

Engineering Solutions to Empower Your Ideas

AMIGAENG.COM.AU AS9100D ISO9001:2015 **ESTABLISHED 1988**

ABOUT

MANUFACTURING

METAL 3D PRINTING

WHO WE ARE

At Amiga Engineering[™] our staff are open to new and creative work opportunities and will continually challenge machining work...Engineering Solutions to Empower Your Ideas.

OUR COMPANY

Amiga Engineering[™] Pty Ltd was founded in 1988, primarily an outlet for machining Pipe Fitting, Flanges and special components. Rapidly, Amiga has grown to become a successful, reliable and reputable engineering company; servicing the Oil & Gas, Mining, Petrochemical, Marine, Medical, Food & Beverage, and Defence industries.

The company is the only one of its kind in worldwide offering Metal and Polymer 3D printing (Additive Manufacturing in Metal), CNC Machining, Industrial Gearboxes, Polymer 3DPrinting, 3D scanning and 3D equipment sales – all in the one location.

Ranked top 3 for the Victorian Manufacturing Hall of Fame 2019 and top 10 in Australia for the Defence Connect Industry Awards (Small Business Manufacturing)

Amiga Engineering[™] manufacture the only Australian Made brand "Genat and Wood" of industrial gearboxes, with the added Australian agencies for Italian brands "Varmec" "Tramec" and "Motomeccanica".

Amiga Engineering Pty Ltd is the most diverse manufacturing company in the world. POLYMER 3D PRINTING

3D SYSTEMS PRINTERS

3D SCANNING

CNC MACHINING

FABRICATION/WELDING

NDUSTRIAL GEARBOXES

AUSTRALIAN MADE

A SMALL GROWING BUSINESS WITH LARGE CAPABILITIES

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Amiga Engineering™ Pty Ltd is an Australian Manufacturer and are Top 3 for the Victorian Manufacturing Hall of Fame 2019 and voted top 10 in Australia for the Defence Connect Industry Awards 2019 (for small business manufacturing).

Amiga is the only company worldwide providing Metal 3D Printing, Nylon and resin-based 3D printing along with 3D printer sales, 3D Scanning, CNC Machining, fabrication and Industrial Gearboxes in the one location for client convenience. Amiga are committed to meeting and exceeding its clients and customers expectations of quality, services and products.

METAL 3D PRINTING

Amiga has the largest Metal 3D printing service bureau in Australia. With large build capacity and post processing and finishing capablity you are in good hands

Gr23 Titanium 316L Stainless H13 Tool Steel Alsi10mg (Aluminium) Inconel 718

POLYMER 3D PRINTING

Amiga is the largest DLP Polymer 3D printing service burea in Australia. Perfect for prototyping as well as end-use products. A range of polymers that can withstand up to 300°C, rubber, and medical grade materials.

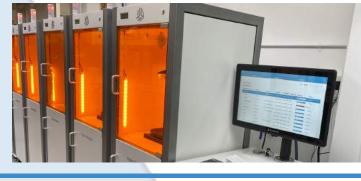
CNC MACHINING & FABRICATION

Recognised as specialists for pipe fittings & flanges for the Oil & Gas, Petrochemical and Mining industries. Capabilities of turning diameters to 2800mm, milling lengths up to 4300mm and wash grinding to 1200mm. No job is too small.

INDUSTRIAL GEARBOXES

Amiga manufactures the only Australian Made industrial gearboxes. "Genat and Wood" branded inline helical, Aerator & mixer drives. Australian Agents for the Italian brands "Varmec" "Tramec" and "Motomeccanica"











Machine Capacity

ADDITIVE MANUFACTURING

METAL 3D PRINTING

2 x ProX 320 DMP printers: Printing bed size of 275mm x 275mm x 420mm high

1 x SLM280H Printer: Printing bed size 280mm x 280mm x 350mm high

Material capability (not limited to) Titanium, Inconel, Stainless Steel, Aluminium, H13 Tool Steel

