READER
PRECISION SOLUTIONS

MANUFACTURING CAPABILITIES

2024 EDITION

WHERE PRECISION MEETS EXCELLENCE.

Located in the heart of the Midwest, Reader Precision Solutions is an industry-leading manufacturer of precision machined parts and components, continuously investing in state-of-the-art equipment and engaged, passionate, and talented manufacturing professionals.

By equipping our production, engineering, quality, and business development teams with the latest tools and technology, we empower them to drive innovative processes. These processes ensure consistent delivery of the highest quality precision machined parts to meet our clients' most challenging needs.

With today's unprecedented supply chain challenges, Reader Precision Solutions can provide industry-critical solutions to our current and future clients, like you! If your company has a problem that needs solving, let's start a conversation and see how our team-driven solutions can best support your organization.

LEARN MORE AT **READERPRECISION.COM**

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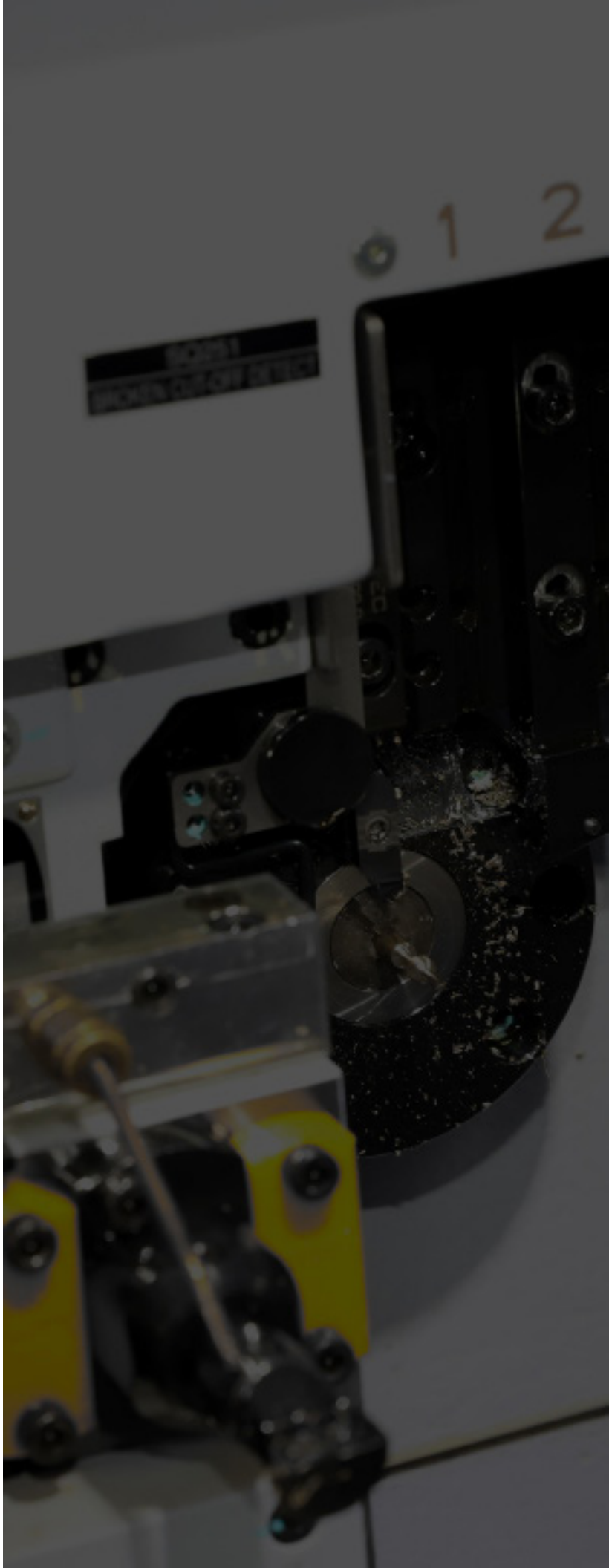


MANUFACTURING SERVICES

We specialize in high-quality manufacturing services tailored to meet your most precise needs. From just-in-time inventory management and process coordination, we ensure seamless production from start to finish. With expert engineering, quality assurance, and a commitment to excellence, we deliver reliable solutions you can trust—every time.

