

FORGED STEEL FABRICATED GIRTH GEARS

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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FORGED STEEL

Use Forged Steel Fabricated Girth Gears to overcome your cast steel cracking problems. Forged steel gives the highest crack and impact resistance.

CASTING defects and imperfections cause cracking and tooth breakout.



HOFALLOY FORGED MATERIAL

Hofalloy 1 Forged Gear Rim Material conforms to:

- 1) AGMA 2001 Grade 2 specification.
- 2) Hardness 330 – 360 BHN.
- 3) 3:1 Forging Reduction.
- 4) Induction Hardenable.
- 5) Site weld repairable in the event of a catastrophic mishap.



STOCKED INSURANCE SPARE MATERIAL

Use one plate to suit a variety of gears On Site:

- 1) **FORGED HOFALLOY** plate can be used as an insurance spare to cover many different girth gears.
- 2) Reduces manufacturing lead time.
- 3) Lowers insurance premiums.





1

SITE AUDITS

Evaluate Girth Gears and their conditions. Determine suitable forged steel rim plate – dimensions based on pitch, face width & Gear diameter. Order forged rim plate based on site audit.

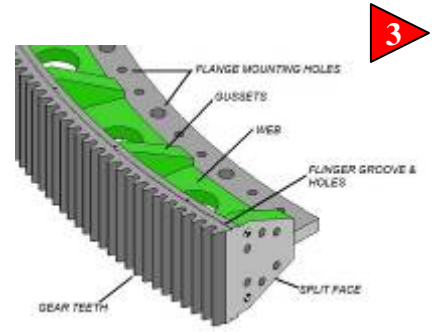
Rim plate can be ordered to suit a variety of Gears on site.



2

SITE GEAR INSPECTIONS

- Full Dimensional inspections done onsite.
- Diameters, Lengths, Hole PCD
- Full Gear inspection including:
 - Pitch.
 - Lead.
 - Involute.
- Hardness testing.
- Crack detection.
- Material chemical analysis.



3

DESIGN

- CAD design with 3D modelling to produce accurate manufacturing drawings.
- FEA analysis to optimise the weld sizing to keep stress levels to a minimum.
- Gear consulting.
- Gear design & rating calculating to DIN & AGMA standards.



4

FORGED STEEL

- Rim plate can be held in stock until required.
- One plate can be purchased to suit a variety of Gears on individual or corporate sites.
- Once forged steel is in stock, manufacture lead time can be significantly reduced.



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OXY CUTTING

- The forged steel is marked out & oxy-cut to width to suit the specific gear to be manufactured.
- Purchase of material in advance (No holding fee) allows the spread of costs over period of time.



6

BENDING

The individual lengths of plate are then rolled to the specific radius required for your gear.

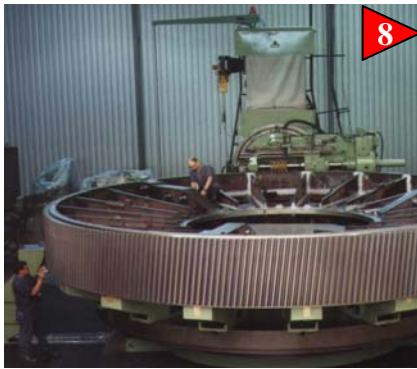
- 5000 tonne roll pressing capacity.
- Unlimited length.
- 250mm thick x 3700mm wide.



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FABRICATION

- Individual segments are fabricated to the strictest of welding and inspection procedures.
- NDT Inspection including 3rd party NATA ultrasonics.
- Full penetration submerged arc welds on critical joints.
- Stress relieved.



8

MACHINING

- Proof Machined.
- Finished machined.
- Dimensionally inspected to internationally recognised standards.
- Full gear inspection including final mesh testing.



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INSTALLATION & Alignments

Experienced team available to Plan, Manage & install your; Girth Gears, Pinion Assemblies, Gearboxes & Inching Drives.

Fully Equipped with all tooling, for laser Aligning, Machining, Fabrication & Mill Drive Adjustments
Ready for site work.