

Supplying Machinery to Europe & UK and Compliance with European & UK Requirements.

A short guide for suppliers of machinery into Europe and the UK.

Overview.

Free movement of goods is a basic principle within the European Union (EU). To explain the 'New Approach', the [Guide to the implementation of directives based on the New Approach and the Global Approach](#) or 'The Blue Guide' has been developed.

Very simply, Directives or Regulations become laws, and must be complied with, supported by voluntary Harmonised EN Standards that if followed, have a presumption of conformity to the Essential Health and Safety Requirements (EHSR's) in the Directives or Regulations. Applying the CE Marking and issuing a signed Declaration of Conformity (DoC) demonstrates compliance to the EHSR's.

Following Brexit, the UK Government implemented UK CA Marking to comply with the UK Supply of Machinery (Safety) Regulations (SMSR), derived from the Machinery Directive 2006/42/EC. If the machine complies with the Machinery Directive, and the information is in English, it will also comply with the SMSR and can have the UK CA Marking applied and a DoC issued.

In 2023 the UK Government stated that they will accept [CE Marking](#) for the foreseeable future. This announcement does not apply to regulations for [medical devices](#), [construction products](#), [marine equipment](#), [rail products](#), [cableways](#), [transportable pressure equipment](#), and [unmanned aircraft systems regulations](#). There are specific arrangements in place for these sectors.

The aim of this document is to help manufacturers of Machinery to be able to supply safe, CE or UK CA marked machinery into the European Economic Area and UK. More information on the Single European Market can be found on the [Europa](#) website. More information on UK CA marking is on the Gov.uk website, see UK Government [Guidance](#).

There are few differences at present, the same Essential Requirements are in place, the main change for UK manufacturers supplying the EU, is that there must be an EU person identified on the Declaration to compile the Technical File from Jan 1st, 2021. There must also be an economic operator in the EU to hold a copy of the Technical File, this can be an Importer, Fulfilment Centre or EU Authorised Representative. See [Guidance](#).

All reference in this document to CE Marking also means UKCA Marking. Reference to Directives also means equivalent UK Regulations. Reference to Notified Bodies means Approved Bodies in the UK.

CE Marking still applies in Northern Ireland. See [Guidance](#). UK NI Marking may be required in certain circumstances, but rarely for Machinery.

1. Main Legislation relevant to Machinery

Directives and Regulations are produced by committees within the EU, approved by the European Commission and brought into the law of each Member State in a given timescale. Several Directives or Regulations may apply to a machine, or assembly of machines. It is the manufacturers' responsibility to determine which Legislation applies, and to meet all requirements of each Directive or Regulation that applies. Application of the CE marking shows that the manufacturer has met these obligations. The [Guide to the application of the Machinery Directive 2006/42/EC](#) gives additional guidance on which Directives apply in paragraphs 90 to 92.

[2006/42/EC Machinery Directive](#) (UK [Supply of Machinery \(Safety\) Regulations 2008](#)) (SMSR)

The original Directive 89/392/EEC was introduced in January 1993, with a two-year transition period to allow manufacturers to comply. Machinery supplied from January 1995 had to carry CE marking and be safe. This Directive was modified several times and re-issued as 98/37/EC.

It was then updated and rewritten with some changes and additions in 2006, issued as 2006/42/EC and came into force on 29th December 2009. All machinery supplied into the EEA from this date should comply with the 2006/42/EC Directive. Most machinery can be self-declared, and does not need additional certification; however, there must be a person in Europe responsible for making the Technical File available to Health and Safety Authorities as required. This is the only Directive with this requirement. UK companies supplying the EU must have an EU person in place to act as the person to compile the Technical File.

Due to the introduction of Regulation 2019/1020 in June 2021, an EU Authorised Representative may also be required. The EUAR would generally act as the person to compile the Technical File. There is no requirement for a Technical File to be held in the UK, or a responsible person in the UK to hold a file for a non-UK supplier.

2006/42/EC is due to be replaced with a new [Machinery Regulation](#), EU 2023/1230 in January 2027. This will require any new machinery or series machinery to be re-evaluated with a new EHSR report and risk assessment carried out to demonstrate compliance with the updated Essential Health and Safety Requirements. The main change is a requirement to address cyber security. Most EN Standards will be updated to comply with the new Requirements. See the Europa [Machinery](#) page for the latest list of standards.

It is likely UK will adopt the same requirements at some time, but it is not clear at the time of writing.

