

CHINA DIECASTING 2018: China still offers many business opportunities

The die casting industry in China is growing at an enormous rate. The reason: the rapid development of the Chinese automotive industry in the past few years. The mega city of Shanghai is playing a key role in this process. It is home to the largest location of automotive manufacturers and their suppliers in China and thus also the perfect location for CHINA DIECASTING, International Diecasting Congress and Exhibition, which will already be held for the 13th time from 18 to 20 July 2018 in Shanghai. Since 2013, the co-organizer, NürnbergMesse China, has been extremely successful in staging this trade fair. At this year's event, around 400 exhibitors (2017: 323) and 18,000 trade visitors (2017: 14,258) from the automotive, electronics and mechanical and plant engineering sectors are expected. For German and European companies, CHINA DIECASTING is a good opportunity to get to know the flourishing Chinese die casting market and open up new business potential.

In a few decades China with a population of nearly 1.4 billion has become the world's second largest economy behind the US and plays an influential role in the global economy. The World Bank estimates that by 2019, China will contribute approximately 35 % to the world's overall economic growth, while the share of the US is expected to be 18 % and the share of the EU 8 %. For 2018, AHK China, the German Chamber of Commerce in China, expects for China a GDP growth of approximately 6.5 %. Private consumption and particularly e-commerce are expanding fast and the country's trade volume increased substantially: In 2017 imports increased by 15.9 % and exports by 7.9 % compared to the previous year. According to AHK China, the transformation of China's economic is, amongst others, driven forward by political reforms which focus on expanding high-value manufacturing and sustainability. China's government, eager to increase the competitiveness of domestic companies to the international level, is pushing ahead with the expansion of promising industrial sectors. With the launch of the "Made in China 2025" strategy, the manufacturing industry in the country is stepping into a new period of development, and the Foundry Institution of Chinese Mechanical Engineering Society (FICMES) is



convinced that the die casting sector is fully participating in this “crucial period of transformation and upgrading”. The “Made in China 2025” programme defines ten priority industries such as energy saving, new energy vehicles (NEVs), aerospace and railway equipment as well as numerical control machine tools and robotics. Virtually all these ten key industries have at least one thing in common: They need workpieces made by die casting to achieve their goals.

Die casting and its advantages

Compared to other forming processes, die casting enables the production of components with complex shapes, thin walls and high-quality surfaces at high production rates. These components have tight tolerances and are in many cases ready to be installed. As other parts such as fastening elements can be inserted during the casting process, die castings can replace assemblies of several parts produced by various manufacturing processes at significant savings in cost and labor. Moreover, parts made by die casting contribute to reduce the weight of vehicles.

The Chinese die casting industry

In the year 2015, China produced 45.6 million metric tons of castings in total, followed by India (10.8), the US (10.4), Japan (5.4), and Germany (5.3). With 45 % of the total world casting production, China is the globally leading metal casting nation and has also become the nation with the largest die casting production worldwide. According to FICMES, China’s foundries produced 3.7 million tons of die castings in 2015. About 70 % of die castings are used for automobiles and motorcycles. Over the last 20 years, the average annual growth rate in the Chinese die casting industry has been around 13 % and thus higher than the average growth of the country.

Transforming and upgrading

Casting specialists say that China’s foundry industry is still lagging behind the foundry industry of industrialized countries and needs urgently to be transformed and upgraded. Challenges to be solved are tackling overcapacities, increasing the ability of independent innovation and improving efficiency.

Aggravating this situation, a nationwide environmental inspection has raised higher requirements for many foundries. Significant issues concern the reduction of energy and resources consumption and the discharge of pollutants. Also the demands of “Industry 4.0” solutions and industrial robots have become a major trend.



Automobile market

The by far largest customer market for die casting companies is the automobile industry. For a long time China has been the globally most important and most profitable automobile market. The 2017 sales comprised more than 24 million passenger cars. It seems that after nearly 15 years of remarkable growth, China's automobile industry is going to transition from its high-growth phase to a maturity phase of development. In September 2017, the Chinese government announced new rules with respect to New Energy Vehicles (NEVs). The term refers to all forms of alternative fuel vehicles, where electric vehicles (EVs) represent the largest segment. China surpassed the US as the largest market for NEVs in 2015 and has meanwhile become the most rapidly developing country in the global NEV industry. With respect to NEVs, China continued its global leadership position. Sales of NEVs increased by 53 % to 777,000 in 2017. By comparison, just under 200,000 NEVs were sold in the same year in the US, the world's second-largest auto market. Referring to the market research firm IHS Markit, the technical journal „Automobilproduktion“ reported in April 2018 that by 2020 the annual production of NEVs in China will reach nearly 2.4 million. This is why the organizers of CINA DIECASTING, NürnbergMesse and FICMES, decided to launch 'Auto-Tech Day'. This event shall help to understand upcoming market trends and stimulate the interaction between buyers and suppliers. On 18 July 2018, experts from GM, Ford, GF and others are discussing about trends and challenges for the global market of lightweight automotive parts. The 'Auto-Tech Day' event includes also an auto parts sourcing fair and a display of innovative auto parts made by die-casting.

