



# Capability Statement



## Introduction

Piping Solutions is a partnership between LJA Welding Pty Ltd and Tig Tech Pty Ltd. Directors Linkon Allan and Rowley Hill have developed and grown a successful engineering business over the last 17 years which has gained respect servicing industries such as Oil & Gas, Petro Chemical and Mineral Resources.

The company expanded its operations 5 years ago by establishing an in-house transport division and adding a sister company, Industrial Painting Solutions Pty Ltd, thus providing our client base a turnkey SMP contractor.

With two fully equipped workshops located in the Brisbane suburbs of Wakerley & New Chum (East & West Brisbane), Piping Solutions has greater access to local labour resources within the Brisbane region.

Our multi discipline workforce is highly skilled and experienced in processing and fabricating a wide variety of materials, inclusive of carbon steels, alloy steels, chrome moly, stainless steels, duplex and super duplex.

We have the experience and resources to meet projects which require design, drafting, estimating, scheduling, fabrication, non-destructive testing, hydrostatic testing, surface treatment and site installations.



Oil / Gas Wellhead Metering Skid - Oil Search

Engineering projects are completed in accordance with project specifications, Australian codes & standards and relevant government regulations. Previous projects have been completed complying with Australian & overseas standards such as, AS4041, AS2885, AS1210, ASME IX and ASME B31.3 & ASME B31.1.



High Pressure Gas Tie In Pipe Spool - GLNG

Piping Solutions has a proven track record in providing expert resources for on-site installation projects.

Site capabilities include delivery and installation of pressure vessels, complex pipe spooling, tanks, fabricated steelwork and associated items.

The supply of quality personnel can be offered to fulfil positions in project management, engineering, supervision, coded welding, pipe & mechanical fitting, crane driver, riggers, scaffolding and trade assistance roles for short or long term projects.

Piping Solutions is always open to suggestions from its clients and employees that will enhance its business model.

Pride is taken in being a proactive and creative organisation, providing innovative solutions.

Piping Solutions is an ISO9001:2008 Registered Company.

## Experience

Piping Solution has over 45 years' combined experience in prefabrication and site installation of turnkey projects both small and large including, pipe spooling, tanks, pressure vessels, processing skids and structural steel components.

Piping Solutions has delivered engineering projects in the areas of mineral & resources, oil & gas, petrol chemical, fuel refineries, tank farms, sugar mills, power stations, abattoirs, water treatment plants, breweries, airports, and food & beverage processing plants.

Our experience as a contractor that delivers on its commitments has enabled us to become a qualified supplier of engineering services to major sector clients including Shell, BP, Origin Energy, Santos, Arrow Energy, Oil Search, Caltex, BHP-B/BMA, Rio Tinto, Yancoal, Downer, Tenix, QGC, Laing O'Rourke, Monadelphous, Department of Defence and Incitec Pivot meeting all required client specifications and standards.



Upstream Water & Gas Riser Legs - QCLNG

## Engineering Design

Piping Solutions has in-house design and drafting capability as well as established partners in this field. Piping Solutions has recently completed projects including pig launchers & receivers, slug catchers, pressure vessels, specialised low & high pressure pipe spooling and associated structural components. A list of recent design / drafting experiences can be located in our completed projects list below.



High Pressure Gas Piping Installation - GLNG

## Our Facilities

### Piping Solutions - Wakerley

1/107 Ingleston Road, Wakerley 4154  
Head office, admin buildings and main workshop  
60m x 20m -1200m<sup>2</sup> undercover fabrication  
Three overhead cranes  
Multiple heavy duty pipe rotators  
Pipe racking & storage  
NDT & Hydrostatic Testing areas  
Lay down Area - 1800m<sup>2</sup>  
10 tonne yard crane

