



COMPACT GANTRY MILLING MACHINE

ENDURA® 900LINEAR

CAN BE SET UP WITHOUT
SPECIAL FOUNDATION



LARGE MACHINING AREA
SMALL INSTALLATION SURFACE

COMPACT GANTRY MILLING MACHINE

ENDURA® 900LINEAR

TECHNICAL DATA

Traverse paths

X-axis:	2,500 / 4,000 / 5,500 mm
Y-axis:	3,500 mm
Z-axis:	1,500 mm

Position accuracy

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

Feed rate

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

Position deviation

in X (P_s)	0.010 mm
in Y (P_s)	0.010 mm
in Z (P_s)	0.010 mm

Acceleration up to 3.5 m/sec²

HIGHLIGHTS

- Large machining area
- Small installation surface
- Direct drive in all axes (linear- and torque motors)
- Can be set up without additional foundation

Equipment

- Rigid compact machine with enclosed machine bed.
- Resistant, highly dynamic linear motors in all linear axes (X, Y and Z).
- Direct measuring systems in all axes (X, Y, Z, C and A).
- Safety system and brakes in all linear axes (X, Y and Z).
- Drive units efficiently protected by bellows.
- Easily accessible ground-level milling chamber facilitates loading and unloading with crane or forklift truck.

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
- 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

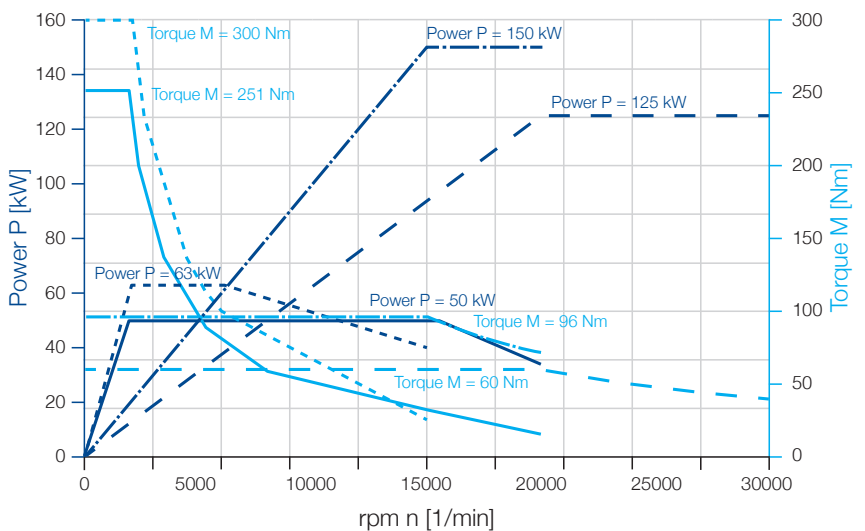
High-frequency milling spindle

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

High-frequency milling spindle

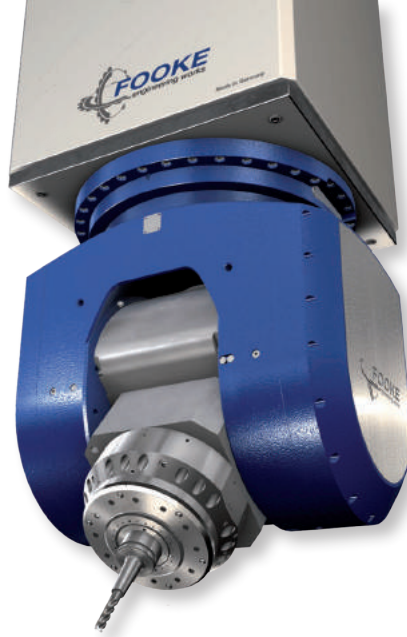
HSK63 A
 with 125 kW, 30,000 rpm - - - -

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

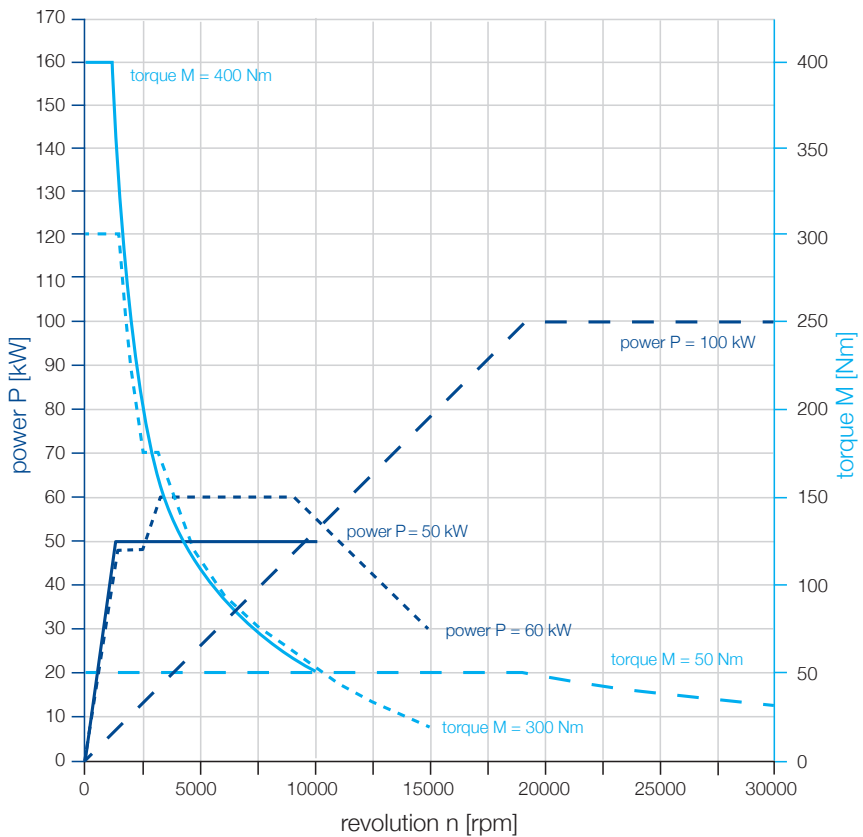
High-frequency milling spindle 3

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
-	-	-	+	+	+



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