



SPECHT 500 NG



5-axis Machining Center for the Highest Performance



5-AXIS MILLING MACHINE

FOR HIGHLY PRODUCTIVE INDUSTRIES AND FOR FLEXIBLE, GENERAL MECHANICAL ENGINEERING

SPECHT 500 NG for series and single part production

- ▶ Excellent automated loading consistent with the SPECHT family of machines
- ▶ Very good accessibility for the machine operator
- ▶ All electrical and fluid components are precisely packaged for visual maintenance and easy servicing
- ▶ IO-Link sensor actuators for transparent display options at the HMI, on-board AI algorithms, and communication to plant or cloud based monitoring systems

Ultra compact machine

- ▶ SPECHT 500 NG with the most compact footprint in this machine class, but with the same rigidity and productivity of the proven SPECHT machining centers

Latest control generations from Fanuc and Siemens

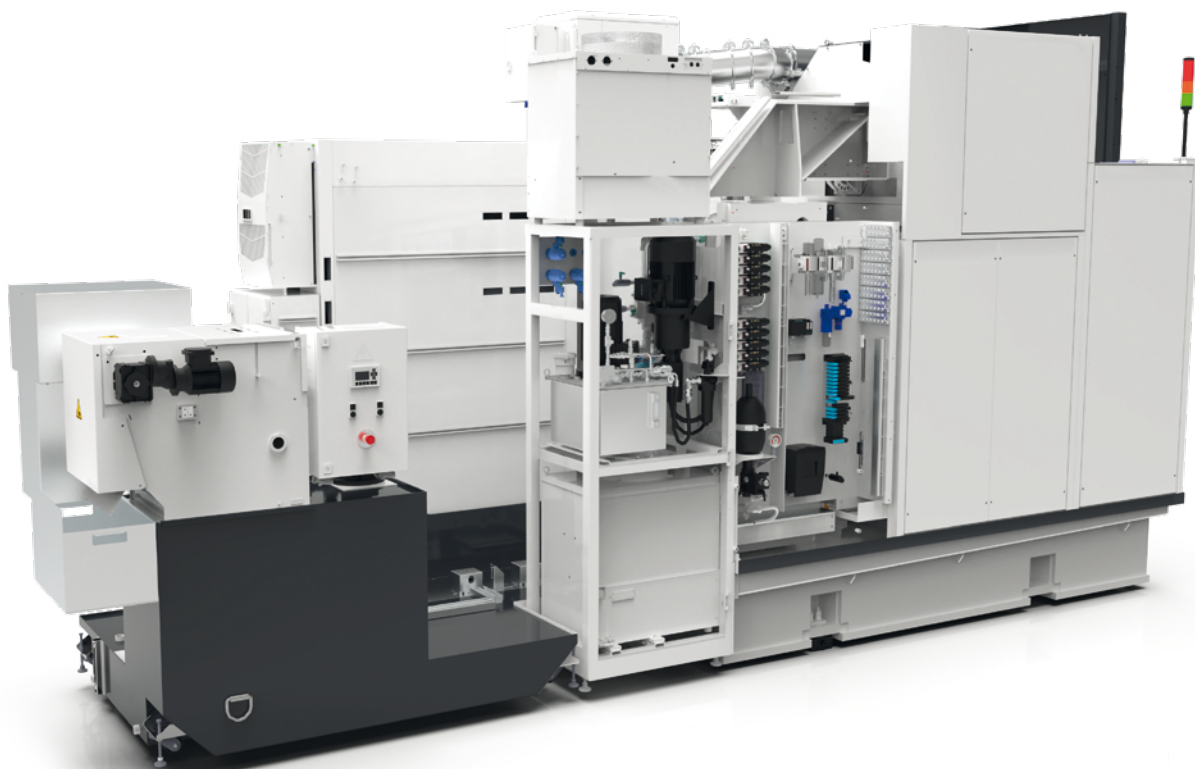
- ▶ 5-axis machining with MAG NX CAM or Customer CAM system and post processor
- ▶ Optional technology support for fixtures and machining strategy

Technology functions

- ▶ Interpolation turning
- ▶ Circular milling
- ▶ Trochoidal milling

Options

- ▶ Spindle measuring probe
- ▶ Face contact control for chip detection (Tool-Seat-Detection)
- ▶ Automatic tool breakage control
- ▶ Taper cleaner for HSK tools
- ▶ Parallel tool loading without stopping production
- ▶ Contactless tool coding / tool identification (Industrial RFID)
- ▶ Pallet changer
- ▶ Workpiece clamping with zero-point clamping system or adapter plates for fast retooling and permanently high accuracy



All-in-one Concept for Easy Installation and Flexible Re-deployment

- ▶ Hook machine: The machine is delivered fully assembled. External floor mounted utility systems are not required.
- ▶ Compact and neatly structured machine design
- ▶ Cleanly arranged, compact electrical control cabinet
- ▶ Compact fluid cabinet with centrally arranged hydraulic and pneumatic controls



Technical data

SPECHT 500 NG

Machine dimensions

Dimensions	mm	4700 x 2000 x 3300
Machine table height	mm	1090
Spindle access height	mm	970

Tool magazine

HSK-A63 available places		44 / 121
Maximum tool diameter	mm	80 / 185 (adjacent empty)
Maximum tool length	mm	550
Chip-to-chip time	s	2.5
HSK-A100 available places		26 / 85
Maximum tool diameter	mm	125 / 185 (adjacent empty)
Maximum tool length	mm	550
Chip-to-chip time	s	2.7

Motor spindles

Motor spindle (HSK63)	rpm	16 000 / 18 000
Spindle power (40% ED)	kW	52 / 42
Spindle torque (40% ED)	Nm	123 / 67
Motor spindle (HSK100)	rpm	10 000
Spindle power (40% ED)	kW	52
Spindle torque (40% ED)	Nm	250

Axis drive

Working range X	mm	630
Working range Y	mm	630
Working range Z	mm	860
Axis speed	m/min	70 / 70 / 100
Axis acceleration X/Y/Z	m/s ²	10 / 10 / 8

Rotary axes

A-B axis interference circle D_{max}	mm	700
Workpiece/fixture height max.	mm	580 (Direct load)
Workpiece/fixture height max.	mm	480 (Pallet load)
Loading weight max.	kg	400 (Pallet load) / 300 (PW)
Media channels		7 (direct loading)



About FFG Europe & Americas

FFG Europe & Americas unite major players from the German, Italian, Swiss and American machine tool industry with a broad range of milling, turning, grinding, and gear manufacturing technology, and the knowhow of the renowned machine tool brands VDF Boehring, Corcom, Digital Factory, Hessapp, IMAS, Jobs, MAG, Modul, Morara, Pffner, Rambaudi, Sachman, Sigma, SMS, Tacchella and Witzig & Frank. Since 1798, these brands have substantially contributed to the progress in industrial manufacturing and are well known as reliable and innovative equipment and systems solutions suppliers for the automotive and truck, aerospace, machine building, general machining, railway industry, energy and heavy engineering industries. While being an independent group, these entities benefit from the strengths and opportunities of the global Fair Friend Group. They stand for premium technology within FFG.



FFG Europe & Americas

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MAG Service

- ▶ 24 hour spindle service
- ▶ Simple and quick replacement of the motor spindle on the SPECHT machines
- ▶ Manual or automated fingerprint
- ▶ Machine connection in-house or via the Internet

The images printed are examples. The actual shape and design of machines may vary and depends on the options ordered.