



Cambs Compressors SOLUTIONS

AUTUMN 2018

'Keeping the heart of Industry Pumping'

100 Years of the RAF

As Spitfires and a Lancaster bomber fly past Buckingham Palace, it's a proud moment for Cambs Compressors.



As 100 planes filled the sky over Buckingham Palace in July to mark the force's centenary - Cambs Compressors celebrated their own Silver Jubilee with the knowledge that they played a small part in keeping some of these historic aircraft flying.

Working with The Aircraft Restoration Company

The UK's only flying Lancaster was restored by them after a nine-month project after being grounded in 2015 by an engine fire. The Battle of Britain Memorial Flight's Lancaster is allowed to fly a strictly limited number of hours each year, in order to extend its airworthiness.

The Company has completed many outstanding restorations

The Aircraft Restoration Company (ARC) is the largest of the specialist aero engineering companies sited at Duxford Airfield, Cambridgeshire. From this historic base the Company provides an extensive range of aviation services for aircraft owners.

A team Cambs Compressors are proud to be a part of

As with all customers of Cambs Compressors, we regard ourselves as an extension of your business rather than a contractor. Our vast experience enables us to recommend the best combination of compressor, piping material and distribution solution for all industries and applications. But, it has to be said there are few customers who can compete with the emotions of visiting ARC and seeing the aircraft they work on.

25 years of Cambs Compressors 1993-2018

Jurassic Park and Sleepless in Seattle were released at the movies, Buckingham Palace opened its doors to the public for the first time and Cambs Compressors was launched by Mark Fryer with £350 and a second hand Mark 1 Ford Fiesta.

25 years of pioneering compressed air solutions

In 1993 Mark set up Cambs Compressors working from home in a converted garage. Within 3 months business was so good he took on his first employee. A year later the garage couldn't support the business needs and Cambs Compressors relocated to a 500 sq ft industrial unit in Chettisham, Ely, Cambs.

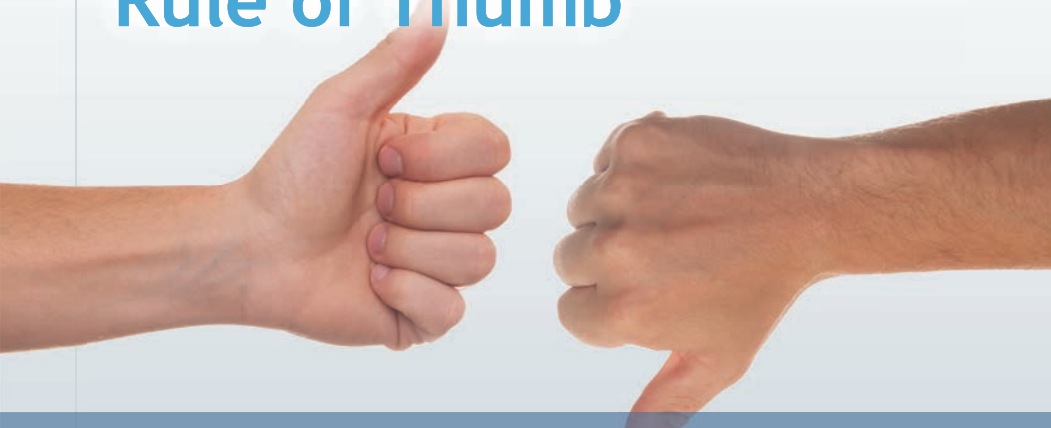
- The millennium, another move and 100% growth
- 2004 Invested in CAMBS System to manage contracts more efficiently
- 2008 Relocated to Chatteris, and a second depot at Stoke Rockford

March 2017 moved to St Ives embrace technology

The internet infrastructure was a major consideration as systems grew smarter and the dependency on accessing the data held became fundamental to the efficient servicing of clients.



Cost of Compressed Air - Rule of Thumb



Air compressor safety legislation and compliance



- Well maintained systems
- Energy Efficient Compressors
- Minimal Air Leaks

- Poorly maintained systems
- Inefficient 'Energy Hungry' Compressors
- Unchecked system running higher pressure lines to service air leaks

Compressed air can be a very expensive method of transferring energy because of the total energy supplied to a compressor, as little as 8-10% is typically converted into usable energy. This is because around 30% of compressed air generated is lost through leaks, poor maintenance, misapplication and poor control.

Cost of Compressed Air over a ten-year period

If you really need to know the true cost of compressed air, as a rule of thumb it is 10 times the cost of electricity. (Rule of thumb refers to a principle with broad application that is not intended to be strictly accurate or reliable for every situation. It refers to an easily learned and easily applied procedure or standard, based on practical experience rather than theory)*. Which means the cost of energy to run the system far outweighs the capital investment.

