

COILTEK

**COILTEK
MANUFACTURING**

ABN: 97 150 548 874

Capability
Statement

INDUSTRIES SERVED

| DEFENCE | MEDICAL | MINING | RAIL | SPACE | MANUFACTURING |





Company Details

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ICN Gateway Business ID: 1598633

Employees: 13

ABN: 97 150 548 874

Local Manufacturer: Yes

Foreign Manufacturer: No

Importer: Yes

Exporter: Yes

NT CAL Accredited: No

Works in Remote Locations: No

Australian Indigenous Owned: No

Accreditations

ISO 9001 Certified

JOSCAR Registered

DISP Pathway – Progressing

Contacts

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COILTEK MANUFACTURING

For more than 20 years, Coiltek Electronics has specialised in the manufacture of custom wire-wound components, including transformers, toroids, bonded coils, inductors, transmitters, solenoids, power-supply windings, metal-detector coils, and a wide range of precision electromechanical winding solutions.

Summary

Coiltek Manufacturing – Trusted Partner in Advanced Manufacturing

Coiltek Manufacturing is an Australian-owned specialist in precision coil winding and custom electromagnetic components, with over 20 years of experience. We co-design and manufacture inductors, transformers, transmitters, chokes, solenoids, toroids, bonded coils, metal detector coils and specialised wire-wound components, supported by electronic assembly, contract manufacturing and in-house 3D printing for tooling and prototyping.

We supply sectors where performance and reliability are critical, including Defence, Space, Medical, Scientific, Mining and Industrial applications. Our clients include Codan, Minelab, ThermoFisher, Leica Geosystems, SATO, Australian Rail Technology, Entech Electronics, SRO Technology, CSIRO, L3 Harris, CEA Technologies and Neumann Space.

Our strengths include high-precision semi-automatic and high specification manual coil winding, rapid prototyping, flexible production volumes, collaborative engineering support and ISO9001 aligned quality systems.

Description

Coiltek Manufacturing offers technical capability in the development and production of specialised wire-wound components, with particular expertise in managing the complexity inherent in precision coil geometries and custom electromagnetic performance requirements. Our engineering approach is grounded in strong collaboration, where we work closely with design teams, procurement partners and end-users to refine specifications, resolve integration challenges and optimise manufacturability.

Our facility houses both semi-automatic and manual high-precision winding systems, enabling consistent and repeatable coil structures where dimensional control, inductance tolerance, weight, and electromagnetic characteristics must be tightly maintained. This includes complex multi-layer windings, shaped and bonded coils, and assemblies requiring specialised wire types and insulation, potting, encapsulation, or structural reinforcement. We also retain manual winding expertise for prototypes, one-off builds and heritage-based configurations, ensuring continuity of supply for legacy and niche applications.

We offer Design for Manufacture (DFM) and Design for Assembly (DFA) support across the development lifecycle. This includes advising on winding architecture, material selection, coil geometry constraints, and integration into housings or larger electronic systems. Our in-house 3D printing capabilities enable rapid development of jigs, formers, mandrels, coil supports and tooling fixtures, shortening lead times and reducing cost without compromising precision.

Metal detector coils and sensing coils remain a core speciality. These components often require precise electromagnetic field shaping, controlled shielding characteristics and highly stable inductive behaviour under varying environmental conditions. Our long-term involvement in this domain provides us with deep understanding of calibration, shielding configurations, resonant tuning, and durability considerations required for high-reliability field equipment.

We also produce transformers, transmitters, chokes, inductors, solenoids, toroids and hybrid assemblies as part of broader electromechanical subsystems. Our integrated assembly capabilities support both stand-alone coil components and fully assembled modules, allowing us to act as a component supplier or a contract manufacturing partner depending on project needs.

Production scalability is highly flexible. We support early-stage prototyping, pre-production development runs, and ongoing production volumes. Our systems are aligned with certified ISO9001 quality methodologies and are structured to maintain traceability, repeatability and process control, particularly when components will be used in regulated or mission-critical environments.

What sets Coiltek Manufacturing apart is our ability to combine quality, winding craftsmanship with modern process automation and hands-on engineering collaboration. This blend of experience and technical capability enables us to respond efficiently to design changes, supply chain variations, challenging performance targets and projects requiring rapid iteration.

COILTEK MANUFACTURING

Industries Served

- Audio
- Automotive
- Communications
- Defence
- Industrial
- Manufacturing
- Medical
- Mining
- Rail
- Research & Science
- Space

Products & Services

- 3D Printing Service & 3D printing
- Solenoids and Trigger Systems
- CNC Epoxy Dispensing and Encapsulation
- Conformal Coating
- Contract Manufacturing Service
- Electronics
- Wire Wound Products & Coil Winding
- Mechanical Design & Assembly
- Customised Wound Components
- Electronic Assembly Service
- Metal Detector Coils
- Custom Inductors & Transformers
- Custom Wound Coils & Bonded Coil Winding
- Custom Toroid Winding
- High Precision Manual Coil Winding
- Assistance with Design for manufacture

Key Partners

- APC Technology
- Australian Rail
- Boeing Defence
- CEA Technologies
- Codan
- CSIRO
- Daronmont
- Electromagnetic Imaging Technology Pty Ltd
- Entech Electronics Pty Ltd
- Fowlerex
- Halcro
- Hendon Semiconductors Pty Ltd
- Hydro Tasmania
- L3 Harris
- Leica Geosystems Pty Ltd
- Minelab Electronics Pty Ltd
- Monitor Sensors
- Neumann Space
- Sato Australia Pty Ltd
- SRO Technology

