



Cambs Compressors SOLUTIONS

SUMMER 2019

'Keeping the heart of Industry Pumping'

Neon Lights, Camera, Action



When a business who started life as a film, television and music industry, specialising in the creation of sets and set-pieces for the likes of the BBC, ITV and Sony Entertainment needed a new compressor - who did they call?

Manufacturers of bespoke neon lights

With a rich history of working with the arts, artists and galleries, the business expanded and ventured into the production of bespoke neon lighting. With applications as diverse as art, architectural feature lighting and retail, the creative turnkey solutions have resulted in a first class reputation.

"Whenever I get asked about compressed air, I say it touches almost every aspect of our lives, so when a company specialising in neon lights asked us to provide them with a solution for their manufacturing workshop, it wasn't the surprise you might have thought."

Mark Fryer, Cambs Compressor Services Ltd

Compressed air manufacturing solution

Neon lights have been beacons of industry and modernity since they were introduced, en masse, in the early 20th century. One hundred years later, though, their method of production can still be painstakingly artisanal. However, like many manufacturing processes, it is reliant upon compressed air.

Compressed Air in Food Manufacturing

Cambs Compressors were approached to provide a compressed air solution for an international engineering company who designs, manufactures and installs high quality food production lines.

Serving all food sectors and a global customer base

The award-winning engineering company designs and manufactures food processing and packaging solutions. Their client base sectors include meat, poultry, fish, bakery, dairy, fruit and veg, ready meals and pet food.

Repair or Replace? New compressor sourced and installed in 24 hours

The original call-out was to respond to a compressor breakdown. Upon investigation a gate drive failure was the diagnosis and because of the age of the compressor - a new compressor was costed up. The new more powerful compressor provided a more reliable alternative. Plus, the new compressor was more energy efficient, immediately available and provided an increase in performance for the manufacturing facility.



Air Blow Gun UK Legislation



Blow guns can be extremely dangerous, at present there are no specific UK legislation which governs their use - however, they are coming under increasing scrutiny and the use of an air blow gun is covered in UK legislation indirectly under several acts relevant to business.

UK legislation impacting on businesses using compressed air blow guns

Blow guns come in many types and different configurations depending on their use. This is because the design typically incorporates some form of user feature within the nozzle to direct the air flow. It's the businesses obligation to ensure the user is both equipped with the safest configuration (i.e. Safest blow gun design for the application, regulator restricting PSI) and training (so the user understands the risks and takes the necessary precautions).

What UK legislation can be applied to compressed air blow guns?

Health and Safety at Work Act 1974 (HSWA), Chapter 37, Section 2 - does require the employer to ensure the safety of their employees.

Management of Health and Safety at Work Regulations 1999 (SI 1999/3242) - requires employers to implement a risk assessment of health and safety risks in order to put in place appropriate control measures.

Provision and Use of Work Equipment Regulations 1998 (SI 1998/2306) - requires that employers must have regard to the working conditions and the risks to health and safety, which exists where the equipment is used, as well as any additional risks posed by its use.

BCAS Recommendations for compressed air blow guns use

For safety, a simple on/off type of blowgun should always be used with a tamper-proof preset regulator, set at 2 bar. This is a value, which has been long recommended by the American OSHA body. Although not entirely satisfactory this does reduce the possibility of compressed air being injected through the skin.

Compressed air blow gun general types

Blow guns come in many differing configurations depending on application and embodying varying safety features. The basic type is one that is essentially a nozzle at the end of an airline which is fitted with a valve to activate the air flow (on/off type). These have no inherent safety features.

Contact us 0800 0029601 to get a FREE 'no obligation' audit of your compressed air systems, processes and equipment.

Moisture content controller for compressed air



Camb's Compressors have developed a cutting edge controller which shuts down the air supply if the moisture level exceeds the specified level. The system is small enough to be incorporated within a product design and is used by several OEM's across the world.

