

FZU32

FZU-LINE UNIBODY GANTRY



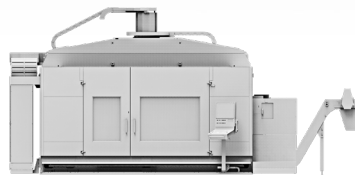
3 500 mm

9 000 mm

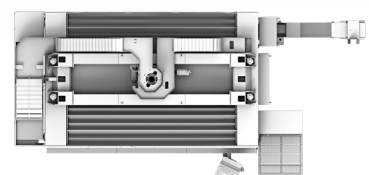
9 000 mm



5 400 mm



5 400 mm



3 500 mm

Additional variants available.
Illustrations are similar.
Subject to technical modifications.

OPTIMAL PRICE/PERFORMANCE DENSITY: THE FZU32 UNIBODY GANTRY MILLING MACHINE.

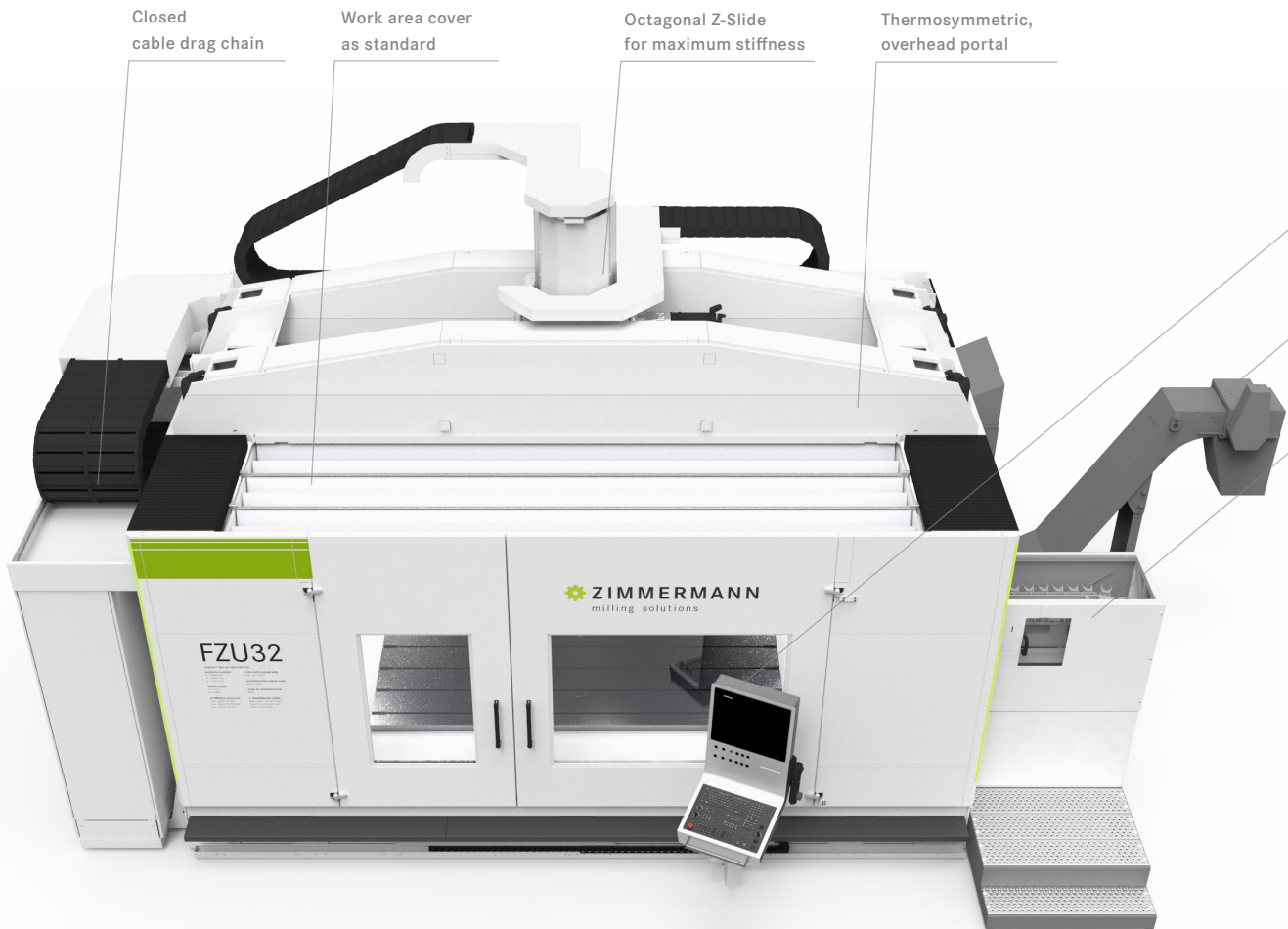
The FZU32 is a remarkably compact 5-axis gantry milling machine for machining aluminum, fiber composite materials, plastics and Ureol. The particularly rigid and **newly developed center lead portal** enables us to meet the ever growing requirements in the model and mold making industry. The **thermo-symmetric construction** makes the FZU32 less susceptible to adverse ambient conditions. The modular design of the mono-block hook machine offers **different lengths and height versions**, as well as extensive equipment options, such as process cooling with cooling lubricants and/or minimum quantity lubrication. The great flexibility in material handling, the highest surface quality and accuracy result in optimum price/performance density.

