What requirements should motion drives, control and automation products comply with to be allowed on the European market?

To enter the European market, you must comply with several requirements. The most important legal requirements relate to product safety, technical specifications of particular applications, restrictions on the use of chemicals and Ecodesign for energy-related products. Common additional requirements include quality management systems, Six Sigma, lean manufacturing, and compliance with voluntary standards on environmental performance and Corporate Social Responsibility.

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1 . What legal and non-legal requirements must your product comply with to be allowed on the European market?

The following "musts" can be listed for motion control parts and products:

- Product safety – applicable to all products;
- Technical specifications for particular applications – standards for products when used in specific applications;
- Restrictions on the use of chemicals – for products that contain chemical substances;
- Ecodesign for energy-related products – for energy-using or energy-saving products.

Legal requirements

Product safety

The European Union maintains stringent requirements when it comes to product safety, with different regulations applicable depending on the final product's use. The obligation of complying 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. For you as a supplier of parts, this can translate into demand for more information, test reports or compliance with standards.

Conformité Européenne (CE) marking shows that a product meets the European Union's requirements for safety, health and environmental protection. If your *product and its foreseen usage* fall within any of the European Union's directives that require CE-marking, it is an obligatory requirement to meet.

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. They will, however, expect you to comply with certain standards to be sure that their final product will comply eventually. Buyers of parts can, however, ask for *voluntary* CE marking. Because costs are involved in the process of CE marking, you should be sure of buyer preferences in the segment that you target.

Examples of CE marking and the corresponding European Union directives are:
Electromagnetic Compatibility (EMC) ([Directive 2004/108/EC](#))
The EMC directive applies to appliances liable to cause electromagnetic disturbances or that may have their normal operation affected by such disturbances.
Low-Voltage Equipment ([Directive 2006/95/EC](#))
This directive covers the safety of people handling products using voltages in the range of 50 VAC to 1000 VAC or 75 VDC to 1550 VDC.
Energy-Using Products Directive ([Directive 2009/125/EC](#))

In relation to the Ecodesign Requirements in this Directive, some important changes will come into force in the coming years. New regulations require that, from June 2011 onwards, all electric motors must meet the International Efficiency 2 (IE2) standard. From 2015, motors of 7.5 kW to 375 kW must fulfil either IE3 or IE2 and use an electronic drive. By 2017, these requirements will be extended to all electric motors in the range of 0.75 kW to 375 kW.

Substances in electronics (Restriction of Hazardous Substances (RoHS); [Directive 2002/95/EC](#))

The RoHS directive restricts the use of certain hazardous substances in electrical and electronic equipment (EEE).

Tips:

- Identify which directives and standards are applicable to your product(s) or the final product for which your parts will be used. You can do so by identifying your product code in the [EU Export Helpdesk](#), which will lead you to an overview of all legal requirements applicable. Another option is to check out the directives applicable to your product group [here](#).

- Once you have determined if CE marking is applicable and identified the relevant directives, you can prepare for CE marking. Follow the steps as outlined in this [Guide for manufacturers](#).

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

Technical specifications for particular applications

There are three additional technical requirements that apply to motion control products used in three specific applications: parts intended for use in the construction industry, motor vehicles and railway systems.
These concern the essential requirements related to product integrity (such as structure and materials, propulsion, system and equipment), product operation and organisational structure.

Restrictions on the use of chemicals

To avoid environmental damage and to protect the human health, the European Union has restricted the use of certain chemicals in several Regulations and Directives.

The REACH Regulation

The European Union has restricted the use of certain chemicals in the [Registration, Evaluation and Authorisation of Chemicals](#) (REACH) Regulation. For mechanical parts, this particularly applies to

the rust inhibitor or oil used for protection during transport.

Heavy metals in electrical and electronic equipment

If you produce electrical and electronic equipment (EEE), RoHS (Restriction of Hazardous Substances) is applicable to your products. Under the directive, six hazardous substances are restricted, namely lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE) and cadmium. All the products within the EEE sector are covered, unless specifically exempted. Companies can use CE marking as a means to show compliance with RoHS (see CE marking above for more information).

Please note that the European Union has also established legislation on Waste Electrical and Electronic Equipment (WEEE), obliging European producers to set up and participate in product take-back schemes. It may affect you as a supplier, since requirements on the design may be set in order to facilitate reuse and recycling of WEEE.

Tips:

- In most cases, your European buyer is responsible for complying with the legislation in place for chemical substances. To be able to do so, he will need to have information about the chemicals that you use. Therefore, it is essential that you know which substances are used in your products and that you provide this 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).

- An example of a data collection tool for compliance with REACH and RoHS is BOM check (paid service). This is a collective data system developed to collect chemical composition information from suppliers.

