



# 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

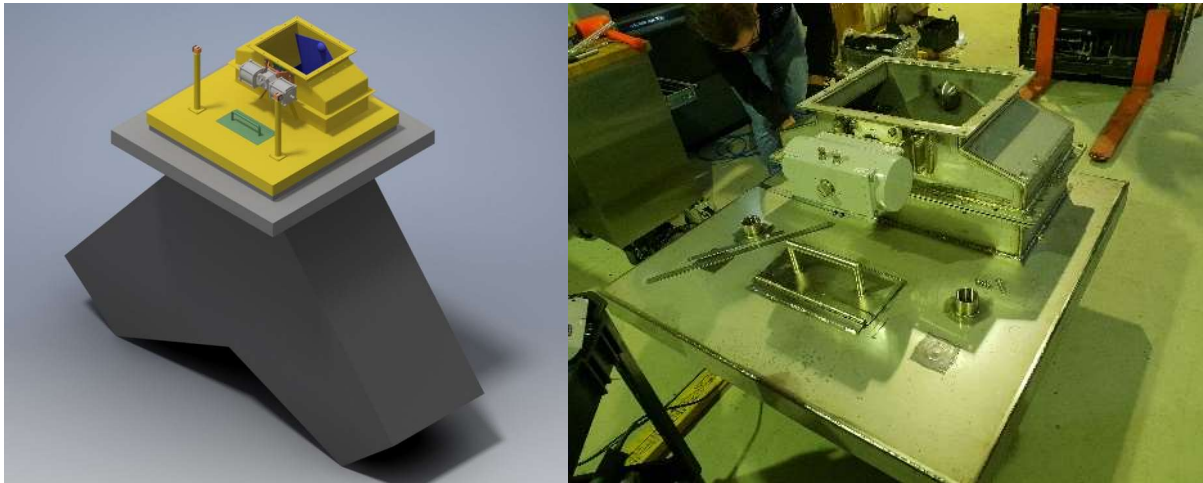
### Conveyor system install with automatic pressure test & buffing technology



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 valve – 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
- 4<sup>th</sup> 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

