

Capabilities Document

Great Parts come
from Great Processes



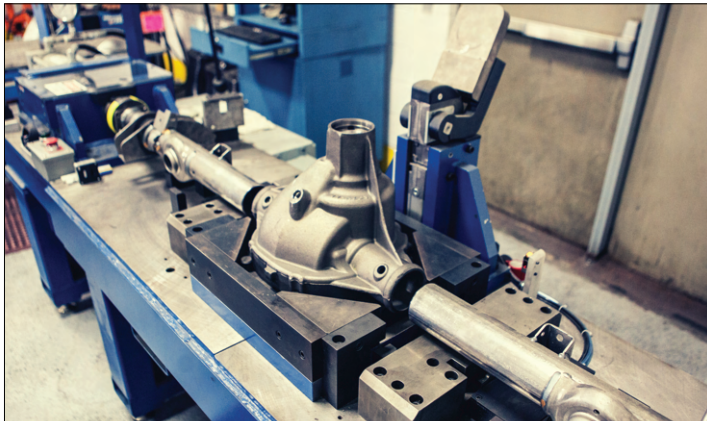
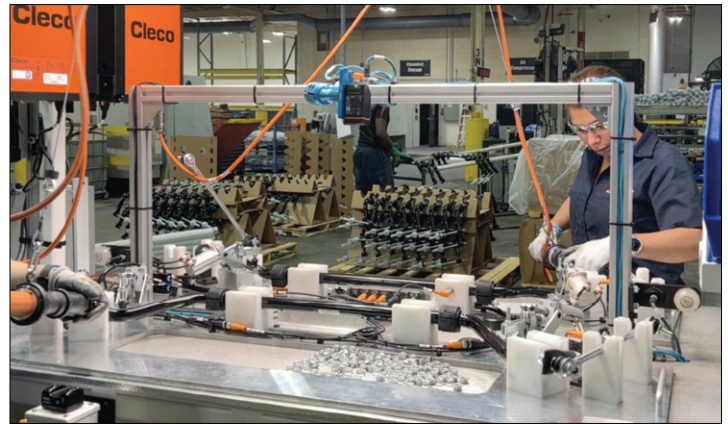
We offer a targeted range of contract services with both industrial & military applications. Browse the growing list below & don't hesitate to send us a message even if you require services outside the currently listed scope.

Targeted Contract Assembly

Solutions to Tackle
Modern Challenges

Stabilizer Bar Assembly

At PGS, we assemble links, bushings, brackets, and other components to the stabilizer bar, completing the full assembly at designated torque values. To optimize our operations, we've integrated vision systems for part verification, bar code scanners for labeling, and an End-of-line Scan to Container process to ensure traceability for every part in every shipment. This advanced process is designed to meet the stringent demands of OEM Automotive Customers.



Axle Assembly

PGS specializes in assembling service axles for Ford F150 and Mustang vehicles, offering comprehensive project management from sourcing carriers, tubes, bearings, seals, etc., to assembly, welding, and painting. We ensure axles meet customer specifications with precision, maintaining overall length within 0.04" and a tube position angle of 1.0 degree.

Differentials, RDUs, and Wheel Hubs

PGS specializes in assembling Differentials and Wheel Hubs for axles, ensuring a thorough part verification process before assembly. Each component undergoes scrutiny to guarantee all parts are present. Differentials are subjected to a multi-step torque-to-turn test to validate assembly completeness. Moreover, electronic locking differentials undergo rigorous testing to ensure proper locking functions and sensor positions in various scenarios.

PGS Assembly oversaw the entire process, including the assembly and testing of rear drive units for the Saturn Vue and Chevy Equinox service models. These units are vital for power transmission to the rear wheels, thus enhancing vehicle performance. Serving as rear axle or differential assemblies, they facilitate power transfer from the engine, allowing for speed differentiation during turns in rear-wheel or all-wheel drive systems.



