

# energy

The House Journal for the Clients and Staff of Cochran.  
Autumn 2014 / Issue #1

## Inside this Issue:

Synergy, the latest in boiler  
house PLC control

Every Spare for Every Boiler  
Cochran in Healthcare



COCHRAN



# Welcome

**F**ew companies can truly say they have been world leaders in their field for more than a century. I'm proud to be able to say Cochran can.

The name Cochran is a byword for excellence in engineering. Our track record as innovators, ever-evolving to break new ground, is second to none and of course our reliability is renowned globally.

The fact that our company is so often referred to as 'The Hoover' of the boiler world is something in which we take tremendous pride. It's a status, however, that we never take for granted.

Our highly skilled engineers and craftsmen are acutely aware that, in an ever-changing, ever more challenging marketplace, we cannot afford to rest on our laurels.

Today Cochran continue to blaze a trail for the latest technologies first established by our founders all those years ago - leading our industry in design developments that deliver superior boilers, setting increasingly higher standards in a business where efficiency is everything.

Just as those who went before us turned boilermaking on its head as the inventors of the first horizontal firetube boiler, we continue to turn heads with our forward-thinking approach. In recent years the world has changed to a low carbon emphasis - from coal to oil, then gas, and now heat recovery and biomass - we remain at the forefront of putting those fuels to efficient use, with impressive results.



As demands on boiler houses and energy centres continue to grow, we have worked hard to ensure we are ahead of the competition and remain the first-choice supplier. Our British built boilers are highly sought after worldwide. As one of the UK's leading names in engineering exports, we continue to open new markets in the globe's fastest growing economies, ensuring that in an ever-smaller world, our reach continues to extend.

Few companies have a past as illustrious as ours. Even fewer can say that their future looks just as bright.

**Tom Ritchie** Cochran Managing Director



# The Best of British

Cochran represents all that's best in British engineering the world over, combining proven engineering skills with technological innovation since 1878.

- **The UK's Biggest Boiler Maker:** A highly skilled team design and manufacture all of Cochran's boilers in Newbie, South West Scotland.
- **Comprehensive range of Boilers:** Industry leading Steam, Hot Water, Water Tube, Biomass and Heat Recovery Boilers. Famous Cochran brands include the Wee Chieftain, Thermax and Borderer.
- **Specialist Combustion Equipment:** Cochran designed burners and control equipment optimising efficiency and emissions.
- **Fastest Growing Boiler Hire Fleet:** Containerised and trailer mounted boilers available for short or long term hire. Cover peak requirement, break-down or servicing with units containing all the equipment required to operate them.
- **Largest UK Service Team:** Highly trained service engineers available for planned preventative maintenance work and break-downs.
- **Dedicated Repair Squad:** Offering on-site repairs, as well as burner conversions, energy upgrades, boiler cleaning and chemical descale.
- **Technical Support:** Quick and effective telephone technical support available on all Cochran products.
- **Dedicated Spares Team:** Expert advice and comprehensive parts service for all makes of boiler. See page 13.
- **Training:** Approved provider of the CEA-accredited BOAS training course. Tailored training also available on site or at the Cochran Training Centre.
- **International Coverage:** With approximately 40% of product being exported, Cochran operate in over 100 countries supported by a network of carefully selected and highly trained agents.
- **Accreditation:** CE marked and independently inspected. American, Chinese and Russian accreditations are held, as well as the internationally recognised ISO 9001. See back cover.
- **The Queen's Royal Warrant:** Official supplier of steam and hot water plant to Her Majesty the Queen.
- **Made in Britain:** A member of the 'Made in Britain' group, flying the flag for British-made quality and innovation across the globe.



By Appointment to  
Her Majesty the Queen  
Boilermakers  
Cochran Ltd, Annan



# Investing in the Future

Cochran believe deeply in the value of their structured apprenticeship scheme. It instils a unique understanding of the business, ensuring apprentices are fully equipped to play their part in the future success of the Company.

**A**PPRENTICE THOMAS THOMSON is flying the flag for Cochran's industry leading engineering quality, being hailed as a rising star of the next generation. In a prestigious national award, the Cochran Fitter was named The Industrial and Commercial Energy Association's (ICOM) 'Apprentice of the Year 2014'. Thomas overcame tough competition to take the top title. The accolade was awarded in recognition of his exceptional standards of workmanship, coursework and commitment to training.

## Earn while you learn

Thomas' award is also a ringing endorsement for Cochran's hugely successful apprenticeship programme, which plays a key role in nurturing the skills essential to maintain the Company's firmly established position as a global leader. Thomas knew from an early age that he wanted to pursue a career in engineering. He was

particularly keen to develop a long-term future with Cochran, which is where his grandfather spent his working life.

The in-depth skills and professional experience that he is gaining, whilst earning a wage, were key attractions of undertaking an apprenticeship. Thomas said, "Rather than go to University and THEN start my career,

neck-deep in debt, I decided I wanted to make my way up the ladder from the shop floor. My granddad did the same – I hope my career can follow the same long and rewarding path his did."

