

BRIDGEPORT V SERIES

PERFORMANCE
FIVE AXIS
VERTICAL MACHINING CENTER

V650 5AX



Bridgeport[®]

BRIDGEPORT V650 5AX

5-Axis Vertical Machining Center

Bridgeport V650 5AX five-axis vertical machining center is developed and designed to meet the processing needs of complex parts in various industries. The large working space and humanized structural design bring users the most convenient experience.



- 19" Multi Touch Display Modular
- Integrated QWERTY Keyboard
- Ethernet Interface, 2x USB 3.0
- Processing Step Programming/Graphical
- Man-Machine Interface
- Graphical 3D Simulation
- 5-Axis Inputation
- Look-Ahead of Max. 3000 Blocks
- 2D/3D Collision Avoidance
- Zero Offset 100 Sets
- Number of The Tool / Number of Cutting Edge 600/1500
- Online Help Function
- CNC Internal 6MB , External Memory 10M
- Helical Interpolation
- Max of NCU Program 1000
- High-Speed Interrupt Continuous-Path
- Auxiliary Functions
- Tool Life and Workpiece Count Monitoring
- Network Management
- Universal Interpolator NURBS (Non-Uniform Rational B-Splines)
- Handwheel Overlay

X-Axis
(620mm)

Y-Axis
(520mm)

Z-Axis
(460mm)

B-Axis
- 50°~
+110°

Table Diameter
(650mm)

C-Axis
360°

Siemens Sinumerik One Control System

The latest generation of high-end CNC system from Siemens adopts a newly designed hardware platform, which improves the operation speed and precision in an all-round way. Provide stronger technical support for five-axis linkage interpolation applications. The machine simulation function is deeply integrated to provide users with more convenient processing program simulation and processing cycle simulation.



