

HIGH-PRECISION GEARS FOR DEMANDING INDUSTRIES—EXCELLENCE WITHOUT EXCEPTION



FOREST CITY GEAR






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Forest City Gear has now embarked on our second fifty years, having started in 1955 with Stetler and Evelyn Young, in Rockford, Illinois. A heritage from my parents has been continuous investment in equipment, facility and personnel. This legacy is now a governing strategy designed to keep us the leading gear manufacturer in the world in the size and types of gears we make. Applying an ever-expanding base of knowledge to every gear we produce is the cornerstone of our success. Producing good gears isn't good enough at Forest City Gear. We're not satisfied until we know we've made the best gear possible. It all meshes with a very simple, yet demanding mission statement:

EXCELLENCE WITHOUT EXCEPTION

Every production process we perform turns on this principle and is backed by uncompromised auditing, testing, quality review and packaging...from initial blanks and tools to production and final inspection. We manufacture gears for diverse industries and a wide range of product applications throughout the world. Our gears are in telescopes and tractors, artificial elbows and aircraft, military lasers and medical examining tables, printers and plotters, power tools and dental drills, as well as the Space Station and Martian Rover vehicles, to name just a few. We even make gears for many of our competitors. When it comes to fine and medium pitch custom gears, the world comes to Forest City Gear for the best. Sure, we are passionate about gear manufacturing, leading edge technology and customer satisfaction. That's our blueprint for success, every day on every order and every gear.



Frederic M. Young

Fred Young—CEO

AEROSPACE

Companies for whom we manufacture in this industry: Aeroflex, Cessna, Hawker Beechcraft, GKN Aerospace, Parker Hannifin, Goodrich, Bill-Jay, Perfekta, Smith & Smith, GE Aerospace, HR Textron, Precipart, Curtiss Wright, Woodward Governor

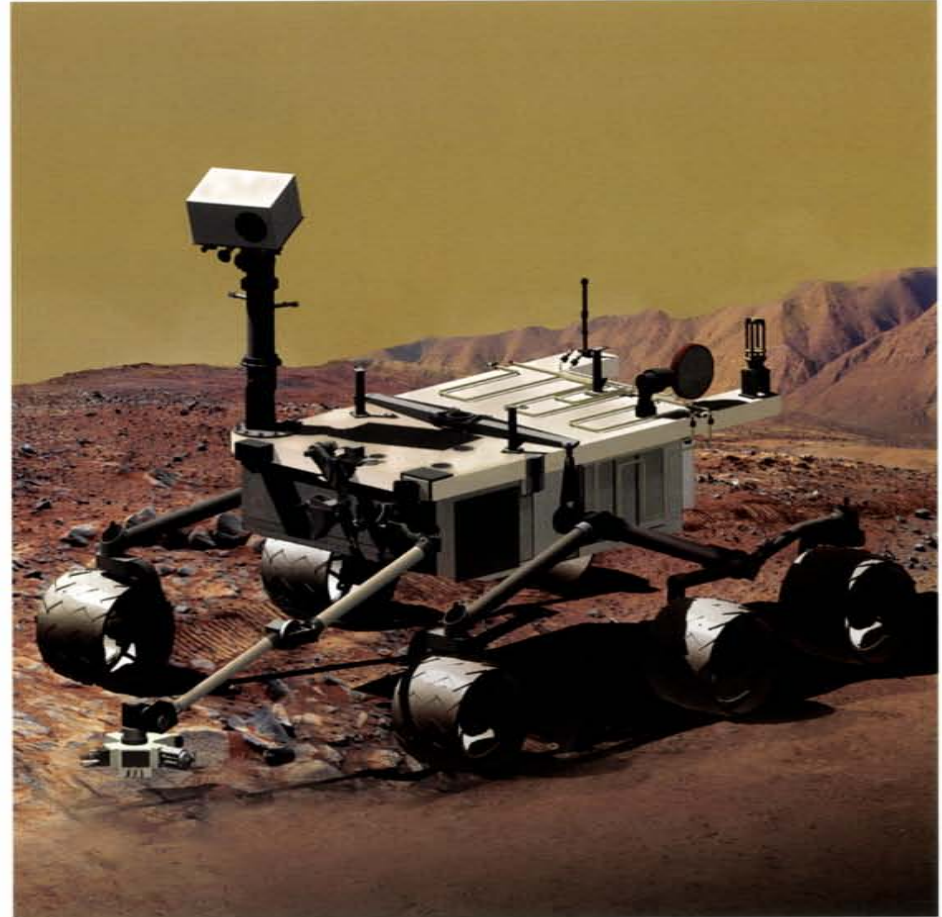
Gear and spline manufacturing is done under the guidelines of ISO 9001:2008 and Aerospace AS 9100B:2004 utilizing the newest equipment, technology and inspection, coupled with continued education and training for all our workers. Our facility is unparalleled in the world. Our gears can be found in basic general aviation aircraft systems and support equipment throughout piston powered aircraft to turbine level commercial planes and the newest military jets.