### Piping Solutions - New Chum

1/68 Chum Street, New Chum 4303  
Office and admin buildings and workshop  
60m x 40m -2400m<sup>2</sup> undercover fabrication  
Multiple heavy duty pipe rotators & rollers  
Sub-arc welding machines  
NDT & Hydrostatic Testing areas  
Pre assemble units & skid assembly areas  
Pipe racking & storage  
Lay down area 30,000m<sup>2</sup>  
12 tonne yard crane & 6 tonne track crane

### Industrial Painting Solutions

2/68 Chum Street, New Chum 4303  
Office & storage buildings, lay down and painting workshop  
100m x 70m -7000m<sup>2</sup> undercover fabrication  
Abrasive grit blasting  
Multiple self-contained painting bays  
2 x 12 tonne yard crane  
Lay down 24,300 m<sup>2</sup>

### Workshop Fabrication

Pipe spooling can be produced at a rate of 5,000 diameter inches of x-ray quality welding, achieved in a standard working week, based on 100NB to 150NB pipe.

In addition to pipe spooling a comprehensive range of engineering services can be offer inclusive of the following;

- Structural steel
- Platforms and stairways
- Conveyors
- Pressure vessels
- Doubled-walled piping
- Shell and tube heat exchanges
- Process skids
- Plant breakdown repairs
- Rolling, shaping & assembling of structural steel
- Specialty items for off shore installations



Dual Lift of 600nb Sch160 x 24m Pipe Spool - GLNG

### Surface Treatment

Industrial Painting Solutions have a committed team that can facilitate all your blasting and surface treatment requirements.

Specialised surface treatment, protective wrapping and holiday testing of underground services are available to meet Australian Standards and client specific specifications.

Items are inspected by qualified personnel at each key step within the protective coating process.

Upon completion of work all relevant records & reports are submitted in accordance with project specific manufacture data requirements.



400nb 1500# Painted Valves during Final Inspection

### Site Labour & Equipment Hire

We currently have in excess of 1000 personnel registered for work and our data base is continuously growing with our business.

We pride ourselves on being able to deliver a committed work force at short notice which has proven to be achievable due to the Labour Pool assessable from current staffing levels and previous projects.

Site employees undertake medicals, inductions and verification of competencies.

All welding personnel are tested in-house and qualified to project specific weld procedures prior to being mobilised to site.

We continuously monitor government legislative changes which provides us with a trouble free and cost effective workplace.

Piping Solutions can supply personnel with all relevant plant & equipment to ensure a cost effective project. Equipment can be supplied in custom made lockable containers fitted out specifically for structural, mechanical & piping installations.

### Quality Assurance

Piping Solutions takes pride in its commitment to Quality, we continually strive to improve our work quality and supporting documentation.

Through this process we have successfully developed our own customised “spool tracker data base system”, which is pivotal in producing products that are far ahead of the field in terms of traceability, tracking progress through the production phase and progress reporting.

The spool tracker allows us to provide live reporting to our clients via a secured web site (accessible 24 hours a day) on the status of each spool in their project commencing from receipt of materials & IFC drawings, workshop production, delivery to site & site installation.

These systems have allowed us to provide our clients with a high level of transparency and confidence in Project delivery.



24m long Large Bore Heavy Wall Piping

On project completion a comprehensive Manufactures Data Report is generated and submitted for client review and approval.

### Transport

Piping Solutions can facilitate the delivery of goods to site utilising its in house transport division, this has proven to be cost effective and eliminates potential delays that can be experience when engaging subcontractors.

The storage & transportation of oversize and wide loads are often performed by Piping Solutions.



