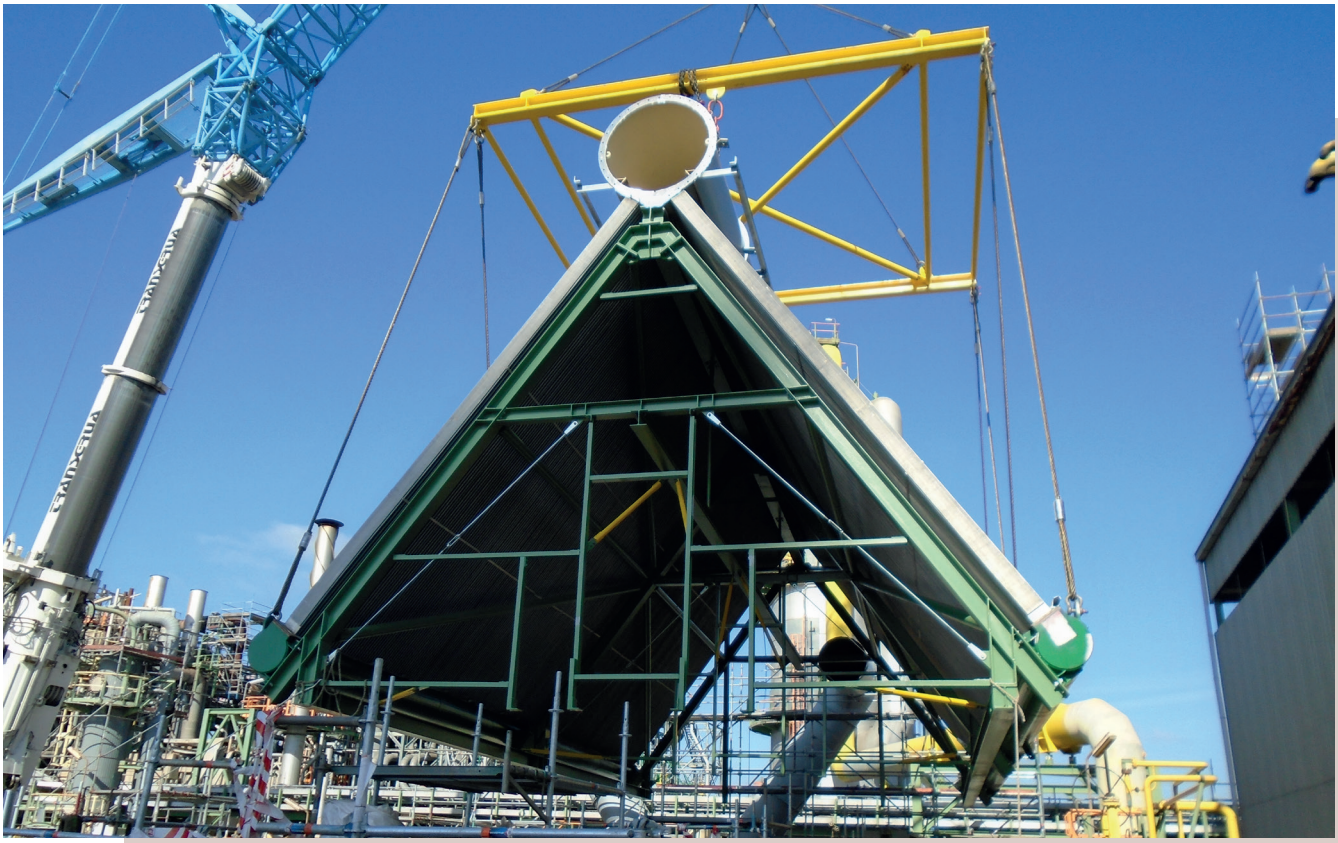
We can design the Air-Cooled Condensers in blocks to be preassembled at ground level:

- Reducing elevation work to 40%
- Better bundles welding quality
- Easier quality inspection
- Shorter erection time
- May improve erection costs
- Blocks can be manufactured in a different place and sent to site

We have supplied an Air-Cooled Condenser for a Combined Cycle Power Plant of 1100 MW in South East Asia with 48 modules. Our tailor-made procedures, our committed supervision and the client's talented team enabled to achieve the challenge by performing full erection in only 12 months, with top safety and quality records.

**John Cockerill Hamon can supply turnkey solutions or engineering, supervision, and construction services.**

# Customer Service by our experts



John Cockerill Hamon provides a full range of aftermarket services for existing Air-Cooled Condensers. Our experts are capable to develop innovative and cost-effective solutions regardless of the original equipment manufacturer.

John Cockerill Hamon has one of the strongest customer service teams in the industry. They can provide long-lasting solutions while maintaining a tight execution schedule anywhere in the world to fulfill any market challenges.

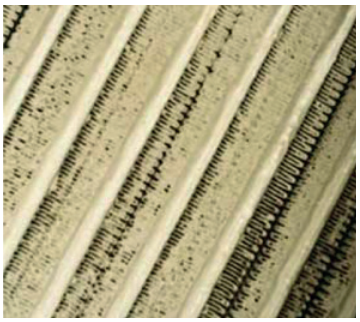
## Maintenance

John Cockerill Hamon can offer a full preventive maintenance program to ensure the availability and performance of Air-Cooled Condensers to avoid costly unscheduled shutdowns and issues related to turbine trip.