## Apprentice Profile

- **Name:** Thomas Thomson
- **Age:** 20
- **Position:** Apprentice Fitter
- **NVQ:** Level 3 in Mechanical Engineering at College
- **Home:** Eastriggs, 6 miles from Cochran
- **Education:** 'Highers' at Annan Academy

## Keeping it in the family

Robert Murray, Thomas' grandfather, 'served time' as a Plater and Fabricator before rising through the ranks at Cochran. Now 71, he stayed with Cochran for 42 years and was the Works Manager at Newbie by the time he retired.



Thomas receives his prestigious award from Tomorrow's World Presenter and Government STEM Czar, Kate Bellingham.

## Apprenticeships

“He was proud of me coming here,” said Thomas. “This is a business which has played a big part in his life and whenever I see him we talk constantly about Cochran. He’s also been great in advising me on the different aspects of my apprenticeship.”

### Always more to learn

Now in the final stages of his training, Thomas’ apprenticeship has seen him learn every aspect of the production process – hands-on and in full depth. The all-important practical factory floor training has been backed up by learning the theory through college day-release.

“It’s been really interesting. I’ve learned a lot, but there’s loads for me still to learn,” Thomas added. “I work with many highly experienced Engineers who started as apprentices themselves. They know the job inside out and are a great source of knowledge to learn from. This is a good job to be in.” Thomas was very pleased to have his achievements recognised by ICOM. “I was over the moon. I would encourage anyone to go for an apprenticeship.”

Thomas is so committed to learning that he’s also taking night classes in Electrical Engineering, working towards a Higher National Certificate (HNC).

Cochran Manufacturing Manager James Lynn is delighted with the apprentice’s progress and his success. “We are very proud of Thomas. Throughout his apprenticeship he has worked hard in all aspects of his training. He’s a very pleasant guy and a valuable asset to our business” he said.

David Young, General Manager, accompanied Thomas when he collected his award in London. He also congratulated him on the accolade. Reflecting on the other nominees he commented “The quality of entrants was extremely high. I am delighted the industry recognised Thomas.”

James Lynn, himself an apprentice in days past, is in no doubt about the benefits of the apprenticeship scheme. He said, “We find it very effective to use the hands-on knowledge of our current workforce to transfer skills on to our younger employees. In turn, these apprentices will play their part in passing skills on to the next generation. When their training is complete, each apprentice is extremely competent in their given trade.”



**Once the bedrock of British engineering, apprenticeships have been sadly neglected in recent times. Companies are now initiating or reviving apprenticeships, but Cochran has never faltered in its commitment to them.**

- **Apprenticeship Scheme Age:** 50 years

- **Apprentices Qualified:** Over 300

- **Current Apprentices:** 22

- **Apprenticeships Offered:**

Electrician; Plater; Welder;  
Pipe Fitter; Fitter; and  
Office-Based Engineer.

- **Route to the Top:**

Three of the current seven in the Senior Management Team started as apprentices, including Managing Director Tom Ritchie.

- **Shop Floor:**

80% of the factory staff ‘served their time’ as apprentices.

# 135 Illustrious Years of Engineering History

**I**T WAS VISIONARY BRITISH ENTREPRENEURIALISM that saw the formation of Cochran, breaking new ground during the golden age of Victorian engineering excellence. The firm's founders were key innovators - prime movers who made waves in a time when Great Britain was the industrial powerhouse of the world.

Unafraid to challenge convention, their work was nothing less than pioneering, first in the building of ships, and then, most crucially in the construction of industrial boilers. Their legacy lives on in all that Cochran does, as the Company and reputation for quality and reliability that they created continues to evolve through innovation, just as it did from its earliest days.

## *Formation of the Company*

It was in 1878 that James Taylor Cochran and partner Edward Crompton established the Cochran & Co engineering works, at Birkenhead on Merseyside. History has proven that forging an alliance with Crompton was the cleverest move Cochran could have made for his fledgling firm. It was the innovative Crompton who actually invented what was to become the globally famous Cochran boiler, turning the world of boiler design on its head in the process.

The key feature of his new design was the introduction of horizontal fire-tubes into a vertical cylindrical shell by means of flanged tube plates, a design first showcased at the 1878 Royal Agricultural Show in Bristol, during the Company's inaugural year. The new design combined all the compactness of a vertical unit with the improved efficiency of a tubular boiler. Unlike many static boilers of the time, the firebox was integral and, with the chimney simply bolting to the side, the unit formed a complete package, giving the user all the advantages of easily portable steam power.

Cochran's new boiler quickly earned its reputation for reliability and, by the early 1900s, almost every steamship afloat had a Cochran boiler fitted as an auxiliary to their main boiler. Indeed, such was the boiler's vast impact on the market that, by 1881, no fewer than four other firms were manufacturing them under licence.



