



COCHRAN

Energy Solutions Worldwide

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Cochran delivers fully engineered heat and energy solutions to commerce and industry across the globe. Cochran has been at the forefront of combining proven engineering skills with technological innovation in heat generation and transfer systems since 1878. Operating worldwide, the Cochran brand is the globally recognised benchmark for quality British engineering and manufacturing; a name that stands for unrivalled dependability, durability and premium performance.

Cochran are the internationally acknowledged experts in the provision of packaged steam and hot water boilers, along with integrated systems utilising shell boiler designs, combustion and ancillary technology constructed to exceed the most stringent UK, European and International standards.



COCHRAN

Whatever the requirement, Cochran offer the range and flexibility to deliver solutions that match the application, from the smallest system through to the planning, management and delivery of the largest turnkey energy centre projects.

The complete Cochran offering extends to include servicing, spares and planned maintenance solutions, combined with an in depth technical support throughout the long operational life of a Cochran boiler and ancillary equipment. The company also delivers comprehensive training; ensuring customers' operatives work both effectively and safely - at the same time achieving maximum efficiency from the system.

Cochran's long and wide-ranging experience is backed-up by a worldwide network of carefully selected, highly trained and approved agents who deliver total global support. The Cochran package is founded on over 130 years at the forefront of industry-leading innovation in combustion and control system design and manufacture. That unrivalled experience that means when you choose Cochran, you have selected a life-long solution to your energy needs.

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Steam and Hot Water Boilers

Every Cochran boiler is designed and manufactured in the United Kingdom to unbeatable standards of specification, construction and quality. Cochran's in-house team deliver a premium quality product that is both highly efficient and famously reliable. Every order is reviewed and then precision engineered to ensure that all of the client's requirements are met. From a turnkey energy centre to the 'supply only' of boiler equipment, each project is delivered by a dedicated project engineer.

Cochran's extensive in-house skills base enables the company to take any project from feasibility studies through design to manufacture, installation, commissioning and operation, whether in the UK, or across the globe. This total capability is supported by industry-leading operator training and a comprehensive after-sales support and spares service.

Use of cutting-edge microprocessor control, monitoring and sequence systems helps cut fuel consumption and reduce running costs, whilst further improving Cochran's superb reliability and keeping expensive downtime to a minimum.

Cochran's boiler range is globally renowned for reliable operation across a broad spectrum of demanding applications. Every unit is individually tailored to match the output requirements and unique demands of your site. As a result, Cochran boilers are the trusted solution in reliability for critical sectors such as education, healthcare, government facilities, hotels and food and drink processing.

World beating quality is the reason that Cochran was selected to receive the very highest British accolade - the award of a coveted Royal Warrant for the Supply of Steam and Hot Water Plant by appointment of Her Majesty the Queen.



Containerised Boilerhouse

Reflecting the changing use of boilers and increasing demand, Cochran now offer a fully Containerised Boilerhouse. Utilising high standards of design and manufacturing expertise, Cochran offer customers a complete packaged boilerhouse solution, which can be tailored to meet your specific requirements. Plant rooms are built to order and are also available to hire from our extensive rental fleet.

Cochran's standard Containerised Boilerhouse includes:

- Steam Boiler.
- Hot Well Tank.
- Water Softener system and Chemical Dosing.
- Blowdown Vessel.
- Fully installed internal interconnecting Pipework and Valves.
- Fully installed internal Electrical Wiring.
- Brand new Container featuring Secure Access Doors.
- Robust, anti-slip Chequer Plate Flooring.
- Fluorescent internal Lighting.
- Louvered Ventilation Ducts.
- Chimney Stub.
- Electrical Powerpoints.

Benefits of a Cochran Containerised Boilerhouse include:

- Cost-Effectiveness.
- Compact, Secure and Weatherproof.
- Simplified Foundations.
- Rapid Site Installation.
- Comprehensive Spares Availability.
- Highly Skilled Service Support Team.
- Plug and play availability.
- Provides the flexibility of use only available with a truly 'portable' boilerhouse solution.



Biomass Boiler Solutions

Today industry is continually reviewing its operational energy requirements and seeking alternative solutions in a drive to reduce costs. Biomass is increasingly becoming a serious alternative to the conventional fossil fuels that have been used historically to generate steam or hot water.