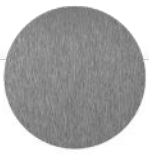
Explore our range of services below to learn more about how we can support your manufacturing goals!

- JUST-IN-TIME (JIT) **INVENTORY MANAGEMENT**
- BEST-IN-CLASS **CLIENT SERVICES**
- COORDINATION OF **HEAT TREATING**
- COORDINATION OF **PLATING**
- COORDINATION OF **ANODIZING**
- AND **MORE!**

COMMON MATERIALS

We believe that exceptional results start with exceptional materials.

That's why we are committed to ethically sourcing and machining with the highest-grade metals, ensuring that every component we manufacture meets the highest standards of quality and durability. Below you will find some of the most commonly used materials in our production processes, meticulously selected for their performance in various applications.



STEEL

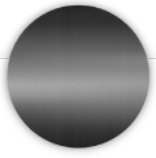
STAINLESS STEEL

TOOL STEEL

ALUMINUM

COPPER/BRONZE

BRASS



EXOTIC ALLOYS

PLASTICS

SWISS CNC MACHINING

At Reader Precision, CNC precision machining is at our core. Designed to produce intricate parts with the highest level of accuracy and efficiency, each machine is equipped with a magazine bar loader and a 1,000/2,000 PSI high-pressure coolant systems. Whether your project requires tight tolerances, complex geometries, or high-volume production, our precision CNC machined parts deliver exceptional results every time.

STAR SW-20

3 MACHINES • A maximum stock diameter of 20mm (0.787") with a 3-path controller, live cross/end/back-working tools, and split tooling slides allows for the most efficient machining of very complex and demanding firearms and flow control applications where speed, accuracy, and capability are required.

STAR SW-12RII

4 MACHINES • A maximum stock diameter of 12mm (0.473") with a 3-path controller, live cross/end/back-working tools, and split tooling slides allows for the most efficient machining of very complex and demanding firearms, dental, and interconnect applications—where speed, accuracy, and capability are required.

STAR SR-20J

3 MACHINES • A maximum stock diameter of 20mm (0.787") with a 3-path controller, live cross/end/back-working tools, and split tooling slides allows for the most efficient machining of very complex and demanding flow control, military, and defense applications where speed, accuracy, and capability are required.

STAR SR-10J

10 MACHINES • A maximum stock diameter of 10mm (0.394") with live cross/back-working tools, especially well-suited for very high volume, extremely tight tolerance, moderate complexity parts for interconnect and military defense applications.

SWISS CNC MACHINING

TSUGAMI SS327-5AX

2 MACHINES • A maximum stock diameter of 32mm (1.26") with full 5-axis motion capability, a modular B-axis, and 8 live tool positions makes the SS327-III-5AX ideal for high-volume, tight-tolerance, and highly complex parts, offering unmatched flexibility and precision for demanding firearms and dental applications.

TSUGAMI SS20/26

3 MACHINES • A maximum stock diameter of 20/26mm (0.787"/1.011") and many live tools, sub-spindle for pick off, and simultaneous machining. This platform is ideal for very complex and demanding flow control, firearms, and defense applications.

TSUGAMI S206

6 MACHINES • A maximum stock diameter of 20mm (0.79") with 8 backworking live tools and Y-axis capability makes the S206-II well-suited for high-volume, tight-tolerance, moderately complex parts, ensuring precision and versatility for firearms and flow control applications.

TSUGAMI S205

8 MACHINES • A maximum stock diameter of 20mm (0.787") with live cross tools for moderate complexity firearms and flow control applications.

TSUGAMI B0205-III

3 MACHINES • A maximum stock diameter of 20mm (.787in) with live cross tools allows this platform to perform highly complex front and back simultaneous machining, including off-center drilling and off-center tapping. The B0205-III features state-of-the-art Fanuc control for low idle times and high-speed performance, ideal for dental, flow control, and firearms applications.