## *A Golden Era*

It was a golden era for Cochran; the boiler building business was booming, while engine and shipbuilding prospered too. In addition to breaking new ground in boilers, the firm remained innovators in shipbuilding. Perhaps the most famous Cochran maritime innovation was 'Resurgam', the world's first powered submarine.

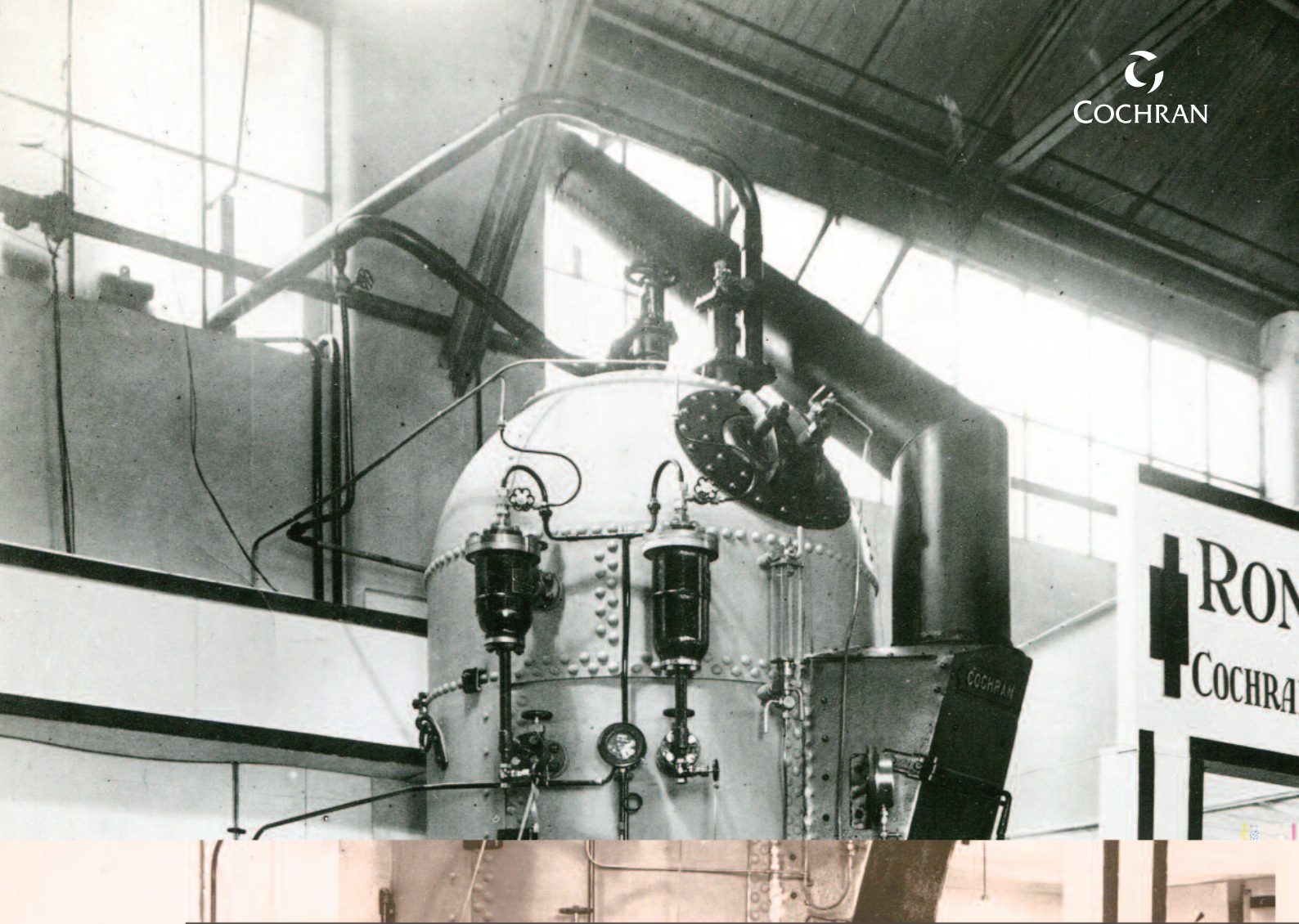
With growing repeat orders and ever-increasing demand - particularly for the Cochran Donkey boiler - Cochran found it was becoming more and more difficult to work from its Birkenhead base. The cramped conditions of the Mersey basin prompted Cochran and Crompton to make their historic decision to search for a new site - one that could meet the demands of their expanding workload.

## *The Move North*

A new 52 acre location was identified at Newbie, at the mouth of the River Annan, just downstream of the Dumfriesshire town of the same name on the north side of the Solway Firth. With plenty of room to expand and slipways suitable for the small ships that the Company constructed, the switch to South West Scotland was an ideal choice.

A new company, 'Cochran & Co, Annan Limited', was registered in 1898 and the little town of Annan has been home to world-class boilermaking ever since.

