M8

VERTICAL MACHINING CENTER



KELLENBERGER

M8
HIGH PERFORMANCE VERTICAL MILLING CENTER

Kellenberger designed new generation M8 machines to satisfy the most demanding production and precision component machining requirements in the Aerospace, Automotive, Mold & Die, Power engineering and Oil/gas industries.



OUTSTANDING FEATURES

+ Rapid Travel Speed 48/48/36m/min

+ Y-axis Travel 610mm

+Larger Z-axis Travel 650mm

+ 12,000rpm-BBT40 DDS Spindle

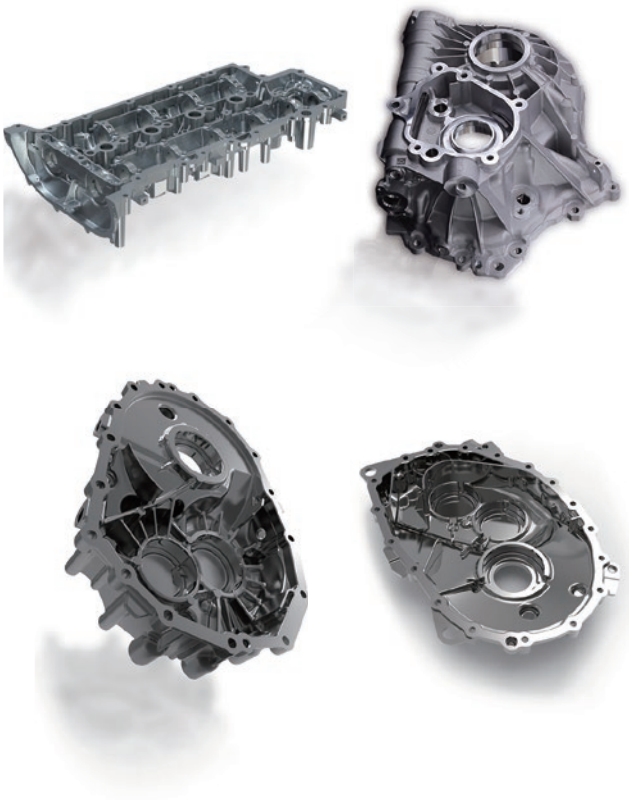
+Heavey Duty Roller type Linear Guideway

+ Compact Footprint

PERFORMANCE CONTROL

Kellenberger adopt ISO 10791/ISO 230-2 standard in machine assembly process, control each machine performance at best-in-class with Laser accuracy compensation and Ballbar interpolate compensation.

X/Y/Z-axis Positioning Accuracy in Full Travel:
0.006mm
X/Y/Z-axis Positioning Accuracy in Full Travel:
0.003mm
XY-axis Circular Interpolation (Ballbar)
4μm
NAS979 Trail Cutting Example
Parallelism 5μm
Perpendicularity 6μm



MACHINE STRUCTURE

+MACHINE BASE

Highly engineered machine base manufactured from high quality grey cast iron, verified with FEA, heavily ribbed throughout to ensure high overall rigidity and thermal stability.

+HEAVY-DUTY ROLLER-TYPE LINEAR GUIDEWAY

Over-sized 45mm high-quality, high rigid roller-type linear guideways, equip with heavy-duty slide block, provide great positioning accuracy and superior heavy cutting performance. Very low friction and high stiffness for long machine life.

+LARGER Z-AXIS TRAVEL

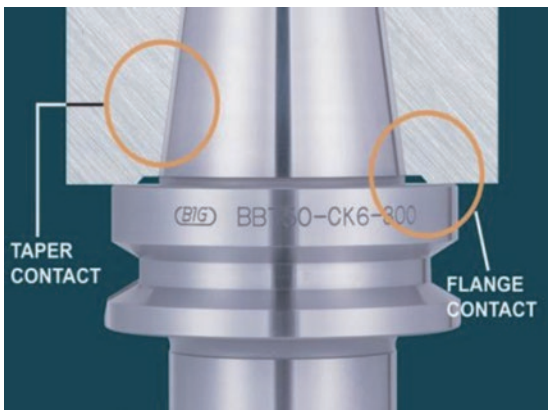
Best-in-class Z-axis design, 650mm large travel, distance from spindle nose to work table upto 150mm to 800mm, provide extremely wide working area for mostly application, support up to 4th axis rotary tableup to 15", no Z-axis raiser required.

