

Contact Technical Communication:

Eva Manzenreiter
DMG MORI EMEA Holding GmbH

eva.manzenreiter@dmgmori.com
[dmgmori.com](https://www.dmgmori.com)

World premiere: ULTRASONIC 60 Precision

Reliable precision machining of advanced materials

Munich. Ultrasonic milling and grinding of hard, brittle materials has recently revolutionised the semiconductor industry. The growth of the industry is also driving the continuous development of DMG MORI's ULTRASONIC machines—now in their third generation. At EMO 2025, the machine tool manufacturer is expanding its range with the ULTRASONIC 60 Precision. The new model enables cost-effective entry into the precision machining of hard, brittle materials such as silicon carbide, Zerodur, and hard metals, and is designed to meet the increasing requirements in the semiconductor sector. For example, the 600 x 600 x 510 mm working area offers sufficient space for the different components in the industry.

Accuracy in the μm range and maximum machining versatility

The ULTRASONIC 60 Precision meets the high accuracy requirements thanks to its stable design and intelligent cooling concept. The monolithic machine bed, solid castings, and wide roller guide rails give it outstanding rigidity. Precision cooling of the linear guides is standard equipment and ensures high accuracy and process stability. The figures speak for themselves: the positioning accuracy of the ULTRASONIC 60 Precision is 5 μm , and the accuracy of the circular interpolation is 6 μm . The process stability and high accuracy of the ULTRASONIC 60 Precision go hand in hand with enormous machining versatility. The swivel rotary table of the 5-axis machining center can carry workpieces weighing up to 300 kg and has a swivel range of -35° to $+110^\circ$. 60 tools are available as standard. A tool magazine with 120 slots is available as an option. The ULTRASONIC 60 Precision thus machines complex components productively and economically.

Process integration through ultrasonic-assisted milling and grinding

The integration of ULTRASONIC technology plays a decisive role in the productive machining of hard, brittle materials. The proven ULTRASONIC actuator with the HSK 63 interface causes the tool – driven by a speedMASTER spindle with 20,000 rpm – to vibrate at a high frequency, superimposing its rotary motion. This results in pulsating contact between the tool and the workpiece, which reduces process forces, enables controlled removal, and minimizes the risk of microcracks. The ULTRASONIC 60 Precision enables ULTRASONIC axialGRINDING with up to 300 min^{-1} for cylindrical grinding operations as standard. The positioning accuracy is two arc seconds.

Contact Technical Communication:

Eva Manzenreiter
DMG MORI EMEA Holding GmbH

eva.manzenreiter@dmgmori.com
[dmgmori.com](https://www.dmgmori.com)

Digital support from CELOS X and ULTRASONIC technology cycles

DMG MORI supports the use of the latest ULTRASONIC generation with the ULTRASONIC Assistant. It ensures easy handling and stable processes. Extensive ULTRASONIC technology cycles, including feedCONTROL, intoolSENSOR, microSCOPE, and microDRILL, increase process reliability during machining and make it possible to optically set up workpieces and drill the smallest holes down to 0.2 mm ULTRASONIC. On the control side, the clearly arranged ERGOline X control panel with CELOS X on a Siemens SINUMERIK ONE provides an intuitive user interface and the basis for fully digitized processes.

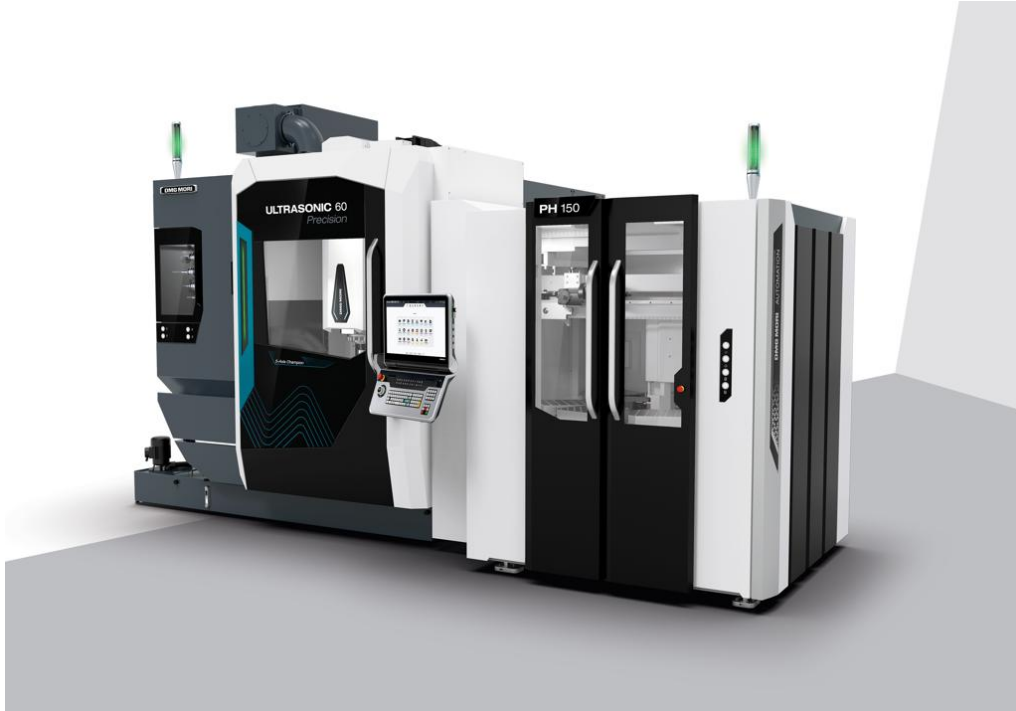
Optimal utilization with efficient operation

The compact design of the ULTRASONIC 60 Precision—with a footprint of only 7 m²—also meets the requirements of modern production. In addition, the machine's productivity can be increased through flexible workpiece or pallet handling. For example, the Robo2Go Milling or the PH Cell 300 help to utilize the ULTRASONIC 60 Precision to its full potential. Meanwhile, GREENMODE ensures energy-efficient operation with over 20 percent reduced consumption.

