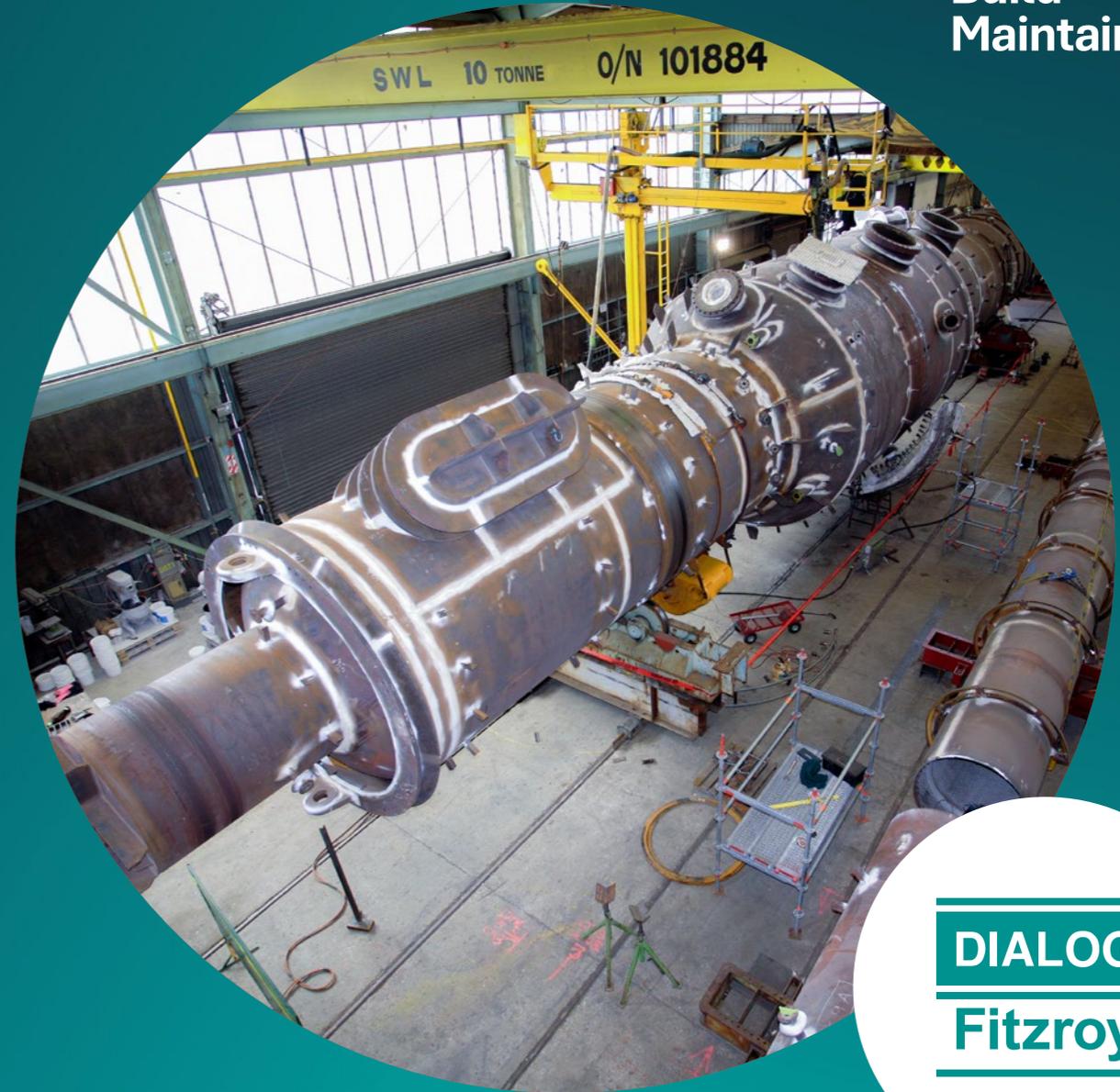


Pressure Vessels

DIALOG Fitzroy brings over six decades of engineering excellence to the design and fabrication of pressure vessels that power Australia and New Zealand's most critical industries. From pioneering one of the country's largest catalytic reactor to delivering precision-built vessels for oil and gas, geothermal, and chemical sectors, our team combines deep technical expertise with state-of-the-art facilities. Every pressure vessel we produce reflects our commitment to safety, quality, and innovation—engineered to meet the highest international standards and tailored to the unique demands of our clients.