POLYMER 3D PRINTING

4 x Figure 4 Modular printers: Printing bed size of 124.8mm x 70.2mm x 346mm high

- 1 x FabPro1000 Printer
- 1 x Mimaki Full colour 3D printing capabilties
- 1 x SLS Nylon materials

CNC MILLING

Mazak Integrex i200S:

5 axis machining centre – to do new work as well as manufacture some of its already complex components in 1 operations (instead of some 4 processes)

CNC Twin Pallet changer – used for gearboxes and other other cast iron machining

2 off CNC ZAYER Horizontal Milling

4300 x 2000 x 1500 Full 3D capability, DIA to 4300

5 off CNC Milling 750 x 360 x 300. Full 3D capability

4 off CNC Milling 1530 x 800 x 660. Full 3D capability

3 off CNC Milling 3200 x 1480 x 660 Full 3D capability

CNC Horizontal Borer 1600 x 1200 x 1200 Full 3D capability

LATHES

CNC lathes used for shafts, gearing blanks and adaptors along with CNC machining centres for housings and CNC grinder for optimum gear finish.

3 x Okuma Lathes – used for standard CNC Turning from 2mm Dia – 695mm Dia

2x Okuma Bar Feeders

VERTICAL BORING

Vertical Boring up to 110: (2800mm) diameter x 1800mm high (up to 10 Tonne capacity) 3 off: Vertical Borers flange 72" (1900 meters) diameter (up to 3 Tonne capacity)

WELDING & FABRICATION

Break Press – up to 2.3 Metres

Guillotine – 2300mm. Can take up to 3mm thick for mild steel, or 6mm thick in Aluminium. Rolling Machine – can take up to 4mm thick and associates 25mm thick

OTHER SERVICES

3D Scanning Profile cutting Plasma cutting of Stainless and alloy steel Laser Cutting Sandblasting booth 36cu mt capacity. Various other drilling and General Engineering machinery



Capabilities & Experience

QUALITY ASSURANCE & GENERAL INSPECTION OF PRODUCT QUALITY ASSURANCE

All items manufactured by Amiga Engineering[™] are dispatched complete with EN10204 3.1 material certificates. NATA approved NDT testing can be arranged on request. Third party witnessing for more stringent traceability and individual customer specifications is also available.

A quality assurance audit is available on request. We are accredited to ISO 9001:2015 and AS9100D. **INSPECTION**

Company products are thoroughly tested and inspected to rigorous standards and client requirements such as magnetic particle inspection, ultrasonic inspection, G48 corrosion and pitting test, and more (available on request) All testing and heat treatment records are stored for traceability requirements at any time. All NDT testing is carried out by NATA Qualified and endorsed personnel.

TESTING & INSPECTION

Tests can be carried out for you – must be advised at time of quoting and ordering if required) **Non-destructive testing** NDT (UT, DPI, and MPI) Qualified Personnel NATA endorsed

Ultrasonic Inspection Magnetic Particle Inspection G48 Corrosion and Pitting test

Sigma Phase testing

Visual & dimensional testing is carried out on forgings before, during and after manufacture; to customer needs Charpy Impact and Hardness Testing of materials is carried out on all materials prior to machining where required. Tensile and Chemical Analysis Heat Treatment Records Ferrite Count Micro graphical Analysis, Ferrite Scope and other tests available if required

Full MDR can be supplied for project work – with complete traceability

MATERIAL RANGE FORGINGS

ASTM A105N, A350, LF1, 2 & 3 ASTM A182 F5, F11, F22 ASTM A182 F304, 304L, 315, 315L, 321, 310 ASTM A694 / MSS SP44 F35, F42, F52, F60, F65, F70 Duplex Stainless Steel A182-F51 UNS 31803, SAF2205, Super Duplex 2507 & ZERON 100 Monel 400, Incalloy 800, Hesalloy, etc.