[2014/30/EU Electromagnetic Compatibility \(EMC\)](#) (UK [Electromagnetic Compatibility Regulations 2016](#))

The original EMC Directive 89/336/EEC from 1992 was updated and re-written as 2004/108/EC. Following a transition period, it came into force on 20th July 2009. This was replaced with [2014/30/EU](#) from 20th April 2016. The EMC Directive limits electromagnetic emissions of equipment in order to ensure that such equipment does not disturb radio, telecommunication and other equipment. The Directive governs the immunity of such equipment to interference and seeks to ensure that this equipment is not disturbed by radio emissions when used as intended. Manufacturers should be able to demonstrate compliance with the Directive within the Technical File, by providing test results or an EMC Technical File.

[2014/68/EU Pressure Equipment \(PED\)](#) (UK [Pressure Equipment \(Safety\) Regulations 2016](#))

The original 97/23/EC Directive was replaced from 19th July 2016. It concerns items such as vessels, heat exchangers, steam generators, pressurised storage containers, boilers, industrial piping, pressure accessories and safety devices. Equipment in Module A is self-declaration, if not in Module A, a Notified Body must be involved.

[2014/29/EU Simple Pressure Vessels](#) (UK [The Simple Pressure Vessels \(Safety\) Regulations 2016](#))

‘Simple pressure vessel’ means any welded vessel subjected to an internal gauge pressure greater than 0,5 bar which is intended to contain air or nitrogen and which is not intended to be fired. CE marking should be applied to pressure vessels. This Directive replaced 2009/105/EC from 20th April 2016.

[2014/34/EU Equipment and protective systems for potentially explosive atmosphere \(ATEX\)](#) (UK [The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016](#))

The original 94/9/EC ATEX Directive applied from 1st July 2003 and addresses equipment and protective systems intended for use in potentially explosive atmospheres. It covers many products, including equipment used on fixed offshore platforms, in petrochemical plants, mines, flour mills and other areas where a potentially explosive atmosphere may be present. A potentially explosive atmosphere is defined as ‘air mixtures of gases, vapours, mists or dusts, which can ignite under certain operating conditions’. Often a Notified Body will need to be involved. The Directive 94/9/EC was replaced from 20th April 2016.

[2000/14/EC Noise Emission by Equipment for Use Outdoors](#) (UK [The Noise Emission in the Environment by Equipment for use Outdoors \(Amendment\) Regulations 2015](#))

This Directive applies to 57 types of outdoor equipment. Manufacturers of equipment of this type must follow the requirements. Those listed in Article 12 are subject to noise limits and require Notified Body assistance. Those listed in Article 13 are self-declaration. Most of these types are also in the scope of the Machinery Directive. It is a requirement to send a copy of the Declaration to each Member State and to the Commission for each type of unit supplied. This information is collated into a [database](#) within the Outdoor Noise pages on the Europa website.

In line with the Zero Pollution Action Plan, the Commission has adopted a delegated act to update the methods to measure airborne noise emitted by equipment used outdoors. This was published [in the Official Journal of the European Union \(OJEU\)](#) on 2 May 2024.

The act will start applying from 22 May 2025. It will allow reliable up-to-date data to be gathered for determining new noise limits for machines used outdoors, with the overall objective of limiting noise at source.

[92/58/EEC Safety Signs](#) (UK [The Health and Safety \(Safety Signs and Signals\) Regulations 1996](#))

Warning sign format used on machinery within Europe is in the Safety Signs Directive. For Machinery there are three types of signs, Warnings are triangular with a yellow background and a black border; Mandatory, are white symbols on a round blue background; and Prohibition, are round, with a red border and red bar across, with black symbols on a white background. This Directive does not require CE marking. EN ISO 7010 details the symbols that are acceptable for use on equipment in the EU and UK.

[2014/35/EU Low Voltage Directive](#) (UK [The Electrical Equipment \(Safety\) Regulations 2016](#))

Where machinery has an electricity supply, it must be designed, constructed and equipped in such a way that all hazards of an electrical nature are or can be prevented. The safety objectives set out in the Low Voltage Directive (LVD), apply to machinery. However, obligations concerning conformity assessment, placing on the market and/or putting into service of machinery regarding electrical hazards are governed solely by the Machinery Directive. Generally, the LVD should not be identified on a Declaration of Conformity of Machinery.

In case of sub-supply of the machinery's switchgear and control panel by another manufacturer, the corresponding EC Declaration of Conformity should be requested for the Technical File. The previous Directive 2006/95/EC was replaced with [2014/35/EU](#) on 20th April 2016. In all cases, even if a Notified or Certification Body is involved, the manufacturer must issue the Declaration, to demonstrate compliance with all applicable Essential Safety Requirements.

