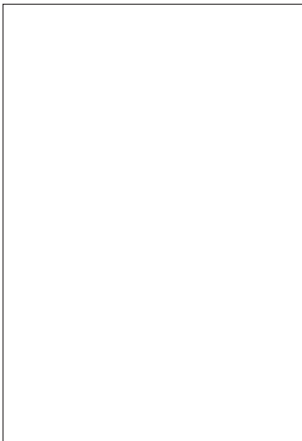


Buying new machinery

A short guide to the law and some information on what to do for anyone buying new machinery for use at work



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Introduction

This leaflet explains the main requirements of the health and safety laws which you need to know about when you are buying new machinery (for second-hand machinery, see question 16). Although the laws look complicated, they do not change what you have always had to do - make sure that any new machinery you buy for use at work is safe.

The information in this leaflet is arranged in four sections:

- the law;
- practical matters - what you have to do;
- checklists - to use when talking to suppliers and when buying new machinery; and, for those who need it,
- more information about the law on supply of machinery.

The law

1 What is the law on new machinery?

There are two groups of law:

- One deals with what manufacturers and suppliers of **new** machinery have to do. This can be called the **supply** law. The law that you will come across most often 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. See question 11 for other relevant supply regulations and leaflets on supplying new machinery. (Note: where the word 'safe' is used, it should be regarded as including risks to both safety and health.)
- 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.

The user law has other requirements, but this leaflet does **not** deal with them.

2 Why do we have these laws?

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

These laws replaced and updated older laws that had similar requirements. However, they did not really change what you have to do.

3 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;
- baling machine.

Some types of machinery are not covered by the supply law - there is a list under 'Exclusions' towards the end of this leaflet.

Practical matters

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

4 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 (eg 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 (eg '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 (see question 17 for machines which will be part of an assembly line);
- issue a 'Declaration of Conformity' for the machine (but also see question 13);
- provide **you**, the buyer, with instructions to explain how to install, use and maintain the machinery safely.

Is CE marking a guarantee of safety?

No. the manufacturer is **claiming** that the machinery complies with the law. **You** still need to check the machine is safe before it is used.

6 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 it will 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 often advise you on the options available.

For a custom-built machine, you can use the opportunity to work with the supplier to design out the causes of injury and ill health. Some of the items you can cover are in Checklist A, which follows question 10. Time spent now on agreeing the necessary safeguards, to control health and safety risks, could save you time and money later.

Note: Sometimes machinery is supplied via another organisation, eg an importer, rather than direct from the manufacturer, so this organisation is referred to as the supplier.

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

When you have bought it, look 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.**

7 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 complex or custom-built machines this may be demonstrated by the supplier.

Then have a close look at it. Many things that affect safety are obvious; others can be detected using common sense and taking time to have a good look at your new machine. You can always 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, eg 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 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, eg slow speed running, for use when setting?
- Are the manufacturers' instructions clear and comprehensive?

8 What do I do if I think the machinery I have bought is not safe?

Do not use it. Contact the manufacturer or supplier for advice and arrange for the machine to be put right.

9 What else can I do?

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

10 How is doing all this going to help me and my business?

Allowing employees to use new machinery which is unsafe may cause an accident. Accidents or incidents will cost you money, and the costs can be higher than you realise.

Please note: If you will be forming an assembly line, by connecting several machines together yourself, you will need to comply with some of the requirements of the supply law (see questions 11 to 17).

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?
- 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?

In addition it is good practice for the supplier or manufacturer to have a service back-up or help line, so that you can get further information as you need it. You could check what is in place before buying.

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 and 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 may, however, be written in another language if specialised staff from the manufacturer or 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.

Remember

Never assume that machinery is safe just because it has CE marking.

More information

This section is for those who need to know a bit more about the supply law.

11 What other supply law is there?

- The Electrical Equipment (Safety) Regulations 1994 (as amended), which apply to electrical equipment whose risks are mainly electrical, for example photocopiers, portable electric tools.
- The Electromagnetic Compatibility Regulations 1992 which cover equipment likely to cause electromagnetic disturbance, or whose performance is likely to be affected by electromagnetic disturbance.

For more information, read *Supplying new machinery*, INDG270.

12 What does a Declaration of Conformity have on it?

- The name and address of the manufacturer or other responsible person.
- The make, type and serial number of the machine.
- The signature of an authorised person and information on:
 - which standards have been used in the design and manufacture (if any);
 - what European Union laws (directives) the machine complies with.

13 What is a Declaration of Incorporation?

If the machine is intended for:

- incorporation into another machine; or
- assembly with other machines;

the manufacturer can issue a 'Declaration of Incorporation'. In this case the machine should **not** have CE marking.

14 Do importers and suppliers have to follow all these requirements even if the machinery is made outside Europe?

All suppliers have to make sure the machinery they supply in the European Economic Area (EEA) is safe no matter where it is made. The EEA includes the European Union member countries and also Iceland, Norway and Liechtenstein, but excludes Switzerland even though that country is implementing the European Directive.