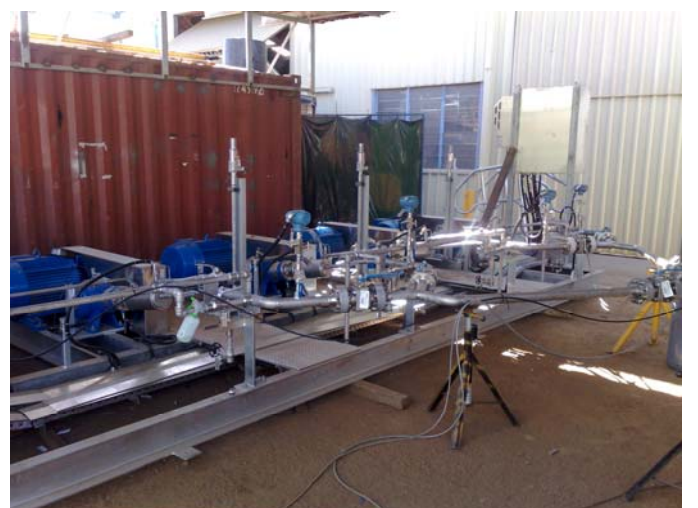
Gas Piping packaged on Flat Racks - APLNG

We commonly use Flat Racks to minimize down time when unloading on site, this allows site to schedule the unloading goods to a convenient time. This has proven to be a safe method of loading and unloading goods as to minimise risks associated with working at heights.

### Various Project Photos



4 Crane Lift – RAAF Amberley



Co2 Compressors Skid - Gas Technology



Skid Pipe Work Compressor Station – Wasco / Senex



Stainless Aviation Fuel Tanks – RAAF Amberley



Heat Exchangers - Shell



Piping Solutions Workshop 1  
1/107 Ingleston Rd, Wakerley



Stainless Aviation Fuel Lines – RAAF Amberley



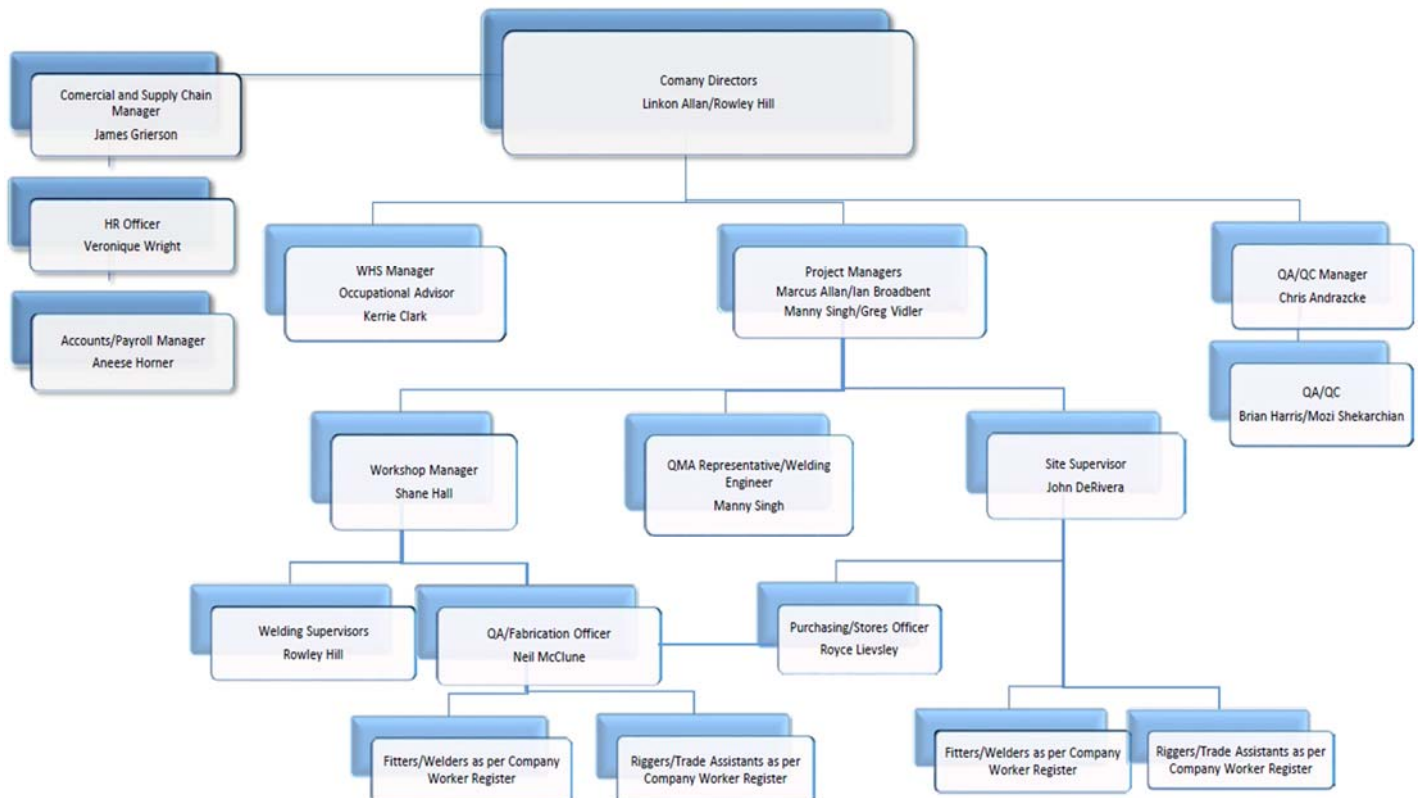
Piping Solutions Workshop 2  
66-68 Chum Street, New Chum

