

SERVING
INDUSTRY for
50
years
SINCE 1969

BEVEL & WORM GEARING



**SPIRAL •
HELICAL (SKEW) •
STRAIGHT •
ZEROL •
HYPOID •**

also
**WORM WHEELS
& WORM SHAFTS**

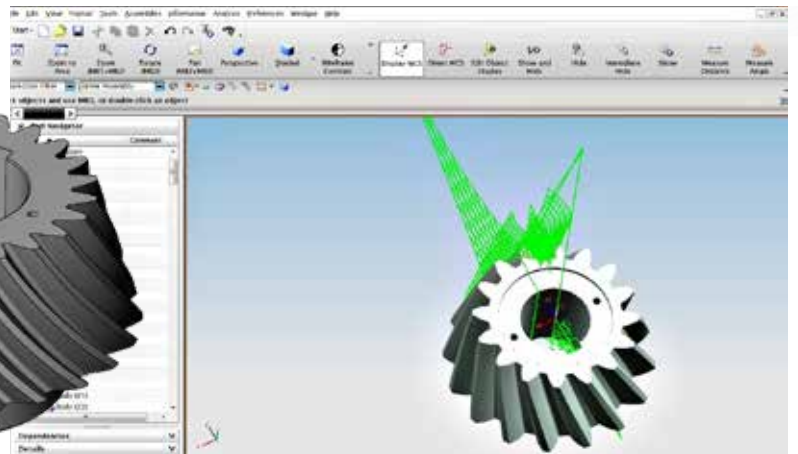
CAPACITY:
Size $\leq \phi 4m$

BEVEL GEARING • WORM GEARING

Designed or reverse engineered and manufactured under one roof.

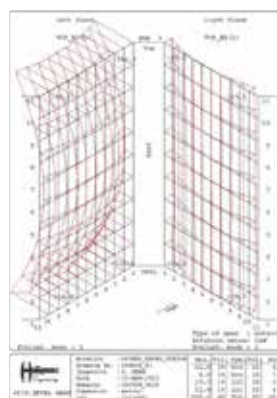
DESIGN

The first step of 5-axis machining is to create a 3D model of the bevel or worm gear. A 3D model to DIN, AGMA or Gleason standards can be created for a new gear using outputs from state-of-the-art engineering calculation programs. For replacement gears, a 3D model of the existing design can be acquired from the CMM and then modified to solve the problem which caused the gear to fail or to optimise future operation. Tooth modification can also be optimised to give quiet running gears.



INSPECTION

All gearing must be inspected to ensure that the quality required has been achieved. Specialist Coordinate Measuring Machines are capable of inspecting complicated gearing such as spiral bevel gears, helical bevel gears, worm wheels and worm shafts.



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CUTTING



An extensive collection of 5-axis machines to cut spiral, helical and straight bevel gears and worm wheels. Unique software is used to optimise the CAM program for the manufacture of spiral, helical and straight bevel gears and worm wheels.



WORM MESH CONTACT INSPECTION

A mesh test of worm wheel and worm shaft is conducted to confirm contact accuracy.

WORM GRINDING

Worm shafts are ground on form grinding machines to achieve ultimate accuracy and surface finish. After grinding, the gear accuracy is preliminarily checked on the machine prior to final inspection on the CMM and mesh testing if required.



HEAT TREATMENT

Gears up to 1.87m diameter can be case carburised, and gears up to 4m diameter can be full contour, tooth-by-tooth induction hardened.

TESTING

Bevel gears and worm wheels and shafts can be tested in their assembled gearboxes under load to ensure that operational specifications have been achieved.

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