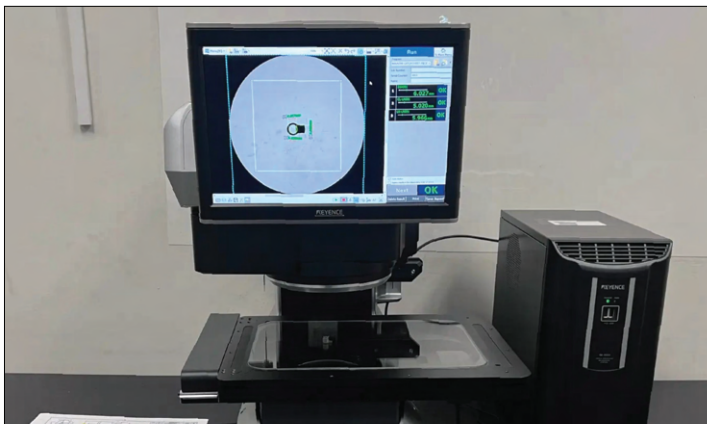
Targeted Contract Assembly

Capabilities &
Services Continued

Makino U3i

EDM Machining

Acquired in 2022, our cutting-edge EDM machining utilizes 0.010" and 0.012" wire for intricately shaping components. Exclusively for production purposes, this equipment empowers PGS to undertake tasks that other companies typically outsource.

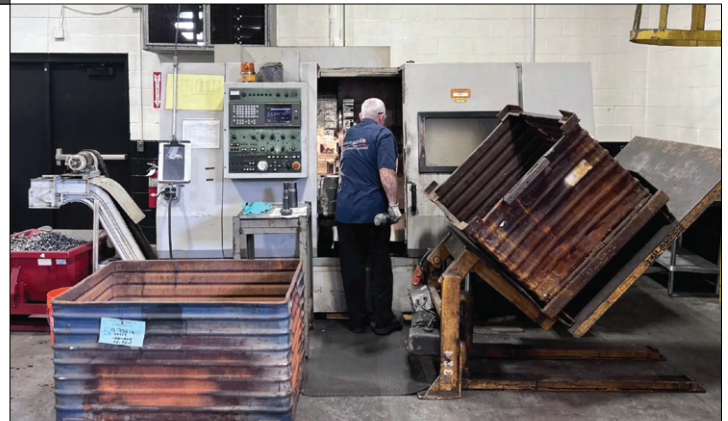


Keyence System

PGS owns and operates a Keyence IM-8030T system that represents cutting-edge image dimension measurement solutions. Tailored for precision, it accurately gauges the dimensions and shapes of diverse parts and components through high-resolution imaging technology. Leveraging sophisticated image processing algorithms, the system meticulously analyzes captured images, delivering precise measurements. This capability aids manufacturers in upholding quality control standards and adhering to specifications throughout their production workflows.

CNC Machining

PGS possesses and operates a diverse range of CNC equipment to meet our customers' manufacturing requirements, including mills, vertical and horizontal machining centers. We have the flexibility to expand our equipment inventory as needed. Through our key partnership with Pinnacle Machine Tool, we can access almost any equipment, even on a short-term basis. This unique arrangement allows us to "rent" equipment as required, eliminating the need to always maintain a full inventory on our floor.



Polishing

In our facility, we emphasize the refinement and polishing of parts, both pre- and post-production. This specialized process involves using liquid and "nugget" media to meticulously smooth and perfect the surface of each component, achieving a uniform and flawless finish. By addressing imperfections and inconsistencies, we ensure that our final products surpass quality standards. Moreover, our meticulous attention to detail extends to post-assembly refinement, where any remaining roughness or irregularities are expertly resolved to ensure an impeccable end result.

Targeted Contract Assembly

Capabilities &
Services Continued

Welding & Metal Fabrication

PGS employs diverse welding fabrication processes for manufacturing structures or final parts. We collaborate with TM Solutions, our partner specializing in Rack and Container building, who operate on-site at PGS. Together, we weld assemblies, offer cut-and-etch services, and meticulously validate weld parameters. With TM Solutions supplying steel, we benefit from reduced costs and enhanced material accessibility compared to other companies.



Sustainable Impact & Part Washing

Solutions to Tackle
Modern Challenges



Plastic Washing

Plastic washing involves cleaning plastic components to eliminate surface debris effectively. The primary objective of plastic washing is to ensure the removal of any contaminants or dirt from the plastic parts.

