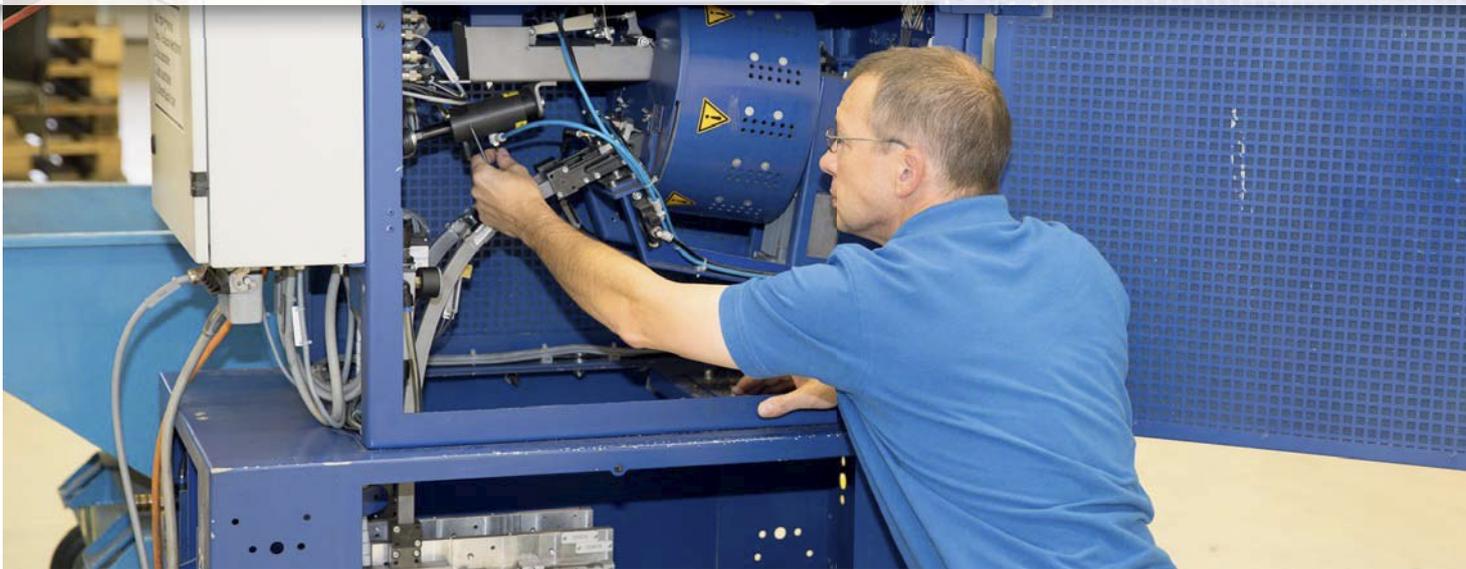


## Providing fastening solutions for customers within the overall context



As a general rule, a combination of expertise represents better service for customers, and more straightforward processes for the company. A supplier of fasteners and a supplier of automation solutions point out the advantages.

### System technology over the entire process

Depending on customers' requirements we develop and supply the fasteners themselves, as well as the perfect fastening technology to fit them, which we then implement for the customer as a total solution.

Picture: ARNOLD Umformtechnik

The merger of ARNOLD UMFORMTECHNIK and ARNOLD & SHINJO into ARNOLD UMFORMTECHNIK GmbH & Co. KG, combines skills and expertise, thus providing a wider range of services as well as ensuring increased capacity for international trading.

With the integration of ARNOLD & SHINJO into the global ARNOLD World, the "new" company - under the umbrella of BlueFastening Systems - is now able to supply fastening solutions alongside the automation technology. These are

precisely the same services and solutions that the two separate companies within the ARNOLD Group had already been supplying. "It means that now ARNOLD UMFORMTECHNIK is not simply a supplier of formed parts and fasteners, but, with ARNOLD & SHINJO integrated into the company, it is also a systems supplier," said Uwe Wolfarth. He was previously Sales and Marketing manager at ARNOLD & SHINJO and in the newly structured company, now heads the Research and Development section. The new structure brings with it many

benefits for customers. "Now, the new Arnold can do lots more. And it's also important for our customers: Whichever door they use to find us, they will always find the right person to talk to," said Wolfarth as he underlined the advantages.

### Enhanced services package for customers

So it's a whole lot easier for customers. They only need to deal with one company, but now it is a company with a vastly expanded portfolio.