Complementing the Company's world renowned boilers and associated equipment, Cochran now offer a range of steam and hot water boilers and related plant developed especially to meet the unique requirements of modern biomass energy generation.

Cochran supply and install biomass-fuelled Fire Tube boilers for commerce and industry in outputs ranging from 990kW up to 12000kW in single boiler applications. Substantially higher outputs are available using multiple boilers.

A complete package of Biomass solutions

Building on its unrivalled industry experience, Cochran delivers the total biomass boilerhouse solution. Design, manufacture and installation can cover the full spectrum of fuel handling and storage, boilers, furnaces and Renewable Heat Incentive compliant flue gas filtering, as well as supply of all associated ancillary equipment.

Working closely with trusted partners in the handling and combustion fields, the Cochran package offers impressive combined experience. Cochran and its partners offer unrivalled expertise in delivering tailor-made biomass solutions.

- 990 to 12000 kW Steam and Hot Water Boilers.
- Moisture contents up to 55 %.
- Integration with Oil and Gas fired systems.
- Shredders, Fuels Hoppers and Silos.
- Self-Loading Walking Floor Systems.
- Underfeed Stokers.
- Hydraulic Moving Grates.
- Automatic Ash Removal.
- Flue Gas Emission Controls.
- Ducting and Chimneys.
- Combined Heat and Power Units.
- Complete Turnkey Solutions.



Turnkey Projects

Cochran specialise in providing **Design, Build and Maintenance packages for hot water and steam boilers**. Cochran's complete installation packages place energy efficiency at the forefront of boiler design, installation of equipment and provision of ancillaries. Drawing on the Company's unrivalled expertise developed during more than a hundred years at the forefront of the boiler industry, this comprehensive service encompasses specification development, manufacture, installation and integration into an existing boilerhouse. Alternatively Cochran can provide complete purpose-built packaged plant rooms and boilerhouse structures.

Working in a close, supportive relationship with the client, Cochran develop a project from its initial concept through to turnkey delivery. Manufacturing at our facility in Scotland is followed by on-site plant commissioning, supervision, training and handover delivered entirely by the Company.

The complete Cochran offering meets with all aspects of the Construction Design and Management (CDM) regulations and can be tailored to include a broad spectrum of site supervision and operator training programmes, as well as full spares, service and planned maintenance solutions. This comprehensive package is backed up by in-depth technical support throughout the long operational life of a Cochran boiler and its ancillary equipment.

Cochran's benchmark standards of planning, time management and site delivery, combined with the industry-leading performance of our boilers ensure that every Cochran installation meets and exceeds customer expectations.



Combustion and Control

Cochran designs, manufactures and installs a range of premium quality combustion and control systems. The result of sustained product development over many years, they combine optimal performance with minimised emissions and noise levels. Cochran burners can be fitted to our full range of new boilers, but they are also regularly used to improve reliability, control and efficiency as an upgrade to existing plant, not only Cochran boilers.

The burner ranges can bring the benefits of the latest technologies to existing plant of any manufacturer, extending operational life. Cochran burners are installed across a range of applications, for example dryers and kilns, as well as a varied range of boiler types from various manufacturers. Combustion control technology is tailored to the requirements of the site and ranges from traditional electro-mechanical systems through to the latest microprocessor-based technologies.

Synergy

'Synergy' is the result of extensive research and development. It takes all the boiler and combustion control functions and integrates them seamlessly into a single cutting edge control centre. Based around an easily navigable touchscreen, Synergy provides access to accurate real-time control and monitoring, as well as fault and status diagnostics, either remotely or via a PC, tablet or Smartphone. It also offers the flexibility to communicate with any commercially available BMS or SCADA system.

Alongside optimising control and monitoring of all key boiler components, it can sequence boilers and integrate all other boiler house balance of plant. Synergy can also monitor and trend the status of any of the key components in the plant - put simply, it takes boiler control and monitoring to the next level.

Fuel Handling

Complementing its reliable, high quality combustion unit offering, the Company also provides a comprehensive range of fuel handling equipment that ensures optimal performance throughout the system. Cochran gas boosters, fuel oil pumps, fuel oil heating stations, fuel metering units and instrumentation packages meet the demands of every installation.



Heat Recovery and Composite Boiler Solutions

Fired and unfired heat recovery boilers for power generation and process systems are an area of special expertise for Cochran.

