



## Advancing Motion: Garrett Presents Breakthrough Electrification and Turbocharging Innovations at Auto Shanghai 2025

April 22, 2025

- **First public showcase in China** of **3-in-1 E-Powertrain** and **E-Cooling Compressor** technologies, advancing zero-emission vehicle performance
- **Differentiated turbocharging solutions** for passenger and commercial vehicles, supporting emissions reduction and efficiency
- **Hybrid-optimized boosting solutions** to maximize fuel economy in PHEV and REEV applications

ROLLE, Switzerland and PLYMOUTH, Mich., April 22, 2025 (GLOBE NEWSWIRE) -- Garrett Motion Inc. (NASDAQ: GTX), a leading differentiated automotive technology provider, is presenting its latest innovations at Auto Shanghai 2025 (April 23–May 2), including the China debut of its 3-in-1 E-Powertrain and E-Cooling Compressor—two breakthrough technologies driving the future of zero-emission mobility.

Garrett's showcase highlights its dual focus on cleaner internal combustion solutions and next-generation electrification technologies that improve energy efficiency, performance, and sustainability.

*"Automakers are focused on improving efficiency and reducing emissions while driving electrification,"* said Olivier Rabiller, president and CEO of Garrett Motion. *"Garrett provides advanced solutions that optimize performance in all vehicles - from high-efficiency turbocharging for internal combustion engines, including plug-in hybrid electric vehicles (PHEVs) and range-extended electric vehicles (REEVs), to differentiated electrification technologies that support the transition to zero-emission mobility."*

### Electrification and Zero-Emission Technologies: Powering the Future

With global NEV (BEV, PHEV, REEV and FCEV) production reaching 18 million units in 2024, based on IHS registration data, and China leading the world in adoption, demand is growing fast for technologies that enable lightweight, high-efficiency electric platforms. Garrett is delivering with a next-gen portfolio of propulsion, thermal, and energy management solutions.

Garrett's technology foundation is built on unparalleled expertise in air and gas compression, high-speed electric motors, advanced power electronics, and control software for high-speed systems. This technical leadership enables Garrett to solve critical engineering challenges as its customers develop new generations of electrified applications.

### 3-in-1 E-Powertrain: Compact, Powerful, and Resource-Efficient (*First Public Showcase in China*)

Garrett's 3-in-1 E-Powertrain combines a high-speed electric motor, inverter, and reducer in a single, integrated package—delivering up to 40% reduction in size and weight compared to industry benchmarks. Key advantages include:

- Reduced use of rare earths and critical minerals, with no compromise on performance
- Improved packaging flexibility and extended driving range for EVs and space constraint REEV architectures
- Volume production readiness, including a partnership with SinoTruk to co-develop a next-generation heavy-duty E-powertrain, with start of production targeted latest 2027

### E-Cooling Compressor: Advanced Thermal Management (*First Public Showcase in China*)

Garrett's E-Cooling Compressor leverages high-speed centrifugal technology to deliver superior battery and cabin cooling—critical for EV efficient operation and safety. Its high performance, oil-free, lightweight design supports multiple applications:

- Thermal systems for electric trucks and buses
- Heat pumps for high performance electric passenger cars
- Validated through extensive customer testing, with over a dozen pre-development programs underway

### Fuel Cell Compressor: Supporting the Hydrogen Economy

Having started production of our Gen 3 line, Garrett now offers the broadest and most mature portfolio of Fuel Cell compressors, with best-in-class efficiency and proven field reliability. These systems provide:

- High reliability for harsh automotive duty cycles
- Scalable design to meet varying flow and pressure demands
- Integration flexibility across multiple fuel cell platforms

### Turbocharging: Enabling Cleaner Combustion and Hybrid Efficiency

While electrification accelerates, internal combustion remains vital. In 2024, 75% of China's 5.86 million vehicle exports were ICE-powered, and hybrid formats are growing rapidly.

By 2030, the market share in China of PHEV (Plug-in Hybrid Electric Vehicles) and REEV (Range-Extended Electric Vehicles) is expected to approach that of BEVs. The rapid growth of PHEV and REEV production in China, coupled with strong momentum in ICE exports, creates significant

opportunities for the adoption of Garrett's turbocharging technologies, driving cleaner transportation. Garrett addresses this demand with:

- Advanced turbochargers that boost power density and improve fuel efficiency in internal combustion engines (ICEs)
- Hybrid-optimized boosting solutions designed to maximize fuel economy in PHEV and REEV applications
- E-Boosting systems that enhance responsiveness while optimizing efficiency and reducing emissions in hybrid powertrains

### **Advancing motion**

By showcasing its latest innovations at Auto Shanghai 2025, Garrett reaffirms its commitment to cleaner, smarter propulsion across the spectrum of global mobility—from ICE and hybrid to full electric and hydrogen fuel cell systems.

For more information, visit Garrett at Auto Shanghai 2025: Hall 2.2 2BA056 and meet Garrett Motion's experts.

### **About Garrett Motion China**

Garrett established its presence in China in 1994 and was among the first global companies to introduce turbocharging technology into the country. Headquartered in Shanghai, Garrett has two world-class, advanced manufacturing facilities in Shanghai and Wuhan, as well as a R&D center. The company employs more than 1,000 people, including a China R&D team of over 200 specialists with end-to-end engineering and service capabilities. Garrett boasts lasting partnerships with more than 40 global and Chinese automakers. It offers a comprehensive portfolio of turbocharging technology for gasoline, diesel, natural gas, hybrid and zero emission technology for battery electric vehicles.

### **About Garrett Motion Inc.**

A differentiated technology leader, Garrett Motion has a 70-year history of innovation in the automotive sector (cars, trucks) and beyond (off-highway equipment, marine, power generators). Its expertise in turbocharging has enabled significant reductions in engine size, fuel consumption, and CO2 emissions. Garrett is expanding its positive impact by developing differentiated technology solutions for Zero Emission Vehicles, such as fuel cell compressors for hydrogen fuel cell vehicles, as well as electric propulsion and thermal management systems for battery electric vehicles. Garrett has five R&D centers, 13 manufacturing facilities and a team of more than 9,000 employees in more than 20 countries. Its mission is to enable the transportation industry to advance motion through unique, differentiated innovation. For more information, please visit [www.garrettmotion.com](http://www.garrettmotion.com).

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<https://www.garrettmotion.com/news/media/press-release/garrett-at-auto-shanghai-2025/>