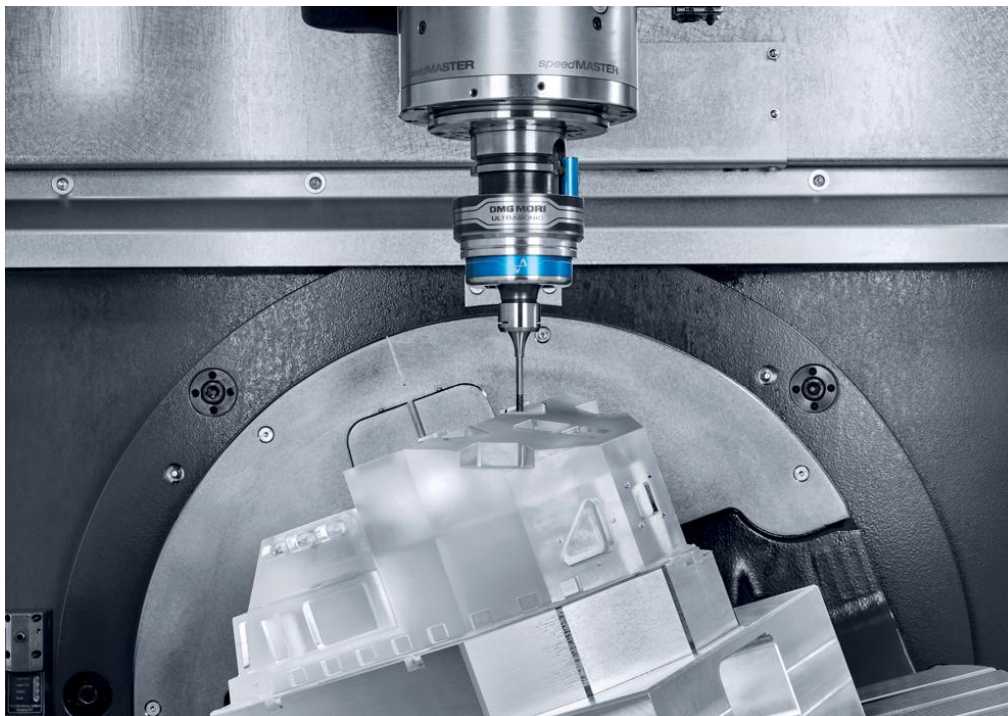
Contact Technical Communication:

Eva Manzenreiter
DMG MORI EMEA Holding GmbH

eva.manzenreiter@dmgmori.com
dmgmori.com



The 5-axis precision ULTRASONIC machining of hard, brittle materials such as silicon carbide or Zerodur is a game changer in the semiconductor industry. Flexible automation solutions optimize the utilization of the ULTRASONIC 60 Precision.



With a working area measuring 600 x 600 x 510 mm, the ULTRASONIC 60 Precision offers sufficient space for a wide range of components.

Contact Technical Communication:

Eva Manzenreiter
DMG MORI EMEA Holding GmbH

eva.manzenreiter@dmgmori.com
[dmgmori.com](https://www.dmgmori.com)

Company Profile // DMG MORI

DMG MORI is a leading global manufacturer of high-precision machine tools and is represented in 44 countries – with 124 sales and service locations, including 17 production plants. In the “Global One Company”, more than 13,500 employees are driving the development of holistic solutions in the manufacturing industry. Under the guiding principle of Machining Transformation (MX), DMG MORI combines four pillars for the efficient, sustainable production of the future: Process Integration, Automation, Digital Transformation (DX) and Green Transformation (GX).

DMG MORI stands for innovation, quality and precision. Our portfolio covers sustainable manufacturing solutions based on the technologies Turning, Milling, Grinding, Boring as well as Ultrasonic, Lasertec and Additive Manufacturing. With technology integration, end-to-end automation and digitization solutions we make it possible to increase productivity and resource efficiency at the same time.

At our production sites worldwide, we implement holistic turnkey solutions for the main sectors of aviation & space, automotive & e-mobility, die & mold, medical, and semiconductor. With the DMG MORI Qualified Products (DMQP) partner program, we offer perfectly matched peripheral products from a single source. Our customer-oriented services cover the entire life cycle of a machine tool – including training, repair, maintenance and spare parts service.

*DMG MORI EMEA Holding GmbH | Walter-Gropius-Str. 7 | 80807 Munich
Managing Directors: Hirotake Kobayashi, James Nudo, Irene Bader, Rajeev Anand, Ralf Riedemann, Yosuke Nakatsukasa, Marc Joost
Phone number: +49 89248835900
Data protection: DMG MORI EMEA Holding GmbH*