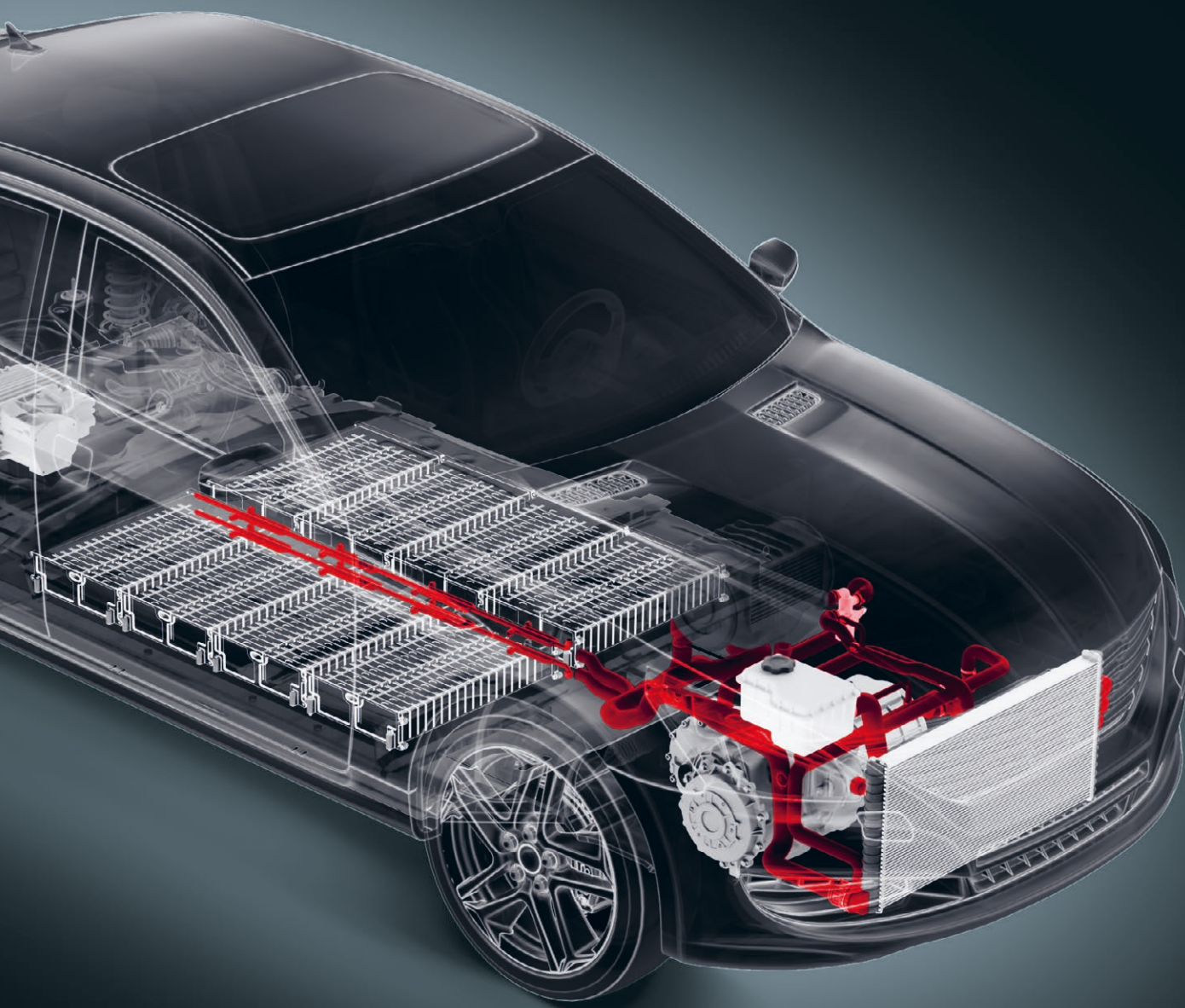




# HENN

Member of HENN Connector Group

**HENN**  
**Connectors**  
**for thermal**  
**management.**



# Connecting today with tomorrow.

HENN stands as the foremost supplier of connectors catering to air and fluid systems. Our top-notch products find placement in a majority of vehicles, with hundreds of millions of our connectors in active use worldwide. Our extensive expertise serves as a guiding force for the automotive industry's transition towards sustainable mobility. Alongside our cutting-edge product offerings, which prioritize eco-friendly drive-trains, we offer an ideal customer solution for the dawn of a new era in mobility.



