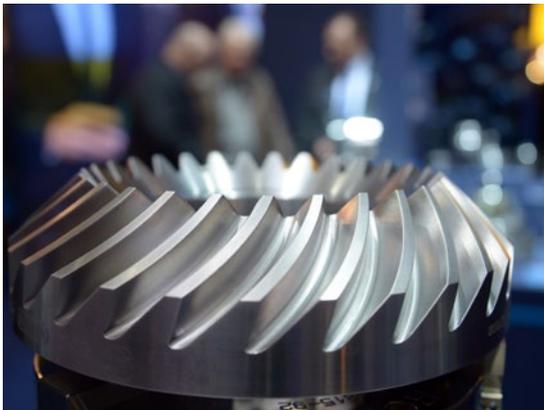


## Insights

### THERE IS NO PRODUCTION WITHOUT TOOLING

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**They give their customers real competitive advantages and are as solid as a rock. Even in times of crisis, precision tools remain stable in their economic development. Why that is and where the industry is heading in the future is the focus of VDMA Precision Tools Association.**

By Katrin Pudenz

One press tool forms 68 metal sheet parts for vehicles per minute, an injection mold tool produces 24,000 cannulas per hour and countless products are processed every year with cutting tools and clamping devices. Whether

cars, washing machines or artificial limbs: Without precision tools, these products would be inconceivable or unaffordable. Precision tools are used on machine tools in all areas of metalworking and in many areas of the production of plastic parts. The product spectrum covers cutting tools, clamping devices, press tools, dies, molds, standard parts, jigs and fixtures.

#### Intelligent tools are on trend

“It was only a few years ago that we asked ourselves how tools could become intelligent,” reminisces Alfred Graf Zedtwitz from the Precision Tools Association. “Today, we have intelligent overall solutions where the tools play a crucial role.” If, for example, the tool holder knows when the cutting edge is worn down and then automatically initiates a tool replacement, this relieves the machine operator and ensures more acceptable parts in a shorter time. Or if the tools themselves become a swarm of data collectors, the user gets better application recommendations on the basis of real experience. “Even cloud solutions which help customers to purchase the right tools and then to use those tools in production are already offered by tool manufacturers,” explains the expert.

#### Connecting systems for intelligent production

These and many other innovations will be presented at the manufacturer’s booths at the EMO in Hannover in September. At the “world’s leading trade fair for metalworking”, which takes place in Hannover from September 18 to 23, everything is geared towards “connecting systems for intelligent production.” Accordingly, the trend is strongly heading toward automation, digitalization and how the customer can benefit from this development in production. “The result of this development is the interlinked system, which in turn is a new challenge for the employees of the companies and for the companies themselves,” explains Zedtwitz. “The employees must be trained to become specialists, so that they can master these systems both on an organizational and technical level,” the VDMA expert says. Another challenge: There is a rising demand for such specialists on the market. This increases the competition for highly-qualified workers. “We need to keep an eye on these developments too, because they do not stop at the industry boundaries.”

From September 19 to 21, the [VDMA Forum](#) “Innovative Solutions for Industrie 4.0” will provide an overview on the opportunities for future metalworking with short presentations from the following areas: precision tools, length measuring technology, data exchange and research.

#### Industry profile

While machining tools are distinguished by their defined cutting edge (for example, a drill or cutter), clamping technology serves to fix the tool and the work piece to the machine. Die and mold making, on the hand, involves casting and forming technology, standard parts, jigs and fixtures.

According to Zedtwitz, companies within the precision tools industry are predominantly family run. “Around 80 percent of companies in the die and mold sector have less than 25 employees. Only around 2 percent of companies have more than 100 employees.” In the cutting tools and clamping areas, the situation is slightly different. “There, we see a significant number of companies with a workforce of more than 1,000 people.”

As a further characteristic of the German precision tool industry, Zedtwitz cites the fact that it mainly manufactures high-end tools and highly-specialized niche products. The sector is also very stable. “Even during times of crisis, precision tools have mostly developed well economically,” reports the expert, continuing: “This is also due to the branch’s composition. After all, toolmaking is mainly dependent on the innovation and product cycles of the customer industries, while machining tools and clamping devices are closely linked to the economy and production. If a lot is produced, many machining tools are reordered since they wear from use. On the other hand, new forming tools and molds are always required before a new product can be brought onto the market. This is independent of the amount that is actually produced.” Consequently, explains Zedtwitz, the two areas complement each other and absorb the fluctuations accordingly. The Precision Tools Association within VDMA has over 160 members. With a turnover of around 10 billion euros, this is one of the most profitable areas within the German engineering industry.

### **A long history**

The “ancestor” of the VDMA department, the Deutsche Präzisionswerkzeug-Verband (DVP), was founded in 1917 and will be 100 years old on July 30, 2017. In 1919, the DPV joined the “Verein Deutscher Maschinenbau-Anstalten” (VDMA). On November 10, 1949, the German manufacturers of precision tools rejoined the newly founded VDMA (September 4, 1949 with the Fachgemeinschaft Präzisionswerkzeuge (DPV). Today, the association operates under the name VDMA Precision Tools. ■

### **Further Information**

[VDMAimpulse](#) | [VDMA Precision Tools](#) | [EMO 2017](#) | [VDMAimpulse 04-2017: “Services: EMO 2017”](#)  
| [VDMAimpulse 01-2016: “Factories in Industrie 4.0 demand precision tools”](#)

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