## **CUSTOMER SUCCESS STORY**

## LI MING POWERS UP

A complete system of Gleason bevel gear production, inspection and software technologies helps LI MING keep pace with fast-growing demand for high-precision spiral bevel and hypoid gear reducers.

Gear reducer manufacturer LI MING Machinery is a classic Taiwanese success story. Established in 1969 by President Mr. Chiu-Hsiung Lin and Vice-president Mr. Chiu-Sheng Lin in Taichung, and 'powered' by its continuous investment in new technologies and a highly skilled workforce, LI MING group today has grown to about 1,000 employees and owns three manufacturing plants in China and three subsidiary companies in Taiwan, including ABOVEGEAR (gear production), ABOVEHEAT (heat-treatment), and FABMOTOR (motor production).

**LI MING's secret: Invest in the best technologies.** LI MING is particularly well-known for designing, developing and producing all types of high precision gear reducers, worm reducers, planetary reducers, spiral bevel gear reducers, and hypoid gear reducers. They are in wide-spread use in many industries and the brand is highly respected throughout SE Asia.

LI MING Vice-president Chiu-Sheng Lin and engineers on a visit to The Gleason Works, Rochester, NY USA.



"Gleason's closed-loop system gives us the competitive advantage to design and produce the best spiral bevel and hypoid gears." - LI MING President Chiu-Hsiung Lin

Inspect...





Cut...



Most recently, in order to meet increased demand for high precision spiral bevel gear and hypoid gear reducers, LI MING has invested in new Gleason technology to 'take control' of the design, production and inspection of bevel and hypoid gears for these reducers. The complete system includes a PHOENIX®II 275HC Bevel Gear Cutting Machine, PHOENIX®II 275G Bevel Gear Grinding Machine, 650GMS Gear Inspection System, and Computer Aided Gear Engineering (CAGETM) software. "How we design and produce precision gear parts is the most important issue in modern gear reducers, and the Gleason computerized closed-loop system gives us the competitive advantage to design and produce the best spiral bevel gear and hypoid gears for high precision gear reducer applications," explains LI MING President Mr. Lin.



"Gleason 650GMS is a fast and powerful inspection tool ideal for our high-precision gears," LI MING President Mr. Chiu-Hsiung Lin says.

**Gear development: from days to just hours.** In LI MING's R&D department, engineers use Gleason's CAGE<sup>™</sup> design software to design new spiral bevel and hypoid gears. They first determine the ideal gear contact pattern for application by using CAGE to perform a Tooth Contact Analysis (TCA). After that, CAGE creates the summary machine parameter settings for the Gleason 275HC cutting machine, and the 275G grinding machine for finish grinding the gears to very high quality classification. Gleason's G-AGE<sup>™</sup> software program then is used to generate an inspection file for the Gleason 650GMS gear inspection machine, which ultimately performs a digital topographical plot of the finished tooth surface. G-AGE then automatically changes the machine settings to match the desired computerized tooth shape, thus closing the loop on the entire manufacturing process. By using closed-loop gear development and manufacturing, LI MING can minimize the traditional trial-and-error steps and reduce the time to develop a new gear on average from 7 days to just 16 hours. At the same time, the potential for human error at every step of the process can be greatly reduced as well.

For more information about LI MING, please visit: WWW.LI-MING.COM. E-mail: info@li-ming.com