



Bharat Forge Daun - CNC machining at the highest level

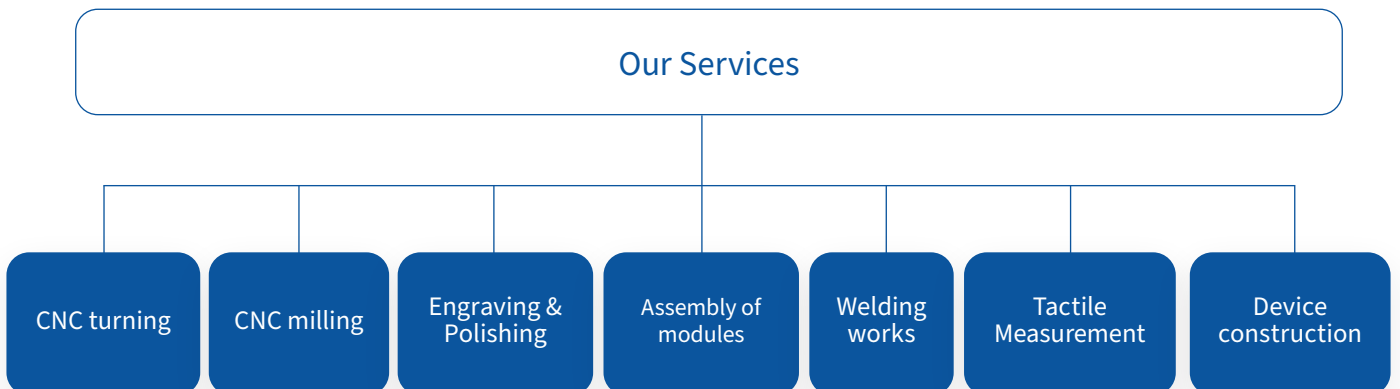
Your competent partner for tools & complex metalworking

About Bharat Forge Daun

For over 50 years, we have stood for outstanding quality and leading technologies in metalworking.

Our expertise in CNC turning, milling, and device construction plays a decisive role for chassis, engines, agriculture, and the railway engineering sector.

With welding work, assembly of modules, as well as precise engraving and polishing, we efficiently optimize your manufacturing process. We guarantee the highest accuracy through tactile measurements, which combine our proven know-how with state-of-the-art technology to create durable, precise products.



CNC turning

Precision from experience

Bharat Forge Daun stands for technological excellence and the highest level of manufacturing expertise. As part of our mechanical processing division, we offer you precise CNC turning – complemented by our expertise in tool and fixture construction.

Technical Capacities & Expertise

We primarily process steel and aluminum, but we also specialize in the machining of complex forged parts

- **Maximum Dimensions:** Machining of components up to a diameter of 615 mm and a length of 1,500 mm.
- **Machinery Park:** Use of state-of-the-art machinery (including systems from FMS, Heyligenstaedt, and the EMAG VL series).
- **Special Feature:** Integration of Ecoroll units for work-hardening and smoothing of surfaces to ensure maximum service life of the components.



Advantages at a Glance

- **Highest Repeat Accuracy:** Precise adherence to tight tolerances through automated process control.
- **Efficiency through Synergies:** Seamless integration with our fixture construction for optimized clamping concepts.
- **Complex Geometries:** Realization of difficult surfaces and spatial arrangements in a single manufacturing process (or single pass).



CNC milling

Dimensional accuracy for every series

Bharat Forge Daun stands for the highest level of manufacturing expertise and state-of-the-art CNC technologies.

In the field of mechanical processing, we offer you precise CNC milling, complemented by our experience in tool and fixture construction.

