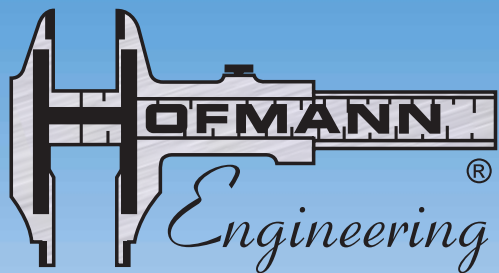


NORTH AMERICAN OPERATIONS





COMPANY OVERVIEW

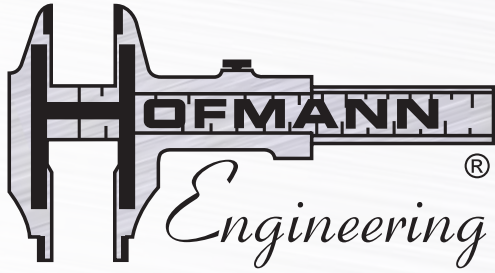
- 100% Australian owned family business.
- Financially stable debt free company owning all assets including land and buildings.
- Design, engineering, R&D (Research & development), constant improvement, manufacturing, QC (Quality control) and Site Services.
- Manufacturing sites - Perth, Melbourne, Bendigo, Newcastle, Chile, Peru & North America.
- Offices - Queensland, USA, Peru, India & China.
- 600 employees (global approximation).
- 24 hours, 7 days per week services.

Pictured below:
Corporate Headquarters
Perth, Western Australia

Board of Directors

(pictured left to right):

Leighton White - Technical Director
Erich J Hofmann - Managing Director
John P Hofmann - Owner/Director
Erich F Hofmann - Owner/Director



COMPANY OVERVIEW

Hofmann Engineering Pty Ltd was established in 1969 as a family business by the two brothers John P and Erich F Hofmann. It has grown, developed and diversified to become one of Australia's foremost manufacturers of specialist engineered equipment.

The Hofmann Group of Companies operate from sites in Australia, Chile, Peru, China, India and North America.

Engineering excellence, innovation, quality and sustainability are the corner stones of the Hofmann business philosophy.

Key capabilities encompass high end design, product improvement manufacture, repair, refurbishment, on-site and emergency services of mining and industrial equipment, gearing for heavy and light industries, precision engineering products, valves, special purpose tooling, specialist production-line and processing equipment & tooling.

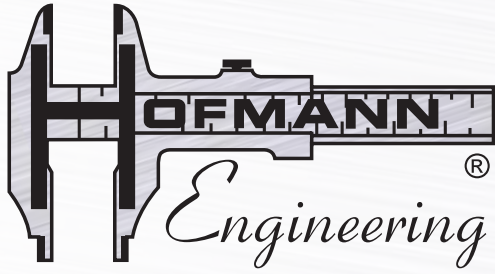
The Hofmann group has extensive capabilities incorporating leading technology. A clear example is

welding of alloy steels in heavy formed sections and machining of large-diameter high precision gearing. Another example is the improve engineering of key mineral processing and mining equipment.

Its customers range from the world's great resource and mining companies, various major international OEM's, through to leaders in international aerospace and defence technology.

Hofmann Engineering provides onsite expert services for equipment installation/commissioning and for RCA failure analysis and correction.

Heat Treatment for every purpose and condition, together with other allied and complementary engineering capabilities and facilities, which include a metallurgical laboratory, state of the art metrology equipment, electro-chemical plating and the experience & capability to undertake the largest of onsite repairs and in situ machining ensures a complete specialist manufacture service.



Hofmann Engineering continues to grow even in a challenging economic environment. The latest acquisition was the former FALK Newcastle premises in March 2015 and Hofmann North America in July 2020.

COMPANY OVERVIEW

MANUFACTURING FACILITIES



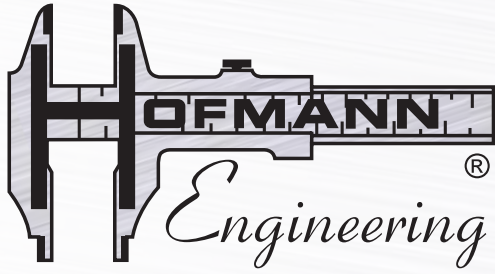
• Hofmann **BENDIGO**, VIC



• Hofmann **MELBOURNE**, VIC



• Hofmann **NEWCASTLE**, NSW



COMPANY OVERVIEW

MANUFACTURING FACILITIES



- Hofmann Engineering
CHILE



- Hofmann Engineering
NORTH AMERICA

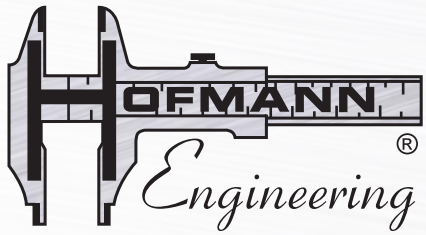


- Hofmann Engineering
PERU



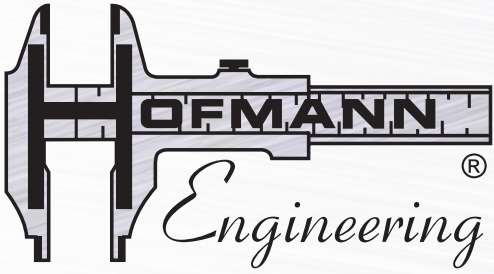
Sales and engineering sourcing offices with detailed metallurgical, mechanical and inspection capability:

- Hofmann Engineering
CHINA
- Hofmann Engineering
INDIA
- Hofmann Engineering
USA - TEXAS

