

What requirements should pipes and process equipment comply with to be allowed on the European market?

If you want to export pipes or process equipment to Europe, you will have to comply with various requirements. Most importantly, you need to comply with legislative requirements, mostly related to product safety. Voluntary commitment to quality standards is also increasingly common on the European market.

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1. What legal and non-legal requirements should your product comply with?

The following 'musts' apply to the products and uses listed here:

1. Product safety – applicable to all products,
2. Technical requirements for specific applications – standards for when products are used in specific applications including transport pressure equipment,
3. Ecodesign for energy-related products – for energy-using or energy-saving products,
4. Energy labelling – for energy-related products,
5. Chemicals – for products that contain chemical substances,
6. Harmful gases and substances – applicable to a wide variety of products such as refrigerators, air-conditioners, fire extinguishers and electronic equipment,
7. Food contact materials – for materials coming into contact with food.

Product safety

The obligation of complying with product safety requirements will firstly be the responsibility of the European company that places the finished product on the market. However, they will often ask their suppliers to comply with the requirements as well. For suppliers of parts, this can translate into demand for more information, test reports or compliance with standards.

CE marking

In addition to the general product safety requirements, there are also several product-specific [standards](#). This shows that the product complies with harmonised safety, health and environmental requirements. Examples of CE marking and the corresponding European Union directives are:

- [ATEX](#) – applicable to equipment used in potentially explosive atmospheres,
- [EMC](#) – electromagnetic compatibility for equipment with electromagnetic emissions,
- [LVD](#) – low voltage directive applicable to electrical equipment with a voltage between 50 and 1000 V for alternating current and between 75 and 1500 V for direct current,
- [PED](#) – applicable to pressure equipment.

For parts of products that fall under CE Directives, CE marking is not legally required. Your buyer will take care of the CE marking for the complete product. However, he will expect you to comply with certain standards to ensure that his final product will also be compliant. Buyers of parts can also ask for voluntary CE marking.

Tips:

Use the [step-by-step guidance](#), provided by the European Commission, to qualify for CE marking.

Identify which directives and standards are applicable to your product(s). You can do so by retrieving an overview of all legal requirements applicable in the [EU Export Helpdesk](#), or by checking out the [directives applicable to your product group](#).

Use the links provided on [New Approach](#) to find more information for each of the directives.

Contact [Open Trade Gate Sweden](#) if you have specific questions regarding access requirements in Sweden and the European Union.

As the process of voluntary CE marking can be expensive, make sure that there is a market potential for the final product before investing in requirements for CE marking

Technical requirements for specific applications

Besides CE marking, additional technical requirements can apply to pipes and process equipment used in specific applications, such as [aircrafts](#) and [motor vehicles](#). These concern the essential requirements related to product integrity (such as structure and materials, propulsion, system and equipment), product operation and the organisation's structure.

Ecodesign for energy-related products

The [Energy-related Products Framework Directive](#) is a CE Directive specifically for energy-using and energy-saving products. It deals with the environmental impact of products, including their energy consumption throughout their entire life cycle. The general requirements of the Framework Directive are supplemented by specific requirements laid down in implementing regulations for various products. Relevant products include [heaters and water heaters](#) and [refrigerating appliances](#).

Tips:

Use the [List of Ecodesign measures](#) of the European Union to find out more about the Ecodesign regulations and the products that are covered by these regulations.

If you have questions regarding the Ecodesign Directive, consult the [frequently-asked questions document](#) published by the European Union, which summarises questions and answers about the Directive and related implementing regulations.

Stay updated about amendments by taking a close look at the implementing regulation that applies to your product. Article 3 of the regulations provides a timeline for scheduled amendments.

Be aware that European buyers and producers might need to change their products and product specifications due to new legislation. Search for interesting opportunities for older-generation products on the European market, for example by looking on the spare parts market, or by working with European producers that would like to move production of older-generation products to low wage countries.

