CROWNENGINEERING PTY LTD

For more than 90 years, Crown Engineering has stood proudly at the innovative forefront of the global engineering industry.

We understand that when it comes to the industrial components that drive your business, you need pin-point accuracy and guaranteed precision.

// **GEARED FOR PRECISION**


JUARISTI

From mining and energy, through to marine and manufacturing, we are geared to deliver world-class precision wherever you need it.

GEARED FOR PRECISION

With exacting standards of workmanship, extensive engineering knowledge, and cutting-edge production capabilities, Crown Engineering is renowned for the guaranteed accuracy of the gears and industrial systems we engineer.

Our vast expertise and understanding of diverse industries – from mining and energy, through to marine and manufacturing – enables us to deliver complex industrial solutions on schedule that exceed industry standards and set new benchmarks for engineering quality and precision.

Transparent traceability, open accountability and our ISO9001:2008 accredited Quality Assurance Program gives you the reassurance that your project is in the best capable hands.

Over the past 90 years the Crown Engineering name has become synonymous with world-class engineering craftsmanship.

As a family-owned Australian company, we uphold this reputation by guaranteeing to only deliver world-class gears and components that we are proud to put our name on.

Continual investment in training, safety, quality assurance and manufacturing innovation ensures guaranteed precision, on-time delivery and optimum plant performance with minimised unscheduled downtime.

With state-of-the-art premises, highly skilled staff and an unsurpassed commitment to quality, Crown Engineering is geared to deliver guaranteed precision.

Our facility includes several specialised areas spread across five buildings, covering a total area under roof of 8,500 square metres.

Each area is equipped with the latest production machinery – spanning manual and CNC machining centres, floor borers, vertical borers, a complete heat treatment section, a full fabrication workshop, specialist fitting, gear cutting and gear grinding machines and a state-of-the-art quality assurance department.

The workshop has the capacity to turn over 4 metres in diameter; our shaft turning lathes have a capacity of 5 metres in length; and our milling and boring capacity is 12 metres long and 4 metres high.

Overhead gantry cranes in each building provide a lifting limit of 40 tonnes, which gives us the flexibility to carry out different processes simultaneously without slowing the production cycle down.

Continual investment in the latest production methodologies, equipment, training and QA processes ensures that we deliver to clients' exact specifications and demanding time frames.

At every point we strive for precision which is why we continue to lead the industry in innovation, safety, delivery and quality assurance.


HANKOOK
VTC200E
CNC Vertical Turning Center

At Crown Engineering we have the proven cross-sector knowledge, expertise and flexibility to engineer and deliver world-class industrial components globally within accurate lead times with guaranteed precision.

MINING // OIL+GAS // MARINE
ENERGY // TRANSPORT // INDUSTRY
MANUFACTURING // FOOD SERVICE

// **PRECISION ENGINEERED**

COMPLETE TRANSPARENT TRACEABILITY

Transparent traceability is the trademark of Crown Engineering and no other Australian engineering company comes close to our QA program which is why we continue to lead the industry in accurate precision craftsmanship.

As part of our commitment to quality, Crown Engineering is an ISO accredited company. This accreditation compliments the Crown Engineering quality ethos and management system. Many of our clients perform a supplier audit, to ensure that product specific requirements are met in conjunction with our ISO provisions.

Every employee at Crown Engineering is dedicated to upholding our Quality Assurance Program and complying with our clients' specific quality requirements.

At every step during the production process we apply stringent testing procedures to ensure your exacting standards and specifications are met. As part of this, detailed, real-time quality assurance reports are available during the entire life-cycle of the project.

Our Quality Department maintains a smooth-running, efficient and strictly climate controlled environment within our production facility.

Through constant monitoring and ongoing improvements to our manufacturing processes, we avoid any non-conformances and guarantee on-time delivery of components that are engineered to perform to the highest standards in the most demanding conditions.

A comprehensive Quality Statement can be found at crown-eng.com.au/quality-assurance

Transparent accountability and traceability are the trademark of Crown and set us apart from every competitor.

GUARANTEED PRECISION

CO-ORDINATE MEASURING

Mechanical precision is at the crux of what we do. Our experienced engineers use a Co-ordinate Measuring Machine (CMM/3D Measuring) with full CNC control and digitising capabilities to measure the co-ordinates of all surface elements on the parts we produce. The precision of the CMM guarantees the accuracy of the finished component.