Whenever extreme accuracy is required, such as for the main fuel controls, engine oil pumps and weapons targeting pod in the latest fighter jets, the gear world turns to FCG for our renowned reliability and consistency. Even our competitors know where to turn when they struggle.

If the lower fringes of space on Boeing and Airbus are not high enough, you will find our gears in Space Station components where critical performance is demanded from winches to radio antenna drives. Following the success of Spirit and Opportunity on Mars, utilizing our gears in the wheel drives, we are producing gears for all the actuators on the next generation Martian explorer vehicles.

This is in no small part due to our huge investment in analytical gear inspection equipment in possibly the best-equipped gear laboratory in the United States.



Wendy Young—President/Sales & Marketing

Fred's partner in every sense of the word, Wendy has been involved in business "...since the girls grew up and I had time to do it." Her "silk boxing glove" style of management and customer relations has been a real asset to both the company and the gear industry, as she's on a parallel track with Fred's commitment to raising the standards of Forest City Gear and its people, every day. She manages the sales, marketing and customer service operations.



FOREST CITY GEAR

TRANSPORTATION

Companies for whom we manufacture in this industry: Frank Weiss Racing, Emco, Andrews, Harley Davidson, Woodhaven, Delphi, Paragon and Neapco—to name a few

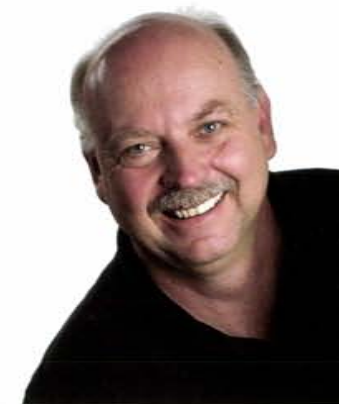
Whether it be locomotives, diesel fuel pumps for trucks, fly wheels, racing motorcycles, Nascar or Indy racing vehicles, brush hogs, or special accuracy rack and pinion mechanical and electrical steering drives—they roll better and faster with Forest City Gear teeth in the end product. By controlling involutes and index variation, FCG minimizes transmission errors like no other gear shop can, and maximizes your strength and staying power for those extra laps!



Titanium winch gears for BMW Oracle Racing Team, winner of the 2010 America's Cup

Gene Fann—Gear Technology Manager | Problem Solver

Gene Fann brings 35 years of experience, from gear grinding and hob manufacturing, to bear on gear issues pertaining to inspection, design and noise reduction. His practical hands-on expertise has saved the day for a multitude of our customers. Many gear manufacturers turn to the collective knowledge of the Forest City Gear team. Gene has shared his wisdom with many of our young technicians, elevating their experience beyond their actual industry years to bring you exceptional quality. We call it imparting tribal knowledge.