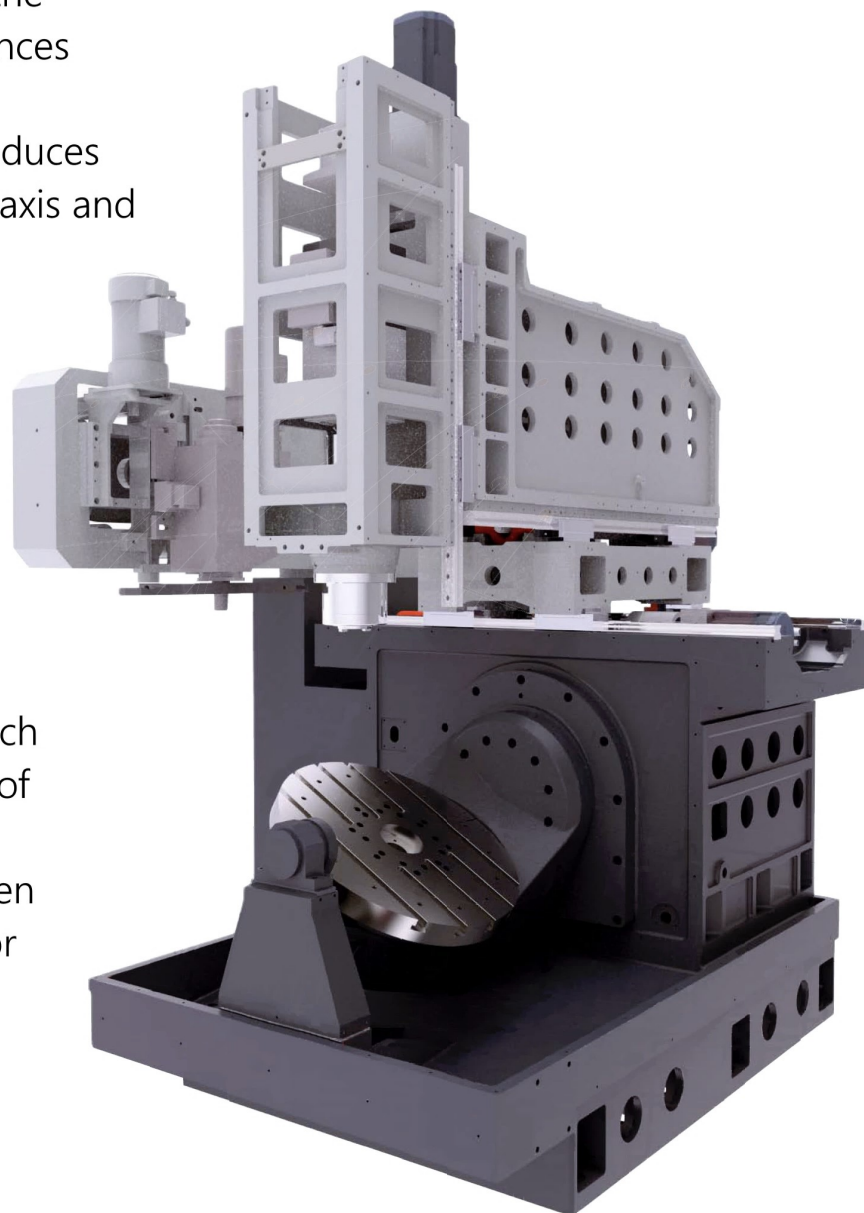
Machine Structure

The optimized design of the headstock structure enhances thermal stability, and the lightweight design also reduces the overall load on the Z-axis and improves processing performance.

Chain type magazine, standard 40 tools, options 60 tools.

The B/C axis has a tighter structural design and excellent accessibility, which facilitates the integration of manual operation and automation systems. Driven by precision worm/gear or built-in motor.

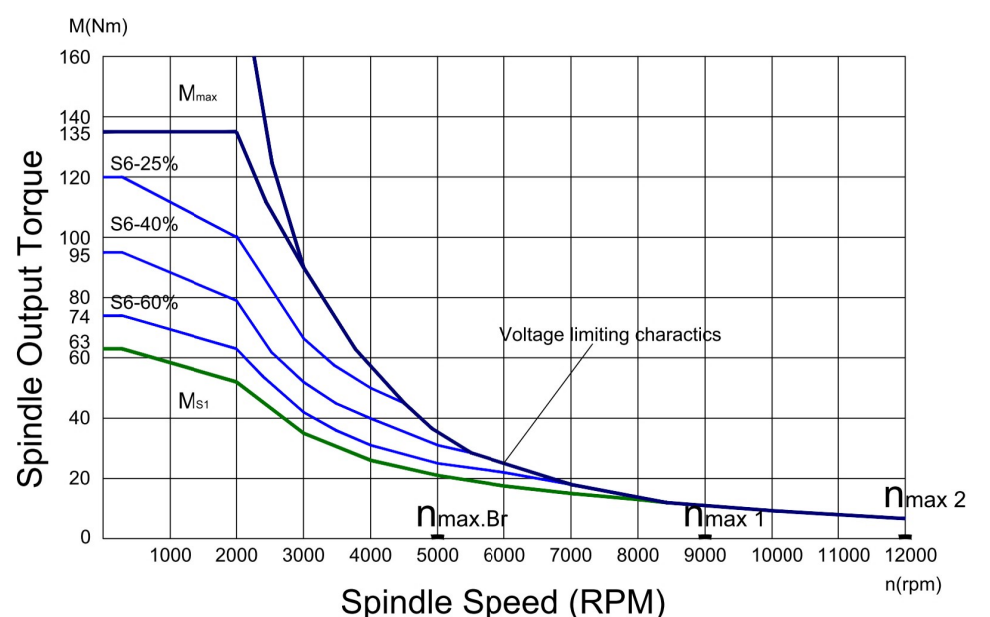
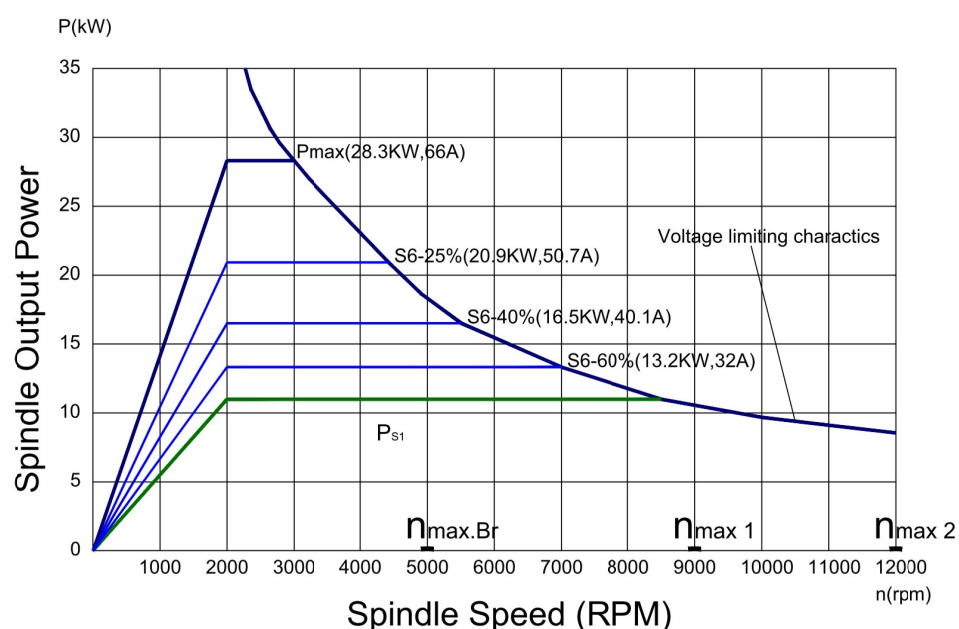
Driven by precision turbo/worm or built-in motor.



