



PRESS RELEASE

New FANUC CNC system, machine tools and robots at EMO Hannover 2023

The headline act on FANUC's 1,444m² stand (C54, Hall 9) at EMO Hannover 2023 (18-23 September) will be a sneak preview of the company's new FS500i-A series CNC which is currently in development.

Offering performance and ease of use, the new FS500i-A series includes a number of innovations. For instance, a new HMI simplifies use for experienced and new FANUC operators alike. For every task, all interactions can be handled on one screen so that there is no need to jump between several of them. In addition, the PMC (programmable machine control) can be programmed with Structured Text and the CNC supports any machine kinematics.

Although the new CNC is still under development, some of its many features are already available: The enhanced versions of FANUC's existing advanced FS30i/31i/32i-B Plus and standard FS0i-F Plus CNC solutions already include functions for energy saving and carbon neutrality, as well as digital twin technology, which will also feature in the FS500i-A, providing direct end-user benefits.

The new CPU, combined with newly introduced features and capabilities, improves basic performance and drives cycle time reductions.

Automated production cell for automotive industry

Central to the FANUC ROBOMACHINE display at EMO will be a complete production cell involving two ROBODRILL α -DiB Plus series machining centres, a FANUC M-20iD/25 robot on a linear rail for machine tending, an AGV (automated guided vehicle) for exchanging raw and finished part pallets, a CMM (co-ordinate measuring machine) for part measurement, and sensor and connectivity technology to provide feedback from the CMM to the ROBOMACHINEs, for example. Two ROBOCUT α -CiC wire EDM machines will also be part of the system, altogether three ROBOCUT machines will be on display at EMO.

This production cell will simulate the machining of a complex EV (electric vehicle) part in four and five axes, including turning operations using new high-speed rotary tables DDR-HSiB. Among further technologies will be FANUC's *iR*Vision, a 24" FANUC *i*PC for HMI and FANUC FsbP (FIELD system basic Package) to collect, manage and visualise data. Visitors can overlook this fully automated factory from a bridge. Another highlight will be the new FANUC ROBODRILL α -D28LiB5ADV Plus Y500 machining centre, which features an ATC with 28-station automatic tool-change capacity and a longer 500 mm Y-axis stroke. Making its debut appearance in Europe, the machine at EMO will feature a rotary table to help simulate the cutting of a large EV aluminium inverter case.

Further ROBODRILL α -DiB Plus series demonstrations at EMO will include the actual five-axis machining of an aluminium part, served by a load/unload FANUC CRX-10iA/L collaborative robot. Visitors will also see a ROBODRILL α -DiB Plus series performing live heavy-duty milling, drilling and skiving, highlighting the machine's power. In addition, a ROBODRILL Education Cell will be present, encompassing machine, in-process measurement, two-axis table, work holding.

Elsewhere on the stand, FANUC will showcase a ROBOSHOT α -S50iB injection moulding machine using a 16mm diameter screw to produce a smartphone precision lens holder, served by a FANUC LR Mate 200iD/7L. A ROBOCUT α -CiC wire EDM is set to complete the cell, producing the lens holder mould inserts.

ROBOCUT demonstrations at EMO will include a ROBOCUT α -C600iC with rotary table that will be wire-cutting injectors for the aerospace industry. A FANUC CRX-10iA/L is set to serve as the load/unload function, with ROBOCUT LINK*i* providing energy monitoring.

Making its world premiere at EMO will be the FANUC ROBOCUT α -C800iC wire EDM, an 800 mm X-axis stroke machine that completes the ROBOCUT α -CiC family. At the show, this large-format machine is set to simulate the wire cutting of a complex aerospace turbine part.

Robots within reach

Aside from many robots in the ROBOMACHINE area, FANUC will have a dedicated area featuring multiple robots of different sizes and capacities. All are suitable for both beginners and experienced programmers, either using the traditional *i*Pendant or a tablet TP.

Numerous live demonstrations show how flexibly FANUC robots can be used. In the blink of an eye, these reliable production helpers remove containers, take over palletising or assembly, transfer large castings or handle heavy batteries. Three demonstrations will involve FANUC *i*PC

Box (industrial PC), offering high computing power and numerous advanced vision functions that enhance performance and task reliability.

Among new FANUC robots making their debut appearance at EMO will be the CRX-25iA collaborative robot in 30 kg payload option, the FANUC M-710iD/50M with its curved arm and the CR-35iB collaborative robot in heavy-duty 50 kg option.

FIELD system: Data analysis on premise

FANUC's IoT highlight at EMO will be the introduction of a new 'FIELD system' version. FIELD system Basic Package is an on-premise platform (no Internet connection required) that allows manufacturers to collect, analyse and utilise data from connected machines and devices, offering compatibility with FANUC products up to 20 years old and extending its support to third party products. It offers fast set-up, easy-to-use templates and regular update capability which enables users to realise continuous production improvements in line with Kaizen strategies.

Last but not least, EMO visitors can discover more about the company's latest service offer enhancements, including new features of the FANUC Assisted Reality (FAR) remote support tool. For instance, the company will show tablet-sharing on a CRX collaborative robot with direct call capability to FANUC. In addition, there will be an overview of the company's service portfolio, FANUC Academy training courses and FANUC Care, a new full-service package that is similar in effect to an extended warranty.

About FANUC

The FANUC Corporation is one of the worldwide leaders in factory automation for CNC control systems, robots and production machinery (ROBODRILL, ROBOCUT and ROBOSHOT). Since 1956, FANUC is the pioneer in the development of numerically controlled machines in the automation industry. With more than 260 FANUC locations worldwide and more than 8,000 employees, FANUC offers a dense network in sales, technical support, research & development, logistics and customer service.

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