Technology & Process Reliability

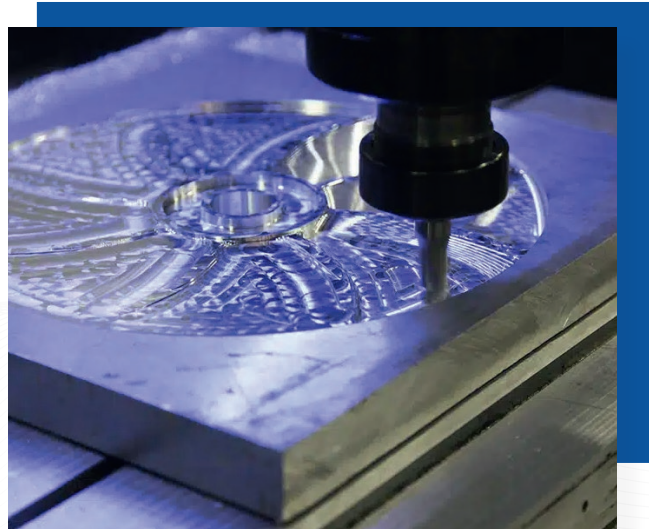
We combine state-of-the-art CAD geometries with a coordinated tooling strategy to guarantee efficient and economical manufacturing processes.

- **Material Specialization:** Expertise in the machining of high-strength steel and weight-optimized aluminum.
- **Complex Contours:** Reliable implementation of tight tolerances and complex fits, even with materials that are difficult to machine.
- **Versatility:** From prototyping for the automotive industry to series production for mechanical and plant engineering.



Advantages at a Glance

- **Maximum Flexibility:** Efficient production of individual geometries that would not be feasible with conventional processes.
- **Holistic Manufacturing:** Optimal combination with CNC turning – functional surfaces and mountings are precisely milled directly afterwards.
- **Reproducible Quality:** Through automated CNC programs, we guarantee absolute precision from the first to the last component.



Engraving & polishing

Precision for your components

At Bharat Forge Daun, we rely on modern production technologies and many years of experience in metalworking to precisely process steel and aluminum parts. In the field of mechanical processing, we offer precise engraving and machine polishing, tailored to the material, shape and requirements. Our expertise in tool and fixture construction guarantees exact, reproducible results for the highest quality requirements.

Precision in Surface Finishing

Our processes are designed to optimize the functional properties of your components and ensure clear identification throughout their entire lifecycle.

- **Polishing:** We achieve defined roughness values and mirror-smooth surfaces to minimize frictional resistance and increase the durability of mechanical components.
- **Engraving:** Using state-of-the-art laser technology, we apply serial numbers, QR codes, or logos permanently and without damaging the material – even on hardened surfaces.
- **Material Variety:** Our finishing processes are tailored to a wide range of steel grades and aluminum alloys.



Advantages at a Glance

- **Maximum Traceability:** Every component remains clearly identifiable through permanent engraving (Traceability).
- **Enhanced Functionality:** Reduced wear and optimized running characteristics through professional polishing.
- **Visual Value:** A first-class finish that underlines the high quality of your products and minimizes corrosion attacks.



Assembly of components

Precision and efficiency

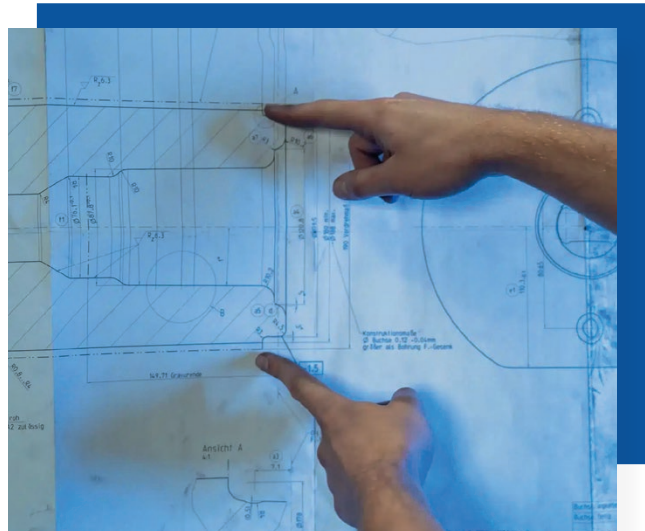
Bharat Forge Daun stands for technological excellence and the highest level of manufacturing expertise.