GEAR METROLOGY

Our gear metrology machine is one of the largest in Australia, giving our clients unparalleled precision and accuracy. The high-tech machine can measure the full tooth profile, lead, pitch, helix angle and surface finish of cut and ground gears.

As part of our Quality Assurance package, clients receive full documentation outlining the accuracy and quality of their components.

METALLURGICAL TESTING

Crown Engineering's state-of-the-art testing laboratory provides clients the confidence that every component we deliver is engineered to last.

Developed and refined over many years, our stringent testing methods are world-class and deliver unrivalled accurate results.

The extensive array of metals we use are tested at different phases in the production cycle by experienced technicians for durability and performance, therefore reducing the risk of unscheduled downtime.

REPORTING

Comprehensive reporting guarantees all components are delivered to your exact requirements. Throughout the entire production life cycle, every detail of your project is recorded and all process reports and certificates are made available as part of your Quality Package or Manufacturing Data Report.

With an overhead lifting capacity of 40 tonnes, Crown's Specialist Fitting Workshop is capable of fitting and assembling gear boxes, high speed drives and transmission parts with absolute precision in the most demanding time frames.

// **ENGINEERED TO DELIVER**

GUARANTEED ACCURACY

The CMM enables the measurement of parts to a tolerance of 7 microns (0.007mm), within a working envelope of 700mm x 900mm x 1200mm.

EXTENSIVE ON SITE CAPABILITY

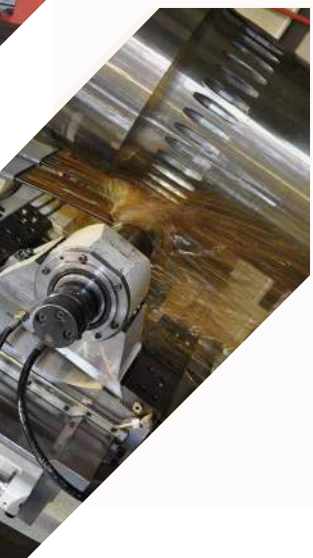
Our Gear Metrology is one of the largest in Australia handling a max diameter of 2000mm, a maximum face width of 1250mm and a table load capacity of 5 tonne.

EXACTING CRAFTSMANSHIP

Hofler Gear Testing and Certifying Machines are used for full profile, lead, pitch and helix angle testing. Intricate gears up to AGMA 15 or DIN 3, can be produced across a vast range of profiles and exacting standards.

ISO ACCREDITED

As part of our commitment to quality, Crown Engineering is an ISO 9001:2008 accredited company. This accreditation compliments the Crown Engineering quality ethos and management system.



GEARED TO DELIVER

GENERAL MACHINING

Using the latest equipment, our workshop delivers complex industrial products and engineered systems of unparalleled quality within accurate lead times.

Trained technicians use manual and CNC machines depending on the project; and a variety of spindle configurations are used for both turning and milling.

By using the latest tools and machines, significant cost savings are passed onto our clients – particularly for the machining of medium to large mechanical components.

GEAR CUTTING + GRINDING

Since its inception, Crown Engineering has built a worldwide reputation for the accurate precision of our advanced gears and high speed drive systems.

Our state-of-the-art workshop contains a wide range of gear manufacturing equipment, and is capable of hobbing, milling or shaping gear teeth to suit your exact specifications.

Using a Hofler Gear Testing and Certifying Machine for full profile, lead, pitch and helix angle testing, we can produce gears up to AGMA 15 or DIN 3, across a vast range of profiles and to many standards.

A full breakdown of specification capabilities can be found on our website at *crown-eng.com.au*

SPECIALIST FITTING

Our trained technicians carry out specialised fitting and assembly of critical components.

With an overhead lifting capacity of 40 tonnes, Crown Engineering's fitting workshop is capable of manufacturing an extensive range of advanced gear, drive systems and transmission parts to suit the harshest global conditions.

By keeping abreast of the latest and most efficient fitting practices and techniques, we ensure your components run with greater precision enhancing their service life and minimising the risk of unscheduled downtime.

REFURBS + REBUILDS

Precision is vital when re-building gearboxes, to ensure that the gears meet exacting specifications and deliver optimum performance.

