

Fabrication & Painting Capabilities

- Over 30 years' experience in steel fabrication work.
- Steel processing, fabrication & painting facilities under one roof.
- Experience with various sizes of pipes, plates, structural steels, and hollow sections.
- Quality, safety, and environmental management are accredited to ISO 9001, OHSAS 18001 & AS/NZS 4801 and ISO 14001 respectively.
- AS/NZS ISO 3834 Part 2
- SCA CC3
- PCCP Accreditation for painting.

Facilities

- Secure and level 1.8ha Fabrication/painting facility,
- Fabrication & painting facility under one location off Woodville Rd, Villawood
- The facility sits on a 20,000 m² land, approx. 10,000 m² undercover area and total 21 overhead cranes
- 6300 m² main workshop, 8 bays and each with overhead cranes
- Separate 900m² heavy lift workshop with 100T crane
- Approx 2000 m² open space with overhead cranes
- Ability to fabricate and/or assemble multiple projects simultaneously incl. separate areas for SS.
- Substantial, secure hard-stand and undercover storage spaces for separate project storage, pre-assembly, modularization, NDT, and pre-delivery inspections.
- Comprehensive staff support facilities including secure on-site parking, training & meeting rooms, crib & ablutions.
- 2,000m² office complex including separate space for clients, consultants, and separate project teams
- Comprehensive fleet of vehicles including Trucks, Hoists, Franna's, EWP's
- Facilities for Welding process GMAW, MCAW, FCAW, MMAW, GTAW
- All welders are qualified according to Australian standards and international standards
- WPS-PQR according to AS/NZS, ISO, ASME, API, AWS Standards
- Certified Welding inspector CSWIP 3.2
- Certified welding supervisor Cert10 and AS 2214
- International Welding engineer
- NDT level II for all methods ISO 9712

Beamline Capabilities

Beam & UC (WC)	Up to 610UB & Up to 400WC
Pipe	Up to 350NB

Bending Capabilities

Pipes (CHS)	Up to 180° light, medium & heavy up to 150NB.
Flat Bars (FB)	Up to 250 x 50 on edge.

Rolling Capabilities

Pipes (CHS)	Up to 300NB pipes.
Equal Angles (EA)	Up to 200 x 200 x 28 toe out & 200 x 200 x 20 toe in.
Channels (PFC)	Up to 250 PFC on edge.
Square Hollow Sections (SHS)	Up to 200 x 200 x 13.
Universal Beams (UB)	Up to 250 UB on edge.
Universal Columns (UC)	Up to 200 UC on edge.
Flat Bars (FB)	Up to 250 x 50 on edge.

Plate Rolling Capabilities

Plates up to 3m wide	Up to 54mm thick.
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Plate Pressing Capabilities

Plates up to 3.8m wide	Up to 12mm thick.
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Pressed & Rolled Plates



Beamline in operation



Plate Rolled to Suit Various Profiles



Rolled & Fabricated Plates



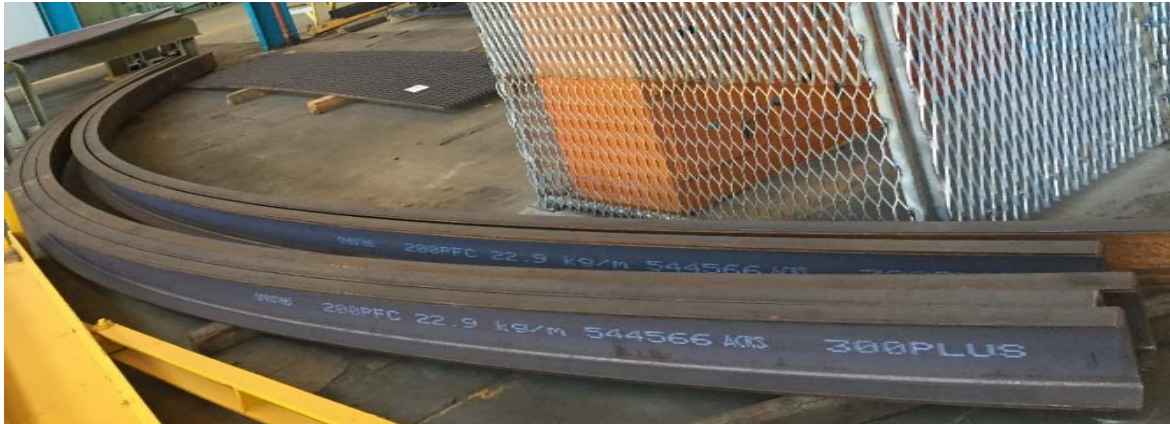
Development of Stainless Steel Plate



Assembly of Fabricated Plates



Rolling of Structural Steel



Pipe Coil Fabrication



Pipe Bending to Suit Complex Requirements



NWECC can accommodate a throughput fabrication of around 200 tons per week.