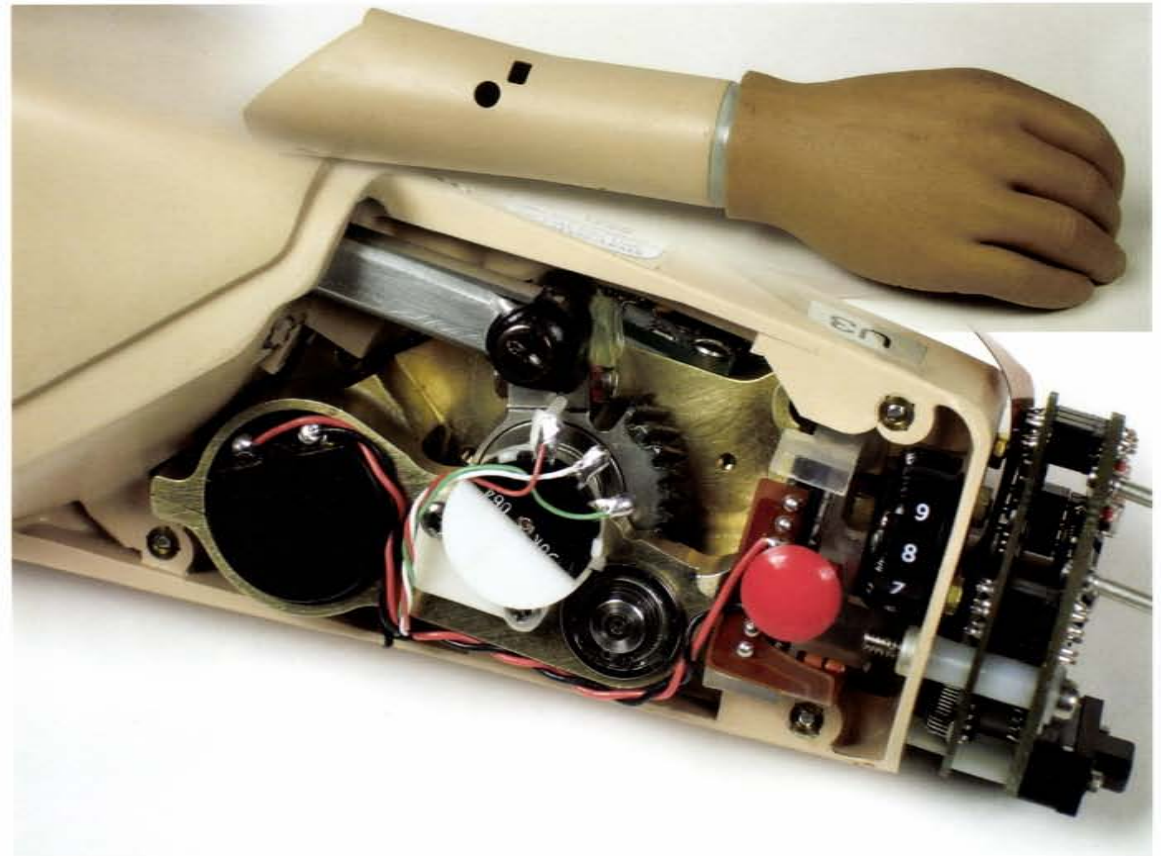


MEDICAL • DENTAL • RESEARCH

Companies for whom we manufacture in this industry: Motion Controls, Siemens Medical, Beere, Bradshaw Medical, Thermo Electron, Kenlee, Fluets, Bruker, Care Fusion

With our ISO 13485:2003 certificate in hand, we are one of the few U.S. gear companies registered for medical gear work.

When a patient enters a hospital or a clinic for diagnosis and treatment, they expect accurate diagnosis completed expediently and quietly to soothe their anxiety. Part of the recipe for this conclusion is the super accurate gears manufactured with uncompromising care and attention. You will find Forest City Gear products in blood pumps, kidney dialysis equipment, X-Ray and CAT scan machines, as well as artificial elbows. In the unlucky circumstance of a broken bone, it is quite possible that a titanium bone screw will be inserted with a Forest City Gear produced spline driver. Forest City Gear parts are also found in portable ventilators and other medical devices that demand smooth, quiet operation. Furthermore, your visit to Forest City Gear will treat you to near hospital level cleanliness—unexpected in a manufacturing facility.



Articulating gears for the electric terminal device on the Utah Arm



Joe Luy—Quality Manager | Proving Our Value

One of our new young guns at Forest City Gear, Joe brings an enthusiasm and high spirit to his job, plus he oversees the quality lab, one of our core strengths at the company. Joe believes in our “quality at every turn” philosophy and has implemented a number of procedures to ensure product and process quality throughout the workflow in our shop and especially in the lab, where the latest metrology technologies and software are used to check Forest City Gear products, as well as those of other companies. He’s also responsible for overseeing our ISO and ITAR programs and processes.