They also need to check that:

- the manufacturer has carried out all the steps involved in making sure the machine is safe;
- there is a Declaration of Conformity or Incorporation for the machine;
- there are full instructions for installing, using and maintaining the machine; and
- if complete, the machine has CE marking.

Warning: If you are importing or constructing the machine yourself, you take on the responsibilities of the supplier.

15 Does new machinery have to be made to any particular standards?

The machine must comply with the Essential Health and Safety Requirements (EHSRs) of the supply law. However, when a machine has been made to the specification in a harmonised European Standard (identified by an EN before the number, eg BS EN...), there is a presumption that it conforms to the relevant EHSRs. The use of these standards is voluntary. Some European Standards for particular types of machinery are already available, others are being written.

Manufacturers can design and manufacture their machinery to other product standards, eg British or American standards, as long as they are certain the machine will comply with the relevant EHSRs and be safe. However, the use of such standards, during manufacture, does not give a presumption of conformity with the relevant EHSRs.

In some circumstances, machinery (for example, some woodworking machinery and power-presses) must be type-examined by an independent third party if they are not made in accordance with a harmonised standard. Details will be given on the Declaration of Conformity.

16 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:

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

If a second-hand machine has been totally refurbished (for example, adding CNC control to a machine, together with other work) it may have CE marking. This is because the way it operates is different after the refurbishment and as a result it has been treated as if it was a new machine.

17 What about machinery which is going to be part of an assembly line?

If a machine is designed to be incorporated into other machinery, it might not have CE marking fixed to it. It should be manufactured to be as safe as possible and be provided with a Declaration of Incorporation. Instructions on safe installation and use should also be provided. When the machine is fitted into the assembly line, particular attention must be given to any hazards which may have been caused by the machine being fitted into the line. For instance, additional guarding or other controls may be required.

Once the machine has been fitted and the whole line is safe, the technical file should be completed and either the machine or the whole line should have CE marking. This can be done by a project manager (eg the installer, assembler or the manufacturer) but in many cases you can do it, particularly if you operate a small company.

Do I always have to buy the manufacturer's safeguards?

Normally it is better to buy the machine with all the manufacturer's safeguards included. However, in some special circumstances, for example where particular tools etc are going to be incorporated or an existing noise enclosure is going to be re-used, there can be a specific written agreement relating to the provision of these particular items, between you, the buyer, and the supplier. But you must sign to accept this responsibility and in effect become involved in the final part of the manufacturing process. The CE marking should be added to the machine by the manufacturer or by you, the user, after the other safeguards, etc have been fitted.

Exclusions

The supply law does **not** apply to the following machinery:

- Those intended for use outside the EEA.
- Second-hand (when not refurbished).
- Manually-powered machinery except machinery used for lifting or lowering loads.
- Medical machinery used in direct contact with patients.
- Specialised fairground or amusement park equipment.
- Steam boilers, tanks and pressure vessels.
- Nuclear equipment which will emit radioactivity if it fails.
- Radioactive sources forming part of a machine.

- Firearms.
- Storage tanks and pipelines for petrol, diesel, inflammable liquids and dangerous substances.
- Passenger transport vehicles and their trailers (air, road, rail or water).
- Sea-going vessels and mobile offshore units and their equipment.
- Cableways including funicular railways used to carry passengers.
- Some agricultural and forestry tractors.
- Military and police equipment.
- Some lifts.
- Mine winding gear.
- Theatre elevators.
- Construction site hoists.

Further reading

Guidance on legislation

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Second edition) HSE Books 1998 ISBN 978 0 7176 1626 8

DTI publications

Machinery: Guidance notes on UK Regulations URN 95/650 HMSO/DTI 1995
Copies of this publication are available free (www.berr.gov.uk/files/file11274.pdf)
Tel: 020 7215 5000)

Other publications

Supplying new machinery: A short guide to the law and some information on what to do for anyone supplying machinery for use at work Leaflet INDG270 HSE Books 1998 (single copy free or priced packs of 15 ISBN 978 0 7176 1560 5)
www.hse.gov.uk/pubns/indg270.pdf

Using work equipment safely Leaflet INDG229(rev1) HSE Books 2002 (single copy free or priced packs of 10 ISBN 978 0 7176 2389 1)
www.hse.gov.uk/pubns/indg229.pdf

Noise at work: Guidance for employers on the Control of Noise at Work Regulations 2005 Leaflet INDG362(rev1) HSE Books 2005 (single copy free or priced packs of 25 ISBN 978 0 7176 6165 7) www.hse.gov.uk/pubns/indg362.pdf

The future availability and accuracy of the references listed in this publication cannot be guaranteed.

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

This leaflet is available in priced packs of 15 from HSE Books, ISBN 978 0 7176 1559 9 and a web version can be found at: www.hse.gov.uk/pubns/indg271.pdf. Single copies are free.

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