

CBI MARKET SURVEY

The castings and forgings market in Sweden

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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 Sweden. 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

Swedish production in the engineering industry increased 4.8% per year in the period 2002-2006, to more than €23.5 billion in 2006. The medium-sized Swedish engineering industry ranked sixth in the EU, behind the UK and Spain, but ahead of the Netherlands and Austria. Of the main castings and forgings consuming engineering categories, "engines and turbines" (+22.7% per year) and "bearings, gears and other driving elements" (+13.3%) performed the best. The position of Sweden in the EU was especially strong in "engines and turbines" (5th largest producer with 6% market share), "bearings, gears and other driving elements" (5th with 3% market share), "machine tools, woodworking machinery and welding equipment" (6th with 4% market share) and "valves and taps" (6th with 3% market share).

Despite the world, EU, and Swedish economic growth forecasts for 2008 (+3.8%, +1.7% and +2.2% respectively) and 2009 (+3.9%, +1.8% and +2.4%), leading to a good demand for engineering products in the country, it is difficult to predict to what extent the Swedish manufacturers will benefit from this. According to the Swedish industry association, machinery producers will surely benefit, with an expected growth in 2007 and 2008 of 3-4%. Please also note that, although the EU is far from running the risk of recession, the EU and Swedish economy are and will be clearly affected by the housing and credit crisis in the United States.

Construction industry

After a total growth of 4% in the period 2002-2005, the Swedish construction industry amounted to €20.8 billion in 2005. For the period 2006-2008 the industry is expected to grow by 13% in total to €23.5 billion in 2008. The small Swedish construction industry ranked fourteenth in the EU, behind Poland and Finland, but ahead of the Czech Republic and Hungary.

Production***Foundry industry***

The medium-sized Swedish foundry industry ranked eighth in the EU, behind Poland and the Czech Republic, but ahead of Austria and Hungary. Iron castings accounted for 58% of total

production, followed by nodular iron castings (16%) and light and ultra light castings (14%). In 2006, the medium-sized production of castings totalled 355,000 tonnes, an increase of 5.4% per year since 2002. While all product categories showed growth, the largest growth was recorded by zinc casting (+8.4% per year), light and ultra light casting (7%) and iron castings (+6.8%). In 2006, the country was home to 50 large foundries, which was the same as in 2002. Until recently, there was one large independent ferrous-metal foundry group in Sweden: Arvika Gjuteri - <http://www.arvikagjuteri.se>, with a production of 25,000 tonnes of castings in 2006. In 2008, this foundry was acquired by Sakthi Automotive Group from India. All other foundries are in-house foundries of engineering giants:

- Åkers Sweden – <http://www.akers.se> - in-house foundry of the ÅKERS Group, a world leading roll supplier
- Scania CV - <http://www.scania.se> - in-house foundry of Scania (trucks)
- Volvo Powertrain Corporation - <http://www.volvo.com> - engineering, trucks. Investments in the Volvo foundry in Skövde will make it one of the largest foundries in Northern Europe.
- SKF Mekan – <http://www.skfmekan.se> - bearings
- ITT Flygt castings division - <http://www.flygt.se> - pumps and fluid handling equipment

The 2006 highlights were the take over of Hydro's aluminium foundry in Sweden by the Mexican Nematik Group (<http://www.nematik.com>), while the Swedish Termo Holding bought the steel foundry Österby Gjuteri. In 2006-2007, NovaCast invested €20 million in a partly new foundry for the production of tools to the automotive industry, using a new method of casting iron and steel at the same time. Generally, the most substantial investments are done in the automotive foundries and in some iron foundries for heavy castings, with manufacturers of wind turbines as important customers.

