



**METALLISING  
SERVICES**  
SINCE 1964

# LEADERS IN ADVANCED SURFACE ENGINEERING

**The future of metallising critical  
componentry is here**

Surface engineering that restores critical components to as-good or better than new. At A1 Metallising Services, we're proud to be leading the way in tomorrow's technology.

# LASER CLADDING

## Robotic Precision, Human Excellence

Laser cladding is a specialised manufacturing process used to apply layers of metals, cermets and some alloys to a metal surface using a laser. It works by feeding metallic powder or wire into a small laser controlled molten pool. This method is commonly used to enhance surface characteristics such as resistance to corrosion, wear and abrasion. A1 Metallising Services are the only company in Australia to have invested in precision power wire laser technology. This technology allows for a controlled melt pool resulting in a lower heat saturation.

### Why Choose Laser Technology?

- Minimised thermal input significantly reducing heat-affected zones compared to conventional repair methods such as MIG or Submerged Arc Welding. This reduction in heat soak greatly aids maintaining the mechanical properties of the base material.
- Multiple options provide a wide array of overlay materials that can be used on any metallic surface such as stainless steel, cast iron, and other alloy steels.
- Leading-edge precision delivers control over material deposition producing high wear and corrosion resistant coatings
- Faster processing times using robotic technology ensures consistent results that get your operations up and running sooner.



# HIGH VELOCITY AIR FUEL (HVOF) THERMAL SPRAY COATINGS

HVOF delivers next level reliability and consistency in thermal spray applications

- **Superior Performance & Durability:** Achieves up to 5 times higher deposition rates with coatings up to 10 times thicker than hard chrome.
- **Environmental & Safety Compliance:** Eliminates hazardous hexavalent chromium, ensuring full compliance with NICNAS and WHS regulations.
- **Operational Efficiency:** Faster processing speeds, reduced material waste, and excellent mechanical bonding deliver cost-effectiveness.



## Faster, more accurate, longer-lasting, cleaner repairs.

At A1 Metallising Services, we engineer tailored solutions to suit your component's specific requirements, whether that calls for laser cladding, thermal spray, or specialised welding techniques. Our processes are designed to restore components and enhance them beyond OEM specifications.

We meet or exceed industry standards for quality and safety, while improving turnaround times and reducing environmental impact. That means your equipment is back in service sooner, and stays there longer.

# COMPONENTS WE REGULARLY REPAIR

- Brake Housings
- Fan Hubs
- Rope Sheeves
- Oil Cooler Housings & Plates
- PTO Flanges
- Sonar Equipment
- Saltwater Inlet Elbows
- Saltwater Pump Bearing Housings
- Valves – Nearly all metal types
- Water Pump Bodies
- Clutch Housings
- Final Drive Components
- Hydraulic Cylinder Rods
- Steering Components
- Suspension Cylinders
- Transmission Components
- Wheel Hubs and Spindles
- Bearing Journals
- Seal Journals
- Thrust Faces
- Gearboxes
- Turbines
- Shafts – Gear, Fan and Pulley
- Drum Shafts
- Conveyor Monitoring Equipment
- Marine Prop Shafts
- Prop and Turning Liners
- Connecting Rods
- Manifolds – Cast Inlet and Exhaust
- Axles – All types
- Crankshafts
- Rock Drill/Hammer Bodies
- Diff Housings and Hemispheres
- Engine Blocks
- Compressor Rotors



# SYSTEMS AND CAPACITIES TO SERVICE A HUGE VARIETY OF NEEDS

<b>LATHES</b>		<b>14 OFF</b>
Maximum Swing Over Bed		Ø1700mm
Maximum Swing Over Saddle		Ø1300mm
Maximum Distance Between Centres		8000mm

<b>CYLINDRICAL GRINDERS</b>		<b>3 OFF</b>
Maximum Swing Over Bed		Ø840mm
Maximum Distance Between Centres		3000mm

<b>INTERNAL GRINDERS</b>		<b>1 OFF</b>
Maximum Internal Diameter		Ø600mm
Minimum Internal Diameter		Ø20mm
Maximum Internal Length		1830mm

<b>PLANETARY GRINDERS</b>		<b>1 OFF</b>
Maximum Internal Diameter		Ø1015mm
Minimum Internal Diameter		Ø20mm
Maximum Vertical Travel		304mm
Longitudinal Travel		700mm
Table Loading		10,000Kg

<b>SURFACE GRINDERS</b>		<b>3 OFF</b>
Magnetic Bed Diameter		Ø810mm
Vertical Travel		200mm

<b>VERTICAL MACHINING CENTRE</b>		<b>2 OFF</b>
Length		1626mm
Width		1016mm
Height		762mm

<b>HORIZONTAL BORER</b>		<b>1 OFF</b>
Maximum Centre Height		1600mm
Cross Travel		3100mm
Longitudinal Travel		1600mm
Table Loading		10,000Kg

# A MULTI-GENERATIONAL AUSTRALIAN SUCCESS STORY

Family owned and operated with over 60 years of experience, we pioneered surface engineering in Australia, and we've been innovating ever since.



## Faster, more effective, cleaner ways to get you back in business

We've earned our industry leadership position by adopting new technology, systems and processes designed to ensure our clients enjoy dependable reliability. We have multiple ISO certifications and remain committed to providing exceptional service to Australian manufacturers and OEMs.

**QUALITY CERTIFIED:** ISO 9001:2015 | ISO 14001:2015 | ISO 45001:2018

## The full range of repair and recoat methods

With over 250 years of combined engineering experience, A1 Metallising Services deliver a tailored repair solution whether the job requires Thermal Spraying, Laser Cladding, or specialised welding.

Our coating capabilities include ferrous and non ferrous metals, multiple carbide coatings and assorted laser clad alloys



**METALLISING  
SERVICES**  
SINCE 1964

Fast, dependable, high quality repair solutions, since 1964

# LEADING THE WAY IN ADVANCED SURFACE ENGINEERING

We protect, refurbish and extend the life of critical wear components as a cost effective alternative to replacing an OEM part.

We do it fast and efficiently using the most sustainable practices.

**Contact us now to discuss your needs**

We're just 10 km from the centre of Sydney

 23-25 Henderson Street, Turrella NSW 2205

 02 9599 4111

 [sales@aonemetal.com.au](mailto:sales@aonemetal.com.au)

 [www.aonemetal.com.au](http://www.aonemetal.com.au)