

Heavy Fabrication



Eden Park North Stand



Rotowaro Coal handling facility
1500mt of structure and plant
Solid Energy, NZ



Space Frame Roof and building assembly
- 1100mt - Air Pacific, Fiji

Service Engineers Limited heavy fabrication shop is well regarded throughout the industry for its history of complex and challenging projects that have been successfully undertaken.

The sheer size of the structures and the diverse range of heavy components that have been manufactured are awe-inspiring.

This includes:

- Bulk materials handling equipment including conveyors, elevators and screws
- Special purpose machinery and process plant
- Moulds, tools, jigs and fixtures
- Cranes, including Gantry Jib and Goliath
- Forestry plant and cable haulers
- Bulk storage tanks for the Petro-Chemical and process industries

The range of processes that can be performed in-house are as diverse as the projects themselves. Specialties include plate rolling and forming, beam manufacture, procedural welding – including fluxcored, MIG, TIG, arc and submerged arc.

The heavy fabrication shop has recently been extended to include a dedicated area for stainless steel and specialist alloys to insure cross contamination is prevented and to ensure quality is maintained.

The heavy fabrication shop is equipped with three 10-ton overhead gantry cranes and one 5-ton overhead gantry crane. All of which have the ability to travel and operate in the outdoor materials handling and assembly area. The Stainless steel bay is equipped with a single 5-ton gantry.

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Resources and Project Management



Service Engineers' workshops are fully equipped to handle all fabrication, machining and fitting. Excluding specialist subcontractors we would handle all aspects of the project "in-house", including:

- Project control and planning using Microsoft project and job cost management systems
- Design and detailing of ancillary equipment, e.g. tanks, vessels, pipe-work, supports, etc
- Development of weld procedures if not already held and QA plans
- Fabrication, machining, assembly
- Site installation
- OSH plans documentation and implementation

Company Equipment & Facilities

| | | |
|----------------------|---------|------------|
| Workshop Floor Space | | |
| Fabrication Workshop | (75x16) | 1,200 sq.m |
| Machine Workshop | (30x16) | 480 sq.m |
| Stainless Workshop | (30x7) | 210 sq.m |

Other Facilities

| | | |
|--------------|--|------------|
| Laydown Yard | | 2,000 sq.m |
|--------------|--|------------|

Workshop Equipment

Material Handling

- 2 5T Crane Fabrication bay
- 1 10T Crane Fabrication bay
- 1 3T Crane Machine Shop bay
- 1 5T Stainless Steel Workshop

Gas Cutting

Plasma processing – plasma and multiple flame heads 13m x 4m

Welding Equipment

- Various - TIG welding units to 350 AMP
- MIG semi-automatic welders up to 650 AMP
- Manual arc welders to 450 AMP
- Mobile 400 AMP welders
- Mobile 200 AMP welders
- Sub arc

Fabrication Equipment

Plate rolls 12mm x 3.0m wide with separate flat and angle roll attachment
Plate rolls 6mm x 1.8m wide
Punch and shear (150 x 150 x12 angle or 30mm holes x 25mm thick)
Edge beveling
Various magnetic, hand drills and rotabroach equipment
Cut-off saw – high speed
Cut-off saw – horizontal band to 900 diameter
Various vessel rotators – 30T capacity
150 tonne hydraulic press
Portable press and jacking equipment
Welding manipulator

Machine Shop Equipment

4 x centre lathes up to 800 diameter x 3000 long x 2T
1 x CNC lathe 600 diameter x 2m capacity
1 x Machining Centre 440mm diameter job max capacity, with hydraulic clamping, Hydraulic copy facility and programmable.

- Mills - vertical
- horizontal
- universal
- 1 x Radial arm drill No.5MT x 1500
- Surface grinder 150 x 460
- Full range of key seating and broaching equipment
- Mechanical hacksaw

Site Equipment

Full range of lifting and rigging gear and site storage, including portacomms, workshop equipped container, site storage containers.

Concrete core drilling

Disciplines

Service Engineers Limited have a broad base of engineering staff including specialist toolmakers and machinists, coded welders and formally qualified project managers and design engineers. An after hours call-out system operates with skilled staff to meet emergency and breakdown needs.

Subcontractors

Service Engineers Limited try to use the same group of subcontractors on their projects. We prefer to rely on known companies with whom we have a track record, however, from time to time this is not possible or practicable.

We have developed a good relationship with key subcontractors, the most important being electrical, and as our work is spread over New Zealand and the Pacific, we do have subcontractors outside Auckland with whom we have worked successfully.

Management Skills

Service Engineers has a permanent staff of around 50 people including engineering/technical trades and administration. This gives us flexibility in providing people to meet the need for short-term increases in site numbers during special situations – changeovers etc. Service Engineers has a strong reputation as being a competent and professional project management & contracting company.

Health and Safety

Service Engineers endeavors to take a pro-active role in health and safety, staff have completed Site Safe Training programs and are encouraged at all levels to raise health and safety issues. A copy of our Health and Safety Policy and Manual available on request.

Quality Systems

Service Engineers Limited operate an internal Quality Assurance System in line with ISO9000 – copy available on request.

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