PLATE

AS 3678 250, AS 1548 7 460R, 490 460NL40, 460NL50 (equivalent to A516-60, 70 etc)

ASTM A240/480 304, 304L, 315, 315L, 316, 316L, SAF 2205, SAF 2507, UNS S31803, 3CR12, 253MA, Aluminium and more

STANDARDS USED

ASA ANSI B16.5, B15.47A, B16.47B, B16.31, AS2129, AS4087, MSS SP44, MSS SP79, NACE MR0175, DIN, API605, API6A, BS10, API17D, API16D, BS 3293, BS 4504, JIS, AWWA, AS4087 B16.25 B16.20 and more



Metal 3D Printing

GENERAL 3D PRINTING

Additive Manufacturing is being used in a large range of applications and a huge array of industries; from state of the art aerodynamic parts and armor to high tech surveillance drones, jewellery and body parts. Metal Additive Manufacturing is taking industry by storm and the Amiga Engineering Pty Ltd is proud to be the first to offer the manufacturing service to the public and commercially. If you need a part fast, then contact Amiga - your local manufacturer for anything.

PERFECT FOR COMPLEX DESIGN AND PARTS THAT CANNOT BE TRADITIONALLY MACHINED/FABRICATED





MATERIALS Titanium Gr 23 Aluminium (Alsi10mg) Inconel 718 316 Stainless Steel H13 Tool Steel

3D SCANNING

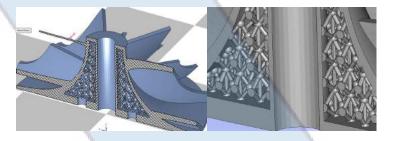
3D SCANNING Amiga have the brand new GOM-Atos-Q 3D scanning technology inhouse.





LIGHT WEIGHTING

Using internal lattice structure instead of solid material helps light weight a design, and keep the integrity of strength



OPTOMIZED TOPOLOGY

This part analysis can change the final design of a product; keeping the same mechanical strength. This process can only be produced by Metal 3d printing; creating the most perfect version of a part for a specific process/material.

Can also be used to help in light weighting,



Polymer 3D Printing

GENERAL 3D PRINTING

Additive Manufacturing is being used in a large range of applications and a huge array of industries; from state of the art aerodynamic parts and armor to high tech surveillance drones, jewellery and body parts. Metal Additive Manufacturing is taking industry by storm and the Amiga Engineering Pty Ltd is proud to be the first to offer the manufacturing service to the public and commercially. If you need a part fast, then contact Amiga - your local manufacturer for anything.

PERFECT FOR END-USE PARTS, NOT ONLY PROTOTYPING DLP, SLS, SLA, FULL COLOUR



IN-HOUSE MATERIALS ProBLK10 Med-AMB Med-WHT Elast-BLK Flex-BLK

HEAT RESISTANCE

Med-AMB 300 can withstand up to 300°C Pro-BLK10 can withstand up to 70°C great for all types of applications

BENEFITS OF DLP

End use rubber material Minimal post processing Castable material Speed; up to 100mm per hour Z height End use industrial material options Bio compatible materials



CURRENT INDUSTRIES Medical Automotive Prosthetics Moulds Food & Beverage







CNC Machining

CAPABILITIES

Machining for industry since 1988 with continued quality systems has allowed Amiga Engineering Pty Ltd to manufacture for all industries. Able to turn diamters to 2800mm, milll lengths up to 4300mm, vertical bore up to 1800mm in height and wash grind to 1200mm. You will find Amiga's flanges or pipe fittings on almost every oil rig and refinery across Australia. Winning top 3 for the Victorian Manufacturing Hall of Fame and top 10 in Australia for Defence Indusry Awards.

"ENGINEERING SOLUTIONS TO EMPOWER YOUR IDEAS"

FLANGES

Adaptor Anchor Nipo Swivel Raised Face Self-reinforced

PIPE FITTINGS

Spectacle Blinds Spade Nozzles Weldneck Spacers Orifice Plates

NOZZLES-SELF REINFORCED

Angular Integral Duplex Digester Heavy Self-reinforced Vessel Head

TUBE SHEETS (HYDROCYCLONE)

Floating or fixed for use in heat exchanges in Carbon, Stainless and/or Alloy steels.