Energy labelling

Energy-using products destined for the consumer market must bear specific energy labels when put on the European market. These energy labels communicate information on the energy consumption of the product. Although it is your European buyer who has the responsibility to ensure that products are properly labelled, it is important to familiarise yourself with the necessary requirements. You can be asked to provide your buyer with technical documentation to make up the label.

Tips:

Check the [EU Export Helpdesk](#) what legislation applies to your product.

Use the [energy label generator](#) of the European Commission to find more information about energy labelling of products.

Follow [European standards](#) for energy consumption measurements, such as EN 14511:2007 (air conditioners and heat pumps with electrically driven compressors for space heating and cooling) and EN 15332:2007 (heating boilers).

Chemicals

To avoid environmental damage, the European Union has restricted the use of certain chemicals in the [REACH](#) regulation. REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals. For example, REACH states that most measuring devices (such as thermometers and barometers) cannot contain mercury.

Tips:

Provide information about the substances that you use to your European buyer, as he is responsible for complying with REACH legislation. Make sure that you know which substances are used in your products and that you provide the information in the way that your buyer wants; for instance, via Material Safety Data Sheets (MSDS) or software in which you declare the chemical content of your product.

To determine in which way you are affected by REACH, see our [REACH study](#).

Check the [candidate list of Substances of Very High Concern](#) on the website of the European Chemicals Agency. These might become prohibited in the future.

Food contact materials

Specific [health control provisions](#) apply to pipes and process equipment that come into contact with food,. These rules have been laid down by Commission Regulation (EC) [No 2023/2006](#) on good manufacturing practice (GMP) for groups of materials and articles that are designed to come into contact with food (including metals and alloys). Food contact materials must be manufactured so that they do not transfer constituents to food in quantities that could endanger human health, change the composition of the food in an unacceptable way or deteriorate the taste and odour of foodstuffs.

Tip:

The European Union legislation on food contact materials is very strict. Therefore, make sure that you have documentation on toxicology and risk assessment of chemical migration from food contact materials and/or declarations of compliance.

General requirements on packaging and liability

Note that there is also non-product specific legislation on [packaging](#) and [liability](#) that apply to all goods marketed in Europe.

2. What additional requirements do buyers often have?

Quality management is crucial

[ISO 9001](#) is a very common quality management system. If you have not done so already, you will need to implement this quality management system and get your certification.

Tips:

Make sure that you obtain your ISO certification, preferably through an internationally recognised body as this offers more credibility towards European buyers.

For a [full overview of certification schemes in the sector](#), consult the International Trade Centre (ITC) Standards Map.

Implement Six Sigma and lean production to keep up

[Six Sigma](#) and [lean production](#) are now crucial requirements that European buyers ask for. Both are production management strategies:

- Six Sigma seeks to improve the quality and the results of business processes by reducing the standard deviation and increasing process predictability.
- Lean production seeks to avoid sending money and resources for any other goal than creating value for the consumer.

Implementing Six Sigma and lean production is not only about complying with requirements. It also helps to improve performance on cost, speed, delivery times and reliability.

Tip:

Implement Six Sigma and lean production in order to remain competitive in the European marketplace.

Compliance with technical product standards to guarantee quality and safety

Buyers often ask their suppliers to deliver products according to voluntary standards. The large number of different standards makes it hard to determine which ones are applicable and relevant. The standards are often harmonised and may overlap or complement each other. Which standard is the best to follow depends on your specific situation (for instance product and market(s) that you want to target). In Europe, the following standards are used most:

- [ISO standards](#): these are recognised worldwide and cover a wide variety of products.
- [EN standards](#): these are developed by the European Committee for Standardization and are harmonised throughout the European Union. ISO standards are often harmonised with, and published as, EN standards.