## Company Details

### Company Information

Company Name:	Piping Solutions		
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New Chum Workshop:	66-68 Chum Street, New Chum QLD 4303		
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## Lines of Authority & Communication



<b>Clients / Completed Contracts</b>			
Project Title	Scope of Work	Value	Client
Growler Base Facility, RAAF Base Amberley	Fabrication and Installation (inclusive of Civil and Electrical works) SS Fuel Hydrant Lines, Hydrant Refuelling Points, Emergency Stops, GSE Diesel / AVG Bowsers.	\$15.02M	Lendlease / Commonwealth of Australia
ETC Dfi, RAAF Amberley	Fabrication and installation of Pipe Spooling for Fuel Test Cell works / Pipe Supports	\$0.93M	St Hilliers
BFA Base Facility, RAAF Amberley	Fabrication and Installation (inclusive of Civil and Electrical works) of 1.5km of SS Fuel Hydrant Lines, Hydrant Refuelling Points, Emergency Stops, GSE Diesel / AVG Bowsers.	\$5.16M	Laing O'Rourke / Commonwealth of Australia
BP Bulwer Fuel Oil Lines	Fabrication and installation of Pipe Spooling and Skids	\$1.10M	UGL
C17 Maintenance Facility, RAAF Amberley	Fabrication and Installation of SS Fuel Hydrant lines, Hydrant Refuelling Points, Emergency Stops and GSE Diesel Bowsers.	\$2.93M	CPB / Commonwealth of Australia
Senex Compression Station, QLD	Pipe Spooling Fabrication / Skid Assembly works	\$1.95M	Wasco
Atlas Lateral Project (Jemena)	Pipe Spooling Fabrication / Skid Assembly works	\$0.73M	Valmec
Atlas Lateral Project (Jemena)	Pig Launcher / Receiver (SOL & EOL facilities)	\$0.30M	Spiecapag
Bayswater Power Station	Shutdown works – Weld Repairs	\$1.78M	Toshiba International Corporation
APLNG Gathering EPC Panel Contract	Fabrication of HPV's / LPD's	\$1.15M	CPB Contractors
HID Fab Package, QLD	Pipe Spooling Fabrication / Skid Assembly works	\$2.30M	Rio Tinto (RTA Yarwun)
Western Surat Gas Project - Phase 3 PAR's & Skids	Supply, fabricate, test, surface treat, pipe spooling and skids. Trial assemble and testings. Delivery to site	\$1.60M	WASCO
INPEX Ichthys Project Combined Cycle Power Plant	Carry out pipe rectifications and site installation on 5 x Heat Recovery Steam Generators (HRSG's) in the CAPP.	\$20.45M	GE Power & Water