+BALL SCREW AND BEARING

Enhanced bearing housing and motor housing, over-sized 40mm high-class ball screw, fixed and pre-tensioned with precision bearings, improved machine rigity, to provide superior machining accuracy and repeatability.

+BIG-PLUS

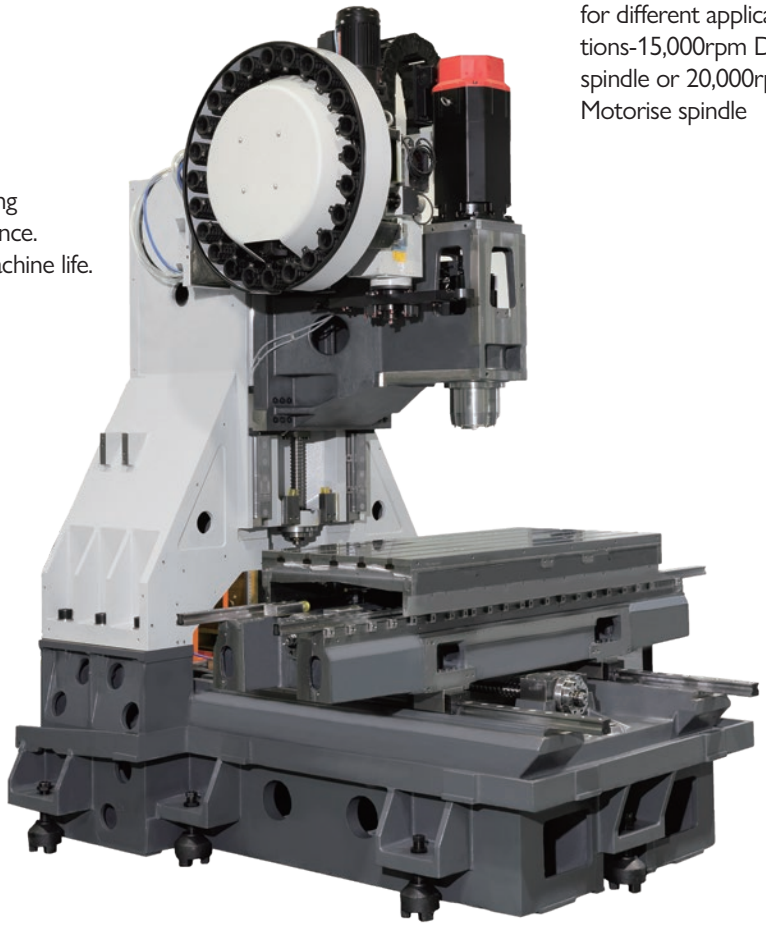
The BIG-PLUS spindle system assures higher rigidity, stiddness and accuracy of tool holders in high-speed and difficult machining applications. The dual contact precisely positions the tool holder within 1 micron following a tool change.



+PRECISION SPINDLE

Standard with 12,000rpm DDS spindle

Provide multiple options for different applica tions-15,000rpm DDS spindle or 20,000rpm Motorise spindle



+AUTOMATIC GREASE LUBRICATION SYSTEM

The automatic grease lubrication system is adopted for the ball screw and linear guideway, which has the advantages of convenient maintenance, environmental protection and low consumption, which can effectively reduce the maintenance cost of the machine tool.

+AUTOMATIC TOOL CHANGER

24 tools magazine and Swing-arm driven by motor, fast tool change performance with random-access and bi-directional indexing.