In new energy vehicles, the management of cooling and heating systems plays an enduringly vital role. Our new innovative polymer connection system meets the customer demands. Thanks to the flexible and modular design of our products, we are able to provide tailor-made solutions, which we combine with our comprehensive customer service, for creating a unique added value for our partners.



# Quality and variety.

Our new product lines impresses with the highest modularity and quality. With a wide range of nominal sizes and variations, we are able to meet any conceivable customer requirements. Tailored to Perfection.

## 01

### VARIABILITY YOU NEED

We emphasize with the highest degree of variability and flexibility. Our products are available in a unique range of variants and materials, allowing them to be precisely tailored to your individual requirements.

## 02

### FIT & FORGET

HENN stands for quality and safety. Our c can be installed quickly and effortlessly. With our innovative plug-in system, we provide real added value for our customers – in the spirit of ‘fit & forget’ and all while maintaining the highest cost-effectiveness.



HC.fluid F

HC.fluid M

# Product compatibility. One fits all.

Our innovative modular system enables countless combinations. You have the choice of materials and design according to your preferences.



Various connector heads fit onto the same connector body, resulting in cost-effectiveness and high availability.

## 03

### ONE-STOP SYSTEM

With our holistic approach, we take responsibility for your connections. We provide comprehensive solutions and ensure secure connection-points throughout the process.

## 04

### 100% TRACEABILITY

All HENN products are 100% traceable to ensure the highest quality throughout the entire process and supply chain.





# Modularity you desire. Head orientation.

The connector can be aligned by 45 degrees at a time in 8 different orientations. This provides significant advantages during assembly, as it can be optimally installed even in tight spaces.

## 05

### LOW INSERTION FORCE

Our products set the benchmark for low insertion force, enabling effortless assembly. This ensures not only easy handling but also exceptional ergonomic performance.

## 06

### QUALITY MEETS COST-EFFECTIVENESS

Our products are manufactured and assembled entirely through automation. This offers significant advantages in terms of cost-effectiveness, speed, and error-free production. The fully automated manufacturing ensures consistent quality and enables us to meet your requirements, efficiently and precisely.

# Modularity you desire. Add ons.



Our aim is to craft products that truly enhance your experience. Leveraging our modular system, we provide a diverse range of add-ons and materials, including recycled options, allowing us to tailor our products to your specific needs.

## 07

### ENHANCING YOUR VALUE

Our products can be equipped with a range of sensors, valves, throttles and customized to meet specific customer requirements.

## 08

### SUSTAINABILITY

HENNamid is our environmentally friendly material, made from recycled industrial waste. It reduces CO<sub>2</sub> emissions by 80% without compromising on quality. Choose HENNamid for resource-saving, eco-friendly products — and shape a sustainable future with us.



**Flow,  
that's  
optimized.**

**UP TO 60 %**

Pressure loss reduction compared  
to basic VDA connector.

09

## **PRESSURE LOSS REDUCTION**

Experience optimal performance with our cutting-edge solutions. Our innovative design maximizes the efficiency of your system, delivering not only peak performance but also cost-effective and sustainable solutions tailored to meet your unique needs.



