



PRESS RELEASE

HYJOIN and Konzelmann present an innovative direct joining process for the KBerstring and metal in battery systems

HYJOIN and Konzelmann combine joining technology and application expertise to bond thermoplastics directly to metal. The combination of the hyJOIN® bonding technology from HYJOIN and Konzelmann's KBerstring opens up new possibilities for the safe, efficient and sustainable integration of components into battery systems. The joint is designed for dynamic applications with varying forces and can be released again if required, without damaging the metal component. HYJOIN and Konzelmann will provide insights into the technology from September 15 to 20, 2026, at the IAA TRANSPORTATION in Hanover (Germany), hall 19/20, booth D50.

Munich, Germany, September 01, 2026 – Integrating components into battery systems places high demands on durability, efficiency and safety. This is precisely where the joint solution from HYJOIN and Konzelmann comes into play: by combining the hyJOIN® bonding technology from HYJOIN with Konzelmann's KBerstring, a new solution is created for the direct, high-strength bonding of plastic and metal without additional fasteners. In doing so, the companies are opening up new possibilities for safe, efficient and sustainable battery systems.

hyJOIN®: Direct thermal joining in a few seconds

As the technology partner, HYJOIN provides the joining technology that allows thermoplastics to be bonded to metal without additional fasteners. First, the metal surface is prepared. The components are then positioned and joined using inductive heating. The plastic melts at the contact surface and bonds with the prepared metal surface. Once cooled, the joint is highly durable and can be subjected to loads immediately.

"The direct joining of metal and thermoplastic is exactly the kind of process we develop into robust, certifiable series solutions," says Jakob Wäschenbach, CEO and Founder of hyjoin GmbH. "Together with Konzelmann, we show what that means in practice: fewer parts, fewer process steps, and a joint that is immediately load-bearing and, if needed, reversible. That is industrialization, not a lab demo."

Direct joining of plastic and metal

Konzelmann's KBerstring is a key component for the safety of electric vehicles. Its integrated diaphragm technology serves both to equalize pressure and to provide emergency venting for lithium-ion batteries, helping to prevent the battery from overheating. Until now, the KBerstring was attached to the battery's metal housing using additional elements such as screws, clips or adhesives. The new solution reduces the number of fasteners and process steps, enabling more resource-efficient production for the customer. While offering higher load-bearing capacity, the existing design is simplified and space is saved. In addition, the direct connection creates new possibilities for further applications in the production of lithium-ion batteries. Furthermore, the process can potentially be used in all applications where plastic components need to be joined to metal with high resistance.

"Each individual process step takes only a few seconds," explains Dr. André Konzelmann, Chief Executive Officer of Konzelmann GmbH. "This makes the process suitable not only for attaching the KBerstring to the metal casing of electric vehicle batteries, but also for automated assembly processes in industrial settings. An added bonus is that we also enable fluid-tight connections, opening the door to a wide range of applications."

Rugged connection even for demanding applications

The process meets the requirements of customers in the electric mobility sector: battery connectors are subjected to high dynamic loads during operation. A connector is not only subjected to the forces of the component itself; connected hoses and cables can also transmit motion and vibration. Thanks to the process's efficiency and high load-bearing capacity, this joining technology is significantly superior to conventional connection solutions. Another advantage is its reversibility: the KBerstring can be detached from the metal component through brief inductive heating and can then be replaced. The metal component remains intact during this process. When a new plastic component is used, a comparable initial strength is subsequently restored.

Meet HYJOIN and Konzelmann at IAA TRANSPORTATION 2026

Learn more about the combination of the hyJOIN® bonding technology and the Konzelmann KBerstring from September 15 to 20, 2026, at IAA TRANSPORTATION in Hanover (Germany) at the Konzelmann booth (hall 19/20, booth D50). A special highlight is the press conference "Konzelmann Inside" on Monday, September 14, from 2:00 p.m. to 2:20 p.m. at the Konzelmann booth (D50 / hall 19/20). If you are interested in attending the press conference, please contact the press representative.

Trademark information: hyJOIN is a registered trademark of HYJOIN GmbH. KBerstring is a registered trademark of Konzelmann GmbH.

Press photo (preview)



Caption: The Konzelmann KBerstring is directly and securely attached to the metal casing of a lithium-ion battery using the hyJOIN® joining technology. Photo: Konzelmann GmbH.

For the downloadable image write us to hy-solutions@hy-join.com

The image provided with this press release may only be used in connection with reporting on Konzelmann, citing "Photo: Konzelmann GmbH."

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About HYJOIN

hyJOIN® technology stems from a Fraunhofer innovation that was further developed by the SME Kist+Escherich. With the founding of hyjoin GmbH, HYJOIN combines decades of excellence in mechanical engineering with startup agility – enabling professional structures, international expansion and access to new industries. The product portfolio ranges from hyJOIN® technology to machine and plant solutions based on it, all the way to high-quality processes for industrial applications. The focus is on industrialization: HYJOIN develops technologies into robust, certifiable solutions and supports their rollout in demanding applications – particularly in automotive and medical technologies. More information: www.hy-join.com

About Konzelmann

For more than 60 years, Konzelmann GmbH has stood for innovations made of plastics. The family-run company is headquartered in Löchgau, Germany, and has an office in Detroit, USA. Konzelmann develops polymeric components and systems for friction optimization and emission reduction. Its customers are major OEMs and Tier 1 suppliers in the automotive, medical and industrial sectors. Further information: <https://www.konzelmann.com/en/>