



World Class
Gears Manufactured With
Advanced Materials

OUR COMPANY

Since our founding in 1955, we have strived for excellence without exception. It's why our fine-pitch and medium-pitch custom gears are trusted worldwide, in everything from telescopes to tractors, artificial elbows to aircraft, military lasers to medical examining tables, printers to race cars, power tools to dental drills. They are even found on the International Space Station and the Mars Rovers.

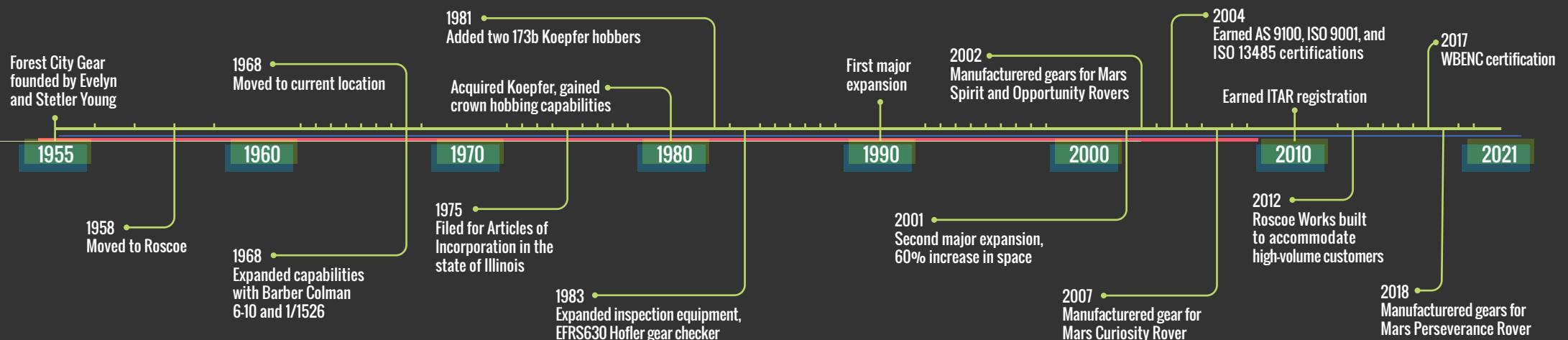
Whether you are looking to source one-of-a-kind precision gears or high-volume production, we invite you to learn why the world turns to Forest City Gear.

We Have the Most Skilled People.

We Invest in the World's Finest Machinery.

We Provide the Very Best Training.

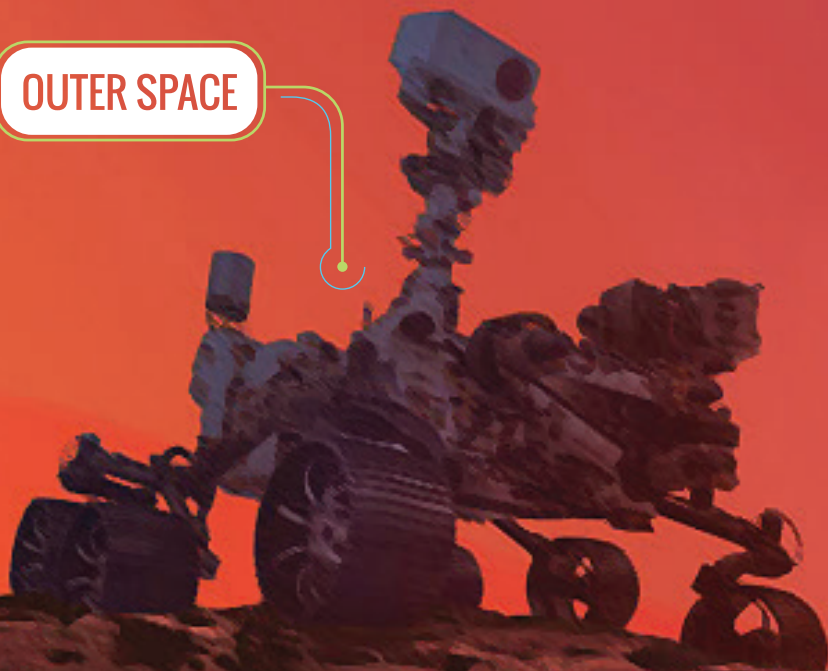
AGMA | WBENC | ISO 9001 | AS 9100 | ISO 13485 | ITAR Certified



