PRESS RELEASE

Greater test capacities for innovative energy and propulsion solutions

AVL Opens New Hydrogen and Fuel Cell Test Center in Graz

With the official opening of the AVL Hydrogen and Fuel Cell Test Center on September 19, 2022, AVL is greatly expanding its global test infrastructure for fuel cell and hydrogen technology. The new center at the company's headquarters in Graz has a maximum capacity of 20 high-performance testbeds, making it one of the largest and most advanced test sites for fuel cells and electrolysis systems in the world. With this investment, AVL strengthens its role as a pioneer for the extensive development of fuel cells as well as innovative technologies for hydrogen production.

Graz, Austria, September 19, 2022: Hydrogen and fuel cell technologies play a key role in meeting future energy demands and carbon-neutral mobility. AVL identified this already over 20 years ago and has been investing in these forward-looking technologies ever since. The company's know-how covers the development of a diverse range of vehicle applications, the fields of marine, rail and aviation, stationary power generation, and efficient hydrogen production. In the new test center in Graz, all AVL developments from these areas can be tested and characterized according to the highest functional and safety criteria.

The design of the AVL Hydrogen and Fuel Cell Test Center has extensive reserves for future high-performance requirements. The 600 m² test site provides space for up to 20 testbeds and, with a total capacity of up to 2 megawatts, is one of the most powerful facilities of its kind in the world. One of the unique highlights of the test center is the ability to test polymer electrolyte membrane (PEM) fuel cell systems with an output of up to 400 kilowatts - this corresponds to the scale of high-tech hydrogen concepts that will be used in heavy-duty transport in the future. For stationary and electrolysis applications, testbeds with a capacity of up to 1 megawatt will be available in the future.

In addition, PEM stacks up to 200 kilowatts can be tested in the center, too. Likewise, system, subsystem and component tests for solid oxide fuel cells (SOFC), solid oxide electrolysis cells (SOEC) and PEM electrolysis can be performed. The heart of the fuel cell system testbeds is the AVL PUMA 2™ automation system. All development-related test procedures are available - from performance characterization, model validation to durability tests, design verification and controls optimizations using AVL CAMEO™.

Construction work on the AVL Hydrogen and Fuel Cell Test Center in Graz began in 2018. The facility commenced operations in 2020 and currently has six testbeds. The center is one of the biggest construction projects in AVL's recent history. In addition to the center in Graz, AVL also runs a newly built fuel cell test center in Vancouver, Canada. Another fuel cell test center is under construction in Kecskemet, Hungary.

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Prof. Helmut List, Chairman and CEO of AVL: “The demand for electrical energy is growing incessantly. In parallel, we are facing the challenge of reducing CO_2 emissions. For this purpose, hydrogen and fuel cell technologies offer promising solutions, which are developed at AVL and can be brought to market-readiness thanks to our test capabilities. We already established AVL as a leading pioneer for this future technology several years ago. Now we are further expanding our position with our new test center.”

Facts on the AVL Hydrogen and Fuel Cell Test Center

- State-of-the-art test site for fuel cell and hydrogen applications
- 600 m^2 facility with a capacity of up to 20 testbeds
- Separate control and service area with fully automated, remotely controllable testbeds
- One of the world’s most powerful facilities, with a total capacity of up to 2 MW
- State-of-the art testbeds for SOFC/SOEC and PEM systems of up to 1 MW
- Future-proof design with reserves for upcoming high-performance demands
- Tests for light- and heavy-duty systems, including facilities for stationary power generation
- All development-related tests: design, function, calibration, durability, etc.
- Large infrastructure for supplying the center with hydrogen

About AVL

With more than 10,700 employees, AVL is one of the world’s leading mobility technology companies for development, simulation and testing in the automotive industry, and beyond. Drawing on its pioneering spirit, the company provides concepts, solutions and methodologies for a greener, safer and better world of mobility.

From ideation phase to serial production, the company covers vehicle architectures and platform solutions including the impact of new propulsion systems and energy carriers. As a global technology provider, AVL’s offerings range from simulation, virtualization and test automation for product development to ADAS/AD and vehicle software. The company combines state-of-the-art and highly scalable IT, software and technology solutions with its application know-how, thereby offering customers extensive tools in areas such as Big Data, Artificial Intelligence, Cybersecurity or Embedded Systems.

AVL's passion is innovation. Together with an international network of experts at more than 90 locations and with 45 Tech and Engineering Centers worldwide, AVL is supporting customers in their mobility ambitions. In 2021, the company generated a turnover of 1.6 billion Euros, of which 12 % are invested in R&D activities to ensure continuous innovation.

For more information: www.avl.com

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