



AREX PRECISION Capability 2023

Arex helps defence clients achieve their mission success by providing advanced manufacturing capabilities that are backed by years of experience. Always seeking to innovate and provide a superior service to key stakeholders.

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OPERATIONS

Arex is a 100% Australian owned, with over 30 years of industry experience, offering design & manufacturing services from its fully equipped facilities on a 1200 m² in NSW.

▶ Engineering Design

- ▶ Mechanical design experience in mining & rail fields.
- ▶ 20 Years expertise with German drawings and technical requirements
- ▶ Reverse Engineering of orphaned components.
- ▶ Design optimization
- ▶ Design for manufacture.
- ▶ Tooling
- ▶ Specialist Q&T steel knowledge

SOLID EDGE
VELOCITY SERIES



▶ Precision Fabrication

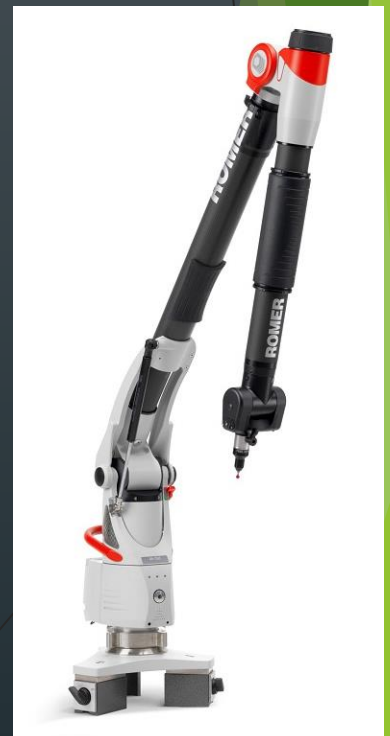
- ▶ Welding to Australian & ISO standards
- ▶ CNC sheet-metal
- ▶ Stress relieving
- ▶ NDT

▶ Precision Machining

- ▶ 3,4 & 5 axis CNC turning
- ▶ 3,4 & 5 axis CNC milling

▶ Painting

- ▶ 7m paint full climate controlled booth.
- ▶ 12 Arex Paint spec systems or to client spec
- ▶ Full MDR available



QUALITY AND COMPLIANCE

- ▶ DISP Approved
- ▶ Certified QMS to ISO-9001-2015
- ▶ Transitioning to AS9100D



- Conformance guarantee.
- Inspection & Test Report.
- Traceability.
- Dependability.
- Client Communication.

*“Quality can only ever be
built into a task, never added
later”*

Feigenbaum 1969



QC & Process Control

“OPTO” ERP system handles data relating to all processes including quality. QMS controlled manufacturing process using a gated ticket system for every job. From raw material to final inspection & release. Every job is subject to in-process hold points and inspections.

Manufacturing Data Reports are generated as reqd.

- ▶ Raw material incoming inspection , marking and storage.
- ▶ 3.1 certification of raw materials before
- ▶ Serialization
- ▶ DR1 Dimensional records
- ▶ CMM first article inspection reports.
- ▶ NDT pre or post process as required
- ▶ Welding to code
- ▶ Post weld NDT , MPI , UT , X Ray
- ▶ Heat treatment / Stress relieving
- ▶ Post heat finishing & machining operations
- ▶ Gauging & verification checks
- ▶ Painting to spec.

QUALITY POLICY

AREX Precision provides precision engineering and manufacturing services to all sectors of industry.

As a primary obligation, AREX Precision is committed to meeting the needs, expectations and satisfaction of our clients by the implementation of our **ISO-9001 Quality Management System**. Our QUALITY POLICY will guide the management and employees of Arex Engineering Pty Ltd in all quality-related decisions and actions, on a daily basis.

Quality Objectives

- *Provide a product, service, or solution which meets or exceeds the expectations and objectives of our customer*
- *Provide a work environment that provides long-term employment, development, and growth for all employees*
- *Continuous and measurable improvement in all that we do*

The management of Arex Pty Ltd realize that success in the future depends upon achieving these objectives by:

- Providing customer satisfaction, by maintaining and continually improving the Quality Management System
- Providing assurance of conformity of product and service, while complying with all statutory and regulatory requirements
- Providing appropriate resources to implement and maintain the Quality Management System
- Educating and training in order to continually improve the skills of our people and their awareness and knowledge of quality issues and practices
- Providing equal opportunities in
- Identifying, reporting, investigating and resolving all non-conformances, then taking action to prevent recurrence
- Establishing, reviewing and communicating performance measures and taking action to improve outcomes

AREX is committed to long-term growth, profitability and employment of our personnel and will achieve this utilizing a business approach that takes into account the needs of all our stakeholders (e.g., customers, employees, partners, suppliers and the environment) and which encompasses an attitude of "QUALITY FIRST."

