

## CBI MARKET SURVEY

## THE CASTINGS AND FORGINGS MARKET IN POLAND

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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 Poland. 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. The production output of both industries is a good indication for the demand for cast and forged parts in these industries.

**Engineering industry**

Polish production in the engineering industry increased 46% in the period 2001-2005, to more than €13 million in 2005. The medium-sized Polish engineering industry ranked eleventh in the EU, behind Finland and Belgium, but ahead of Denmark and the Czech Republic. Of the main castings and forgings consuming engineering categories, especially "bearings, gears and other driving elements" (+139%), "valves and taps" (+57%) and "agricultural machinery" (40%) performed well. The market position of Poland in the EU was relatively strong in "bearings, gears and other driving elements" (7<sup>th</sup> largest producer) and "agricultural machinery" (9<sup>th</sup> with 3% market share). The positive global, EU, and Polish economy forecasts for 2007 (+3.3%, +2.0% and +5% respectively) and 2008 lead to a good demand for engineering products in the country. It is expected that the Polish producers will benefit from this. Among other things, steel consumption for the engineering industry is expected to rise until 2009, before slowing.

**Construction industry**

After a growth of 9.5% in the period 2002-2005, the Polish construction industry amounted to €23.9 billion in 2005. For the period 2005-2008, it is expected that the industry will grow 26.4% to €30.3 billion in 2008. The medium-sized Polish construction industry ranked twelfth in the EU, behind Portugal and Denmark, but ahead of Finland and Sweden.

**Market segmentation**

In 2002, the main end users of castings were engineering (26%), automotive (23.2%), construction (13.6%) and the iron and steel industry (11.8%). This situation has been relatively stable in recent years. With regard to drop forgings, the main end users in 2004 were automotive (59%), followed by mechanical engineering (27%, of which 8% was agricultural machinery and 7% mining machinery) and railways (6%).

**Production****Foundry industry**

The medium-sized Polish foundry industry ranked seventh in the EU, behind Spain and Austria, but ahead of the Czech Republic and Sweden. Iron castings accounted for 52% of total

production, followed by light and ultra light castings (21%) and nodular iron castings (14%). In 2005, the medium-sized production of metal castings totalled 802,000 tons, an increase of 8% compared to 2001. While the production of iron castings declined (-15%), the production of light and ultra light castings more than tripled. Poland seems to be a relatively large foundry nation, but compared to its huge steel production (comparable the Chinese steel production; 12 million tons annually), the annual foundry output is relatively small.

The Polish foundry sector is diversified, both technologically and financially. There are some very modern foundry facilities in Poland, including Teksid Iron Poland and Centrozap. However, Poland still has many aging foundries whose financial situation is bleak. Many smaller Polish casting companies are having difficulty maintaining a foot-hold in the market, but the larger foundries do not hold a dominant position in the Polish market either, as shown by the following list of largest foundries in Poland:

- Odlewnia Zeliwa - <http://www.oz-srem.com.pl>, annual capacity of 50,000 tons, 55% of production is exported
- Odlewnie Polski - <http://www.odlewniepolskie.pl> production of 13,000-15,000 tons per year, 60%-70% of production is exported
- Centrozap - <http://www.centrozap.com>.

These firms each have between 3-4% domestic market share. Export sales also account for the major sales share of the large foreign-owned foundries:

- Teksid Iron Poland (<http://www.teksid.com/iron-1.htm>), annual production of 40,000-50,000 tons, accounts for 70% of Polish ductile cast iron production; 70% is exported
- Teksid Aluminium Poland - <http://www.teksidaluminum.com/bielsko.htm> with a capacity of 30,000 tons annually, about 85% is exported

Furthermore, there are several other large foundries in the country with capacities of 5,000-10,000 tons per year. Some of them are owned by foreign companies such as Alstom Power - <http://www.pl.alstom.com>. Europe's largest magnesium die-cast foundry - (also) foreign-owned Euromag <http://www.euromag.com> - was completed in 2006. It is expected that the annual turnover will amount to €70-100 million annually, while major markets to be served are the automotive, electronics, construction and furniture industry.