Picture: ARNOLD Umformtechnik

“With the merger coming into effect at the beginning of 2017, system technology has become a part of the complete sales and marketing portfolio. It means that ARNOLD Umformtechnik can now supply automation to its customers. Because we now offer a complete package, it's not so easy to find a similar supplier on the market.”

Uwe Wolfarth, Head of Research and Development,  
ARNOLD Umformtechnik GmbH & Co. KG

And things will be simplified for the company internally as well: a global presence, the same accounting period, one IT system, a common database and supplier monitoring system. Uwe Wolfarth is certain that the expense will be justified in the long-term. He said: "With the merger that came into effect at the beginning of 2017, system technology is now a part of the full sales and marketing portfolio. It means that ARNOLD Umformtechnik can now supply automation to its customers. Because we now offer a complete package, it's not so easy to find a similar supplier on the market."

### System technology and forming technology - two key skills united

One thing is certain: The expansion to the range of products and services now offers customers considerable added value, because one needs the other. "By system technology we understand all those necessary components needed to sort fasteners into their correct positions, separate them, and then feed them through the appropriate feeder channels to an assembly tool. This is done in such a way that the fastener in question can be punched, riveted or fitted into a component or assembly. This is often incorporated into an existing production process, but could

also be a stand-alone production unit," explained Wolfarth.

By implementing system technology the customer is in a position automatically to feed fasteners or other cold-formed parts, and - when integrated into the existing production process - process them completely automatically. That usually saves a later work operation and thus also money. According to Wolfarth, introducing fasteners directly into the manufacturing line in this way is usually much more process-reliable and manufacturing tolerances are tighter. Complete solutions are provided for use in stamping and pressing applications, in automated assembly, car body assembly, and at manual workstations. They are always system solutions, consisting of the nut and the self-clinching screw, and they are processed exclusively on their own system. They are distinctive for a high repeatability rate with very narrow tolerance ranges when the fasteners are fitted. The modular structure of the systems makes them robust and low on maintenance. The feed technology is connected to the tool via disconnectable hoses, and with its 'mobility' design can be deployed on different production installations. This reduces the amount of investment required and increases profitability.

### Adapting system technology to suit the customer

The modular component system on which system technology is based starts with a ram that is adapted to the fastener, and a die-plate. When these are combined into an existing press, the customer can process functional samples, pre-series parts or even short-run series. The next stage is a semi-automatic process in which either the fastener, or the workpiece, or both are manually fed. The degree of automation is generally stipulated by the numbers involved, and is adapted individually to the customer's needs for each project. The range starts with a simple manual workstation and extends to a fully automated system in which 32 items can be processed in one pressing stroke or - in stroke speed terms - more than 100 items per minute," said Wolfarth as he described the implementation options. .

### Finding the best system solution for every application

ARNOLD UMFORMTECHNIK has set out eight process steps to work out the most appropriate overall solution for inserting the fastener. The first is to carry out an initial analysis with the customer to design the fastening solution, and then to pinpoint a choice of suitable automation technologies for the particular application.

Next, the specifications are drawn up and a project schedule developed on the basis of the designs for the component and the tool. The next step is the engineering design for the feeder and processing technology according to the batch size - anything from manually inserted parts, through to full automation. Following on from the system configuration, we make an economic efficiency forecast, in which we define the achievable mechanical strength values for the joint as well as the achievable component output during series production. Further, the prototyping service that we offer produces close-to-series functional samples or pre-series parts in the

shortest possible time. After this, the processing technology is constructed at ARNOLD's assembly plant, including the test run, preliminary acceptance, and validation of mechanical values for the joint, as well as producing comprehensive project documentation. Assuming that this meets with success and all the required key data are in place, we then build the systems at the customer's production plant, including the integral control technology, and then proceed to commissioning and acceptance as per the functional specifications. And finally, ARNOLD UMFORMTECHNIK GmbH & Co. KG ensures consistently high system availability by training the plant and

repair technicians, and by selecting suitable maintenance contracts and spare parts packages. Having successfully completed numerous projects, particularly within the automotive industry, ARNOLD UMFORMTECHNIK GmbH & Co. KG has secured for itself a firm positioning in the supplier sector. Now, under the new umbrella, they have an expanded portfolio to offer the market.

**ARNOLD UMFORMTECHNIK GmbH & Co. KG**

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The Arnold Group is a wholly owned subsidiary of the Würth Group, which, with over 70,000 employees and with 400 companies in more than 80 countries, operates on a global basis with earnings of over 11 billion euros.