INDUSTRIES SERVED

Forest City Gear has thrived for more than six decades by constantly expanding our knowledge and manufacturing capabilities to produce the highest-quality gears possible.

OUTER SPACE



RECREATION



MEDICAL



ROBOTICS



OFFSHORE



DENTAL



OFF-HIGHWAY



AEROSPACE



DEFENSE



RACING



OUR CAPABILITIES

A close-up, high-contrast photograph of a CNC gear hobbing process. A large, polished metal hob is positioned vertically, with its teeth meshing with a gear blank. Bright sparks are visible at the point of contact, and a stream of coolant is being applied to the work area. The background is dark, emphasizing the metallic surfaces and the industrial nature of the process.

Our range of capabilities is more broad than ever. We deliver excellence without exception.

HIGH-VOLUME GEAR PRODUCTION

Bring our trademark level of quality to your large production runs.

CNC GEAR HOBGING & CARBIDE RE-HOBGING

A highly accurate and productive process that produces lead modifications with ease.

CNC MACHINING

CNC blank turning, cylindrical grinding, milling, laser-marking, honing and more will ensure your parts are precise and complete.

GEAR SHAPING

Continuous, same-plane rotational cutting, which creates teeth on a gear.

GEAR GRINDING

Corrects heat-treat distortion of a gear to within acceptable limits.

THREAD GRINDING

CNC dressed grinding wheels for a variety of thread forms.

GEAR INSPECTION

Analyzes pitch, run out, lead, and profile error to 10 millionths of an inch of spur and more.

ENGINEERING SERVICES

We offer a wide variety of services that improve quality and/or reduce costs.

CAPABILITIES

Visit our website to see an up-to-date list of equipment & resources.

HOBGING

Gear Type: Spur, Helical, Spline, Worms, Worm Gears, Sprockets & Ratchets

Size Range: 1/64" to 16"
Up to 88° helix
70" max part length
Worms, worm gears, sprockets & ratchets subject to quote

Pitch: 3 to 200

AGMA Class: 12+



SHAPING

Gear Type: Spur, Helical, Spline, Sprockets, Face Gears & Keyways

Size Range: 1/16" to 26"
Up to 65° helix
22" max part length, 8" stroke length max

Pitch: 3 to 200

AGMA Class: 12



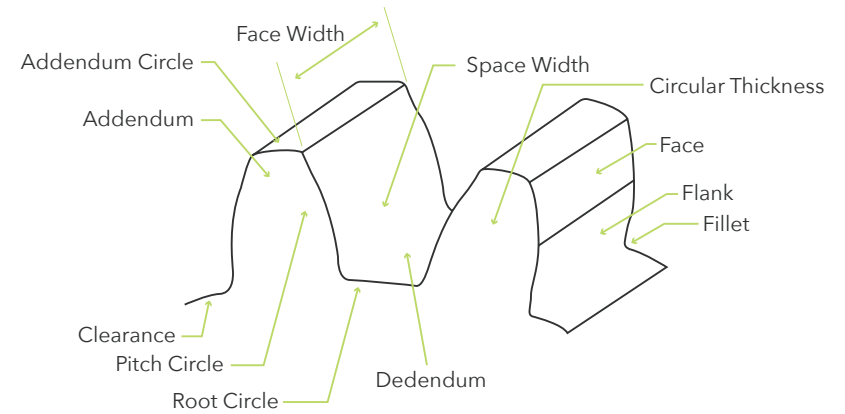
GEAR GRINDING

Gear Type: Spur, Helical, Spline, Threads, Involute Worms & Ball Screws

Size Range: Max Diameter 24.8"

