

Blow Guns

Blowguns are increasingly coming under scrutiny in relation to their safe use.

There appears to be confusion as to how they should be applied and whether there are any legal requirements for this type of equipment.

Legal requirements

At present there are no legislative requirements that govern the specific use of blowguns and there are no restrictions on the type that can or are being used. This is a non-exhaustive example of legislation that should be considered;

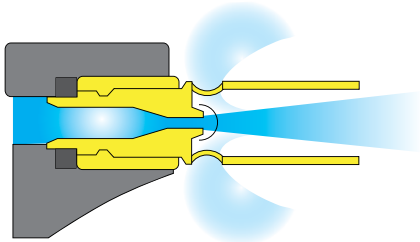
Health and Safety at Work Act 1974 (HSWA), Chapter 37, Section 2 - does require the employer to ensure the safety of their employees.

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.

Blow gun types

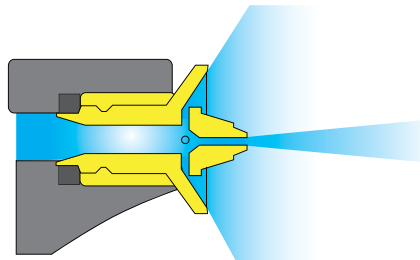
Blow guns come in many differing configurations depending on application and embody varying safety features. The most basic type is one that is essentially a nozzle at the end of an airline which is fitted with a valve to activate the air flow (on/off type). These have no inherent safety features.



Reduced jet-velocity type

Has an extension tube with holes at the base surrounding the main nozzle.

This has two effects. It draws in atmospheric air through the holes at the base adding to the overall air flow and secondly the large nozzle has the effect of reducing the velocity of the air stream which then assists in reducing the possibility of detritus being projected at the operator.



Air curtain type

Has a central nozzle surrounded by some means of creating an umbrella shaped air curtain around the main jet of air.

This reduces the possibility of detritus being projected at the operator by the main nozzle.

Additional features

Features incorporated in blow guns include various nozzle configurations for specific tasks as well as having devices that either reduce the pressure to the nozzle or cut it off entirely if the nozzle is blocked e.g. by skin contact.

BCAS recommendation

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.

Other types can be used on a normal factory air supply at about 6 bar although this should be confirmed with the supplier/manufacturer. The reason for operation at this pressure is that the holes at the base of the main nozzle will vent the air/supply in the event of blockage. The pressure at the main nozzle should then be low enough in most instances to reduce the possibility of injury to personnel. Finally those blowguns with active pressure reducing or cut-off devices have the safety function as an integral feature, which is tamper proof.