

CBI MARKET SURVEY

The castings and forgings market in Belgium

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Introduction

This CBI market survey provides exporters in developing countries (DCs) with information on some of the main developments in the castings and forgings market in Belgium. 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 data for the demand for castings and forgings are available, this survey puts a focus on two major end-user industries that offer good opportunities for developing country (DC) exporters: the engineering and the construction industry. Since both industries use many cast and forged parts and products, the production output of both industries is a good indication for the demand for cast and forged parts in these industries.

Engineering industry

Please note: the data of Belgium for this category are in combination with the data of Luxembourg. It may be assumed that Belgium accounts for more than 90% of the total.

Belgian production in the engineering industry increased 3.3% per year in the period 2002-2006, to more than €14 billion in 2006. The medium-sized Belgian engineering industry ranked twelfth in the EU, behind Finland and the Czech Republic, but ahead of Denmark and Hungary. Of the main castings and forgings consuming engineering categories, "bearings, gears and other driving elements" (+17.9% per year), "pumps and compressors" (+9.8%) and "machinery for textile, apparel and leather production" (+8.7%) performed the best. The position of Belgium in the EU was especially strong in "machinery for textile, apparel and leather production" (4th largest producer with 7% market share) and "pumps and compressors" (5th with 5% market share).

Despite the world, EU, and Belgian economic growth forecasts for 2008 (+3.8%, +1.7% and +1.9% respectively) and 2009 (+3.9%, +1.8% and +1.9%), leading to a good demand for engineering products in the country, it is difficult to predict to what extent the Belgian manufacturers will benefit from this. Please also note that, although the EU is far from running the risk of recession, the EU and Belgian economy are and will be clearly affected by the housing and credit crisis in the United States.

Construction industry

After a total growth of 5.4% in the period 2002-2005, the Belgian construction industry amounted to €26.7 billion in 2005. For the period 2006-2008 it is expected that the industry will grow by 6.6% in total to €28.5 billion in 2008. There was indeed growth in 2005-2006, which was the result of increased business spending. Since then, public-sector investment has also picked up, partly as a result of a long-term rail investment programme (2003-12). The medium-sized Belgian construction industry ranked ninth in the EU, behind Ireland and Austria, but ahead of Portugal and Denmark.

Production

Foundry industry

The small Belgian foundry industry ranked twelfth in the EU, behind Hungary and Slovenia, but ahead of the Netherlands and Portugal. Iron castings accounted for 47% of total production, followed by steel castings (27%) and light and ultra light castings (14%). In 2006, the production of castings totalled 172,000 tonnes, which is an annual increase of 4.3% compared to 2002. Compared to 2005, especially supplies to the mechanical engineering industry grew fast (+8%). This growth was expected to continue in 2007, albeit at a slower pace (+2.0-2.5%). The country was home to some 30 ferrous metal foundries and the average turnover per employee amounted to about €130,000 – an amount which is the fourth largest in the EU, behind France and Austria, but ahead of Spain and Finland. Most Belgian foundries add value by offering services to the customer in the area of machining and assembly. Examples of such foundries are Allard Europe (see textbox), Precimetal - <http://www.precimetal.be> and Proferro - <http://www.proferro.be> (see textbox). Capacity utilisation was reported to be above 90% in 2006.

Proferro is a member of the Picanol Group, a world leading manufacturer of high-tech weaving machinery. In the nineties – to make full use of its capacity – Proferro also started to supply other companies. Because of its in-house machining and assembly capacities, the company's supplies to external suppliers now amount to two third of the total turnover. Proferro is one of the European foundries that invest (€16 million in the period 2008-2010) in production processes, forced by the increasing cost price reduction demands from automotive customers.

Furthermore, the country hosts a number of foundries that operate in niche markets. Examples of such foundries are Pedeo - <http://www.pedeo.be>, which is specialised in zinc die casting, and some foundry activities of Magotteaux International - <http://www.magotteaux.com>, a company that specialises in state-of-the-art solutions for crushing and grinding processes and wear mechanisms.

