Overhead innovation: Roof systems from Webasto open up new horizons

Whether it's the fastest and lightest retractable glass roof for an electric convertible, fascinating effects created by high-tech glass, the world's largest openable solar roof, or elegant solutions for autonomous driving – the automotive supplier is showcasing the roof as a major area of innovation at the IAA Mobility trade fair in Munich.

Munich/Stockdorf – September 4, 2023 – The rise of electromobility is changing the entire design language of vehicles. The trend is moving toward clean lines, large glass surfaces and high-tech features. Webasto is leveraging this development to create innovative roof concepts that enhance comfort, design and the driving experience. "As automakers strive to create a cohesive design language, large glass roofs are becoming increasingly popular in place of steel ones. New potential exists here for Webasto, as this space can be used for exciting innovations," explains Jan Henning Mehlfeldt, responsible for the global roof business at Webasto. "Our openable roofs have allowed us to deliver driving pleasure for over 85 years and we are continuing to develop our systems further. The trend toward large glass surfaces is now opening up completely new possibilities for us once again."

The fascination of high-tech glass

By day, panoramic roofs from Webasto offer generous views and an interior ambience that is bright and pleasant. At night, dynamic light effects create a real wow effect. The secret behind this is the almost invisible transparent print integrated into the glass. When the lights are switched on, the glass panel displays a wide variety of patterns – from geometric figures to a starry sky – in multiple colors.

At the IAA, the supplier is exhibiting these innovative lighting effects for the first time in combination with switchable glazing in both fixed and openable panoramic roofs. Among automotive suppliers, Webasto is pioneering this elegant shading option. At the push of a button, the glass panel darkens and provides pleasant shade or privacy. This function works by integrating innovative film technologies into the glass panel. Electric control signals change the way in which the films transmit light. The technology permits individual preferences – for instance, shading can be switched to only darken specific roof segments. "Last year, Webasto entered the glass production business to allow it to integrate these innovative technologies into the glazing itself and fully exploit the potential offered by high-tech glass," explains Mehlfeldt.

Travel with the sun

The range of electric vehicles can be extended thanks to solar cells integrated into a glass roof. For example, an openable solar roof from Webasto has already been installed in an SUV. Depending on environmental conditions, the American automaker expects an additional range of up to 3,000 kilometers per year. The solar power generated can also be used to support air conditioning in the interior. "The utility factor is by no means the only benefit. The appealing design of a modern solar roof from Webasto is a statement of sustainability, also demonstrating the owner's environmental awareness," says Mehlfeldt. The first Webasto solar roof was installed in an Audi 80 Coupé more than 30 years ago. The automotive supplier has consistently relied on this sustainable technology since that time.

In–vehicle cinema experience

A panoramic display integrated into the roof transforms the rear of a vehicle into a private cinema at the touch of a button. Webasto supplies the technology to lower the large-format screen from the headliner in a delicate rotating movement, guided by two lateral articulated rails. This mechanism for the theater screen in the 7 Series received the Innovation Award from BMW and it can be experienced at the Webasto booth at the IAA Mobility trade fair.

Solutions for autonomous driving

For reliable 360-degree monitoring of the surroundings during autonomous driving, Webasto combines lidar and camera technologies in a fully functional manner in a slim panoramic roof. The compact Roof Sensor Module (RSM) can be seamlessly integrated into automakers' production lines. Occupying an elevated position on the roof, the sensors and cameras are optimally positioned to capture the environment. Thermal management, de-icing and de-fogging functions, as well as a cleaning system, ensure that obstacles are detected in varying weather conditions. The RSM thereby facilitates automated driving and ensures safety on the roads.

"Over the past 85 years, our roof business has been characterized by success and exciting developments. They indicate how our innovative strength never stands still. Webasto is therefore always setting new trends, which we will also be exhibiting this year at the IAA," sums up Mehlfeldt.

About Webasto:
As a global innovative systems partner to the mobility industry, Webasto is one of the 100 largest suppliers to the automotive sector worldwide. In development, manufacturing and sales, the company focuses on roof systems on the one hand and on vehicle electrification on the other hand. The product range includes openable and fixed panoramic roofs, electric high-voltage heaters and batteries, as well as thermo management solutions. Among the customers of Webasto are manufacturers of passenger cars, commercial vehicles, and boats, as well as dealers and end customers. In 2022, the Group generated sales of over 4 billion euros and employed about 16,800 people at more than 50 locations. The headquarters of the company, which was founded in 1901, is located in Stockdorf near Munich (Germany). For more information, please visit www.webasto-group.com

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