'One-off' machines or complex assemblies of machines being supplied into Europe must comply with all relevant Directives on the date they are put into service. For series of the same machine being supplied into Europe, the manufacturer must ensure changes to the Directives are met.

Each Directive/Regulation has its own page on the Europa website, www.europa.eu/, where the Directive can be downloaded freely. Many have guidance documents that can also be downloaded. This is the link for the [Machinery](#) page. The UK Government have provided guidance, this is the link for the UK [Machinery](#) page.

2. Designated/Harmonised European Standards for Machinery Safety

Harmonised Standards are either EN - European Normative Standard or EN ISO - EN identical with an ISO Standard. The European Committee for Standardisation ([CEN](#)) and the European Committee for Electrotechnical Standardisation ([CENELEC](#)) provide the voluntary Standards, developed by committees involving business and other stakeholders. The aim is to produce high-quality standards for products and services that incorporate safety, quality, environmental, interoperability and accessibility requirements. They support international standardisation, and co-operate closely with the International Organisation

for Standardisation (ISO) and the International Electrotechnical Commission (IEC), in order to pursue the goal of 'one standard, one test, accepted everywhere'.

Standards can be purchased from several sources, they are not free, unlike Directives. EU states have their own Standards organisations, standards can be purchased from any, it is worth shopping around as prices vary greatly, for example [EVS](#). The application of Harmonised Standards is voluntary, except where a Directive refers directly to certain EN (e.g. Outdoor Noise Directive regarding noise test standards).

Harmonised standards get their status of providing Presumption of Conformity after their issue, by their listing in the Official Journal of the EU under the relevant Directive. There could be a delay of listing in or withdrawal from the Official Journal or a limitation of their Presumption of Conformity as an outcome of a possible safeguard procedure by the Commission; therefore the manufacturer should always check the listing of the standard to be applied.

The list of harmonised standards can be found on the websites of each Directive, there is a link to a PDF list on the [Machinery](#) page. The UK has a list of 'Designated Standards' these continue to be EN and EN ISO standards, see UK Government [Guidance](#). There is a link to the [Machinery](#) Designated Standards. It is expected that EU and UK lists will be consistent, although there may be timing differences.

All Harmonised Standards are due to be updated prior to the introduction of the EU 2023/1230 Machinery Regulations.

2.1 Structure of Harmonised EN standards

There are three types of harmonised EN Standard, Types A, B and C.

A Type standards (basic safety standards) giving basic concepts, principles for design and general aspects that can be applied to machinery;

B Type standards (generic/group safety standards) dealing with one safety aspect or one type of safeguard that can be used across a wide range of machinery. A distinction is made between:

- B1 standards on particular safety aspects (e.g. noise, safety distances, temperatures);
- B2 standards on safeguards (e.g. access, control systems, guards, interlocking devices);

C Type standards (specific machinery safety standards) giving detailed safety requirements for a particular type of machine or group of machines.

A and B Type standards can be used as aids when designing machinery. They prevent repetition of general specifications and ensure technical consistency of C type standards for particular safety aspects and safety devices. When a C type standard deviates from one or more provisions dealt with by a B type standard, the C type standard takes precedence.

The basis for Machinery Safety is provided by **EN ISO 12100: 2010** Safety of machinery - General principles for design - Risk assessment and risk reduction. This A type standard was created by amalgamating the previous EN 12100 Parts 1 and 2, with EN 14121-1 on Risk Assessment. EN ISO 12100 has been adopted by most industrial countries. All machinery manufacturers should have EN ISO 12100.

EN ISO 12100 is in the process of being updated and is expected to be harmonised in mid-2026.

B Type standards

There are several B Type standards. Listed below are some that are useful in many different types of machine. This is not a full list but contains many of the common standards required.

EN ISO 4413:2010 Hydraulic fluid power - General rules and safety requirements for systems and their components

EN ISO 4414:2010 Pneumatic fluid power - General rules and safety requirements for systems and their components

EN ISO 13849-1:2023 Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design.

EN ISO 13849-2:2012 Safety of machinery. Safety-related parts of control systems. Validation

EN ISO 13850:2015 Safety of machinery - Emergency stop - Principles for design

EN ISO 13855:2010 Safety of machinery - Positioning of safeguards with respect to the approach speeds of parts of the human body

EN ISO 13857:2019 Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs

EN ISO 14119: 2013 Safety of machinery - Interlocking devices associated with guards - Principles for design and selection

EN ISO 14120:2015 Safety of machinery. Guards. General requirements for the design and construction of fixed and movable guards

EN ISO 14122-1:2016 Safety of machinery - Permanent means of access to machinery - Part 1: Choice of fixed means of access between two levels. Parts 2-4 provide detailed information

EN 60204-1:2018 Safety of machinery - Electrical equipment of machines - Part 1: General requirements

C Type standards

C Type standards are for specific types of machine. If there is a C Type standard for the machinery being built, compliance to the standard can save time and effort.