Initially, the shipbuilding and boiler businesses continued side by side, with more than 20 vessels launched from the Newbie slipways. Whilst most of them were destined for the new markets opening up in Africa and South America, the Company still built ships for the demanding domestic market. This included the 700 tonne twin-screw luggage steamer Seacombe, which was put to work on the River Mersey close to Cochran's original Birkenhead home.



# Engineering History



With the boiler business proving the most lucrative, Executives decided to cease shipbuilding in 1901. However, the Newbie slipway that had been vital for launching ships, proved perfect for floating out the massive products that engineers would go on to build.

## *The Old Guard Depart*

In 1902 both Cochran and Crompton retired after 24 years of engineering innovation and success. A reorganisation of the business followed in 1904. The next 20 years of sustained expansion was led by Harry Llewelyn Davis as Chairman and Managing Director. His board members were John Hart Bellusher and Charles Edward Crompton, a nephew of Cochran's famous boiler designer.

Cochran's compact vertical unit became firmly established as 'the boiler of choice' on cargo vessels, generating high pressure steam to power deck-mounted lifting gear. With a vast export market, orders flooded in from every part of the world, but Cochran design engineers remained constantly busy developing the innovations that kept the Company firmly in its place at the forefront of the market.

## *War Looms*

As war loomed in 1913, the Company embarked on special oil-firing trials to ensure optimum technical performance for the emerging fuel of choice in raising steam. Every other fuel type was also monitored, with furnaces adapted to burn almost any fuel, including coal, coke, wood and wood waste gas, as well as the sugar cane refuse known as 'bagasse'.

During the four years of World War I Cochran production was controlled by the British Admiralty. New developments were put on hold as the nation fought for survival. Tried and tested units were sent out for a wide range of important wartime uses. However, new products soon followed in the post war years.

Cochran moved into pressure vessel manufacturing in 1928 as demand for Steam Accumulators grew. The largest vessels of that time - 'Ruth Accumulators' - were 75 feet long, more than 11 feet in diameter, weighing in excess of 100 tonnes. They were capable of working at an impressive 250 psi. The Company went on to forge a place as one of the country's leading fabricators in the accumulator field, producing

vessels for the petrochem, concrete and papermaking industries until 1970, when Executives decided to re-focus the business once again on industrial boiler production.

## *Focused Back on Boilers*

Technological advances in the field enabled Cochran to make the most of new opportunities, particularly those brought by the invention of the famous Sinuflo Tube. This design, pioneered by Cochran massively improved the efficiency of the boilers by increasing the heat transfer along the tubes' whole length.

Sinuflo technology spawned the creation of the Cochran Economic boiler. Launched in 1940, it boasted an induced draught fan, large combustion chamber and exceptional internal accessibility - ushering in yet another step-change in boiler design.

Cochran remained at the fore throughout the post-war emergence of demands for improved boiler efficiency, compactness and automatic operation. This new, modern era of industrial boiler design led to the creation of the Cochran Series Two vertical boiler, which went on to be built and installed in large numbers by the Company. Launched in 1959, it featured a thermal efficiency in excess of 80%. In addition to delivering greater output and providing automatic operation, it was capable of being fired on both liquid and solid fuels.

In the 1960s a new range of horizontal packaged boilers were developed; led by the Chieftain range which were fitted with matched Cochran Combustion Equipment, which has gone on to become a groundbreaking classic of industrial steam and hot water generation.

The Chieftain was initially introduced to produce steam, but high pressure hot water versions were soon added. Rapidly proving to be an industry leader, the range was strengthened in the following years by the Clansman, Thermax and Multipac designs, products which have been hugely successful.

## *A New Era*

Although the principles of boiler design remain true to Crompton's original concept, recent years have seen the development and evolution of the Cochran range to improve efficiency and environmental performance.

Today, boilers leaving the factory are fitted with the latest Cochran combustion equipment - specially designed to minimise emissions of greenhouse gasses, and are operated using the latest micro processor and PLC controls, coupled with touchscreen interfaces.

Most modern Cochran Boilers are also now fitted with efficiency boosting economisers. These make use of the heat going up the chimney to pre-heat the boiler feed water, enabling the Cochran range to deliver efficiency in excess of 95% - levels that Crompton could never have dreamt achievable.

The Cochran range of green products now also includes biomass boilers and a bespoke range of heat recovery boilers that generate steam from the waste heat generated by turbines, engines and other processes - dramatically increasing the overall efficiency of systems.

