

**Effective  
Programme**



**Experience  
the Difference!**

## Fasteners with system

*In RIVTEX Arnold Umformtechnik and Arnold & Shinjo are offering a clinch system solution – the system concept cuts costs while assuring every quality requirement – subsidiary Arnold & Shinjo supplies the tool and process technology.*

**(Forchtenberg) Ever smaller – ever thinner – ever more cost effective! The trend is unstoppable even in the steel processing industry. The requirements placed on modern fasteners are increasing – and not just in high tech industries such as the automotive industry. Manufacturers of white goods equipment, such as washing machines and dishwashers, are also faced with the balancing act between cost and quality, and are constantly on the lookout for new solutions. In doing so, it is important to have a selection of reliable and economical fasteners, because it is no longer possible to reduce costs in the actual parts alone.**

Major reductions in costs can only be made throughout the entire process chain. If the cost of the part can be reduced by 20 percent, the average reduction in production costs is around 2 percent. However if we bring the overall system costs into the calculation, a demonstrable cost-saving potential of up to 80 percent can be achieved in fastening technology.

### **System solution instead of a single concept**

Arnold Umformtechnik GmbH & Co. KG, developers of specialist high-grade fasteners, perceived this trend at an early stage. For some years Arnold has been



developing system solutions based on well-founded studies, rather than the more traditional way of looking at each individual product. It was with this in mind that Arnold Umformtechnik set up its subsidiary company, Arnold & Shinjo GmbH & Co. KG, for the purpose of developing and – alongside its parent company – supplying system technologies. As early as the tool planning, design and implementation stage of sheet metal production, Arnold & Shinjo offers advice and support, supplying the corresponding tool technology.

In marketing its RIVTEX clinch fasteners, the company is pursuing this proven methodology. It offers a package stud/nut solution including a process technology tailored especially to the advantages of the product.

### **RIVTEX – proven even in thin metals**

The RIVTEX range consists of clinch studs and self-piercing nuts and can be processed automatically in order to respond to the requirements that arise with steel and aluminium sheets less than 1 millimetre thick. RIVTEX fasteners cannot fall out because they are pressed firmly into the sheet metal component. With their high bonding

range, RIVTEX fasteners are extremely stable against press out forces and torque, and so the fastening is very secure. The result is a ready-to-fit, high-quality sheet metal component.

RIVTEX fasteners replace welding and the associated environmental damage. The surface structure around the fastening is protected; there is no welding spatter, so no need for any additional operation. The corrosion problems that arise due to the 90 per cent zinc ratio in sheet steel welding can be excluded by using the RIVTEX alternative.

### **System supplier interface**

The greatest savings that can be made using RIVTEX fasteners is represented in the “assembly time” factor. It is crucial to look at the overall picture when assessing savings potentials – as early as the planning stage when the process steps are established. This is where Arnold & Shinjo comes in. The system supplier within the Arnold Group supplies the appropriate tool and process technology. Because of the safety-critical specifications of the automotive industry, the requirements profile placed on system suppliers is extremely high. The basic tools must be scaled and must possess the required process capability. Despite their compact construction, the tools are flexible and can be used in every direction of the process. They are very reliable and keep the system down-time to around zero. Unlike welded screws and welded nuts, these fasteners can be applied at the same time as the sheet steel is stamped and pressed. Arnold & Shinjo supply standardised tool and feed technology, allowing several fasteners to be emplaced in a single stroke. RIVTEX faste-