Defenders of American liberty, our military deserve the most accurate and reliable weaponry available to any fighting force. You will find our gears in the laser beam sighting mechanism for the A1A Abrams tank and in the latest military Howitzers. Our soldiers, sailors and pilots must succeed in neutralizing the enemy without error. It is our objective to provide excellent gears for missile guidance systems, the control instruments and other sophisticated devices that aid in preserving our freedom.

MILITARY & DEFENSE

A few of the companies for whom we manufacture in this industry:

Seiler, Optex, Elcan, Kaydon, Arrow Gear, Dearborn, Thomas Industries, USA Spares, Ruoff



US Marine Corps M777 155mm Howitzer

Jared Lyford—Production Manager | Just Make It Better

As a Tool & Die Maker Journeyman, he has organized and upgraded our tooling, allowing us to deliver gears and splines with extraordinary alignment accuracy. Jared has been a leader in our lean manufacturing endeavor to reduce waste and speed delivery. Customers benefit from his advice on blank quality and fixturing.



INDUSTRIAL

Companies for whom we manufacture in this industry: Parker Hannifin, Haldex Hydraulics, Danaher Motion, Thermadyne, Paragon Products, Sauer Danfoss, SPX, Baldor Electric, Bodine Electric—to name a few

Our industrial gears are found on a myriad of products from welding equipment drives to laboratory instruments and telescopes. Operating under Kanban systems, we accept blanket orders and release gears per your schedule to help control your inventory and pricing to remain competitive, all while producing the most accurate gears available. When you use Forest City Gear, you can rest assured your product will perform better, distinguishing yourself from your competitors. Remember, we supply gears for about 100 other gear producers—the highest testimonial possible to our capabilities and quality.

Our industrial gears are able to withstand whatever stresses your product demands. We have industrial parts in motor drives, overhead door openers, power drills, pumps, machinery, welding equipment and the Jaws of Life®.



Kika Young—Administration | Human Resources

As Kika likes to say, she's been with the company since birth! "Having worked here for some time, in various capacities, I think the future is in good hands. The family members involved have had the wonderful advantage of watching my parents continue the tradition of our grandparents and make our company even better, using both new technology and new business models to meet the challenges of today's global market. The next chapter at Forest City Gear will have its bumps, that's inevitable, but we're all confident we've been given the tools and the solid foundation to make it work."

RECREATIONAL

Companies for whom we manufacture in this industry: US Reel, Fishy Business, Kongsberg Automotive



Internal helical gear for a levelwind fishing reel... casts twice as far

Whatever recreational equipment you produce—if it needs high quality gears, Forest City Gear can help. From paintball equipment to fishing...our gears will not interrupt your customer's pastime. One of the

most demanding products for which we deliver gears are bait casting reels. In the sensitive hands of expert bass fisherman, compromised quality is detectable. We simply won't do that at Forest City Gear.



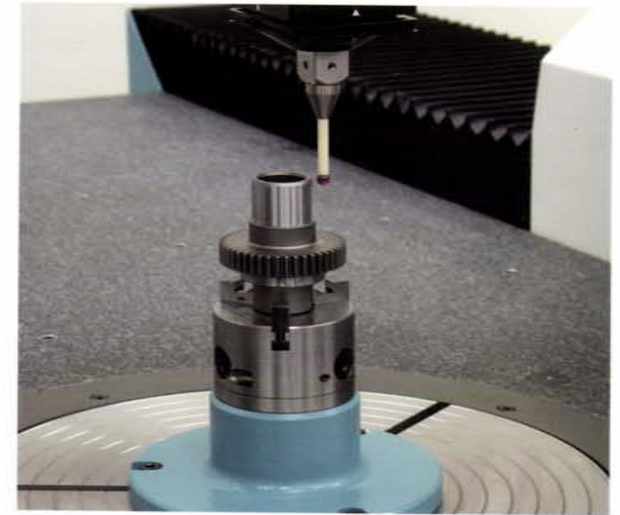
LABORATORY CAPABILITIES

Our inspection laboratory allows us to validate our gear quality with data verifying your specifications have been achieved or exceeded.

