

PRÄWEMA TOOLS

## **RELIABLE PROCESS YOU CAN COUNT ON**

Gear Cutting Tools with Highest Performance







# PRÄWEMA TOOLS

## High Output with Low Unit Costs

### PRÄWEMA ANTRIEBSTECHNIK GMBH

PRÄWEMA ANTRIEBSTECHNIK GMBH is a company located in Eschwege, in the northern Hesse region of Germany. They produce and develop machinery for the processing and manufacture of gears, with a focus on gearwheels, synchronizing parts, and shafts that ensure the correct torque in vehicle transmissions. The PRÄWEMA technology portfolio includes gear cutting methods such as gear shaving, gear honing, milling of keyways, and back-offs as well as spline milling.

PRÄWEMA has developed the technology of gear honing to a competitive market level, with the result that they are now the market and technology leader with 1000 machines sold. Around the world, the automotive industry relies on highly precise machine tools from PRÄWEMA.

### PRÄWEMA TOOLS

The expert team within PRÄWEMA Antriebstechnik is exclusively specialized in the development and production of gear cutting tools for honing and skiving machines as well as special machines within the DVS TECHNOLOGY GROUP.

In addition to gears, customer-specific tools – such as deburring or gear shaving tools – are also developed and manufactured.



**MULTI USE TOOLS**



**SHORT USE TOOLS**



**SHAFT TOOLS**



**SWIVEL TOOLS**



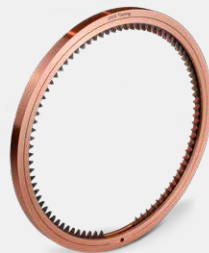
**INSERT TOOLS**



**DEBURRING AND  
SPECIAL TOOLS**



**HOLLOW / STEP-SHARPENED**



**VARIOSPEEDRESSERi®**



**VARIOSPEEDRESSER®\***

# Tools

## Compelling Variety

The tool is the interface between the machine and the workpiece. It is the criterion for ensuring process safety. High-quality tools provide consistent quality and reduce production fluctuations. This applies to both new and refurbished tools in original equipment manufacturer quality.

This is particularly true for gear shaving tools, which must achieve the highest gear quality through the rolling process.

PRÄWEMA TOOLS covers the entire technology process in-house, from analysis, design, manufacturing, coating and application technology, and thus guarantees a customer-oriented tool solution for all challenges.

### SKIVING TOOLS

- Conical and cylindrical versions
- PM-HSS & carbide
- Hard & soft cutting

*\*The VSD can be obtained from DVS Tooling; see page 5.*

**DEBURRING SOLUTIONS**

- Roll deburring
- Customized deburring solutions

**MORE TOOLS**

- VSDi (internal toothing)
- VSD (external gearing)  
dresses honing ring up to 80 times

The VSD technology for external honing developed by PRÄWEMA Antriebstechnik and manufactured in collaboration with DVS Tooling – also a sister company of the DVS TECHNOLOGY GROUP – can be obtained through DVS Tooling.



**Phone:** +49 2372 55 250  
**Mail:** [info@dvs-tooling.de](mailto:info@dvs-tooling.de)  
**Web:** [dvs-technoloy.com/dvs-tooling](https://dvs-technoloy.com/dvs-tooling)

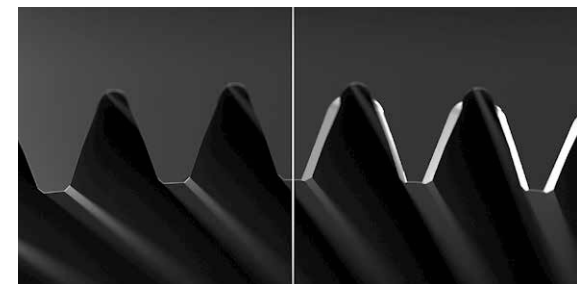
**NEW**

### Internal gear cutting and deburring in one process step.

The new, patented VarioChamfer process from PRÄWEMA allows for gear hobbing and deburring in just one clamping operation, resulting in significantly more efficiency in the manufacturing process. There is no need for removal and turning, and thus no further external solution is necessary.

With VarioChamfer, both planetary gear and hollow wheels can be toothed and deburred in one clamping.

VarioChamfer allows processes to be combined in a small space on the production line, which can save investment costs for an additional machine. All processing steps are carried out in-line in one machine. This is particularly important in the mass production of gearbox components. Thanks to VarioChamfer, for example, a planetary gear can be deburred in less than ten seconds.