Cost of Compressed Air according to BCAS

Compressed air is an essential energy resource but it is commonly misused and wasted which incurs unnecessary cost and environmental impact. In order to make investment decisions to better manage your compressed air utility or to improve the reliability of your system, you need to know the true cost of compressed air. It is often quoted that compressed air is 10 times the cost of electricity but this is not necessarily useful or accurate for the purposes of making investment decisions.

Another widely quoted estimation is:

Annual running cost = kW rating compressor x annual hours of operation x unit cost of electricity

However, this is merely the cost of running a compressor, not the whole system. To arrive at an exact figure will take some time and effort. As a guide, the more variables you include the more time you will spend and the more expensive compressed air will appear to be.

BCAS Cost of Compressed Air 'rule of thumb'

To save time, adapting generally accepted average figures accepted in industry - companies that have gone through the process of establishing their cost for compressed air, normally end up with a figure:

Per cubic metre (m³) of air compressed costs between £ 0.01 and £0.03

This is the total cost of producing a cubic metre of compressed air, i.e. it includes energy, capital, maintenance and management.

How aware is the management in your business of the scope of current pressure regulations and the legal obligations of compliance?

The failure of a piece of air compressor equipment can do far more than put a temporary halt to production. It can cause major damage to your premises, injure or even kill. On average there are 150 dangerous occurrences a year involving compressed air in the UK.

Does your compressed air system comply with legislation?

Any business using air compressor equipment is required to comply with legislation designed to ensure that equipment is tested, maintained and certified by a "competent person". Many compressed air users may not fully realise that the operation of a compressed air system is subject to legal requirements.

Who is responsible if the compressed air system is on finance?

It's normally the owner/user who is responsible for the regulations, but this can vary if pressure systems are leased or hired. In these cases, the supplier may agree in the contract to be responsible for discharging the duties of the user under all the provisions of regulations. So if your compressed air system is subject to lease or hire, you need to check this (We can help here).

CompAir Hydrovane Compressed Air Solutions



CompAir Hydrovane has consistently been at the forefront of compressed air system development resulting in the most energy efficient compressors on the market today.

CompAir's complete product range includes various lubricated and oil-free compressed air technologies, air treatment and air management, mobile compressors and a comprehensive global service network. CompAir's breakthrough technologies, such as Quantima, are helping compressed air users achieve sustainability targets, with

energy efficient and oil-free compressors offering a lower environmental impact.

In 2008 CompAir was acquired by Gardner Denver, a leading global manufacturer of highly engineered compressors, blowers and pumps and is now a major part of its Industrials Group.

Compressed Air Risk Assessment



Compressed air is common place in commercial and institutional settings and is a vital contributor to productivity in the manufacturing and industrial landscape.

Compressed air is as essential to many process operations as electrical energy - however the risks associated with compressed air must be professionally assessed because compressed air in the workplace can pose a threat of serious or even fatal consequences.

Putting safety first - the risks associated with compressed air use

From the compressed air user perspective, poorly designed and installed equipment, lack of hazard awareness, neglect of regulations and disregard of safety procedures all contribute to a potential risk to people, productivity and profit.

Creating your compressed air risk assessment

System energy audits play a major role in identifying health and safety risks from the operation of below-standard installations. Incorrectly specified equipment, air leaks, poorly sized and installed pipework with long runs, excessive bends and fittings can all pose a health and safety risk. To help identify these potential hazards Cambs Compressors provide a FREE individual compressed air system survey, which audits and provides recommendations so you can make a fully informed risk assessment on your compressed air system.

Compressed Air Reconfiguration of Leading Horticultural Company



When the Chief Engineer had to reconfigure air systems to provide the manufacturing and production facility of one of the UK's leading horticultural companies with greater redundancy - so it could maintain multiple production lines in the event of a compressor failure - he looked at the options and concluded the addition of a third compressor was needed.

One of the fastest growing horticultural companies in the UK

The Chief Engineer was responsible for ensuring the manufacturing arm of the business could sustain the current demand and build in a plan for increased volumes. With compressed air at the heart of their production infrastructure - this needed to be robustly scrutinised.

Leading producer of retail brands and supplier to the industry

The manufacturing division was responsible for producing their own market leading brands as well as supplying products across a wide range of gardening products to the industry. This included lawn treatments, plant food, pest control, fungicides and weed killers. With products available for purchase in garden centres, large retailers on the high street across the UK and online - ensuring the production lines continuity was essential.

An additional 45kw compressor was specified

The incumbent production and manufacturing capability was based around a compressed air system fed by two compressors and the Chief Engineer had specified an additional 45kw compressor.