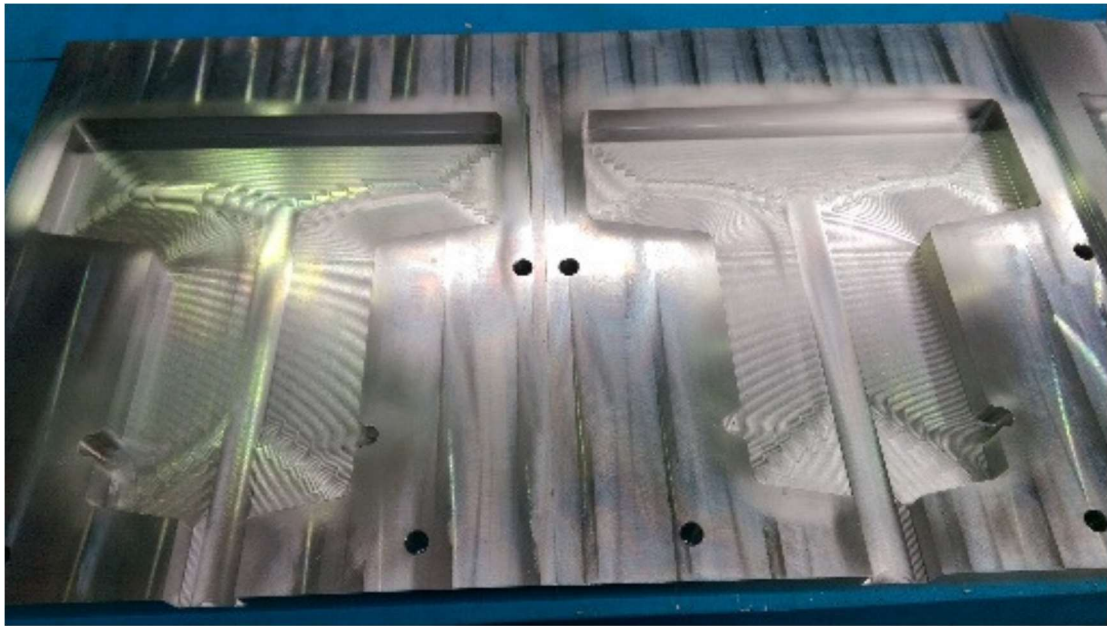




Made to order



Mold work

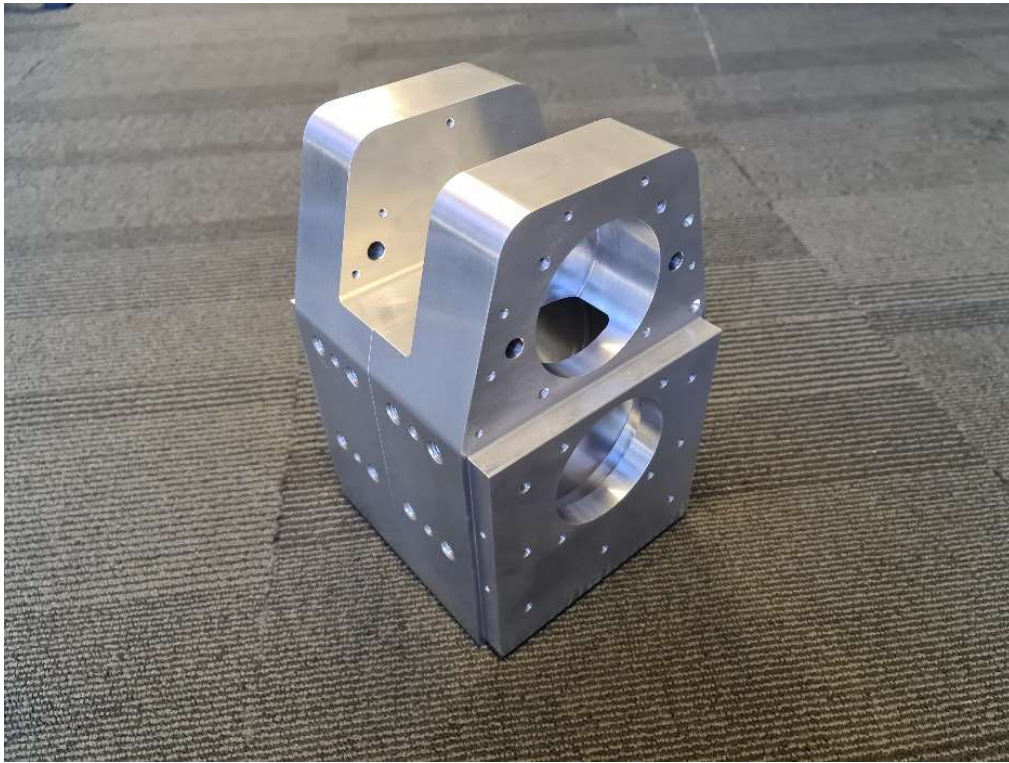


Custom sensor





Aerospace parts – aluminium grade 7075



Hydraulic components – stainless steel grades 420 & 431

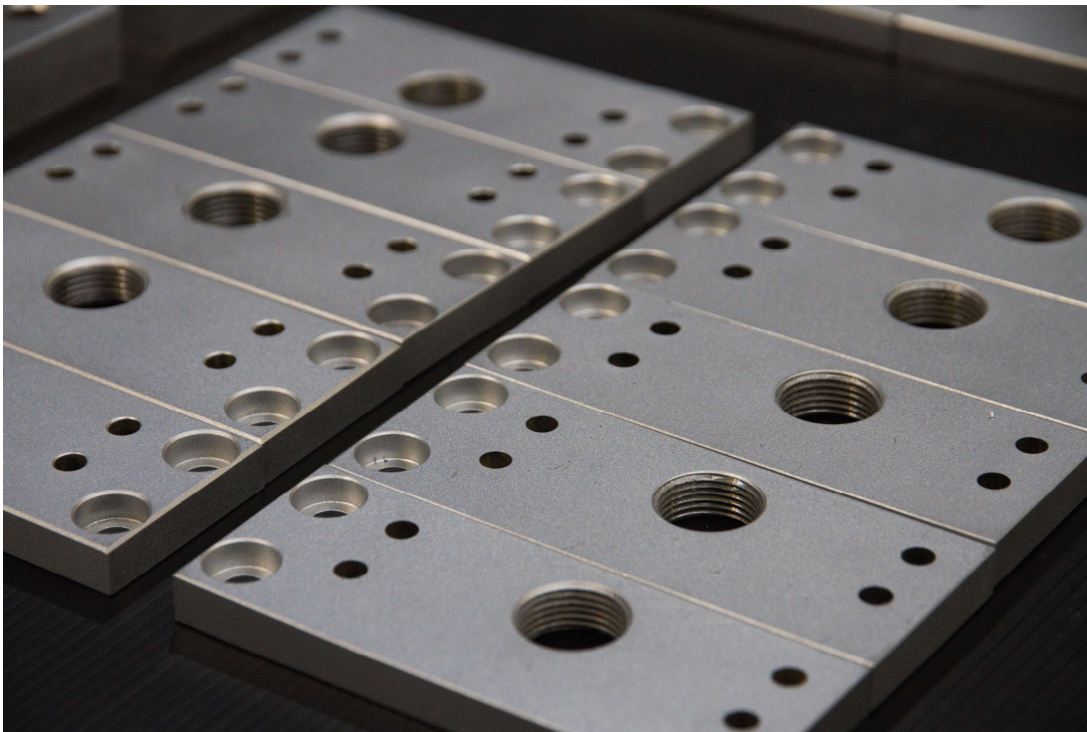