Allard profiles itself as a specialty foundry, with a focus on quality, flexibility and service. The company casts steel and iron, varying in weight from a few grams to 19 tonnes (steel) or 22 tonnes (iron), in single pieces or small ranges. Both metals with and without alloys are used. In 2007, the company enlarged its machining capabilities with the introduction of CAM (Computer Aided Manufacturing). Read more about this at the news section of the company's website - <http://www.allard-europe.com>.

Forge industry

The Belgian forge industry ranked ninth in the EU, representing a size smaller than Sweden, but larger than Slovenia. In 2006, the small production of forgings totalled 32,000 tonnes, a decrease of 2.9% per year compared to 2002. Only the Italian forge industry saw a decrease in production as well.

Trends and characteristics

A major trend that influences the castings and forgings demand and production in Belgium is the growing number of innovative applications of aluminium and magnesium castings. Other trends are:

- **Growing demand for light weight and energy-efficient applications.** 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 CO₂ and NO_x emissions has led and should lead to the increased use of energy-efficient and light weight 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.
- **Relocation of engineering production.** In recent years, some engineering production has been outsourced to low cost countries (LCCs), especially Central and Eastern European

(CEE) countries. So far, outsourcing often concerns labour-intensive and series production of standard products and parts that can easily be made in LCCs.

- **Focus switched away from heavy engineering.** While in the past, the engineering industry (metal products, machinery and equipment) focused on heavy engineering, the nineties have seen a switch of focus to lighter, more technologically advanced production.
- **Level of investments will remain high.** Investments are expected to remain at a fairly high level in the next few years, although they will be at a lower level than in 2005-2006. Among the high investments in Belgium are a number of large infrastructural projects (e.g. a high-speed railway; <http://www.b-rail.be>) and also construction of an offshore wind park, with 66 wind turbines of 5MW each (<http://www.ecoconcern.com>).
- **Restructuring of the mechanical engineering industry.** The increasing global competition led to major restructuring in the Belgium mechanical engineering industry. Nowadays, large companies are designing and assembling customised multi-technological machines, while smaller companies handle technologically advanced production of machinery parts.

Opportunities and threats

The main opportunities and threats for developing country (DC) exporters are the following:

- + Growing construction output will lead to an increasing demand for castings and forgings.
- + Light weight products and eco-friendly and energy-efficient technologies offer good opportunities for those DC exporters that are able to supply such products.
- ± The growing economy is expected to drive a healthy demand for engineering products in the years to come, which could also stimulate local engineering production. On the other hand, the shift of engineering production towards LCCs may lead to a deceleration of demand growth for castings and forgings of the Belgian engineering industry.

Refer to Section 7 of the CBI market survey covering the EU market for more information on opportunities and threats.

2 Trade channels for market entry

Trade channels

The most common trade channels for DC exporters are direct sales to end-users, trade via traditional importers, supply agents, traditional agents, or subcontracting by EU foundries or forges. Although there are several options, supplying directly to end-users 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 up supplier relationships with end-users. Refer to the CBI market survey covering the EU market for a detailed explanation of relevant trade channels in this market.

Examples of potential trade partners

Some examples of end-users in Belgium are Atlas Copco (<http://www.atlascopco.com>, hydraulic equipment), Gilbos (<http://www.gilbos.com>; twisting and spinning machinery) and Ipso LSG (<http://www.ipso.be>; industrial laundry equipment). Another example of a major end user of castings and forgings is Caterpillar (<http://www.cat.com>; construction machinery). Goddeeris (<http://www.itgoddeeris.be>) is an example of a 'supply agent' (refer to the CBI market survey covering the EU market for more information). This company makes use of foundries all over the world, ranging from Finland to Turkey, but also from Brazil and South Africa. While the casting process is outsourced to a foundry, depending on capability, quality and price, the machining of the parts is done in-house.

Price structure

It is very difficult to give a general idea of the price structure in this industry, as prices and margins differ to a great extent. They may depend on size of the order, length and type of distribution chain, terms of delivery, added value / finishing and materials concerned. Bearing this in mind, some rough indications of margins in the chain could be given. Agents work with margins between 3-7%, for importers this is 15–35%. The margin depends on the level of care and attention an intermediary has to give to the process. Products that do not need much

extra care, like finished and ready-to-use products such as valves, will be sold with a smaller margin than products that need extra handling or even need to be stored.