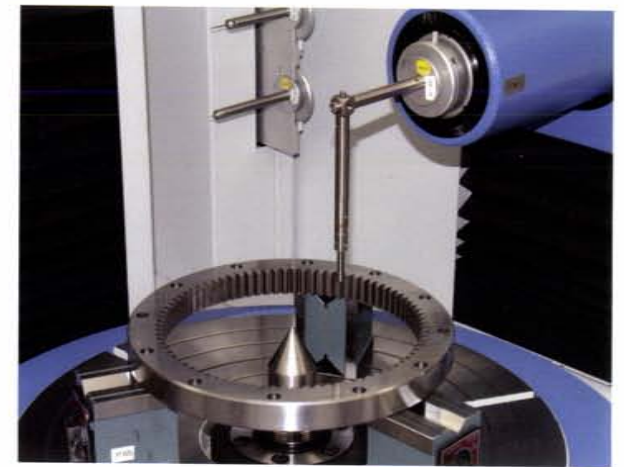
Forest City Gear is extraordinarily well known for maintaining the latest technology in the gear industry. We not only have state-of-the-art gear hobbing, gear shaping and gear grinding equipment, but analytical gear inspection equipment as well. Our technology and our highly skilled personnel are some of the reasons other gear companies come to Forest City Gear to help them solve their machining and inspection problems. We pride ourselves in serving all our customers' needs, including those within the gear industry.

As we move forward, we will continue to strive to be the leader in the gear industry, while providing our customers with unparalleled quality, production and delivery. "Excellence without Exception" is not merely a phrase on a banner hanging in our shop. It is a promise that Forest City Gear makes and keeps to all our customers, every day.

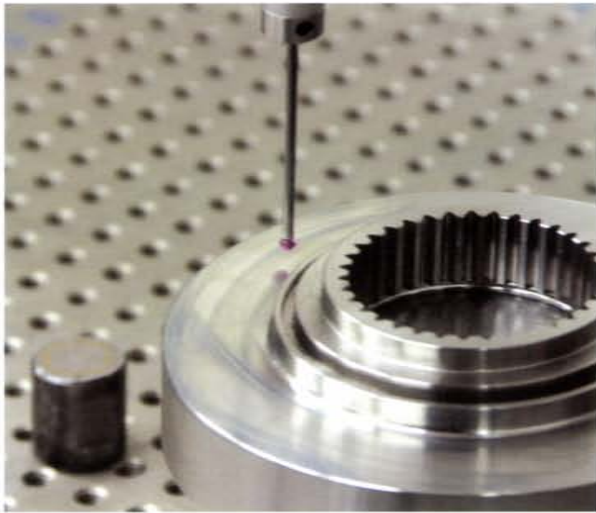
"Over 25% of our customers are other gear companies around the world, who come to Forest City Gear for assistance. That says it all for our quality, I think. I don't mind saying we're darn proud of that fact." — Fred Young, CEO



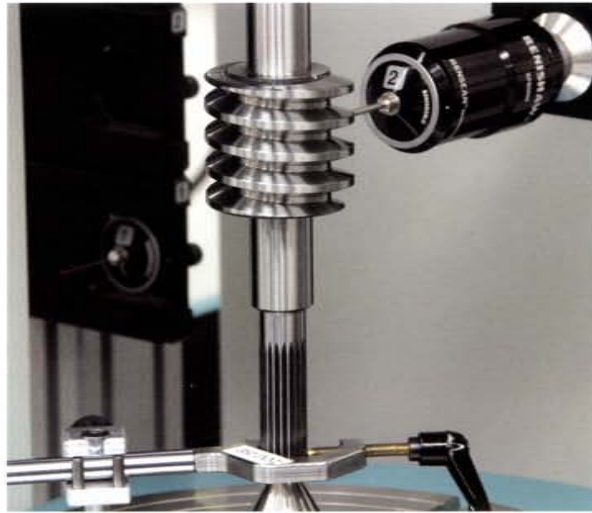
We acquired our Wenzel LH87 in 2008. It's a combination of CMM with rotary table and air bearing technology, giving us the most accurate gear inspection available to millionths of an inch. It is also capable of measuring accuracy in fractions of an arc second.