## Gearcase components



## OEM manufacturing



## Ground engaging equipment - wear parts

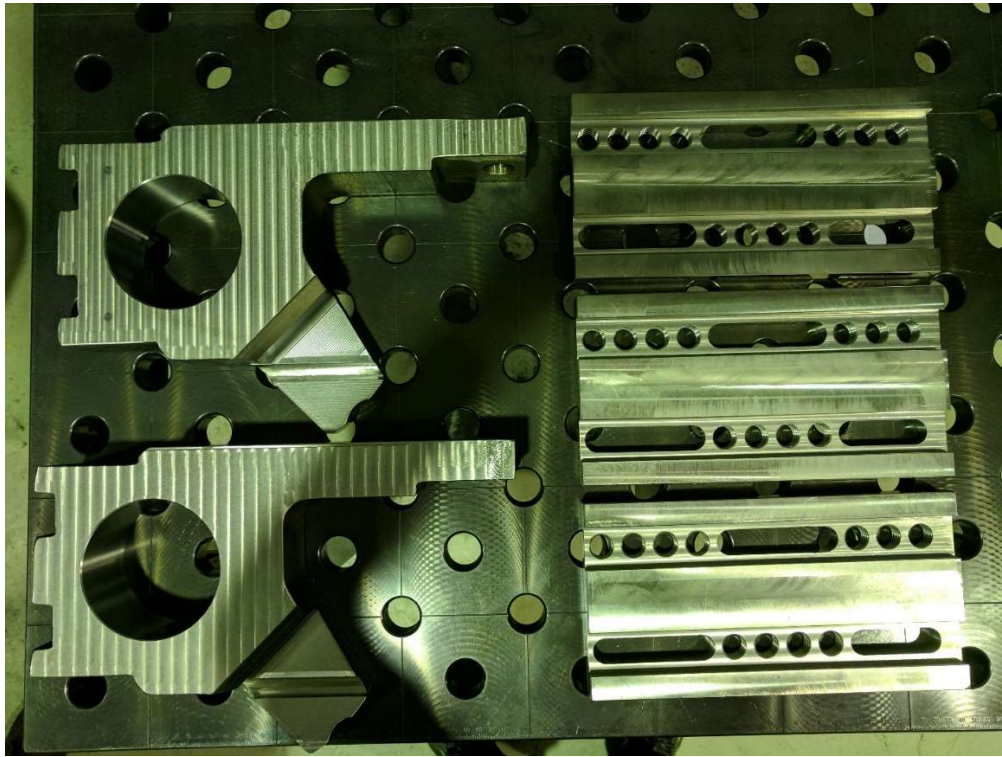


## Safety – lock out plates

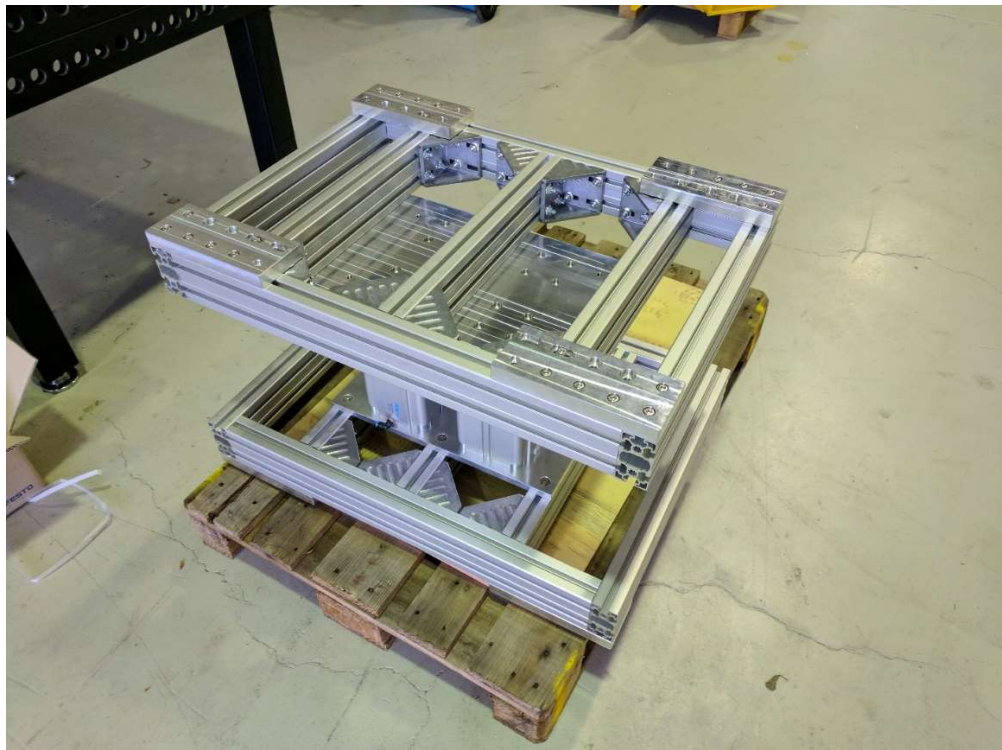




Pre-machining welded products



