

CBI Product Factsheet:

Valves in Spain

Introduction

The fifth-largest importer of valves in Europe, Spain is home to several production facilities, some owned by foreign and multinational companies, along with Spanish valve groups or independent valve manufacturers. At 23%, imports from developing countries as a share of total imports are much higher than the European average (14%). The best opportunities for exporters from developing countries are for parts subcontractors for these manufacturers. In some cases, exporters from developing countries could also supply finished valves to these manufacturers. Another good option for exporters from developing countries would be to target specialised distributors. In all cases, exporters from developing countries should focus on just a few specialised valves within their range of products. Finally, the pricing strategy should be very competitive.

Product description

Valves are applied in almost all industrial production processes in which liquids are used. The valves covered in this survey are industrial devices that regulate, direct or control the flow of fluids (gases, liquids, fluidised solids or slurries) by opening, closing or partially blocking various passages. The water and wastewater industry is the largest sector of application for valves, in addition to the chemical-processing industry, the food-processing industry (including beverages) and the oil and gas industries.

One chapter in the CN nomenclature refers to valves and valve parts: Chapter 8481. This chapter of codes was selected for this survey. The classifications are presented in Table 1. Note that several of the codes in Chapter 8481 have been excluded from the selection, as they relate to applications other than the process industry, including pneumatic (including tyres), hydraulic and sanitary applications. Table 1 also shows the Prodcom codes used for the production and demand statistics for valves and valve parts.

Table 1: Selected products, based on CN and Prodcom nomenclature

Subsector and	CN code	Prodcom code	Description
product group			
Valves			
check valves	848130-91/99	29131172	check valves
safety valves	848140-10/90	29131176	safety or relief valves
pressure-	84811005	29131134	pressure-reducing valves combined with filters or
reducing valves			lubricators
	84811019	29131135	pressure-reducing valves of cast iron or steel
	84811099	29131139	pressure-reducing valves of base metal
process control	84818051	29131313	thermostatically controlled process valves
valves	84818059	29131315	process control valves
gate valves	84818061	29131333	gate valves
	84818063	29131335	gate valves
	84818069	29131337	gate valves
globe valves	84818071	29131353	globe valves of cast iron
	84818073	29131355	globe valves of steel
	84818079	29131357	globe valves
diaphragm	84818087	29131377	diaphragm valves
valves			
other valves	84818099	29131380	valves not defined elsewhere
parts thereof	84819000	29132000	parts of valves
a range of	84818081	29131373	ball and plug valves
valves (quarter turn)	84818085	29131375	butterfly valves
,		10 1 11	

Source: Globally Cool, based on CN and Prodcom Nomenclature (2013)

The valve specifications required by Spanish buyers are described below. These specifications include requirements pertaining to the material used, the processing steps, documentation and packaging. Illustrations 1–4 display examples of valves sold in Spain, and Illustration 5 provides an example of valve bodies packaged for transportation.

Material and design

The material used depends upon the valve's application. Materials range from nodular cast iron or alloy nodular cast iron for use in water and wastewater processes to stainless and heat-resistant steel in the chemical and power-generation industries. Designs are in line with customer specifications.

Documentation

Valve importers require associated reports about the quality and specification of the material used, registration of critical process parameters and test reports, along with traceability reports for the batches of products manufactured.

Labelling and packaging

Valves are individually packed in crates or boxes, generally made of wood. The packaging depends upon the characteristics of the valve, its level of treatment (100% treated valves require high-protection packaging in order to prevent breakage) and its size. Plastics or coatings are also used for additional packaging purposes. The standard of the valve should be imprinted on the rim, as well as the size, batch number and materials. Highly specialised valves have unique numbers, as they are tested individually.

Packaging is always labelled, not only for the purposes of identification during transport, but also to indicate the quantity, weight, the products themselves and the producer's name. In addition to general packaging requirements (see 'Requirements'), customers are likely to have their own additional packaging requirements and preferences. In most cases, the packaging and labelling requirements are included in the customer's specifications.

Quality and quantity

The quality standards of individual Spanish companies are regarded as being lower than those in Northern Europe, but higher than those in Central and Eastern Europe. These quality standards have an impact on many aspects, including the finishing and painting of the product (the visual-optical qualities or the appearance of the valve), the packaging requirements and the documentation of accessories.

Order volumes follow the customer's standards and requirements. As a general guideline, transportation of standard valves or valve parts from developing countries to Spain is viable only for full container loads.