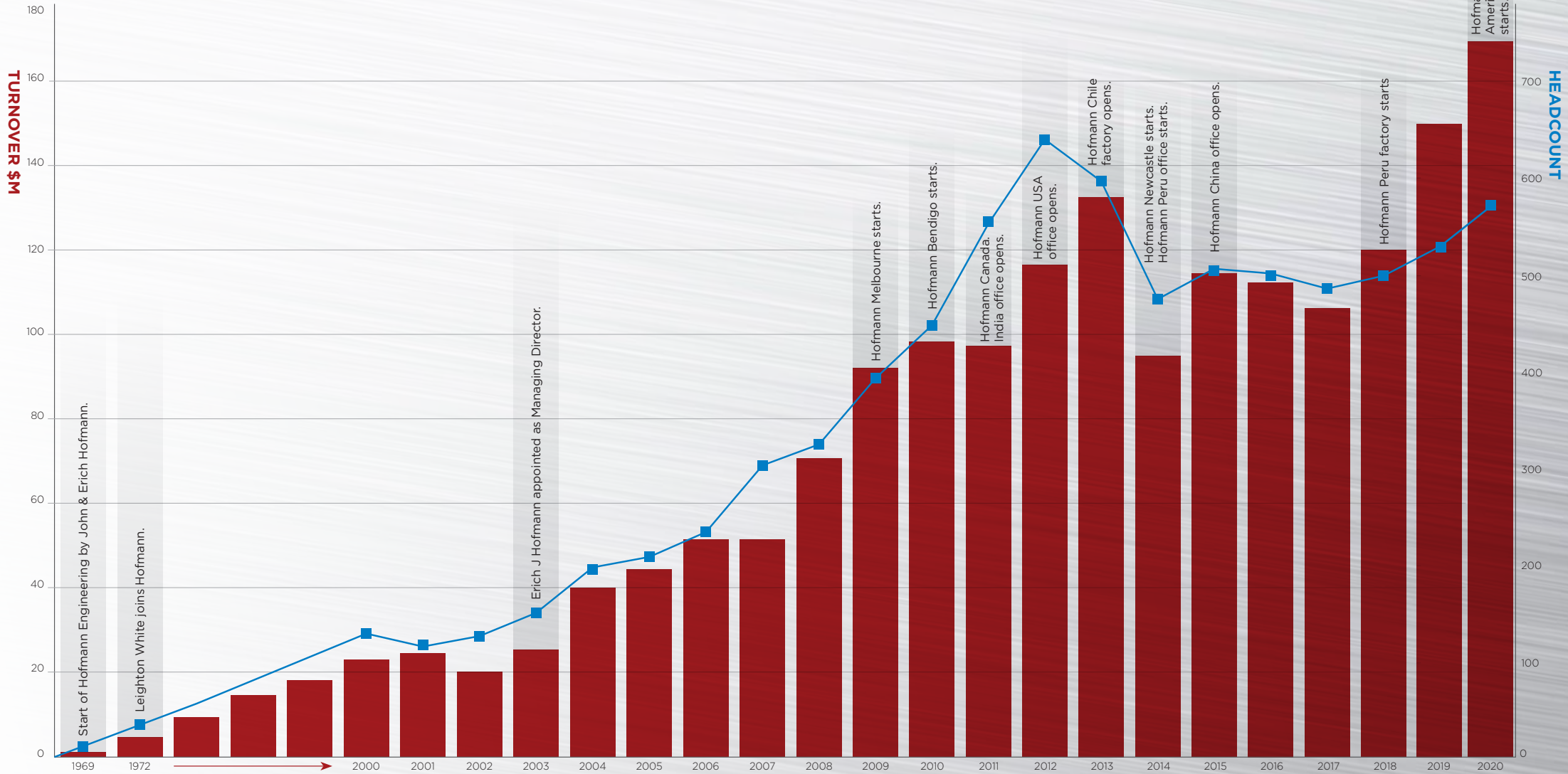


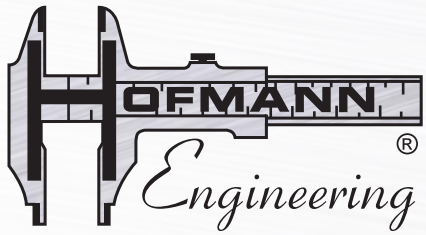
GLOBAL OPERATIONS & AGENTS





HOFMANN ENGINEERING EVOLUTION





NORTH AMERICAN OPERATIONS

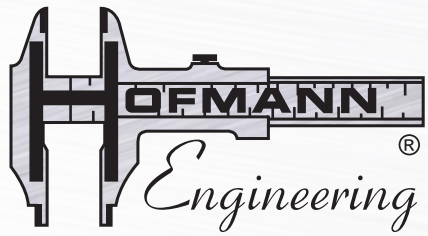
FACTORY LOCATION



- 50,000 Square feet (4645 Square meters)
- 47,000 Square feet (4366 Square meters) Factory floor
- Overhead crane capacity
 - 1 x 38 Ton (35 Tonne)
 - 1 x 27 Ton (25 Tonne)
 - In total 66Ton (60 Tonne)**
- Prime Location
 - On HWY401, 40 minutes from Toronto International Airport, 90 minutes from Buffalo, NY airport



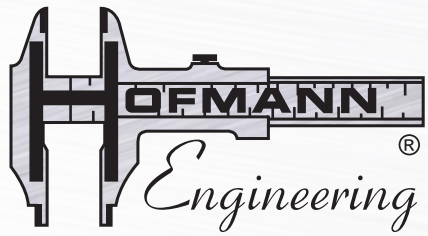
HOFMANN NORTH AMERICA:
330 PINEBUSH ROAD, CAMBRIDGE, ONTARIO



NORTH AMERICAN OPERATIONS

WORKSHOP FACILITY



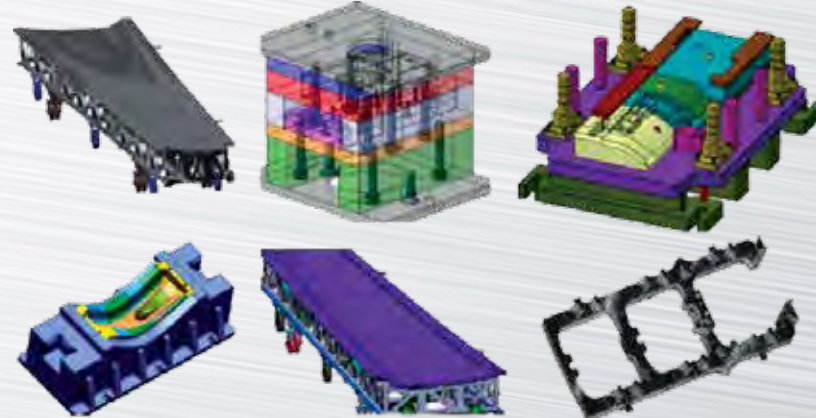


NORTH AMERICAN OPERATIONS

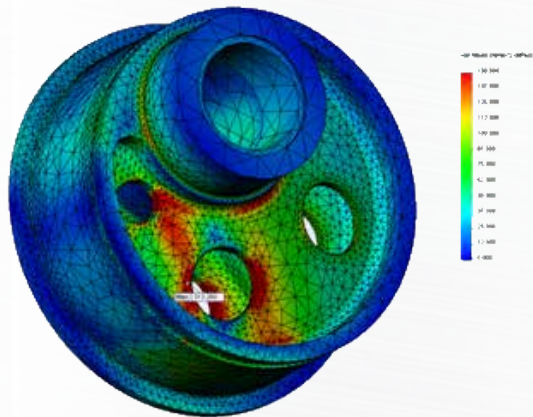
DESIGN & ENGINEERING SERVICES

CAD/CAM CAPABILITY

- Solid Works
- AutoCAD
- Cadds5
- CATIA v5
- Mastercam v9
- ProE
- SurfCAM
- Siemens NX (Unigraphics)
- Power-Mill



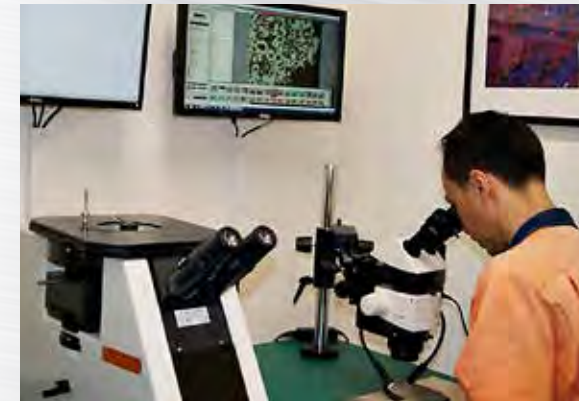
FINITE ELEMENT ANALYSIS FEA



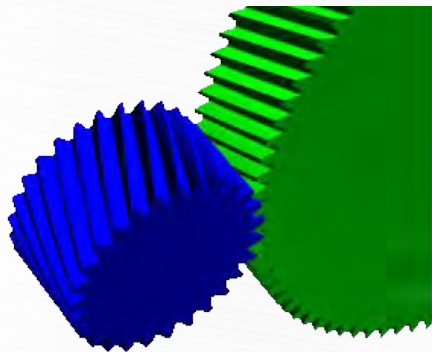
PORTABLE MATERIAL ANALYSIS



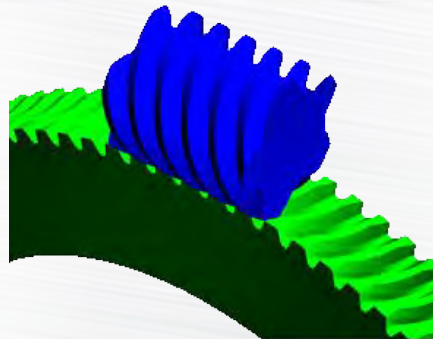
METALLURGICAL LABORATORY SERVICES



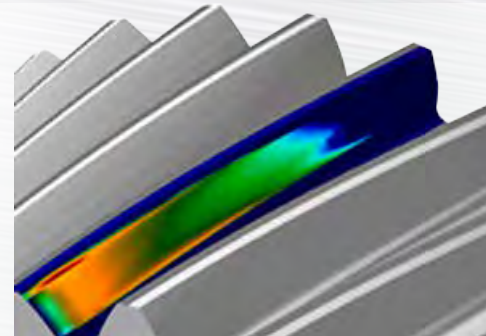
MECHANICAL COMPONENT & GEAR DESIGN



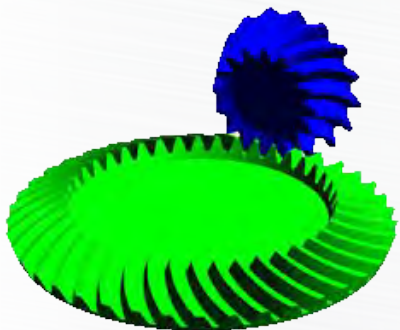
SPUR, HELICAL & DOUBLE HELICAL
GEARS & SPLINES



