

FUSION ENERGY



precisionexpedited.com

Fusion hardware in tungsten, copper, and Inconel.

Vacuum vessel components, magnet supports, plasma-facing parts, and diagnostic hardware for fusion programs. Precision Expedited sources CNC machining, sheet metal, and additive manufacturing through a vetted vendor network that machines tungsten, oxygen-free copper, and Inconel to $\pm 0.001"$. Technical data is handled under NIST 800-171 compliant controls, and one contact stays with your program throughout.

How We Review It

Your project manager and a technical lead review every print within 24 hours. For fusion hardware we confirm material grades and vacuum-service finishes, flag features that tungsten or copper make risky, and route the job only to shops with a track record in that material.

What We Source

Matched to shops proven in tungsten and copper.

- **Vacuum Vessel Components** · Machined stainless
- **Plasma-Facing Parts** · Tungsten + tungsten alloys
- **Magnet Supports** · Machined structures
- **Conductors + Busbars** · C101 + C110 copper
- **Diagnostic Housings** · Tight-tolerance mounts
- **Flanges + Ports** · Vacuum-service finishes
- **Cooling Channels** · Additive or machined
- **Test Fixtures** · Fast-turn prototypes

Specifications

- **Tolerances:** $\pm 0.001"$ on critical features
- **Materials:** Tungsten, C101 + C110 copper, Inconel, 316L
- **Processes:** CNC, wire EDM, additive, welding, finishing
- **Service:** Vacuum and cryogenic hardware
- **Documentation:** Material + process certs, FAI on request
- **Quote review:** Within 24 hours

Before It's Built

Fusion programs ask for materials most shops avoid. Tungsten is brittle at room temperature and copper is gummy and burr-prone, so we check edge breaks, wall thickness, and finish callouts against what the material will tolerate, and confirm cleaning and handling for vacuum service. You hear about it before the quote goes out.

Quality + Compliance

ISO 9001:2015

AS9100D Compliant

ITAR Registered

NIST 800-171 Compliant

Tolerances to $\pm 0.001"$

Inspection before shipment

Domestic sourcing

Built Fast. Built Right.

Send us your files.

Scan or visit precisionexpedited.com/contact