Thermosymmetric.

Ergonomic.

Universal.

The Unibody Gantry FZU32
from Zimmermann.



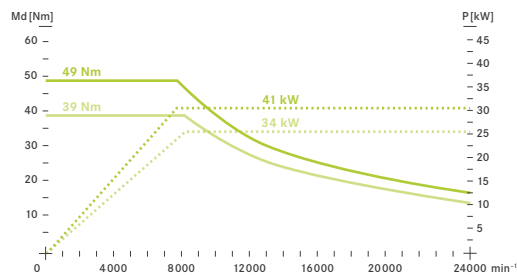
THE HEART OF THE MACHINE: THE ZIMMERMANN MILLING HEAD VH10.

The FZU32 is equipped with the **newly developed dynamic** 2-axis milling head VH10. Due to its **slim design**, the VH10 only has minimal interference contours. The fork head is a mono block cast version. Despite its small size, the VH10 reached high clamping forces and thus allows a stable component processing. In order to minimize lead times, the VH10 is available with a powerful 34 kW spindle (at 24,000 rpm). An effective **process cooling with cooling lubricants and/or minimum quantity lubrication** are optionally available. Furthermore, the milling head can be used for the ultrasonic cutting processes. In particular, the VH10 is suitable for aluminum and composite material, plastics, UREOL and clay milling.

Zimmermann control panel in stainless steel look (Heidenhain)

Optional chip conveyor

Standard, automatic tool changer (31-fold)



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



TECHNICAL DATA.

FZU32

Working Ranges

X-axis	2 000 / 4 000 / 6 000 mm
Y-axis	3 000 mm
Z-axis	1 250 / 1 500 mm

Table Size

Length	2 000 / 4 000 / 6 250 mm
Width	3 000 mm
Height	560 mm
Table load	2 000 kg/m ² (max. 20 000 kg)
T-Slots (Longitudinal)	18 ^{H12}
Pitch of T-slots	250 mm

Drives – Linear Axes

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

Dimensions, Weight

Required space (without peripherals)	Length	3 500 / 5 900 / 8 100 mm
	Width	7 500 mm
	Height	4 800 / 5 400 mm
Total weight		approx. 35 000/50 000/65 000 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 (included) / 62 tools (optional)
Chip conveyor	optional (chip box included)
Coolant supply, 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	300° [Z = 1 250 mm] 360° [Z = 1 500 mm]

Drives - Rotary Axes

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

Accuracy

Positioning accuracy	A-, C-axis	12"
Repeatability	A-, C-axis	8"

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