

C J T Services Ltd

Health and Safety Management

Safety Bulletin 84

Buying new machinery




This bulletin contains information on what to do for anyone buying new machinery for use at work and a short guide to the law. There are requirements of health and safety law which you need to know about when you are buying new machinery. Although the laws may look complicated, they do not change what you have always had to do- make sure that any machinery you buy for use at work is safe.

More information on the law

There are two groups of law on new machinery:

One deals with what the manufacturers and suppliers of **new** machinery have to do. This can be called the **supply** law. The law that you would most probably come across is the Supply of Machinery (Safety Regulations 1998 (as amended) – amended in 2002 by the Health and Safety (Miscellaneous Amendments) Regulations 2002 – which require manufacturers and suppliers to ensure that machinery is safe when supplied and to have CE marking.

The other deals with what the users of machinery and other equipment have to do. This can be called the **user** law. The one which applies most widely is known as the Provision and Use of Work Equipment Regulations 1998. These require employers to:

-  Provide the right kind of safe equipment for use at work
-  Ensure that it can be used correctly; and
-  Keep it maintained in a safe condition.









If you buy new equipment (including machinery) this law also requires you, as a user, to check that the equipment complies with all the supply law that is relevant.

These laws are in place to make sure that work equipment is safe when first supplied, and then it is used correctly and safely, so that the risk of accidents or ill health occurring as a result of using the work equipment is reduced.

What is meant by machinery?

A machine is normally regarded as being a piece of equipment which has moving parts and, usually, some kind of drive unit.

Examples include:

-  Fork-lift truck
-  Metal working drill
-  Paper making machine
-  Circular saw
-  Combine harvester
-  Lifting equipment (and even lifting tackle)
-  Escalator
-  Meat mincing machine

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✚ Baling machine

Practical matters

You may already know that most new machinery should have the CE marking when you buy it. However, the CE marking is only a claim by the manufacturer that the machinery is safe and has met relevant supply law. It is down to you to check that it is in fact safe. To understand what this means it helps if you understand what the manufacturer (or supplier) has to do.

What does the manufacturer have to do?

Manufacturers must make sure that the machines they make are safe. They will do this by:

- ✚ Finding out about the health and safety hazards (trapping, noise, crushing, electrical, shock, dust, vibration etc) that are likely to be present when the machine is used;
- ✚ Assessing the likely risks
- ✚ Designing out the hazards that result in risks; or if that is not possible,
- ✚ Providing safeguards (e.g. guarding dangerous parts of the machine, providing noise enclosures for noisy parts); or if that is not possible,
- ✚ Using warning signs on the machine to warn of hazards that cannot be designed out or safeguarded (e.g. 'noisy machine' signs).

Manufacturers must also:

- ✚ Keep information, explaining what they have done and why, in a technical file;
- ✚ fix CE marking to the machine where necessary, to show that they have complied with all the relevant supply laws
- ✚ issue a 'declaration of conformity' for the machine;
- ✚ provide the buyer with instructions to explain how to install, use and maintain the machinery safely.

What do I need to do when buying a new machine?

Before you buy it think about,

- ✚ where and how it will be used
- ✚ what will it be used for
- ✚ who will use it (skilled employees, trainees)
- ✚ what risks to health and safety might result
- ✚ comparing how well health and safety risks are controlled by different manufacturers

This can help you to decide which machine may be suitable, particularly if you are buying a standard machine 'off the shelf'. If you are buying a more complex or custom-built machine you should discuss your requirements with potential suppliers. They can advise you on the options available.

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When you place the order **specify in writing** that the machine should be safe.












When you have brought it, check for CE marking, check that you have a copy of the declaration of conformity and a set of instructions in English on how the machine should be used, and most important of all, check to see if you think that it is safe.

How can I check the machine?

First make sure that the supplier (or installer) has given you information on how the machine works and its safety features. With smaller off-the-shelf machinery, this should be included with the machine. With more complex or custom built machinery, this may be demonstrated by the supplier.

Have a close look at the machine. Many things that affect safety are obvious. You can also compare it with any existing similar machines you have, to see if it is at least as good, or (hopefully) better.