Illustration 1: Welded-ball valve



Illustration 2: Sleeved-plug valve



Illustration 3: Triple eccentric butterfly valve



Illustration 4: Lift-check valve

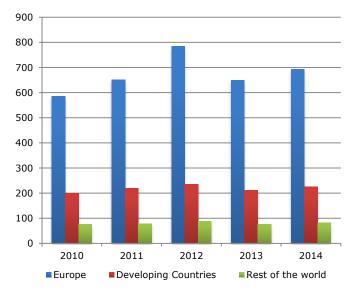


Illustration 5: Example of valve bodies ready for transport



What is the demand for valves in Spain?

Figure 1: Imports of valves to Spain by main origin (2010–2014), in € million

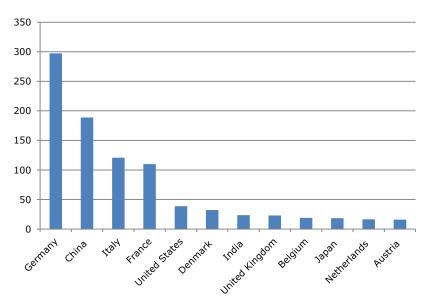


Source: Trade Map (2015)

• Spain is the fifth-largest importer of valves in Europe, behind Germany, the United Kingdom, France and Italy, but ahead of the Netherlands, Norway and Belgium. In 2014, it accounted for 6% of all European imports.

- Since 2011, import values have fluctuated between €930 and €1,100 million. Imports reached €1 million in 2014, having increased by 3.9% per year in the 2010-2014 period. Valve parts (€270 million) accounted for 27% of total imports.
- At 23%, imports from developing countries as a share of total imports are much higher than the European average (14%). During the next few years, this share is expected to remain relatively stable.
- The import of valves is expected to exhibit a slight increase in the next few years, in the range of 0%-2%

Figure 2: Leading suppliers of valves to Spain (2014), € million



Source: Trade Map (2015)

- Most of the leading suppliers are from developed countries. As indicated in Figure 2, Spanish imports are
 dominated by Germany, China, Italy and France. The leading positions of these countries are the result of
 the presence of production facilities owned by the leading global and national valve manufacturers in
 these countries.
- India also exports valves to Spain (€24 million in 2014), as do some other developing countries, including Vietnam (€5 million) and Turkey (€3 million).
- The composition of suppliers from developing countries is not expected to change substantially in the next few years.

Tips:

- Benchmark your company against your peers from China and India, as well as against those from other countries that export to Spain. Several factors should be considered, including market segments served, perceived price, quality levels and countries served. One source that can be used to find exporters of valves by country is the ITC Trade Map.
- Spanish buyers are evidently aware of and have found suppliers in developing countries other than China. Such perceived openness to other developing countries obviously implies the presence of opportunities for developing countries.

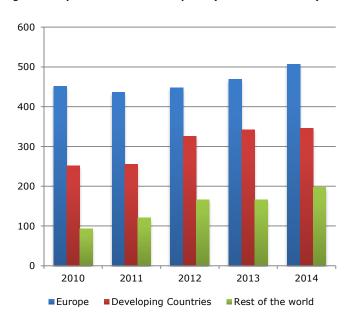


Figure 3: Exports of valves from Spain by main destination (2010-2014), in € million

Source: Trade Map (2015)

- In the past, Spain was a net importer of valves, as evidenced by a comparison of import and export values. In 2013 and 2014, import values matched export values, thus indicating that local production was sufficient to satisfy the demand in the local market.
- On average, exports increased by 7.2% per year in the 2010–2014 period (€1.1 billion in 2014).
- Of all Spanish exports, 33% are destined for developing countries. This presents an interesting opportunity for manufacturers of valves and valve parts in developing countries. Suppliers who are able to prove their ability to meet product specifications can also supply these valves and valve parts. China is the leading developing-country destination, followed at quite some distance by Turkey, Iran, Mexico,

Morocco, Chile, Egypt, India, Cuba and Brazil.

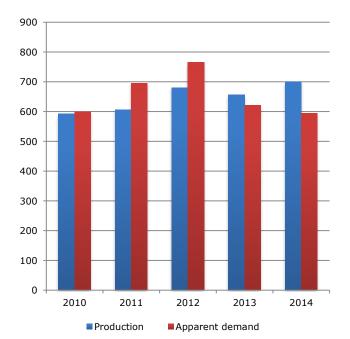


Figure 4: Production of and local demand for valves in Spain (2010-2014), in € million

Source: Prodcom (2015)