We can clean bundles to recover the performance or install cleaning systems where they do not exist, or improve  underperforming existing ones.

## Refurbishements & Upgrades

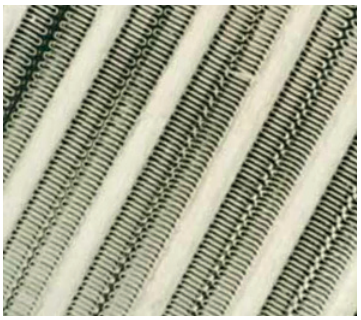
- Bundle replacements
- Mechanical group upgrades
- Adding new modules
- Wind effect mitigation
- Noise reduction
- Peak fogging
- Predictive twin model



Bundles before cleaning

## Spares & Replacement Parts

Our spare parts department can help end-users to select the appropriate parts for any Air-Cooled Condensers of any brand.

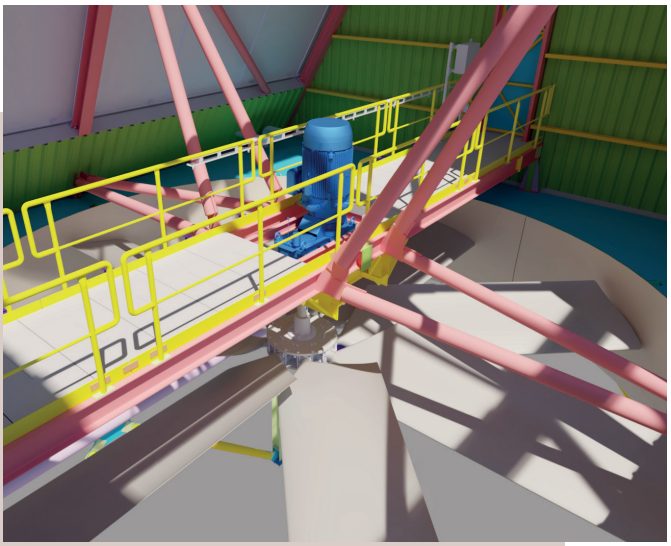


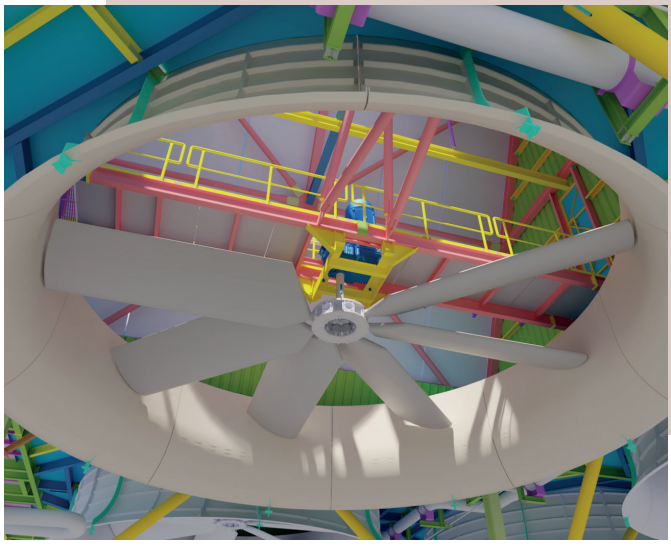
Bundles after cleaning

## Testing

Our site team can perform testing campaigns anywhere in the world:

- Performance
- Vacuum system
- Leak detection
- Noise and vibrations





**Trust the John Cockerill Hamon teams to provide the best customer service while addressing every project need.**

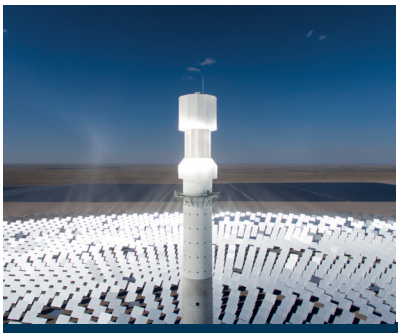
# Towards a more Sustainable World

**John Cockerill Hamon** has been the world leader in cooling solutions since 1904. Its activities include the design, construction of **cooling towers** and **air-cooled condensers**, manufacturing of critical components and a wide range of after-sales services. Resolutely turned towards the future, entrepreneurship is key at John Cockerill.

We are committed to **respond to the needs of our times** by developing innovative solutions to facilitate access to **low-carbon energy**, accelerate the **energy transition**, **reduce emissions** and help you produce **sustainably**.

Discover our other specialities in power generation:

HRSGs & Boilers



Power & Storage

Solids & Waste

## John Cockerill Energy Worldwide

**Belgium – France – Spain – United Kingdom – Saudi Arabia – India – Vietnam– Indonesia – South Korea – USA – Brazil**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HAMON
A John Cockerill Brand



John Cockerill