

Press Release

April 18th, 2024

ERGOLine X with CELOS X – a new Human Machine Interface enables higher manufacturing productivity by smooth operation and Digital Transformation (DX)

DMG MORI CO., LTD. (hereinafter "DMG MORI") launched a new HMI (Human Machine Interface) "ERGOLine X with CELOS X" for higher manufacturing productivity by smooth operation and Digital Transformation (DX). ERGOLine X is a machine tool's operation panel with a wide screen touch panel. CELOS X is software with a variety of production applications for machine tools.

DMG MORI released an operation panel with touch panel for the first time in 2014. Since then, our customers across the globe value its sophisticated design and intuitive operation. The demand for high-precision machining of complex workpieces has been increasing over the past years. Many customers are investing in process integration through 5-axis machines and mill-turn centers with automation systems. Today, about 75% of DMG MORI's orders are machine models for process integration, and about 37% of orders are delivered with automation systems. On the other hand, to achieve even higher productivity, customers need to operate their machines more efficiently. This requires an uncompromised review of the existing production processes and preventive maintenance based on accumulated data on machine's operating conditions and production processes, which means, the capacity for processing a vast amount of data is essential. Against this background, DMG MORI developed "ERGOLine X with CELOS X", a new HMI for connecting machine tools to network, digitizing the existing processes, and facilitating the Digital Transformation (DX).

"ERGOLine X with CELOS X" is an HMI where an operator can easily give accurate instructions to the machine and clearly see the machine's status. HMI's design is based on ergonomics and very operator friendly.

ERGOLine X is an operation panel with three main components – a wide screen touch panel, HYBRID BAR, and hardware buttons. The upper panel has a wide, capacitive touch screen like a smartphone. The reaction speed has been improved from the previous model. Operators can use the touch panel even with hand protection gloves. HYBRID BAR automatically indicates the necessary functions according to the operation scenarios. This function prevents human errors and makes the operation easier. The hardware buttons on the lower panel are anti-dust, water-proofed and have durable structure. All buttons are easy to push and enable accurate program input.

CELOS X is software where customers can implement applications for machining preparation, production, monitoring and after service. CELOS X facilitates DX of production sites. Like a smartphone, customers can update the system and use applications that are released after initial purchase.

“ERGOline X with CELOS X” is available with DMG MORI’s latest machine models – 5-axis Horizontal Machining Center INH 63/80 and Mill-Turn Centers NTX 500 & NZ-Platform. All the other models will follow soon. With “ERGOline X with CELOS X”, DMG MORI will support DX of our customers. This will ultimately lead to Machining Transformation (MX) of production sites through process integration, automation, DX, and Green Transformation (GX).

Visit our website for catalogues and video material. *1

- Catalogues <https://www.dmgmori.co.jp/en/download/catalog/detail/id=6975>
- Videos https://www.dmgmori.co.jp/en/movie_library/movie/id=6955

■Key features

① Smooth operation by ERGOline X

- Ergonomic design with attention to details – very operator friendly.
 - + A wide screen touch panel
 - Higher reaction speed for smooth operation
 - Operators can keep their hand protection gloves on
 - Blue light reduction monitor to mitigate eye strain
 - A smaller panel (-30% in width and -40% in depth) with wider display area (+9.7%)
 - Free customization of screen’s layout – all the necessary information at a glance
 - + HYBRID BAR with liquid panel
 - Indicates only necessary buttons according to the operation scenarios – avoid mistakes, easy to operate
 - + Hardware buttons
 - Anti-dust & water-proofed durable structure
 - Easy-to-push button layout with comfortable typing experience

② Reduced set up time by a simple input screen “Set Up Assistant”

- 40% reduction of workpiece centering time by following animations and optical guidance *2
- Tool change by simply selecting the tool from the tool list and select automatic operation
No more manual program input, leading to 70% less operation hours *3

- ③ Strong support of production processes by a variety applications of CELOS X
 - Useful applications to support production processes. Applications are categorized by function, e.g., “machining preparation” contains manuals and tool information management and “monitoring” visualizes production status.
 - New applications are immediately available even after initial purchase. *4
- ④ Robust security
 - Equipped with whitelisting security software – block activation of illicit programs by allowing whitelisted programs only. Guarantees secure connection of machine to the network. Prevents troubles and accidents from cyberattacks.

DMG MORI will continue to release highly functional, reliable, and investment-worthy products to meet the needs of customers across the world.

Product name	Human Machine Interface “ERGOline X with CELOS X”
Compatible models*5	Mill-turn centers NTX 500, NZ-Platform 5-axis machines INH63, INH80

*1 Catalogues are available for web-registered users only. Register for free-of-charge and access limited contents.
 *2 Compared to the previous model for C-axis centering operation.
 *3 Compared to the previous model.
 *4 Update is available under limited conditions. For details, please contact your local sales representative.
 *5 As of April 2024. Roll out to other machine models are scheduled.
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ERGOline X with CELOS X
 ※From left to right: MAPPS, SIEMENS, HEIDENHAIN

DMG MORI

DMG MORI CO., LTD.
Global Head Quarter: 2-3-23 Shiomi, Koto-ku,
Tokyo, 135-0052, Japan
TEL: +81(0)3-6758-5900



Operators can keep their protection gloves on



A wide screen with slim design



NTX 500 + ERGOline X with CELOS X