All C Type standards have a similar structure: -

The **Foreword** indicates whether the standard was prepared under a mandate given by the European Commission to become a Harmonised Standard.

The **Scope** defines the machinery limitations and, if applicable, indicates if hazards are not dealt with.

Normative References detail other standards and documents that may be applicable.

The **List of Hazards** contains the risk analyses performed by standards makers who have included all significant hazards known to them. The designer must, establish whether the machine to be built involves any further hazards and must take corresponding safety measures.

The section on **Safety Requirements and/or Protective Measures** contains specifications both in the form of results and design solutions. It may define a requirement for testing or providing calculations to demonstrate safety. There is usually a section on verification of safety measures.

The section on **Information for Use** includes requirements concerning marking and data which should be included in the instructions. In this section, standards should refer to residual risks which it has not been possible to eliminate by inherent safety and safeguarding. The information determined by the designer as being useful or necessary for minimising these residual risks, e.g. wearing personal protective equipment etc., should also be given to the user or operator.

Annex ZA¹ generally identifies the Relationship between the European Standard and the Essential Requirements of EU Directive 2006/42/EC.

3. How to Comply with CE or UK CA

The Machinery Directive is a New Approach Directive, manufacturers have the following options, all of which require full compliance with the EHSRs. Most machinery is self-declaration, no outside body is needed, although sometimes it is easier to use consulting organisations to assist. In some cases, Notified or Approved Bodies are required, especially in relation to equipment listed in Annex IV of the Machinery Directive, or equipment under Pressure Equipment or ATEX Directives.

¹ Sometimes this may be ZB, ZC etc., depending on changes to the standard over time.

Option 1: Compliance with the Machinery Directive (Not using harmonised EN Standards)

The manufacturer compiles a Technical File² which includes a report addressing all of the relevant Essential Safety Requirements, explaining how the manufacturer has met each of the relevant requirements. Risk assessments demonstrating compliance to the ESR's are essential.

Option 2: Compliance with A & B Type harmonised EN Standards

Where EN Standards refer to ESR's in Annex ZA³, voluntary compliance to these standards provides presumption of conformity to the corresponding ESR's of the EC Directive(s). Referring to these standards makes it easier for the manufacturer to prove compliance with the ESRs.

When a manufacturer chooses not to apply harmonised standards or to apply only parts of a harmonised standard, he must include in the technical file the risk assessment undertaken and the steps taken to comply with the essential health and safety requirements. Presumption of Conformity is only given within the limits of the scope of the standard and the ESRs dealt with.

Option 3: Compliance with a C Type harmonised EN Standard

Following a C Type Standard provides presumption of conformity to the ESR's listed in Annex ZA. If there are further hazards or EHSRs related to the machinery not dealt with in the C type standard, compliance must be proved by using B type standards or risk assessment.

The manufacturer or his authorised representative must carry out a Risk Assessment to decide which EHSRs apply to the machinery and take necessary protective measures. In case of queries by a market surveillance authority the manufacturer must prove compliance with the EHSRs.

3.1 Practical Compliance

To carry out CE marking of machinery, the relevant Articles and Annexes of the Directive should first be read and understood. First, check whether the equipment being supplied comes under the definition of machinery. If it does, then to prove compliance, a Technical File needs to be developed which should contain all the reports, documents and test results that demonstrate that the machine meets the Essential Safety Requirements.

Article 1 of the Directive lists the scope of what is included and excluded from the Directive. This is the list of included equipment.

- (a) machinery;
- (b) interchangeable equipment;
- (c) safety components;
- (d) lifting accessories;
- (e) chains, ropes and webbing;
- (f) removable mechanical transmission devices;
- (g) partly completed machinery.

Article 2 has definitions of all of these items.

The Machinery Directive 2006/42/EC⁴ consists of a series of recitals, 29 articles and 12 annexes, (*those relevant for the manufacturer are in **bold letters***):

Articles 1 to 7 – Scope, placing on the market and freedom of movement;

Articles 8 to 11, 15 and 18 to 23 – Measures by the member states and the Commission;

Articles 12 to 14 – Procedures for assessing the conformity;

Articles 16 and 17 – CE marking;

Article 24 – Amendment of Lift Directive 95/16/EC;

² See Section 4 of this document for details of what should be in a Technical File.

