Top performance through technical advances.
DMG MORI Medical Technology

Highest precision, surface quality and productivity for medical technology.

In almost no other industry are the requirements for precision and accuracy as high as in modern medical technology. Whoever wants to stay competitive in this innovative market must focus on the vision and growth of their customers. DMG MORI makes the ideal partner, with our expertise in the right technology for manufacturing first-class medical products and our strong focus on high productivity through efficient manufacturing processes.

Whether for the production of high-quality knee joints, bone screws, hip joint components, sophisticated surgical instruments or complex parts for MRI/computed tomography, our manufacturing technology and many automation options guarantee competitive first-class surface quality without time-consuming additional work. Plus, a further advantage: our global network of experienced specialists is at your disposal wherever and whenever needed for better service and better technology that helps everyone.
Precision parts for diagnostic imaging that are over 2,000 mm in diameter can be economically produced in quantities of 70 to 1,000 pieces with modern milling and mill/turn technology.

1: Bone plate
Produced on the HSC 30 linear

2: Rasp for hip joint
Produced on the NTX 1000

3: Structural component / tomography, medical technology
Produced on the DMC 340 FD

4: Surgical instrument, medical technology
Produced on the DMU 50
**SPRINT 2018 linear**

CNC automatic turning for demanding materials and workpieces up to 25 mm.

**Highlights**

+ **Linear drive** in X1 with 1 g acceleration for the highest dynamics and long-term precision
+ **Automatic unloading** for workpieces up to 170 mm comes as standard (120 mm on the SPRINT 2018 linear)
+ **0.3 sec. chip-to-chip time** due to the linear drive with 1 g acceleration for short idle times
+ **SWISSTYPEkit** for short and long component turning on one machine, spindle stroke extended from 80 to 240 mm

**Technical Data SPRINT 2018 linear**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. bar passage mm</td>
<td>ø 20 (25)*</td>
</tr>
<tr>
<td>Travel in Z1 (spindle stroke) mm</td>
<td>80 / 240**</td>
</tr>
<tr>
<td>Number of axes</td>
<td>8</td>
</tr>
</tbody>
</table>

* optional, ** optional with a SWISSTYPEkit

**Control:** Fanuc 310i, DMG SLIMline® with a 15” screen

**NLX 1500, 2000**

Highest stability and precision, BMT® technology for excellent milling performance.

**Highlights**

+ **Box ways** in all linear axes
+ **Established technology from DMG MORI** for temperature compensation
+ **BMT® technology** (turret with integrated drive motor)
+ **Y-axis travel:** ±50 mm
+ **Various automation solutions**, including workpiece storage and a gantry loader are available

**Technical Data NLX 1500 | 500**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. workpiece size mm</td>
<td>ø 386 × 515</td>
</tr>
<tr>
<td>Max. spindle speed rpm</td>
<td>6,000 (8,000)*</td>
</tr>
<tr>
<td>Max. spindle speed rpm</td>
<td>10,000</td>
</tr>
</tbody>
</table>

* optional, 1) high-speed specification

**Control:** CELOS from DMG MORI with 21.5” ERGOline® and MAPPS, MAPPS IV with 10.4” screen

**Technical Data NLX 2000 | 500**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. workpiece size mm</td>
<td>ø 366 × 510</td>
</tr>
<tr>
<td>Max. spindle speed rpm</td>
<td>5,000</td>
</tr>
<tr>
<td>Max. spindle speed rpm</td>
<td>10,000</td>
</tr>
</tbody>
</table>

* optional, 1) high-speed specification

**NTX 1000 2nd Generation**

Turn & mill complete machining of complex single and serial parts.

**Highlights**

+ **B-axis with DDM®** (direct drive) and a swivel range of ±120°
+ **Counter spindle and lower tool turret** for up to 10 driven tools
+ **Octagonal Ram Construction** (ORC®) in the Y axis
+ **Absolute position measuring systems** from Magnescale*
+ **Simultaneous machining** using the tool spindle and lower turret

* optional

**Technical Data NTX 1000 2nd Generation**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. workpiece size mm</td>
<td>ø 370 × 424</td>
</tr>
<tr>
<td>Max. spindle speed rpm</td>
<td>6,000 (5,000)*</td>
</tr>
<tr>
<td>Max. spindle speed rpm</td>
<td>12,000 / 20,0001)</td>
</tr>
</tbody>
</table>

* optional, 1) high-speed specification

**Control:** CELOS with 21.5” ERGOline® Control and SIEMENS CELOS with 21.5” ERGOline® Control and MAPPS on Fanuc
DMG MORI Medical

DMG MORI Machines produce medical products with outstanding precision and efficiency that were considered unthinkable just a few years ago. These include prosthetics for knee and hip joints, bone screws, as well as medical implants made of titanium, CoCr and high performance ceramic.
**DMU 60 eVo**

5-axis machining centre with optimised gantry design.