Removing condensate from compressed air

Moisture is in the air in most environments and will end up in your compressed air system if you do not have preventative measures. This moisture must be removed for air to be dry enough for the system to work properly. Condensate forms inside air when the temperature of the air is cooled to below the dew point. Air traps are used to remove condensate from the air piping but in some applications the air remains charged with moisture.

Equipment to measure, control dry air quality and protect

DAC's ensures your system has 'super dry air' and if not it has the ability to control, even shut down the compressed air system if levels are exceeded. DAC's is a core technology developed by Camb's Compressors to resolve issues with moisture, bacteria and other contaminants. It's applications have been diverse and include making cement and adhesives, bio, medical and pharma applications as well as hi-tech electronics manufacture.

DipCAM Qualification for Camb's Compressors Craig Turner!



Camb's Compressors Service Manager Craig Turner passed the BCAS Diploma in Compressed Air Management with flying colours.

BCAS Diploma in Compressed Air Management

The qualification has been developed and produced to meet the needs of those who design or maintain compressed air systems, plus anyone in the sales process. It aims to provide a comprehensive technical grounding in the principles of the operation of compressed air systems.

A deep and knowledgeable understanding of compressed air systems

The BCAS Diploma in Compressed Air Management (DipCAM) is a distance learning qualification developed and awarded by the British Compressed Air Society. In achieving the qualification, Camb's Compressors Craig Turner has demonstrated a deep and knowledgeable understanding of the principles of the operation of compressed air systems. This includes understanding of the interrelation of components within a compressed air system; installation and maintenance

Cambs biggest compressor for Tile Adhesive manufacturer



The 132kw direct drive variable speed compressor was supplied by Avelair to meet the needs of the expanding business. It's the biggest ever supplied and installed by Cambs Compressors Engineering and a custom build to meet the very specific needs of the adhesive manufacturer.

Energy efficiency and environmental concerns driving compressor specification

The manufacturer of high performance flooring and tiling products needed a compressed air solution to meet their growing production demands. They also wanted to ensure the compressor would be as energy efficient as possible, to fit in with its environmental policies.

Decommissioning and commissioning in a live manufacturing environment

Cambs Compressors have a bank of spare compressors to enable customers to get back up and running in the event of a breakdown or when commissioning a new system. Using their fleet of auxiliary compressors ensures downtime needed to fix a breakdown or switch over to a new solution is minimised, thus ensuring that the customer's business experiences the least possible impact from the Cambs engineering team.

Successful compressed air installation

The new compressed air solution has enabled the manufacturing capacity room to grow and the installation was executed to the timescales and budget set without impacting on production.

Joining forces with Mercedes F1 Racing Team to deliver school's electric car project



Brington Primary School reached out to local businesses to help them to engage their pupils with engineering. This was in conjunction with their Eagles electric KIT car/sustainability project and Cambs Compressors volunteered their support with the loan of engineer and service manager, Craig Turner.

It's great to engage the children with Engineering

Engineering is the foundation of the world around us and Compressed Air is involved in the manufacture of iPhones to JCB's, and powers the F1 teams as they perform their eye wateringly fast pit stops. Yet in recent years, engineering has not attracted the number of graduates the industry demands. Cambs Compressors has positively engaged with schools like Brington Primary to help educate the children on what engineering is all about. So when this opportunity was presented Cambs Compressors Managing Director Mark Fryer had no hesitation in supporting the children at Brington Primary in their Eagles electric KIT car/sustainability project.

Eagles electric KIT car/sustainability project

"Our Key Stage 2 programme, the teaching of Years 3 through to 6, is designed to encourage engagement and provide a greater variety stimulus to engage the children in their development.

"The Eagles electric KIT car/sustainability project has really sparked the children's interest in engineering. Having an exciting project like this is great, but what makes it so exciting is having the support of real engineers sharing their skill, expertise and inspiring the children to learn more.