The large non-ferrous metal foundries in Sweden are all part of a large conglomerate:

- Finnveden Gjuteri is a in-house foundry of Finnveden - <http://www.finnveden.com>
- Husqvarna owns a large in-house foundry in Sweden - <http://www.husqvarna.com>
- Hydro Aluminium Fundo is a facility of Hydro - <http://www.hydro.com>
- Johnson Metall AB is Scandinavia's largest producer of plain bearings, bars, tubes and castings in bronze - <http://www.johnson-metall.com>

Forge industry

The Swedish forge industry ranked eighth in the EU, representing a size smaller than the Czech Republic, but larger than Belgium. In 2006, the small production of forgings totalled 91,000 tonnes, an increase of 4.3% per year compared to 2002. One of the largest companies with forges in Sweden is Componenta – <http://www.componenta.com>. This Finnish conglomerate comprises 3 forges in Sweden beside 4 foundries in Finland and activities in other EU countries as well. Furthermore, the tube and ring division of the large steel company Ovako - <http://www.ovako.com> is located in Sweden, as well as three forges of the large Norwegian forge company Scana - <http://www.scana.no>.

Trends and characteristics

A major trend that influences the castings demand and production in Sweden 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, a few engineering operations have been outsourced to low cost countries (LCCs), especially to the Baltic States. So far, outsourcing often concerns labour-intensive and series production of standard products and parts that can easily be made in LCCs.
- **Output of foundry industry continue to grow in 2007.** The output of the foundry industry was expected to continue to grow in 2007, due to an expected strong demand from the automotive, energy, machinery and telecom segments.

- **Steel foundries have increased their output.** Although the output of Swedish steel foundries is relatively small, it is showing a clear growth trend since the beginning of the 1990s. Reasons for this are growing exports in combination with specialisation among the 10-15 remaining steel foundries. Customers from the energy industry, heavy vehicle industry and machinery industry continue to have a high demand.
- **Production of construction machinery will increase.** The increase in the construction sector, the changes in environmental legislation and large infrastructure projects lead to a growing demand for construction machinery. This will also stimulate local production of construction machinery.

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 in the next few years.
- + Increasing production of construction machinery could offer possibilities for DC exporters of 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. The economic growth in Sweden is stronger than the average economic growth in the EU. 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 Swedish 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 of castings and forgings in Sweden are Bror Tonnesjö (<http://www.tonnesjo.se>; machine parts subcontractor), Volvo CE (<http://www.volvo.com/constructionequipment>), ABB (<http://www.abb.se>), Alfa Laval (<http://www.alfalaval.com>), Husqvarna (<http://www.husqvarna.se>) and Scania (<http://www.scania.se>).

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 Swedish Engineering Industries - <http://www.branschgrupperna.se> – contains links to trade associations and their members.
- Association of the Swedish Forging Industry (Swedeforge) – <http://www.branschgrupperna.se/smidesgruppen> - click on 'Medlemmar' to find member companies.
- Hydraulics and Pneumatics Association (HPF) - <http://www.hpf.se> – click on 'Medlemsföretag' for a list of member companies.
- Swedish Association of Agents (SAA) – <http://www.agenturforetagen.se> - contains an agents directory.
- Swedish Association for Pumps - <http://www.swepump.org> – click on 'Medlemmar' to find member companies.
- Swedish Association of Valves & Fittings - <http://www.branschgrupperna.se/armatur> - click on 'Members'.
- Swedish Casting Industry's Technology, Trade and Training Institute - <http://www.gjuteriforeningen.se> – choose the English version and click on 'Search for member'.
- Swedish Chambers of Commerce – <http://www.chamber.se>
- Swedish Construction Federation / Sveriges Byggindustrier (BI) - <http://www.bygg.org> – choose the English version and click on 'The 50 biggest construction companies in Sweden 2006' for more information on these companies.
- Swedish Industrial Valves Association - <http://www.armaturforeningen.nu> - choose the English version and click on 'Members'.
- Swedish Machine Tool & Cutting Tool Manufacturers' Association - <http://www.fvm.se> - choose the English version and click on 'Members'.
- Textile Machinery Association of Sweden - <http://www.branschgrupperna.se/tmas> - click on 'Companies'.

3 Trade: imports and exports

Imports

In 2006, Sweden was a medium-sized importer of castings and forgings, ranking eleventh in the EU, behind Austria and the Czech Republic, but ahead of Denmark and Hungary. Between 2002 and 2006, the total import value annually increased by 9% to €8.2 billion (4.5 million tonnes) in 2006. The increase in value was partly caused by the increasing prices of raw materials. The product group shares were as follows:

- Iron and steel products: 37% of total. Annual increase in import value of 13%.
- Parts of machinery, railway equipment and vehicles: 28% of total. Annual increase in import value of 5%.
- Articles of iron, steel or base metal: 17% of total. Annual increase in import value of 10%.
- Plastic and rubber products: 8% of total. Annual increase in import value of 4%.
- Light and ultra light products: 7% of total. Annual increase in import value of 4%.
- Copper and zinc products: 3% of total. Annual increase in import value of 27%.