Compressed air companies were invited to tender for the work required.

Companies invited to tender but was the specification right?

Cambs Compressors were one of the companies invited to tender but rather than simply respond to the specification set out, they asked if they could investigate the system and scrutinise the needs - in addition to a direct response to the engineers request. The Chief Engineer agreed to allow them to log the current compressed air system through several cycles of manufacturing and production peaks. After just one week's data logging, Cambs Compressors had the detailed evidence to highlight a more cost-effective option.

A better solution met the demand needs with less cost

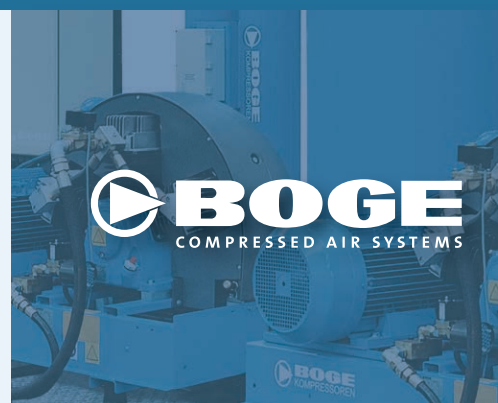
With lower cost to purchase, the 22kw compressor saved capital outlay, but more importantly energy consumption and reduced service costs. Cambs Compressors got the contract and the leading horticultural company had the redundancy and additional production capacity they needed at a fraction of the costs.

BOGE Air Compressors

BOGE is a leading German compressor manufacturer headquartered in Bielefeld, Germany and has earned a strong reputation for building premium quality compressors in support of a large global distribution network located in more than 120 countries.

The diverse range of BOGE compressed air solutions can address the individual needs of any industry and business. The range spans from individual compressors or compressed air components to complete system and service solutions. BOGE compressed air

systems meet all requirements and fulfil the most exacting demands of the food, plastics, steel and pharmaceutical industries. BOGE compressed air systems ensure maximum efficiency all over the world and in any environment.



Compressed Air Equipment Specialists

Whether you need design, sales and hire to repairs and regular maintenance, Cambs Compressors is the compressed air equipment specialist for Cambridgeshire, East Anglia and the East Midlands.

Providing an exceptional service to clients from minor modifications, to the design and installation of an entire new distribution mains. All in accordance with the British Compressed Air Society's latest best practice, health & safety guidelines and industrial standards.

High quality compressed air equipment from an experienced and trusted supplier

Cambs Compressors is an authorised distributor of a number of premium brands such as Avelair, CompAir Hydrovane, ERP Power Products, BEKO Technologies, BOGE and Bambi Air Compressors. Our experienced team has a wealth of knowledge with virtually every other make and model - which means you'll get expert advice whatever your situation. Cambs Compressors is committed to providing the highest quality products and workmanship. This is why we supply only premium brands and use OEM genuine parts on all repair work.

Initial design and installation, to ongoing maintenance and emergency repairs

Our vast experience enables us to recommend the best piping material to suit any particular site's needs, for all industries and applications. We can design both complex and simple air systems and provide you with specifications to suit your specific needs. Our pipe fitting team are fully trained and work to the most exacting of health & safety and quality requirements. They complete their work with minimal downtime or site disruption, reducing your energy costs and minimising your systems personal risk.

Cambs Compressors - Investing in the future



With a move to new premises, a renewed focus being measurably the best compressed air service provider in the region

Our attention has now expanded to include apprenticeships. Training new engineers and ensuring the long term delivery of excellence in the field of compressed air installation, servicing and repairs means investing now.

Working to engage the compressed air engineers of tomorrow

Mark Fryer, Cambs Compressors Managing Director, has pledged to develop the next generation of Compressed Air Engineers. The goal is to develop 'home grown timber' by taking on apprentices who display the right attitude.

Taking the long view

Cambs Compressors have worked to develop a structured training programme within the modern apprenticeship programme which combines the academic requirements with the old fashioned 'shadowing' of an experienced craftsperson. So the trainee engineer has the very best mix of learning, experience and development opportunities. This commitment to developing the next generation of compressed air engineers has extended to signing up for the Primary Engineer Programmes®. To find out more visit www.primaryengineer.com/about

For your Compressed Air Equipment Specialists FREE Performance Check call 0800 0029601

or email info@cambscompressors.co.uk

Our knowledge and vast experience allow us to offer effective and cost saving solutions to suit your needs whatever your application.

Compressed Air Systems, Design, Supply, Installation and Support



Compressed Air Equipment



Design & Installation Solutions



Compressor & Compressed Air System Maintenance



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