



R&D GLOBAL
CAPABILITY STATEMENT

Introduction and Overview

R&D Global (RDGE) is a dynamic, highly skilled and versatile company offering engineering solutions and manufacturing services.

We have capabilities to provide turn-key project solutions for automation, mechanisation and special purpose machine designs. RDGE have a dedicated approach to design and product development focusing on efficiency and optimisation of process.

We would appreciate the opportunity to work with and develop a relationship as an OEM manufacturer and engineered solution provider.

RDGE would like the opportunity to develop a working relationship and grow alongside you as a valued solution provider.

Rupak Karunakaran
Managing Director

Engineering & Design

Capabilities

- 2D & 3D CAD Designing and drafting
- Machine design
- Strength and FEA analysis
- Mechanization & automation
- Efficiency and process improvements
- Concept study & feasibility analysis
- Capacity building
- Lifting equipment design
- Total engineering support

Past Projects

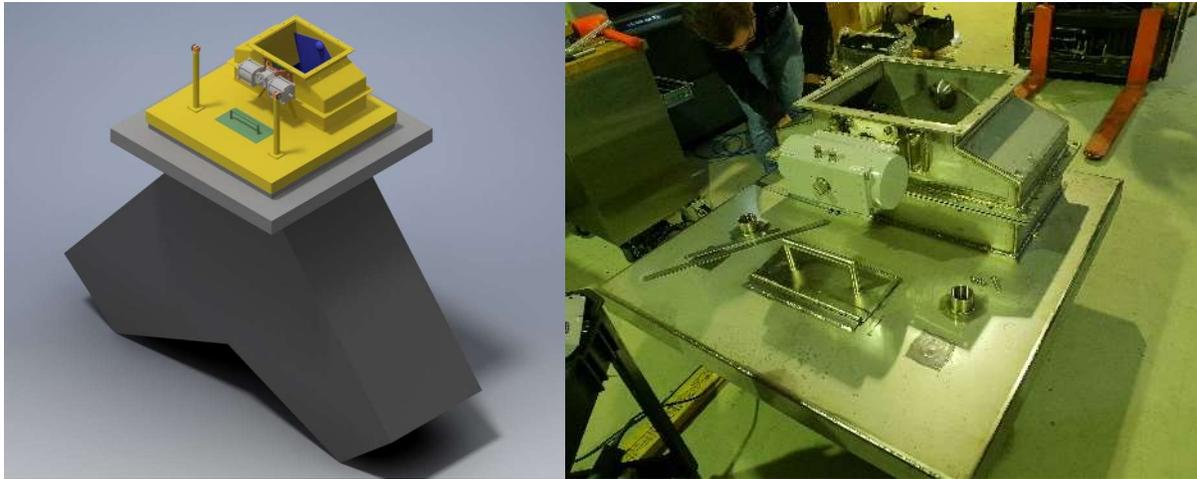
Conveyor system install with automatic pressure test & buffing technology



Project involved design, manufacture and installation of conveyor system which could buffer, traverse and load tanks. These were also integrated into a Siemens controlled pressure testing system.

- Project value – 1.2 M
- Project duration – 16 weeks
- Project outcome – increased throughput of tanks from 660 to 900 per day

Gluten diverter unit for ethanol production



Project involved design and manufacture of a diverter system which could measure, fill and divert product into primary and secondary vessels as required. Manufactured from food grade stainless steel (316 SS) and included an anti-jamming accumulator.

- Project value – \$400,000
- Project duration – 8 weeks
- Project outcome – increased safety as an operator did not have to manually divert product and it allowed the plant main control to observe, divert and modify fill rates to suit demands.

FliteCell product development



Project involved design, manufacture and testing of a battery casing which we developed and manufactured in-house. Strict drop, shock and water sealing constraints were met.

- Project value – \$120,000
- Project duration – 12 weeks
- Project outcome – developed a polyurethane battery housing which met the rigorous demands of high output Li-ion cells, which included a thermal dissipation passive cooling system and a Fire Retardant Anti-Static (FRAS) material in the polyurethane for enhanced safety.

Manufacturing – Design & Manufacture

Capabilities

- Complete 3D CAD/CAM facilities
- CNC machining
- 4th Axis machining
- High accuracy, high repeatability
- Innovative, modern, clean workshop
- QA Management System
- Staged delivery & contract manufacturing

High precision manufacturing

RDGE has the capability to manufacture high precision parts efficiently and with great consideration to total quality management. We have invested heavily in the latest CAD/CAM software and CNC machining equipment.

