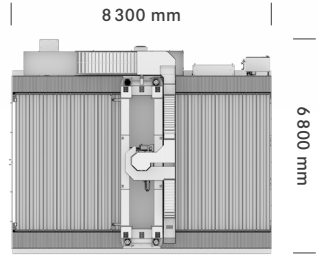
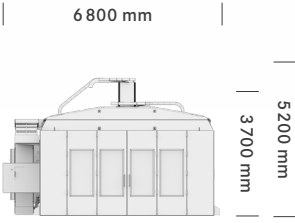
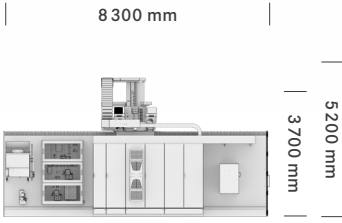


# FZ32

## FZP-LINE GANTRY MILLING MACHINE



Additional variants available.  
Subject to technical modifications.  
Images similar.

## SUPERIOR MACHINING WITH HIGH EFFICIENCY: THE FZP-LINE FZ32 GANTRY MILLING MACHINE.

Zimmermann FZ32:  
High dynamics meets  
demanding tasks.

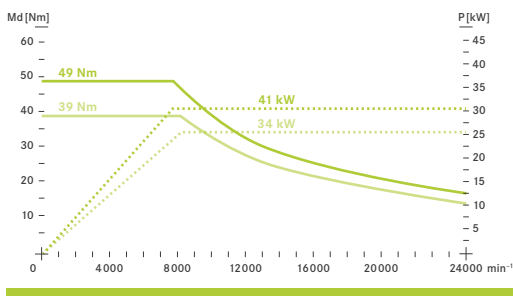
The FZ32 is our next generation FZP-line 5-axis gantry for the machining of aluminum, fiber composite materials, plastics and resin. The particularly rigid and **newly developed center lead portal** enables us to meet the ever growing demands in the aerospace and model/mold making industry. Its **thermo-symmetrical construction** makes the FZ32 less susceptible to adverse ambient conditions thus ensuring excellent surface quality. The flexible design of our FZP-line gantries offer **different lengths and height versions**, as well as extensive equipment options, such as process cooling with minimum quantity lubrication and/or an effective dust extraction system for abrasive materials and resin. Due to its great flexibility in material handling, high surface quality and accuracy, the FZ32 offers true superior machining with high efficiency.



## THE HEART OF THE MACHINE: THE ZIMMERMANN MILLING HEAD VH10.

The FZ32 milling machine is equipped with our **in-house developed** dynamic 2-axis milling head VH10. Due to its **slim design**, the VH10 has minimal interference contours. The fork head's construction is made of a mono block cast. Despite its small size, the VH10 reaches **high clamping forces**, thus allowing stable component processing. In order to minimize lead times, the VH10 is available with a powerful 34 kW spindle (at 24,000 rpm) and an highly effective optional **dust extraction system** optimized for carbon/graphite fiber and resin material. Furthermore, the milling head can be used for ultrasonic cutting processes. In particular, the VH10 is suitable for high volume machining of aluminum, composite, plastic, resin and clay materials.

Optional available dust extraction bell for effective removal of abrasive materials such as graphite fiber.



Torque / Output diagram VH10 – 34 kW (46 hp)

## TECHNICAL DATA.

### FZ32

#### Working Ranges

X-axis	4 000 - 10 000 mm
Y-axis	3 000 / 3 500 / 4 000 mm
Z-axis	1 500 / 2 000 / 2 500 mm

#### Table (optional)

Length	4 000 - 10 000 mm
Width	3 000 / 3 500 / 4 000 mm
Height	180 mm
Table load	2 000 kg/m <sup>2</sup>
T-Slots (longitudinal)	18 <sup>H12</sup>
Pitch of T-slots	250 mm
Table surface	even / above floor level

#### Drives – Linear Axes

Feed rate	X-, Y-, Z-axis	up to 60 m/min
Acceleration	X-, Y-, Z-axis	up to 3 m/s <sup>2</sup>

#### Dimensions, Weight

Required space (without peripherals)	Length	6 300 - 12 500 mm
	Width	6 800 - 8 000 mm
	Height	3 700 / 5 400 - 4 700 / 7 200 mm
Total weight		approx. 30 000 - 60 000 kg

#### Accuracy

Standard accuracy	in accordance to VDI / DGQ 3441 or ISO 230-2
Special accuracy	on request

#### Options

CNC control	Heidenhain TNC 640 Siemens Sinumerik 840D sl
Tool probe	Renishaw RMP 60 Q (optional) m&h 20.41- multi (optional)
Tool measuring system	Blum LC50 DIGILOG (Option)
Work area cover	included
Tool changer	Chain Magazine 31 tools (optional) / 62 tools (optional)
Chip conveyor	optional
Minimum-quantity lubrication, air blowing	external and through tool

### MILLING HEAD VH10

#### Performance

Torque rotary axes	in control	A-axis: 600 Nm C-axis: 608 Nm
	clamped	A-axis: 1 380 Nm C-axis: 1 321 Nm

#### Swivelling Range

A-axis	±110° +125° / -95°
C-axis	360°

#### Drives - Rotary Axes

Rate of feed	A-, C-axis	180°/s
Acceleration	A-, C-axis	700°/s <sup>2</sup>
Resolution	A-, C-axis	0.0001°

#### Accuracy

Positioning accuracy	A-, C-axis	10"
Repeatability	A-, C-axis	6"

#### Milling Spindle – 34 kW

Spindle power	S1 (100%)	34 kW
	S6 (40%/2 min)	41 kW
Spindle speed		24 000 rpm
Torque	S1 (100%)	39 Nm
	S6 (40%/2 min)	49 Nm
Constant power		8 260 – 24 000 rpm
Swivel axis – spindle nose		250 mm
Tool holder		HSK-A63
Tool clamping		spring clamp
Tool unclamping		hydraulic
Lubrication		permanent grease lubrication

#### Dust extraction bell (optional)

Bell diameter	195 mm
Stroke	150 mm
A-Axis angle	+110° / -90°

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