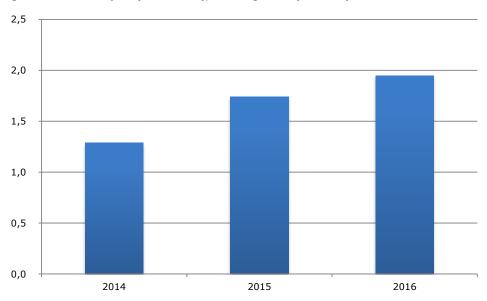
- Spain is Europe's sixth-largest manufacturer of valves and valve parts, behind the Czech Republic but ahead of the Netherlands, with a production output valued at €701 million in 2014.
- After a peak in 2012, local demand decreased, reaching €594 million in 2014. This is comparable to the value in 2010. This reflects the continued economic crisis in Spain.
- Total production output consists of outputs from facilities belonging to international players (e.g. Orbinox, part of AVK, and AMVI, owned by KSB) and facilities belonging to Spanish players. Most Spanish players are of small to medium size, although few have consolidated into groups (e.g. the TTV-JC Valve Group). The large multinational manufacturers are expected to continue to dominate the market for valves in the processing industries, although smaller, specialised niche players are expected to retain some power, due to their greater ability to innovate and manufacture low-volume products. At the same time, many Spanish manufacturers still produce the standard types of valves. It is expected that they will start to outsource the production of these valves.
- The market segments of oil and other industrial applications have a mature character, consisting primarily of replacements and the maintenance of existing equipment. In contrast, the water-treatment industry is still developing, and large investments are still expected in networks for the collection and distribution of water, as well as for sewers. Whereas previous years have been marked by continuously high and increasing investments in the LNG pipeline/terminals and the power-generation network, the outlook for this segment is less positive for 2015 and 2016. Due to the decline in oil price in 2015, investments will be cancelled or delayed, resulting in a drop (between -4 and -6%) in the demand for valves in 2015 and 2016 for this segment.
- Growth in the Spanish demand for valves was expected to remain limited or even negative in 2015 and into the foreseeable future, particularly due to the relatively low level of investments in the oil and gas industry. Investments in valves and other process equipment in Spain are unlikely to register high growth in the coming years, although investments in the water and energy sectors may continue to act as a stimulus.

Tips:

- Manufacturers of valve parts can find very good short-term and medium-term subcontracting opportunities with Spanish valve producers.
- For exporters of finished valves from developing countries, the cautious market climate is a threat, as European/Spanish valve manufacturers will be making every effort to retain their customers in the Spanish market.
- Considering the forecast for 2015 and beyond, pricing is and will continue to be one of the most important factors influencing competition. Exporters from developing countries who have difficulty achieving competitive pricing should consider specialising, as competition tends to be less intense in the market for specialised valves.
- See the <u>CBI document on Trends for Pipes and Process Equipment</u> (which is actually about valves alone) for an overview of trends in the European market.

Macro-economic indicators

Figure 5: Real GDP Spain (2014-2016), % change from previous year



Source: OECD Economic Outlook 96 database

- The major determinant of demand for valves is industrial spending activity, which is stimulated by economic growth. As indicated in Figure 5, the GDP is expected to exhibit continued growth year on year. For the longer term, it will provide a significant base for continued import growth.
- The profitability of imports of valves is affected by the €:USD exchange rate, as many valves and valve parts that are sourced globally are paid for in USD. While the €:USD exchange rate was not expected to surpass 0.80 until 2020, this occurred in 2015, with the exchange rate even rising above 0.90. This is having a major effect on the price level of imports. This situation is likely to have a negative impact on the level playing field of European imports paid in USD relative to local European production, especially if it persists for several years. This would thus also have a negative impact on the competitive position of exporters from developing countries.

Tip:

Although GDP growth forecasts are improving, pricing is and will continue to be one of the most
important factors influencing competition. Competitive pricing is essential for exporters from
developing countries planning to enter the European market.

What trends offer opportunities on the Spanish market for valves?

The most important trends in the Spanish valve sector include the following:

- Clean water: In the water and sewerage industry, clean water shortages and environmental legislation will result in several investments in infrastructure and water-treatment equipment.
- Environment: A rising demand for certain types of valves can be regarded as a result of the search for energy efficiency and the restriction of CO2 and NOx emissions (following legislation from the European Union). This has led to the increased use of innovative production techniques, resulting in greater efficiency and less waste. One of the effects of this trend is that there has been an increase in demand for certain types of valves. For example, a range of valves has become more appealing as control valves for petrochemical companies. The main reason is that a range of valves has lower gland emissions than globe valves do. In addition, one specific range of valves, eccentric plug valves, is suitable for a very large number of applications. Eccentric plug valves have thus experienced relatively high growth in demand, especially for control-valve applications in the oil and gas industry.