INPEX Ichthys Project Bulk Storage Export Tanks	Supply white collar and craft labour to install structural steel and piping systems on 1 x Butane, 1 x Propane and 2 Liquefied Natural Gas Tanks	\$8.80M	Laing O'Rourke / Monadelphous
INPEX Ichthys Project Combined Cycle Power Plant	Design, supply materials, fabricate, test and protective coating of P91 Condensate Seal Pots for the CCPP.	\$1.75M	JKC / CH2-UGL JV
INPEX Ichthys Project Combined Cycle Power Plant	Supply white collar and craft labour to facilitate repairs on Large Bore, Heavy Wall P91 Chrome Molly Pipe in the CCPP.	\$1.73M	S&TC
Moura T7000 Improve SMP (Tank, Piping & Structural)	Work shop pre-fabrication, on-site installation of pipe work, Installation of new supports and pipe line and valves for new facility	\$0.35M	Dyno Nobel Asia Pacific
HMAS Cairns-Fuel Installation Works	Fabrication and Installation of Fuel Hydrant Fuel Line	\$1.01M	NQ Petro / Commonwealth of Australia
HPU Fuel Gas Conversion Project	Fabrication and Installation of HPU Fuel Gas Conversion Pipe Spooling	\$0.84M	QGC
MJJV Project, PNG	Fabrication and Installation of Portable Pigging Skids for PNG	\$0.83M	MJJV – PNG
Sulphuric Acid Conversion Project, Gladstone	Fabrication and Installation of Pipe Spooling works	\$1.04M	IXOM Operations / KBR
BP Bulwer Fuel Oil Lines	Fabrication and installation of Pipe Spooling and Skids	\$2.10M	BP Bulwer / Jacobs
Rectification of Free Issue Materials	Reface Flanges, Protective Coatings, Weld inspections and Logistics Co-ordination for Site Deliveries	\$2.55M	Laing O'Rourke – Origin Energy
Spring Gully Compressor Station	Supply, fabricate, test, surface treat and assemble.	\$0.60M	Monadelphous – Origin Energy
Various Production Process Skids for PNG operations	Supply, fabricate, test, surface treat assembles and package, oil and gas processing skids.	\$1.22M	Oil Search
Wallumbilla to Comet Ridge Expansion	Fabrication, Surface Treatment & Testing of Large Bore, Heavy Wall pipe spools and associated items.	\$1.71M	Tenix - Santos
Multiple Field test manifolds, Pigging and interconnecting skids	Supply, fabricate, test, surface treat and assemble.	\$1.65M	Senex
52 sets of Gas Skid Piping	Supply, fabricate, test, surface treat, assemble and package, oil and gas processing skids.	\$1.40M	Eneraque - QGC
APLNG Upstream Facility Works Compressor Station Pipe Spooling	Fabrication of pipe spooling, NDT, protective coating, delivery to site for all Early Flares and 7 x GPF's.	\$15.09M	Laing O'Rourke / Origin APLNG