Other markets

With the continuous improvement of global environment requirements for energy conservation and emissions reduction, lightweight trend becomes a path for saving energy and emissions, and structure parts are becoming a hot spot of die-casting industry. Besides automobile, the lightweight trend has also a decisive influence on railway and aerospace industries, machinery construction, electronics, lighting and other application fields.

Solutions offered by die-castings

Die-castings have become a very important part of vehicle construction and are now a critical part of body, chassis and powertrain applications. Development efforts to increase the use of aluminum and magnesium alloy castings to reduce vehicle weight for improved fuel economy have



intensified in the past several years. The trend away from the combustion engine and towards alternative drives has effects on the demand for die-castings: While an electrical drive needs less die-castings than a combustion engine, each vehicle needs structural components, crash-proof components and sensor casings, which satisfy strict specifications and can be produced cost-effectively by die-casting. And, last but not least, electric motors require die-castings used as battery housings. A special part of the exhibition area is dedicated to the "Mould Manufacturing Forum" where everything evolves around the design and manufacturing of die-casting moulds. In 2018 for the first time die-casting parts, according to the material classification, will be evaluated in three separate competitions: Aluminium Diecasting, Magnesium Diecasting, and Zinc Diecasting at CHINA DIECASTING 2018.

Market possibilities

China's booming die-casting market attracts the attention from the world and CHINA DIECASTING is supposed to be the optimum platform for foreign enterprises such as PILLER Entgrattechnik GmbH to enter the Chinese market. "We are specialized in deburring and cleaning technology which is an important part of the process chain for components made by die-casting. After the participation at EUROGUSS 2018 in Nuremberg, which was very successful for us, it is an obvious step for us to exhibit at CHINA DIECASTING in order to establish additional interesting contacts in the Asian market," says Jörg Nubert, CSO of PILLER Entgrattechnik. Till now around 80 % of the exhibition space is booked. Leading companies from Europe like ABB, Absolent, BÖHLER, BÖHMER, BÜHLER, Carl Zeiss, Chem-Trend, Dynacast, Henkel, FLOW-3D, FONDAREX, FRECH, Geiger, IDRA, Italtipresse, KMA Environmental Technology, KUKA, Kurtz, MAGMA, MARPOSS, OerlikonBalzers, Petrofer, Pfeiffer Vacuum, Prec-cast, Schmolz-Bickenbach and Wollin have already confirmed their appearance in Shanghai.

The trade fair CHINA DIECASTING 2018

Modern equipped die-casting foundries are capable to fulfill the wishes of the car makers and other future-oriented industries by innovative solutions and contribute to the technological progress through own developments. An insight into the state-of-the-art in die-casting and suggestions as to how die-casting foundries can strengthen and expand their market position will be provided at the CHINA DIECASTING 2018 trade fair in Shanghai, where more than 400 exhibitors and 18,000 trade visitors are expected. The 3-day event will take place together with the CHINA NONFERROUS 2018 trade



fair and be accompanied by high-end seminars, die-casting competitions, network platforms and match-making events. CHINA DIECASTING 2018 is supported by the domestic and international associations such as FICMES, CEMAFON, International Zinc Association and will be held in Shanghai New International Expo Centre (SNIEC) from July 18 to 20, 2018.

The EUROGOUSS trade fair family: The leading die-casting shows

In all even years, the European die-casting industry meets at the trade fair EUROGUSS in the Exhibition Centre Nuremberg, Germany. For three days, approximately 640 exhibitors and more than 15,000 trade visitors receive information on the latest technology, processes and products. EUROGUSS is the only event that covers the entire die-casting process chain: from high-tech machines via new materials to efficient services. Furthermore, the NürnbergMesse Group is active in the field of die-casting at CHINA DIECASTING (annually in Shanghai) and at ALUCAST, which takes place in India at changing locations all even years. For the first time NürnbergMesse organizes the pavilion EUROGUSS Mexico in the framework of the Fundiexpo trade fair and EUROGUSS Asia Pacific within Metal AP in Bangkok, Thailand.

Further information: www.euroguss.de/international

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