Tips:

- Consider focussing on the water and sewerage treatment segment, as it offers the best opportunities, due to its relatively low technical requirements.
- The trend towards greater energy efficiency provides opportunities for producers from developing countries who are able to supply certain types of low-emission valves or parts for such valves.
- The <u>CBI document on Trends for Pipes and Process Equipment</u> provides a general overview of trends in the European industry.

With which requirements should valves comply in order to be allowed on the Spanish market?

Requirements can be divided into the following categories: (1) musts, which are legal requirements that you must meet in order to enter the market, and (2) additional requirements, which consist of the relatively common requirements that most competitors have already implemented (in other words, requirements that you should meet in order to stay abreast of the market).

A general overview of <u>EU buyer requirements for pipes and process equipment</u> is available on the CBI Market Intelligence Platform. Additional sources of information on gaining access to the European market include the <u>EU Export Helpdesk</u> and the <u>ITC Market Access Map</u>.

Musts

For industrial valves, the most important legal requirements are compliance with the Essential Safety Requirements of (1) the Pressure Equipment Directive (PED) 97/23/EC, and (2) the ATEX Directive 94/9/EC, which applies to valves in potentially explosive atmospheres.

Valve parts are not subject to any specific legal requirements for market access. For finished valves, the following legislation applies:

- The <u>Product Liability Directive</u> states that the European importer is liable for the products put on the European market. In theory, however, European importers can pass claims along to their producers/exporters.
- Valves are subject to the <u>PED directive</u>.
- Valves intended for use in potentially explosive atmospheres must comply with the <u>ATEX directive (Directive 94/9/EC)</u>.

Other general legislation that must be taken into account includes:

- Wood packaging materials used for transport (Directive 2005/15/EC): The European Union sets requirements for
 wood packaging materials (WPM), including packing cases, boxes, crates, drums, pallets, box pallets and dunnage
 (i.e. wood used to wedge and support non-wood cargo).
- Another packaging-related directive is the general directive for <u>packaging and packaging waste</u>, which prescribes the marking of the kind of packaging material used and maximum levels of heavy metals in the packaging material.

Tips:

- To obtain PED or ATEX certification, valves must be certified by a <u>Notified Body</u>. In some cases, these
 notified bodies also offer consultancy services to help manufacturers meet the requirements. Be aware
 that notified bodies are often notified for only a part of the conformity assessment procedure, or for
 only a specific sector (e.g. electrical equipment).
- Consult the <u>European ATEX Guidelines for the Valve Industry</u> published by the European Valves Committee.
- Make sure that your wood packaging material (WPM) qualifies for the European market. If you are not
 certain, ask your WPM supplier to confirm and explain this to you. Your WPM supplier should undertake
 any further actions required to comply with the Directive. If the supplier is not able to do so, it would
 be advisable to select another supplier.
- A Certificate of Origin is obligatory; note that it must be validated by a local Chamber of Commerce. Additional information is available here">here.

Additional requirements

For finished valves, the customer's main requirements will be related to technical aspects, many of which are covered in the CE or other standards. General standards (e.g. EN558 and EN12982) can serve as a starting point, while other standards

apply to specific market segments (e.g. ISO 15761, 10434 and 17292 for gas and oil). Yet other standards apply to specific types of valves (e.g. EN 13709, 13789 and 1349 for globe and control valves and ISO 5996 for cast-iron gate valves).

For valve parts, material requirements are the most important customer requirement. The material that is used for valve parts must be covered by an international standard and certificated. The metal used must meet the material standard, which can be stated in an EN10204 Type 3 certificate. This type of certificate is internationally accepted.

While the American ASTM standards link material requirements with applications, this is not the case for the European EN standards. Instead, European customers have their own specific requirements, in addition to the EN standards. Such additional requirements from customers can be NDT (non-destructive testing), surface (MT or magnetic testing, PT or penetrant testing) and section (UT or ultrasonic testing and RT or X-ray testing) tests.

Buyers may also have specific requirements relating to the dimension and surface of the valve parts. In practice, these requirements are highly dependent upon the customer and application. In some cases, buyers ask their suppliers to adhere to the EN ISO 8062 standard and, in other cases, they include their specific dimensional and surface requirements in the technical drawing.

Finally, many customers are likely to demand that you work according to such general organisational quality systems as ISO 9001 (version 2008) and process control. Some may also demand compliance with ISO 14001 (environmental) and OHSAS 18000 (labour standards).