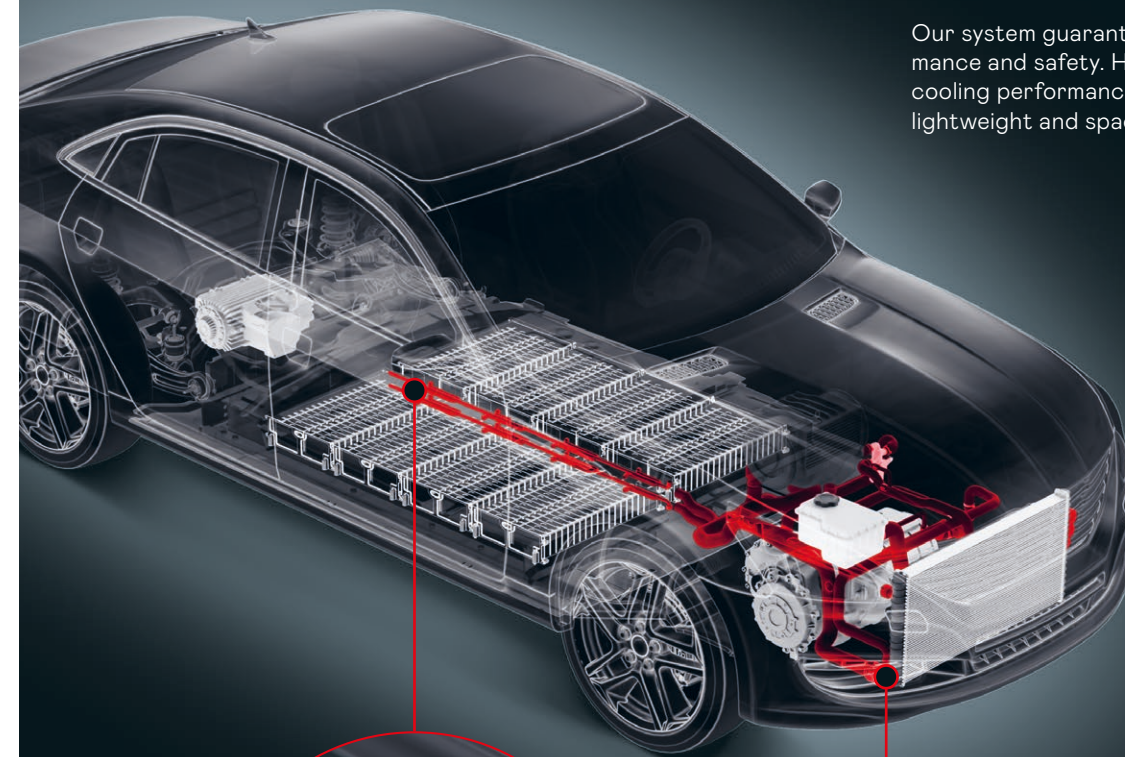
# Perfect solutions for new energy vehicles.

In vehicles the cooling management system plays a crucial role. HENN offers the perfect solutions for this:

Together with you, our global team of experts integrates lines and components with connectors and connectors into comprehensive solutions. These, combined with our customer service and modular system, constitute our unique added value.

## UNLIMITED POSSIBILITIES EXPLORE OUR INNOVATIVE MODULAR SYSTEM

Our system guarantees the highest technical performance and safety. High flow capacity ensures reliable cooling performance while maintaining a simultaneously lightweight and space-saving design.



Advanced quick connector

HC.fluid F




This cutting-edge connector generation boasts a modular design catering to a wide array of applications, adaptable to various geometries and requirements. The advanced design, without a spring clip, ensures the lowest insertion forces for seamless connectivity. The compact product design makes this connector an adaptable solution for applications in thermal management and beyond. Experience the flexibility and innovation that our connectors bring to your projects.

ADVANTAGES

- Lowest insertion force
- Highest flexibility due to modular system with multiple adaptations
  - Functional extensions possible like sensors, throttling, check-valves and more outlets
  - Various material options available
  - Customized tube connectors and bow design
- Resettable locking detection (360° axial unlocking mechanism – independent of head rotation)
- 100 % traceability
- Flexible head orientation for VDA by 45°
- Tool-free assembly and dissassembly
- Adaptability for anti-rotation feature
- Chemical robustness (Ion leaching)

TECHNICAL DATA

MATERIAL		TEMPERATURE	
Connector body	PA66 GF30   PP GF30   PA12 GF30	EPDM	- 20 – 135 °C (150 °C, 22 h)
Connector head	PA6 GF30	LSR	- 40 – 135 °C (150 °C, 22 h)
Sealing element	LSR   EPDM	PRESSURE	
		Absolute	0.01 – 6 bar (0.15 – 87 psi)

	VDA	6 mm		8 mm		12 mm		14a mm		16 mm		20 mm		
	SAE	5/16"		3/8"		7/16"		12 mm		1/2"		5/8"		3/4"



Compact modular quick connector

HC.fluid M



Unlock versatility with our quick connector, the modular plug-in solution designed for seamless integration. Its compact design ensures easy installation even in confined spaces. With a unique design that keeps the connector head isolated from the medium, this connector provides exceptional performance. One connector head is all you need for all variants of a nominal size, enabling cost-optimized production.