Crown Engineering's expert fitters refurbish gearboxes to exacting specifications – so they are as good as new. Our extensive knowledge ensures issues are efficiently resolved therefore shortening delivery lead times and comprehensive reports detail any issues that arise during the process.

Using our precise Coordinate Measuring Machine and our Höfler Gear Metrology Machine, trained technicians accurately and methodically inspect, report, repair, overhaul, re-assemble and test run some of the largest advanced gearboxes used in industry today.

INDUSTRIAL WELDING

Whatever you require, our precision welding team will exceed your most exacting standards with our qualified and tested welds meeting the rigours of the harshest working conditions.

Renowned for our extensive proven experience of welding medium to high carbon steels such as 4140, 4340 and 4330, Crown Engineering continues to set the standard for high quality welding in medium to heavy steel cross sections.

Our experienced team has thorough knowledge and experience when it comes to welding theory and practice. In addition, we rigorously adhere to international welding standards to produce work of the highest quality.

SURFACE TREATMENT

When it comes to industrial parts and products, well finished and preserved components will help extend their service life. Crown Engineering has the expertise and extensive capability to give your components the right protection against the elements.

A dedicated shot-blasting booth prepares the material for painting and application of protective coatings. Then, our skilled spray painters achieve an impeccable finish – whether it be a protective coating for machined surfaces or high quality painted surfaces that protect components from harsh conditions and corrosive environments.

ENGINEERING DESIGN

Accuracy is imperative when it comes to designing components that are engineered to last. As such, our design department plays an integral role in translating your mechanical designs into finished products with utmost precision.

As well as transmission parts, complex gearboxes and high speed drives, our design engineers draw upon their comprehensive knowledge and resources in gear design and reverse engineering to develop state-of-the-art 3D modelling and simulation, meticulously producing accurate drawings for any product or component that you require – including complex bespoke solutions where strength and accuracy are essential.

HEAT TREATMENT

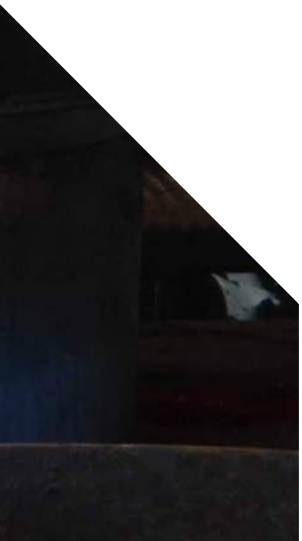
Our state-of-the-art heat treatment plant boasts a wide range of equipment and our controlling furnaces regularly achieve over 6.5mm case depths to help give your products a longer service life.

At Crown Engineering we use four surface hardening processes including Quench and Tempering; Case Carburising; Induction Hardening and Nitriding.

Our in-depth metallurgical knowledge lets us achieve the best heat treatment results, whichever procedure our customers require.

All case carburised and induction hardened items are checked in our onsite laboratory – with tests including sectioning, micro-hardness tests, and macro-hardness assessment of metallic microstructure.

Our ability to understand the demands of your business means that whatever you need, wherever you need it, we can deliver.



CORE CAPABILITIES

CNC VERTICAL BORING AND TURNING
Up to 4200mm diameter x 2000mm high

CNC SHAFT CAPACITY
Up to 5000mm in length

MILLING AND BORING
Up to 12000mm long x 4000mm high x 2500mm wide

EXTERNAL GEAR CUTTING
Up to 4200mm diameter with onboard metrology

INTERNAL GEAR CUTTING
Up to 3800mm diameter with onboard metrology

EXTERNAL GEAR GRINDING
Up to 2000mm diameter and 1500mm face width

INTERNAL GEAR GRINDING
Up to 1600mm diameter and 500mm face width

EXTERNAL SPLINE CUTTING
Up to 1500mm face width

INTERNAL SPLINE CUTTING
Up to 850mm inside diameter x 1000mm face width

HEAT TREATMENT CARBURISING CAPACITY
Up to 1800mm diameter x 1500mm high with max. weight of 10 tonnes

SHAFT HEAT TREATMENT CARBURISING CAPACITY
Up to 900mm diameter x 2600mm high with max. weight of 10 tonnes

FABRICATIONS
Up to 40 tonnes in weight

STRESS RELIEVING OVEN
4000mm x 4000mm x 2000mm


3000kg

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