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

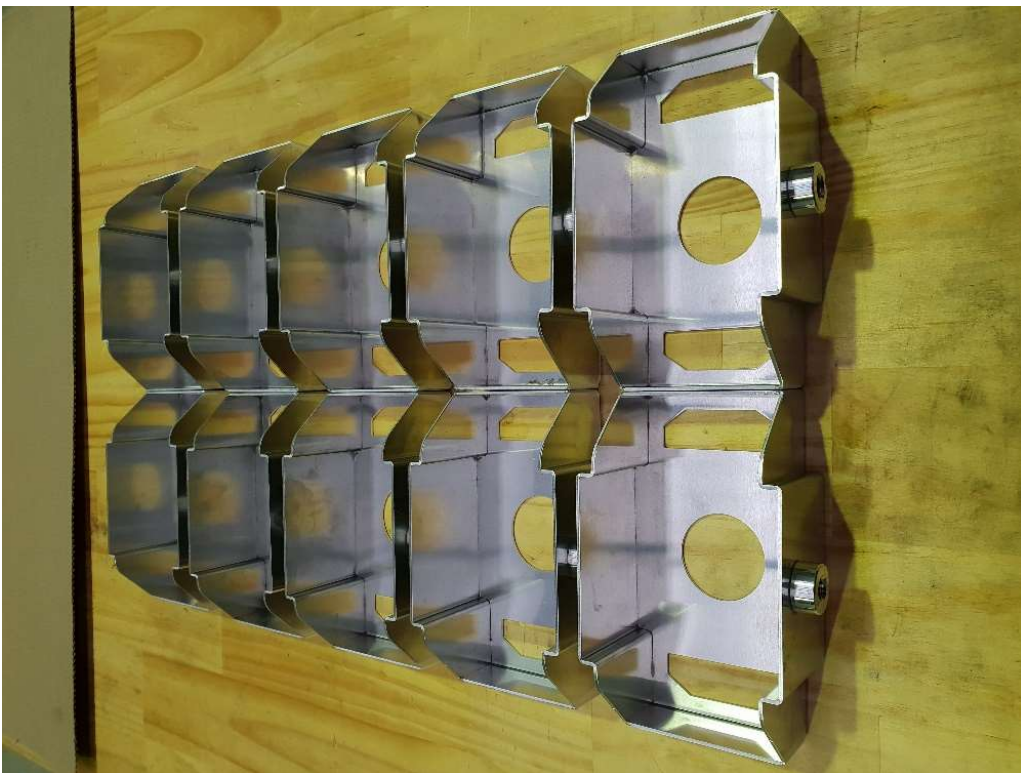




Tank up-ender for manufacturing line



Light housings





Scrap steel dump trolley – 30T capacity



## R&D Global Enterprises PTY LTD

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