ARNOLD®
BlueFastening Systems

Ralf Lagerbauer,
Director of Sales and Marketing.
(Source: ARNOLD UMFORMTECHNIK)

Far removed from established ways of thinking

As a direct and indirect supplier of components for electric vehicles, ARNOLD UMFORMTECHNIK is making sustainable approaches to its production methods to reduce CO_2 emissions. Ralf Lagerbauer, Director of Sales and Marketing describes how this embeds into everyday practice.

Mr. Lagerbauer, what does making components for the electric vehicle sector mean for ARNOLD?

„We produce fasteners for a very wide range of applications and uses – for the automotive industry as well as for other industry sectors. The whole eMobility topic pretty much symbolises the change within the mobility industry. Against that backdrop, we are greatly motivated that, with our fastening solutions and systems, we can be part of this process of transformation"

What is different about this field?

„By focussing on eMobility our discussions with customers in this field are much more intensive. We need to find the right solution for a specific problem - independently of established ways of thinking.

At ARNOLD UMFORMTECHNIK we have five strategic lines of approach for all our areas of business. eMobility, lightweight construction, digitisation, internationalisation, and sustainability. And it is precisely these approaches that

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„The appearance of new eMobility OEMs on the automotive market has not only made the industry wake up, but has also stirred up and accelerated the market."

Ralf Lagerbauer, Director of Sales and Marketing at ARNOLD UMFORMTECHNIK

players in the eMobility sector often deploy. That means that we can make an important contribution to developing and implementing the whole system, and not merely act with a view to the drive.

For us, it is important to push forward for solutions together. It's exciting and it definitely creates a learning curve for both companies."

What are eMobility customers like?

„Companies in this sector need to take a completely new direction and overcome new challenges. For example, the impermeability of fastenings is extremely important. On no account must a leak occur inside the battery pack, and access for maintenance needs to be designed in. It is also important in fastening technology to think in terms of current, in other words, conductivity. Thus, fastening solutions also conduct current, serving two purposes at the same time. Different materials, processing methods and surfaces than those used previously come into play. It is important that those working in this field should communicate with one another, because everyone wants to know where the powertrain journey is taking us – with a view to fastening solutions too. This applies as much to startups as to established OEMs. And this can often lead to development partnerships. One thing of which we can be certain is that the ever-increasing focus on electro-mobility will have a major effect on the market."

How can a manufacturer of fastening solutions ensure sustainability and reduce CO_2 emissions?

„When you look at the value chain as a whole, each product has its own carbon footprint. Thus, every single little screw and every cold-formed part can be a climate protector, even if that seems unlikely at first glance.

ARNOLD's ACO_2-Save initiative provides its customers with many options for carbon savings. The engineering design starts with an FEM simulation that can be linked to a CO_2 calculator. This calculates in advance the carbon footprint that producing the part will create. It is then possible to compare different solutions with one another."

What does that specifically look like with regard to reducing CO_2?

„One approach could be changing production technology or implement a direct screw fastening rather than using a screw/nut combination. One example is one of our special machined screws. To make it, a blank turned part was used on the production line and the volume of that was 25,630 mm³, weighing in at 69.2 g each item. After an ACO_2 -Save analysis, we produced the screw by forming. The volume of the formed blank was now 9,135 mm³ and each one weighed 24.82 g."

Picture 2: The ACO_2 Save initiative actively helps customers to reduce their CO_2 emissions by ensuring that fasteners and cold-form parts are designed and implemented sustainably. (Source: ARNOLD UMFORMTECHNIK)

Picture 3: ARNOLD UMFORMTECHNIK facilitates CO_2 optimized engineering for fasteners.
(Source: ARNOLD UMFORMTECHNIK)

Sustainability has been a concept at ARNOLD for a long time now. Why is this?

„With 123 years of company history behind it, ARNOLD UMFORMTECHNIK is very much a traditional company. So this also represents a duty towards the future. Since 2016 ARNOLD has presented itself under the "Blue Fastening System" claim, thus demonstrating the importance of sustainability in all the company's activities.

Production processes cannot be exempt from climate protection measures. We believe that sustainability needs to be at the forefront of our thinking when developing new solutions. Finally, the steel industry is one of the biggest emitters of CO_2. So, CO_2-optimised engineering is required here right from the start. Thus it is a good idea to get on board with the customer at a very early stage, to ensure that we are both steering in the same direction."

What role does eMobility play here for ARNOLD in this context?

„We have been concerned about this topic consistently since 2006 and have built up complex skills within the company. Now we are just proud that we are active in this futuristic segment, and many customers trust our expertise in the field." ■

Annedore Bose-Munde

About the person

As Director of Sales & Marketing at ARNOLD UMFORMTECHNIK Ralf Lagerbauer is responsible for the regions of Germany, the USA, and China. He began his career at Würth Industrie Service GmbH and then at the Würth Group, where he held several international managerial roles. Lagerbauer was also a member of the Administrative Board at Denios AG.

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