CUSTOM MACHINING

Amiga understands urgency and are happy to help with one-off custom manufacture and/or production runs.









Fabrication

CAPABILITIES

Amiga Engineering's in-house welding and fabrication section compliments the inhouse machine shop and Additive Manufacturing departments. Providing post processing ability and integrated solutions for client products and designs. You will find Amiga's fabricated parts and welding on almost every oil rig and refinery across Australia. Highly skilled fabrication and welding experience in all industries

"ENGINEERING SOLUTIONS TO EMPOWER YOUR IDEAS" CUSTOM ONE-OFF OR PRODUCTION RUNS

IMPELLORS

Food-grade Agitators Water Waste Treatment Pedestals





Transport Base plates Refinery Oil & Gas Pressure Vessel





CUSTOM MANUFACTURE Pan filters Valves Client Specification

VESSEL

Pressure Welding Tooling Fabrication Sheet Metal Fabrication Coded Welding ASME Welding

FABRICATION

General fabrication, as well as post processing for machining work.



3D Printing Equipment

3D SYSTEMS AUTHORISED PARTNER RESELLER

Amiga Engineering Pty Ltd are an authorised partner reseller of the "3D Systems" branded 3d printer equipment and Magics software. Known for high quality equipment and material.

3D Systems 3D printers are made in the USA and known for quality. Their use is proven in industry, with Australian local support because Amiga use the equipment in-house.

PERFECT FOR END-USE PARTS, NOT ONLY PROTOTYPING

DLP

Figure 4 Standalone Figure 4 Modular - great for modular installs



Direct Metal Printing

ProX DMP series

DMP



FABPRO 1000 Entry-level industrial 3D Printer Desk-top size with quality finish



SLA Prototypes Tools Production parts **SLS** Prototypes Thermoplastic Production parts





MJP Precision plastic Elastomeric Wax and Composite parts





FULL COLOUR Affordable photo-realistic full colour parts (ProJect CJP)





Industrial Gearboxes

CAPABILITIES

"Genat and Wood" branded industrial gearboxes are the only Australian Made brand and are manufactured by Amiga Engineering Pty Ltd. Australian agency for the Italian brands "Tramec" "Varmec" and "Motomeccanica".

This provides more mounting possibilites for end-use and variety for application. Amiga thinks highly of quality and has opted only for the highest quality Italian brands.

"WHEN RELIABILITY MATTERS" CHOOSE AUSTRALIAN MADE

CAPABILITIY

Inline Helical **Right Angle Bevel Helical** Parallel Hollow Shaft Worm Double Output Worm Planetary Electric Motors VFD Variable Speed Drives Variable Speed Pulleys Variators Custom gearboxes Australian Made Italian Made

APPLICATION

Pumps, Equipment Extruders, Mills Press Drives, Coil Winding Rollers, Conveyors Mixers, Stirrers Wine Vats, Agitators Impellor systems, Aerators, Feedmills Dozers, Crushers...much more

INDUSTRIES

Mining & Quarry Material Manufacture Wineries Food & Beverage Dairy Paper Agrictulture Stockfeed Pumps Waste & Water

SERVICES

Refurbishments Spare parts Reverse Engineering Replacements Repairs; any brand Maintenance Manuals Customisation









rallel Drives





MEET THE TEAM

PEOPLE BEHIND THE BRAND



Michael Bourchier Owner/Managing Director



Cecily Bourchier Financial Controller



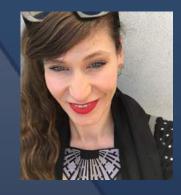
Aaron Pateras Head of Additive Production | Key Accounts



Cameron Beech Head of 3D Equipment Sales | National Manager



Dee Bourchier Head of Transmission Products | Media & Marketing



Sarah Cole Head of Metal 3D Printing



Jayden Bushell Head of Polymer 3D | Media & Marketing



COMPANY

AJ Bush & Sons AMC - PETRONAS Malaysia Apache-Gibson Plato Apache-Simpson Develoment APM-Chlorine Storage ASC - Australian Submarine Corp

