



**The Power Fastenings Association Ltd**  
42 Heath Street, Tamworth, Staffordshire B79 7JH  
Tel: +44(0)1827 52337 Fax: +44(0)1827 310827  
Website: [www.powerfastenings.org.uk](http://www.powerfastenings.org.uk)  
Email: [enquiries@powerfastenings.org.uk](mailto:enquiries@powerfastenings.org.uk)

© 2002 The Power Fastenings Association Ltd

**USING POWER FASTENER  
DRIVING TOOLS  
SAFELY!**



## THE CORE SAFETY POINTS

### ALWAYS READ THE INSTRUCTION MANUAL BEFORE USING THE TOOL

Quote: "A lot of people would rather risk disaster than read the instructions" Don't be one of those - play it safe!

### ALWAYS USE APPROVED EYE PROTECTION



We are only issued with one pair of eyes - and we all take them very much for granted. To avoid serious eye injury from fasteners or wooden splinters, always wear approved eye protection. This also applies to everyone in the vicinity of the tool.

Use approved safety glasses with side shields, goggles, or a wide vision safety mask over prescription glasses.

### ALWAYS USE APPROVED HEARING PROTECTION

#### Hearing Loss



Hearing loss can be a slow, imperceptible condition. To avoid the possibility of hearing loss, always use approved hearing protection when you are exposed to high noise levels. The HSE also provides display posters and information.

## ADOPT SAFE WORKING PRACTICES



Just bear in mind these basic safety rules for your own protection and that of other people working close by.

Read the safety and operating instructions before using the tool for the first time.

Wear approved hearing & eye protection.

For safe operation, make sure the tool is serviced regularly. Check the applied air pressure does not exceed the maximum pressure rating for the tool.

The safety and trigger systems must be appropriate to the application.

The tool must function properly and safely.

If the tool is not working properly, do not use it - have it serviced.

Whilst the safety system is activated, or the trigger is pulled, do not try to load or unload the tool with the airline connected.

Always disconnect the tool from the air supply when moving to another location.

Always assume the tool contains fasteners.

Do not walk with the tool with your finger on the trigger.



Never point the tool toward yourself, or anyone else, whether it contains fasteners or not.

Do not engage in horseplay with tools.

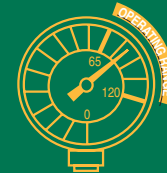
To avoid serious injury from discharged fasteners, always place the nose of the tool firmly against the work piece before operating the tool. Operate the tool squarely against a work piece of proper thickness and away from its edges.

Do not hold the nose of the tool at an angle to the work piece, near its edges, or against thin material - a fastener can ricochet or pass through the work piece and cause injury to yourself or others in the work area.

Disconnect the tool from the airline when:

- unloading or reloading fasteners.
- the tool is left unattended.
- performing maintenance or repairs on the tool.
- clearing a jam.
- moving the tool from one location to another location.

## USE ONLY CLEAN, DRY, REGULATED COMPRESSED AIR



Fastener driving tools operated by compressed air must only be connected to a compressed airline in which the maximum permissible operating pressure of the tool must not be exceeded by a factor of more than 10%. To achieve this limit, a pressure reduction valve, which includes a downstream safety valve, may be employed. Fixed pipes delivering compressed air should be colour coded blue.

The operating air pressure must not exceed the maximum pressure rating for the tool. The correct operating air pressure is the lowest compressed air setting that will do the job. Using the tool at higher air pressures than required wastes power, over-stresses the tool, and will require the tool to be serviced more frequently.

## Air Care



Air supply hoses must have a minimum working pressure rating of 150 psig. Use a good quality air hose between 6-8mm inside diameter or as recommended. The inlet air fitting at the rear of the handle is threaded to accept a male fitting. Only the quick-release freeflow male nipple should be connected to the tool and the female air shutoff coupling to the airline.

**Important:** A good quality quick release air coupling should always be used at the end of the airline. Never fit an automatic air shutoff coupling to the tool, as this will trap pressurised air and could cause it to cycle unintentionally when disconnected from the airline.

For best tool life and results, a filter, pressure regulator and lubricator are recommended to be included in the air system for efficient tool operation.

