



Established 1969

## News

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Manufacturing and refurbishing precision equipment

# HOFMANN BENDIGO COMMENCES

## “It’s finally on!”

Hofmann Bendigo (located 130km from Melbourne airport) commenced operations on Monday 31<sup>st</sup> May 2010. The facility was built in the early 1940’s and has a long history in specialist heavy manufacture for the mining and mineral processing, oil and gas and defence industries.

Our decision to re-establish manufacturing at this site has been continually encouraged by industry leaders. The Victorian State Government and City of Greater Bendigo share our vision for what will be created and have been incredibly proactive and supportive.

The facility provides Hofmann Engineering with the immediate additional capacity for the manufacture of product which expands and compliments the existing base in Perth. Within a short period the facility has established a momentum characteristic of the “Hofmann” enthusiasm. The large machine tools are back into production, weld booms and equipment are again productive on heavy fabrication, 1200 and 3000 ton plate rolls are being

installed and will commence plate rolling for mill shells in September. Clean and controlled strip, survey and assembly areas have been re-established for work such as specialist gear box overhaul.

Experienced staff have been keen to be a part of the opportunity to bring this unique capability back into life. A stream of high level mining and mineral processing managers from the Australia and offshore have already visited the site. The immediate business focus has been to expand Hofmann’s specialist gear competence with an “East Coast” manufacturing and refurbishment capability and expansion of mineral processing large mill shell manufacture. The facility encompasses heavy machining, fabrication, assembly and heat treat capabilities within 6 hectares of land, 20,000 m<sup>2</sup> of workshops floor-space and crane capacity to 100t with 17.25m under the crane hook.

Work has commenced with overhaul of gearboxes and manufacture of mill shells, track pads, gear rack segments and provision of heat treatment.

*By Neville Humphry—Bendigo Operations Manager.*



MILL SHELL



VIEW OF HOFMANN LAND (HIGHLIGHTED)

## Safety Milestone – 1000 Days without LTI

Thanks to the support of a dedicated team and also the support of all our employees we have managed to achieve 1000 days without a lost time injury, in celebration all staff received a Swiss Army Card. We are quickly closing in on three years without a lost time injury. As a comparison on the progress we have made in the last few years please see the following figures. July 04 to June 05 we employed

255 employees and we had 73 Medical Treated Injuries. July 09 to June 10 we employed 400 employees and we had 60 Medical Treated Injuries.

We still have a long way to go but we will keep trying to improve every day.

*By Paul Middleton (Safety Manager)*

# HOFMANN METALTEC

Introducing Hofmann Metaltec (Melbourne).

In August 2009 Hofmann Engineering acquired the state-of-the-art engineering and manufacturing facility of Metaltec Precision International in the Melbourne bayside suburb of Cheltenham. "Hofmann Metaltec" (as it is now known) has a reputation spanning 50 years for being one of the premier machine shops in Melbourne and the Eastern States of Australia.

The capabilities of the business include an extensive range of 3, 4 & 5 axis CNC milling, turning and grinding, as well as fabrication and fitting workshops. The Pama 5 Axis CNC Floor Borer has a bed length of 18 metres and is the largest milling centre in Australia.

Hofmann Engineering has significant plans to grow this business and is currently investing in capital upgrades including the building of a climate controlled "clean room" which will house a new H&H 8 metre High Speed 5 Axis Milling Centre. This machine will be commissioned over the next 3 months and will play a crucial role in winning international aerospace tooling contracts.

Our newsletters will keep you informed of the latest developments at Hofmann Metaltec.

*By Denver Alvis— Engineering Manager  
(Hofmann Metaltec).*



VIEW OF HOFMANN METALTEC LAND HIGHLIGHTED

**Specialist in a number of key national and international markets including:**

- **Aerospace**
- **Defence**
- **Food & Packaging**
- **Cutting Tools**
- **Automotive**
- **Mining and Energy**



BOEING 737 WEDGETAIL



H & H MACHINE



## **History—Summer 1982 The start of Large On-site Machining**

In December 1982 Leighton White and Erich J Hofmann (who was 17 years old, see photo) visited Goldsworthy mine site at Shay Gap to re-line bore for the main gyrotory crusher. This was one of Hofmann's first Large onsite machining jobs. At that time the main safety requirements for the job was steel capped boots. Of course a hat was a benefit especially in the outback summer heat (about 45°C) where it helped create a little welcome shade to protect the head and face. *By Jenny Hofmann*

# Spiral Bevel Gear Manufacture

Continually working at being the most technologically advanced, Hofmann Engineering now has 7 new, state-of-the-art, 5-axis machines. These machines dramatically increase Hofmann Engineering's capacity to machine complicated parts to micron accuracy.

This gives Hofmann Engineering the additional capacity to manufacture straight, helical and spiral bevel gears to very high accuracy. Hofmann Engineering is now able to supply the complete range of commercially available gearing types: cylindrical; bevel; and worm gears. Our latest 5-axis machine allows us to manufacture complete spiral bevel gears up to a diameter of 1800mm with a quality of DIN 3 (AGMA 14) at hardnesses of 63HRC (see image). Our larger 5-axis machines facilitate the manufacture of straight and helical bevel gears up to 4m diameter.