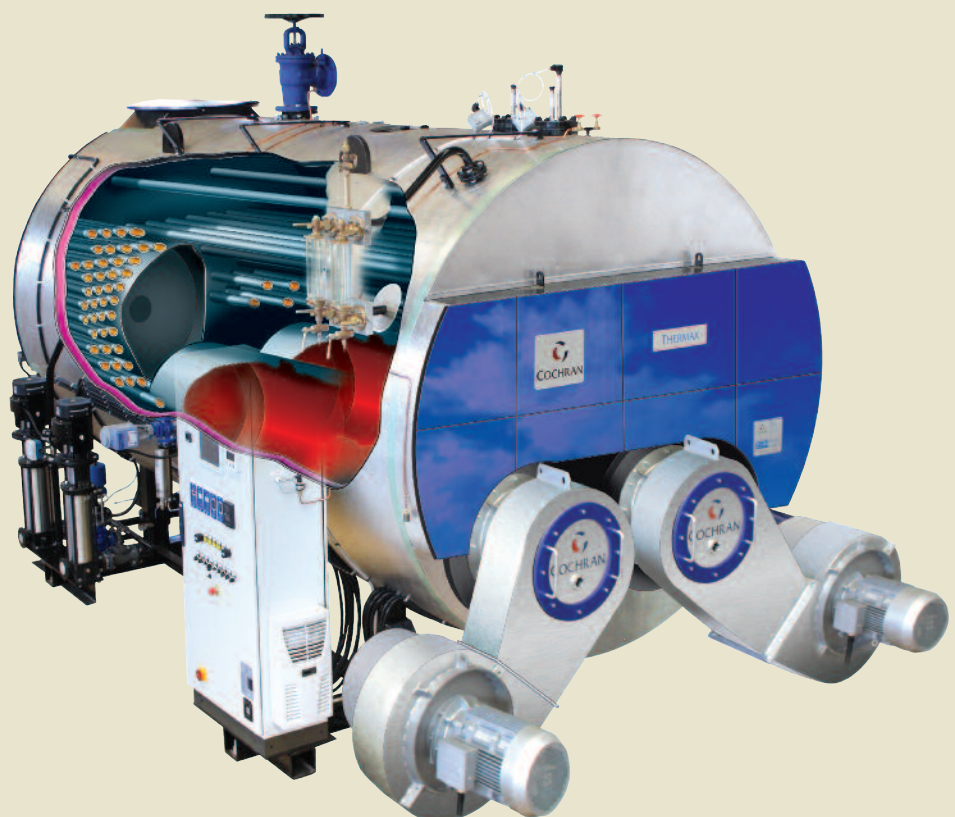




## *A Bright Future*

Today, some 135 years after its formation, Cochran remains at the forefront of boiler design and production, with new engineering advances regularly boosting the world beating status of the Company's products.

Through various different ownerships, Cochran remains in a steadfastly strong position. True to the ethos on which it was founded, the firm's reputation for unbeatable reliability and engineering excellence remains, cementing the name 'Cochran' as a byword for the best of British the world over. James Taylor Cochran and Edward Crompton would be proud.



# Healthcare Solutions

The provision of steam and hot water is essential to maintaining hygiene and the welfare of patients and staff in the healthcare environment. Cochran is trusted by many of the world's leading hospitals to deliver reliable solutions.



When it comes to combining proven engineering skills with technical innovation in quality heat generation and transfer systems, Cochran are second to none.

## Unrivalled Health Sector Reputation

In the past 20 years, Cochran has installed more than 500 boilers, generating over 2 million kg/h of steam, in hospitals around the globe. In a field where reliability is critical, those statistics attest to the exceptional standards the Company represents.

As well as the UK, Cochran has installed boiler equipment in many prestigious overseas medical facilities, including projects in the Gulf States, Egypt, Iraq, China and Hong Kong, Caribbean and West Africa. In some cases the boilers being replaced were Cochran boilers up to 60 years old – an incredible testament to the durability of the product.

David Weild, Cochran's Industrial Boiler Business Manager, heads a team with unrivalled experience in delivering effective and efficient hospital boiler systems. Commenting on this most critical of sectors,

## Casefile

### Foresterhill Energy Centre

- Three Conventionally Fired Boilers
- One Waste Heat Recovery Boiler
- One Biomass Boiler
- Steam Output of 55,000kg/hr
- 34 MW of Heat Output or enough to supply power to 63,000 households for one year



34MW of power, Foresterhill Energy Centre, Aberdeen.

he said, “We’ve worked in the healthcare industry for many years. It’s a sector in which we’ve had significant UK and global success.” “Over the years we have supplied many hospital projects into the Arab Gulf states and we have recently noticed an increased demand for the latest energy efficient technology, despite their relatively low fuel costs. We have just finished commissioning a project in Qatar which required high efficiency economisers and the latest PLC combustion control technology to save every last fuel cent. Our customers recognise that their steam or hot water provision is in safe hands when it’s supplied by Cochran.”

## 500 Cochran boilers installed in the last 20 years, generating over 2 million kg/h of steam, in hospitals around the globe.

### Ever Greater Efficiency

In recent years, as energy security and efficiency have come to the fore, combined heat and power systems have become a key component in meeting these demands.

The Company has a proven track record in working with key consultants and CHP solution providers in meeting these requirements. Cochran will design a bespoke boiler and economiser system installation, tailored to the needs of the site. Heat recovery plant and conventional boilers are specifically designed to give optimal performance from a specific piece of power generating equipment. Whatever the requirement, Cochran has the range and flexibility essential to meet the need; from the smallest system to the planning, engineering, management and delivery of the largest turnkey energy centres.

