New dimensions due to precision in aluminium

The Alimex team

In 1970, the German businessman Helmut Geller contributed to taking aluminium processing to new dimensions with an idea that was as simple as it was technologically ambitious: aluminium cast slabs, a base material for demanding and efficient applications. The Alimex precision aluminium cast slab technology has already become established around the world.

The company continues to set technology standards. Dr. Philip Grothe is a highly active person. Just coming back from Columbia in the US state of South Carolina from the grand opening of a new production line, he made a quick stopover in Milton Keynes in the United Kingdom, where Alimex UK Precision has been active in Aluminium Limited for three decades as well as being the largest warehouse for semi-finished aluminium. And the next morning we meet the chief executive of Alimex at the company headquarters in Germany. Here, the company also invests in technology. Dr. Grothe proudly points to the two new large-scale milling machines, which will begin operation soon: "Aluminium is on the rise all over the world and we are able to cover a good deal of the demand for innovative aluminium solutions." The aluminium specialties by Alimex precision in aluminium are not only in demand in Europe, but also in Asia and the US. In addition to the companies in Germany, the UK, the Netherlands and the US, there is also a branch in Asia.

Components for future technologies

When asked about the reasons for the increasing demand, Philip Grothe explains: "Be it the electronics, laser, or packaging industry, be it medical and laboratory technology: they all benefit from our innovative aluminium solutions. There is an excellent form stability, less scrap and faster machining time." That is why Alimex's aluminium quality can be found in numerous products and systems, such as screen, semiconductor and solar systems, and is therefore an important component of technologies of the future.

Compared to the conventional rolling process, the casting plate is beneficial for many applications, which not only make existing aluminium applications more efficient, but also help extend the use of aluminium as an alternative to steel. Moulds, such as low-pressure and thermo moulds as well as prototypes and tools have been increasingly manufactured from cast aluminium tooling blocks by customers in the mechanical engineering and polymer processing industries. "Particularly during the machining of aluminium, very high cutting speeds are possible. Compared to steel, for example, the machining time of parts can be reduced by more than 40%," Philip Grothe states and adds: "The expenditure for machine tools is also be significantly reduced due to weight savings."

In addition, the wear on tools in aluminium machining is three to four times less than in steel machining. Moulds made of aluminium also have a significantly better thermal conductivity than steel moulds, which again significantly reduces the cycle times of the production of plastic parts and directly results in further cost savings.

The co-working approach creates innovations

The essence of the company's global success, however, is its innovative power. The products in the area of cast tooling plate and blocks have been consistently expanded. Recently, for example, a unique ACP 7000 series was created, which has outstanding strength values. In order to continuously develop innovations like these, a modern co-working approach is applied. The specialists at Alimex discuss the latest findings and research results with globally renowned institutes such as the RWTH Aachen, the Fraunhofer Institute for Chemical Technology or the Forschungszentrum Jülich.

Part of the cooperation approach with regard to the development of new solutions is also specifically the communication with the trade partners, suppliers and customers. This has resulted, for example, in developments for the customers in the areas of printing, tobacco and packaging machinery. Just recently, the product Eloxpure® was able to achieve a further increases in the aesthetic requirements for anodised components.

Agile on the market

For Philip Grothe, agile corporate management is the guarantor that Alimex will continue to be faster than the competition when it comes to market solutions. The company culture is characterised by flat hierarchies within the team, the aforementioned cooperative exchange and the passion for innovation, for which investments are continuously being provided. "In addition to product development, our current focus is on the development of global product management and digitization", Philip Grothe explains. Here at Alimex, one is working on automating the production processes in order to be able to further increase the distinctive flexibility in implementing the customer's wishes.

So, for a constantly growing world of aluminium applications, market-shaping innovations by Alimex experts can be expected in the future. ■