

# About Us

## Mechanical Engineering and Quality Control

### Mechanical Engineers

#### Mechanical Engineering & Quality Control

**is a designer and manufacturer of mechanical custom parts, equipment and fixtures.**

**We take a project from the initial concept through design, detailing, manufacturing and Quality Control to meet or exceed customer needs.**

**Our advanced 3D CAD software combined with over 25 years Mechanical Engineering experience and high quality machine tools gives us the competitive edge and capability to offer innovative solutions to our customers.**

#### Engineering Services

##### Mechanical Design Engineering:

- New Products, Part Design, Assemblies, Mechanisms, R & D Projects.
- Conceptual Design, Solid Model 3D CAD Design, Virtual Prototype.
- Design for Manufacturing and Assembling, Cost Reduction of Existing Product.
- Engineering Testing and Evaluation, Research Support.

##### Manufacturing:

- Full scale Prototyping, Fixtures, and Jigs.
- Machining of mechanical components.
- Stainless Steel welding.

##### The Product Design Process:

- **Concept Generation:** The first phase begins with an idea for a new product. A requirements specification is developed to define the functions and performance criteria for the product. One or more design concept sketches are created to define the visual appearance features.
- **Detail Design:** The second phase is the development of a design based upon the concept model and specification. The design is developed using a 3D CAD program. CAD models are created for the individual parts and the subassembly showing how the parts connected together. This visual prototyping allows for

interference checking and range of motion studies before any physical parts are manufactured. Careful selection of CAD models ensures smooth manufacturing and assembly processes.

- **Analysis:** The design is evaluated from an analytical standpoint to ensure there will not be any technological, performance and usage issues.
- **Prototype:** Once the design is completed, prototypes can be built. For fabricated parts, detail drawings are created for manufacturing.
- **Assemble and Test:** Component parts are assembled and tested to ensure the product meets the performance specification. If changes are required, the CAD models are updated and the prototype phase is repeated.
- **Product release:** In the final phase a documentation package is delivered which includes detail drawings of custom components and assembly drawings with bill of materials. For tooled parts, CAD data can be exported in a variety of formats to enable tooling directly from the CAD database to ensure accuracy and expedite the tooling process.

**Contact details:**

**110 Brenchley Dve,**

**Atwell, 6164 WA**

**Phone: (08) 9414 5960**

**Mobile: 0418 905 602**