³ The majority of harmonised EN Standards list the EHSR's applicable in Annex ZA, however, if there are additional Annexes, derived usually from an international Standard, the annex ZA may be ZB, ZC etc.

⁴ Note: EU 2023/1230 has a different structure to the current 2006/42/EC Directive.

Articles 25 to 29 - Final provisions

The annexes contain detailed requirements augmenting the provisions of the main body of the Directive and have the same legal character - they are not merely informative.

The UK legislation follows this with only minor changes for UKCA marking.

Annex I is of most significance to manufacturers since it contains the mandatory Essential Health and Safety Requirements – ESRs for machinery as far as they apply.

Annex II is divided into two parts:

Part A specifies the contents of the **EC Declaration of Conformity** of the machinery, which the manufacturer must provide for every machine placed on the European market ready for use. A Declaration of Conformity is required in the UK.

Part B specifies the contents of the **EC Declaration of Incorporation** of partly completed machinery, which is intended for incorporation into machinery or assembly with other machinery to constitute an assembly of machinery functioning as an integral whole.

Annex III describes the symbol used for **CE marking**.

Annex IV lists particularly hazardous machinery for which a special certification procedure involving a Notified Body may be required, if the machinery is not manufactured in accordance with harmonised C type standards covering all relevant essential health and safety requirements.

Annex V covers an indicative list of safety components. This is not a definitive list due to rapidly changing technology.

Annex VI explains the Assembly Instructions for partly completed machinery.

Annex VII describes the procedure for compiling the Technical File for machinery or the relevant technical documentation for partly completed machinery. The Technical File must be compiled in an official Community language. Part A is for machinery, Part B for partly completed machinery.

Annex VIII describes the procedure by the manufacturer for Assessment of Conformity with internal checks on the manufacture of machinery.

Annex IX establishes the procedure for obtaining an EC Type-examination certificate for Annex IV machinery from a Notified Body.

Annex X describes the procedure for conformity assessment of Annex IV-machinery, manufactured using a Full Quality Assurance system.

Annex XI specifies the minimum criteria that a notified body is to fulfil and Annex XII contains a table comparing the structure of the current Machinery Directive 2006/42/EC to that of the previous Directive 98/37/EC.

Compliance of machinery with the Directive or UK Regulations is achieved by fulfilment of the relevant **Essential Health and Safety Requirements (EHSR's)**⁵. The EHSR's in **Annex I** only apply when the corresponding hazard exists for the machinery in question if used under the conditions foreseen by the manufacturer, or in foreseeable abnormal situations (reasonably foreseeable misuse).

Before consideration of the EHSRs the General Principles of Annex I shall be noted.

3.2 Risk Assessment

It is necessary to carry out a Risk Assessment to determine which EHSRs apply, preferably by using a harmonised C type standard (if it exists) and/or EN ISO 12100:2010.

Risk assessment begins with the determination of the limits of the machinery, taking into account all the phases of the machinery life. This means that the characteristics and performances of the machine or a series of machines in an integrated process, and the related people, environment and products, should be identified in terms of the limits of machinery.

⁵ Generally a report showing how each ESR has been addressed or complied with.

Then either each clause of the relevant C Type standard, or each of the EHSR's needs to be addressed, the EHSR's are mandatory, and must be complied with as far as possible. The EHSR's are in six sections. Every machine needs to be reviewed to Section 1, then each section if it applies. If there is a C Type EN standard, there is the presumption of conformity to the EHSR's listed, should it be followed.

As the EHSR's are reviewed, it is best to document in what ways the machine complies; this is done by risk assessment⁶. If the risk assessment determines that the machine is hazardous, then it should be re-designed or modified in such a way as to make it safe. Some EHSR's will not apply.

The first EHSR has definitions that apply; it is notable that the definition of an operator includes the person or persons installing, operating, adjusting, maintaining, cleaning, repairing or moving machinery, not just the person using the machine. It is useful to document at this stage what the intended use for the machine is, also any foreseeable misuse that there may be. This can be reviewed at a later date but is a good point to start with.

Section 1.1 covers generic safety, ensuring that the products that the machine uses or generates do not lead to a hazard and that the equipment can be handled safely; that the ergonomic issues have been addressed and to ensure that the operating positions do not lead to strain or stress.