Facilities & Equipment

- Markforged industrial 3D printers
- CNC epoxy dispensing machines
- Collaborative Automation
- Semi-automatic wire winding machines
- Manual Winding machines
- Semi-automatic toroidal winding machines
- Curing oven
- Laser engraving

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Previous Significant Projects

Client: Codan

Project: Countermine metal detector coils

Coiltek is working with Codan as a contract manufacturing partner, supporting the manufacture of specialised coil assemblies for countermine metal detectors used to detect unexploded landmines and ordnance. Coiltek's unique precision coil-winding capability and extensive experience manufacturing metal detector coils and accessories provide the technical foundation to support Codan's requirements. Our ISO 9001 quality systems, process controls, traceability and established manufacturing capability enable us to deliver consistent, high-quality custom assemblies while working collaboratively with Codan to support their Defence technology and Australian sovereign manufacturing capability.

Client: Thermo Fisher Scientific

Project: Tramp Metal Detector Coils

We are specialists in the manufacture of metal detector coils for conveyor-belt detection systems used across the global mining sector. As the trusted supplier to leading operations worldwide, our comprehensive turnkey service covers procurement, engineering, component sourcing, and full product assembly, ensuring a seamless, end-to-end solution.

With extensive in-house capability across multiple coil sizes, shapes, and configurations, we offer flexible and responsive manufacturing tailored to each client's needs. Our expertise includes precision wire winding, electronic assembly, epoxy encapsulation, and 100% quality testing, delivering durable coils engineered to perform reliably in the harshest mining environments.

We pride ourselves on being easy to work with, maintaining clear communication, collaborating closely with procurement teams, and scaling production efficiently when demand increases. With a strong focus on DIFOT, uncompromising quality, and exceptional customer service, we ensure consistent performance and operational confidence for our global mining partners.

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Client: Hexagon Group

Project: BMM Transmitters

For more than eight years, we have been the preferred manufacturer of this specialised transmitter assembly, consistently delivering over 6,000 units per month with strong DIFOT performance. Our dedicated production line and specialised machinery provide reliable, scalable output, while our flexible approach and clear communication ensure we work seamlessly with the client's procurement team allowing us to increase production rapidly during periods of heightened demand.

Our full manufacturing capability includes precision wire winding, advanced electronic assembly, epoxy encapsulation, and 100% Quality Assurance testing to meet exact customer specifications. This application required a specialised metal detector coil engineered to operate in unison with the transformer units, providing dependable, high-performance detection in demanding mining environments. With a strong commitment to exceptional customer service, responsiveness, and collaborative communication, we deliver a manufacturing partnership our clients can count on.

Client: SRO Technology

Project: Metal Detector Coils

Specialists in the manufacture of metal detector coils for conveyor-belt detection systems across the global mining sector, where we proudly serve as the global supplier of these coils. Our comprehensive, turnkey service spans procurement, sourcing, engineering, and full assembly, delivering a seamless solution. With extensive in-house capability across a wide range of coil sizes, shapes, and configurations, we provide flexible, tailored solutions to meet diverse application requirements. Our specialised machinery increases efficiency, consistency, and product quality, supported by robust quality assurance processes and strong DIFOT performance.

Backed by long-term partnerships within our supply network, we ensure reliable material sourcing and responsive scaling. Working closely with our clients' procurement teams, we increase production seamlessly during periods of heightened demand. Combined with our expertise in precision wire winding, advanced electronic assembly, epoxy encapsulation, and 100% quality testing, we deliver durable, high-performance coils engineered to thrive in the harshest mining environments worldwide.

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Client: Coiltek Manufacturing Pty Ltd

Project: Consumer Metal Detector Coils

Specialising in the design and manufacture of metal detector coils for gold prospectors and treasure detectorists. Our end-to-end capability spans specialist research and development, precision manufacturing, ISO9001-certified quality assurance, global distribution, and strategic marketing. With in-house expertise across multiple coil sizes and configurations, we combine advanced engineering, precision wire winding, electronic assembly, epoxy encapsulation, and 100% quality testing to deliver coils trusted for their performance, sensitivity, and durability. Exporting to over 36 countries worldwide, Coiltek brings decades of experience and long-term knowledge in international trade, ensuring reliable products and seamless delivery to detectorists across the globe.

Client: Neumann Space

Project: Satellite Propulsion System

Australian space-tech company Neumann Space needed highly specialised inductors for their cutting-edge propulsion rocket, they turned to Coiltek Electronics. These custom-wound inductors play a critical role in the ignition trigger system - a core component responsible for launching satellites into Earth's orbit. With such high-stakes performance requirements, the Neumann Space engineering team needed a manufacturing partner they could rely on. We worked closely with their engineers to meet strict technical parameters and ensure every part was manufactured to exacting specifications. Thanks to our team's expertise and quality assurance systems, we delivered a precision-wound solution, on time and to the highest standard. The result was a successful ignition system, a repeat order, and the beginning of a collaborative partnership that continues to support Neumann Space's mission to push the boundaries of Australian space innovation.



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