A good example of this capability is Foresterhill Health Campus Energy Centre in Aberdeen, which is one of the larger-scale projects completed by Cochran in recent years. This project,

which has attracted plaudits for its energy efficiency, has the capacity to supply a combined steam output of 55,000 kg/hr – that’s equivalent to 34 MW of heat output, or enough power to supply 63,000 households for a year. The vast energy needs of the Foresterhill Health Campus are met by three conventionally fired boilers and a waste heat recovery boiler. There is also a biomass boiler on site, fuelled by locally-sourced woodchip.

Once installed, the hospital requires a reliable preventative maintenance and servicing programme to be put in place to ensure it runs reliably and at its optimum performance. Cochran will provide the support to ensure plant availability of over 8,000 hours per year are possible.

### Repeat Business from Satisfied Customers

David says, “A high percentage of our business is repeat custom. This tells us something about the high standard and durability of the products and services that we offer. A lot of customers come to us because we can provide a total ‘turnkey’ package, leaving them to concentrate on their core activities.”

Working closely with the client, Cochran will develop a project from initial concept through to delivery. An in-depth survey of the specific site requirements establishes the design parameters. Following manufacture at their plant in Newbie, South West Scotland, on-site plant installation takes place. This often includes construction of a new boiler house, as well as all the mechanical and electrical work, commissioning and training. With representation in key locations around the world, there is international support for all Cochran products, which is one of the reason customers have such confidence in Cochran products.

## High efficiency economisers and the latest PLC combustion control technology to save every last fuel cent.



Two Thermax boilers and a Cochran Composite boiler at work at Queens Hospital, Burton-on-Trent.

# Synergy:

The interaction of multiple elements in a system to produce a greater combined effect.

**The result of extensive research and development, 'Synergy' takes all the boiler and combustion control functions and integrates them seamlessly into a single cutting edge control centre.**

The easily navigable, robust 17 inch touchscreen at the heart of the system allows access to accurate real-time control and monitoring, as well as fault and status diagnostics, either remotely or via a PC, tablet or Smartphone. Synergy has the flexibility to communicate with any commercially available BMS or SCADA system. The simple operation is supported by clear, logical on-screen help and guidance.

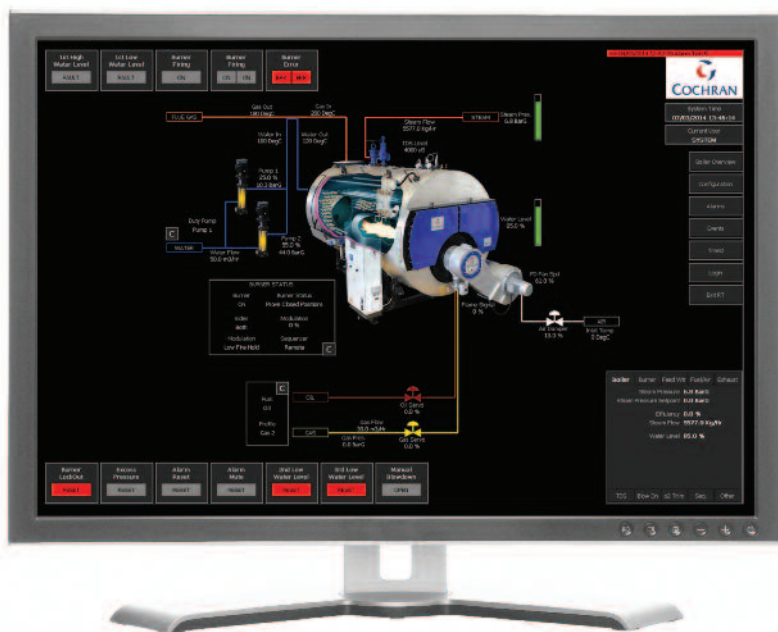
In addition to optimising control and monitoring of all key boiler components: Combustion; water level; blowdown; pump and fan VSD. Synergy can also sequence boilers and integrate all other boiler house balance of plant, such as water treatment, steam, emission monitoring, fuel and water metering - taking boiler control to the next level.

As well as total control of the plant, Synergy enables full monitoring and logging of all the boiler house variables you would wish to monitor. These variables can be measured, trended and plotted as well as being downloaded for analysis. Having access to this data can help the plant engineer to identify areas for improvement in the operation and efficiency of the process as well as within the boiler house.

Synergy can monitor and trend the status of any of the key components in the plant: Efficiency; steam output and pressure; burner modulation; photocell and oxygen trim; burner and fan servo motors and speed; fuel flows; boiler water level and feed water flow rate and temperature; feed water pump speeds and pressure; blowdown conditions; emissions; and temperature. This is an extensive list but by no means exhaustive; if we can take a signal we can monitor and trend.

Put simply, Synergy takes boiler control and monitoring to the next level.