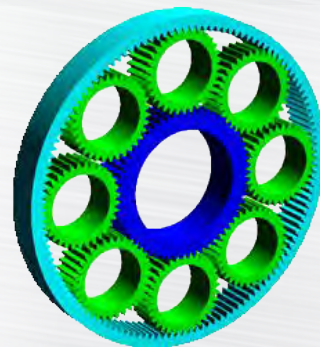
WORM GEARING



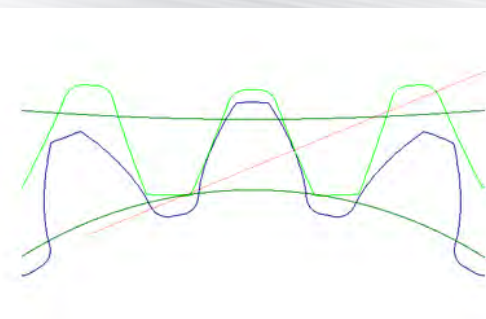
GEAR TOOTH OPTIMISATION,
CONTACT ANALYSIS & MODIFICATIONS



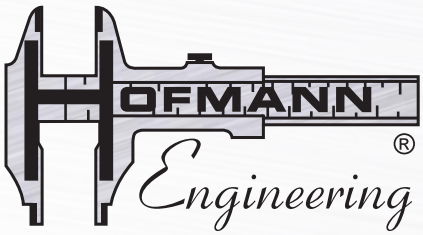
BEVEL GEARING (STRAIGHT, SKEW,
SPIRAL, ZEROL & HYPOID)



PLANETARY GEAR TRAINS

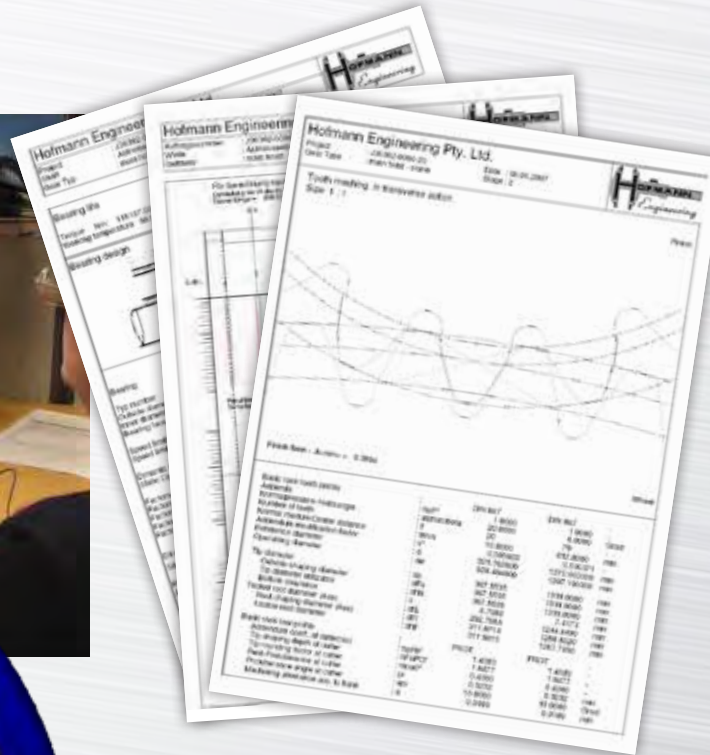
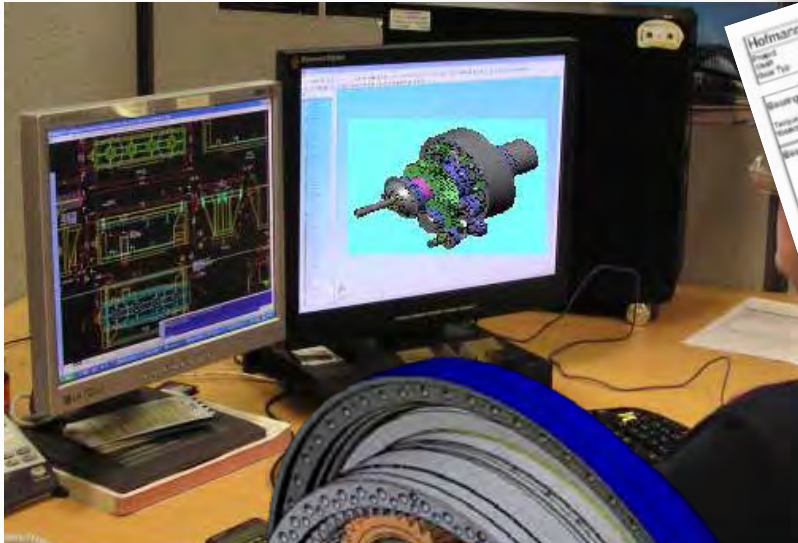


GEAR MESH ANALYSIS SHAFT
& BEARING CALCULATIONS



NORTH AMERICAN OPERATIONS

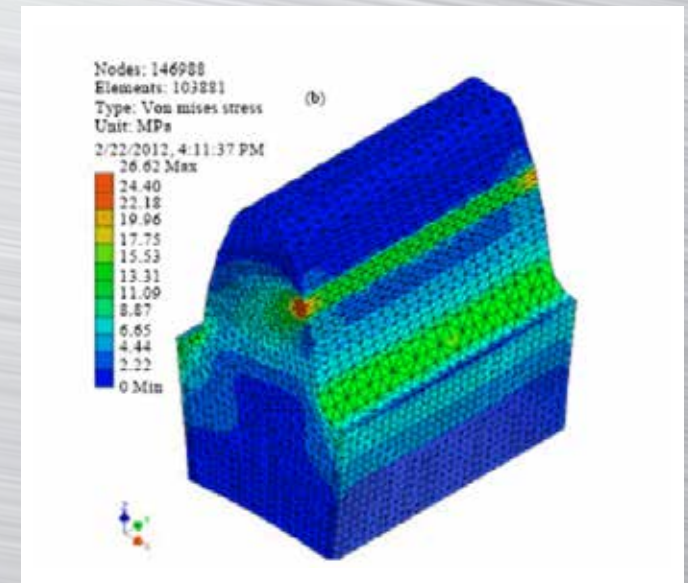
DESIGN & ENGINEERING SERVICES



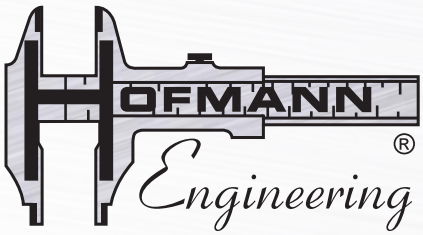
Hofmann Engineering have Gear design and consulting services and a full metallurgical laboratory for carrying out failure analysis.