- Be aware that some companies have their own requirements regarding the use of chemicals that exceed legal requirements. Therefore, check your buyer's policy on the chemicals and his expectations from your side.

- Check the candidate list of Substances of Very High Concern on the website of the European Chemicals Agency. These substances might become prohibited in the future.

- Read more about REACH in the EU Export Helpdesk.

- Read more about ROHS and WEEE in the EU Export Helpdesk.

Energy-related legal requirements

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 including electric motors and external power supplies.

So far, Implementing Regulations have only been developed for a limited number of products, but this will increase in the future. In addition, the Implementing Regulations are often updated. For example, two amendments are scheduled for electric motors (see Article 3 of the Implementing Directive); one went into effect on 1 January 2015 and the other one is scheduled for 1 January 2017.

2 . What additional requirements do buyers often have?

Additional requirements are common requirements that are non-legal, but that are often regarded as necessary to remain competitive. These are mostly industry-led requirements, such as private standards and common buyer requirements, and basically focus on product quality.

Quality management

ISO 9001 certification is a common international quality management system that has become more and more important. If you have not done so already, you will need to implement this quality management system and get your certification, because buyers prefer – and sometimes even only deal with – suppliers that are ISO 9001 certified.

Implement Six Sigma and lean manufacturing to keep up

Six Sigma and lean production are now crucial requirements demanded by European buyers. You are advised to implement these in order to remain competitive in the European market place.

Six Sigma is a management strategy aimed at improving the quality and the results of business processes by reducing the standard deviation and increasing process predictability. Lean manufacturing seeks to avoid sending money and resources for any other goal than creating value for the consumer.

Compliance with voluntary product standards for 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, as the standards are often harmonised, overlap and/or complement each other. Which one is the best to follow will depend on your specific situation (such as the product and market(s) that you want to target). In Europe, the following standards are most prevalent:

ISO standards
Recognised worldwide and covering a wide variety of products.

EN standards
Developed by the European Committee for Standardisation and harmonised throughout the European Union. ISO standards are often harmonised with EN standards and published as EN standards.

National standards
Developed by standardisation bodies in European Union Member States and only asked for and relevant in the specific Member State. ISO and EN standards are more common, but some buyers will still work with national product standards.

Tips:

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

- For more information about specific standards, see our factsheets about specific products; for example, about Exporting electric motors to Europe.

- Every successful company needs a good compliance strategy. Determine which quality standards are most suitable for the product and market(s) that you want to target. Standardisation bodies are a good point of information once you have done some research.

Environmental performance

Environmental performance and energy efficiency are part of the issues to which potential European buyers pay attention. An increasing number of buyers are looking for green manufacturing methods and stay away from polluting processes wherever possible. On the other hand, energy-saving concepts will get the attention of a European buyer, as this is what the market is looking for.

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

The environmental management system ISO 14001 is becoming increasingly common. You may therefore consider obtaining certification for this standard 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. Several ideas are dismantling of parts of final product(s) for later re-use or recycling, lower usage of raw materials, avoidance of

mixtures of materials that are difficult to separate, and avoidance of hazardous substances/materials.

CSR – a diverse picture

European companies are increasingly looking at Corporate Social Responsibility (CSR). CSR looks at the 3 Ps: planet (such as environmental performance), people and profit. European companies will have varying degrees and ambition levels regarding sustainability.

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 as asked to comply with supplier codes of conduct and/or be assessed.

Some companies aim to ensure that the entire supply chain is CSR-proof, and 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 that have not (yet) included CSR in their weighting at all, the key indicators for the relevance lying in brand strength and awareness. Therefore, products sold in the consumer market are more likely to be sold taking CSR into account.

Important CSR issues in the motion control 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 in your sector, country or region. European buyers will aim to show due diligence, meaning that they will take the necessary steps to ensure CSR compliance. Part of this process can be doing a risk assessment when buying from regions where CSR issues are likely to occur.

Tips:
- Inform yourself of the CSR requirements of your potential buyers by checking their website or CSR reports for statements on supplier codes, codes of conducts, and general vision and objectives.

- Regardless of whether your buyers are asking for compliance with CSR issues, it is advised to address sustainability issues. These will become more important in the coming years and a professional attitude will help to find and maintain new buyers.

- Certain European partners may also consider certification an added value. In this case, SA8000 on social accountability or OHSAS 18001 on occupational health and safety may provide a competitive advantage.

- Find out which 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 and safety) or Transparency Index (corruption).

- You will have to do more research to determine which issues are relevant for your company. Include suppliers in this process and take steps if necessary.

- 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; these should instead be considered a starting point.

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