

## **CBI MARKET SURVEY**

# THE CASTINGS AND FORGINGS MARKET IN PORTUGAL

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# Introduction

This CBI market survey gives exporters in developing countries information on some main developments on the castings and forgings market in Portugal. The information is complementary to the information provided in the CBI market survey 'The castings and forgings market in the EU' which covers the EU in general. That survey also contains an overview and explanation of the selected products dealt with, some general remarks on the statistics used as well as information on other available documents for this sector. It can be downloaded from http://www.cbi.eu/marketinfo

# 1. Market description: industrial demand and production

#### Industrial demand

Because no demand data for castings and forgings are available, it has been decided, in consultation with industry experts, to focus on two major end user industries in the EU that offer good opportunities for developing country (DC) exporters: the engineering and the construction industry. Since in both industries many cast and forged parts and products are used, the production output of both industries is a good indication for the demand for cast and forged parts in these industries.

# Engineering industry

Portuguese production in the engineering industry decreased 6% in the period 2001-2005, to almost €4 million in 2005. The limited Portuguese engineering industry ranked sixteenth in the EU, behind Hungary and Ireland, but ahead of Slovakia and Slovenia. Of the main castings and forgings consuming engineering categories, "valves and taps" (+44%), "machine tools, woodworking machinery and welding equipment" (+16%) and "agricultural machinery" (+14%) performed well. The market position of Portugal in the EU was relatively good in "machinery for textile, apparel and leather production" (12<sup>th</sup> largest producer) with 0.6% market share) and "valves and taps" (0.8% market share). Despite positive global, EU, and Portuguese economy forecasts for 2007 (+3.3%, +2.0% and +1.4% respectively) and 2008, leading to a good demand for engineering products in the country, it is difficult to predict to what extent the Portuguese manufacturers will benefit from this.

#### Construction industry

After a decline of 14% in the period 2002-2005, the Portuguese construction industry amounted to €26 billion in 2005. For the period 2005-2008 it is expected that the industry will decline further by 5.1% to €24.7 billion in 2008. The medium-sized Portuguese construction industry ranked tenth in the EU, behind Austria and Belgium, but ahead of Denmark and Poland.

# **Production**

The limited Portuguese foundry industry ranked fourteenth in the EU, behind the Netherlands and Slovenia, but ahead of Hungary and Denmark. Nodular iron castings accounted for 50% of total production, followed by iron castings (19%) and light and ultra light castings (14%). In 2005, the production of metal castings totalled 139,200 tons, an increase of 11% compared to 2001. Main reason was a good growth in the production of nodular iron castings (+36%). In the same period, the average turnover per employee increased 32% to almost €80,000, an amount which is the seventh highest in the EU, behind Spain and Finland, but ahead of Slovenia and the Czech Republic.



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Next to the large Teksid foundry Funfrap - <a href="http://www.teksid.com/iron-1.htm">http://www.teksid.com/iron-1.htm</a>, owned by the Italian Fiat-group and specialized in automotive castings, the country was home to some 60 ferrous metal foundries in 2005, with an average turnover of €2.9 million per year. While the number of ferrous metal foundries remained relatively stable in the period 2001-2005, the number of non-ferrous metal foundries declined 30% to 38 in 2005. Some more examples of Portuguese foundries are Firmago - <a href="http://www.firmago.pt">http://www.firmago.pt</a>, an aluminium gravity casting foundry, and Fundilusa - <a href="http://www.fundilusa.com">http://www.fundilusa.com</a>, specialized in propellers and other water propulsion components.

Unfortunately, data of the Portuguese forging production are not available. However, as with the foundry industry, it can be assumed that the Portuguese forge industry is small.

#### **Trends**

Some major trends that influence the castings and forgings demand in Portugal are:

- Many industries will benefit from a growing number of innovative applications of aluminium and magnesium castings.
- Due to the growing care for the environment, in several industries for example the power generation industry the search for energy efficiency and the limitation of  $CO_2$  and  $NO_x$  emissions has led and should lead to the increased use of energy-efficient applications such as electric variable speed drives and energy-efficient engines, turbines, motors and generators. As a result, prospects for cast and forged parts in such applications are bright.
- In recent years, a few engineering operations have been outsourced to low cost countries (LCCs), especially Central and East European (CEE) countries. So far, outsourcing mostly concerns labour-intensive and series production of standard products and parts that can easily be made in LCCs.

