

Press release

## **Carbon-neutral aircraft: Liebherr-Aerospace installs hydrogen test bench in its test center in Toulouse**

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**Developing the decarbonized aircraft of the future is a priority shared throughout the aviation industry. Among the solutions being considered, Liebherr-Aerospace Toulouse is working on systems and equipment to reduce fuel consumption and to contribute to more carbon-neutral aircraft.**

Toulouse (France), January 2023 – An emblematic project consists of using a hydrogen fuel cell power source to generate sufficient electrical power, in the range of 400 kW, to feed all the non-propulsion systems of next-generation aircraft. Liebherr-Aerospace Toulouse is developing this power generation system as part of the France Relance (France Relaunch) plan with the support of the French Civil Aviation Authority (Direction Générale de l'Aviation Civile).

In order to test and assess this solution in a representative environment, Liebherr, supported by the Région Occitanie, recently installed a hydrogen test bench in its test center at its Toulouse site.

This new investment in test facilities will enable Liebherr-Aerospace Toulouse to demonstrate the ability to generate electrical power, using fuel cells, to supply the major non-propulsive electrical systems of a new generation single-aisle aircraft, while ensuring the thermal management of the whole (fuel cells and electrical systems).

In addition to these substantial investments in hydrogen, Liebherr-Aerospace Toulouse is also developing new systems and equipment with lower emissions, particularly of CO<sub>2</sub>, and is working with the wider aeronautical industry and other academic institutions to step up development of the systems and equipment needed for the next generation of zero-emission aircraft.

## About Liebherr-Aerospace & Transportation

Liebherr-Aerospace & Transportation SAS, Toulouse (France), is one of eleven divisional control companies within the Liebherr Group and coordinates all activities in the aerospace and transportation systems sectors.

Liebherr-Aerospace is a leading supplier of systems for the aviation industry and has more than six decades of experience in this field. The range of aviation equipment produced by Liebherr for the civil and defense sectors includes flight control and actuation systems, gears and gearboxes, landing gear and air management systems as well as electronics. These systems are deployed in wide-bodied aircraft, single aisle and regional aircraft, business jets, defense aircraft, defense transporters, defense training aircraft and civil and defense helicopters.

Liebherr's aerospace and transportation systems division employs around 6,000 people. It has four aviation equipment production plants at Lindenberg (Germany), Toulouse (France), Guaratinguetá (Brazil) and Nizhny Novgorod (Russia). These production sites offer a worldwide service with additional customer service centers in Saline (Michigan/USA), Seattle (Washington/USA), Montreal (Canada), Hamburg (Germany), Dubai (UAE), Bangalore (India), Singapore and Shanghai (People's Republic of China).

## About the Liebherr Group

The Liebherr Group is a family-run technology company with a highly diversified product portfolio. The company is one of the largest construction equipment manufacturers in the world. It also provides high-quality and user-oriented products and services in a wide range of other areas. The Liebherr Group includes over 140 companies across all continents. In 2021, it employed more than 49,000 staff and achieved combined revenues of over 11.6 billion euros. Liebherr was founded in Kirchdorf an der Iller in Southern Germany in 1949. Since then, the employees have been pursuing the goal of achieving continuous technological innovation, and bringing industry-leading solutions to its customers.

## Photo



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Liebherr-Aerospace has installed a hydrogen bench in its test center at its Toulouse site. – © Liebherr

## Contact

Ute Braam  
Corporate Communications  
Telephone: +49 8381 46 4403  
E-mail: [ute.braam@liebherr.com](mailto:ute.braam@liebherr.com)

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Toulouse/France  
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