CONFIGURATION

Standard

- •12,000rpm DDS spindle
- • Heavy-duty Roller Guideway
- • LED Work Light
- • Tri-stack Status Indicator
- • Coolant Tank & Pump
- • Spindle Surround Flushing
- • Chip Flushing System
- • Air Blast
- • Coolant Washing Gun
- • 24T Swing-arm ATC
- • Automatic Lub. system
- • Ethernet Interface

Optional

- • 30T Tool Changer, BT40
- • 6000 rpm Belt-driven spindle, BBT50
- • Spindle Oil Chiller
- • High-Speed Machining Package
- • X/Y/Z Linear Scales
- • Hinge-type Chip Coveyor
- • Scrape-type Chip Coveyor
- • Automatic Door
- • Tool Probe
- • Part Probe
- • Tool Broken Detector
- • Oil-mist Collector
- • Oil Skimmer
- • Electric Cabinet Air Conditioner
- • Air Seal Detector
- • Automatic Power-off
- • CTS 20/50/70Bar



BBT40 Direct-drive Spindle



24T ATC



High Quality Pneumatic Components



Spindle Oil Chiller (Optional)



Automatic Lubrication System



Tool Proble (optional)



Heavy Duty Roller Guideway



Part Probe (optional)

CONTROL SYSTEM



Programmable Data Input
Sub program call
Custom macro
Additional custom macro comman variables
Coordinate scaling
Coordinate system rotation
Programmable mirror image
Linear interpolation
Circular interpolation
Helical interpolation

Fanuc 0i MF Plus

10.4" Display
Max. Controlled axes:5,
Simultaneous Controlled axes:4
Servo Control HRV3
Programming resolution 0.001mm
Interpolation resolution
0.0001mm(nano interpolation)
Metric/Inch Conversion
Part program sotrage size 2MB
Number of registered program
1000
Dynamic graphic display function
400 Tool offset pairs
PCMCIAinterface
Embedded ethernet interface
（100base）
USB interface
Tool life management
Tangential speed constant control
Automatic acceleration /
deceleration
Feed speed override
JOG magnification
Bell-shaped acceleration
/deceleration for rigid tapping



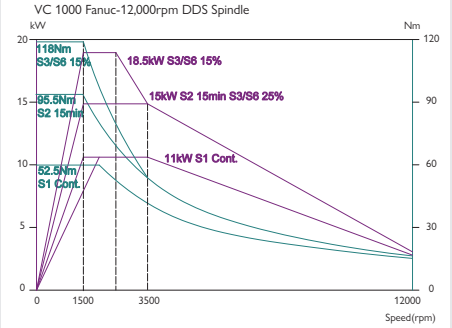
Minimum block switching time 2ms
Drilling and milling of standard
geometries
Contour milling
Combined drilling and thread milling
Thread milling
Polygon milling
Letter engraving
Imperial/Metric Conversion
Help function
User defined cycle
User-defined global variables
Additional user public R variables
Backlash compensation
Movement time and workpiece
counting

Siemens 828D

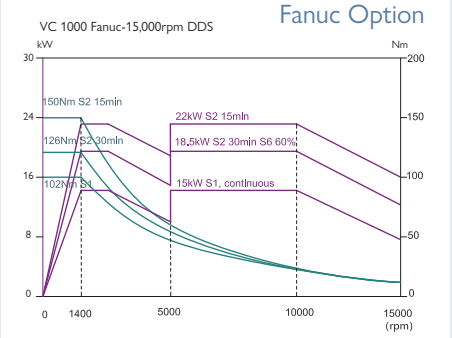
10.4"Color display
Intergrated QWERTY keyboard
Advanced Surface
Program Look Ahead
Dynamic Servo Control (DSC)
Acceleration control
Tool management (with tool life
monitoring)
256 Tools
Workpiece coordinate offset
quantity (100 groups)
5MB program memory
USB/CF card expansion memory
(>16G)
DNC processing
Graphical conversational
programming
Feedforward control
Axis Synchronization in Machining
SINUMERIK CNC programming
language
ISO language compiler
Graphics processing simulation
Polar coordinate programming
Linear/circular/helical
interpolation
Coordinate System
Programmable mirror / scale/
rotate
Pitch error compensation

