

Chamfering and deburring large-module gears

Chamfering with Gleason-Manutec: Strong, precise and agile in tight spaces.

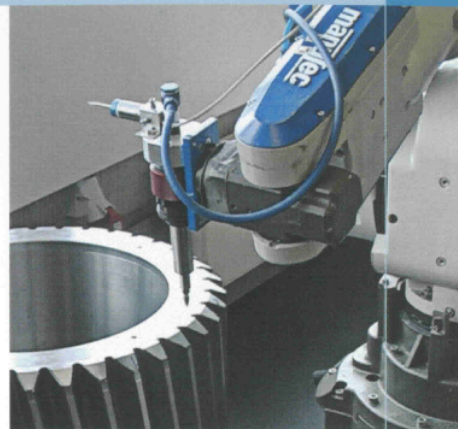
Gleason and Manutec have years of experience in solving complex chamfering and deburring tasks. The use of collective know-how means that the end user is now offered new, flexible and reproducible solutions for the field of gear tooth systems. The combination of gear cutting machine and chamfering/deburring robots results in an efficient and effective solution from a single source.

The Gleason-Manutec solution is distinguished by its high work speeds and path accuracy. A robust and torsionally rigid design and special torsionally special precision gears ensure that the control unit's regulatory properties can be used to full advantage.

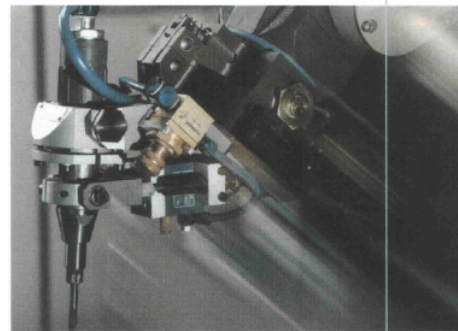
Complex programming work can be dispensed with and is replaced by a simple, quick and automated duty cycle. Chamfer shapes and angles can be freely selected via data entry.

The benefits:

- ✓ Simple, user-friendly programming with the new Manutec CNC robot control generation.
- ✓ Probing cycle for tooth space recognition.
- ✓ Number of scanning points and sectors are freely selectable.
- ✓ Robust and torsionally rigid design of the 6-axis robot.
- ✓ Repeatability of +/- 0.03 mm in a radius area of 1.3 m under full load.
- ✓ Reproducible, adjustable chamfer shapes, angles and sizes.
- ✓ The chamfer shapes, sizes and angles do not depend on the machine forces.
- ✓ Measurement cycle for automatic alignment of the robot based on the reference surfaces, i.e. extremely simple set-up.
- ✓ Various tools can be automatically exchanged as an option, making it possible to integrate additional machining tasks.
- ✓ Track speed of up to 2.5 m/min at conventional chamfer sizes. This results in very short machining times.
- ✓ The use of two tables makes it easy to improve output.



- ✓ The maximum centric bearing load of the Manutec standard axis is 500 kg (special versions are possible upon request).
- ✓ No special tools are required, but standard high-speed steel, carbide or grinding tools.
- ✓ Flexibility for all lot sizes.
- ✓ Machining in the polar coordinate system with additional axes.
- ✓ Machining in cartesian coordinate system without additional axis for gears up to approximately 300 mm in diameter.
- ✓ The robot cell can be subsequently incorporated into an existing production structure at any time.



Gleason



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