ADVANTAGES

- Highest flexibility due to modular system with multiple adaptations
  - Various material options available
  - Customized tube connectors and bow design
  - Functional extensions possible like sensors, throttling, check-valves and more outlets
- Low insertion force
- Anti-rotation feature
- Flexible head orientation by 45°
- High sealing performance
- 100 % traceability
- Compact Design
- Chemical robustness (Ion leaching)

TECHNICAL DATA

MATERIAL		TEMPERATURE	
Connector body	PA66 GF30   PP GF30	EPDM	- 20 – 135 °C (150 °C, 22 h)
Connector head	PA6 GF	LSR	- 40 – 135 °C (150 °C, 22 h)
Sealing element	LSR	PRESSURE	
Spring clip	Stainless steel	Absolute	0.01 – 6 bar (0.15 – 87 psi)

	6 mm	8 mm	12 mm	14a mm	16 mm	18 mm	20 mm	26 mm	32 mm	35 mm	40 mm	45 mm	50 mm
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HC.FLUID F – VARIANTS

VDA



SAE



HC.FLUID M – VARIANTS

VDA



HC.FLUID M & HC.FLUID F

HOSE PLUG-IN VARIANTS



MODULARITY – DESIGN EXAMPLES



SPACE OPTIMIZED



All these variations can be combined in any way you prefer.  
Do you have additional requests? Together with our expert team, we'll find the solution for you.

Cooling Ports

HC.port

The HENN HC.port, a VDA and SAE standard spigot, redefines assembly ease, press fit with glue, or weld effortlessly. Crafted through efficient deep-drawing from quality metal sheets, it requires no post-treatment machining. Ideal for thermal management, it seamlessly fits into aluminum die-cast housings through a simple pressing process.

The innovative HENN HC.port HYBRID features an extra welding flange, supporting diverse processes like laser welding for enhanced adaptability. With a unique blend of aluminum and plastic anti-rotation features, this design ensures a perfect fit, extending its applications across industries. Choose HENN HC.port for state-of-the-art efficiency in integration solutions.


ADVANTAGES

- Customized design
- Low insertion force due to high surface finish
- High destructive pull-off
- Both-sided rotation lock

CONNECTION TECHNOLOGIES

- Press-In/Glue
- Welding (laser-welding)
- Crimping
- Screwing

TECHNICAL DATA

MATERIAL		TEMPERATURE					
Spigot	Aluminium	limited by the type of joint (sealant/adhesive/welding used)					
	Aluminium + Polyamide						
	Stainless steel						
	Hot-dip-galvanized steel						
COOLANT		PRESSURE					
All prevalent coolants approved		Absolute		0.01 – 6 bar (0.15 – 87 psi)			
	12 mm	14a mm	16 mm	18 mm	20 mm	22a mm	26 mm



Quick connector for cooling water

HC.water



Unlock reliability with our HC.water quick connector, a VDA connector element designed for cooling water hose and pipe connections. This connector impresses with its ruggedness, high strength, convincing safety aspects and reliable quality. It replaced conventional quick pipe connections in most vehicles long ago. To ensure an optimal seal, a lip seal ring with dirt wiper is used. This dirt wiper also ensures that minimal installation force is required for connector to the corresponding spigot. It is produced with high efficiency from a single part in a fully automated and 100% monitored production process.

The connection between the hose or pipe and HC.water is made with the tried-and-tested HENN assembly system.