Our Klingelnberg P65 measures an internal analytically.



Our Zeiss Contura CMM enables us to verify tooth and space relationships to other part features, while validating blank measurements from bolt circles to perpendicularity, size and parallelism.



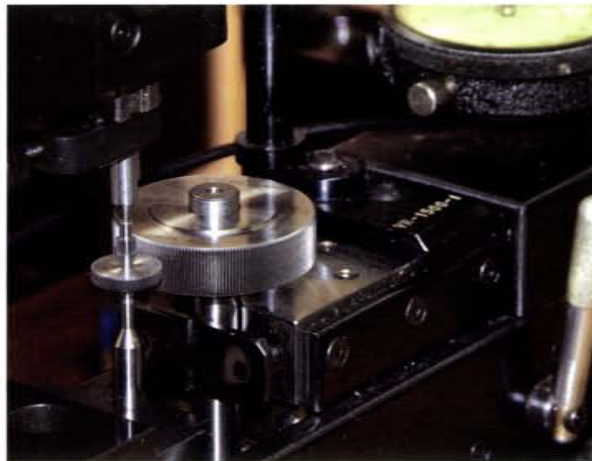
Accuracy of lead and involute plus index variation is of paramount importance when minimizing transmission error in weapons sighting mechanisms, as measured on our Klingelnberg and Wenzel analytical gear measuring instruments for worm threads and gears.



Granite plates with height gages and bench centers are located throughout our shop, along with platforms for measurement over and between pins size checkers.



Our Mitutoyo Surface Profilometer checks micro finish on gear teeth, bearing journals and flat surface to fractional microns.



Twenty-two double flank roll testers provide functional measuring of total composite, tooth-to-tooth composite error, runout and size with new roll testers rotated into operation continually.



This optical comparator projects the image of the gear onto a larger screen to check conformance and size.

Simply buying new machines is not enough to gain a critical edge unless equipment purchases are supplemented with employee training, so they have the knowledge to utilize the equipment to its fullest capacity.

We send our set-up technicians to many gear schools offered by Gleason, Koepfer, the AGMA's hands-on school and the Universal Technical Systems (UTS) gear engineering courses. In fact, Gleason, Koepfer and UTS bring their schools to Forest City Gear to experience what we believe is the most modern gear-producing facility in the world in the sizes and types of gears we manufacture.

Forest City Gear not only actively promotes careers in manufacturing through local schools and colleges, but also offers extensive in-house training, cross training and mentoring programs that teach the employees to understand all data analysis completely and thoroughly.



Rustin Mikel—Vice President of Manufacturing | Visionary Leadership

Having started his career in manufacturing at Forest City Gear, Rustin is innovative and forward-thinking. Immediately upon arrival at Forest City Gear, he embraced lean manufacturing and he has partnered with many lean gurus in order to develop and implement a lean program here at FCG. His enthusiasm and attention to detail provide excellent focus on service and reliability. His guidance and training draws our manufacturing departments together to yield high-quality product and service. His leadership is visionary, his commitment to the industry is sincere and he has a passion for energy efficiency and is a driving force behind the company's ongoing green initiatives.

TRAINING

The most advanced machinery in the world is useless without knowledgeable technicians to operate it. We believe versatile and highly trained employees are our most valuable assets. We invest in their education accordingly, to ensure their increasing levels of expertise.



The Gleason gear school regularly visits Forest City Gear where they do Q&A sessions with Fred Young and take tours of the plant.



Gear school attendees who visit Forest City Gear are given full tours of our plant and spend time in each department. Above attendees view some of our display pieces in the front lobby.

Employee training motivates technicians to learn more and heighten productivity. Forest City Gear employees are educated in reading and understanding technical graphs & charts—our in-house mentoring program provides exposure to analytical interpretation.

Our interactive mentoring is useful for both the teacher and the student. Additionally, our entire team is given the opportunity to attend the bi-annual International

Manufacturing Technology Show. At IMTS, employees are exposed to the upper echelons of technical innovation and are given the chance to cross pollinate knowledge. Continuous training improves our employees' understanding and knowledge base, increases their exposure to technology and advances their technical capabilities—all of which benefit our customers, as well as our company.

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