Hofmann Engineering has been pushing the limits of its 5-axis lathes and has developed a method of machining small gears on these machines. This means that small gears and pinions can be completely machined in one set up, which optimises machining times and quality.

5-axis machining is just another way that Hofmann Engineering is working at reducing machining time and improving our products.

*By Alyce Hofmann—Design Engineer (Perth)*



	Capacity	Quality
Spiral bevel gears	Up to 1.8m diameter.	DIN 3 (AGMA 14)
Helical bevel gears	Up to 4m diameter.	DIN 3 (AGMA 14)
Straight bevel gears	Up to 4m diameter.	DIN 3 (AGMA 14)

## MW Test Facility

For the first time in the Southern Hemisphere we have the facility to load test 3MW gearbox wind turbines. This test was conducted under the guidance of **Søren Præstholt** Senior Project Manager of Special Projects from Vestas in Europe. The gearbox was identified to have a history of problems with the primary planet stage which was re-engineered to overcome these issues. After the gearbox's successful test they will be located in Tasmania for field trials. We hope these will be the first of many. This gearbox load test rig comes with special sensors for evaluating: Vibration, Noise, Oil cleanliness, Temperature and a computer graph of results. These sensors are so precise that they can identify the slightest defect in any bearing or gear.

*By Mike Hill—Gearbox fitting Manager (Perth)*



**Gear box Details:**  
 Capacity: 1MW  
 Input speed: 12 RPM  
 Torque: 930.5KNm

## Tidal Turbine Planetary Gearbox

Hofmann Engineering designed and manufactured the 1MW planetary gearbox for Atlantis Resources to turn the generator on the world's largest tidal turbine operating at a depth of approximately 30m below the surface.

*By Mylles Bates—General Gearing, Product Manager*

### Condolences

Heartfelt condolences from all at Hofmann Engineering for:

- Brenda (wife) & family of Bob Ward on his sad passing.
- George Papadimitriou & family who is grieving the sad loss of his wife Brigitta

# Aerospace Standard AS 9100 Certification

Since its inception, product and service quality has been a cornerstone of Hofmann Engineering's success. Its ability to continuously lift its own quality standards has enabled Hofmann to rise above many of its competitors and make it a stand-out performer.

Having achieved and maintained ISO 9001 accreditation for many years, Hofmann Engineering has now joined the very short but distinguished list of Australian engineering companies that attained Aerospace Standard AS 9100 certification. It represents the high end quality level that more and more customers request especially those being active in the aerospace and defence sector.

AS 9100 is similar to ISO 9001, but more demanding in terms of control of documents and records, identification and traceability of products, control of non-conforming products, corrective and preventative action.

Following a thorough and meticulous audit by a specialised Bureau Veritas inspector, Hofmann Engineering was awarded with the AS 9100 accreditation, a pre-requisite to



JOINT STRIKE FIGHTER (Hofmann Engineering manufactured the tooling)

tender successfully for contracts in the highly specialised and demanding aerospace industry.

Hofmann Metaltec's completion of the first tooling for the Joint Strike Fighter is an impressive example demonstrating the company's commitment to sustainable growth into the high end of engineering manufacturing in Australia.

By Frank Sonntag (Quality Manager)

## HMAS Farncomb Generator Repairs

In March of this year Hofmann Engineering in partnership with ASC, undertook a project to carry out repairs to the stators and rotors on two of HMAS Farncomb's generators. The task was made even more difficult by the fact that the submarine was to remain alongside the wharf with the removal and replacement of these items having to be undertaken inside the confines of the main machinery compartment and the limited access from the submarine to the wharf.

There were several hurdles to be overcome prior to any work being undertaken with ASC having to strip down the generators to a suitable working platform and to bring in specialised riggers to enable movement of the generators in a very confined area. Hofmann Engineering's main role was to come up with a solution on how to machine the stators down to a specific size so that they could be removed through the only access route available. Hofmann Engineering then had to produce a plan and tooling to machine the new stator mounting blocks inside the generator housing.

These hurdles were overcome by the manufacture of two machining platforms which were produced, trialled and tested at Hofmann's Bassendean works. What had been achieved in the workshop now had to be proven on a floating and moving platform to the specification and tolerances set by defence. Commodore Bronko Ogrizek, RAN Director General Submarines expressed his appreciation for the manner in which the task was progressed and the co-operation shown between the teams. What originally was estimated would take 23 weeks to carry out repairs took approximately 57 days, which was a tremendous achievement. He also commented that: *"there are opportunities that we and ASC could further explore for increased co-operation, using your and industry expertise to assist us fix the COLLINS Class submarine fleet"*.

By Stephen Turner - (Project Manager—Fabrication)



### \*Congratulations\*

Congratulations to all staff who have or are about to celebrate anniversaries with Hofmann Engineering, especially to:

30 years: Rainer Ender & Reinhard Fatzkamper.

20 years: Mike Dyson & John Hall.

15 years: Dean Schultz, Gail Winsor, Robert Fernandez, Peng Wong, Glen Barnett, Robert Lazarevski, Mike Hill, Peter Mitchell, Dennis Saric, Ross Tucker, Sean Tinoo, Wayne Bengston, Nick Movre & Andreas Voigtlander

10 years: John Andersen, Graham Budd, Brendon Rodereda, Rane Ender & Mario Gallina.