

## Press release

LKH Kunststoffwerk Heiligenroth GmbH & Co. KG



*LKH at SPS 2019  
From 26 to 28 November  
Hall 3C, Booth 430*

*Recognised: LKH wins TecPart Innovation Award*

### **The top league of automotive suppliers**

**Streamlining the production of air suspension components as safety and comfort-relevant chassis parts ensures injection moulder LKH a place in the top league of plastics processors. The German Association of Plastics Converters (GKV), which awarded LKH the renowned TecPart-Innovation Prize at the 2019 plastics trade fair, agrees.**

Montabaur-Heiligenroth, 22 November 2019 – Every three years, the Association of Technical Plastic Products at the GKV awards the TecPart Innovation Prize to outstanding innovative companies. LKH received an award from the best plastics processing suppliers in Germany for the precision manufacture of components for switchable multi-chamber air suspensions in vehicles. “This award shows us that our continuous and high investments in expertise and production technology over the last few years have paid off,” said Volker Hindermann, LKH’s Managing Director, following the award ceremony.

### **A cost-cutting and time-saving solution**

The change-over to fully electric drives for the sports cars with far more than 500 bhp under the bonnet that are now being launched on the market, is drastically increasing the demands placed on many components: Comfort and safety at high cruising speeds are accompanied by maximum cornering speed and acceleration. Engine power is one prerequisite for this, but not enough on its own. Plastic components in the air suspensions also save up to five kilograms of weight per vehicle. “Due to this production LKH succeeds in the cost and weight-saving substitution of steel as a material by a

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polyamide-aluminium hybrid”, said the spokesman, explaining why the prize was awarded for this project.

### **Manufacturing expertise**

Air suspensions are exposed to high mechanical loads during driving. The joining process of the individual components placed high demands on the flatness and parallelism of welding surfaces – especially due to non-rotationally symmetrical component contours with a high glass fibre content, which can lead to component distortion. The solution from LKH, however, involves intelligent injection solutions, extensive mold flow simulations to counteract component distortion in a targeted manner, as well as step-by-step flatness correction of the welding surfaces using reverse engineering methods.

In 2018, LKH started the highly automated volume production of various plastic parts for the new air spring generation. Up to this point, i.e. to the start of volume production, specialists from LKH and their customers had developed and implemented new technical solutions. The components already largely designed by the automotive supplier and the material proposed (a highly reinforced polyamide), as well as the extremely low tolerances, meant that the project was bound up with a high degree of complexity. Due to a later work stage – hot gas welding – performed on the client’s premises, it was hardly possible to influence the choice of material and the tolerance specifications.

Among other things, LKH used its extensive experience in processing of reinforced, technical plastic in the project – and has already incorporated it into the tool design. The upstream simulation with the design data was not just based on standards; LKH has built up its own extensive database with material characteristics from its

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own real production data. It makes simulation considerably more precise and reduces the later time and cost-intensive reworking of the tool. The project, which has now gone into production, shows that automotive suppliers and LKH are achieving the desired results faster and more efficiently as a result of the huge increase in expertise.

### **Top performance and safety**

Visible results of the cooperation are a tight, precise adherence to the project plan and a first-class immediate sampling at the customer. This has made it possible to combine top dynamics with comfort and safety in purely electric vehicles from German production with up to 760 bhp (560 kw).

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### **Caption(s)**

Image 1 (fri19250100.jpg): Award-winning! LKH, a Rittal sister company, wins the renowned TecPart-Innovation Prize 2019.

Image 2 (fri19250200.jpg): Volker Hindermann (centre), Managing Director at LKH, and Thomas Ritter (right), Head of Engineering at LKH, accept the award.

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### **LKH Kunststoffwerk Heiligenroth GmbH & Co. KG**

LKH Kunststoffwerk Heiligenroth GmbH & Co. KG develops and manufactures a diverse range of plastic products at its cutting-edge facility in Rhineland-Palatinate for customers in the automotive, electrical and construction industry sectors. The company's most important technologies are component assembly and thermoplastic

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injection moulding (e.g. hybrid technology, multi-component injection moulding).

LKH was founded in 1983, and is a member of the Friedhelm Loh Group, headquartered in Haiger, Germany. The Friedhelm Loh Group operates worldwide with 18 production sites and 80 international subsidiaries. The entire group employs 12,500 people and generated revenues of around €2,6 billion in 2018. For the eleventh time in succession, the family business has won the accolade “Top German Employer” in 2019. In addition, Friedhelm Loh Group was recognized as “Top vocational trainer” according to a study of Deutschland Test and Focus Money.

For more information, visit [www.lkh-kunststoff.de](http://www.lkh-kunststoff.de) and [www.friedhelm-loh-group.de](http://www.friedhelm-loh-group.de).