Hofmann Engineering are also members of gear standard associations

- AGMA
- DIN
- ISO



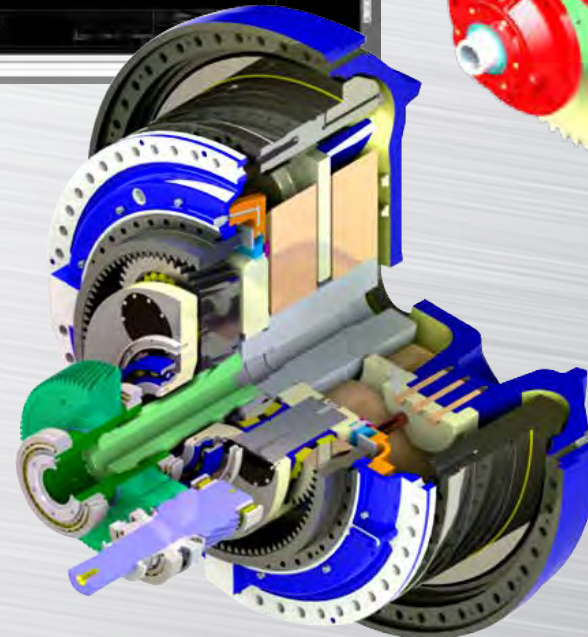
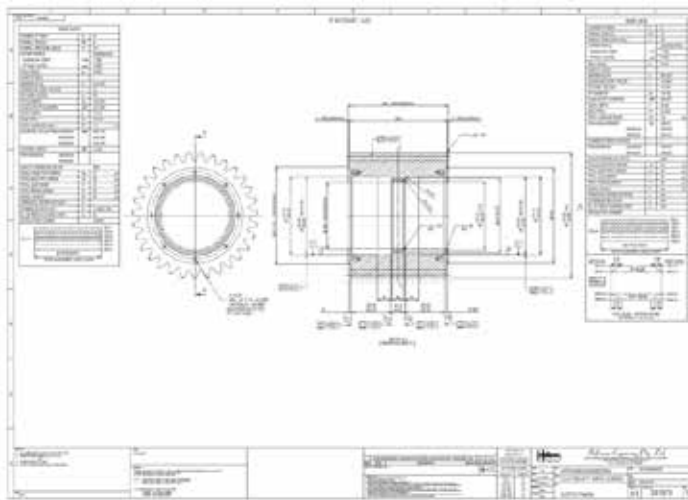
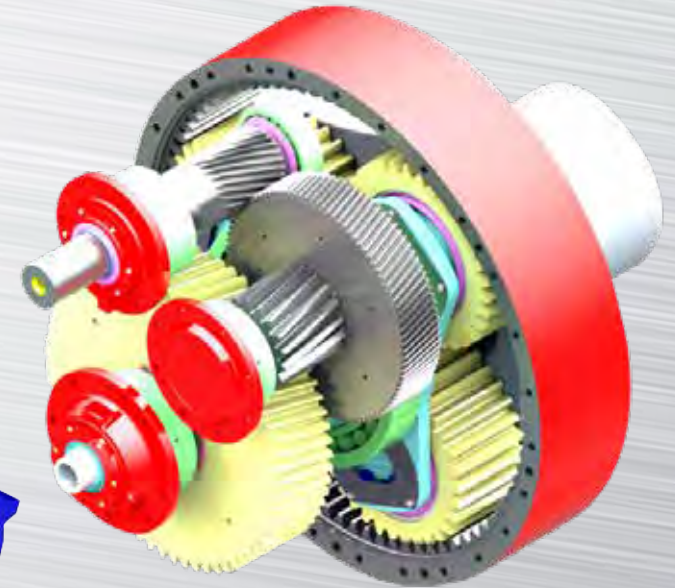
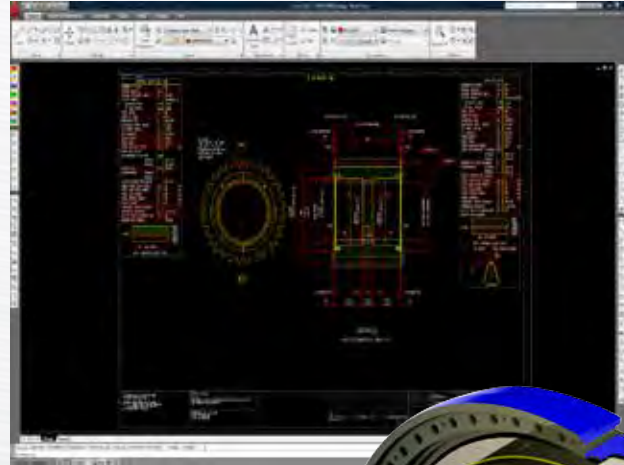
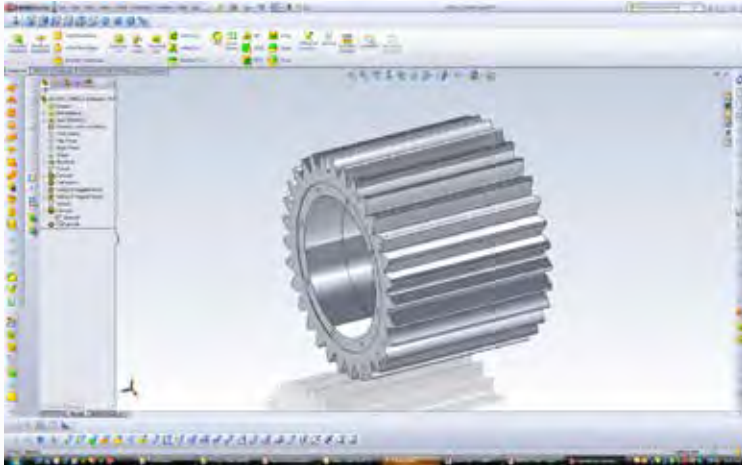
FINITE ELEMENT ANALYSIS FEA