As part of our mechanical processing division, we offer you precise assembly of components – complemented by our experience in fixture construction and production engineering.

System Integration & Process Reliability

Our assembly area is designed for the specific requirements of the automotive industry and mechanical engineering.

- **Complete Assembly:** Joining turned, milled, and standard parts into ready-to-install modules.
- **Quality Inspection:** Each assembly (or sub-assembly) undergoes defined inspection steps to ensure the required functionality.
- **Logistics Advantage:** Delivery of finished systems directly to your production line – saving you time and storage capacity.



Advantages at a Glance

- **Reduced Interfaces:** You receive a complete solution from a single source instead of many individual components from different suppliers.
- **Maximum Fit:** Since we manufacture the individual parts ourselves, we guarantee perfect interaction within the assembly.
- **Cost-Effectiveness:** Shorter lead times and optimized assembly processes lower your total costs (Total Cost of Ownership).



Automated welding work

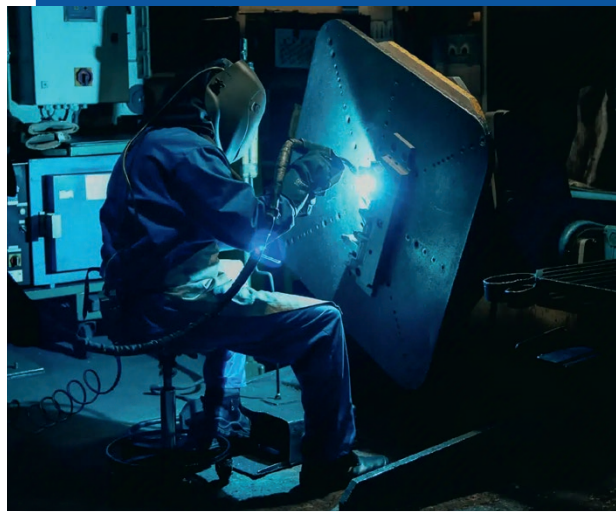
Resilient Connections for Maximum Stress

In the field of metal processing, we offer you high-precision automated welding processes, which are realized using the latest methods such as MIG, MAG and TIG. Our many years of experience in the production of steel and aluminum components guarantee the highest quality and efficiency.

Processes & Quality Standards

We utilize modern welding technologies to achieve precise and durable results across a wide variety of material thicknesses..

- **Versatile Processes:** Application of common gas-shielded welding processes (MIG/MAG), which are optimally coordinated with the respective material.
- **Material Spectrum:** Professional processing of structural steels and high-strength alloys.
- **Seamless Integration:** Preparation of welding edges through CNC machining and subsequent post-processing for perfect fits.



Advantages at a Glance

- **Maximum Stability:** High-quality weld seams ensure the safety and durability of your components under continuous load.
- **Precision through Fixture Construction:** Our own welding fixtures guarantee exact positioning and minimize distortion – for the highest dimensional accuracy.
- **Certified Safety:** Process monitoring and quality controls ensure compliance with industrial standards.



Tactile measurement

Maximum Precision through Objective Quality Assurance

Bharat Forge Daun stands for the highest precision in metrology. Using state-of-the-art CNC systems and coordinate measuring machines, we measure the shape, position and surfaces of components in the sub-micrometer range. Our tactile measuring technology with sensitive probes provides reliable measurement data for quality assurance and series measurements.