The **FILTER:** A filter will prevent excessive wear and corrosion of parts by trapping pipe scale, dirt, solidified lubricants, oil, moisture and other impurities. Moisture removal will assist preventing frozen airlines when operating at low temperatures.

The **REGULATOR:** The most important requirement for proper tool operation is the correct air pressure for the job. If the tool is over-powered, tool wear is increased; if the tool is under-powered, it will not perform satisfactorily. A regulator positioned close to the tool, assures economic air use and proper tool operation.

The **LUBRICATOR:** Heavy-duty lubricants used in routine maintenance will not remain in the tool indefinitely. An airline lubricator that injects an oil mist into the tool's air supply is essential. Refer to the tool instruction manual for the recommended type of lubricant to use. Where recommended, to assist tool performance and reduce wear, at the start of the day place 3-4 drops of non-detergent oil in the tool before connecting to the airline.

## AVOID THE RISK OF EXPLOSION

**The absolute rule is: NEVER connect a tool to any pressurised air cylinder or gas bottle.**

## UNDERSTANDING TOOL ACTUATION SYSTEMS

Check the information label on the tool to determine what actuation system is installed on the tool. You should understand the system, and ensure that it is appropriate for your use: if the tool has an inverted triangle — stamped or printed on the body of the tool it must be fitted with a safety contact element also known as a work contact element or safety yoke.

Removal of the safety system from such a tool is a breach of EU safety regulations and companies can be held liable for such breaches.

Understand the use and types of sequential system, and in what circumstances they should be used.

The definitions for the most widely used tool actuation systems with a safety contact element are:

**Contact Actuation:** also known in the trade as “Bump” operation. In this system the safety contact trip and the trigger both have to be actuated but with no order of sequence. The trigger can be depressed and the safety contact element “bumped” against the work piece to cycle the tool. Alternatively, for more precise nail placement, the safety contact element can be placed against the work piece and the trigger pressed.

**Single Sequential Actuation:** a system in which the tool may only be operated by observing a sequence. The safety contact element is depressed to the work piece, and the tool is then cycled by depressing the trigger. Repeat cycling can be obtained provided the safety contact element is not removed from the work piece. When the safety element is removed from the work piece, the sequence has to be repeated.

**Full Sequential Actuation:** a system in which the safety contact element has to be depressed against the work piece and thereafter the trigger depressed. To drive the next fastener, the safety element has to be removed from the work piece, so that it defaults back to the starting position, and the process repeated for every driving operation.

New safety regulations do not permit the use of tools with contact actuation in the following situations:



On building sites, where a tool is used involving the use of ladders, scaffolding, staircases etc.

Any application where the operative is walking with the tool,  
e.g. closing cases, or crates.

**The minimum type of safety system permitted for these applications is a single sequential system.**

Some tools have dual safety system switches that enable the selection of contact to sequential mode. Particular emphasis should be given to the correct selection of the mode if the tool is to be used in the above types of application.

## SERVICE & REPAIR - DO'S & DON'TS

Do have the tool regularly serviced and maintained.

Do not use a malfunctioning tool - have it repaired by qualified service personnel.

Use only approved fasteners.

Do not operate the tool with a safety system or trigger that sticks, binds or is defective in any way.

Air Leaks: some air leaks affect safety, others do not - if the tool leaks air, stop using it and have it repaired. Do not modify or remove the safety system, or cause it to become inoperative.

Be alert for tool problems. A malfunctioning tool must be withdrawn immediately from use and not used again until it has been repaired by qualified service personnel.

Only use authorised factory replacement parts on tools. Incorrect parts could make a tool hazardous in operation.

In the event of an accident with a tool - remove the tool from use, make a note of the serial and model number, and notify the tool supplier to allow them to carry out an inspection and issue a report.

## IMPORTANT NOTE

Whilst every care has been taken in preparing this booklet, The Power Fastenings Association, its Officers or members cannot accept any responsibility for injuries to persons, or damage to property, or for any violation of laws or regulations which may be attributed to reliance upon information and guidance contained therein.

This booklet does not cover all power fastener tool related safety issues, and users should always read the tool manufacturers' safety instructions prior to use. Laws relating to safety are continually being updated, so it is important to keep up to date with changes.