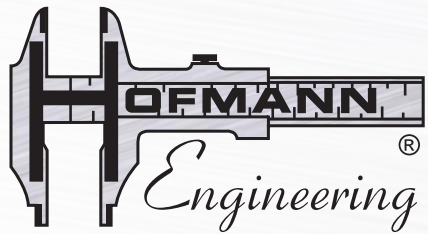


NORTH AMERICAN OPERATIONS

DESIGN & ENGINEERING SERVICES

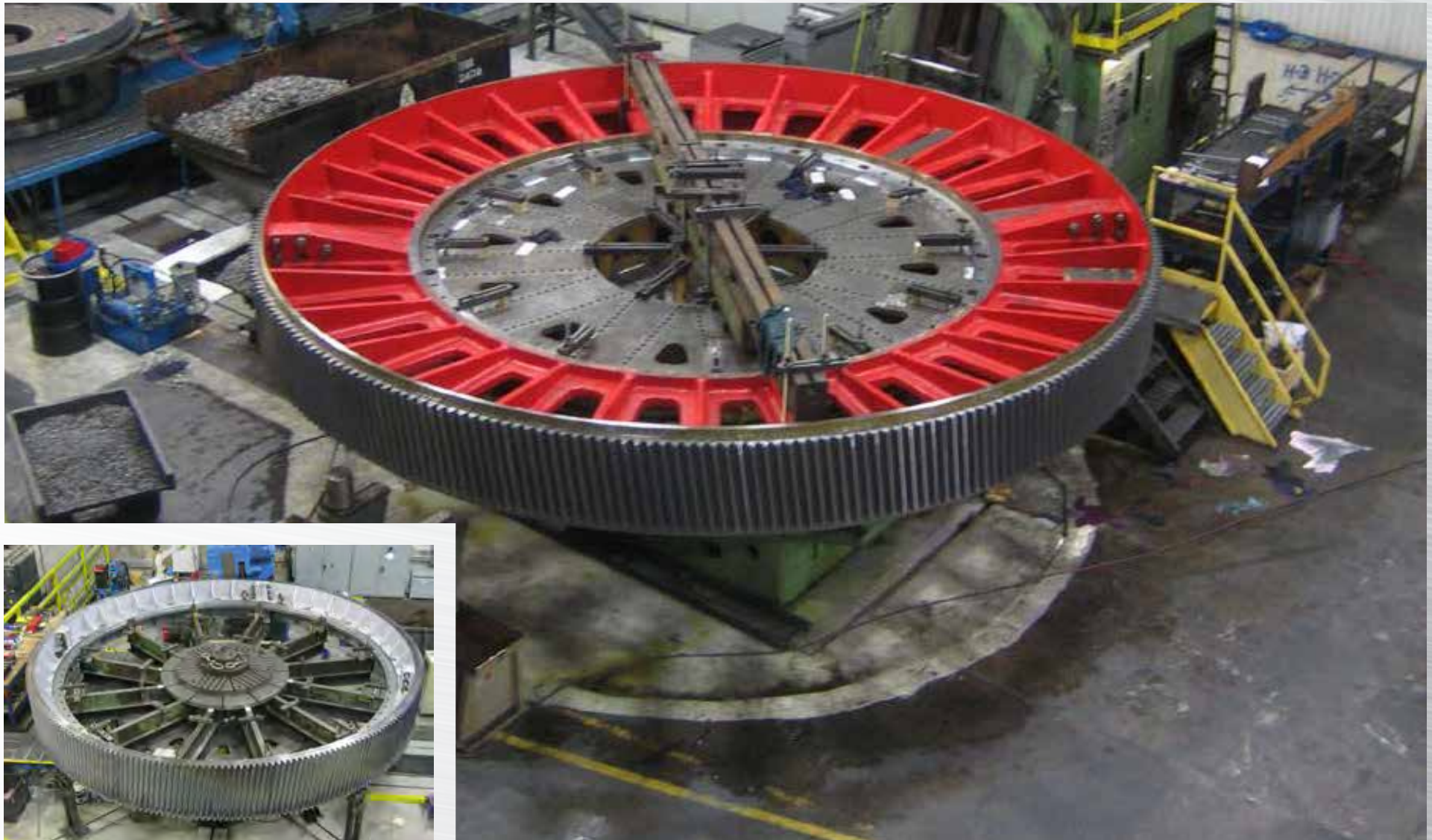
3D and 2D CAD Software for creation of manufacturing drawings for gear components.

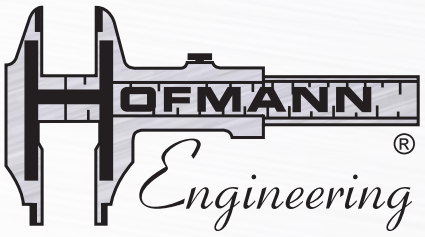




NORTH AMERICAN OPERATIONS

PRODUCTS - MILL & KILN GEARS

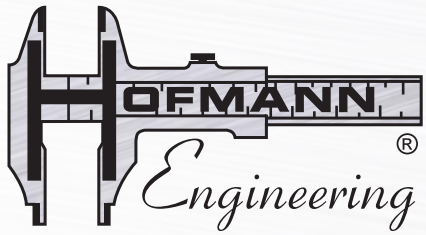




NORTH AMERICAN OPERATIONS

PRODUCTS - GEAR WHEELS

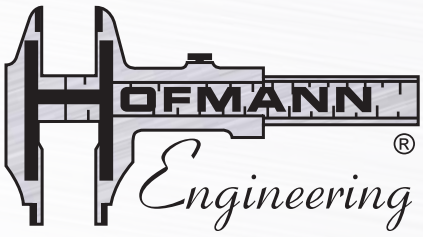




NORTH AMERICAN OPERATIONS

PRODUCTS - MILL & KILN PINIONS

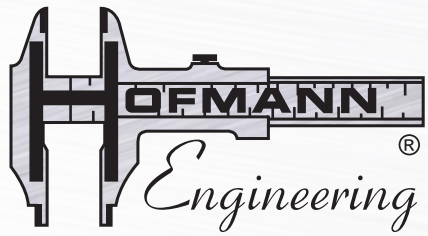




NORTH AMERICAN OPERATIONS

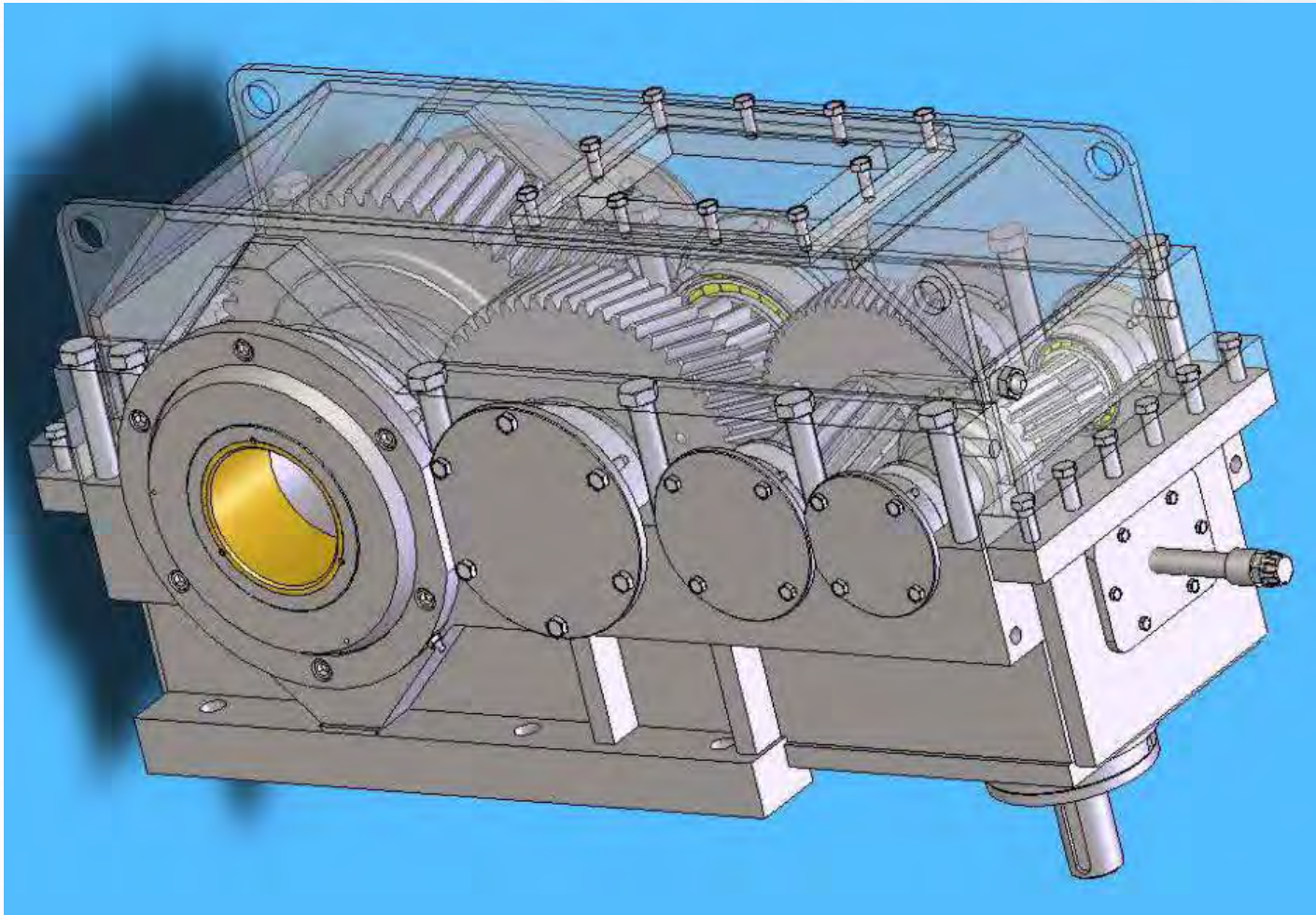
PRODUCTS - MILL & KILN PINIONS

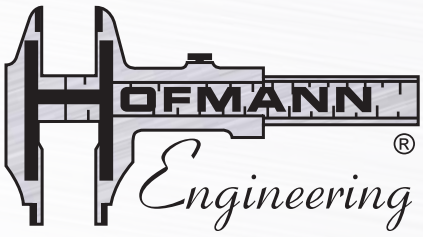




NORTH AMERICAN OPERATIONS

PRODUCTS - GEAR BOXES

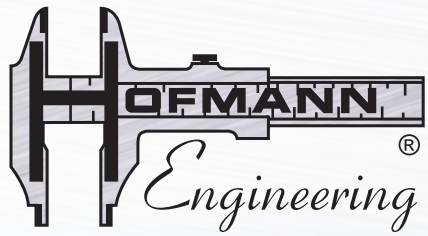




NORTH AMERICAN OPERATIONS

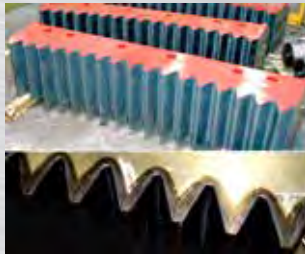
PRODUCTS - GEAR BOXES - ASSEMBLY & LOAD TESTING





