



October 2017

## **A bright future for die casting**

For the most part, German die casting foundries were able to increase sales and production in 2016 and 2017 and are confident of being able to continue this trend in 2018. In the first half of 2017, growth rates saw a disproportionately high increase:

- Aluminium die casting + 7.1% (to 338,000 t)
- Magnesium die casting + 1.5% (to 9,100 t)
- Zinc die casting + 10.7% (to 32,000 t)

This means that die casting accounts for 60% of the entire German aluminium casting market and more than half of the total non-ferrous casting segment in Germany. This is a development that has been emerging for some years now.

In the die cast market, the automotive sector is playing an increasingly dominant role and accounts for a good 70% meanwhile. The remaining 30% of die cast production is distributed over a large number of different customer segments.

Thanks to the positive growth trend in the industry, investments for maintenance and capacity expansion in recent years have been between 4% and 6% of a die cast foundry's turnover, a development that was already identified by an industry association two years ago. Following on from this survey, the IFO Institute also analysed the investment trend for the entire industry and determined that investments to expand capacity, which also involve modifications of product structures, play a vital role alongside ongoing replacement investments. For example, the major OEM die cast foundries were designed or modified to focus fully on the manufacturing of structural components (Daimler, BMW, VW and Audi).

As a result of this, there is an opportunity for parts previously produced in these OEM facilities to now be manufactured by other die casting foundries. This trend is confirmed in the above mentioned IFO analysis for the automotive segment overall. The main motivation for capacity expansions is the modification of component structure.

It is worth highlighting that the above mentioned production increase of +7% (e.g. for aluminium die casting) contrasts with a negative rate of change of -4% for domestic car production. The reason for this, apart from the competition between materials, is also likely to

be the market position of non-OEM-captive (independent) jobbing foundries that supply all relevant European car manufacturers. This is evidenced by an increase in car registrations of a good 4% in the first seven months of 2017 in Germany.

Nevertheless, die cast foundry operators do have a few concerns at present. Due to the discussions about the future of the combustion engine in general and the diesel engine in particular, many die casting foundries have to adjust to profound structural changes on the demand side. At present, satisfactory answers are not available for all the questions that arise in this conjunction. At the same time, there are strategic decisions to be taken with a long-term impact on the political arena, OEMs, consumers and also suppliers like die casting foundries. In this context, reliable and robust strategic guidelines from policymakers are called for – but they should not be more than guidelines!

Although from a technical perspective, e-mobility is still a long way from being a mature technology, the first results of this development are visible: the electric postal delivery van, a StreetScooter, or the Bosch e-axle including drive unit on the wheels of the vehicle. As electric cars penetrate the market there is also likely to be an increase in the demand for lightweight castings. In this context, die casting offers ideal opportunities and can exploit its capabilities in a lot of applications, whether for optimized components for the control of traditional engines or for structural parts and components for electric drive systems.

The kind of innovative solutions possible using cast parts is constantly surprising. And many of these solutions will be on display at the forthcoming EUROGUSS. All European die casting foundries are eligible to take part in the competitions for aluminium and zinc die casting, and for the first time there will also be a competition for magnesium die casting. The winning parts will receive their awards during the Die Casting Congress taking place during the trade fair. The winning parts will be exhibited at the trade fair and there will subsequently be a report in the trade press. The presentations at the 18th International German Die Casting Congress being held at EUROGUSS parallel to the exhibition will also be exploring this topic. This event complements the high quality products exhibited at the trade fair.

**Contact for media:**

Gerhard Klügge  
German Foundry Association (BDG)  
Member of the Executive Board  
Hansaallee 203  
40549 Düsseldorf, Germany  
gerhard.kluegge@bdguss.de  
Tel. +49 (0)211 6871152