

*Exklusive*  
AND MASS PRODUCED



PRECISION TURNED PARTS

 **FORSCHNER**

We know.



## PRECISE AND FLEXIBLE IN EVERY REGARD

Are you looking for precision turned parts that perform perfectly in the long term? And are you looking for a partner in machining who can take care of economically efficient mass production on multi-spindle machines just as easily as complex CNC turning operations? In that case, Forscher's Precision Turned Parts division is exactly the right choice for you. In every regard.

### PRODUCT OVERVIEW

The majority of our customers come from the automotive industry, and we fulfill their high requirements with a broad assortment of precision turned parts: from economically efficient small parts, shafts and housings to highly complex subassemblies.

### RANGE OF SERVICES

- Constructive consulting
- Prototypes and short runs –
- Focus on medium and large production runs
- On multi-spindle machines:
  - Ø 4 mm to Ø 35 mm
- On CNC machines: Ø 8 mm to Ø 65 mm
- CNC chucked components: Ø 10 mm to Ø 200 mm
- Componentry assembly
- Surface treatment





## Variable production in two plants

Ever since it was founded in 1948, Forscher has produced customized precision turned parts. Whether it's short or long turned parts, we process all conventional free machining steels and brass, and have a broad spectrum of part diameters. Our machine park also covers every conceivable requirement.



### Mahlstetten plant, Germany

The plant in Mahlstetten was acquired in 1998 – and it provides over 60 employees with safe jobs to this day. This is where to find all the Forscher machines and lines for CNC turning technology – and it's also where numerous central activities take place, such as purchasing or administration. Proximity to the cross-divisional Forscher headquarters in Spaichingen means that decision-making processes remain short.

### Otrokovice plant, Czech Republic

At its site in Otrokovice in the Czech Republic, Forscher's production is primarily for large series and features unique economic efficiency. A machine park broadly stocked with multi-spindle technology ensures optimal conditions where efficiency and delivery reliability are concerned. Around 60 employees work in Otrokovice – and it also has its own storage facilities and quality assurance. The plant was also founded in 1999. The combination of core competencies at each site – CNC turning technology in Mahlstetten and multi-spindle technology in Otrokovice – often results in considerable cost benefits, especially where multi-layered turning operations are concerned.



Jörg Krieger (Dipl.-Ing., FH),  
Dr. Gert Forscher and  
Dietmar Geiger run the  
family-owned company.

### The Forscher Company

With 2,000 employees and numerous international locations, Forscher offers you far more than just precision turned parts. Our portfolio is further enhanced by our Cabling Systems and Electro-mechanical Systems divisions. Our own developments FOR-hybrid, FOR-blue – and our development support FOR-tech – also testify to our creativity and innovative strength.

Each precision turned part manufactured by Forschner reflects our joint ambition: High precision.



# YOU CAN RELY ON US



## Constructive consulting

By dealing intensively with design and production technology requirements, we can tailor production processes precisely. This guarantees uniform quality, reduces throughput times and sometimes even saves a processing stage. Even a reduction in the weight of the turned component can result from this – due to a clear decision to solve a processing task with drilling rather than milling. The experts at Forschner have far-reaching expertise here, especially where complex precision components are concerned.



## Reliable quality

Batch sizes of one million items or more each year demand quality that is uncompromising. Here too, Forschner is well positioned – thanks to high-quality and reliable production machines that work efficiently regardless of batch sizes or interval length. Our quality assurance is also state-of-the-art. From the leak testing line and 3D measuring machines to SPC testing, innovative technologies enhance our employees' trained eyes and superior know-how. The same high quality standards apply at all our sites with regard to deadlines, amounts, tolerances and surfaces. Reproducibility is guaranteed even after years, thanks to transparent documentation.



## Far reaching certification

All Forschner sites are certified to the following norms. Follow-up audits are a matter of course.

- DIN ISO 9001
- ISO TS 16949
- VDA 6.1
- UL certification

Our Cabling Systems division has also been certified with the environmental management audit ISO 14001.

### Some of our successes

Pushrods in pistons, shafts, bearing journals, or housings for infotainment systems: examples of Forscher precision technology are especially numerous and widespread in the automotive industry, and are used in leading international carmakers' passenger and utility vehicles. And also by Forscher in-house, like the SAE connectors used by the Cabling Systems division. Numerous companies from other branches of industry rely on Forscher too.

The following product examples show how we can realize complex turning operations and refinishing work for you – precisely, quickly and economically.



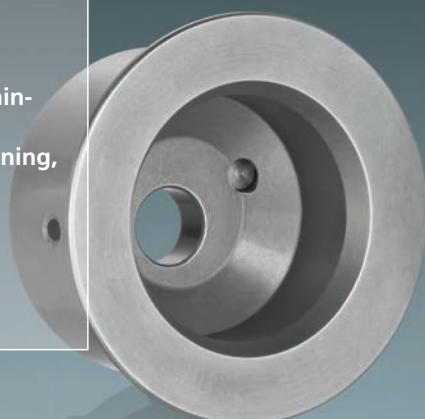
### ANCHOR GUIDE

- For electrical vehicle damping
- Manufactured on multi-spindle and CNC automatic lathes
- Integrated welding rod
- Bore holes and threads in a downstream process



### BEARING JOURNAL

- For chain sprocket bearings in car engines
- Combination of various machining and surface treatment methods: turning, case hardening, grinding, laser marking
- Assembly of the pins as a complete subassembly
- Large quantities of ca. 300,000 parts per annum







## ► BETTER PROCESSES

Beyti Baran, General Manager of the Forscher site for precision turned parts in Mahlstetten

# A RELIABLE PARTNER, WIDELY APPRECIATED

## We know...

... how we can tap all existing potential with intelligent production concepts where turned parts are concerned.

## YOUR BENEFITS

- Multi-spindle and CNC turning technology from a single source
- Rapid realization – from prototyping to mass production
- High flexibility thanks to two sites
- Maximum economic efficiency due to cost-optimized production
- Mastery of highly complex turning operations
- State-of-the-art, powerful machine park
- Far-reaching quality assurance – including SPC testing and much more
- Broad range of surface treatments – plus control of further subcontractors in the production combine
- Solid expertise in all automotive applications

## OUR REFERENCES

- Audi
- Continental
- Daimler
- Mahle
- Volkswagen
- Wabco
- Winkelmann
- ZF





**BETTER RESULTS**

## OUR MACHINE PARK WILL EXCEED YOUR EXPECTATIONS

Our production plants for precision turned parts in Germany and the Czech Republic have both been in existence for about 15 years. The machine parks have been constantly state-of-the-art. As recently as 2010 we were able to almost double the number of machines and lines. Since 2011 we have extended our production spectrum even further with four more long turning centers and two spindle twin-turret machines. While Forschner in Mahlstetten looks after everything related to CNC turning technology, the site in Otrokovice in the Czech Republic takes care of economically efficient multi-spindle turning technology.



### SITE MAHLSTETTEN, GERMANY

- INDEX G 200 to Ø 65 L 150
- INDEX ABC to Ø 50 L 100
- TORNOS DECO 2000 Ø 30 L 220
- Manurhin Swing 1032 to Ø 32 L 310
- Takamaz XY 1000 to Ø 42 L 150
- Takamaz YX 2000 to Ø 65 L 250
- Haas Machining Center
- CNC plunge cut grinding machine Tschudin
- Throughfeed grinding machine Lidköping CL46

### SITE OTROKOVICE, CZECH REPUBLIC

- TORNOS AS 14
- TORNOS SAS 16
- GILDEMEISTER GS/GM 20, 32, 35
- INDEX MS 25
- MIG welding station





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