*Comparison of deburring on the left without and on the right with VarioChamfer.*



## Flexibility through Competence

### Consulting and Development

- PRÄWEMA TOOLS stands for process analysis, development of original tools as well as manufacturing and coating
- Application engineers optimize your process
- Gear skiving tools are manufactured in modules 0.3 to 8
- High-performance tools made of carbide as well as PM-HSS

## YOUR ADVANTAGE

- Design of tools for subsequent machining tasks
- State-of-the-art machinery for the production of gear skiving tools, including in-house coating technology
- Individual tool solutions: disposable tools and exchangeable heads for small batch sizes to reduce investment costs
- Independent and local reconditioning service
- In-depth experience in application engineering
- Individual tool trials in the PRÄWEMA network

Thanks to the process chain, PRÄWEMA tools are optimally designed for subsequent hard finishing machining.

For this purpose, PRÄWEMA offers dressing tools for gear hard finishing VSD/VSDi ©, such as PRÄWEMA Powerhoning.

# Tool service

## Everything from a Single Source

Excellent service begins already with our initial conversation. Already during the process inquiry, PRÄWEMA TOOLS experts are involved in the project planning of the machine tool.

We offer the following services:

- Re-grinding service in original quality
- Speed ensures high tool availability: our service and logistics chain avoids machine downtime
- High flexibility in service to avoid dependencies
- Short-term tool reconditioning, worldwide
- Optional individual call-off contracts

Trust the leading skiving tool manufacturer – we produce more than 6,000 tools a year, making us the tool expert. Our service extends to the USA and China.

## Contact us:



**PRÄWEMA**  
**Antriebstechnik GmbH**  
Hessenring 4  
D-37269 Eschwege

Fon +49 (0) 56 51 8008-0  
Fax +49 (0) 56 51 12546  
[vertrieb@praewema.de](mailto:vertrieb@praewema.de)  
[dvs-technology.com/praewema-antriebstechnik](https://dvs-technology.com/praewema-antriebstechnik)

## Members of the DVS TECHNOLOGY GROUP

### DVS MACHINE



**BUDERUS Schleiftechnik GmbH** | [dvs-technology.com/buderus-schleiftechnik](https://dvs-technology.com/buderus-schleiftechnik)  
I.D. grinding – O.D. grinding – Bore honing – Hard turning



**PITTLER T&S GmbH** | [dvs-technology.com/pittler](https://dvs-technology.com/pittler)  
Vertical turning center and Pick systems – Gear cutting for complete machining



**PRÄWEMA Antriebstechnik GmbH** | [dvs-technology.com/praewema-antriebstechnik](https://dvs-technology.com/praewema-antriebstechnik)  
Gear honing – Gear grinding – Hobbing/Fly-cutting – Chamfering



**rbc robotics GmbH** | [dvs-technology.com/rbc-robotics](https://dvs-technology.com/rbc-robotics)  
Camera-guided robot automation systems

### DVS INTERNATIONAL SALES & SERVICE



**DVS Technology America, Inc.** | [dvs-technology.com](https://dvs-technology.com)  
DVS Sales & Service in USA, Canada & Mexico



**DVS Technology (Taicang) Co., Ltd.** | [dvs-technology.com](https://dvs-technology.com)  
DVS Sales & Service in China

### DVS SERVICES & TOOLS



**DVS TOOLING GmbH** | [dvs-technology.com/dvs-tooling](https://dvs-technology.com/dvs-tooling)  
Tool solutions and technology support for PRÄWEMA gear honing



**NAXOS-DISKUS Schleifmittelwerke GmbH** | [dvs-technology.com/naxos-diskus](https://dvs-technology.com/naxos-diskus)  
Conventional grinding tools – CBN and diamond tools



**Werkzeugmaschinenbau Ziegenhain GmbH** | [dvs-technology.com/wmz](https://dvs-technology.com/wmz)  
Motorspindles & Components



**DVS Service GmbH** | [dvs-technology.com/dvs-service](https://dvs-technology.com/dvs-service)  
Maintenance – Complete overhauls – Repairs



**DISKUS WERKE Schleiftechnik GmbH** | [diskus-werke.dvs-gruppe.com](https://diskus-werke.dvs-gruppe.com)  
Face grinding – Double face grinding – Special machining

### DVS PRODUCTION



**DVS Precision Components (Taicang) Co. Ltd.**  
Precision powertrain components in series production for passenger cars and trucks on DVS machines