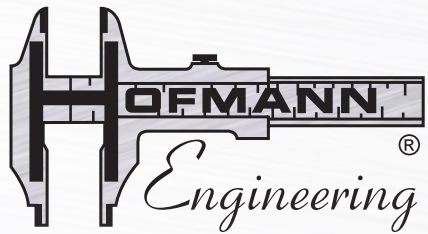
NORTH AMERICAN OPERATIONS

PRODUCTS - DRAGLINES



With a long engineering and manufacturing background in dragline components, Hofmann Engineering supply the full range of new and refurbished dragline parts that are interchangeable with the OEM's. All major mechanical components are available including the swing base, rack, rails and rollers, walking eccentrics, cams, shafts, gearboxes and boom point sheaves. In situ induction hardening of rope drums by Hofmann's Site Team reduces downtime.





NORTH AMERICAN OPERATIONS

PRODUCTS - ELECTRIC ROPE SHOVELS

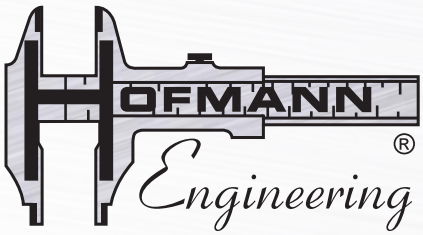
UPGRADED TRANSMISSIONS:

SWING, PROPEL, HOIST AND CROWD TRANSMISSIONS

- Offered as new or refurbished or service exchange.
- Fully interchangeable with OEM.
- Upgraded materials for all gearing.
- Upgraded 'HofCARB' case hardening for all gearing to a Hardness of 60-62HRc.
- Precision form grinding of all gearing, except internal ring gear, to AGMA 12 minimum quality.
- Accurately cut internal ring gears to AGMA 10 minimum quality.
- Fully test run, including lubrication system prior to despatch.

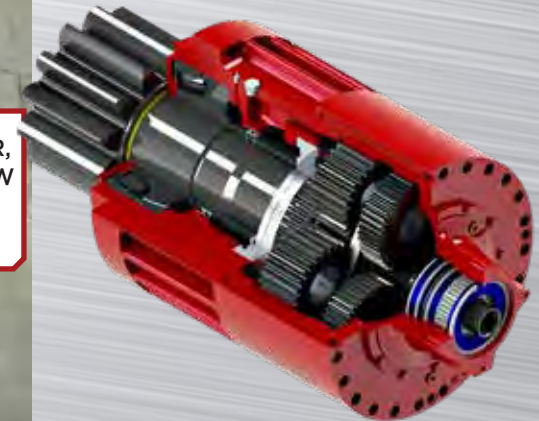
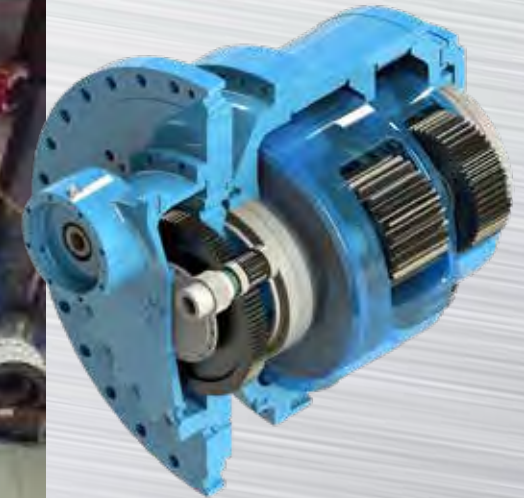
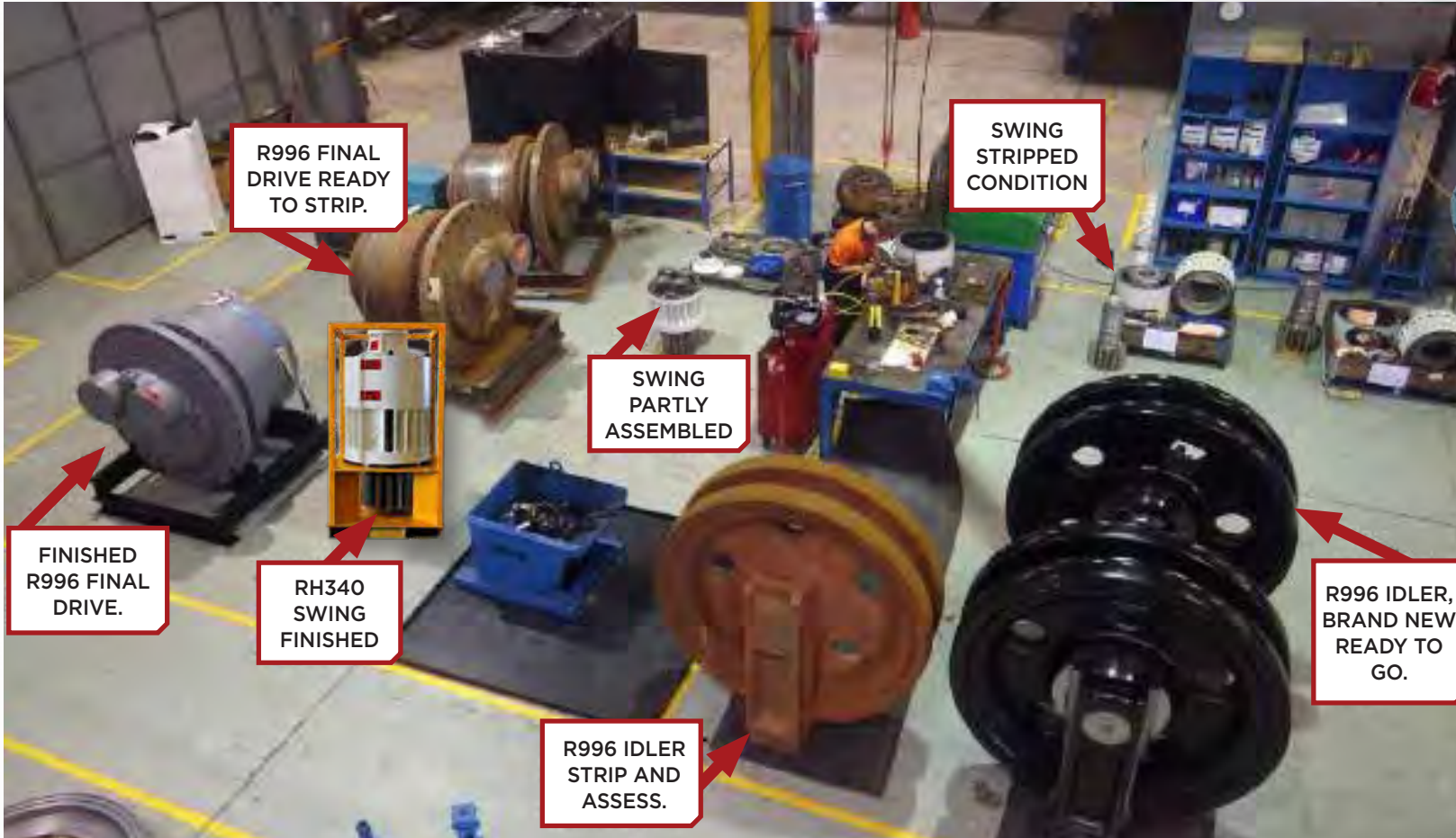
Some of the major parts offered include, dipper handles, saddle blocks, undercarriage, hoist & crowd drums.