Section 1.2 covers control systems and brings in safety related control system standards such as EN 13849 or EN 62061. This should lead to the generation of a report showing the assessment of Performance Level or Safety Integration Level for each safety function, and the validation of the architecture and components used to meet the assessment. It continues with the need to ensure that controls are clearly identified and logically positioned, and that the machine can be started and stopped without putting people in danger. It covers the need for Emergency Stops, whether for individual machines or how they apply to the whole assembly. It also addresses how the machine works in the event of power fluctuation or failure.

Section 1.3 is about mechanical hazards, stability, risks due to break up, ejected objects, sharp edges and angles, variations in operating conditions and how moving parts are protected.

Section 1.4 is about guarding and protection devices, defining different types of guards.

Section 1.5 is for other hazards, starting with electricity supply. The Low Voltage Directive objectives should be addressed as should static electricity. At this point EN 60204-1 should be used. Other sources of energy, such as hydraulic, pneumatic or steam for example, should be considered at this time. Errors of fitting need to be addressed, preferably designing out any areas where incorrect connections can be made, including pneumatic, hydraulic, and electrical connections. Extreme temperatures and fire should be considered. Explosion protection brings in the requirements of the ATEX Directive. Noise and vibration are covered here, and the radiation requirements bring in not only ionising radiation, but also the EMC Directive, and laser radiation. Access needs to be reviewed, to ensure there are no risks of slips, trips and falls, and that all areas of the equipment can be accessed for operation and maintenance.

Section 1.6 is about maintenance and requires that thought be given as to how the machinery can be maintained safely. Isolation of all energy sources needs to be considered. Consideration needs to be given on how to change components; the instructions require this information. Operator intervention should be brought to a minimum, and cleaning must be considered.

Section 1.7 is about information that must be provided, bringing in the Safety Signs Directive, also the information that must be on the manufacturers' plate and in the Instruction manual. Information and warnings on the machinery should be provided in the form of understandable symbols or pictograms. Any written or verbal information and warnings must be expressed in an official Community language or languages of the Member State in which the machinery is placed on the market and/or put into service, and may be accompanied by versions in any other official Community language or languages understood

⁶ Risk assessment is defined in EN 12100:2010, which has many examples of hazards, and how to ensure that risk reduction is achieved, to ensure that the machinery is safe when it is put into service.

by the operators. Maintenance instructions for specialised personnel mandated by the manufacturer may be written in only one Community language which the specialised personnel understand. (By agreement).

The instructions cover the 'life' of the machinery, from its commissioning to disposal, and not only consider the intended use of the machinery but also any reasonably foreseeable misuse.

C Type standards often add requirements for instructions, as do the following sections.

Foodstuffs machinery, machinery for cosmetics or pharmaceutical products, hand-held, and/or hand-guided machinery, portable fixing and other impact machinery⁷, machinery for working wood and material with similar physical characteristics, must meet the EHSR's described in Section Two;

Machinery presenting hazards due to its mobility must meet all the EHSR's described in Section Three;

Machinery presenting hazards due to lifting operations must meet all the relevant EHSR's s described in Section Four; This includes lifting accessories.

Machinery intended for underground⁸ work must meet all the EHSR's described in Section Five;

Machinery presenting hazards due to the lifting of persons⁹ must meet all the relevant EHSR's described in Section Six;

3.3 Protective Measures

Where compliance is not immediately achieved, protective measures are required. The measures taken to eliminate or reduce any risk throughout the foreseeable lifetime of the machinery must apply the following principles, in the order given below (see EN ISO 12100):

Step 1: Inherently safe design measures eliminate hazards or reduce the associated risks by a suitable choice of design features of the machine itself and/or interaction between the exposed persons and the machine. This stage is the only one at which hazards can be eliminated, thus avoiding the need for additional protective measures such as safeguarding or complementary protective measures.

Step 2: Safeguarding and/or complementary protective measures - Taking into account the intended use and the reasonably foreseeable misuse, appropriately selected safeguarding and complementary protective measures can be used to reduce risk when it is not practicable to eliminate a hazard, or reduce its associated risk sufficiently, using inherently safe design measures.

Step 3: Information for use - Where risks remain despite inherently safe design measures, safeguarding and the adoption of complementary protective measures, the residual risks shall be identified in the information for use. The information for use shall include, but not be limited to, operating procedures for the use of the machinery consistent with the expected ability of personnel who use the machinery or other persons who can be exposed to the hazards associated with the machinery;

3.4 Involvement of a Notified or Approved Body

For machinery listed in Annex IV and not manufactured in accordance with harmonised C type standards covering all relevant EHSRs or only partly manufactured in accordance with such standards, the manufacturer shall apply one of the following procedures: -

Full quality assurance according to Annex X or

EC type-examination according to Annex IX, plus the internal checks on the manufacture of machinery provided for in Annex VIII, point 3.

