



Premium 3-Axis Machining Center with powerful Siemens CNC

Highlights

- Powerful BBT 40 spindle with speeds up to 10,000 rpm
- High table load capacity of 1,500 kg allows machining of large, heavy workpieces
- Short tool changing times and 30 stations (optionally expandable to 40 stations) for increased productivity, high flexibility, and increased spindle up-time per shift



Machine Design

- Heavily ribbed machine frame with extra low center of gravity
- A major focus during development of this machine was a space-saving design
- The Lupus Series features linear guides on X, Y and Z to ensure high accuracy made possible by lower friction and higher dynamics
- 40 mm preloaded ball screws combined with a digital drive package provide a rigid table guide and high torque at maximum dynamics

Specifications

Lupus 650

Working Area	
Table dimensions	in 55x28
Table load capacity	lbs 3,300
Spindle nose-to-table surface distance	in 6 - 31
Throat	in 28
Travels	
Travel X-axis	in 50.4
Travel Y-axis	in 26
Travel Z-axis	in 25
Guideway	Roller
Headstock	
Spindle speed	rpm 10,000
Spindle mount	BBT 40
Spindle Torque cont./max.	ft/lb 52 / 70
Spindle bearing inner diameter	in 2.76
Spindle drive method	Belt
Draw bolts	PS 806
Rapid Feed	
Rapid feed X-/ Y-axis	in/min 1,417
Rapid feed Z-axis	in/min 1,181.1
Feed	
Work feed X-axis	in/min 590.55
Work feed Y-axis	in/min 590.55
Work feed Z-axis	in/min 590.55
Tool Head	
Tool change type	Twin arm
Tool selection	Memory random
Number of tool stations	positions 30
Tool size Ø x L (max.)	in 3.35x11.81
Tool weight max.	lbs 15
Tool-change time tool/tool	sec 1.8
Tool-changing time chip/chip	sec 3.9
Accuracies	
Repeatabilities	in ± 0.00012
Positioning accuracies	in ± 0.0002
Drive Capacity	
Motor rating main drive	Hp 20.1
Main drive, continuous load	Hp 14.75
Total power consumption	kVA 36
Voltage	V 220
Mains frequency	50
Measures and Weights	
Overall dimensions (length x width x height)	in 130x93x116
Weight	lbs 16,500
Part No.	422240

Spindle

- BBT 40 spindle with dual tool clamping ensures very secure seating of clamped tools in the spindle - low vibrations result in increased surface quality
- The spindle runs on 4 bearings for excellent absorption and dissipation of forces generated during machining - resulting in high surface quality
- The Lupus Series features 3 types of spindles (belt / built-in / gear) with various speeds to allow optimum customization for specific process requirements

Tool Changer

- Dual-arm tool changer with 30 stations ensures adequate flexibility and capacity for every day production needs (optionally with 40 stations)
- Short changing times (1.3 seconds tool-to-tool and 3.9 seconds chip-to-chip) increase spindle up-time and machine output

Siemens Sinumerik 828 D

- The top specialist for demanding milling operations
- Preconfigured by STAHLWERK experts with Shopmill software, spindle speed upgrade to 10,000 rpm, oil cooler, chain-type chip conveyor with chip cart, coolant flow through the spindle up to 435 psi, with additional configurable M codes and preassembled hydraulic unit for a 4th axis

Standard Equipment

siemens 828 D control, Shopmill Software option for Sinumerik 828D, Spindle speed upgrade to 10,000 rpm, Spindle head cooling system (Oil Cooler), chain-type chip conveyor (lateral), chip cart 230 l (tiltable), Coolant through spindle 435 psi, Additional M code for configuration, Hydraulic unit for 4th axis, CE, USB interface, RS232 interface, 30-station tool changer, electronic hand-wheel, coolant system, air and coolant spray wand, central lubrication, LED work lamp, 3-color signal lamp (LED), door lock, machine feet, operating tools