

Press Release

August 30, 2011

DMG and Mori Seiki to jointly exhibit at EMO Hannover 2011

Mori Seiki Co., Ltd. (hereafter, Mori Seiki) will be showcasing its products at the EMO Hannover 2011 to be held in Hannover, Germany from September 19 (Mon) to 24 (Sat), 2011.

Mori Seiki and GILDEMEISTER AG will host a joint booth by using almost the entire floor space in the Hall 2 of the exhibition grounds after starting the joint sales and service in Germany from September 1, 2011. A total of about 100 machines including 26 new models will be presented together in the largest booth among over 2000 exhibitors in the EMO Hannover 2011.

Mori Seiki will display total 31 units of machines with the advanced technologies on the theme of "Pure Technology – Complete Solutions". From the premium machines, "X-class", total 17 units of machines including 9 new models, such as the high-precision, high-efficiency multi-axis turning center "NZX Series", will perform machining demonstrations. Other than that, total 12 units of new models, such as the 5-axis control high-precision horizontal machining center "NMH5000/50", and the ultra-precision 5-axis control nano machine "NN1000 DCG HSC" will be on display.

GILDEMEISTER will release a total of 13 new machines with a focus on high-efficiency 5-axis machining centers, such as the innovative 5-axis machining center with laser machining function "LASERTEC 65 Shape", "DMU 105 monoBLOCK® NEXT GENERATION", and "DMU eVo Series".

Additionally, a next generation compact machining center will be released as world premier from the DMG / Mori Seiki.

We look forward to seeing you in the EMO Hannover 2011 with the machines developed by the comprehensive technologies and the perfect solutions.

Date	9:00 - 18:00, 19 (Mon) - 24 (Sat) September 2011
Place	Hall 2, Exhibition Grounds, 30521 Hannover, Germany/ Entrance North
Booth area	7,300 m ²
EMO Official Web Site	http://www.emo-hannover.de/homepage_e

The main new models to be exhibited in the EMO Hannover 2011 are outlined below.

Next Generation Compact Machining Center

DMG/ Mori Seiki will release the next generation compact machining center as world premier. In addition to the high machine rigidity and the spindle capability that offer the greatest milling capability, it has a wide machining area for its compact body. That allows machining of a wide variety of parts. By mounting the Mori Seiki-made rotary table, "DDRT", it is possible to machine workpieces with high value. Please don't miss the latest machine developed by the comprehensive advanced technologies.

NLX3500

The NLX3500 is a large size precision CNC lathe with a 15-inch chuck, and it boasts the largest through-spindle hole diameter in its class at 132 mm. The slideways on the NLX3500 are more than 1.5 times wider than those on the previous models, so the rigidity is vastly improved. Thanks to the newly developed technologies, the liquid circulation and the heat-shielding structures that prevent the thermal displacement, it offers the double improved machining accuracy.

NVX7000

It is a high-rigidity large vertical machining center for machining difficult-to-cut materials. It offers a large machining area with a table size of 1,700 mm x 760 mm and Y-axis travel of 760 mm. The machine has high-rigidity with slideways on all the axes. It allows a wide variety of machining from heavy duty cutting to high-precision machining.

NHX5500, NHX6300

It is a high speed high-precision No. 50 taper horizontal machining center. The variation of the machines is expanded by adding the NHX5500 pallet size of 500 x 500 mm and the NHX6300 pallet size of 630 x 630 mm. The positioning accuracy of 3.0 μm is achieved with the rapid traverse rate of 60 m/min and the direct scale feedback standardized on each axis.

NHX10000

It is a high-speed high precision horizontal machining center with a maximum workpiece size of 2,000 mm x 1,600 mm and a maximum loading capacity of 5,000 kg. The machine is an ideal solution for machining large workpieces and difficult-to-cut materials, which are recently in great demand in the construction machinery, aircraft, and energy industries.

NMH5000

It is a high-rigidity high-precision 5-axis horizontal machining center. With its excellent accessibility to the workpieces and large machining area, it can machine complex shaped workpieces requiring long Z-axis stroke, which cannot be done with a 5-axis vertical machining center.

NMV5000 DCG with SIEMENS

The SINUMERIK 840D sl produced by SIEMENS which is a very popular control in Europe has newly become available for NMV5000 DCG that has received high evaluation for its original structure and three original technologies. By mounting the SIEMENS-made control with a reputation for simultaneous 5-axis control machining will expand the possibility of the NMV5000.

NZX2000, NZX2000 II

It is a high-efficiency multi-axis turning center with a chuck size of 8 inches, and is equipped with up to 3 turrets for machining mass production parts. The NZX2000 is for machining mass production parts, and offers high-efficiency machining of complex shaped parts thanks to the Y-axis that can be chosen for all the axes. The NZX2000 II is a high-efficiency multi-axis turning center for heavy duty cutting by improving the rigidity and damping performance with the slideways on all axes. It is suitable for high load machining such as machining difficult-to-cut materials. By controlling the vibration during the intermittent cutting, it offers the best machined surface.

