



GANTRY MILLING MACHINE

ENDURA® 7000LINEAR

THERMO-SYMMETRIC
DESIGN



SPECIALIST FOR HIGH-
PERFORMANCE MACHINING OF
HIGH STRENGTH MATERIALS

GANTRY MILLING MACHINE ENDURA® 7000LINEAR

TECHNICAL DATA

Traverse paths

X-axis:	3,000 / 4,500 / 6,000 mm
Y-axis:	3,500 / 4,000 / 4,500 mm
Z-axis:	1,500 mm

Positioning accuracy

in X (P)	0.015 mm
in Y (P)	0.015 mm
in Z (P)	0.015 mm

Continuously variable feed rates

X-axis:	5 - 65,000 mm/min
Y-axis:	5 - 65,000 mm/min
Z-axis:	5 - 65,000 mm/min

Positioning scatter band

in X ($P_{s\ Average}$)	0.010 mm
in Y ($P_{s\ Average}$)	0.010 mm
in Z ($P_{s\ Average}$)	0.010 mm

Acceleration up to 3.0 m/sec²

HIGHLIGHTS

- High-performance machining of high strength materials
- Compact design
- Large machining chamber
- Small installation area
- Can be set up without additional foundation

Equipment

- Naturally rigid compact machine with enclosed machine bed.
- Resistant, highly dynamic linear motors in all linear axes (X, Y and Z) and torque motors in the rotary axes (C and A).
- Direct measuring systems in all axes (X, Y, Z, C and A).
- Safety systems and brakes in all linear axes (X, Y and Z).
- Drive units efficiently protected by bellows.

Additional equipment

- Automatic tool changer
- Minimum quantity spray dosing system
- Cooling system (wet operation)
- Tool measuring systems
- Workpiece measuring systems
- Chips and dust disposal systems
- Emulsion mist suction unit
- Plane cover / Sound insulation enclosure
- Online Service
- and much more



TORQUE MOTORS
IN C- AND A-AXIS

DIRECT MEASURING
SYSTEMS IN C- AND
A-AXIS

MILLING HEAD 8

C-axis

(Milling head rotary axis)

Pivoting angle: 550° (+/-275°)
Pivoting torque: 3,000 Nm
Clamping torque: 6,000 Nm
Revolution: 360°/sec
Axis acceleration: 800°/sec²
Position accuracy: 15" (0.0041°)
Position deviation: 10" (0.0027°)

A-axis

(Spindle pivoting axis)

Pivoting angle: 220° (+/-110°)
Pivoting torque: 3,000 Nm
Clamping torque: 6,000 Nm
Revolution: 360°/sec
Axis acceleration: 800°/sec²
Position accuracy: 15" (0.0041°)
Position deviation: 10" (0.0027°)

High-frequency milling spindle 1

Tool holding fixture: HSK100 A
max. power: 50 kW
max. rpm: 20,000 rpm
max. torque: 251 Nm

High-frequency milling spindle 2

Tool holding fixture: HSK100 A
max. power: 63 kW
max. rpm: 15,000 rpm
max. torque: 300 Nm

High-frequency milling spindle 3

Tool holding fixture: HSK63 A
max. power: 125 kW
max. rpm: 30,000 rpm
max. torque: 60 Nm

High-frequency milling spindle 4

Tool holding fixture: HSK100 A
max. power: 150 kW
max. rpm: 20,000 rpm
max. torque: 96 Nm

Milling head 8

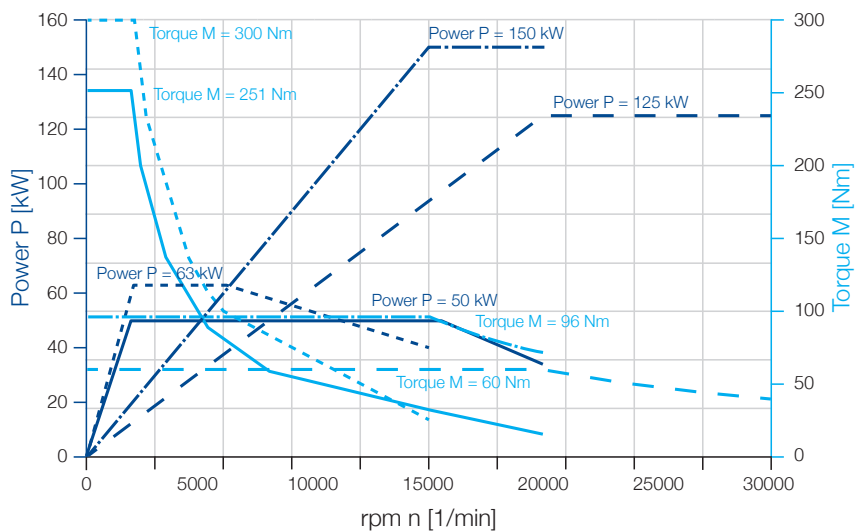
High-frequency milling spindle

HSK100 A
with 50 kW, 20,000 rpm ———
with 63 kW, 15,000 rpm - - - - -
with 150 kW, 20,000 rpm - · - · -