# **Opportunities and threats**

- Declining engineering and construction markets will lead to a shrinking demand for castings and forgings in the next few years.
- Shift of engineering production towards LCCs, which may lead to a deceleration of demand growth for castings and forgings in the Portuguese engineering industry.

# **Useful sources**

- Association of Civil Construction Builders <a href="http://www.aiccopn.pt">http://www.aiccopn.pt</a>
- Association of Construction Builders <a href="http://www.aecops.pt">http://www.aecops.pt</a>
- Association of Construction Companies (CMMM) <a href="http://www.cmm.pt">http://www.cmm.pt</a>
- Association of Metal and Mechanical Engineering Industry <a href="http://www.aimmap.pt">http://www.aimmap.pt</a>
- Electric and Electronic Portuguese Enterprises Association <a href="http://www.animee.pt">http://www.animee.pt</a>
- Portuguese Association of Metalworking Industries <a href="http://www.anemm.pt">http://www.anemm.pt</a>
- Portuguese Foundry Association <a href="http://www.apf.com.pt">http://www.apf.com.pt</a>
- Portuguese Shipbuilders Association <a href="http://www.aim.pt">http://www.aim.pt</a>

# 2. Trade: imports and exports

#### **Imports**

In 2005, Portugal's imports of castings and forgings totalled €3.3 billion (3.2 million tons). The country was a medium-sized importer, ranking fourteenth in the EU behind the Czech Republic, Denmark and Hungary, but ahead of Finland, Slovakia and Ireland. In line with the market trend for most of the product groups, total Portuguese imports showed an increase in value (12%; partly caused by the increasing raw material prices; refer to Section 4) in the period 2001-2005, but a decrease in volume (-13%). The product group shares were as follows:

- Iron and steel products (45%; strongest growth in the period under review)
- Parts of machinery, railway equipment or vehicles (16%)
- Articles of iron, steel or base metal (15%; second strongest growth in the period under review)
- Plastic and rubber products (10%)



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- Copper and zinc products (8%)
- Light and ultra light products (6%)

The DCs' share in imports in 2005 was high (almost 10%), with Brazil being the most important DC supplier (4%), followed by Turkey, China and Argentina. The DCs' share was the largest (18%) for iron and steel products, with Brazil being the largest DC supplier (8%). This was also the product group that showed the best growth of the DC share compared to 2001. Among the DCs that saw the largest increase in exports to Portugal were Peru, Thailand, Morocco, Brazil, India and Indonesia.

## **Exports**

Total Portuguese exports increased both in value (76%) and in volume (85%) in the period 2001-2005. With a total export value of €1.7 billion (1.8 million tons) in 2005, Portugal was a small exporter in the EU, behind Slovakia, Hungary and Luxembourg, but ahead of Slovenia, Greece and Ireland. Unfortunately, the value of re-exports is unknown, as Eurostat does not allow such detailed analysis.

# **Opportunities and threats**

- + Large import share for DCs
- + Share of DCs in total imports increased faster than in the EU in average
- Total import volume decreased in recent years

#### **Useful sources**

- EU Expanding Exports Helpdesk <a href="http://export-help.cec.eu.int">http://export-help.cec.eu.int</a>
- Eurostat official statistical office of the EU http://epp.eurostat.cec.eu.int
- Trade associations mentioned in Section 1.

#### 3. Trade structure

The most common target groups for DC exporters are Original Equipment Manufacturers (OEMs), subcontractors of OEMs, agents, importers and foundries or forges. Although there are several options, supplying directly to OEMs and subcontractors of OEMs has some advantages and could be one of the most interesting trade channels, because there is a larger chance of a long-lasting relationship. DC exporters should therefore put efforts into building supplier relationships with OEMs and subcontractors of OEMs in the EU. By working together, DC exporters have the best chances in succeeding as they are able to offer more added value products to EU customers. One example of a large end user of castings and forgings in Portugal is Cimpor (<a href="http://www.cimpor.pt">http://www.cimpor.pt</a>; cement plants). Please refer to the CBI market survey covering the EU market for castings and forgings for a detailed explanation on the trade channels in this sector.