Measurement Technology & Validation

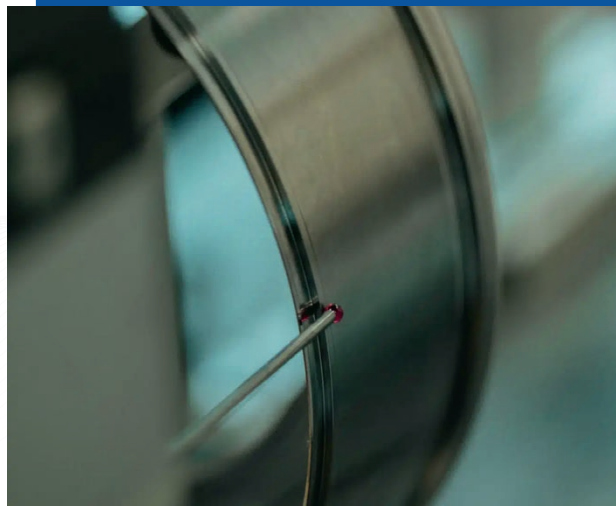
Our measurement strategies are designed to reliably identify even the smallest deviations in complex geometries.

- **Precision Equipment:** Use of high-end measuring machines (e.g., from Zeiss), which ensure extremely stable measurement results in a climate-controlled environment.
- **Comprehensive Documentation:** Preparation of detailed First Article Inspection Reports (FAIR) and series measurement protocols for seamless documentation.
- **Complex Features:** Exact determination of roundness, cylindricity, parallelism, and complex free-form surfaces.



Advantages at a Glance

- **Maximum Process Reliability:** Early detection of deviations ensures consistently high manufacturing quality.
- **Certified Accuracy:** Objective evidence provided by calibrated measuring technology gives you and your end customers absolute peace of mind.
- **Error Prevention:** The acquired measurement data flows directly back into production for the continuous optimization of machining parameters.



Fixture Construction

Efficient production solutions thanks to modern fixture construction

Fixture construction is the discipline that makes precision reproducible. At Bharat Forge Daun, we develop and manufacture customized clamping and holding devices tailored exactly to your component geometries. Whether for mechanical processing, assembly, or as a welding fixture – our solutions guarantee stable positioning and minimal setup times. In doing so, we create the basis for economical and process-reliable series production.

Design & Implementation

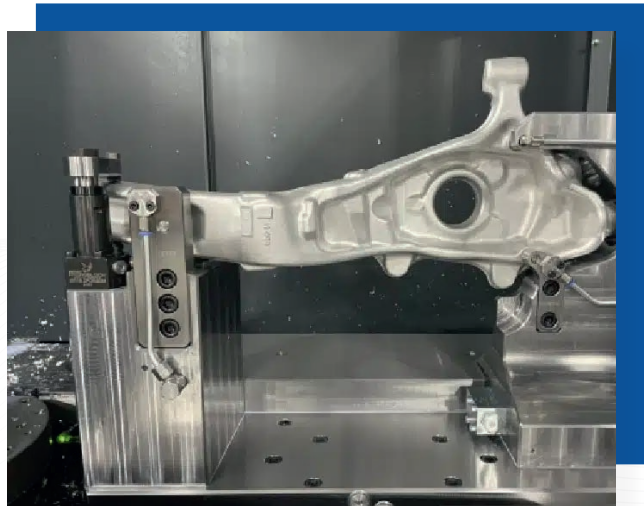
From the initial idea to the finished fixture, we offer engineering and craftsmanship from a single source.

- **Individual Development:** Design of specialized fixtures for drilling, milling, and turning operations as well as for complex welded assemblies.
- **Precision Manufacturing:** Production of fixture components on our own CNC centers for maximum fit.
- **Functional Integration:** Integration of pneumatic or hydraulic clamping elements for automation and improved ergonomics.



Advantages at a Glance

- **Highest Repeat Accuracy:** Our fixtures eliminate sources of error during clamping and ensure consistent quality.
- **Optimized Cycle Times:** Efficient clamping concepts reduce non-productive time and increase throughput in your production.
- **Durability & Robustness:** Through the use of high-quality materials and precise processing, our fixtures withstand the toughest industrial requirements.





Contact us!

Our contact persons are happy to answer your questions.

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On our website, you will find detailed information about our products, the latest news, and further content.