- Tips:
- Valves produced for the European market must be designed and manufactured with an emphasis on low emissions, safety, simplicity of maintenance, ease of operation and, above all, long and reliable service life.
- Additional details are available on the following websites:
 - o <u>ISO Catalogue</u> See 'TC 153' (Valves) for an overview of ISO standards.
 - o Search EN norms in the online shop of the British Standards Institution.
 - <u>CBI Buyers' Black Box</u> offers further information on topics that are decisive for buyers when searching for new suppliers.

Import tariffs

For valves and valve parts, <u>a 2.2% duty</u> is levied on European imports from third countries. Several countries benefit from a preferential 0% tariff, including Indonesia, Pakistan, Vietnam, the Philippines, Bosnia-Herzegovina and Egypt. The <u>TARIC database</u> provides additional details relating to Chapter 8481. Note that a Certificate of Origin is required in order to claim a preferential tariff.

Tip:

 Exporters from countries subject to a preferential 0% tariff have a slight competitive advantage over competitors from countries without such preferential tariffs.

What do the trade channels and interesting market segments for valves look like in Spain?

Valve manufacturers are the most prominent targets in Spain. Producers from developing countries can supply parts to them as subcontractors, in addition to supplying finished products. Producers from developing countries can improve their opportunities by focussing on a few specialised products. Spanish manufacturers are also the most important targets for specialised products, and some may be interested in subcontracting a part of their production to low-cost countries. Distributors are also good targets, as they have excellent access to the local market.

Additional information is available in the CBI documents on 1) <u>Market Channels and Segments for Pipes and Process Equipment</u> and 2) <u>Competition for Valves</u>. Explanations of the types of prospects are provided below, including a few examples for each type. Resources that can be used for finding prospects are included in the section 'useful resources'.

Manufacturers

These companies offer good potential for suppliers of valve parts, and possibly for suppliers of some finished valves. Subcontracting offers the best opportunities for specialised products, including special valves or parts thereof (e.g. knife valves). Examples of Spanish producers include the following:

- <u>Acuster</u> manufactures a range of valves and pipe-related equipment.
- CMC Hydro producer of a range of valves and products for the water-processing industry.
- ICP valves manufacturer of a range of valves.

- Inoxpa manufacturer of a range of valves and pumps.
- Mecesa manufacturer of valves and accessories for instrumentation and control installations.

Distributors

Distributors are attractive targets for exporters from developing countries aiming to export large volumes of commodity-type products (e.g. common valves). This is because distributors often buy and/or import commodities in relatively large volumes on a scheduled basis. In most cases, the distributor is also the importer. Distributors often have their own stock, thus explaining why they are also called 'stockists'. Products must be kept in stock, as they need to be available for urgent deliveries to end-users.

Most distributors offer a range of valves and other pipe-related process equipment. Examples include the following:

- Sugein distributes a range of valves and pipe-related equipment.
- Simosa distributor of a range of valves and equipment for the oil-processing industry.
- <u>Tradinox</u> stockholding distributor of stainless steel valves and pipes and related equipment.
- <u>Tubinox</u> stockholding distributor of a range of valves, pipes and fittings.

A few distributors are true valve specialists, as they are exclusively specialised in valves. One example of such a specialist is <u>Grupo Compas</u>, a stockholding distributor of a wide range of valves.

Useful resources

Associations, portals, magazines and trade fairs

- <u>Barcelona Tecnologías de la Alimentación</u> trade fair for the food industry, held triennially; the next fair will be held in 2018.
- <u>Cumbre Industrial y Tecnológica / Subcontratación</u> in 'Fairs', select 'Subcontratación'; annual subcontracting fair (in October) in Bilbao.
- Fluidex Spanish Association of Fluid Handling Equipment Exporters.
- Smagua water treatment fair, held biennially (in even-numbered years in March) in Zaragoza.
- <u>Tecnologías del Agua</u> water technology portal.
- <u>Valveworld</u> biennial trade fair dedicated to valves, held in December in even-numbered years, in Dusseldorf, Germany. This is Europe's annual meeting place for the valve industry.
- Valveworld magazine offers news and background information on the European valve industry.

Miscellaneous

- <u>Eurostat</u> official statistics office of the European Union. Registration is free and provides access to large collections
 of data.
- Export Helpdesk information on European trade statistics, tariffs and quotas for developing countries.
- ITC International Trade Statistics registration required.
- Kwintessential provides practical tips on business culture and etiquette.

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This survey was compiled for CBI by Globally Cool :: creative solutions for sustainable business, in collaboration with CBI sector expert Luc Govaerts

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