#### 4. Prices

One of the major trends that affect the costs and revenues of Portuguese castings and forgings production is price pressure, which results in importers/agents and OEMs as well as their suppliers continuing looking for opportunities to reduce cost prices of parts by 10-30%. This may be underlined by the fact that prices in the engineering industry increased only 6.7% in the period 2000-2005. In the meanwhile, the industry had to deal with increasing raw material and energy prices, as well as increasing wage costs (mounting to €7.37 per man-hour in 2005, which is below the wage levels in Eastern Germany and Spain, but much higher than the wages in CEE countries). Portuguese producers have tried and will try to translate increasing production costs into surcharges as soon as possible, although success depends on the supplier relation and the kind of product. The larger a supplier or the smaller a customer, the larger the negotiation power of a supplier. Moreover, the less the product is a commodity product, the larger is the negotiation power. Please refer to the CBI market survey covering the EU market for castings and forgings for a detailed explanation on these major trends.



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- CAEF Eurofoundry <a href="http://www.caef-eurofoundry.org">http://www.caef-eurofoundry.org</a>
- European Engineering Industries Association (Orgalime) <a href="http://www.orgalime.org">http://www.orgalime.org</a>
- London Metal Exchange <a href="http://www.lme.co.uk">http://www.lme.co.uk</a>

# 5. Market access requirements

Manufacturers in developing countries should be aware of the market access requirements of their trading partners and the country government. Requirements are demanded through legislation and through labels, codes and management systems. These requirements are based on environmental, consumer health and safety and social concerns. For more information go to 'Search CBI database' at <a href="http://www.cbi.eu/marketinfo">http://www.cbi.eu/marketinfo</a>

# 6. Business practices

The subject of business practices is concerned with finding prospects and with sales promotion tools, like trade press and trade fairs.

## Finding prospects

There are many ways to find potential business partners in Portugal. Some examples of available sources, beside the ones already mentioned in Section 1:

- Direct Industry http://www.directindustry.com
- Europages <a href="http://www.europages.com">http://www.europages.com</a>
- Invest in Portugal Agency <a href="http://www.investinportugal.pt">http://www.investinportugal.pt</a> (hit 'investors' contacts').
- Kellysearch <a href="http://www.kellysearch.com">http://www.kellysearch.com</a>
- Kompass <a href="http://www.kompass.com">http://www.kompass.com</a> (mostly fee based, but the free part is useful too)
- Thomas Global Register Europe <a href="http://www.trem.biz">http://www.trem.biz</a>

For more details about how to search some of these databases, please refer to the CBI Export Manual 'Digging for Gold'. Also refer to CBI's Export Planner (<a href="http://www.cbi.eu">http://www.cbi.eu</a>), an export manual that provides information on the different steps to be taken during the export process to the EU market.

# **Trade magazines**

Two relevant Portuguese magazines are Arte & Construção (constructions) - <a href="http://www.aje.pt/arte/revista.htm">http://www.aje.pt/arte/revista.htm</a> and Fundição Magazine - <a href="http://www.apf.com.pt">http://www.apf.com.pt</a>.

## Trade fairs

Visiting and participating in a trade fair abroad can be an efficient tool to communicate with prospective customers. It provides more facilities for bringing across the message than any other trade promotional tool. It can also be an important source of information on market development, production techniques and interesting varieties. Relevant trade fairs in Portugal are:

- Moldplas (biannually, Batalha) <a href="http://www.exposalao.pt">http://www.exposalao.pt</a>
- Metal (biannually, November, Porto) <a href="http://www.emaf.exponor.pt">http://www.emaf.exponor.pt</a>

This survey was compiled for CBI by Facts Figures Future in collaboration with Kommanet.

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