Power / Torque

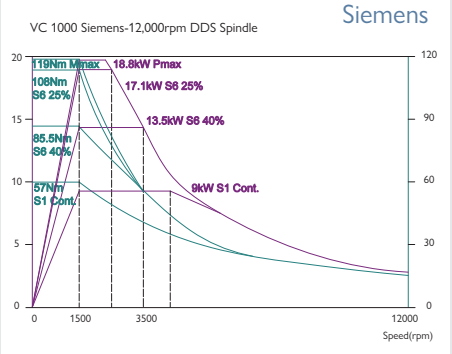
Fanuc



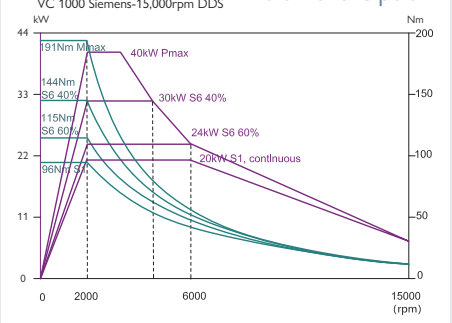
Fanuc Option



Siemens



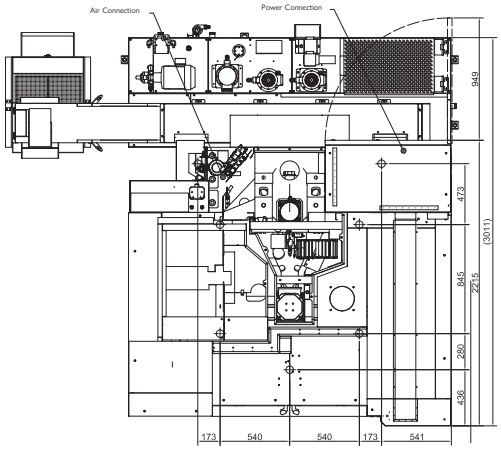
Siemens Option

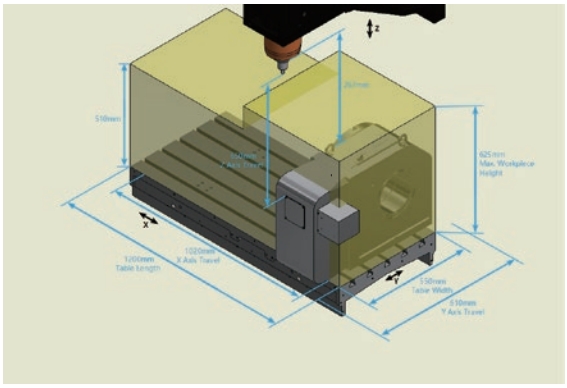


SPECIFICATIONS

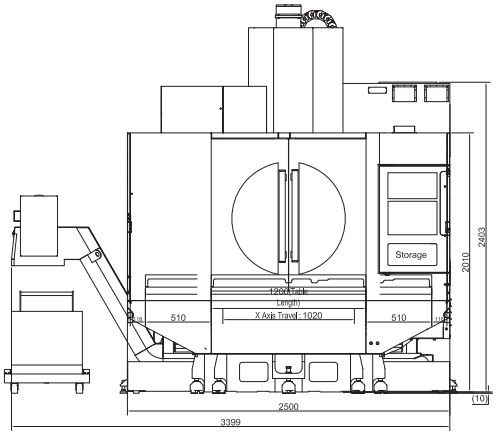
M8 1000		BT40		BT50	
Control System		Fanuc 0i MF Plus	Siemens 828D	Fanuc 0i MF Plus	Siemens 828D
Working Area					
X/Y/Z Axis Travel	mm	1020×610×650		1020×610×650	
Spindle Nose To Table	mm	150-800		150-800	
Spindle Center to Column Guideway	mm	658		658	
Table					
Table Size(Length×Width)	mm	1200×550		1200×550	
Max. Load Capacity	kg	900		900	
T-slot (Size×Qty×Spacing)		18mm×5×100mm		18mm×5×100mm	
Spindle					
Taper ISO No		BBT40		BBT50	
Power	rpm	12000		6000	
Spindle Max Speed	kW	18.5	18.8	18.5	22.6
Torque	Nm	118	119	302	278
Ball Screw					
Ball Screw Size	mm	40		40	
Ball Screw Pitch (X/Y/Z)	mm	16/16/12		16/16/12	
Axis Drivers					
Rapid Traverse Rate (X/Y/Z)	m/min	48/48/36		36/36/24	
Max. Feed Rates	m/min	15		15	
Servo Motor (X/Y/Z)	kW	3.0/3.0/3.0	2.9/2.9/3.55	3.0/3.0/3.0	2.9/2.9/5.4
Automatic Tool Changer					
Tool Capacity		24		24	