Talinga Compression Facility	Fabrication, protective coating of urgent pipe spools for the Talinga Facility.	\$0.20M	Monadelphous - Origin Energy
APLNG Upstream Facility Works	Subcontract of coded welders, Pipe Fitters etc. For the Site Installation of Compressor Station Piping (7No. GPF's) on various site for several installation contractors.	\$36.02M	Laing O'Rourke / Origin APLNG
Incitec Pivot 3 <sup>rd</sup> HHE Compressor project	Work shop pre fabrication and onsite installation of pipe work, Extensive site installation and rectification of ammonia/urea lines in live facility. Tie in lines, new valves, pipe supports & tracers	\$2.10M	Incitec Pivot
Origin Energy Hot Bypass	Site installation of prefabricated gas pipe work	\$0.15M	Enerflex Process
Shell Pinkenba Terminal Tank and pipe removal	Site preparation and removal of redundant diesel oil tanks. Removal of pipe spools, valves, asbestos gaskets and tanks.	\$0.15M	Shell
Caltex Lytton refinery Pump bay Tie ins	Work shop pre fabrication, on-site installation of pipe work, Installation of new supports and pipe line and valves for new facility	\$0.40M	Caltex Lytton Refinery
BP Bitumen Site Maintenance works	Site maintenance labour, Welding and repair work to Bitumen and Hot Oil lines and pumping facility.	Schedule of Rates	BP Bitumen
RAAF Base Amberley Jet Fuel pump bay	Work shop pre fabrication, on-site installation of pipe work, site fabrication of vertical storage tanks and associated piping. Rectification, removal of jet fuel pumping station and associated piping	\$4.30M	John Holland / Commonwealth of Australia
Karratha Airport Expansion	Fabrication of Stainless Steel pipe spools	\$1M +	Shell
TEG Dehydration Units/Skids	Work shop fabrication of gas pipe work and installation of piping on to skids	\$2.75M	Enerflex / QGC
BP Tank & Piping Modifications	Pre fabrication pipe spools & site installation. Rectification of tank roof, floor sheets, installation of valves and hot oil lines, tank cleaning, sandblasting and painting.	\$1.40M	BP Bitumen
Wallumbilla QSN3 Compressor Expansion	Work shop pre fabrication of pipe spools	\$1.00M	Enerflex /Epic Energy
Moranbah Gas Plant - Node 2 Expansion	Work shop fabrication of pipe work and installation of piping	\$0.35M	Clough CSG / Arrow Energy
Well Head Gas Separator Skid Modifications	Modification and rectification of wellhead separator piping & skids.	\$1.3M	QGC

Cameby Downs Coal Mine	Pre fabrication pipe spools and installation of structural steel, conveyors, pumps and piping	\$8M	Syntech Resources
Luggage Point Advance Water Treatment Plant	Pre fabrication stainless steel pipe spools & site installation	\$2M	Luggage Point Alliance
Kenya Compressor Station Expansion	Work shop pre fabrication of pipe spools	\$1.6M	QGC
Tipperary Gas Compressor Station Expansion	Work shop fabrication of pipe work and installation of gas piping	\$1M	Delco
Gas Riser Legs & Water Riser Legs (Photo Below)	Supply, fabricate, test, surface treat, assemble and deliver.	\$6M	Murphy Pipe & Civil - QGC

Design / Drafting						
Item	Scope	DP (MPag)	Design Code	End Client	Special Features	FEC Reference
Condensate Pots, CCPP Darwin	Design, drafting		AS1210-2010 CL 2A	JKC / Inpex	P91	160426
Pig Launcher / Receiver	Design, drafting	19.55	AS2885.1	Lihir Gold		131129
2 Pig Launcher / Receivers in DN300 and DN500	Design, drafting	1.2 & F.V	ASME B31.3	Origin Energy Spring Gully	Duplex, custom reducer	130518
DN250 Pig Launcher / Receiver	Design, drafting	19.55	AS2885.1	AGL		110301
DN200 Pig Launcher Receiver	Design, drafting	1.9	AS2885.1	Lihir Gold		110228
DN450 Pig Launcher / Receiver	Design, drafting	15.3	AS2885.1	Confidential		140116
Pigging Station Layout and Modifications	Design, drafting	-	ASME B31.3 AS2885.1	Confidential		140116
Pig Receiving Station Modifications	Design, mechanical drafting, P&IDs, Civil Works	-	ASME B31.3 AS2885.1	Confidential		140812
Pig Receiver Station Pipe Stress Analysis	Design review, failure assessment, recommendations	-	ASME B31.3	QGC	Slugging and pig impact assessed.	110316