Design and Construction

Engineering

Project Management

Construction

Pressure Vessels

Pipe Spooling

Fabrication

Tanks

Heat Exchangers

Structural Steel

Maintenance Services

Mechanical Services

Tanks and Terminals

Plant Turnarounds

Industrial Coatings

Scaffolding and Access

Rigging and Cranage

Precision Machining

Pressure Vessels

Global Standards & Certifications

Our vessels are fabricated to meet or exceed international codes, including:

- ▶ ASME BPVC Section VIII Div 1, 2,
- ▶ PD5500
- ▶ AS 1210

These certifications ensure that every vessel is safe, reliable, and compliant with global regulations.



Materials we work with

We fabricate vessels using a wide range of materials tailored to your process needs:

- ▶ Carbon Steel
- ▶ Stainless Steel
- ▶ Duplex & Super Duplex
- ▶ Chrome Molybdenum
- ▶ Inconel, Monel, Titanium
- ▶ Composite Materials (FRP, CFRP)

Each material is selected based on corrosion resistance, pressure rating, temperature tolerance, and chemical compatibility.

Applications Across Industries

Our pressure vessels serve a wide variety of functions:

- ▶ Storage Tanks for LPG, ammonia, natural gas, and chemicals
- ▶ Reactors for chemical and pharmaceutical processing
- ▶ Boilers for steam generation in power plants
- ▶ Distillation Columns for refining and separation processes
- ▶ Autoclaves & Vacuum Chambers for sterilization and material testing



○ ————— End to End Solutions ————— ○



Innovations in Design & Fabrication

Our pressure vessel fabrication integrates cutting-edge technologies:

- ▶ Finite Element Analysis (FEA) for stress optimization
- ▶ Computational Fluid Dynamics (CFD) for flow efficiency
- ▶ Automated & Robotic Welding for precision and consistency
- ▶ Additive Manufacturing (3D Printing) for complex geometries
- ▶ Smart Monitoring Systems with IoT sensors for real-time diagnostics

These innovations enhance safety, reduce weight, and extend service life.



Safety First: Rigorous Testing & Inspection

Every vessel undergoes the following when required:

- ▶ Non-Destructive Testing (NDT) ultrasonic, radiographic, hydrostatic
- ▶ Post-Weld Heat Treatment (PWHT)
- ▶ Leak & Pressure Integrity Testing

Our commitment to safety ensures peace of mind for your operations.



DIALOG
Fitzroy

Flagship Project Highlight

Catalytic Reactor Shell Clyde Refinery

One of the largest pressure vessels ever fabricated in New Zealand

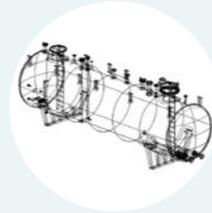
This project exemplifies our ability to deliver complex, high-specification vessels with unmatched precision and safety.

- ▶ **46m long, 5.5m diameter, 360+ tonnes**
- ▶ Constructed from chrome molybdenum steel, up to 60mm thick
- ▶ Built to AS1210 design code
- ▶ Operating temperature: 550C
- ▶ Welds preheated to 150C, heat soaked at 350C, final treatment at 700C
- ▶ Full X-ray and ultrasonic testing for weld integrity

Why Choose DIALOG Fitzroy?

- ▶ **Unmatched pressure-vessel fabrication expertise:** successful delivery over 65 years of more than 1,300 vessels.
- ▶ **One-stop, end-to-end project execution:** reducing risk and improving delivery certainty.
- ▶ **Global-standard compliance and advanced engineering technologies:** ensuring high performance, safety, and longevity.
- ▶ **Advanced fabrication and welding techniques:** providing efficiency, safety and quality driven fabrication processes

Recent Pressure Vessel Projects



Design

In-house design, fabrication and installation of a three-tank aviation fuel storage system at a jet refuelling terminal.



Fabrication

Design and fabrication of a 3.4m x 10m 34 ton LPG bullet for an oil and gas processing plant. Fabrication included steel rolling, welding, painting and radiographic, MPI and Hydro-testing to ASME V111 Div 1 testing.



Fabrication of a stainless-steel food grade Hops Reaction System for a micro-brewery. Included two vessels, piping, valves and pumps with an emphasis on aesthetics as the finished system was viewable by the public.



Repairs and Maintenance

Expediated repairs completed on intermediate and high-pressure water and steam drums from a geothermal plant.



▶ www.dialogfitzroy.com/contact-us/

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