The Company's versatile designs in steam and hot water boilers enable solutions to be designed for operation in conjunction with a broad spectrum of heat generating equipment, including gas turbines, reciprocating engines, incinerators, gasifiers, thermal oxidisers and other process heat plant. Specified to deliver maximum output from waste heat sources, they are packaged complete with inlet and outlet ducts, control panel and all the valves and fittings required for safe operation.

Where demand rises beyond the recoverable heat output capability, Cochran also offer a Composite boiler that incorporates auxiliary/supplementary firing equipment that delivers both flexibility and security of steam or water supply. The company's Composite boiler options are ideally suited to the Combined Heat and Power systems that are typically used in hospitals, petrochemical and marine applications. A wide range of associated control and auxiliary plant is also available.



Cochran Efficiency



Economisers

Cochran economisers recover heat from boiler exhaust gases, transferring it to the boiler feed water, often improving the system's thermal efficiency significantly. Cochran economisers can deliver fuel savings in excess of 6%.

A short Heat Recovery & Economiser Survey enables our Engineers to determine a plant's heat recovery potential. Whilst economisers are usually fitted to natural gas-fired systems, Cochran can also design and fit specialist systems for liquid-fuelled boilers.

Fuel Conversions

Cochran provide fuel conversions for almost any industrial heat or steam boiler. Conversion to cleaner burning fuels can deliver cost reductions and reduce maintenance, as well as simplifying fuel handling and improving the control and reliability of your boiler. Cochran can also provide solutions for a range of bio-fuel applications. Cochran can supply and install new, efficient combustion systems with the latest control systems, making all the required modifications to the boiler for maximum efficiency and safety using the new fuel.

Boiler House Upgrades

Natural wear and tear, tough operating conditions and sporadic or ineffective maintenance can all take their toll on your boiler. Under normal conditions, boiler shells outlast the rest of your boiler plant, so it makes sense to improve the boiler and take advantage of modern developments in technology and efficiency in the middle years of its operational life.

As a global leader in the provision of heat and energy, Cochran has vast experience in upgrading all types and brands of industrial boiler and ancillary plant. Projects can range from simple fuel conversions to total boiler house refurbishments that address every aspect of plant control, combustion and monitoring.

New components and the latest systems offer a broad spectrum of benefits, particularly when it comes to improving fuel efficiency, reliability and reducing emissions. In some cases increased automation and better control systems can even achieve reduced boiler house manning levels, delivering significant savings as a result.

Descaling Services

Safe, efficient boiler operation demands regular inspection and servicing. Special attention needs to be paid to water quality and the deposits that reduce safety and efficiency, resulting in damage to the boiler. The Company has developed a highly effective chemical descaling service. Chemical descaling is a non-invasive cleaning technique that is the best way to free your boiler from scale and corrosion, maximising efficiency and prolonging its operational life.

Fireside Cleaning

Under normal operation combustion deposits can build up, reducing efficiency and increasing fuel consumption. Cochran can provide a professional cleaning service to ensure your plant performance is optimised. Attention needs to be paid to water quality and the deposits that reduce safety and efficiency, resulting in damage to the boiler.

Support Services

Cochran are committed to providing full life cycle support for all boiler plant, incorporating plant servicing, maintenance, emergency response, spare parts and repairs to suit any model. As the original manufacturer, Cochran are uniquely placed to provide full design, manufacturing and technical support for existing plant. The UK's largest dedicated network of service engineers and approved agents across the globe, provide support and maintenance to keep Cochran boilers operating at maximum efficiency in over 100 countries worldwide.

Full Boilerhouse Support

Cochran provide routine servicing, maintenance and repair capability to support all items within the boilerhouse, tailoring bespoke packages to suit specific requirements.

In addition to Cochran products, the Company's services and products extend to cover most leading manufacturer's plant, covering boiler plant, combustion equipment, water level controls, hot well tanks, deaerators, blow-down vessels, pumps, valves and steam systems.

Cochran Servicing and Repair

Cochran provide comprehensive support, servicing and repairs for a wide variety of boilers, combustion equipment and boiler house ancillaries throughout their working lives, helping to ensure efficient and reliable operation. The complete service and repair package includes service contracts, insurance inspection preparation and emergency breakdown response, through to complete energy centre operation contracts under which Cochran operate, monitor and maintain the plant in its entirety. All operational work is planned and co-ordinated through a central Product Support Desk, providing UK customers with a single point of contact.

