

*DMG MORI Machining Transformation (MX)*

## **Machining Transformation (MX): Holistic approach to manufacturing technology**

**Every company must face up to the challenges of increasingly efficient and sustainable manufacturing. DMG MORI supports its customers in this with Machining Transformation (MX). The new concept will be presented at EMO. It combines the four pillars of Process Integration, Automation, Digital Transformation (DX) and Green Transformation (GX) for modern and sustainable manufacturing.**

*Known processes and tools in machining are constantly evolving, while new technologies up to integrated systems in digital value creation networks are dynamically gaining influence. In addition, the challenges of climate change demand adequate answers. Against this background, DMG MORI is forming its Machining Transformation (MX) Framework. Through optimal synergies of Process Integration, Automation and Digitization, it supports users in releasing the greatest possible potential for sustainability and innovative growth. This concept for the manufacturing of the future will be demonstrated at EMO.*



*With the four pillars of Machining Transformation (MX), DMG MORI provides an answer to the challenges of ever faster, more efficient and more sustainable manufacturing.*

## More efficient through Process Integration

By means of process integration and the associated complete machining, machine tools can be fully utilised. Whereas complex workpieces required the use of several machines in the past, modern 5-axis simultaneous machining centers or turn & mill centers for 6-sided complete machining combine most work steps in one clamping. DMG MORI Technology Cycles expand the integration of machining processes to include grinding or gear cutting, for example. As a result, even fewer machines are used, the production area can be better utilised and fewer personnel are required to supervise production. Similarly, machining gains accuracy because components are no longer reclamped manually and in-process measurement ensures consistent accuracies.

## More productive and accurate through holistic automation solutions

The Automation pillar within Machining Transformation (MX) encompasses DMG MORI's wide range of holistic and flexible automation solutions. With these, customers can revolutionize the automation of production in the long term. On the one hand, they increase productivity in manufacturing through maximum machine utilization, even in unmanned shifts. On the other hand, automated production ensures constant component qualities. Human resources are freed up for demanding tasks such as programming or quality control. Modern automation solutions such as the PH Cell 800 and the AMR 2000 – both very modular world premieres that will be demonstrated live at EMO – offer users maximum flexibility.

**GLOBAL LEADER IN AUTOMATION: 14 PRODUCT LINES AND 58 PRODUCTS**

CTS - CENTRAL TOOL STORAGE  
LPS - 4th Generation Control software for DMG MORI Automation Systems

TURNING: MTR (DXTX, V30SE), SR (DXTX, V30SE), RoboCoo Turning/Vision, RoboCoo Mill, MTR50, D4/GR T

MILLING: MTR Cell, RoboCoo Milling, MTR50 Light, MTR50, MTR50

PALLET HANDLING: ABC (DXTX, V30SE), BPS1, PH Cell 2000, PH Cell 800, PH Cell 300, PH 100, PH 50, PH Cell Twin, LPP, CPP, AMR / PH-AMR

MACHINE-SPECIFIC | UNIVERSAL (1 MACHINE) | SCALABLE (1 MACHINE) | COMPLEXITY

*58 automation solutions in 14 product lines: The DMG MORI portfolio ranges from machines with integrated workpiece and pallet handling to automatic tool provision and driverless transport vehicles.*

### **Generating competitive advantages with Digital Transformation (DX)**

Like hardware, intelligent Digitization is an integral part of Machining Transformation (MX). Artificial Intelligence, Internet-of-Things, Big Data and Digital Twin are just some of the core topics that will have a massive impact on the manufacturing process chain. With the end-to-end networking and interaction of intelligent machine tools and digital products and services, DMG MORI is creating unique data transparency across the entire shop floor as part of the Machining Transformation (MX). This lays the foundation for knowledge-based decisions. They allow companies to act proactively and create new business models. In this way, they can secure competitive advantages in the long term.