Plastic washing cleans plastic parts, removing oils and contaminants to maintain quality and reduce the need for new purchases. Ford Motor Company uses our patented process to refurbish parts bought over seven years ago, saving on new acquisitions. These parts undergo our process more than 20 times annually and are reused in new assemblies. Reclaiming plastic components like seals, caps, and plugs helps businesses cut costs and promote sustainability by avoiding unnecessary expenses and landfill waste. Opt for plastic washing for financial savings and environmental benefits.



Bearing Testing & Recertification

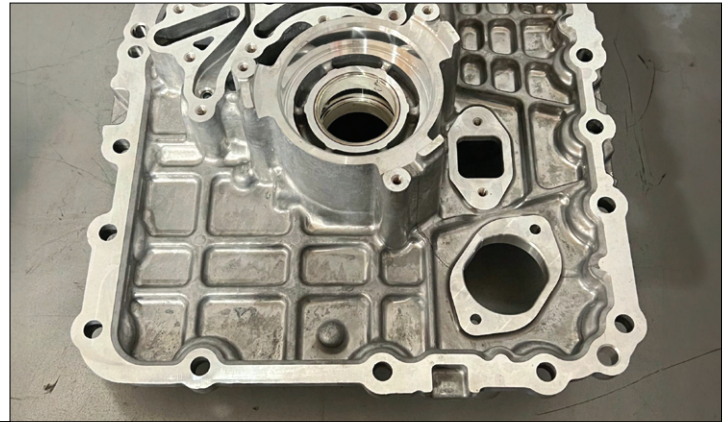
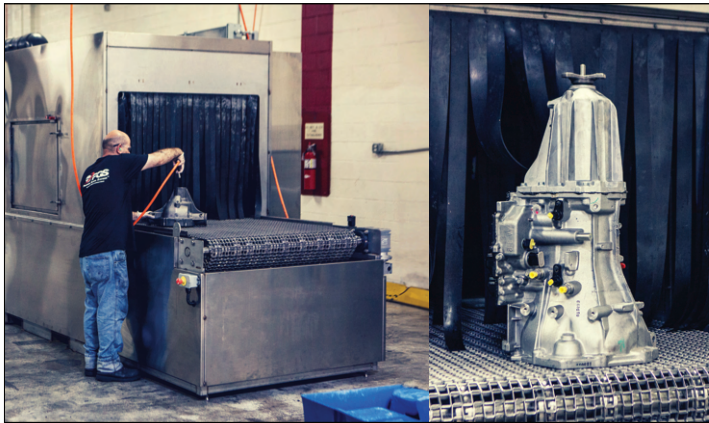
Bearing testing and recertification is the process of verifying the performance of bearings and meet required standards.

PGS utilizes its proprietary process primarily for tapered roller bearings. This involves measuring the bearings and bearing race/cup, inputting the data into specialized software for NVH testing. After uploading the data to equipment used by industry leaders like Timken and Koyo, PGS washes the bearings to a 10-micron cleanliness specification, conducts the bearing test without physical contact, and laser identifies acceptable bearings for traceability. Finally, the approved bearings are re-oiled, packaged, and returned to the customer. Instead of discarding these valuable parts, consider PGS's recertification service, which offers cost-effective alternatives to purchasing new bearings.

RTV/Seal Removal

RTV seal removal is a process of removing the old sealant from around a parts joints.

RTV seal removal is a process of removing the old sealant from around joints. This is usually done by pre-soaking parts in a special chemical to remove the RTV adhesion from the part prior a thorough high pressure wash and rinse conveyerized process to complete the process.



De-Rust

The ultra sonic De-Rust is a process that uses high frequency sound waves to remove rust from metal surfaces.

PGS Derust is equipped to handle projects of any size. Utilizing our exclusive chemical blend, we effectively remove rust from various types of parts including forgings, castings, machined parts, mixed metals, and components with splines, threads, and other crucial surfaces. Opt for PGS Derust service to recover parts and assemblies, saving valuable resources in the process.

Magnetic Particle Inspection

PGS utilizes MPI (Magnetic Particle Inspection) equipment, a non-destructive testing tool utilized for detecting surface and near-surface flaws in ferromagnetic materials. This method involves magnetizing the material and applying ferrous particles, which accumulate at defect sites, revealing flaws such as cracks or discontinuities. Widely adopted in industries like aerospace, automotive, and manufacturing, MPI ensures the integrity and safety of crucial components such as welds, castings, and forgings.



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OEM and Leading Manufactures



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