

## CBI MARKET SURVEY

## THE CASTINGS AND FORGINGS MARKET IN DENMARK

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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 Denmark. 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***

Danish production in the engineering industry declined 5% in the period 2001-2005, to about €12 billion in 2005. The Danish engineering industry ranked twelfth in the EU, behind Belgium and Poland, but ahead of the Czech Republic and Hungary. Of the main castings and forgings consuming engineering categories, "machinery for textile, apparel and leather production" (+47%), "valves and taps" (+19%) and "pumps and compressors" (19%) performed well. The market position of Denmark in the EU was especially strong in "valves and taps" (5<sup>th</sup> largest producer with 6% market share) and "electric motors, generators and transformers" (6<sup>th</sup> with 6% market share). Despite positive global, EU, and Danish economy forecasts for 2007 (+4.4%, +2.3% and +2.4% respectively) and 2008, leading to a good demand for engineering products in the country, it is difficult to predict to what extent the Danish manufacturers will benefit from this.

***Construction industry***

After a growth of 8% in the period 2002-2005, the Danish construction industry amounted to €24.8 billion in 2005. For the period 2005-2008 it is expected that the industry will grow 5% to €26 billion in 2008. The Danish construction industry ranked eleventh in the EU, behind Portugal, but ahead of Poland.

**Production**

In 2005, the Danish production of metal castings totalled 93,400 tons, an increase of 3% compared to 2001. Iron castings accounted for 50% of total production, followed by nodular iron castings (43%) and non-ferrous metal castings (7%). The Danish foundry industry ranked sixteenth in the EU, behind Slovenia but ahead of Lithuania. The few (ten large ones in 2005) Danish foundries are highly specialized, such as high pressure die casting of zinc (<http://www.linimatic.dk>) and the in-house casting production of Vald Birn (<http://www.birn.com>). Unfortunately, data of Danish forging production are not available. However, as with the foundry industry, it can be assumed that the Danish forge industry is small.

### Trends in industrial demand and production

Some major trends that influence the castings and forgings demand in Denmark 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<sub>2</sub> and NO<sub>x</sub> 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, some engineering production has been outsourced to low cost countries (LCCs), especially Central and East 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.
- Demand for several engineering products will rise since Danish producers are forced to rationalize their production in order to remain competitive.

### Opportunities and threats

- + Growing engineering and construction markets will lead to an increasing 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 of the Danish engineering industry.

### Useful sources

- Building Materials Industry - Confederation of Danish Industries - <http://bi.di.dk>
- Confederation of Danish Industries (DI/FEM) – <http://www.di.dk>. This confederation represents also the building materials and the castings and forgings industry.
- Danish Construction Association - <http://www.danskbyggeri.dk>
- Danish Maritime - <http://www.danishmaritime.org>
- Trade organisation of Danish steel wholesalers – <http://www.staalforeningen.dk>

## 2. Trade: imports and exports

### Imports

In 2005, Denmark's imports of castings and forgings totalled €5.4 billion (3.4 million tons). The country was a medium-sized importer, ranking twelfth in the EU behind Sweden and the Czech Republic, but ahead of Hungary and Portugal. In line with the market trend for most of the product groups, total Danish imports showed a considerable increase in recent years: 27% in value (partly caused by the increasing raw material prices; refer to Section 4) and 16% in volume in the period 2001-2005. The product group shares were as follows: iron and steel products (32%), parts of machinery, railway equipment and vehicles (23%), articles of iron, steel or base metal (19%; strongest growth in the period under review), plastic and rubber products (12%), light and ultra light products (10%) and copper and zinc products (3%; second strongest growth in the period under review).

The DCs' share in imports in 2005 was 3%, with China being the most important DC supplier (2%), followed by India and Turkey. The DCs' share was the largest (8%) for articles of iron, steel or base metal, with China being the largest DC supplier (7%). 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 Denmark were Chile, Indonesia and Venezuela.

