

Swiss Automation

Swiss Screw Machining | Elk Grove Village, IL

Swiss Automation is one of the largest precision Swiss screw machine houses in the United States, with over 180 CNC Swiss-type machines running 24/7. Engineers and procurement teams at medical device, aerospace, firearms, and industrial companies work with Swiss Automation when they need tight-tolerance turned components with consistent lot-to-lot repeatability and full ISO 13485 documentation support



Medical	Aerospace / Defense	Hydraulics / Pneum.	Electronics / Other
<ul style="list-style-type: none"> ● Bar dia 0.040"–1.50" (1–38 mm) ● Thread whirling, bone-type threads ● 316L, 17-4, Ti-6Al-4V, PEEK ● SPC, CMM, lot traceability ● Passivation, electropolish, UDI 	<ul style="list-style-type: none"> ● Avionics, connectors, jet-engine ● Zero-defect, burr-free delivery ● Complex threads, deep drilling ● SS, titanium, nickel alloys, Al ● Full documentation & traceability 	<ul style="list-style-type: none"> ● Spools, sleeves, poppets, fittings ● Tight concentricity control ● Leak-critical edge quality ● SS, alloy/carbon steel, brass ● Prototype to high-volume 24/7 	<ul style="list-style-type: none"> ● Connectors, pins, housings ● Micro to large part families ● Brass, copper, SS, Al, plastics ● Quick-turn & single set-ups ● Prototype to IM+ pieces

SPECIFICATIONS

Bar Diameters	0.040" – 1.50" (1 – 38 mm); OD capacity to 2.75" on multi-turret lathes
Tolerances	As tight as $\pm 0.0001"$. Typical medical $\pm 0.0005"$. Surface finish Ra 16–32 μin ; finer on request.
Materials	SS (all grades), Titanium, Brass, Nickel, Copper, Mil-Spec steels, Carbon/Alloy steel, Al, Bronze, PEEK
Equipment	~180 CNC Swiss machines + multi-turret lathes (Citizen, Tornos DECO, Star, Miyano, Hardinge, Eurotech)
Production Scale	Prototype through million-plus runs. Small, medium & large lots on 24/7 schedule.
Lead Times	NPI: 2–4 wks Production: 4–8 wks Expedites available
Process Control	In-process SPC, CMM/vision inspection, burr-free/sliver-free. Zero-defect programs available.
Finishing	Passivation (ASTM A967), electropolish, UDI laser marking, thermal deburr, cleaning, packaging

KEY EQUIPMENT

- ~180 CNC Swiss Screw Machines
- Citizen (A20, K16, L-series, M-series, D25)
- Tornos DECO & EvoDeco, SwissNano
- Star (SB20, SR10, SR20, SV20, SW-series)
- Eurotech B465, B436 Multi-Turret

MARKETS SERVED

- Medical – Implants & Instruments
- Aerospace & Defense
- Firearms & Military
- Hydraulics & Pneumatics
- Electronics & Automotive

IN-HOUSE CAPABILITIES

- Citric Passivation
- Thermal Deburr
- Ultrasonic Cleaning
- Vibratory Finishing
- Honing
- CNC Milling
- Blasting
- Vision-Guided Automation
- Bar Grinding
- SPC Inspection
- CMM/Vision Lab