Think about the following:

-  Do any parts look dangerous, e.g. exposed gear wheels, cutters?
-  Are there guards and are they in place?
-  Can the machine operate with the guards removed?
-  Do you understand the controls?
-  Can dust or fumes escape from the machine?
-  Is it excessively noisy?
-  Is there excessive vibration?
-  Are there any exposed parts likely to be extremely hot or cold?
-  Are there any live electrical parts which are exposed or easy to get at?
-  Are there any special features e.g. slow speed running, for use when setting?
-  Are the manufacturers' instructions clear and comprehensive?




If you think that the machinery that you have brought is not safe then **do not use it**. Contact the manufacturer/supplier for advice and arrange for the machine to be put right.

If your company often buys machinery, you should consider producing guidelines for the people who are responsible for buying it.

Checklist A: What should I talk to a supplier (or manufacturer) about?

Tell the supplier where the machine will be used, what you want to use it for and who will be using it, particularly if it is a complex or custom-built machine.

Ask the supplier the following:

-  What health and safety risks might there be when using the machine?
-  Are there any dangerous parts and what guards will be provided?
-  Will it need emergency stop controls and how will it be isolated?

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- ✚ How do the controls and control systems work?
- ✚ Will dust or fumes etc. be produced by the machine? If these are likely to be in significant quantities, can an existing extraction system be adapted to cope with the new machine or will you have to buy a new system?
- ✚ Has the machinery been designed to minimise the noise and vibration levels produced?
- ✚ Are there any extremely hot or very cold parts of the machine, and can they be insulated or protected?
- ✚ Are there any lasers or thickness gauges, and can any exposure to radiation be eliminated? If not what precautions are there to stop any exposure to radiation?
- ✚ What has been done to eliminate the risk of electric shock particularly during maintenance work, when covers or control panel doors may be open?
- ✚ Are there possible risks from other sources of energy such as hydraulic or pneumatic?
- ✚ Is there clear information about installation, maintenance and breakdown procedures?
- ✚ Will you inform me if problems arise with similar machines bought by other users?

It is also good practice for the supplier/manufacturer to have a service back-up or help line, so you can get further information as you need it.

Checklist B: What do I do when I have bought new machinery?

- ✚ Check that it has CE marking (where necessary) and ask for a copy of the EC Declaration of Conformity if you have not been given one.
- ✚ Check that the supplier has explained what the machinery is designed to be used for what it cannot be used for (unless this is off the shelf machinery).
- ✚ Make sure a manual has been supplied which includes instructions for safe use, assembly, installation, commissioning, safe handling, adjustment and maintenance.
- ✚ Make sure the instruction manual is written in English. The maintenance instructions however may be written in another language if specialised staff from the manufacturer/supplier will carry out maintenance.)
- ✚ Make sure information has been provided about any remaining risks from the machine, and the precautions you need to take to deal with them. These may include electrical, hydraulic, pneumatic, stored energy, thermal, radiation or health hazards.
- ✚ Check that data about noise and vibration levels have been provided and, where necessary, explained to you.
- ✚ Ensure that any warning signs are visible and easy to understand.
- ✚ For a complex or custom-built machine arrange for a trial run so you can be shown the safety features and how they work.
- ✚ Check to see if you think the machine is safe.
- ✚ Make sure any early concerns about the safety of the machine are reported to the supplier.

What about buying second-hand machinery?

It has to be safe for use. In most cases it will not have CE marking, but it is still the duty of the supplier to make sure that it is safe and has instructions for safe use. There is also the duty on you (the user) to make sure that second-hand machinery is:

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- ✚ safe;
- ✚ suitable for the work it is to do;
- ✚ Maintained in a safe condition.

This bulletin contains notes on good practice which are not compulsory, but which you may find helpful in considering what you need to do.

If you require any further information, clarification or assistance with the above, then please do not hesitate to contact us;

Telephone; 01268 649006
Email; info@cjtsservices.co.uk

Source – Health and Safety Executive (HSE)

www.hse.gov.uk