Technifutur® asbl

Version 1 Révision 0   19/09/2019

EMO Hanover Messe

16 & 17 septembre 2019

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Summary

3 words to summurize the EMO 2019

- Digitalisation

- Internet of think

- Multifunctional machine

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Liège Science Park • Rue Bois Saint-Jean 15-17 • B 4102 Seraing • Tél. : +32 (0)4 382 45 00 • Fax : +32 (0)4 382 45 46 • **info@technifutur.be** • **www.technifutur.be**   1

1. Connectivity between machines

Connectivity between machines

DMG MORI provides an open connectivity from the machine to the cloud-based an IoT platform

- DMG MORI Connectivity: free in all DMG MORI machines
- Support for all internationally established protocols including MQTT, Mtconnect, OPC UA, the new umati standard and the most important IIoT platforms, including ADAMOS, MindSphere and FANUC field
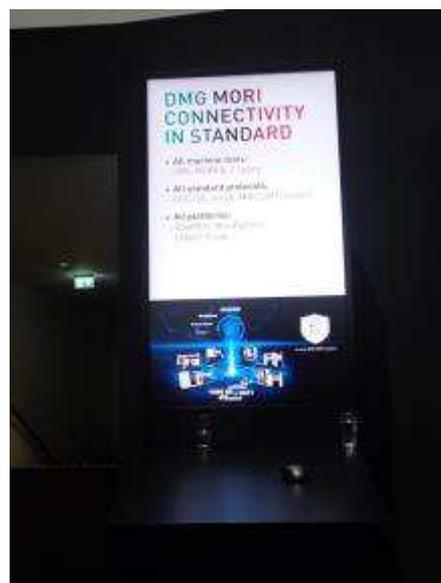
2.   Celos Update

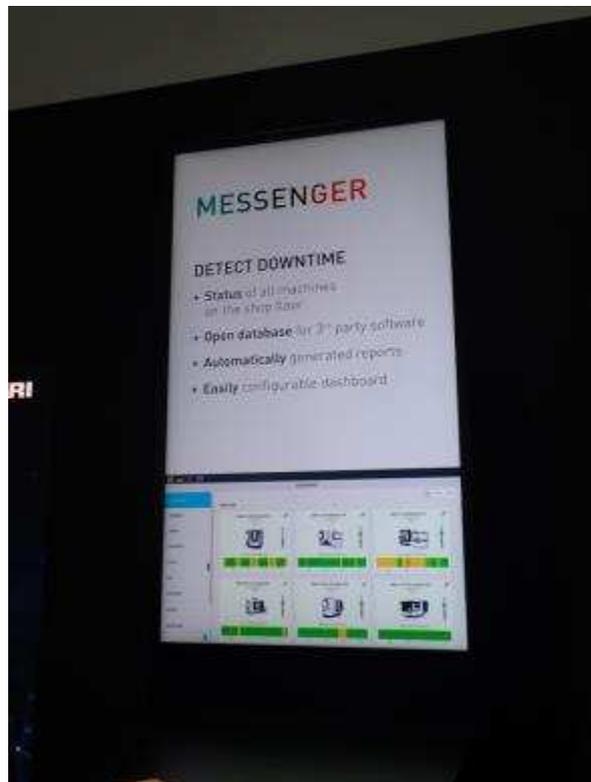CELOS® from DMG MORI (operating software package) enables consistent management, documentation and visualization of order, process and machine data. It also simplifies, standardizes and automates operation of the machine.-

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Liège Science Park • Rue Bois Saint-Jean 15-17 • B 4102 Seraing • Tél. : +32 (0)4 382 45 00 • Fax : +32 (0)4 382 45 46 • info@technifutur.be • www.technifutur.be   3

3. Messenger

DMG MORI Messenger enables real time monitoring over a network. Machine data is transferred to a web server to allow customers to access the data from their smart phone or office computer. DMG MORI Messenger, which implements the Industry 4.0 concept to optimize production processes, minimizes machine down time, helping customers transform their shop floor into a smart factory.

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4.   Condition Analyser

DMG MORI Monitoring records the condition of networked machines, provides information on the current production status and analyzes machine sensor data to avoid machine downtimes. This digital transparency increases your planning reliability and productivity and also provides a great starting point for digitization.

5. Up2Parts

DMG Mori invests in digitalization of the manufacturing process with Up2parts.

Up2parts enhances DMG MORI's digital solutions portfolio. The focus here is on AI-based optimization and acceleration of procurement and manufacturing processes: from quotation and order entry through work preparation and CAM programming to machine planning. The core of the software solution is artificial intelligence, which analyzes the geometry of each component within seconds on the basis of machine learning algorithms and human know-how. The result is a concrete work plan and the price for manufacturing the component. With each component, the AI "learns", independently and continuously optimizing its algorithms.

6.   Customer portal

The customer portal is an online Service Manager. The new customer portal my DMG MORI provides fast, direct contact, independent of the machine, to the DMG MORI service experts, including a status overview of ongoing activities and access to all documents.

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7.   Net service

The NET service is a remote services in the machine tool industry.

The NETservice has been developed to meet the high demands of machine tool customers - particularly when it comes to the maximum data security provided by NETservice. Another plus is the multichat function, where operators, service experts and other personnel can respond within the direct communication network and find common solutions to service issues. Available as an option, the service camera is also an added benefit, as it's already preconfigured and works perfectly with NETservice in Plug & Play mode.

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8.   Digital twin

The first step on the way to the "Digital Twin" is to create a dynamic model of the machine and equip all of the key components and all dynamically sensitive structural elements of the virtual machine with sensors. A functional likeness that reflects all of the characteristics of its real counterpart comes into being when interaction takes place with the PLC and CNC, which are also virtualized.

In this way, customers will be able to virtually generate and simulate NC programs in the mirror image of the twin, investigate workholding solutions, test tools, create time studies and (more or less in a digital instant) submit reliable quotes.

9.   Robotisation

Robotisation of CNC machines allows
- to increase the output,
- to use less manpower and physical labour,
- to manipulate large and heavy parts.

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10. Mutifunctional machine

DMG MORI presents an innovative manufacturing technologies : a complete process chains for additive processes using powder nozzle or powder bed technologies. DMG MORI combines its LASERTEC SLM models and the LASERTEC *3D* series with the machining centres from its broadly diversified machine portfolio.

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