

Press Release

May 20th, 2024

DMG MORI releases “WALC CARE”: a machine tool health monitoring service for early failure detection & reduced downtime

DMG MORI CO., LTD. (hereafter “DMG MORI”) will start equipping machine tools with “WALC CARE” - a new machine tool health monitoring service for predictive maintenance and significantly reduced downtime developed by its group company WALC Inc.

Founded in 2022, WALC Inc. develops and provides software services that drive digital transformation (DX) in the manufacturing industry using advanced AI, IoT, and cloud computing technologies. At DMG MORI, we advocate for Machining Transformation (MX) to achieve a sustainable society by enhancing our customers' productivity. In MX, it is essential to achieve Green Transformation (GX) through process integration and automation, and to digitize the entire process flow (DX).

The newly developed WALC CARE regularly performs predictive diagnostics on spindle and feed axes, generating reports that enable early fault detection and predictive maintenance, thereby reducing machine downtime. In one of our equipment cases, WALC CARE detected an abnormality in the support bearing of a ball screw more than five months before the operator noticed any issues. Since bearing malfunctions can lead to ball screw failures, the early detection allowed for optimal part replacement, resulting in cost savings. WALC CARE can be easily installed on existing machines in under an hour, allowing immediate use of the system with current equipment.

Using WALC CARE enables customers to digitize maintenance work, ensuring that machine tools remain in optimal condition for longer periods. This supports enhanced productivity and contributes to a sustainable society.

To meet all future demands, DMG MORI and WALC will continue to deliver products that are highly functional, reliable, and worth the investment.

【More details on next page】

■ WALC CARE – Key Features

1. Predictive Diagnostics for Spindles and Feed Axes

- + Early fault detection:
 - Detects signs of abnormalities over five months before operators notice*1.
 - Early detection and predictive maintenance reduce downtime.
- + Accurate diagnostics based on collected data:
 - Data is collected in the WALC Cloud. Extensive diagnostic data helps detect abnormalities.
 - Diagnostic data can be compared with pre-shipment machine data.
- + View diagnostic results via a web application:
 - Compare conditions before and after faults to improve production processes.
 - Regular diagnostic reports confirm early signs of potential failures.

2. Easy Installation & Use

- + Quick Setup: WALC CARE KIT can be installed on existing machine tools in less than an hour.
- + User-Friendly: Diagnose machine conditions by simply running the provided program.
- + Compatibility: Supports other manufacturers' machine tools equipped with Siemens NC or Fanuc NC systems*2.

■ WALC Inc. - Company Profile

Name:	WALC Inc.
Business operations:	Development and provision of software services
Established:	April 1 st , 2022
Address:	13-15 Sakuragaoka-cho, Shibuya-ku, Tokyo
Representative:	Masahiko Mori (Chairman), Tsutomu Sakurai (President)
Capital:	JPY 10 million (100% investment by DMG MORI CO., LTD.)
Employee number:	22 (plus 19 interns) *as of May, 2024
Website:	https://walc.co.jp/

Product	WALC CARE
Compatible models*3	5-axis Machine: DMU / DMC series, INH series, NMV series, NMH series Mill-turn Center: NTX series Machining Center: NVX series, NHX series, CMX series, i series Turning Center: NZX series

*1 DMG MORI case study. May vary depending on conditions.

*2 Learning period required.

*3 As of May 2024; may vary depending on NC type and version. For details, please contact our sales representative.

*DMG MORI CO., LTD., DMG MORI, WALC and WALC CARE are registered trademarks or trademarks of DMG MORI CO., LTD.

DMG MORI

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WALC CARE KIT



INH 63 equipped with WALC CARE KIT