### Exports

Total Danish exports increased in value (23%), but decreased in volume (-2%) in the period 2001-2005. With a total export value of €4.1 billion (1.5 million tons) in 2005, Denmark was a medium-sized exporter in the EU, behind the Czech Republic, Poland and Finland but ahead of Slovakia and Hungary. Unfortunately, the value of re-exports is unknown, as Eurostat does not allow such detailed analysis.

### Opportunities and threats

- + Both the import and export value of castings and forgings have increased in recent years.
- Small import share for DCs.
- Total export volume decreased in the period 2001-2005.

### Useful sources

- EU Expanding Exports Helpdesk - <http://export-help.cec.eu.int>
- 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. Some examples of OEMs are Knerveland (<http://www.kverneland.dk>; agricultural machinery) and Logitrans (<http://www.logitrans.dk>; lifting and handling equipment). Intermediaries in the engineering industry in Denmark can be found at the forum for distributors of semi-manufactured metal products: <http://www.metalforeningen.dk>, which contains a list of members. Some examples of importers of castings and forgings are Prometal (<http://www.prometal.dk>) and PNE (<http://www.pne-teknik.dk>). 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 Danish 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 3.5% in the period 2000-2005. In the meanwhile, the industry had to deal with increasing raw material and energy prices as well as with the fact that Denmark is the country with the highest wage costs in the EU metal industry (€28.32 per man-hour in 2005), ahead of (former West) Germany and Finland. Danish 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.

### Useful sources

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

## 5. Market access requirements

Manufacturers in DCs 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 <http://www.cbi.eu/marketinfo>.

### Useful sources

- Export Helpdesk for Developing Countries - <http://export-help.cec.eu.int>
- Material Handling Equipment - <http://www.ie.ncsu.edu/kay/mhetax/UnitEq>
- PACKit module of the International Trade Centre - <http://www.intracen.org/ep/packaging/packit.htm>
- Taric database - [http://ec.europa.eu/taxation\\_customs/dds/en/tarhome.htm](http://ec.europa.eu/taxation_customs/dds/en/tarhome.htm) . Type the 4, 6 or 8 digit HS code (if known) or type the keyword of your product.
- VAT tariff information - [http://ec.europa.eu/taxation\\_customs/taxation/vat/traders/vat\\_number/index\\_en.htm](http://ec.europa.eu/taxation_customs/taxation/vat/traders/vat_number/index_en.htm)

## 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 Denmark. Some examples of available sources, beside the ones already mentioned in Section 1:

- Danish Supplier Network - <http://www.underlev.dk>
- Direct Industry - <http://www.directindustry.com>
- Distributors' forum of semi-manufactured metal products - <http://www.metalforeningen.dk>
- Europages – <http://www.europages.com>
- Kellysearch - <http://www.kellysearch.com>
- Kompass – <http://www.kompass.com> (mostly fee based, but the free part is useful too)
- Thomas Global Register Europe - <http://www.trem.biz>

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 (<http://www.cbi.eu>), an export manual that provides information on the different steps to be taken during the export process to the EU market.

### Trade press

Some relevant Danish magazines are:

- Dansk Teknisk Tidsskrift – <http://www.teknisk.dk>
- Ingeniøren - <http://ing.dk>
- Jern- og Maskinindustrien / Proces-Teknik - <http://www.proces-teknik.dk>
- Maskin Aktuelt - <http://www.techmedia.dk>
- Metalbladet – <http://www.danskmetal.dk> is a magazine of the Danish Steel Association
- Scandinavian Journal of Metallurgy - <http://www.business-magazines.com>
- Teknisk Nyt - <http://www.techmedia.dk>

### 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. Since there are no relevant trade fairs in Denmark, visiting trade fairs in neighbouring countries – such as Elmia Subcontractor in Sweden (<http://www.elmia.se/subcontractor>), Hannover Messe (subcontracting; <http://www.hannovermesse.de>) Casttec (<http://www.casttec.de>), Euroguss (<http://www.euroguss.de>) or Newcastle (<http://www.messe-duesseldorf.de/newcast>) in Germany – may be a good option.

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

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