Useful sources

Some examples of available sources to find clients:

- Association of Technology Industries in Belgium – <http://www.agoria.be> - click on 'our members'.
- Company database with a focus on Belgium - <http://www.abc-d.be>
- Association of Producers and Importers of Fluid Power – <http://www.fimop.be> – click first 'Nederlands' and then 'leden': you will find a list of member companies of the association.
- Belgian Textile Machinery Association – <http://www.symatex.be> – on the left side of the homepage is a list of member companies.
- Subcontracting - <http://www.subcontracting.be> - trade fair, held annually in October, Antwerp. To find companies click 'Exposantenlijst'.

One example of a general source is Direct Industry - <http://www.directindustry.com> - you can search by product, company ('exhibitors') or catalogues and technical brochures. Here it is possible to get an idea of products made by West European end-users.

3 Trade: imports and exports

Imports

In 2006, Belgium was a large importer of castings and forgings, ranking sixth in the EU, behind the UK and Spain, but ahead of the Netherlands and Poland. Between 2002 and 2006, the total import value annually increased by 11% to €16.8 billion (16.7 million tonnes) in 2006. The increase in value was partly caused by the increasing prices of raw materials (refer to Section 4). The product group shares were as follows:

- Iron and steel products: 44% of total. Annual increase in import value of 19%.
- Parts of machinery, railway equipment and vehicles: 20% of total. Annual increase in import value of 7%.
- Articles of iron, steel or base metal: 15% of total. Annual increase in import value of 7%.
- Plastic and rubber products: 12% of total. Annual increase in import value of 6%.
- Light and ultra light products: 6% of total. Annual increase in import value of 6%.
- Copper and zinc products: 3% of total. Annual increase in import value of 14%.

Between 2002 and 2006, imports from DCs annually increased by 51% in value. Compared to 2002, the total share of DCs in import value increased from 3.4% to 11.4% in 2006. The DCs' shares in imports of some product groups showed better growth compared to other product groups, as can be seen below:

- Iron and steel products: growing from 4.3% to 19.2% in value.
- Parts of machinery, railway equipment and vehicles: growing from 1.9% to 4.2% in value.
- Plastic and rubber products: growing from 1.9% to 3.7% in value.
- Articles of iron, steel or base metal: growing from 4.6% to 8.7% in value.
- Light and ultra light products: growing from 2.8% to 4.4% in value.
- Copper and zinc products: declining from 5.9% to 4.7% in value.

China accounted for 36% of all imports coming from DCs, followed by India (21%), Brazil (13%), Turkey (8%), South Africa (6%), Iran (5%). Beside the fast growing Chinese share of DC exports to Belgium (+83% in the period 2002-2006), other DCs that saw a large increase of their share were Syria, Egypt, Bosnia and Herzegovina, India, Pakistan, Mexico and Morocco.

Of all intra-EU imports a small part may be re-exports, but the exact value of re-exports is unknown because Eurostat does not allow for such detailed analysis.

Exports

In 2006, Belgium was a large exporter, ranking fourth in the EU, behind Italy and France, but ahead of the UK and the Netherlands. The total export value of Belgium showed an annual increase of 12% in the period 2002-2006, totalling €25.6 billion in 2006. Exports consisted of:

- Iron and steel products, accounting for 53% of total exports (€13.6 billion). Annual increase in export value of 17%.
- Parts of machinery, railway equipment and vehicles, accounting for 13% of total exports (€3.4 billion). Annual increase in export value of 7%.
- Plastic and rubber products (12%; €3 billion; +5%).
- Articles of iron, steel or base metal (11%; €2.7 billion; +8%).
- Light and ultra light products (7%; €1.8 billion; +8%).
- Copper and zinc products (5%; €1.2 billion; +15%).

Probably 30-40% of exports – mainly iron and steel products – consists of re-exports to other EU countries, due to the transit function of the Antwerp port. Re-exports are mainly to neighbouring countries. The exact value of re-exports is unknown because Eurostat does not allow such a detailed analysis.