We can accommodate:

- Staged delivery
- Batch order
- Assemble to order
- Configure to order
- Engineering to order
- Just in time and make to stock models

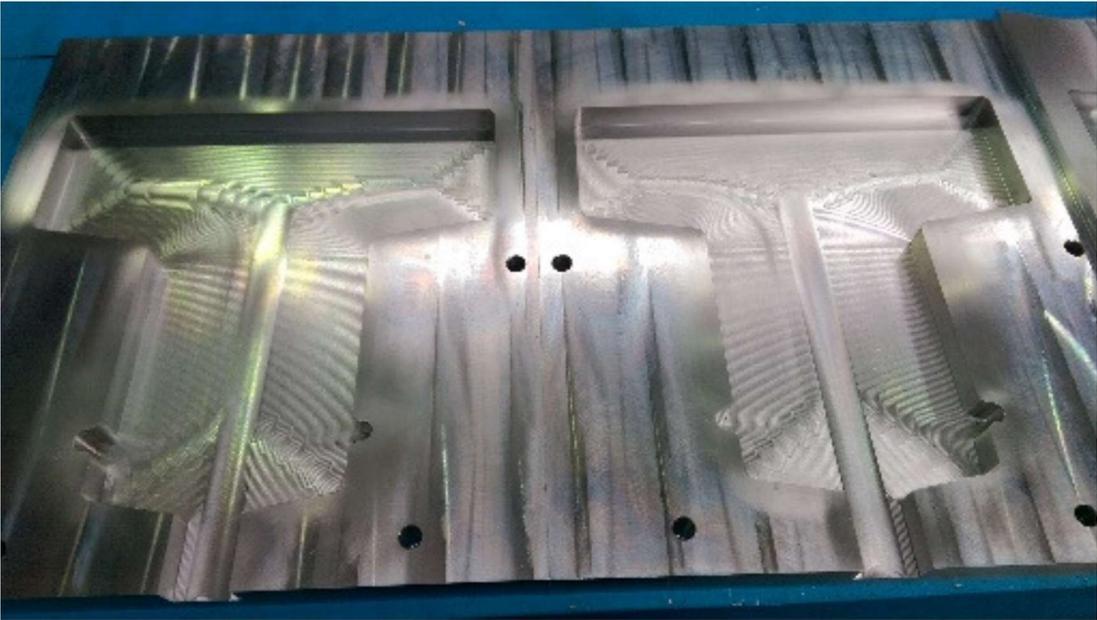
Manufactured parts



Made to order



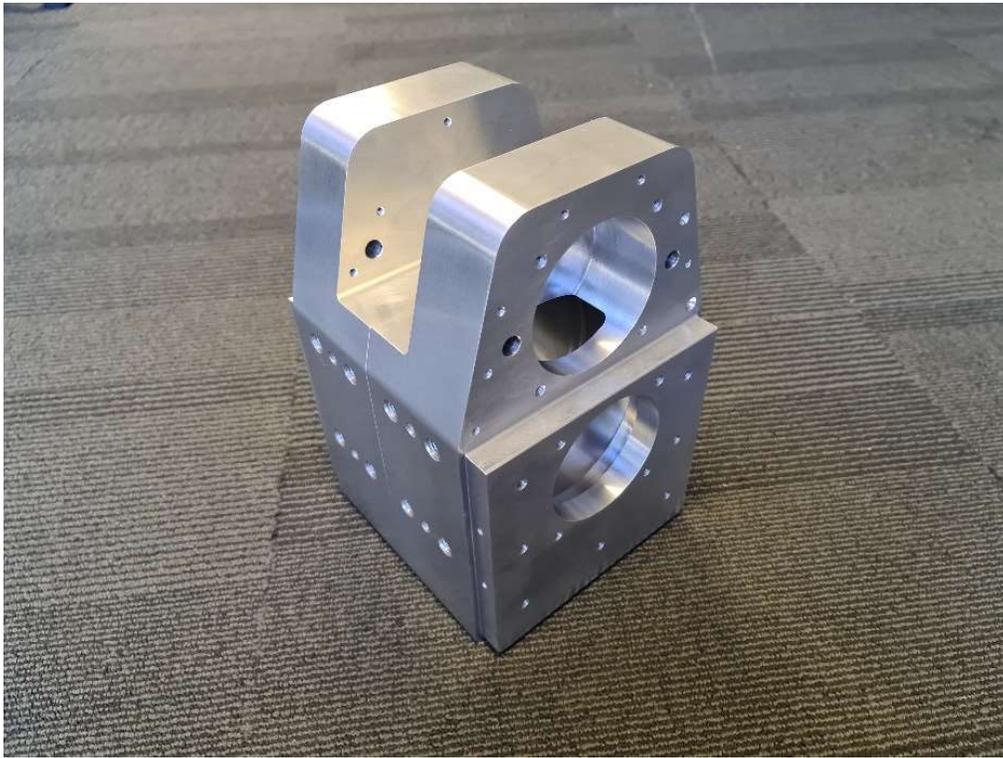
Mold work



Custom sensor



Aerospace parts – aluminium grade 7075



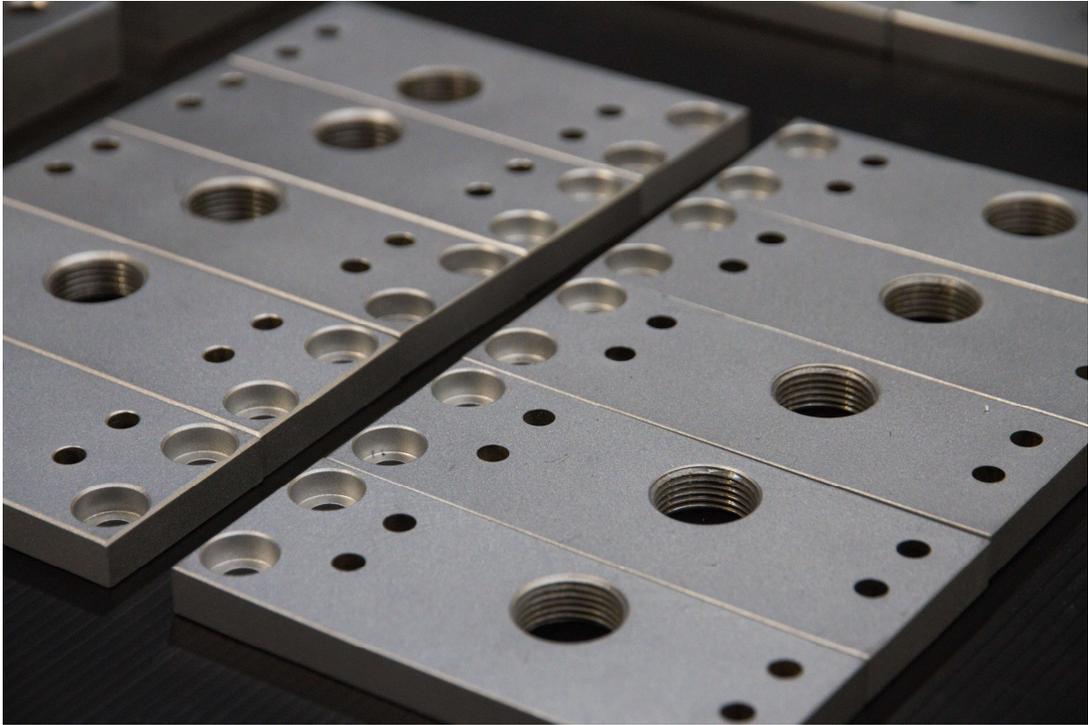
Hydraulic components – stainless steel grades 420 & 431



Gearcase components



OEM manufacturing



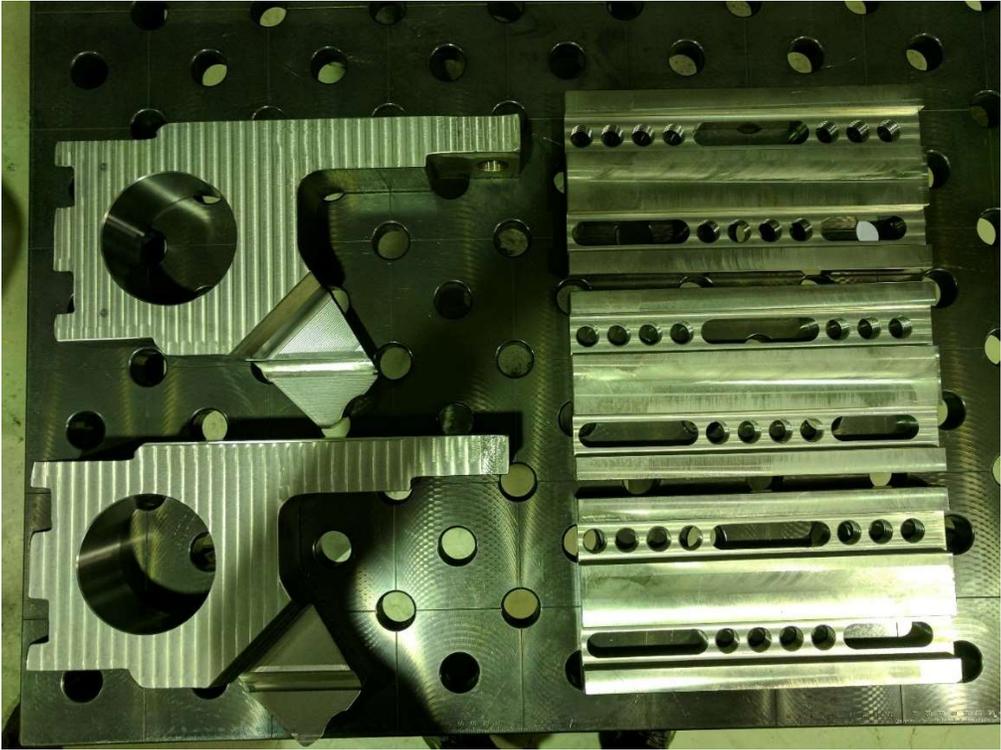
Ground engaging equipment - wear parts



Safety – lock out plates



Pre-machining welded products



Custom press - for nanofiber technology



Fabrication - Design & Fabricate

Capabilities

- 3D CAD Design and drafting
- Small to medium fabrication & assembly
- Welding - stainless, aluminum, steel
- Assembly of mechanical systems, combining hydraulic, pneumatic & electrical disciplines
- Jig table with custom work holding capabilities

Fabricated project examples

Air canon – 316 SS



Conveyor reject product pusher assembly



Laboratory equipment



Hopper & platform for processing plant



Tank up-ender for manufacturing line



Light housings



Scrap steel dump trolley – 30T capacity



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