SWISS CNC MACHINING

TSUGAMI BE12-V

4 MACHINES • A maximum stock diameter of 12mm (0.500”) with live cross tools makes this platform especially well-suited for very high volume, extremely tight tolerance, moderate complexity parts for dental and flow control applications.

CITIZEN M532 VIII

2 MACHINES • Equipped with LFV technology and an electronic servo ejection gripper arm, this lathe can precision machine highly complex parts with diameters up to 32mm (1.260in) in both guide bushing or chucker mode configurations, ideal for firearms and dental applications..

CNC LATHE MACHINING

At Reader Precision, CNC precision machining is at our core. Designed to produce intricate parts with the highest level of accuracy and efficiency, each machine is equipped with a magazine bar loader and a 1,000/2,000 PSI high-pressure coolant systems. Whether your project requires tight tolerances, complex geometries, or high-volume production, our precision CNC machined parts deliver exceptional results every time.

MIYANO ABX-64TH6

2 MACHINES • With twin-spindles, triple-turrets, and live tooling options on all 12 stations of each turret, these lathes will accept 64mm (2.5”) maximum stock diameter and are best suited for very complex work.

MIYANO ABX-51TH3

2 MACHINES • With twin-spindles, triple-turrets and live tooling options on all 12 stations of each turret, these lathes will accept 51mm (2.0”) maximum stock diameter and are best suited for very complex work.

MIYANO ABX-51SY

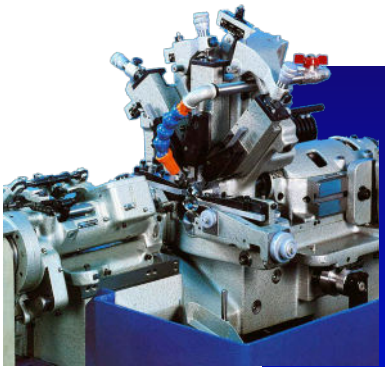
2 MACHINES • With twin-spindles, twin-turrets and live tooling options on all 12 stations of each turret, these lathes will accept 51mm (2.0”) maximum stock diameter and are best suited for very complex work for a variety of industries.

MIYANO BNX-51MSY

3 MACHINES • • With twin-spindle, single-turret and live tooling options on all 12 stations, these lathes will accept 51mm (2.0”) maximum stock diameter and are best suited for moderate complexity work for a variety of industries.

MECHANICAL PLATFORMS

At Reader Precision, we stay true to our roots by leveraging time-tested mechanical operations to deliver unmatched quality. Our mechanically actuated platforms, built for precision and reliability, are designed to handle high-volume production while maintaining exceptional tolerances. From screw machining to backworking and multi-axis capabilities, our mechanical platforms ensure efficient, consistent results for even the most demanding applications.

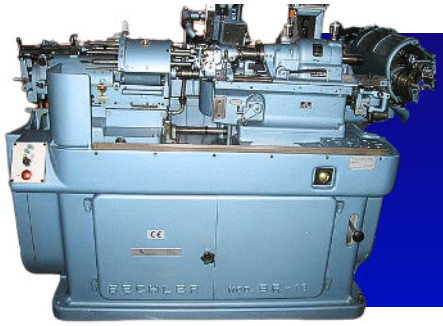


TORNOS - SWISS CAM

60 MACHINES • Our Tornos Swiss screw machines (models M-4, M-7, R-10, & R-125) handle stock diameters from 4mm to 12.5mm and lengths from 1.5" to 6", producing high-precision parts for ordnance, defense, electrical connectors, and industrial components with tolerances of +/- 0.0002" on diameters and +/- 0.0005" on lengths, in lot sizes from 5,000 to several million. These machines are ideal for small, high-volume, and close-tolerance parts.

ESCOMATIC - COIL-FED CAMS

50 MACHINES • Our Escomatic screw machining platforms, with models D2, D4, and D6, uses a sliding headstock where the tooling rotates around stationary coil-form material, reducing costs, downtime, and boosting productivity for high-efficiency production. This setup is ideal for small, high-volume parts.