- National standards: developed by [standardisations bodies in European Union Member States](#) and only asked for and relevant in the specific European Union Member State. ISO and EN standards are more common but some (and a reducing number of) buyers will still work with national product standards.
- Foreign standards: can also be asked by companies that operate in Europe. For example, American standards will mainly be asked in the European Union by American-based multinationals operating in the oil and gas industry that follow these standards. An important difference with American standards is the technical specifications (such as inches instead of centimetres). Examples of American standards agencies are the [American Petroleum Institute \(API\)](#), [American National Standards Institute \(ANSI\)](#) and [American Society for Testing and Materials \(ASTM\)](#).

Tips:

Make sure that you understand all standards applicable in a country, or mentioned in an inquiry, before making an offer.

For more information about specific requirements for valves and pumps, see our studies about [exporting pipes and process equipment to Europe](#).

Every successful company needs a good compliance strategy. Therefore, determine which quality standards are most suitable for the product(s) and market(s) that you want to target. Consult [EU standardisations bodies](#) for more information.

Environmental performance

Environmental performance and energy efficiency are part of the issues that (potential) European buyers increasingly pay attention to. Buyers are looking for green and energy-efficient products and manufacturing methods. They stay away from polluting products and processes wherever possible.

The extent to which buyers include environmental performance and energy efficiency in their sourcing criteria varies greatly. Most companies that consider this, have set up definitions that are made available to potential suppliers.

The environmental management system [ISO 14001](#) is also becoming increasingly common. You may therefore consider it in order to keep up with your competitors. However, ISO 14001 alone will not give you a competitive edge as many players have already implemented it.

Tip:

Consider taking an ecodesign approach by giving attention to the environmental impacts of the product during its whole lifecycle. This covers: 1) Easy dismantling of parts of final product(s) for later re-use or recycling, 2) Less amount of raw materials used, 3) Avoidance of mixtures of materials difficult to separate, and 4) Avoidance of hazardous substances/materials.

Corporate Social Responsibility (CSR)

EU companies are increasingly looking at corporate social responsibility (CSR). CSR looks at the 3 Ps: Planet (for instance, environmental performance), People, and Profit. EU companies will have varying degrees and ambition levels in terms of CSR implementation.

Some companies will (initially) strictly focus on their own operations. Others also look at the CSR performance of their direct suppliers and in some cases (especially with important issues) the entire supply chain. In those cases, suppliers can be asked to comply with suppliers' code of conducts.

Some companies will even audit their suppliers on CSR and base their selection on this score. The weighting may even be as high as 30% of the audit score. On the other hand, there are companies who have not (yet) included CSR in their weighting at all.

Important CSR issues in the metal parts sector relate to the sourcing of raw materials, respecting human rights and land rights, healthy and safe working conditions and environmental performance. Other CSR issues that can be of importance will depend on the specific issues that are in play in your specific sector, country or region.

EU buyers will aim to show due diligence, meaning that they will take the necessary steps to avoid implication in CSR violations. Part of this can be to make a risk assessment when buying from regions where CSR issues are likely to occur.

Tips:

Inform yourself about the CSR requirements of your (potential) buyers by checking their website or CSR reports for statements about supplier codes, codes of conducts, and general vision and objectives.

For example, refer to the website of [Wärtsilä](#) for more information about their code of conduct to see how large multinational companies address sustainability issues.


Address sustainability issues, regardless of whether your buyers ask for compliance with CSR issues. CSR will become more important in years to come and a professional attitude will help to find and maintain new buyers.


Consider qualifying for the certifications [ISO 26000](#) on social responsibility, [SA8000](#) on social accountability, or [OHSAS 18001](#) on occupational health and safety, as these may provide a competitive advantage if European partners indicate that this has an added value.


Find out what CSR issues are relevant for your country. Refer to the country maps on the websites of [UN Global Compact](#) (human rights), [International Labour Organization](#) (labour standards including health & safety), [Transparency Index](#) (corruption), or [Environmental Performance Index](#) (environment). CSR Netherlands has developed a [tool](#) with which you can find CSR issues that apply to your product and country specifically. Please be aware that none of these sources provide information that is complete and/or specific enough for your situation. They should be considered a starting point. Do more research, include suppliers in this process and take steps if necessary.

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