## Synergy PLC Control

The complex array of indicator lights and awkward specialised controls that are so often an over-complicated feature of traditional control panels, have all been phased out in this strikingly simply interface. Meanwhile automated event logging, secure remote operation via Smartphone, Tablet or PC and re-transmission of data provide ease and flexibility in operation.

### Total Control at your Fingertips

- Simple to use Touchscreen Interface and Controls
- Boiler Analogue Signal Monitoring and Logging
- Combustion Control and Water Level Control
- Configurable High and Low Water Alarms
- Automatic Duty Cycling of Multiple Pumps
- VSD Feed Pump and FD Fan Control
- TDS and Timed Bottom Blowdown Control
- Automated Start Sequence and Cold Start procedures (with 'At Boiler' Presence Verification)
- Flexible Communications options to Building Management Systems or SCADA, with Remote Access and Diagnostics
- System Health Status Indication and On-Screen Help
- Password Protected Access
- Daily and Weekly Setpoint Profile Scheduling
- BG01 Compatible

### Touchscreen Controls

- Feed Pump Control
- Burner Control
- PhotoCell Test
- Alarm Fault
- Firing Rate Selection
- Water Level Control
- Fuel Selection
- Feed Pump Selection
- TDS and Timed Bottom Blowdown

### Touchscreen Status Indicators

- High Water
- Low Water
- Second and Third Low Water
- Excess Pressure
- Burner Firing
- Burner Lockout/Error
- Valve Proving
- Hours Run
- FD Fan Running
- FD Fan Tripped
- Oil Pump Running
- Oil Pump Tripped
- Feed Pump 1 Running
- Feed Pump 1 Tripped
- Feed Pump 2 Running
- Feed Pump 2 Tripped
- TDS Blowdown
- Intermittent Bottom Blowdown

## Tech Box

- 17" Touchscreen
- Intel Atom Z530, 1.6GHz Processor
- Up to 1GB RAM
- Ethernet and USB Connections
- Optional Interface for RS232, PROFIBUS, CANopen
- Internal Date and Time Clock
- Microsoft Windows OS
- Beckhoff - CX 5020 PLC Controller
- 24 V DC Power Supply
- Operating climate -25°C to +60°C

# Every Spare for Every Boiler

Whatever make or model, Cochran have the knowledge, expertise and comprehensive stock of parts to become your 'One Stop Boilerhouse Spares Shop'.



## Rapid Identification, Rapid Dispatch

The ability to rapidly identify and dispatch urgently-needed parts is something the Cochran Spares Team have built a solid reputation on. Parts are often needed urgently when there's a break-down, so it is vital that the correct item is dispatched quickly. The five strong Spares Team operating from a dedicated facility at the Newbie Headquarters, backed by Cochran's renowned team of engineers, have unrivalled experience in sourcing parts to match specific and often highly technical demands, sometimes with very little information to work with.

An impressive archive library, reaching back over half a century, enables the department to provide a service that no other competitor can offer, providing parts and equipment for boilers often installed decades ago.

## Cochran Spares Online

The newly updated Cochran Spares Website offers a one-stop shop for anyone looking for parts or spares, not just for Cochran-built boilers, but for all makes. The expanded user friendly website helps streamline the process of identifying parts, enabling the customer to search and view items at the click of a mouse. Each product features a photograph and a short description.

Yvonne Pascoe, Cochran's Spares manager said "People can now view a part online and either order directly through the website or, if in need of further technical advice, call our team. The website is an excellent tool for our customers and many have already commented on how good it is."

## Solutions Partner

To enhance the Spares Product range, Cochran have formed a partnership with electronics giant Siemens Building Technologies. The association sees Cochran distributing Siemens' burner management and control products to existing and new markets. Those sales are backed up by technical support direct from Siemens, giving Cochran an edge unavailable elsewhere in the industry.

Yvonne said: "This partnership is a fantastic opportunity for Cochran. We share the same vision for what a positive brand partnership can deliver and the direction in which this can evolve. Between us we have some of the best experience in the business to make it happen."



## The Spares Department

Cochran's dedicated spares facility holds a huge stock of specialist parts for all the major manufacturers.

The stores are backed up by extensive records on part specification, including items fitted during service and repair of individual Cochran boilers. With excellent historic records and a knowledgeable spares team, customers can be sure of a professional service.

Where a historic part is no longer available, the spares team can identify suitable alternative items.

### Spares for all the Leading Brands

In addition to the partnership with Siemens, Cochran supplies industrial boiler spares for all leading brands of steam and hot water boilers, including: 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; and feed water pumps.

All products come with complete technical support from Cochran's in-house experts, whilst our global network of agents provide local support for customers in over 100 countries.

Yvonne said: "We have an experienced and knowledgeable spares team and people recognise this. Some of our queries are for boilers that are 30, 40, or even 50 years old and yet we are still able to meet their requirements. Our comprehensive records even give us the advantage of being able to check back to when specific boilers were given additional retrofits, perhaps new combustion equipment, enabling the correct spare parts to be supplied to the customer's satisfaction."