The Total Spares Solution

Cochran's highly trained boiler spares interpreters are totally committed to providing a fast, comprehensive and reliable spares parts service. The Company's expert technical staff and sales teams are available to help customers identify and supply the parts that they require. UK-based customers can also purchase goods through Cochran's dedicated website, www.cochranspares.co.uk

Cochran's aim is to make your search for spare parts as simple as possible. Cochran stock and supply an expanding range of goods to meet the demand of both on-line customers and those that require boiler specific items or prefer to speak to the Company's friendly technical staff.

The Cochran Spares offering is augmented by a global network of agents who provide in-country support for overseas customers in over 100 different countries.

Cochran supply the following items:

- Industrial boiler spares for all leading brands of steam and hot water boilers.
- Control panels and electrical equipment.
- Blowdown and TDS valves and controllers.
- Insulation and cladding.
- Refractory.
- Boiler mountings and gauges.
- Pressure Jet Burner spares.
- Rotary Cup Burner spares.
- Gas valves.
- Safety valves.
- Gas boosters.
- Boiler tubes.
- Feed water pumps.

Visit www.cochranspares.co.uk
Spares catalogue available upon request.



Cochran Training

Are your boiler operators fully qualified? Steam and hot water boilers are vital to the core activity of many organisations. Fuel efficiency, minimum downtime, safe operations and cleaner emissions are all within the scope of the boiler operator. Ensure that your operators are fully trained in these aspects and more by becoming Certified Industrial Boiler Operators.

Correct operation and regular routine maintenance is the best way to ensure that your boiler plant remains at peak efficiency, keeping your running costs to a minimum. You can achieve this by developing the skills and awareness of your boilerhouse and plant operation and maintenance staff through a Cochran Training Course, regardless of the make of boiler and associated equipment.

Courses provide efficient and practical training for boiler operators, plant maintenance personnel, or indeed anyone associated with the safe operation and maintenance of boiler plant.

Cochran has a long record of accomplishment and global reputation for the delivery of premium boiler operation training on all boiler makes and models. Whether delivering a Training Course at our Training Centre in Newbie, or mentoring operatives at, or close to your own site, our expert training professionals will develop the skills and awareness of your boilerhouse team to achieve the best from your equipment – whether supplied by Cochran or another manufacturer.

Cochran is just one of a handful of organisations around the world who are approved providers of the Combustion Engineering Association's accredited training courses. Training options vary from one-day seminars that provide an introduction to boiler plant to more in-depth training or brief refresher courses. Needless to say, these courses can be tailored to meet your specific boiler type and the special needs and requirements of your company.



The benefits of Cochran Boiler Training:

- **Safety:** Ensure that those responsible for day-to-day boiler operation, or overall management, are fully conversant with the risks, safe procedures and best practice in the boiler house. Satisfy HSE and Insurance Company's requirement for proof of competence.
- **Efficiency:** Training helps ensure that boilers run at peak performance at all times. Even just a 0.5% drop in boiler efficiency between services could cost thousands of pounds in excess fuel.
- **Environmental:** Ensure compliance with current legislation by learning the correct procedures to minimise emissions.

Boiler Hire



Cochran provides a variety of flexible options for temporary heat and energy applications. Cochran hire solutions are built upon the same manufacturing philosophy and robust designs that come as standard for all our new boiler plant.

A unit hired from Cochran can provide a quick cost-effective solution to maintain site production for short term coverage in support of new plant installation, ongoing maintenance, statutory inspections, upgrade or repair outages or to cater for seasonal load demands.

We can also provide units for extended term hire applications, ideal for long term site project works or where capital expenditure is unavailable. Cochran can also provide purpose built units to suit site specific, long term requirements.

All Cochran hire units are fully self-contained with either trailer mounted packages or static containers; featuring Cochran boilers, hot well tanks, water treatment, blow down vessels and chimney sections required for operation. Each packaged unit is designed for quick and easy installation into existing site services.

When provided in conjunction with other Cochran products and services, the provision of a hire unit would be fully coordinated with all site activities, removing this burden from the end user.

With the largest dedicated network of Service Engineers in the UK, every Cochran hire is fully supported with breakdown coverage included as standard.

Installation, commissioning, operation and training can be provided to ensure a fully comprehensive offering.