Opportunities and threats

- + Belgium was the sixth largest importer of castings and forgings in the EU in 2006. This was for a major part caused by the transit function of the Antwerp port.
- + Belgium ran trade deficits (imports are higher than exports) for parts of machinery, railway equipment and vehicles (€102 million).
- + The total import value of all product groups increased in the period 2002-2006.
- + The DC share of total imports grew much faster than in the EU on average.
- + The import share of DCs was 11.4% in 2006, above the EU average (8.2%).
- + China accounted for 36% of all imports coming from DCs. This was a lower share than in the EU on average (39%).
- ± The Chinese share of DCs' exports to Belgium grew fast in the period 2002-2006 (+83%), but also some other DCs saw a large increase of their share.
- In 2006, Belgium was a net-exporter of castings and forgings, running trade surpluses for copper and zinc products (€112 million), articles of iron, steel or base metal (€162 million), light and ultra light products (€214 million), plastic and rubber products (€232 million), iron and steel products (€5.7 billion).

Useful sources

- EU Expanding Exports Helpdesk - <http://exporthelp.europa.eu> → go to: trade statistics
- Eurostat - official statistical office of the EU - <http://epp.eurostat.ec.europa.eu>
- Understanding Eurostat: Quick guide to EasyComext - http://epp.eurostat.ec.europa.eu/newxtweb/assets/User_guide_Easy_Comext_20080117.pdf

4 Price developments

One of the major trends that affect the costs and revenues of Belgian castings and forgings production is price pressure, which results in importers/agents and OEMs as well as their suppliers continuously 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 0.7% in the period 2000-2005. In 2006, there was some price pressure relief, which can be seen from the fact that prices increased by more than 4% compared to 2005.

As in other EU countries, the industry had to deal with increasing raw material and energy prices as well as with the fact that Belgium is the country with the fourth highest wage costs in the EU metal industry (€25.64 per man-hour in 2005), which is higher than in other West European countries such as Switzerland, the Netherlands, Sweden and Austria. Belgian 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 more information on trends related to price developments.

Useful sources

- CAEF Eurofoundry - <http://www.caef-eurofoundry.org>
- European Engineering Industries Association (Orgalime) – <http://www.orgalime.org>
- Eurostat – official statistical office of the EU – <http://epp.eurostat.ec.europa.eu> - by comparing import value and volume, it is possible to get an idea of import prices.
- London Metal Exchange – <http://www.lme.co.uk>

5 Market access requirements

As a manufacturer in a developing country preparing to access Belgium, you should be aware of the market access requirements of your trading partners and the Belgian government. For information on legislative and non-legislative requirements, go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select castings and forgings sector and Belgium in the category search, click on the search button and click on market access requirements.

Detailed information on packaging can be found on the ITC website on export packaging: <http://www.intracen.org/ep/packaging/packit.htm>. Information on tariffs and quota can be found at <http://exporthelp.europa.eu>.

6 Doing business

Information on doing business, such as approaching potential business partners, building up a relationship, drawing up an offer, handling the contract (methods of payment, and terms of delivery) and cultural differences can be found in CBI's export manuals 'Export Planner', 'Your image builder' and 'Exporting to the EU'. These can be downloaded from <http://www.cbi.eu/marketinfo> - go to search publications. Beside a number of sources already mentioned in previous sections, other useful sources that contain market information and information on doing business in Belgium are:

- Business culture in Belgium - <http://www.kwintessential.co.uk/resources/global-etiquette/belgium-country-profile.html>
- Construction Confederation (CC) - <http://www.confederationconstruction.be>
- Subcontracting - <http://www.subcontracting.be> - trade fair, held annually in October, Antwerp.
- Demomat – <http://www.demomat.be> - mechanical engineering trade fair; biennially, September, even years. Please refer to Auma (<http://www.auma.de>) and EventsEye (<http://www.eventseye.com>) to find more information on relevant fairs.
- Automation magazine - <http://www.fimop.be/nl/magazine.asp>
- Het Ingenieursblad (engineering) - <http://www.kviv.be> – magazine
- Technique et Management – <http://www.roularta.be> - magazine

In general, German trade magazines contain very good information, also for this country. One example is 'Giesserei', a foundry magazine (<http://www.giesserei-verlag.de>). To find more relevant trade magazines consult the CBI market survey covering the castings and forgings market in Germany.

This survey was compiled for CBI by Facts Figures Future
in collaboration with Efoxx Turbine and Gietech.

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