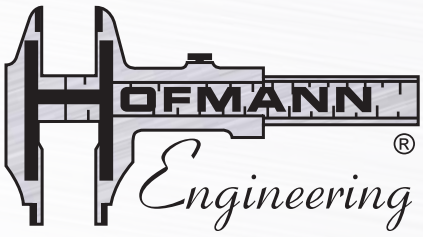




NORTH AMERICAN OPERATIONS

**PRODUCTS - HYDRAULIC EXCAVATORS -
SERVICE EXCHANGE & REBUILDS**





NORTH AMERICAN OPERATIONS

**PRODUCTS - HYDRAULIC EXCAVATORS -
COMPLETE UNDERCARRIAGE COMPONENTS**



TRACK PADS



DRIVE TUMBLERS



CARRIER ROLLER



LOAD ROLLER



SPROCKETS



LOAD ROLLERS, REAR & FRONT IDLERS

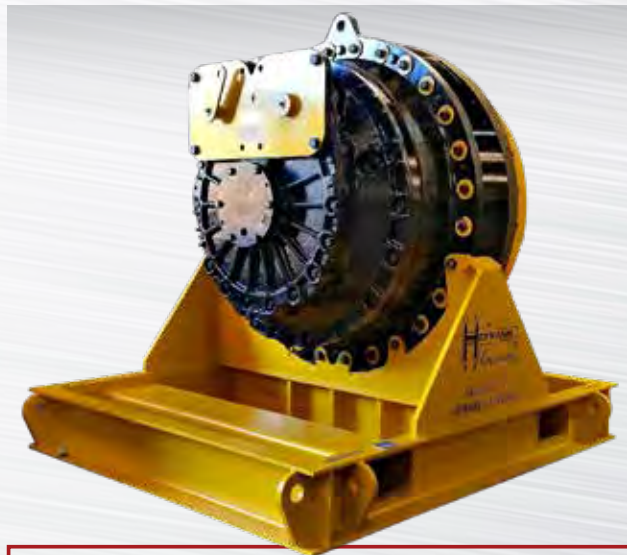
NORTH AMERICAN OPERATIONS

PRODUCTS - HYDRAULIC EXCAVATORS - TRANSMISSIONS - NEW, SERVICE EXCHANGE & REBUILDS



LIEBHERR

- Product improved propel and swing drives for R996B.
- New, overhauled or service exchange gearboxes.
- Like for like replacement internal gearing or upgraded internal gearing with the latest technology in case hardening by carburising or induction hardening and high precision grinding to DIN 5/AGMA 12 (min).
- Full gear quality inspection on all gearing using the latest gear inspection technology.
- Test run prior to despatch.



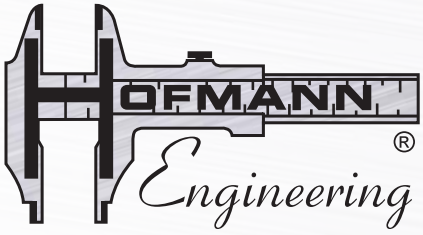
HITACHI

- Product improved propel and swing drives for EX3600/5500.
- New, overhauled or service exchange gearboxes.
- Like for like replacement internal gearing or upgraded internal gearing with the latest technology in case hardening by carburising or induction hardening and high precision grinding to DIN 5/AGMA 12 (min).
- Full gear quality inspection on all gearing using the latest gear inspection technology.
- Test run prior to despatch.



**CATERPILLAR/BUCYRUS
/TEREX/O&K**

- Product improved propel and swing drives for RH120 / RH170 / RH200 / RH340 / RH400.
- New, overhauled or service exchange gearboxes.
- Like for like replacement internal gearing or upgraded internal gearing with the latest technology in case hardening by carburising or induction hardening and high precision grinding to DIN 5/AGMA 12 (min).
- Full gear quality inspection on all gearing using the latest gear inspection technology.
- Test run prior to despatch.

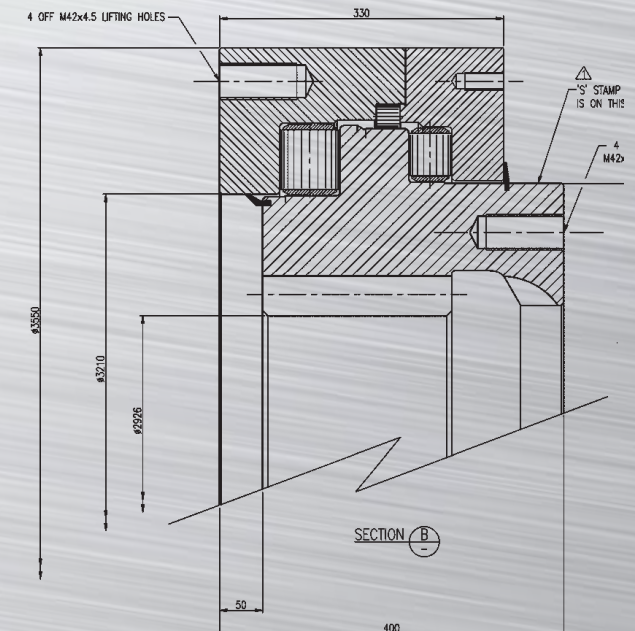
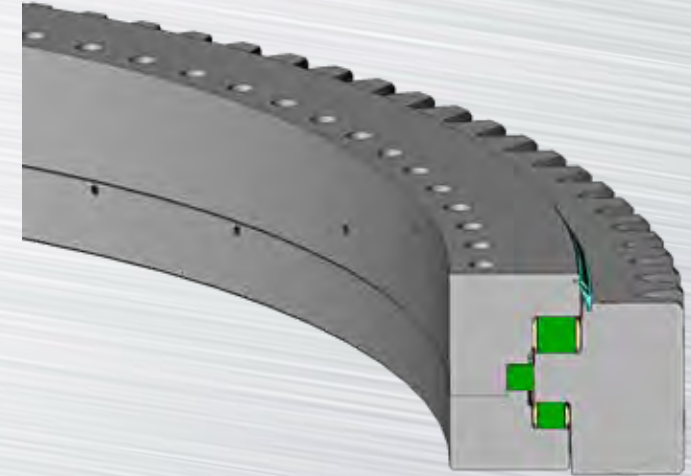
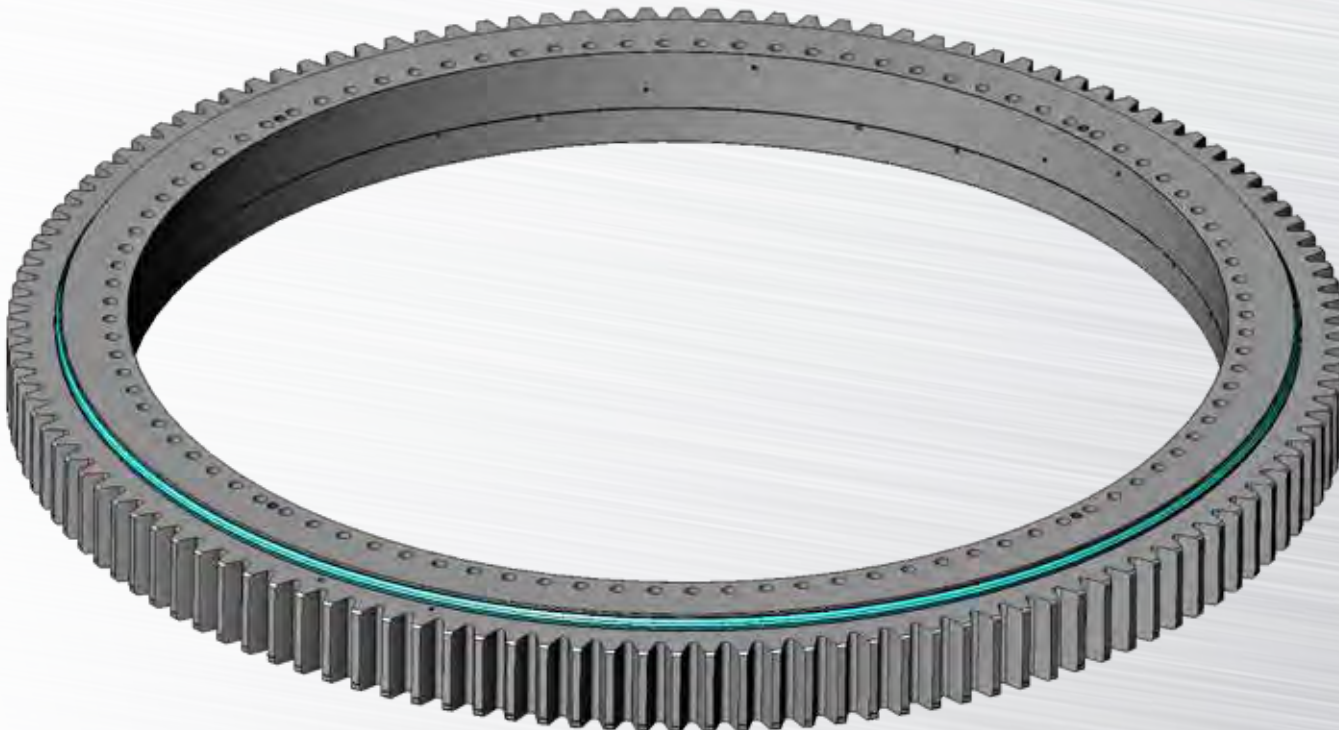