Notified Bodies can only issue 'EC-type examination certificates' for Annex IV machinery - the manufacturer or authorised representative is responsible for issuing Declarations of Conformity.

⁷ Many woodworking machines and impact machines are listed in Annex IV.

⁸ Locomotives and brake vans for use underground, and hydraulic powered roof supports are also in Annex IV.

⁹ Devices for the lifting of persons or of persons and goods involving a hazard of falling from a vertical height of more than three metres are listed in Annex IV.

Member States of the European Economic Area (EEA) and other countries, where there are 'Mutual Recognition Agreements' or 'Agreements for Conformity Assessment and Acceptance of Industrial Products' have designated Notified Bodies to carry out the conformity assessment according to the Directive.

Notified Bodies can be found on the [NANDO](#) web site. Lists include the identification number of each Notified Body and the tasks for which it has been notified and are regularly updated.

UK Market Conformity Assessment Bodies are listed on a UK Government [database](#). See UK Government [Guidance](#).

The notifying state's authority can decide if the Notified Body is allowed to subcontract for inspections, tests or assessment, e.g. in China, but the manufacturer remains responsible for placing his product on the European market.

4. Documentation

4.1 Technical File /Documentation

The Technical File or Documentation in relation to Annex VII must be compiled in one or more Community languages, English for the UK. This file shall include documentation on the risk assessment, the ESRs which apply and the description of the implemented protective measures.

If the machinery or components of it are also subject of other Directives, the corresponding EC-type examination certificates, test reports etc., EC Declarations of Conformity or Incorporation (in case of supply by another manufacturer) must be held in the Technical File.

The Limits of the Machine is a useful document to determine limits, use, foreseeable misuse etc.

Drawings, calculations, a copy of the Instructions, a list of the Standards used and for series manufacture, the internal measures that will be implemented to ensure that the machinery remains in conformity with the provisions of this Directive must also be in the Technical File.

The file must be made available to the competent authorities of the Member States for at least 10 years following the date of manufacture of an individual machine or, in the case of series machines, of the last unit produced.

The file does not have to be in the territory of the EEA, nor does it have to be permanently available in material form. However, it must be made available within a period of time commensurate with its complexity by the person designated in the Declaration.

Failure to present the Technical File in response to a duly reasoned request by the authorities may constitute sufficient grounds for doubting the conformity of the machinery with the ESRs.

Regulation 2019/1020 came into force in July 2021. This requires the Technical File to be held by an importer or fulfilment centre. If this is not possible then an EU Authorised Representative must be in place. This person has legal responsibility to work with the Authorities to ensure the documentation is adequate and the equipment is safe.

4.2 Declarations

The machinery must be accompanied by an EC¹⁰ Declaration in a Community language, and a translation thereof in the official language(s) of the Member State in which it is placed on the market and/or put into service (as the instructions). There are two different Declaration possibilities:

EC Declaration of Conformity for machines or complex assemblies of machines ready for use should contain, according to Annex II-1A:-

¹⁰ For the UK the Declaration is not an EC Declaration, just a Declaration of Conformity or Incorporation.

- the business name and full address of the manufacturer and where appropriate, his authorised representative;
- name and address of the person – who must be established in the EEA - authorised to compile the Technical File in accordance with Annex VII-A;
- a description of the machinery, including function, model, type and serial number.
- a sentence declaring that the machinery fulfils all the relevant provisions of this Directive and where appropriate, a similar sentence declaring the conformity with other Directives and/or relevant provisions with which the machinery complies¹¹.
- if a Notified Body has been involved, the details and number of the Notified Body.
- where appropriate, reference to the harmonised standards used.
- place and date of the declaration as well as the identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer or his authorised representative.

EC Declaration of Incorporation of partly completed machinery should contain according to Annex II-1B:-

- the business name and full address of the manufacturer and where appropriate, his authorised representative;
- name and address of the person – who must be established in the EEA - authorised to compile the Technical documentation in accordance with Annex VII-B;
- a description of the machinery, including function, model, type and serial number.
- a sentence declaring which Essential Requirements of the Directive are applied and fulfilled and that the relevant Technical Documentation is compiled, and where appropriate, a sentence declaring the conformity of the partly completed machinery with other relevant Directives;
- an undertaking to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery;
- a statement that the partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of this Directive;
- place and date of the declaration as well as the identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer or his authorised representative.

For the UK, the Declaration is not an EC Declaration, and it must reference UK Legislation rather than EU Directives. Designated Standards replace Harmonised Standards and the BS suffix should be used.

