

Press Release

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JEC World 2020: SGL Carbon presents new solutions for automotive, aerospace and industrial sector

- Composite battery enclosures for e-mobility
- Flexible new leaf spring generation for rear axles
- Innovative component designs for passenger airplanes, helicopters and air taxis
- Extremely lightweight and stable transfer beam for mechanical engineering

At this year's JEC World, the largest trade fair for composites held from March 3-5, 2020 in Paris, SGL Carbon will focus on the topic of serial production for the automotive, aerospace and industrial sectors. The key is customized solutions with individual component designs combined with tailored materials and production processes ready for large scale production. Under the motto "The Solution Provider," the company will present selective innovative component solutions from all three areas in Hall 6. Booth D25.

"Thanks to our integrated value chain, from fibers to finished components, our Lightweight and Application Center, and our increasing portfolio of realized series-ready concepts, we offer our customers smart, tailor-made solutions all from a single source. In the future, we will increasingly apply our comprehensive expertise and highly efficient materials from the automotive industry into the aerospace and industrial sectors too," explains Dr. Andreas Wöginger, Head of Technology of the Composites – Fibers & Materials business unit at SGL Carbon.

Selective applications with focus on serial production

In the field of **automotive** applications, SGL Carbon will present at the JEC World composite battery enclosures as a promising new application driven by increasing demand for electric vehicles and the resulting new flexible chassis platforms. The company demonstrates a prototype of a battery enclosure based on carbon fibers. However, hybrid composites with a mixture of glass and carbon fibers are also possible. In early January, SGL Carbon received a major order from a North American automotive manufacturer for the serial production of top and bottom layers for battery enclosures, with production to begin at the end of 2020.

In addition, SGL Carbon showcases for the first time a new leaf spring generation made of glass fiber composite that is used as a longitudinal leaf spring for the rear axle of the Ford Transit. In comparison to conventional leaf springs, the innovative composite leaf spring weighs up to 50 percent less while offering increased security standards and supporting a one-to-one compatibility with standard springs. The Ford leaf spring complements SGL Carbon's large-scale production of transversal leaf springs for a great variety of Volvo models and the Mercedes Sprinter. In total, SGL Carbon has delivered more than 1.5 million leaf springs.

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In the **aerospace** sector, SGL Carbon is also expanding its portfolio of realized projects and expertise relying on the trend to use more efficient materials and processes in this industry too.

In the area of primary structure components, the company will present a demo exhibit for the door frame of a passenger airplane realized in collaboration with external partners and based on 50k carbon fiber from the SGL Carbon, which is suitable for serial production. To further speed up its growth in the sector, the company entered into a development cooperation with Solvay at the end of last year to bring fiber materials for primary structural components based on large-tow carbon fibers to the market for the first time. Today, SGL Carbon already offers a wide range of semi-finished products for non-structural aerospace applications such as interior elements.

Additional submarkets in aerospace emerge for composite applications in small aircrafts, helicopters and air taxis. Here, SGL Carbon offers the full range of services, from engineering to finished components. On display at the JEC World is a carbon fiber-based concept for an innovative rotor arm for urban air mobility applications (air taxis) made with an innovative manufacturing technology. At the beginning of the year, the company started serial production of landing gears made of braided carbon fiber material, which will be used around the world in air taxis of an international manufacturer over the course of the next two years.

As an example for **industrial applications**, SGL Carbon will showcase at the JEC world a crossbeam made of carbon fiber reinforced plastics (CFRP) used in automated Schuler press lines. Besides weight savings of up to 40 percent compared with conventional materials, the crossbeam made of composites features a high rigidity and strength, as well as a low thermal expansion and especially good damping performance, which in turn minimizes machine vibrations. The use of CFRP not only boosts the production efficiency of the system, it also increases lifetime, due to lower wear and tear expectancy.

Live simulations and intense exchange at the booth

On all three exhibition days, visitors to the SGL Carbon booth (Hall 6, Booth D25) can experience live how their ideas can be implemented both sustainably and cost-effectively in composites thanks to simulations. Experts from the company's own Lightweight and Application Center demonstrate the path from the concept to virtual prototypes using simulation software, with the result visible either to the entire audience or just individual visitors. To prepare, interested parties can contact the team now at the following link: https://www.sglcarbon.com/anmeldung-jec.

On March 4, 2020, the SGL Carbon stand will host its traditional get-together for customers and friends starting at 4 p.m. – no registration necessary.

About SGL Carbon

SGL Carbon is a technology-based company and world leader in the development and production of carbon-based solutions. Its high-quality materials and products made from specialty graphite and composites are used in industrial sectors that determine the future: automotive, aerospace, solar and wind energy, semiconductor and LEDs as well as in the production of lithium-ion batteries, fuel cell and other energy storage systems. In addition, SGL Carbon develops solutions for chemical and industrial applications.

In 2018, SGL Carbon SE generated sales of around 1 billion euros. The company has approx. 5,100 employees at 31 locations in Europe, North America, and Asia.

Materials, products and solutions from SGL Carbon are embedded in the major topics of the future: sustainable mobility, new energies and cross-industry digitization. Further developments in these areas demand more intelligent, more efficient, networked and sustainable solutions. This is where the entrepreneurial vision of SGL Carbon evolves around: contributing to a smarter world

Further information on SGL Carbon can be found at www.sglcarbon.com/press.

Important note:

To the extent that our press release contains forward-looking statements, the latter are based on information that is available at present and on our current forecasts and assumptions. Forward-looking statements, by their very nature, entail known as well as unknown risks and uncertainties that may lead to actual developments and events differing substantially from the forward-looking assessments. Forward-looking statements must not be understood to be guarantees. Instead, future developments and events depend on a large number of factors; they comprise various risks and imponderables and are based on assumptions that may possibly turn out not to be appropriate. These include unforeseeable changes to fundamental political, economic, legal and societal conditions, particularly in the context of our main customers' industries, the competitive situation, interest and exchange rate trends, technological developments as well as other risks and uncertainties. We perceive additional risks e.g. in pricing developments, unforeseeable events in the environment of companies acquired and Group member companies as well as in current cost savings programs from time to time. The SGL Carbon assumes no obligation and does not intend to adjust or otherwise update these forward-looking statements either.

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