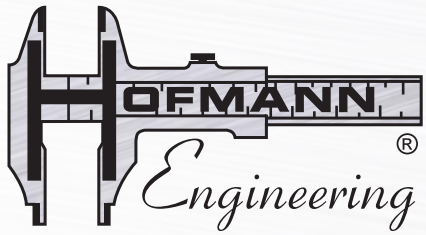
NORTH AMERICAN OPERATIONS

PRODUCTS - HYDRAULIC EXCAVATORS - SLEW BEARINGS

NEW IMPROVED SWING RACK

- AS1444 forged alloy steel ring rolled, quench & tempered to 345-375 BHN.
- Ring rolled forging offers superior mechanical properties, more homogenous grain flow in the direction of the applied principal stresses, and increased forging reduction ratio.
- Vertical tool mark striations are removed by polishing the roots to improve the fatigue life of the gear.
- Shot-peened roots to -600Mpa residual compression to improve the fatigue life of the swing gear.
- Improved cast segmented high strength alloy hub welded to the rack. Optional improvement: mechanically attached rack.





NORTH AMERICAN OPERATIONS

PRODUCTS - HAUL TRUCKS



PRODUCT RANGE

Hofmann Engineering's product range incorporates both mechanical and electrical final drive transmissions and associated components interchangeable with OEM products for the following mining trucks:

CATERPILLAR
797, 793, 789,
785 & 777

KOMATSU
930E, 830E

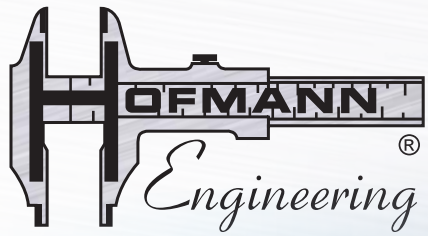
GE WHEEL MOTORS
772, 776, 787 & 788

HITACHI
EH4500-1
EH4500-2
& EH5000

LIEBHERR
T282B &
T282C

Technical innovation, brand reliability, and excellent sales and service ensures Hofmann Engineering Haul Truck parts and components are unrivalled. With high levels of performance and backed by the highly skilled in-house R & D team, Hofmann Engineering's product improved componentry are perfectly suited for the demands of the harshest mining environments.





NORTH AMERICAN OPERATIONS

PRODUCTS - DEFENCE

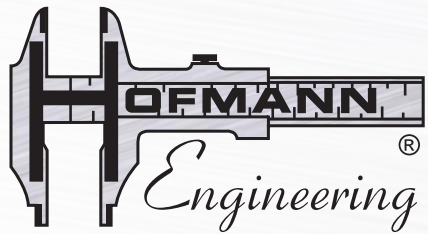


Since 1969 Hofmann Engineering has been a leader in world class precision engineering providing specialist engineering services and solutions to support the Defence industry. Our key capabilities are various and range from gear manufacture, precision & heavy machining to Defence and Aerospace projects. By offering these services it provides a complete end-to-end solution for our clients.

Quality assurance certification by Lloyds to AS/NZ/ISO 9001 and AS 9100, our Quality Management System complements our total quality culture.

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





NORTH AMERICAN OPERATIONS

PRODUCTS - AEROSPACE



Hofmann Engineering has over 40 years experience in the Aerospace Industry, combining the experience and knowledge of Metaltec we continue to be a globally recognised provider of engineered solutions in tooling to the aerospace industry.

Fully certified and accredited to AS9100, our people, systems and process are finely attuned to the requirements of the aerospace industry, complete capability for model based manufacturing, 5 axis machining, 100% inspection processes, laser tracking, Foreign Object Debris (FOD) prevention procedures provided in a globally competitive cost structure make Hofmann Engineering a world class tooling and equipment supplier.



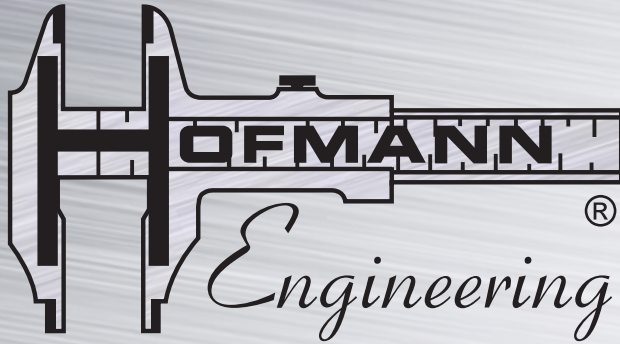
5-AXIS MILLING TO MICRON ACCURACY



COMPOSITES TOOLING



BOEING 737 WEDGETAIL COMPOSITES TOOLING



Hofmann Engineering Pty Ltd

HEAD OFFICE

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3 Alice Street, Bassendean (Perth)
Western Australia 6054

Phone: (+61) 8 9279 5522

Fax: (+61) 8 9279 9386

Email: mail@hofmannengineering.com

Web: www.hofmannengineering.com

Branch Workshops - Australia

HOFMANN CHELTENHAM

Address:

292 Bay Road,
Cheltenham (Melbourne)
Victoria 3192

HOFMANN BENDIGO

Address:

25 Bushmaster Court,
North Bendigo
Victoria 3550

HOFMANN NEWCASTLE

Address:

44 Broadmeadow Road,
Broadmeadow (Newcastle)
New South Wales 2292

Branch Offices/Workshops - International

HOFMANN SUDAMERICA

Antofagasta, Chile

HOFMANN INDIA

Chennai

HOFMANN CHINA

Ningbo

HOFMANN PERU

Arequipa, Lima

HOFMANN NORTH AMERICA

Ontario, Canada