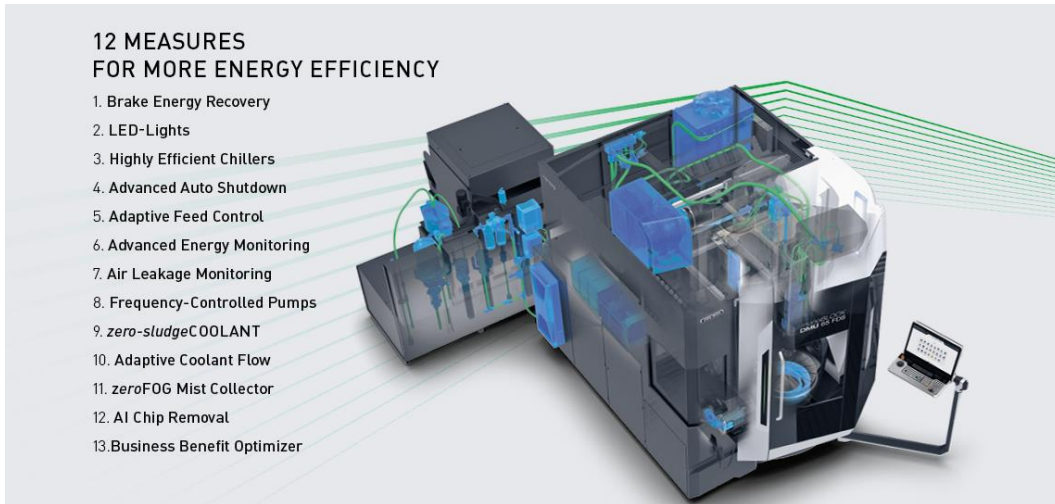


*With its digital planning solutions, DMG MORI optimizes the production start-up of its customers. Starting with simplified visualizations and layout optimizations to complete simulation of the entire production process, including all production process, including all interactions.*

### **Green Transformation (GX) drives sustainability goals forward**

The Green Transformation (GX) results in large part from efficiency improvements in the first three pillars. It is a way of achieving climate protection targets and compensating for rising energy prices. The guiding principle of the so-called DMG MORI GREEN ECONOMY pursues a holistic approach: It comprises climate-neutral produced high-tech machines (GREENMACHINE), an energy-efficient manufacturing operation (GREENMODE) and technology partnerships with OEMs for sustainable production of goods and commodities of all kinds (GREENTECH). GREENMODE is based on a 13-point plan (including Business Benefit Optimizer), which includes pioneering technologies and innovative features that enable machine tools to save up more than 30 percent energy. DMG MORI will demonstrate these measures at EMO in the GREENMODE PROMOTION AREA on several machine tools at once.

Exemplary workpieces for the GREENTECH area, including a turbine for hydroelectric power plants and bipolar plates for energy storage, will also be on display.



*GREENMODE: DMG MORI has established a 13-point plan (including Business Benefit Optimizer) that uses innovative hardware and software components to ensure greater efficiency in every operating state.*

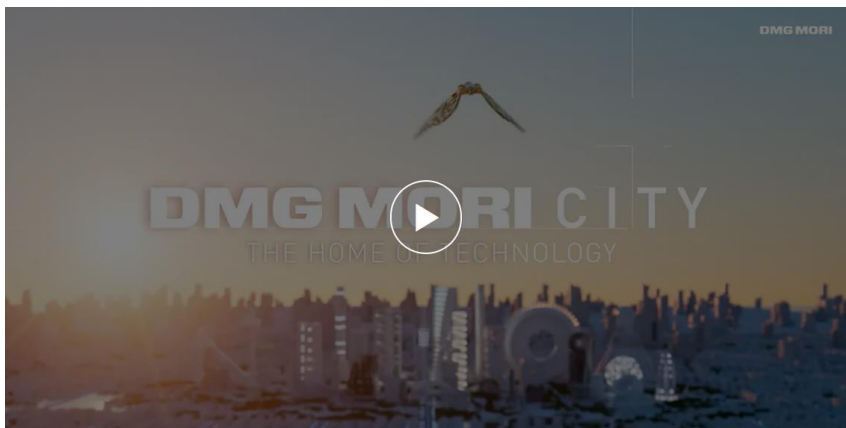
### **New era of the manufacturing industry**

Machining Transformation (MX) presents itself to DMG MORI customers as a trend-setting guiding principle for the future of manufacturing. With process integration, automation, Digital Transformation (DX) and Green Transformation (GX), DMG MORI creates the perfect framework for entrepreneurial success. The vision of efficient manufacturing, automated processes, digital networking and ecological sustainability is given a consistent structure and at the same time represents a social contribution. This is because Machining Transformation (MX) thrives on the comprehensive cycle of continuous learning, exchange and further development. This approach involves workers and allows optimal qualification of talents.

Further pictures and video content:



*Innovative technologies and applications form the foundation of DMG MORI City.*



Click here for the DMG MORI EMO trailer: <https://youtu.be/5GmLR11Qzr4>