

# Flow drilling rivet technology

As automotive industry focuses its design on light weight hybrid material including carbon fibre, it challenges the joining technologies with these advancements.

To fulfil this gap and meet industry challenges, GESIPA® strengthens its capabilities as an expert in riveting technologies with its latest innovation; the Flow Drilling Rivet Technology - FDR® and Soft Grip®, blind rivet nut for sensitive and lightweight applications.

FDR® is a riveting technology by GESIPA® that combines the mechanical joining technology of flow drilling a hole and riveting an application in a single step.

Whilst preserving the classic benefits of blind riveting technology such as one-sided processing and high-quality, durable connections, FDR® also removes the possibility of incorrect alignment and bore hole tolerances in the application thereby giving a secure joint. The specially designed rivet head, rotation and joining force enables the new blind rivet to pierce light metals as well as plastics. Proven GESIPA® technologies such as the jaws system or process monitoring have been integrated into the development of the automated processing tool. This brings together both functionality and reliability saving cost and time in the application process.

This technology provides many solutions for the joining of different materials for example, a material mix of high-strength steel, light metal as well as carbon fiber materials. The new Soft Grip® blind rivet nut for sensitive material applications is a further development of the tried-and-tested PolyGrip® multi-range blind rivet nut. It combines the advantages of covering large clamping areas and reduced stress on the components by means of controlled deformation during processing.

The GESIPA® Soft Grip® blind rivet nut enables threads to be produced in sensitive and very soft materials such as plastic components, lightweight panels, etc.,



without producing too much bearing stress and contact pressure in the components. Component damage such as crushing, cracking, stress-whitening in plastics, etc. is therefore effectively avoided.

Furthermore, with its latest multi-window process control technology, WinTech, GESIPA® is now able to guarantee that the right rivet nuts and nut studs are placed in the right place and in the right quantity in safety critical applications.

SFS Group Fastening Technology Ltd., Division Riveting (GESIPA®), is the worldwide leading producer, innovator and distributor of blind rivet technology in the automotive, commercial vehicle, white goods, construction and various other industries. A member of the SFS group of Switzerland, GESIPA® benefits from being part of the global group but also enjoys the freedom of serving the market from its production site based in Keighley, West Yorkshire.

GESIPA®'s products can be installed by simple hand tools through the fully integrated system and can also provide full process control for a zero defect solution. The company successfully made its mark in the fastening sector by meeting and exceeding



the demanding requirements of its national and international customers. This continues to be achieved through highly experienced and innovative employees, continuous investment in top quality machinery, continuous improvement processes and vigorous quality and testing methods to satisfy its customer requirements – both technically as well as commercially and provide them with substantial cost and time saving solutions.

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