BECHLER - SWISS CAM

10 MACHINES • The Bechler AS10 handles a max diameter of 3/4" and a max length of 22", utilizing backworking tools for high-precision machining. It produces complex, small parts with detailed finishing on both ends, making it ideal for high-volume, close-tolerance applications in various industries.

MECHANICAL SUPPORT EQUIPMENT

TESKER 175

The Tesker 175 cylindrical die thread roller delivers precise, high-volume threading with a maximum diameter of 2 inches and adjustable rolling force up to 18,000 lbs. Equipped with variable spindle speeds and in-feed/through-feed capabilities, it ensures efficient production of threaded parts for demanding applications.

HARTFORD A190

The Hartford A190 flat die thread roller handles screw diameters from #0 to #10 with thread lengths from 1/8" to 1-1/2". Operating at up to 175 parts per minute, it ensures efficient, high-volume production of precise threaded components.ideal for small, high-volume parts.

SUPPORT EQUIPMENT

At Reader Precision, our support equipment plays a crucial role in delivering precise and reliable manufacturing solutions. From lathes and vertical mills to laser marking systems, each piece of equipment is meticulously maintained to ensure seamless production processes. Whether your project demands intricate detailing, efficient production, or permanent marking solutions, our versatile equipment delivers the accuracy and quality you expect, supporting every phase of manufacturing with precision.

HARDINGE GT27

Hardinge is renowned for their Super Precision gang-style lathe with 1-1/16" maximum material diameter and a 5C colleting system. With 0.00001" offset capability and rigid construction, this lathe is ideal for the most critical turning applications including hard turning of Medical, Aerospace and hydraulic valves where finish and size need to be perfect.

BROTHER R650X1

2 VERTICAL MILLS • The R650X1 is equipped with the 31.5" x 15.7" "QT table", Brother's original high-speed 2-face pallet changer and Nikon 4th axis tables for much improved productivity. This machine has maximum movement in X/Y/Z axis of 25.6"/15.7"/12.0" and expands our machining capability into new and exciting areas.

MECO LASER MARKING SYSTEM

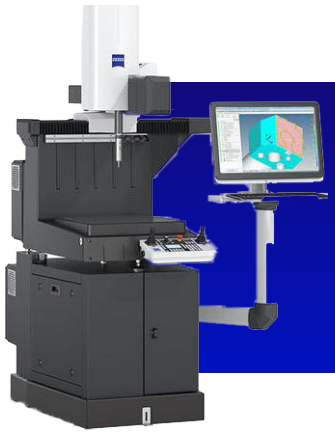
The MECCO Laser Mark System uses a permanent process that, with the use of a beam of concentrated light, creates a lasting mark on a surface. Typically performed with a fiber, pulsed, continuous wave, green, or UV laser machine, laser marking encompasses a wide variety of applications.

TYKMA MINILASE XL

Minilase™ XL provides an open interior for larger components in a benchtop solution. In addition, Minilase™ XL is equipped with ergonomic features such as the three-side pneumatic vertical door with patented safety system, power focal height adjustment, and auto-mode for high volume applications.

QUALITY ASSURANCE

At Reader Precision, quality assurance is essential to our mission of delivering mission-critical parts. Our rigorous inspection processes and advanced measurement systems ensure that each part meets the highest standards of precision and reliability. From concept to production, we are committed to maintaining the quality necessary for parts that play a vital role in your operations, ensuring consistent performance you can trust.



ZEISS DURAMAX CMM

3 MACHINES • Utilizing Zeiss Duramax CMM's, we assure measurement conformance within .00001 on parts with complicated geometries. Running Calypso Software and with the VAST XXT Scanning Sensor Technology, the Zeiss Duramax can even be used to capture contours and free-form surfaces. Designed and built for shop floor use, the Zeiss Duramax provides unmatched quality in our daily part inspection.