Pitch: 2 to 96

AGMA Class: 15



CNC MACHINING

Gear Type: Round Blanks, Shafts, Carriers & Housings

Size Range: Up to 10" Chuck

Capabilities: Twin-Spindle, Live Tools, Y-Axis Milling, Hard Turning & Contour Milling

Software: 5-Axis MasterCam

OD/ID GRINDING

Grinding Type: Cylindrical OD, ID, Face, Radius, Sealing Surfaces & TP Finishes

Size Range: Up to 17" Diameter

Capabilities: Internal Grinding, 90,000 RPM Spindle Speeds, Ceramic and Vitrified CBN, On-Board Inspection & Universal Grinding (OD&ID)



INSPECTION

Gear Type: Spur, Helical, Spline, Worms, Worm Gears, Sprockets & Ratchets

Size Range: 36"

Pitch: As fine as 64 DP

AGMA Class: 15

OUR CUSTOMERS

With over 900 customers worldwide, we typically cut gears for 350 to 400 companies in a given year. Our gears are found in varied industries – aerospace, medical, military, power tools, instruments, high-performance racing, high-end sporting goods, industrial, heavy equipment and mining applications.

INNOVATION

From crown hobbing (putting a crown on the flank of gears to compensate for misalignment and to reduce noise), to carbide re-hobbing to improve gear quality after heat treat distortion, Forest City Gear has been quick to adopt the latest technology to help our customers. Coupled with that dedication is investment in the latest inspection equipment for gear parameters so that we can help our customers deliver the absolute best product to their customers.

TRAINING & EDUCATION

Our employees attend several gear schools – Helios Gear School, Gleason Gear School and AGMA Gear School, in addition to receiving on-site training. In fact, we often send our set-up staff for training at machine manufacturers' plants in Germany and Italy. Forest City Gear also partners with the NTMA to train certified DOL apprentices in CNC machining and gear cutting.

REVERSE ENGINEERING & TROUBLESHOOTING

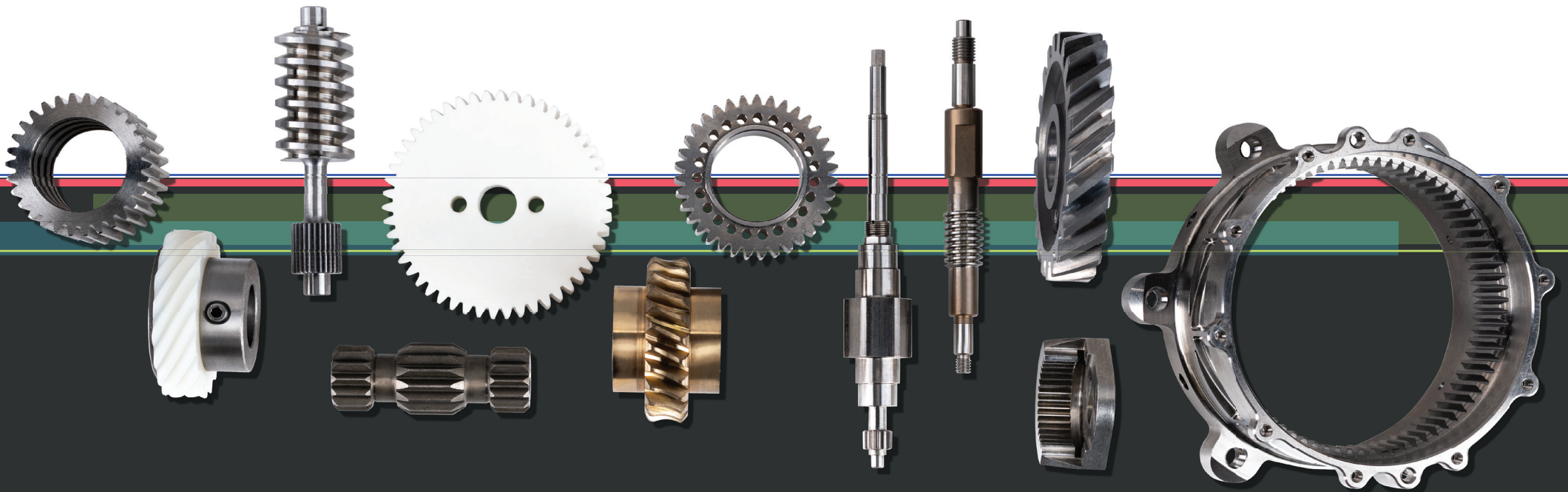
While we are not in the gear design business, Forest City Gear has been instrumental in offering solutions to solve both gear quality issues for other gear vendors and design flaws in customers' gear sets. Manufacturability of parts and understanding critical features enables us to help our customers reduce lead time and cost. Forest City Gear also provides reverse engineering services.