Small and medium-sized enterprises constitute the majority of Poland's casting industry. There are over 500 foundries in Poland. 200 produce iron and steel castings, and more than 300 produce non-ferrous castings. These firms are scattered across Poland, and usually act as suppliers to larger manufacturing companies. In the period 2001-2005, the average turnover per employee increased more than 80% to almost €34,000 - an amount which is the tenth largest in the EU, behind Slovenia and the Czech Republic, but ahead of Lithuania and Hungary.

While in general the product quality is good - many Polish foundries have achieved Western European levels of product standards - and the country has well-trained and experienced casting specialists, the industry suffers from low profits. This is caused by both the surplus of employees as well as the fact that end users dictate terms of payment and the foundries must agree to these low prices. Secondly, the majority of foundries lack financial resources to undergo much needed restructuring. They operate as divisions or subsidiaries of steel-mills and machinery manufacturers and their output is mostly in the form of semi-finished products.

### ***Forge industry***

The Polish forge industry ranked sixth in the EU, behind Spain and the UK, but ahead of the Czech Republic and Sweden. In 2005, the medium-sized production of forgings was estimated at 263,000 tons, an increase of 4.4% compared to 2001. It is estimated that only 50-70% of the capacity - which is 200,000 tons of drop forgings and 150,000-200,000 tons of open die and other forgings - is used. There are several forges with impressive production volumes:

- Kuźnia Polska - <http://www.zks.skoczow.pl> (27,000 tons of drop forgings annually)
- Kuźnia Jawor - <http://www.kuznia.com.pl> (22,000 tons of drop forgings)
- F&T Kraśnik - <http://www.flt.krasnik.pl> (9,000 tons of drop forgings)

Among the largest open-die forges in Poland are:

- Celsa Huta Ostrowiec - <http://www.celsaho.com> (46,000 tons of shape forgings annually)
- Kuźnia Batory - <http://www.kuzniabatory.pl> (2,200 tons)
- HSW Kuźnia Stalowa Wola - <http://www.hsw-zk.com.pl> (5,700 tons and also drop forgings)
- Kuźnia Glinik - <http://kuznia.glinik.pl> (3,700 tons)
- Huta Bankowa - <http://www.hutabankowa.com.pl>

There are also some companies that have specialized in non-ferrous metal forging, such as FA Swarzędz - <http://www.fa-swarzedz.com.pl> and Metron Toruń - <http://www.metron.pl>.

In total, forgings are produced by more than 50 firms. There are about 30 drop and 8 open die forges in Poland. About 60% of production is exported. The capacity range of Polish forges is quite large: they make drop forgings up to 350kg and open die forgings up to 70,000kg.

### Trends

Some major trends that influence the castings and forgings demand in Poland 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, a lot of engineering production has been shifted from West European countries to Poland.
- There is a growing trend for Polish foundries to become independent of the buyers of their products, resulting in a better market orientation and an increase of sales activities.

Overall, the demand for castings will grow in Poland over the next few years as the major end user industries, such as the engineering and construction industry, continue to increase their output. Moreover, the niche for casting products made in CEE countries will continue to grow as Western European foundries focus on more technologically sophisticated products.

### Opportunities and threats

- + Strong growth of engineering and construction markets will lead to an increasing demand for castings and forgings in the next few years. The construction sector is the leading consumer of steel, with consumption of steel expected to rise until 2009 before slowing.
- + Shift of engineering production towards LCCs such as Poland, which may lead to an acceleration of demand growth for castings and forgings of the Polish engineering industry.
- As Polish foundries increasingly become independent, their market orientation and efficiency may improve. As a result - also with regard to the huge steel production – Poland may have the potential to grow into one of the largest foundry nations of the EU.