Z-MIKE 4050G LASER MICROMETER

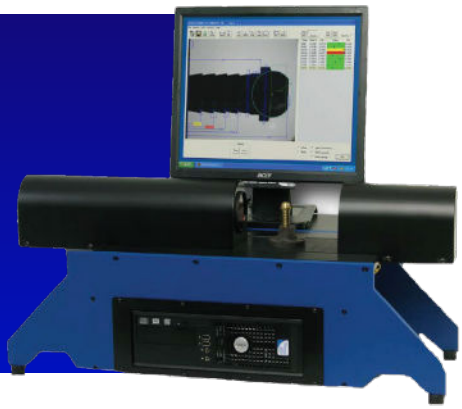
The Z-Mike non-contact laser micrometer provides the capability to evaluate parts to within millionths of an inch. Fast, accurate, and repeatable, the unit can measure diameters from .01" to 2.000" to assure quality conformance.

KEYENCE IM 8000-SERIES

3 MACHINES • A high-precision, optical gauge that allows operators to achieve dimensional measurement results to +/-0.1um. Utilizing automatic focus, epi-illumination, and high precision optics, at the push of a button you can repeatably measure all 2D features, including height. The IM-8000 is equipped with a specifically designed optical lens with a large depth of field that can automatically bring points into focus.

OASIS INSPECTION SYSTEM

4 MACHINES • The Oasis is a premier optical profile inspection system that combines measurement accuracy, within ±.0001", with instantaneous results. With the easy-to-use operator interface, inspection frequency is easily increased. The Oasis allows users to measure multiple part features simultaneously with the results showing in an easy-to-read drawing dimensioning format, that in turn provide our customers with the ultimate in product quality assurance.



QUALITY ASSURANCE

OUR QUALITY PARTNER

HIGH QA

HIGH QA INSPECTION MANAGER

High QA is a fully integrated quality managment software that allows our Quality Assurance department to utilize comprehensive integrated tools and workflows to ensure the highest quality components. The features are carefully designed to guide our technicians through the quality process from ballooning and planning to data collection and reporting.

WESTERN GAGE CORP. - MICRO II

A high-precision, optical gauge that allows operators to achieve dimensional measurement results to +/-0.1um. Utilizing automatic focus, epi-illumination, and high precision optics, at the push of a button you can repeatably measure all 2D features, including height. The IM 8000 is equipped with a specifically designed optical lens with a large depth of field that can automatically bring measurement points into focus.

CERTIFICATIONS & REGISTRATIONS

DDTC — Safeguarding U.S. National Security — Directorate of Defense Trade Controls

nqa ISO 9001 QUALITY MANAGEMENT

nqa AS9100 AEROSPACE & DEFENSE

ITAR — Registered with International Traffic in Arms Regulations

QUALITY POLICY

It is the policy of Reader Precision Solutions to supply its clients with products and services of high quality, which meet or exceed their requirements.

To achieve this, Reader Precision is committed to a process of continuous improvement of its products, services, employees, and quality management system.

CLEANING & FINISHING

Our cleaning and finishing processes are the final steps that ensure every mission-critical part is ready for deployment. From deburring and polishing to advanced cleaning systems, our finishing and cleaning solutions guarantee that each part is delivered to you in perfect condition, meeting all requirements for appearance and functionality. We take pride in the meticulous attention to detail that defines our finishing, ensuring our parts exceed expectations every time.

PART CLEANING

2 MACHINES • This highly engineered parts washer from Roll JCOM is manufactured in Germany. It runs a modified alcohol solution with basket rotation, vapor degreasing, ultrasonics and vacuum drying to remove any residual cutting oils or debris from the parts.

CITRIC PASSIVATION

Reader Precision provides citric acid passivation, a fully automated system that provides high-performance corrosion prevention and surface decontamination. This finishing practice allows us to reduce lead times, control product quality, and control costs. Please let us know how we can help you with our additional service offerings!

DEBURRING & POLISHING

2 MACHINES • Designed for deburring and polishing of non-magnetic metal precision parts, our deburring and polishing machines utilizes a powerful magnetic field to rotate media efficiently, achieving smooth, burr-free finishes.

CENTRIFUGAL BARREL TUMBLING

United's CPC1500 is the most robust finishing machines for small and medium size parts - deburring, polishing, and descaling to specification. Many industries prefers centrifugal barrel finishing over vibratory machines due to controlled, precise material removal.

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