NZX2500

It is a high-rigidity high-efficiency multi-axis turning center with a 10-inch chuck and 2 turrets. The NZX2500 uses a bed equipped with three independent slideways for Turret 1, Turret 2 and tailstock. By widening the slideway of each axis, the rigidity is enhanced by 50 %.

NZX4000

It is a high-efficiency large multi-axis turning center equipped with 2 turrets with a maximum turning diameter of 660 mm and a maximum turning length of 3,000 mm. The NZX4000 demonstrates its high-performance, heavy-duty cutting of large-diameter, long workpieces, including pipes in the oil and energy industries, by utilizing its high-rigidity and high ability of machining bar material.

NN1000 DCG HSC

It is an ultra-precision 5-axis control nano machine that offers the command resolution of 1 nm for the linear axes and one millionth of 1 degree for the rotary axes. It is capable of machining ultra-precise workpieces, such as microprism and grating for optical instruments and electronic components, and precision mold making that requires extremely high surface accuracy.

ECOLINE

The ECOLINE turning-milling machines will be on show at the EMO in a new design that ensures optimum functionality and ergonomics plus an even more enhanced performance thanks to faster rapid traverse rate and more powerful spindles. A special feature of the new ECOLINE design is the *PROGRESSline*, whose display allows the operator to see at a glance the remaining running time of the workpiece and the quantities of the machining job – unique in the machine tool sector. The introduction of the DMG *SLIMline*® Panel with SIEMENS 840D sl with intuitive program navigation and 3D simulation is the fastest control in the entry level. The control portfolio has been expanded to include the DMG *SLIMline*® Panel with HEIDENHAIN 620 and MAPPS IV from Mori Seiki. With their multitude of

fascinating options, the new generation of ECOLINE machines set the course for a new era of market entry machines in the sector of turning and milling.

CTX gamma 3000 TC

As a world premiere the CTX gamma 3000 TC now offers all the familiar benefits of Turn and Mill complete machining in a single setup for a workpiece length range of up to 3,000 mm as well. So as of September GILDEMEISTER will have a unique Turn and Mill series on offer that ranges from the small CTX alpha 450 TC to the 1250, 2000 and now also 3000 machine sizes and right on through to the XXL turning-milling centres CTX delta 4000 TC and CTX delta 6000 TC.

SPRINT 42|8 *linear*

The new SPRINT 42 *linear* excels through reduced production costs for short and long turning parts thanks to the use of a Swiss-type *kit* and Direct Drive technology for the main and counter-spindle. Other highlights include for example the direct measuring system on 2 radial slides for top process reliability, the linear drive in X1 with 40 m/min rapid traverse rate and 1g acceleration for maximum accuracy and dynamics, the two Y-axes and two C-axes in the standard version for main and counter spindle plus powered tools with chip-to-chip times of 0.24 sec.

DMU 105 monoBLOCK® NEXT GENERATION

The new DMU 105 monoBLOCK® NEXT GENERATION now offers the convincing features of this new series for the larger workpiece range of up to 2,500 kg as well. An all-round talent for all branches the DMU 105 monoBLOCK® also offers the best framework conditions for all facets of 5-axis simultaneous machining – whether highly dynamic high-speed milling or high-torque high-performance chip removal of up to 288 Nm and SK50 / HSK-A100. Besides this world premiere the entry of milling-turning technology into the successful world of the monoBLOCK®-series is highlighted by the DMU 65 FD monoBLOCK® as innovation.

DMU 40 eVo *linear*, DMU 60 eVo *linear*, DMU 100 eVo *linear*

The two world premieres DMU 40 eVo *linear* and DMU 100 eVo *linear* represent an expansion of the eVo universal milling machine series on both ends of the scale. The special highlights of these new developments are the gantry design in combination with the successful swivel rotary table for highly dynamic 5-axis-machining, excellent accessibility and automation capabilities plus linear drives for a rapid traverse rate of up to 80m/min and the option of integrating milling-turning technology. Last but not least, the EMO-appearance of the DMU eVo-series is rounded off by the DMU 60 eVo *linear* with its fast and compact pallet changer for automatic 5-axis complete machining as well as by the DMU 80 eVo *linear* with integrated mill-turntable.

LASERTEC 65 Shape

The flexible integration of a fiberlaser-scanhead to a spindle head via an HSK interface allows 5-axis milling of shaped constructional elements with laser surface structuring on one machine in a single setup for the very first time. The LASERTEC 65 Shape enables the production of geometrically defined surface structures in the free-form surfaces of injection moulding tools for automotive-fittings, household aids,

cell phone and camera shells, shoe soles or other plastic injection moulding tools – in contrast to conventional etching technologies. Whereby the cross-process software feature LASERSOFT 3D-Texture ensures an unlimited number of design options. Moreover the machine impresses with its compactness and modular building block design for all applications from 3 to 5 axes.

With a strong partnership with GILDEMEISTER, Mori Seiki will continue to provide an extensive product lineup to support many more customers' production sites.



Fig. 1 DMG / MORI SEIKI booth
(Bird's eye view)



Fig. 2 DMG / MORI SEIKI booth
(Plane view)