Company

Hanon Systems is a one of only two global full-line automotive thermal solutions supplier in the world. Headquartered in Korea and with 39 manufacturing sites, four global technical centers in 19 countries across Asia, Europe, North America and South Asia, the company employs more than 15,500 people. In 2014, the company's global sales reached 5.4T KRW.

The European Technical Center (ETC) in Germany is one in a network of global development locations, each carrying a unique set of capabilities. ETC's on-site development capabilities are multi-faceted, from product development and R&D for components and systems, to vehicle integration, prototyping and vehicle, component and system testing. The R&D environment encourages out-of-the-box thinking and unites the engineers in bringing market relevant solutions to new challenges. Unique tools as well as a comprehensive and interconnected development toolset support our R&D endeavors and help see an idea through to a tangible end product.

Technology

Hanon Systems provides innovative solutions for eco-friendly and high-efficiency thermal management to bring value to customers and deliver occupant comfort. Products that address regulatory requirements and meet the needs of consumers in local markets include

- Heating, Ventilation and Air Conditioning
- Compressors
- Powertrain Cooling
- Fluid Transport
- Electric, Hybrid and Fuel Cell Vehicle Thermal Systems

Electric Compressor

For traditional internal combustion vehicles, the air conditioning compressor is driven by a belt connected to the engine; therefore, it can only operate when the engine is running. Electric and hybrid vehicles operate under different conditions that preclude conventional compressor designs. For both "green" vehicle applications, Hanon Systems has developed an innovative solution – the electric compressor.

Hanon Systems' state-of-the-art design includes an efficient scroll compressor controlled by an on-board electric motor and integrated power electronics. This modular approach allows the same basic packaging dimensions for the electric motor and power electronics to be designed for different DC bus voltage levels, ranging from 48V up to 500V applications.

The electric compressor operates independently, enabling the cabin to be cooled even when the engine is off. Its compact design fits within the traditional belt-driven compressor package space, minimizing vehicle complexity in platforms that offer hybrid-electric model variants.