Method Of Tool Selection		Bi-directional		Bi-directional	
Max. Tool Diameter (Full Drum)	mm	80		105	
Max. Tool Diameter (Adj. Pockets Empty)	mm	150		200	
Max. Tool Length	mm	300		350	
Max. Tool Weight	kg	8		15	
Tool Change Time	sec	T-T:1.5		T-T:3.5	
Accuracy(ISO230-2)					
Positioning X, Y, Z	mm	0.006/0.006/0.006		0.006/0.006/0.006	
Repeatability X, Y, Z	mm	0.003/0.003/0.004		0.003/0.003/0.004	
Coolant System					
Capacity	L	260		260	
Flow	L/min	40		40	
Others					
Compressed Air		6~8bar,600L/min		6~8bar,600L/min	
Power Requirement	kW	33	28	33	33
Weight	kg	5500		6000	
Machine Dimensions (L*W*H)	mm	3410*2581*3004(with chip converyor)		3410*2581*3004(with chip converyor)	

Note: Data is based on the printing period only, Any technica





Working Zone
Figure shown the wide working zone with larger Z-axis travel could support higher fixture, and 4th-axis rotary table upto 400mm



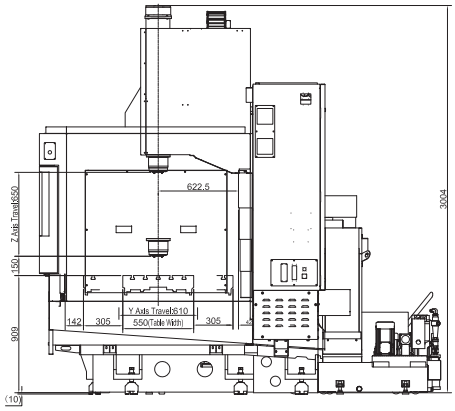
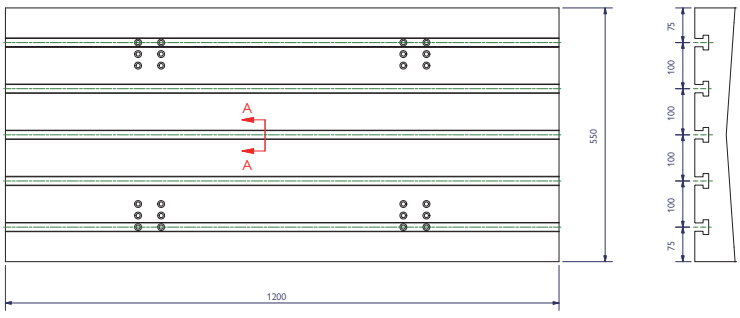
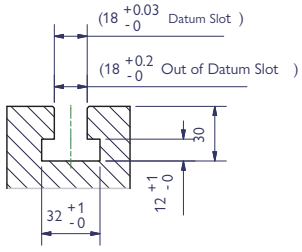


Table Size





Section View A-A

Ratio: 1 / 2

All prices and details are subject to change without notice. 1/2026

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