The X/Y/Z axis adopts precision-grade roller linear guide rails and heavy-duty sliders to enhance the load-carrying capacity of the transmission system and improve the processing performance of the machine.

The high-quality gray cast iron box-type bed design improves the rigidity of the bed structure.

Spindle Motor Power & Torque Characteristic Curve



V650 5AX SPECIFICATIONS

V650 5AX	
Travels	
X/Y/Z Axes Travels	620 x 520 x 460 mm
B-Axis Swing Range	-50° ~ +110°
C-Axis Rotation Range	360°
Spindle Nose to Table	150 - 610 mm
Three Axes Linear Guide	Roller Type
Table	
Table Size	Φ650 mm
Load Capacity (Horizontal)	300 kg
Load Capacity (Tilt)	200 kg
T-Slots (Number x Size x Spacing)	5 x 18 x 100 mm
Spindle	
Spindle Taper	BBT40
Spindle Speed	15000 rpm
Spindle Transmission	Direct Connected
Spindle Power	11/ 16.5 kW (S1/ S6-40%)
Maximum Torque at Base Speed	63/ 95 Nm (S1/ S6-40%)
Automatic Tool Changer (ATC)	
ATC Type	Mechanical
Tool Capacity	40T
Max. Tool Dia. (Full Drum)	Φ75 mm
Max. Tool Dia. (Full Drum/Adj. Pocket Empty)	Φ125 mm
Max. Tool Length	250 mm
Max. Tool Weight	7 kg
Servo Axis	
X, Y, Z-Axis Rapid Traverse Speed	36/ 36/ 36 m/min
X, Y, Z-Axis Max. Feed Speed	15 m/min
General Specification	
Machine Weight	8200 kg
Machine Length (Approx.)	4250 mm
Machine Depth (Approx.)	4120 mm
Machine Height (Approx.)	3100 mm

Standard Features

Controller: SINUMERIK ONE, 19" Screen
 15000rpm DDS Spindle (With Chiller) BBT40
 Tool Magazine Auto Door
 Worm Gear Type B/C Axis
 Surround Tool Coolant
 Coolant Chip Flush + Coolant Wash Gun
 Auto Central Grease Lubrication
 Automatic Power Off
 Remote MPG Hand Wheel
 B/C Axis Encoder
 2 Color Stack Light, LED
 Chiller For Power Case

Optional Features

Chain Type Magazine ATC, 60 Tools
 Built-in Motor Type B/C Axis
 Coolant Through Spindle (CTS) 20bar
 Air Gun
 Cutter Air Blast
 Hinge Type Chip Conveyor
 Scraper Type Chip Conveyor
 Chip Cart
 X/Y/Z Axis Linear Scale
 Part Probe RENISHAW OMP40-2+OMI-2T
 Datum Ball, RENISHAW D19
 Table Hydraulic Fixture, 4 Port

※To keep improvement and developing new functions, Bridgeport Machine Company reserves the rights to change specifications without further notice.



BRIDGEPORT MACHINE COMPANY, LLC TAIWAN BRANCH

No. 11, Zili 3rd Road, Nantou City 540 Taiwan R.O.C.
 TEL +886-49-2260536 FAX +886-49-2252203
<https://manufacturedgrowthsolutions.com/>
 E-mail: Sales.Bridgeport@incompassmfg.com

