Compressed Air Safety

Compressed air safety – employer and employee responsibilities

Compressed air is a safe, reliable form of power. It is flexible, odourless and non-toxic, but it can be dangerous if not used responsibly.

Under the Health and Safety at Work Act 1974, the employer has a responsibility to provide a safe working environment and the employee, in the case of compressed air, to use air operated tools and equipment in a safe manner to protect his/her own safety as well as that of work colleagues.

Key hazards within a compressed air system:

- Unintended release of pressure from the air receiver, piping or a loose hose-tool connection
- Noise from compressed air leaks and pneumatic machinery
- Hand arm vibration from pneumatic tools (this is also a hazard with electric tools)
- Hot discharge pipes
- Moving parts of compressor
- Exposed drive shafts and belts
- Trip hazard from trailing air hoses

Minimising the risk of using air operated equipment

Users of compressed air should wear the appropriate personal protective equipment, e.g. one or more of: safety goggles, ear defenders, face mask, gloves.

Blowguns should only be used for cleaning purposes where the use of vacuum is not possible or appropriate. Blowguns must not be used for general cleaning of clothing or equipment. They project a stream of high energy air which can enter the bloodstream.

Provision and Use of Work Equipment states that as an employee you should not use equipment unless you are trained or have received adequate instruction.

See Factsheet 102.

Minimising the risk - checklist

The following actions and precautions can help to reduce the risk of injury:

- Train users of compressed air in safe working practices (see BCAS compressed air training courses online at www.bcas.org.uk)
- Provide user with and encourage the wearing of the appropriate Personal Protective Equipment
- Ensure that the company buys only CE marked equipment accompanied by written instructions for use
- Select low vibration tools from reputable suppliers
- Consider the replacement of quick disconnect hose connections with safer 2-stage disconnect components
- Maintain your system as required by the Pressure Systems Safety Regulations 2000: S.I.128

This is only an overview of safety issues for compressed air systems, more detail appears in our Installation Guide (5th edition) and BCAS Factsheet 850. Further information can be accessed from the H&SE website http://www.hse.gov.uk/pubns/books/hsg39.htm. If you have a specific issue related to safety, email technical@bcas.org.uk