High-frequency milling spindle

HSK63 A
with 125 kW, 30,000 rpm - - - - -

Spindle also available with other performance characteristics



MATERIAL

Plastics	Blockmaterials for modelling	Composite materials (CFRP/GRP)	Aluminium	Cast Iron	Steel
-	-	-	+	+	+



TORQUE MOTORS
IN C- AND A-AXIS

DIRECT MEASURING
SYSTEMS IN C- AND
A-AXIS

MILLING HEAD 12

C-axis

(Milling head rotary axis)

Pivoting angle: 550° (+/-275°)
 Pivoting torque: 2,500 Nm
 Clamping torque: 5,500 Nm
 Revolution: 360°/sec
 Axis acceleration: 1200°/sec²
 Position accuracy: 15" (0.0041°)
 Position deviation: 10" (0.0027°)

A-axis

(Spindle pivoting axis)

Pivoting angle: 220° (+/-110°)
 Pivoting torque: 1,100 Nm
 Clamping torque: 6,900 Nm
 Revolution: 360°/sec
 Axis acceleration: 1200°/sec²
 Position accuracy: 15" (0.0041°)
 Position deviation: 10" (0.0027°)

High-frequency milling spindle 1

Tool holding fixture: HSK100 A
 max. power: 50 kW
 max. rpm: 10,000 rpm
 max. torque: 400 Nm

High-frequency milling spindle 2

Tool holding fixture: HSK100 A
 max. power: 60 kW
 max. rpm: 15,000 rpm
 max. torque: 300 Nm

High-frequency milling spindle 3

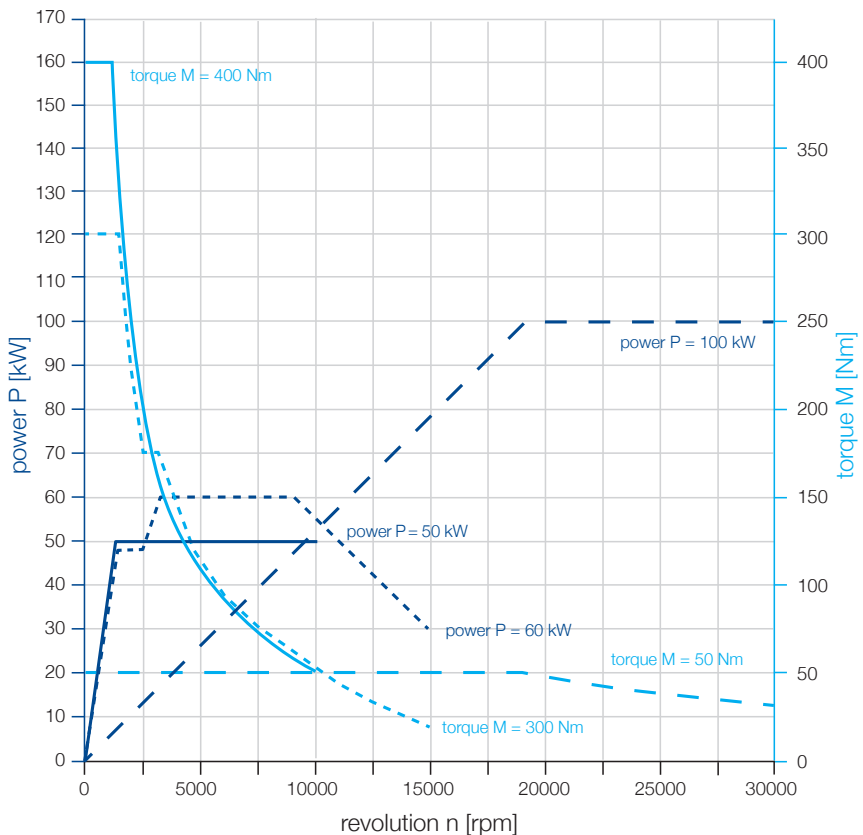
Tool holding fixture: HSK63 A
 max. power: 100 kW
 max. rpm: 30,000 rpm
 max. torque: 50 Nm

Milling head 12

High-frequency milling spindle HSK100A
 with 50 kW, 10,000 rpm ———
 with 60 kW, 15,000 rpm - - - - -

High-frequency milling spindle HSK63A
 with 100 kW, 30,000 rpm - - - - -

Spindle also available with other performance characteristics



MATERIAL

Plastics	Blockmaterials for modelling	Composite materials (CFRP/GRP)	Aluminium	Cast Iron	Steel
-	-	-	+	+	+



www.fooke.de