REINVESTMENT

Throughout our history, we have continuously reinvested 25% to 40% of our gross revenue per year in new equipment. We routinely add inspection and secondary equipment, as well as the latest gear machines for hobbing, shaping and gear grinding. As a result, our gear production and inspection facilities are among the most modern and productive in the world.

ONGOING COMMITMENT

From lean manufacturing efforts to bringing on board our next generation of leaders to guide our company in the future, Forest City Gear is forging ahead to continue to offer you excellence without exception.

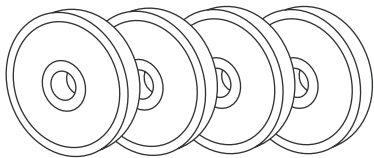


CUT TEETH ONLY

The CTO value stream is a cost effective and quick-turn option for you when you need gear-cutting only and can provide the gear blank. Lead time is very reasonable assuming a special order cutter is not required (typically 2 weeks or less). Forest City Gear has an inventory of over 7,000 cutters in stock in order to keep lead time as short as possible. We are able to support small lots up to high volume orders with ease and flexibility.

QUOTE AND PURCHASE ORDER

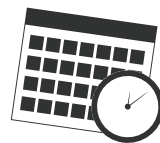
GEAR BLANKS ARRIVE



HIGH-PRECISION GEARS
IN 10 DAYS OR LESS

SCHEDULING

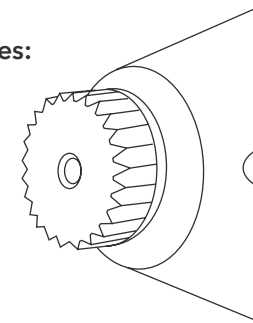
We have dedicated
Cut Teeth Only
Process Engineers



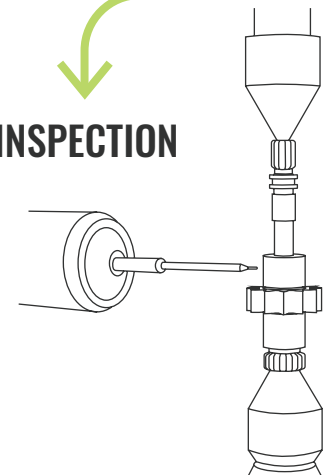
PRODUCTION

Dedicated CTO Resources:

- Hobbing
- Shaping
- Secondary Machining
- Gear Grinding
- Deburring



INSPECTION



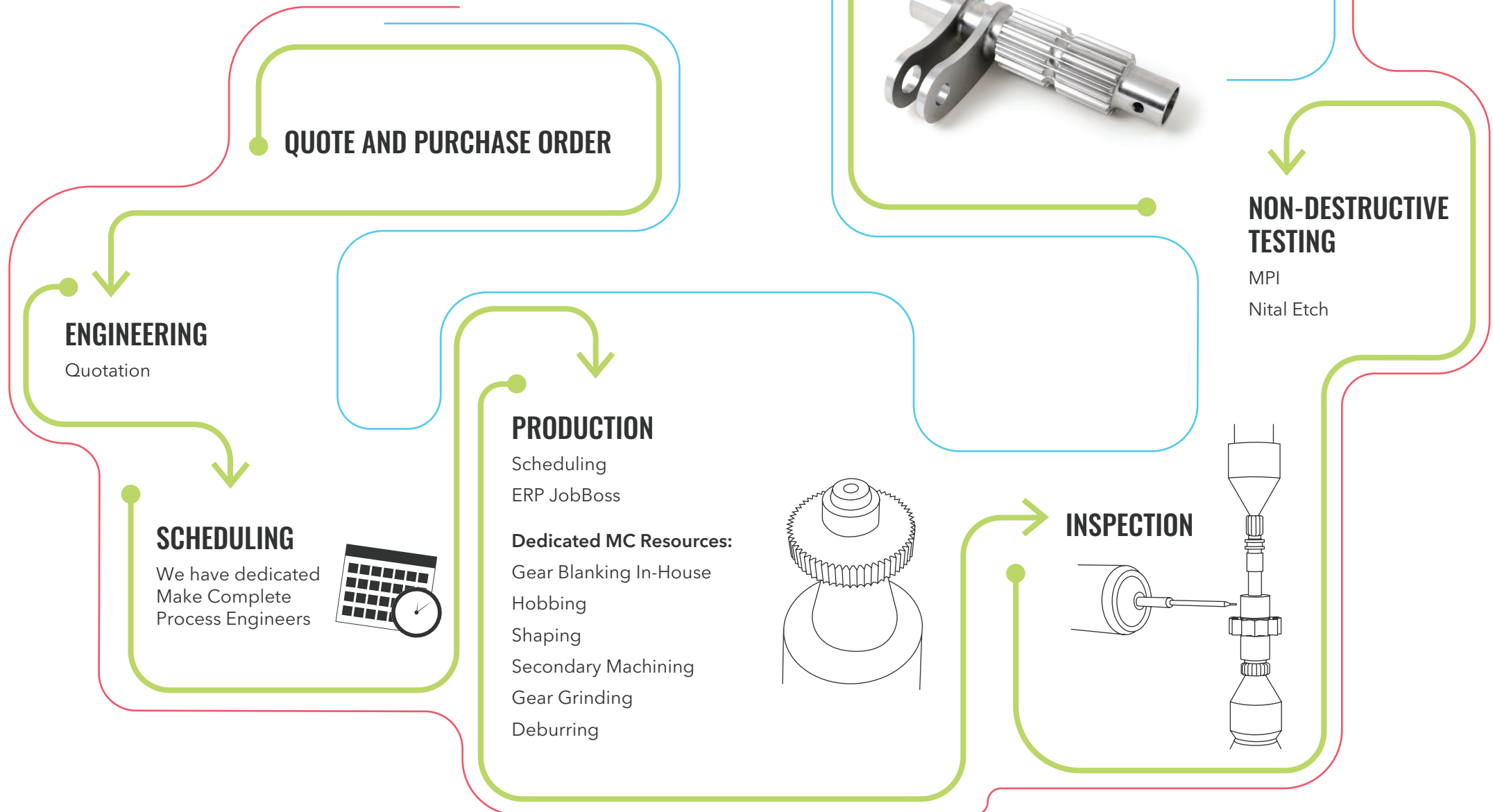
SHIP TO CUSTOMER

10 days



MAKE COMPLETE

Our make complete value stream focuses on making gears to customer specification. Forest City Gear manages the entire process from ordering the raw materials, turning the blanks, managing any outside services such as plating or heat treat, as well as any internal machining from gear cutting to finish grinding. These orders have lead times that vary depending on availability of specified material and quantity ordered.





Excellence Without Exception

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