Global Casting Industry 2020: Trends and Challenges

The global casting industry will face major challenges during the next years: Important customer groups build up new capacities mainly in Asia or (Northern) America. Requirements regarding material handling competence and the complexity of casting alloys are rising. Customers increasingly demand completely finished cast parts just-in-time as well as support for the development of new parts at a very early stage, oftentimes before having agreed on the supplier's compensation.

But the expected strong growth in the global vehicle production and mechanical engineering industries, paired with a trend towards urbanization, which will positively influence housing and infrastructure construction, will induce growing demand for cast parts.

In total, we forecast a rising global production of grey, ductile and steel casting to nearly 96 million tons in 2020. While the Asian region will account for 65% of total casting production, China alone is expected to cast around 45 million tons, manifesting the position as leading global foundry nation. For Europe and the Americas we only see slight growth respectively a sideward movement. Within Europe, Germany will perform better relative to its Western European competitors. Close relations to premium OEMs in the light vehicles sector or technological leadership will ensure better medium- to long-term prospects for certain segments.

Worldwide, aluminium foundries benefit from the trend towards light-weight construction. Going forward, a higher share of structural components for light vehicles will be made of cast aluminium. For 2020, we expect a global aluminum foundry production close to 17 million tons. Half of this volume will be casted in Asia, while the Chinese production alone will exceed 5 million tons. German aluminium foundries, with an expected production of 1.2 million tons, will gain market shares in Western Europe. Overall, we forecast a volume of 4.8 million tons for Europe (including Turkey). Growth is also expected in the Americas, where Mexico will significantly gain in importance. For copper casting, we forecast only a slight increase in production volume.

Is the global foundry industry well positioned for the upcoming trends and challenges? To answer this question, IKB Deutsche Industriebank AG has analyzed the financial statements and the balance sheets of around 150 foundries in Germany, another 300 foundries in other European countries and a selected number of Asian foundries, mainly in China and India.

The first surprising effect is that despite a growing cast production in all regions, no considerable rise in turnover could be observed. However, when taking into account the significant decline of iron scrap and aluminium prices, which took place during the observation period, revenue development was positive.

The German foundries were able to reduce their material costs relative to revenues. Together with a higher labor cost ratio, this indicates a significantly higher value-added. As a result of their technical leadership, German foundries are thus well positioned for future challenges in the foundry industry. Regarding other European countries, the material cost ratio significantly exceeds the German level, while in Eastern Europe, the ratio is partly even above the European average. This indicates a main production focus on simple cast parts without high

complexity in this region. Despite rising wage levels in Eastern Europe, labor costs are in total still lower relative to western regions. This fact also holds for Asia.

The profitability of foundries tended to decrease during the observation period. Main reason for the low profitability was the increasing pricing pressure of the leading customer industry, vehicle manufacturing. Asian foundries experienced the largest decline. While their operating profitability, as measured by EBITDA, was considerably higher than the comparison values of German and European foundries in recent years, foundries from all observed regions are now on average on a comparable level. Overcapacities still exist in individual sub-segments, e.g. construction-related casting applications or castings for wind turbine components, especially for offshore plants, which were reduced only slightly. In addition, energy costs are a rising burden for European foundries, with German companies affected particularly strong.

German foundries experienced a declining capital base primarily caused by increasing investments. European foundries outside of Germany on the other hand were able to stabilize their capital base. Asian foundries managed to increase their capital base, largely induced by various subsidies and tax incentives.

During the next years, we see an ongoing consolidation process in the global foundry industry. Main reasons, besides the pressure for globalization, are increasing investment requirements. Also, many family businesses face succession-related problems from our point of view.

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