4.3 CE Marking/UK CA Marking

Before placing machinery - except partly completed machinery - on the market and/or putting it into service, the manufacturer or his authorised representative shall affix the CE marking and/or UK CA Marking.

Where machinery is also the subject of other Directives, and providing for the affixing of the CE marking, the marking shall indicate that the machinery also conforms to the provisions of those other Directives. In this case the CE marking might be amended by the identification number of the Notified Body (Directives ATEX, Lift, Pressure Equipment) or indicating the guaranteed sound power level for products covered by the Outdoor Noise Directive.

Where machinery hazards referred to in Annex I are wholly or partly covered more specifically by other Community Directives (e.g. explosion hazards by the ATEX Directive), the Machinery Directive shall not

¹¹ There is only one Declaration required for machinery. However, the formal requirements of any other applicable Directives have to be integrated.

apply, or shall cease to apply, to that machinery in respect of such hazards from the date of implementation of those other Directives.

The affixing on machinery of markings, signs and inscriptions likely to mislead third parties as to the meaning or form of the CE or UKCA marking, is prohibited. Any other marking may be affixed to the machinery provided that the visibility, legibility and meaning of the CE or UKCA marking is not impaired.

With regard to voluntary Quality marks, they are market /customer driven, mainly consumer products - tested by Competent Bodies on Safety; Environmental Impact, Usability, etc., usually to an EN Standard. There is no legal obligation for such marks, however, consumers in some EU Member States have a higher confidence in products with such quality marks. The manufacturer is still responsible for issuing the Declaration and applying the CE marking.

There is a Technical File Index available on the Safe Machine [website](#).

Annex I Other Directives broadly related to machinery

Directives on certain Hazards or Aspects

[2012/19/EU Waste from Electrical and Electronic Equipment](#)

[2011/65/EU Hazardous Substances in Electronic Equipment](#)

[Type-Approval of Motor Vehicles and their Trailers](#)

[Type-Approval of Agricultural or Forestry tractors, their Trailers and Interchangeable Towed Machinery](#)

Indirect related Directives on Safety and Health at Work - for information only

[2003/10/EC Risks arising from physical agents – Noise](#)

[2002/44/EC Risks arising from physical agents – Vibration](#)

[2013/35/EU - Electromagnetic fields](#)

[2014/33/EU on Lifts](#) deals with lifting machinery, which is excluded from the Machinery Directive. However, for all relevant hazards not dealt with in its Annex I, the essential requirements of the Machinery Directive apply. The Lift Directive defines various phases of conformity assessment procedures, using the modules of the modular approach. Compliance with Harmonised Standards gives presumption of conformity to the ESRs. As from 29th December 2009 the Directive was amended by the Machinery Directive 2006/42/EC providing more precise delineation between the Lift and Machinery Directives. Directive 95/16/EC was replaced by [2014/33/EU](#) on 20th April 2016.

All of the above have equivalent UK Government legislation, these can be found on the [Gov.uk](#) website.

[EU 2023/988](#) General Product Safety. For all products supplied into EU from a Third Country, other than those that a specific Directive or Regulation applies to. Not applicable to Machinery.

Annex II Other Resources

LinkedIn – There are several Groups that address CE and UK CA Marking, including the [Machinery Safety, Regulations and Standards for CE/UKCA](#) group.

[COMPLIANCE](#) Risk Software allows organisations to address EHSR's, carry out risk assessments and create Technical Files and Declarations to Machinery and Low Voltage Directives.

[Machinebuilding.net](#) is a website with a lot of information for machinery manufacturers.

The Safe Machine website lists [Resources](#) to assist in compliance with the EHSR's of the Machinery Directive. Along with [Free Downloads](#), various articles and free information, no registration required.

Annex III Regulation 2019/1020

From 16th July 2021, [Regulation 2019/1020](#) applies in the EU. Anyone supplying CE Marked equipment must supply through an importer or fulfilment centre which must hold the Technical Files, or there must be an Authorised Representative based in the EU to fulfil this function.

Any Authorised Representative must ensure that the documentation is adequate and suitable for purpose. Non-EU Machinery manufacturers should be ensuring that their Technical Files are up to date and complete and arranging to have an Authorised Representative based in the EU. [Hold Tech Files](#) in Ireland can assist,

Errors & Omissions Excepted. The information provided is free to use. To the best of our knowledge the information is correct, but Safe Machine or Derek Coulson will not be held responsible if an error has been committed. Hyperlinks were checked and working in January 2026, although as many are controlled by external organisations, these may change in time.

Issue IX

Derek Coulson January 2026

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