



CASE STUDY

Reference #43

Customer: Ueda Heavy Gear Works, Osaka, Japan

Segment(s): End-User / Solutions – Maag SH

Industries: Gear manufacturing

Project: Maag SH600 Gear Shaper CNC Conversion

Summary...

Retrofit of a Maag SH600 from conventional machine to full CNC with SINUMERIK 840Dsl.



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The Customer

Ueda Heavy Gear Works Ltd. is one of the Japan's flagships of heavy industry.

Established in 1893, Ueda Heavy Gear Works became the leading gear manufacturer in Japan, supplying large gears, pinions and other power transmission components to all major steel and machinery manufacturers in Japan.

Located in Osaka, specialising in manufacturing large cylindrical girth gears, pinions and also bevel gears, Ueda Heavy Gear Works has a large number of MAAG gear cutting machines.



The Challenge

CNC Design's task was to develop a CNC conversion solution which will retain the machine's flexibility and accuracy and offer additional high level functions such as: gear measuring; simpler operation, integration with the factory network, easy work setup and increased machine productivity. For this type of machine, CNC conversion requires significant mechanical and electrical re-design including: new transmissions for all axes, new electrical control cabinet, new machine operating system and training for the operators. Very short installation time was also critical to maximise availability of the equipment. Working closely with machine users in developing this solution was essential for the successful completion of this project.

Why CNC Design?

CNC Design has developed a complex solution for CNC conversion of the MAAG shapers and tested it in several successful installations around the world (Australia, USA, Japan, South Africa) for all types of MAAG heavy duty gear cutting shapers (SH250, SH450, SH600, SH1200)

Mr Masakatsu Ueda, President of Ueda Heavy Gear Works, explains his decision to work with CNC Design:

"CNC Design has done conversions for many types of machine tools and we trusted they have the best solution for our MAAG. I am happy they solved all the requests for our MAAG shapers"



The Result

Our first project in Osaka for a MAAG SH250/300 was completed in April 2011, in record time (two weeks full installation). With Ueda Heavy Gear Works Ltd having already placed an order to convert an even larger machine, their MAAG SH600/735, to CNC, the success of this project is undoubted. In Mr Ueda's words:

"After the conversion done by CNC Design, we have been using our MAAG shapers without any troubles. The removal of many mechanical settings and the user friendly operating panel are saving us so much time. Our MAAG shapers were revived completely by CNC Design"