Managing Director

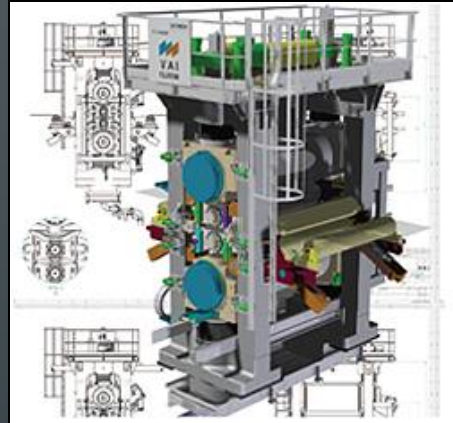
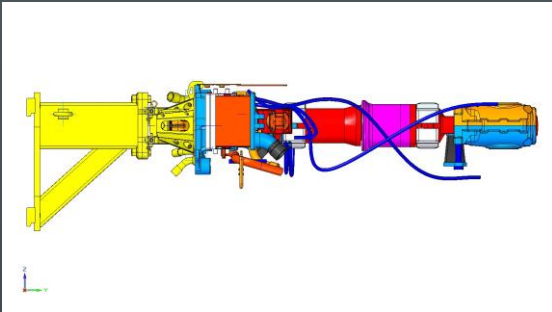
Mitchell Heffernan

19/7/19

ADVANCED CAD Engineering

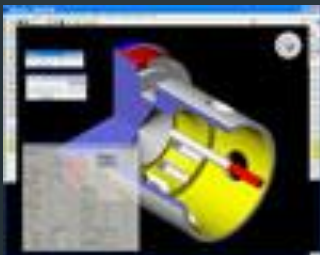
▶ SOLID EDGE

- ▶ All engineering designs carried out using “Solid Edge”. A sophisticated & powerful 3D parametric modeling.
- ▶ Conversion of STEP , IGES and other common 3D models.
- ▶ Sheet-metal design & flat-pattern-DXF generation.
- ▶ Assembly , sectioned & exploded parts views.
- ▶ Physical properties: volume , mass & center of gravity.
- ▶ Parts lists, Revisions , Section views at the touch of a button.



■ 5 AXIS MASTERCAM

- Dedicated CAD/CAM 5 Axis programming station.
- Fully networked centralized secure data transfer.
- MASTERCAM® is a state-of-the-art, PC-based computer-aided manufacturing (CAM) system for programming computer numerically controlled (CNC) machine tools.
- DXF- Machine code generation.
- Run time & tool-path simulation.



PRECISION MACHINING

▶ CNC TURNING

- ▶ Mori Seiki -4 axis NL2500 1250mm capacity.
- ▶ Mori Seiki- NTX2500 1500 with robot loader.
- ▶ 5 axis simultaneous multi task machine with robot loader
- ▶ Mori Seiki -3 axis SL150 500mm capacity.
- ▶ DOOSAN 480LX 2 Axis
- ▶ 650 x 3100 capacity.



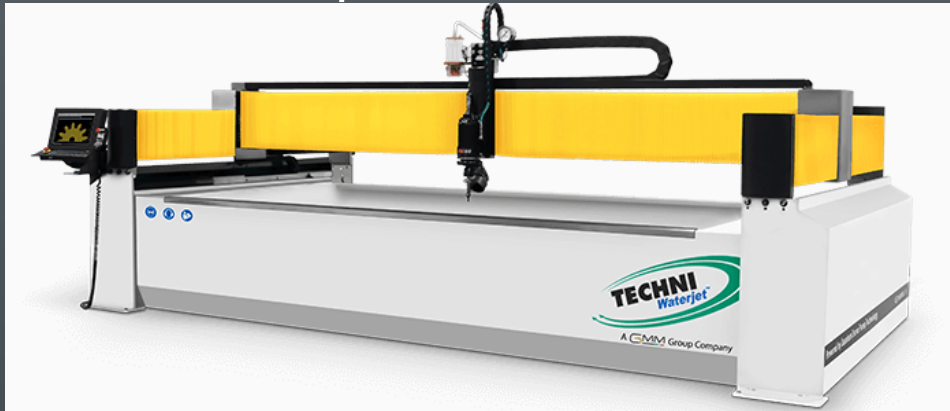
■ CNC MILLING

- MAKINO A77 4 axis, twin pallet machining center.
- MAKINO PS105 4 axis Vertical machining center.
- CORREA CF25/25 Vertical machining center. 2500 x 1000 x 1000
- HAAS UMC750 5 axis Simultaneous machining center.



PRECISION CUTTING

- ▶ 5 AXIS CNC ABRASIVE WATERJET
- ▶ 4200 x 2400 Table
- ▶ 88000 PSI Pump



- ▶ CNC Bar Cutting to 460 Dia



PRECISION FABRICATION

Arex holds pre qualified welding procedures to Australian codes. If we don't already have what you need, then we will acquire the certification as required. Welders are then qualified to the process you need.

► Certified welding

- GMAW , FCAW,TIG
- To AS-1554-1
- To AS-1554-6
- To ISO-15614
- AS-4041 / 3992
- Steel , stainless, alloys
- Pre weld heat treatment
- Post weld heat treatment



■ CNC Bending

- 300 Ton Synchro
- 6 axis control
- 4-meter capacity
- Special tooling can be designed & manufactured to suit any special need

■ Composite Assemblies

- Q&T steels.
- Cast parts
- Precision jig design & manufacture



HUMAN RESOURCES & COMPANY DATA

WORKFORCE DATA

- ▶ Arex has a historical workforce of 12-15 people employed full time.
- ▶ Mechanical Engineers
- ▶ Admin & accounting
- ▶ CNC machine programmers
- ▶ CNC machine operators
- ▶ Fabricator welders
- ▶ Painters

MARKET SEGMENT BY TURNOVER

Rail Component Manufacturing 42%
Mining Equipment Manufacturing 33%
Power Transmission Manufacturing 23%
Engineering Design Services 2%

STRATEGIC INTENT

Arex intends to be a partner of choice for defence , rail and precision engineering. We intend to grow our engagement in the coming years. We will do this through strategic dedication to the task. We will attract talent by providing a culture and an environment where people can excel and grow while being rewarded for their efforts. To train the next generation of engineering trades by investing and providing opportunities for young people.

Investing in automation and Industry 4.0 and bringing our competitive advantages to each sector.