

June 18, 2025

Nidec Machine Tool Launches MGC300, a Gear-processable Multifunction Machine that Helps Improve Manufacturing Productivity with Consolidated Machining, Gear-processing, and Other Processes

Nidec Machine Tool Corporation (“Nidec Machine Tool”) announced today that it will launch on June 20 MGC300, a multitasking gear center that combines a vertical 5-axis machining center (“MC”) with a gear-processing function.

Capable of performing the general machining and simultaneous five-axis machining functions and the gear-processing functions (i.e., hobbing, skiving, and gear tooth chamfering), and requiring less machine setup frequency and fewer jigs, MGC300 reduces the operator’s workload. MGC300’s consolidated work processes help improve productivity and reduce cost for component and gear-processing companies, who produce a small quantity of a wide variety of products, thus responding to the manufacturing industry’s automation and labor-saving needs. In addition, MGC300 boasts a **best-in-class-level space efficiency** among gear-processable multifunction processing machines.



Multitasking Gear Center MGC300



**A gear-machining operation (example):
A workpiece (left) and a cutter (right)**

Main features of multitasking gear center MGC300

1. Efficient and accurate machining

Developed as a compact MC base machine with a low-overhang axis composition and a rigid gantry mechanism, MGC300 represents a spindle rotation speed of $15,000\text{min}^{-1}$ and a linear-axis’s fast-forwarding speed of 63m/min . Furthermore, with a direct-drive, high-speed table newly developed for gear machining, MGC300 is capable of high-precision gear machining by utilizing synchronized control with the high-speed spindle.

2. Improved productivity with consolidated processes

In addition to the three- and five-axis machining that can be performed as a MC, MGC300 can perform hobbing, skiving, deburring, and chamfering on a gear with a single chuck, thanks to its consolidated processes and being free of setup time. MGC300 can also perform making a gear shape with a general-purpose end mill, and expand the variety of types of machining in gear manufacturing.

3. Excellent operability

Adopting an interactive data-entry screen, MGC300 is a user-friendly product with which even users new to gear machining and inexperienced operators can make a gear-creating program and operate the machine easily.

■ Main specifications of Multitasking Gear Center MGC300

Specifications		MGC300
Displacement (X/Y/Z)	mm	500, 480, 460
B axis displacement (table tilt)	deg.	-30 ~ + 120
Rapid traverse rate (X/Y/Z)	mm/min	63,000
B axis fast-forwarding speed	min ⁻¹	60
Spindle taper		7/24 taper No. 40 (Dual-contact)
Max. spindle speed	min ⁻¹	15,000
ATC tools than can be placed		40
Max. workpiece diameter	mm	Φ300
Max. module	-	3
Floor space (width x depth x height)	mm	2,000 x 2,910 x 3,195
Machine mass	kg	8,500
Control unit	-	FANUC 31i-B5 Plus

- Link to the webpage on details of [Multitasking Gear Center MGC300](#)

For more information, please contact Nidec Machine Tool's Gear Machine System Business Department by using this [inquiry form](#). Thank you.

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