Sample of Steel Fabrication Projects:

Piping:



Cement Lined Piping for Gasoline Tank Proj



Gas Piping Skid



Stainless Steel Piping Spools for Delivery



Piping Fabrication for Cooling Tower Proj.



Blasting of Pipe Spools



Prime Coating of Pipe Spools



Top Coating of Pipe Spools

Tanks and Pressure Vessels:



Vertical Pressure Vessel



Horizontal Stainless Steel Oil Tank



50t & 100t Vertical Bitumen Storage Tanks

Heat Exchangers:

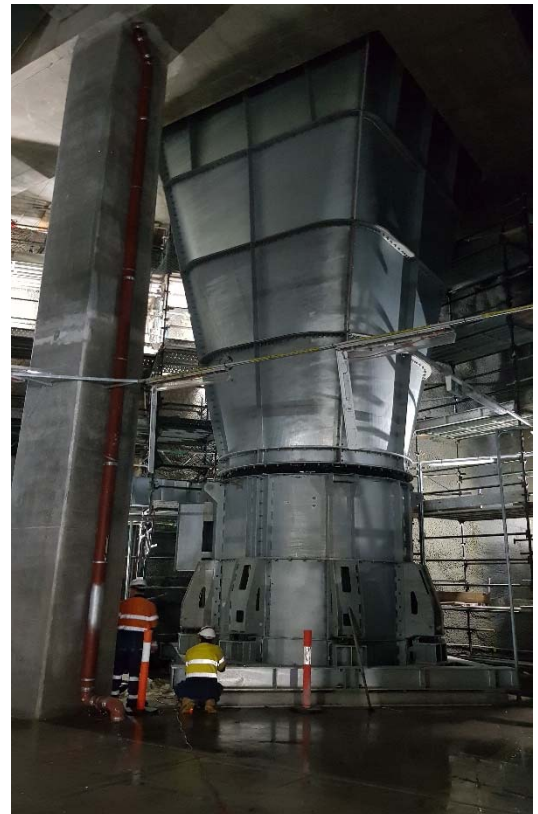


Heat Exchangers for Refineries and Chemical Plants

Steel Structures:



Over Sized Steelworks for a Mining Project



Road Tunnel Ventilation System

Welding Engineering

- Performing Welding procedure qualification and preparing welding procedure specification (WPS-PQR) for different kinds of material, thickness & position in different welding processes according to all Australian standards and international standards
- Performing Welder qualification for piping networks, pipelines, pressure vessels, storage tanks and steel structures according to Australian standards and international standards.

NDT (Non-Destructive Testing)

Our inhouse NDT services include but not limited to:

Visual Welding Examination (VT)

We are able to do visual welding inspection by our qualified welding inspectors according to all standards.



Dye Penetration Test (PT)

We have all facilities inhouse for Dye penetrant testing with qualified NDT inspector level II according to AS ISO 9712 and ASNT TC1A



✚ **Magnetic Particle Test (MT)**

We have all facilities inhouse for Dye penetrant testing with qualified NDT inspector level II according to AS ISO 9712 and ASNT TC1A



✚ **Welding Inspection**

- Review the specifications, referenced codes and standards, field changes and other approved documents such as Procedures, shop/construction drawings, erection drawings, Isometric drawing, P & ID drawing, etc.
- Verify that materials to be welded are the specified grade, type, size, thickness, etc., that required by approved documents for the project.
- Review manufacturer's material test reports.
- Welders' qualification according to appropriate standards
- Design or approve the welding procedure for each welding type & position.
- Procedure Qualification Tests required for non-pre-qualified welds and verify that Procedure Qualification Records (PQRs) are compliant with all applicable requirements.

- Verify that all welding consumables comply with the approved documents and the approved WPS and verify that all electrodes are properly stored.
- Verify that the electrical characteristic (welding current and voltage) is within the WPS parameters by using a calibrated hand-held volt / amp meter.
- Verify that joint preparation, assembly practice, preheat temperatures, interposes temperatures, welding techniques, welder performance, and post-weld heat treatment meet the requirements of the approved documents, WPS, and applicable code.
- Conduct visual inspection of the work: Verify size, length, and location of all welds. Verify that all welds conform to the requirements of the code and approved documents.
- Mark completed welds, parts, and joints that have been inspected and accepted with a distinguishing mark, tag, or dye stamp. The mark shall include Testing laboratory initials (if applicable),

Painting Capabilities

- Shop painting capabilities, PCCP class 2, 3 & 4 accredited.
- A separate 2,000m² indoor blasting & painting facility with 10T overhead cranes.
- State of the art blasting chamber (6m W x 5.7m H x 20m L) and ventilation control.
- In house NACE level 2 certified inspectors.
- Experienced blasters and painters.
- Experienced with painting various sizes of tanks, piping spools, plate work & steel structures.

Paint workshop



Blasting chamber