**Highlights**
- Compact 5.3 m² footprint
- Dynamic NC swivelling rotary table with high rapid traverse speeds, 60 rpm in the B and C axes and 400 kg maximum load
- Powerful motor spindle with up to 24,000 rpm
- Available with a pallet changer and mill/turn technology

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**ULTRASONIC 30 linear**

HSC / ULTRASONIC Series

All arthroscopic implants in all materials.

**Highlights**
- Flexible ULTRASONIC technology integration: 5-axis HSC / milling and ULTRASONIC grinding of advanced materials on one machine
- Unbeatably broad material spectrum: from PE – to CrCo, Ti and HIP zirconium oxide
- Highest contour and fitting accuracy
- Highest dynamics through linear drives: with 1.2 g acceleration – compact in a 4.6 m² footprint
- 5-axis precision machining with reduced processing forces through ULTRASONIC: excellent surface quality of Ra <0.2 μm, longer tool life

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**MILLTAP 700 WITH WH3**

Sensationally fast and lasting precision.

**Highlights MILLTAP 700**
- Even more efficient and flexible thanks to the optionally integrated 4th and 5th axis
- 0.9 second tool change time and chip-to-chip time of less than 1.5 seconds
- High axis acceleration of 18 m/s² and rapid traverses of 60 m/min

**Highlights WH2 / WH3**
- Workpiece handling specially designed for the MILLTAP
- 6-axis industrial robot, payload up to 7 kg (WH3) optional
- High autonomy and flexible use

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**Technical data**

<table>
<thead>
<tr>
<th>HSC 30 linear / ULTRASONIC 30 linear</th>
</tr>
</thead>
<tbody>
<tr>
<td>X- / Y- / Z-axis mm</td>
</tr>
<tr>
<td>300° / 300 / 280°</td>
</tr>
<tr>
<td>Speed range (max.) rpm</td>
</tr>
<tr>
<td>40,000</td>
</tr>
<tr>
<td>Tool intake</td>
</tr>
<tr>
<td>HSK E40</td>
</tr>
<tr>
<td>Swivel range (B-axis) Degrees</td>
</tr>
<tr>
<td>±120</td>
</tr>
</tbody>
</table>

Control: CELLOS with 21.5° ERGOline® Control and SIEMENS, DMG MORI ERGOline® Control with SIEMENS 840D solutionline and Heidenhain iTNC 530 HSCI

* only available for the HSC machine version

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**Technical data**

<table>
<thead>
<tr>
<th>MILLTAP 700</th>
</tr>
</thead>
<tbody>
<tr>
<td>X- / Y- / Z-axis mm</td>
</tr>
<tr>
<td>700 / 420 / 380</td>
</tr>
<tr>
<td>Speed range (max.) rpm</td>
</tr>
<tr>
<td>10,000 / 18,000 / 24,000</td>
</tr>
<tr>
<td>Tool magazine Places</td>
</tr>
<tr>
<td>15 / 25</td>
</tr>
</tbody>
</table>

Control: SIEMENS 840D solutionline Operate with 10.4” screen for easy, efficient programming

* optional, 1) air-cooled spindle, 2) 24,000 rpm water-cooled spindle
DMG MORI LifeCycle Services

Your Service: Global network – fast on-site!

Through the consolidation of our activities, you benefit from maximum availability and increased performance. DMG MORI offers a variety of ways to maximise productivity at any time, including training, software, service and support solutions as well as optimisation, upgrade and overhaul offerings. We even have used machines available on short notice.

For more information about the products shown here, please contact your nearest DMG MORI or the DMG MORI 24/7 Service Hotline.

DMG MORI UK:
+44 (0) 20 30 24 15 14

DMG MORI Medical Technology

Solutions for even more productivity – Automation and workpiece measuring for medical technology.

NLX 2500SY with WH10 top
Extremely compact automation solution with a 6-axis industrial robot for parts up to 25 kg.

DMU 60 eVo with PH 150|8
Fast, compact pallet handling for unit cost optimisation.
For workpieces up to 250 kg in a variable number of storage locations.

DMG MORI Equator 300
Fast and exact temperature-independent testing of workpieces.

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