### Useful sources

- Association of Polish Electrical Engineers - <http://www.sep.com.pl>
- Economic Chamber of the Electromechanical Industry - [http://www.kig.pl/izba\\_gpe](http://www.kig.pl/izba_gpe)
- Foundry Chamber of Commerce - <http://www.oig.com.pl>
- Polish Association of Shipbuilders - <http://www.forumokretowe.org.pl>
- Polish Forging Association / Związek Kuźni Polskich (ZKP) - <http://www.zkp.pl>
- Metallurgical Chamber of Industry and Commerce (HIPH) - <http://www.hiph.com.pl>

## 2. Trade: imports and exports

### Imports

In 2005, Poland's imports of castings and forgings totalled €8.3 billion (6.4 million tons). The country was a medium-sized importer, ranking ninth in the EU behind Belgium, the Netherlands and Austria, but ahead of Sweden, the Czech Republic and Denmark. Like in the other CEE countries, total Polish imports showed a major increase in recent years: 126% in

value (partly caused by the increasing raw material prices; refer to Section 4) and 73% in volume in the period 2001-2005. The product group shares were as follows: iron and steel products (37%), articles of iron, steel or base metal (21%; second strongest growth in the period under review), plastic and rubber products (17%), parts of machinery, railway equipment or vehicles (12%), light and ultra light products (9%) and copper and zinc products (4%; 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 Turkey, Moldova and India. The DCs' share was the largest (7%) for articles of iron, steel or base metal – with China being the largest DC supplier (5%) – followed by articles of iron, steel or base metal (6%). Both product groups also showed the best growth of the DC share compared to 2001. Among the DCs that saw the largest increase in exports to Poland were Moldova, Morocco, Egypt, India, Vietnam and China.

### Exports

Total Polish exports increased both in value (151%) and in volume (29%) in the period 2001-2005. With a total export value of €7.1 billion (6.1 million tons) in 2005, Poland was a medium-sized exporter in the EU, behind Spain, Sweden and the Czech Republic, but ahead of Finland, Denmark and Slovakia. Unfortunately, the value of re-exports is unknown, as Eurostat does not allow such detailed analysis.

### Opportunities and threats

- + Poland was the ninth largest importer of castings and forgings in the EU in 2005
- + Reasonable import share for DCs, although it is lower than the average in Western Europe
- + Total import value increased rapidly in recent years
- + Increasing share of DCs in total imports
- Imports from China grew fast and represented a considerable share of DC imports

### 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

Most often, end users in Poland buy their castings and forgings directly from a foundry or forge. Such a direct sourcing concept also gives the DC exporter a larger chance of a long-lasting relationship and therefore they should put efforts into building up supplier relationships with end users in Poland. Other relevant trade channels for the DC exporter may be importers and/or agents that supply the end user in Poland, and also foundries and forges may be an option. With regard to end users in Poland, there are still many prospects without experience in sourcing from DCs. Some examples of prospects in Poland are: Same-Deutz-Fahr (<http://www.samedeutz-fahr.com>; assembly of tractors), Amica Wronki (<http://www.amica.com.pl>, one of the Polish companies that survived the transition to a free market economy; domestic appliances) and Emit Motor (<http://www.emit-motor.com.pl>; part of the Italian electric motors and generators manufacturer Electropol Cantoni). 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 Polish 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 1.1% in the period 2000-2005. In the meanwhile, the industry had to deal with increasing raw material and energy prices. Although average wages in the industry increased 20% in the period 2000-



2005, the Polish wage level was still the lowest in the EU (€3.80 per man-hour in 2005), lower than in Slovakia. Industry specialists expect that wages will rise further in the next few years, which will lead to an increasing price level of Polish castings and forgings. 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 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 <http://www.cbi.eu/marketinfo>

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

- Direct Industry - <http://www.directindustry.com>
- 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 magazines

Some relevant Polish magazines are:

- PMR Publications (construction) - <http://www.pmrpublications.com>
- Tworzywa (machinery, steel, plastic) - <http://www.gazeta.tworzywa.com.pl/index.asp>

#### 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 Poland are:

- Katowice (biannually, September, Katowice) - <http://www.mtk.katowice.pl>
- Metal Kielce Nonfermet (annually, September, Kielce) - <http://www.targikielce.pl>
- Metalforum (annually, June, Poznan) - <http://metalforum.mtp.pl>

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

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