

**GEAR
MANUFACTURE**

ALL MANUFACTURED UNDER ONE ROOF



**68,000 KG
DREDGE BUCKET
WHEEL DRIVE GEARBOX**

This gearbox operates 20m underwater for dredging mineral sands. The technical advancement of incorporating case hardened gearing throughout helped us win the order against some of the world's leading gearbox manufacturers.

Since 1969 Hofmann Engineering has provided specialist engineering services to Australia's industry leaders.

Quality Assurance accreditation by Bureau Veritas complements our total quality culture.

Our commitment to continuous quality-improvement touches every aspect of our products, services and customer support.

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DESIGN AND CONSULTING SERVICES.

Analyse and solve your particular gear or gearbox problem using the latest gear design software to either D.I.N., A.G.M.A., B.S. or Australian Gear Standards.

- Industrial Gearbox and gear design.
- Onsite gear inspection and consultancy service.
- Computer aided drafting.



TURNING

A range of lathes both conventional and computer (CNC) controlled for turning of gear blanks and shafts to 12,000mm long.

- Final grinding of shafts to 8,000mm long.



FABRICATION.

Complete welding and fabrication facilities to 200 tonnes.

- Fabricated gearbox casings and gears.
- Rebanding worn gears via welding ring forging to original hub.
- Qualified welders with accredited welding procedures.



HORIZONTAL BORING.

A range of both conventional and computer controlled (CNC) borers are available to 10,000mm x 3500mm.

- Machining of large gearbox housings.

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GEAR HOBBIING

Manufacture of high accuracy gears and worm wheels.

- Carbide skiving of case hardened gears.
- Computer (CNC) controlled accuracy (2000mm dia).



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LARGE GEAR CUTTING

Internal and external gearing to 15000mm dia. x 2500mm face.

- Re-cutting of worn girth gears and slew rings.
- Full involute form carbide finish cutting of gears.



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HEAT TREATMENT

One of Australia's largest specialised heat treatment facilities encompassing:

- Oil quench & tempering, stress relieving.
- Gas carburising via pit furnace or fluid bed 1800mm dia. x 5000mm.
- Tool steel heat treatment.



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INDUCTION HARDENING

Tooth by tooth full contour induction hardening to produce a hard wear resistant case up to 20mm deep supported by a tough impact resistant core.

- Mill pinions, slew bearing races.
- Traction gears.
- Spin hardening of pins and splines.
- 15,000mm dia. x 2500mm face.



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METALURGICAL LABORATORY

An extensively equipped laboratory to facilitate both failure analysis and the inspection of test pieces heat treated with each and every furnace charge.



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GEAR GRINDING

Australia's most comprehensively equipped gear grinding facilities with Niles, Höfler and Maag gear grinders.

- 3500mm dia. x 1500mm face x 40Mn.
- Completely climate controlled area.
- Profile and lead modification facilities (tip/root relief and crowning).
- CNC Form grinding of both internal and external gearing to 2000mm dia.



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GEAR INSPECTION LABORATORY

A climate controlled inspection area for the verification of all gear geometry parameters.

- Lead involute and pitch inspection.
- Calibrated inspection machines.
- Crack detection.



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GEAR BOX TEST BED FACILITY

Every gearbox we manufacture or overhaul is test run and a detailed test run report compiled.

- Partial load testing.
- Back to back full load gearbox test capability.
- DC stepless drive system.



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CO-ORDINATE MEASURING MACHINE

3D machine with lead, involute and pitch software to enable the complete inspection of large gearing.

- Climate controlled laboratory environment.
- Gears to 15,000mm dia. x 2500mm face.
- Gearbox housings and complex shapes.