Between 2002 and 2006, imports from DCs annually increased by 34% in value. Compared to 2002, the total share of DCs in import value increased from 2.2% to 5.2% 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 0.8% to 3.8% in value.
- Parts of machinery, railway equipment and vehicles: growing from 2.8% to 6.5% in value.
- Plastic and rubber products: growing from 1% to 2.1% in value.
- Articles of iron, steel or base metal: growing from 4.9% to 9.5% in value.
- Light and ultra light products: growing from 1.6% to 2.3% in value.
- Copper and zinc products: declining from 2.4% to 1.5% in value.

China accounted for 44% of all imports coming from DCs, followed by South Africa (17%), Brazil (13%), Turkey (7%), India (4%), and Mexico (3%). The Chinese share of DC exports to Sweden did not grow as fast as in the EU on average (21% compared to 57%). The DCs that saw a larger increase of their share to the country were Bosnia and Herzegovina, the Philippines, South Africa, Saudi Arabia and Malaysia.

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, Sweden was a medium-sized exporter, ranking ninth in the EU, behind Austria and Spain, but ahead of the Czech Republic and Poland. The total export value of Sweden showed an annual increase of 9% in the period 2002-2006, totalling €12 billion in 2006. Exports consisted of:

- Iron and steel products, accounting for 44% of total exports (€5.2 billion). Annual increase in export value of 12%.
- Parts of machinery, railway equipment and vehicles, accounting for 27% of total exports (€3.2 billion). Annual increase in export value of 5%.
- Articles of iron, steel or base metal, accounting for 11% of total exports (€1.3 billion). Annual increase in export value of 7%.
- Light and ultra light products, accounting for 6% of total exports (€755 million). Annual increase in export value of 8%.
- Plastic and rubber products, accounting for 6% of total exports (€719 million). Annual increase in export value of 5%.
- Copper and zinc products, accounting for 6% of total exports (€703 million). Annual increase in export value of 21%.

Probably a small part of exports consists of re-exports to other EU countries, mainly to neighbouring countries, but the exact value of re-exports is unknown because Eurostat does not allow such a detailed analysis.

Opportunities and threats

- + Sweden ran trade deficits (imports are higher than exports) for articles of iron, steel or base metal (€123 million), parts of machinery, railway equipment and vehicles (€44 million).
- + The total import value of all product groups increased in the period 2002-2006.
- + The DC share of total imports grew by 133% in the period 2002-2006, which was faster than in the EU on average (81%).
- + The Chinese share of DCs' exports to Sweden did not increase as fast as in the EU on average (21% compared to 57%). Several DCs saw a larger increase of their share.
- ± The import share of DCs was 5.2% in 2006, below the EU average (8.2%).
- In 2006, Sweden was a net-exporter of castings and forgings, running trade surpluses for light and ultra light products (€1 million), plastic and rubber products (€29 million), copper and zinc products (€83 million), iron and steel products (€431 million).
- China accounted for 44% of all imports coming from DCs. This was a higher share than in the EU on average (39%).

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 Swedish castings and forgings production is price pressure, which results in importers/agents and OEMs as well as their suppliers continuing their search 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 8.3% 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 5% 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 Sweden is the country with the seventh highest wage costs in the EU metal industry (€23.67 per man-hour in 2005), which is less than in Denmark and Finland, but more than in Austria, France and the UK. Please refer to the CBI market survey covering the EU market for castings and forgings for a detailed explanation on these major trends.

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 Sweden, you should be aware of the market access requirements of your trading partners and the Swedish 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 Sweden 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 Sweden are:

- Elmia Subcontractor - <http://www.elmia.se/subcontractor> - annual trade fair in November, held in Jonkoping.
- Gjuteriet - <http://www.gjuteriforeningen.se> - trade magazine

This survey was compiled for CBI by Facts Figures Future
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