"Craig, from our super sponsors Cambs Compressors, came to see the Eagles get behind the wheel of the car for its first outing on the playground. We've got some budding racing drivers all revved up for our first race day!

"We were blown away when engineer Ben, from the world-conquering Mercedes F1 racing team, visited to tell us about life in the fast lane. He brought some amazing bits of kit with him - some of us even got the chance to sit in Lewis Hamilton's race seat and to try on his £10,000 race suit!"

Mark Farrell, Headteacher
Brington Church of England Primary School

Experienced Field Service Engineer joins Cambs Compressors

Rob Dray embraces his new customer support role to help customers access expert advice and professional help in all aspects of their compressed air processes, systems and operations.

Increasing our knowledge, experience and support function

Robert joined Cambs Compressors in March and brings with him a wealth of practical 'hands on' experience in the processes, systems and operations incorporating compressed air. His role is Compressed Air Specialist and his primary role will be to help the customer support team identify the best compressed air solution for clients.

Embracing my new role and loving the challenge it brings.

"I started my engineering career as a time served RAF apprentice, before eventually forming an expertise in compressed air applications. This experience means I bring a customers perspective to the role and combined with my personal desire to always deliver the best possible solution."

Rob Dray, Compressed Air Specialist,
Cambs Compressors



Health and Safety risks of compressed air blow guns



When a leading NHS Foundation Trust was investing in a new sterilisation unit, their facilities management company knew to call Cambs Compressors for a tailored technical solution.

What does Pharmaceutical Grade Compressed Air mean?

Airborne microorganisms and contaminants naturally present in the ambient air become concentrated by the normal functions of a compressor. This is because an air compressor produces an environment of moisture, heat, and oil which allows many organisms to thrive. These microscopic entities might be entirely harmless, or they may be life threatening if certain conditions are present. It is impossible to know what organisms are present inside a compressed air system, and this is why it's critical to implement air quality control processes that protect both the processor and the customer.

Compressed Air for New NHS Trust Pharmaceutical Sterilisation Unit

Compressed air is needed for use across a number of production and packaging applications, including blowing off and drying bottles prior to filling, conveying pills, providing air for pneumatically controlled valves and cylinders, as well as breathing air systems. Cambs Compressors were able to liaise directly with the client to ensure the design and installation was tailored to the hospital's Pharmacy sterilisation processes.

Using compressed air to clean an area, remove swarf and blow down machined components and engineering machinery is commonplace but, are you aware of the health and safety risks?

Risks to operator Health and Safety using a compressed air blow gun

- Risk of compressed air entering the operator's bloodstream - this can result in death.
- Risk of eye injury from swarf or particles - potentially impeding sight or causing blindness
- Risk of droplets of metalworking fluid absorbed by the skin - which can cause dermatitis.
- Risk of metalworking fluid mist - a known cause of respiratory ill health including asthma.
- Risk of high noise levels - causing a significant risk of permanent hearing damage.

If compressed air blow guns are so dangerous why is there no specific legislation?

The short answer is, there doesn't need to be because there are several other Health and Safety legislative laws which protect people in the workplace the business needs to adhere to.

What can you do to make your compressed air blow gun operations safe?

- Identify the potential risks, the examples above are the most common but your operations will likely have their own specific risks.
- Reduce the exit pressure of the compressed air to as low a level as possible. Gauges are commercially available for testing this exit pressure.
- Consider the type of compressed air blow gun used. There are lots of different brands, design features and styles.
- Provide appropriate training, personal protective equipment, supervision and health surveillance.
- Get expert advice on your compressed air systems, processes and a professional audit to evidence you have taken every measure available to reduce the risk to your operatives using compressed air.

Contact us 0800 0029601 to get a FREE 'no obligation' audit of your compressed air systems, processes and equipment.

Compressed Air Systems, Design, Supply, Installation and Support



Compressed Air Equipment



Design & Installation Solutions



Compressor & Compressed Air System Maintenance



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