**Pictured below:** The Spares Team, left to right; Diane Brydson, Rob Souter and Vicki Shaw. Seated; Yvonne Pascoe and Christine Thomson.



#### ● Manufacturers' Products supplied by Cochran:

- Autoflame
- Grundfos
- Honeywell
- RTK Control Systems
- Sauter
- Spirax Sarco
- Danfoss
- Hamworthy
- Nu-way
- Saacke
- Siemens
- Suntec

#### ● Parts held in stock at Cochran:

- Boiler Doors
- Boiler Gauges
- Boiler Plates and Tubes
- Combustion Equipment
- Electrical Parts
- Engineering Supplies
- Gaskets
- Ladder Tape, Insulation and Refractory
- Pipework Fittings
- Sight Glasses and Observation Ports
- Tube Cleaning Supplies
- Valves and Boiler Mountings
- Water Level Gauges

UK based customers can buy direct from online by visiting [cochranspares.co.uk](http://cochranspares.co.uk) or by accessing the spares store via the main Cochran site [cochran.co.uk](http://cochran.co.uk). Overseas clients can use it as a reference before calling the Spares Team direct on +44 (0) 1461 202211.

# The Credentials of Quality

Cochran's globally recognised status as 'the best in the boiler business' was reinforced this year when the Chinese and ISO9001 accreditations were re-assessed and retained.

## ■ ISO 9001:2008 Quality Management

This demanding worldwide system indicates that Cochran's internal controls meet a stringent set of recognised standards, backed up by regular, independent, third party audits.

## ■ ASME Manufacture & Assembly of Power Boilers (S) and ASME Manufacture of Pressure Vessels (U)

These accreditations provide surety that Cochran manufactures boilers and pressure vessels that measure up to the standards and codes laid down by the American Society of Mechanical Engineers. ASME approval is widely recognised the world over.

## ■ Chinese Boiler Manufacturing Licence

Gaining this licence entails approval visits from Chinese Government Officials and gives Cochran the clearance essential to export boilers into the People's Republic of China.

## ■ Russian Hot Water Boiler Certificate and Russian Steam Boiler Certificate

'GOST' is only granted after rigorous auditing by Russian Government Officials. Approval allows Cochran to export boilers into Russia and other states that use the Russian standard for boiler manufacture.

## ■ CE Marked

All Cochran Boilers are CE marked, giving assurance that they meet EU safety, health or environmental requirements and that they comply with relevant EU legislation.

## ■ Third Party Inspection

Every Cochran Boiler is carefully inspected by Bureau Veritas, an independent inspector, ensuring that it meets stringent quality standards before it leaves the factory.

Key international on-site inspections have recently reaffirmed that manufacturing standards at Cochran's Newbie headquarters are second to none. The Company has retained its top-level ISO9001 Quality Assurance accreditation, as well as its licence to manufacture boilers for export to China. Both quality marks were retained following stringent assessments of standards and safeguards to ensure the highest quality processes are guaranteed.

These approvals are among a string of industry leading accreditations currently held by the Company. They are critical for opening doors to trade the world over and prove that Cochran really does represent the very best of British engineering.

## Quality is Everything

In a business where quality is paramount, each of these approvals stresses the unrivalled level of workmanship that goes into every single Cochran boiler. Executives are delighted with the latest endorsements. Cochran has now held the ISO quality approval continuously since 1990. The ISO 9001 Quality Assurance accreditation was renewed by Lloyds Register of Quality Assurance (LRQA) following a five-day audit by its inspectors. Cochran Quality Manager, Tom Anderson said "They were very pleased with the robustness of our systems to deliver the quality of product our customers demand."

The LRQA inspection came just weeks after a similar visit by Chinese government inspectors, which also brought success. The renewals come on top of Cochran's ASME S and U stamps and the firm's Royal Warrant as boiler supplier to the Queen, which were all reaffirmed last year.

## Unique Approvals Level in the UK

"We are the only UK industrial boilermaker who can offer customers such comprehensive third party accreditations," Tom added. "There is recognition around the world of the quality of our manufacture. About 40% of what we build is now exported, but simply saying 'we build in Britain' is not enough - we have to deliver on the reputation that our name carries. British manufacturing is well respected for its quality, but this is no guarantee. Quality HAS to be demonstrated and accredited. When you are manufacturing safety critical components, such as boiler shells and combustion equipment, it is important that your factory has reputable third party endorsement of its quality systems and procedures."

## Stringent Standards

Holding key accreditations is a vital part of Cochran's business. To achieve and retain each of the accreditations, the Company must prove that it is competent in design and manufacturing principles and in quality control, as well as proving it has a robust management control system.

Regular formal auditing by independent testing bodies ensure these standards don't slip and that the parameters and regulatory requirements imposed by accreditation authorities are followed.

Tom added "We are proud and delighted that the quality of the work we do is globally recognised. The skills and quality of our workforce play an important role in enabling us to continue manufacturing in the UK when so many others have fallen by the wayside."

