



# COMPACT GANTRY MILLING MACHINE

ENDURA® 700LINEAR

COMPACT DESIGN



LARGE MACHINING AREA  
SMALL INSTALLATION SURFACE

# COMPACT GANTRY MILLING MACHINE

## ENDURA® 700LINEAR

### TECHNICAL DATA

#### Traverse paths

X-axis:	1,500 / 2,200 / 5,500 mm
Y-axis:	2,000 / 2,800 / 3,500 mm
Z-axis:	1,200 / 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/sec<sup>2</sup>

### HIGHLIGHTS

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

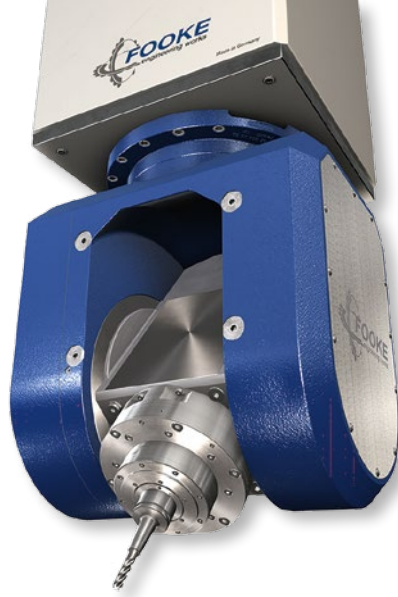
#### Equipment

- 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 11

### C-axis

(Milling head rotary axis)

Pivoting angle: 550° (+/-275°)  
 Pivoting torque: 170 Nm  
 Clamping torque: 750 Nm  
 Revolution: 300°/sec  
 Axis acceleration: 600°/sec<sup>2</sup>  
 Position accuracy: 15" (0.0041°)  
 Position deviation: 10" (0.0027°)

### A-axis

(Spindle pivoting axis)

Pivoting angle: 220° (+/-110°)  
 Pivoting torque: 250 Nm  
 Clamping torque: 750 Nm  
 Revolution: 300°/sec  
 Axis acceleration: 600°/sec<sup>2</sup>  
 Position accuracy: 15" (0.0041°)  
 Position deviation: 10" (0.0027°)

### High-frequency milling spindle 1

Tool holding fixture: HSK63 A  
 max. power: 20 kW  
 max. rpm: 22,000 rpm  
 max. torque: 30 Nm

### High-frequency milling spindle 2

Tool holding fixture: HSK63 A  
 max. power: 20 kW  
 max. rpm: 30,000 rpm  
 max. torque: 21.5 Nm

### High-frequency milling spindle 3

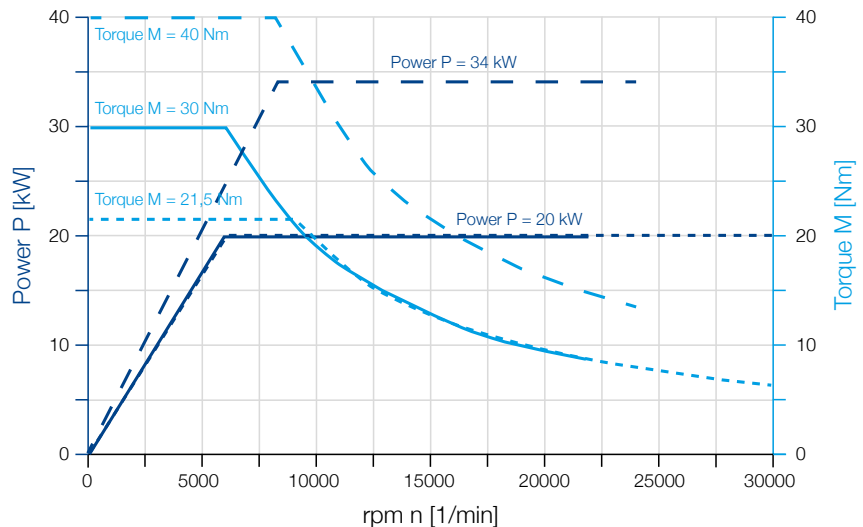
Tool holding fixture: HSK63 A  
 max. power: 34 kW  
 max. rpm: 24,000 rpm  
 max. torque: 40 Nm

### Milling head 11

High-frequency milling spindle  
 HSK63 A

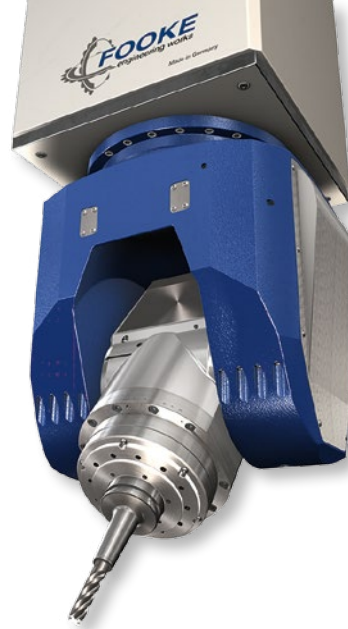
with 20 kW, 22,000 rpm ———  
 with 20 kW, 30,000 rpm - - - - -  
 with 34 kW, 24,000 rpm - - - - -

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°/sec<sup>2</sup>  
 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°/sec<sup>2</sup>  
 Position accuracy: 15" (0.0041°)  
 Position deviation: 10" (0.0027°)

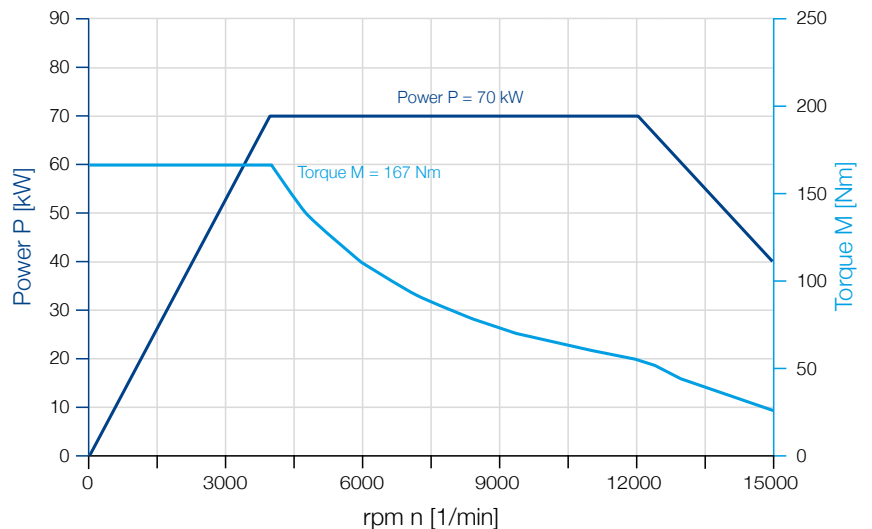
### High-frequency milling spindle

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
-	-	-	+	+	+



[www.fooke.de](http://www.fooke.de)