Australian Waste Services Bayu Undan-Finals Bectel **BHP-HBI Port Hedland BHP** Biliton **Boeing Aerospace Support Boeing Defense BP Bullwer** CALTEX Lytton - Alkalinity Upgrade **CEM** International Clough Offshore-Apache Clough Offshore-Wonnich Duke Energy-Bass Gas East Spar Allicance - Varinus ESSO Longford Extension **ESSO-Longford Restoration IVECO Trucks** Melbourne Museum Melbourne Water Treatment Modec- Indonesia Murrin Murrin **Olympic Dam - Expansion** PT Pro-Indonesia **OLD** Power **Quenos- Maintenance** Santos - MOOMBA Shell Refinery-Corio-Cracker SUEZ Oil & Gas (Process Group) Aerosonde Technip Oceania Transfield Worley - Maintenance ULSC (Upper Lachlan Shire Council) Woodside- TRAIN 4 Woodside-Coassack Pioneer Woodside-Train 3 Woodside-Goodwin A Worley Parsons - STABILIZER 6 Worley Parsons-VAPOR LINE Woodisde-PHASE V EXPANSION Yarra Trams

REFERENCES

MANUFACTURING

Aerator Gearboxes for Water Treatment Plant 50NB – 1500NB Self reinforced Nozzles carbon/ alloy 1500# Sub sea Flanges F65 1500# RTJWN Swivels F65/F52 **Cover Plates, Flanges Duplex** Coning Tower & Various Machining; Large quantity and Large various: Flanges, Long Weldnecks, Raised Face Blinds, (2002-03) Autoclave Doors 1732 OD x 1500 ID x 213 Thick Flanges, Specblinds, Orifice plates, 316L and Duplex High-Chrome Liners and retaining flanges/cones-Comalco Orifice Flanges, A105N, LF2 Projects Assisted Orifice Flanges, Gearboxes & Machining Machining to Client SPECS Machining, Welding, Painting as per client SPEC-F111Wing Nozzle necks and Flanges Various Various Flanges & Fittings, Plugs, C40 Special Materials Various Impellors in Stainless Steel, Carbon Steel, Large Rotary Valves 16" #1500 Sub sea Flanges F65 8" #1500 RTJWN F65/F52 600# Flanges, Weldolets 14" #1500 Sub sea Swivels & Flanges Flanges, Nozzles, Bleed inserts, Spec blinds Flanges, Heavy Nozzles, Bleed inserts etc Fasteners, Shoulder Bolts & Vehicle Manufacture OEM Supply Melbourne Telescope-machining large diameter bearing housing Industrial Gearboxes & Machining Large Flanges and Swivels Inconel, Titanium Machining Various Flanges F316L, A105N Hydro-cyclone Plates, Flanges Duplex Various Flanges F316L, A105N Flanges A105N, Fittings NPT Orifice Flanges, A105N, LF2 Various Flanges F316L, F11, A105 Cones, Barrels, De-sander Vessel Body, Flanges & HydroCyclone Plates Drone Components and Various Machining Various Subsea API #5000 API Flanges A182-F51, A694-F65 Various Flanges, Orifice, Nippo's, Heat Exchanger Plates Aerator Gearboxes for Water Treatment Plant Various Flanges A105, F316L, LF2, A694-F52, F56, F65 Din Flanges A105N, F316L, LF2, A694-F52, F56, F65 Nozzle necks & Flanges Various A105, F316L, LF2, A694-F52, F56, F65 Large Flanges & Nozzles A105, F316L, LF2, A694-F52, F56, F65 Specblinds, spades, spacers and bleed rings Spades and Spacers A240-316L 300NB Lateral Tees A182-304L Complex Parts Machining, Fabrication, Welding



HAVE ANY QUESTIONS?

DON'T BE SHY! CONTACT US AT SALES@AMIGAENG.COM.AU +61 3 9330 0688 WWW.AMIGAENG.COM.AU