ADVANTAGES

- 100 % traceability
- Minimal assembly and disassembly force
- Excellent corrosion-resistance properties
- Compact design
- Low system and process costs
- Low weight
- Anti-rotation feature
- Secondary lock

TECHNICAL DATA

MATERIAL		TEMPERATURE	
Connector body	Hot-dip-galvanized steel	LSR	-40 – 135 °C (150 °C, 22 h)
Sealing ring	LSR   EPDM	Ambient temperature motor	max. 130 °C
Spring clip	Stainless steel	PRESSURE	
Spring clip cover	Polyamide	Absolute	0.01 – 6 bar (0.15 – 87 psi)

	12 mm	14 mm	16 mm	20 mm	26 mm	32 mm	35 mm
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Pipe spigot for HC.water

# HC.water pipe spigot



Unlock top performance with our HC.water pipe spigot, specifically designed for coolant applications. Thanks to its excellent surface finish, the HC.water pipe spigot is perfect for quick connectors. The spigot is made of galvanized steel and is rugged, stable, coolant resistant and features excellent corrosion-resistance properties. Due to its ruggedness, low assembly force and optimal quality, it replaces conventional clamp connections.

ADVANTAGES

- Low system and process costs
- Low weight
- High surface quality
- Anti-rotation feature

TECHNICAL DATA

MATERIAL		TEMPERATURE	
Stub	Hot-dip-galvanized steel	LSR	-40 – 135 °C (150 °C, 22 h)
Rotation lock	Polyamide	PRESSURE	
Sealing element	EPDM	Absolute	0.01 – 6 bar (0.15 – 87 psi)

	12 mm	14 mm	16 mm	20 mm	26 mm	32 mm	35 mm	40 mm
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# Connected worldwide

● **Headquarters**  
Austria

● **Production sites**  
Mexico, Germany, India, China

○ **Sales locations**  
Mexico, USA, Brasil, France, Germany,  
India, China, South Korea, Japan

**HENN** connector  
group

**HENN** connectors

**HENN** gineered

**HENN**  
Member of **HENN** Connector Group

**EISELE**  
Member of **HENN** Connector Group

Two business segments, one mission: Innovative connection systems and comprehensive product realization.

What drives us? Our mission to create greatness through connections. With progressive technology, outstanding quality, excellent customer service, and a shared goal: Strong connections. Big impact.

HENNconnectors represents cutting-edge high-tech connection systems. As a top global player, we develop highly innovative, smart connectors for fluids, air, and gases made of metal and plastic for clients from various industries worldwide.

HENNngineered brings your ideas to life. Our range of services includes support in product development, prototype manufacturing, and production in small or large quantities.



HENN.AT  
#HENNTASTIC

# HENN

Member of HENN Connector Group

## HENN GMBH & CO KG

Steinebach 21  
6850 Dornbirn  
Austria  
+43 5572 3834 0  
[inquiry.dornbirn@henn-group.com](mailto:inquiry.dornbirn@henn-group.com)

## SALES AGENTS

### GERMANY

+43 664 342 63 10  
[valentino.andric@henn-group.com](mailto:valentino.andric@henn-group.com)

### FRANCE

+33 141 386819  
[dib.alameh@henn-group.com](mailto:dib.alameh@henn-group.com)

### INDIA

+91 9560 807 939  
[sharath.sreekumar@henn-group.com](mailto:sharath.sreekumar@henn-group.com)

### BRASIL

+55 11 4121-2629  
[orli.larsen@henn-group.com](mailto:orli.larsen@henn-group.com)

### JAPAN

+81 50 3681 6576  
[ken.kasahara@henn-group.com](mailto:ken.kasahara@henn-group.com)

### USA

+1 734 516 3017  
[richard.graham@henn-group.com](mailto:richard.graham@henn-group.com)

### MEXICO

+1 734 516 3017  
[richard.graham@henn-group.com](mailto:richard.graham@henn-group.com)

### CHINA

+86 15800572739  
[andrew.liu@henn-group.com](mailto:andrew.liu@henn-group.com)

### KOREA

+82 2 2097 8209  
[eunsung.kim@henn-group.com](mailto:eunsung.kim@henn-group.com)