



GANTRY MILLING MACHINE

ENDURA® 900LINEAR

EXTREMELY RIGID OVER-HEAD GANTRY MACHINE



SPECIALIST FOR UNIVERSAL APPLICATIONS

GANTRY MILLING MACHINE ENDURA® 900LINEAR

TECHNICAL DATA

Traverse paths

X-axis:	3,000 - 30,000 mm
Y-axis:	2,000 - 4,000 mm
Z-axis:	1,200 - 3,000 mm

Position accuracy

in X (P_a)	0.025 mm
in Y (P_a)	0.020 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 5.0 m/sec²

HIGHLIGHTS

- Very large enclosed milling chamber
- Efficient dust suction and chip conveyance concepts
- Direct drive in all axes (linear and torque motors)
- Loadable at ground level

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: 63 kW
 max. rpm: 15,000 rpm
 max. torque: 300 Nm

High-frequency milling spindle 2

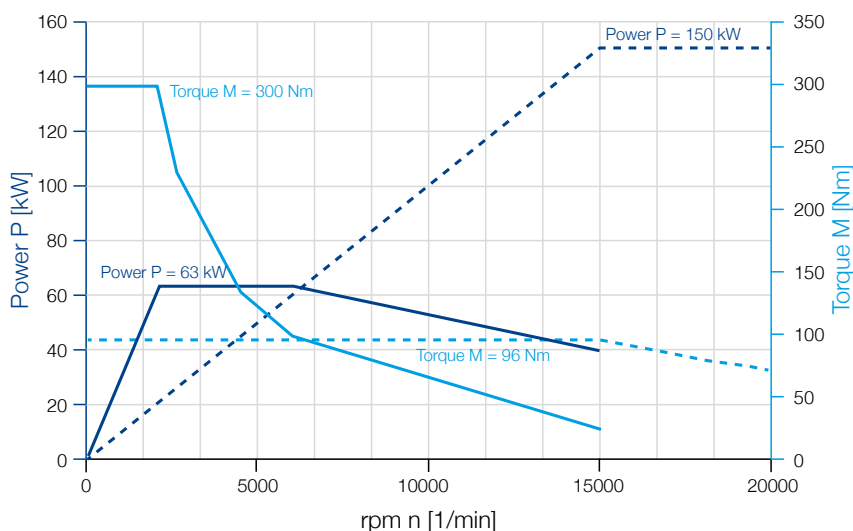
Tool holding fixture: HSK100 A
 max. power: 150 kW
 max. rpm: 20,000 rpm
 max. torque: 96 Nm

Milling head 8

High-frequency milling spindle
 HSK100 A

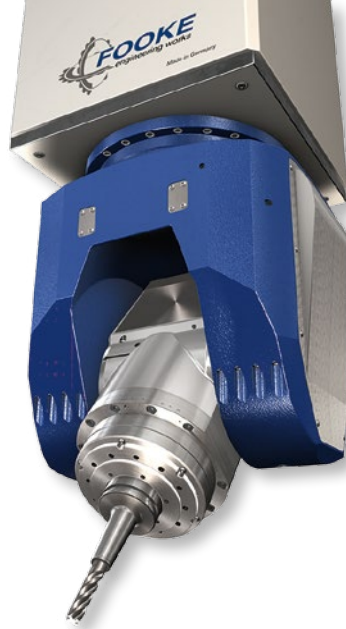
with 63 kW, 15,000 rpm ———
 with 150 kW, 20,000 rpm - - - - -

Spindle also available with other performance characteristics



MATERIAL

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



HIGH PRECISION WORM GEAR
UNITS IN C- AND A-AXIS

DIRECT MEASURING
SYSTEMS IN C- AND
A-AXIS

MILLING HEAD 14

C-axis

(Milling head rotary axis)

Pivoting angle: 550° (+/-275°)
 Pivoting torque: 1,000 Nm
 Clamping torque: 2,000 Nm
 Revolution: 90°/sec
 Axis acceleration: 600°/sec²
 Position accuracy: 15" (0.0041°)
 Position deviation: 10" (0.0027°)

A-axis

(Spindle pivoting axis)

Pivoting angle: 200° (+/-100°)
 Pivoting torque: 1,000 Nm
 Clamping torque: 2,000 Nm
 Revolution: 90°/sec
 Axis acceleration: 600°/sec²
 Position accuracy: 15" (0.0041°)
 Position deviation: 10" (0.0027°)

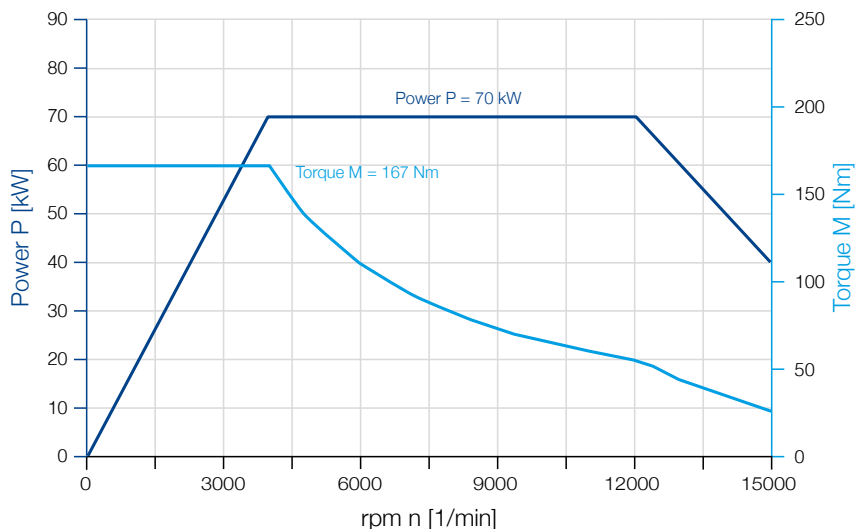
High-frequency milling spindle

Tool holding fixture: HSK100 A
 max. power: 70 kW
 max. rpm: 15,000 rpm
 max. torque: 167 Nm

Milling head 14

High-frequency milling spindle
 HSK100 A

with 70 kW, 15,000 rpm



MATERIAL

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



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