

## Press Release

August 31<sup>st</sup>, 2023

# “5-Axis Machining Technology Certification” for promoting 5-axis machining technology and developing highly skilled technicians

DMG MORI CO., LTD. (hereinafter referred to as “DMG MORI”) will start offering “5-Axis Machining Technology Certifications” in January 2024, with the aim of increasing shop floor productivity through process integration and automation, promoting high-precision 5-axis machining, and improving the social status of highly skilled technicians.

Under this certification system, technicians take a 4-level web-based examination (Bronze, Silver, Gold, and Platinum) that covers the fundamentals of cutting and indexed 5-axis machining.

**Bronze:** for those who understand 5-axis machining and can set up limited machining processes

**Silver:** for technicians who are familiar with 5-axis machining procedures and can set up machining processes safely and independently

**Gold:** for technicians/supervisors who can understand drawings, design machining processes, select optimal machine models, tools, and fixtures, and set up processes for any conditions

**Platinum:** for technicians/supervisors with 5-axis machining knowledge, experience, and skills equivalent to Gold, as well as outstanding expertise in the field of production engineering, who proactively promote advanced machining technology at work

DMG MORI will start with the Bronze level exam and gradually introduce higher levels. With the goal of having 500 technicians take the exam by the end of 2024 and gaining recognition as an official qualification by 2030, the certification system will be supervised by external 5-axis machining experts and include a mechanism to prevent cheating.

This certification system will serve to promote 5-axis machining, an advanced, high-precision machining technology that improves productivity through process integration and automation. DMG MORI also plans collaboration with the 5-axis Machining Association, which was established in 2018, and the Cutting Dream Contest, an industry-wide competition for machining excellence. Through our training programs available for different knowledge levels and work experience, the candidates will be able to systematically acquire skills and knowledge. In addition to the accurate assessment of technical levels, the certificate aims for the expansion of customers’ business scope, quality improvement, and enhancement of the social status of highly skilled technicians.

DMG MORI also provides full support for technicians aiming to obtain the certification. Available content includes "5-Axis Machining (Siemens)", a classroom course for machine operation, NC programming, and interactive programming; "5-Axis Machines Basic", an e-learning program by the Digital Academy; and "Process Design Advisor (Indexed 5-axis)", an online process design tutorial with 100 workpiece examples, all of which can be coupled with tailored training programs.

In addition, a new course titled "5-Axis Machining Application Course" will be available for Bronze level candidates. The course will be offered mainly in an e-learning format for easy self-study, but will also include face-to-face practice lessons to enable quick and efficient learning.

We believe this certification system will promote 5-axis machining among technicians and throughout Japan, contribute to the development of highly skilled technicians, improve their social status, and enhance the technical capabilities of the whole industry.

## ■ Technical competence required for each level

		Bronze	Silver	Gold	Platinum
<b>Drawing &amp; Product knowledge</b>	Capable of production process design (excl. machining process)	Yes			
<b>Machine selection &amp; Production process design</b>	Capable of selecting optimal machine models/automation/peripheral equipment				
<b>Machining process design</b>	Capable of detailed machining process design				Problem solving
<b>Programming &amp; Simulation</b>	Capable of CAM/interactive programming (setting cutting paths and conditions)				
<b>Tool &amp; Fixture selection</b>	Capable of selecting tools and fixtures and refining machining processes	Accurate device selection	Accurate implementation		
<b>Setup Machining</b>	Capable of test-cut, setup, and measurement				
<b>Installation &amp; Accuracy adjustment</b>	Familiar with installation and accuracy adjustment procedures and capable of problem-solving				
<b>Management &amp; Maintenance</b>	Capable of proper machine maintenance and management				

From limited & repetitive processes to complex processes

## ■ 5-Axis Machining Technology Certification (Bronze level)

Target	:Those who are interested in 5-axis machining
Prerequisite	:Basic training of cutting and indexed 5-axis machining
Fee	:JPY10,000 (excl. tax)
Format	:Web-based exam (*with a cheating prevention function)
How to apply	:From our online portal service <i>my DMGMORI</i>
Certificate	:Issued upon passing the examination

# DMG MORI

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Web-based examination & classroom training