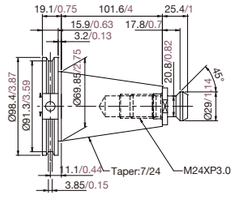
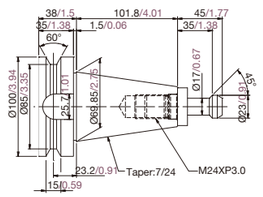
Tool Shank and Pull Stud Dimension

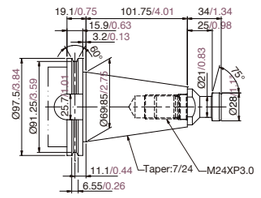
Unit: mm (inch)



CAT50

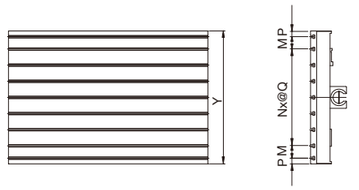


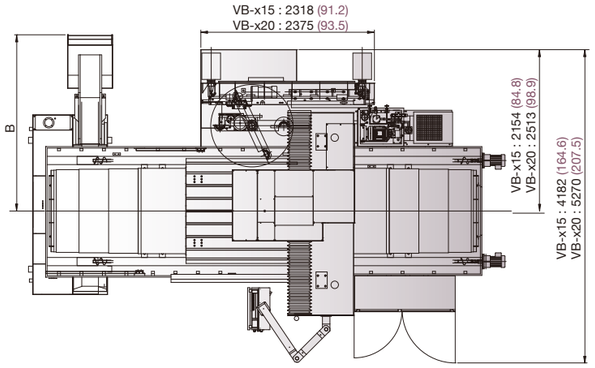
BBT50

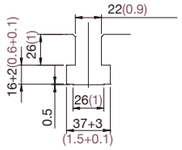


DIN50

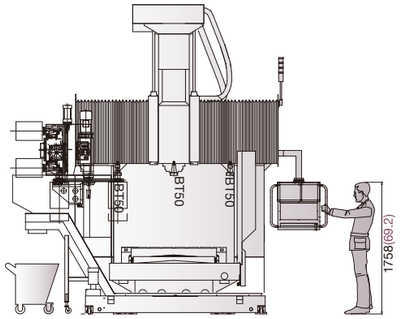
Machines Dimension and Space Requirement

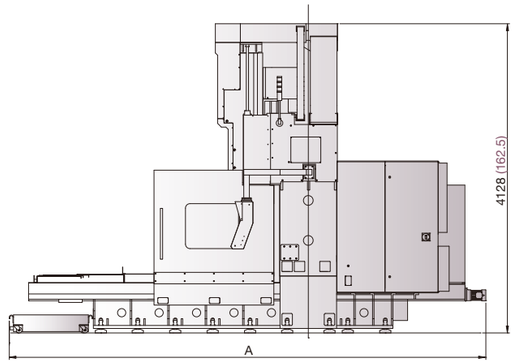






Item \ Model	VB-x15	VB-x20
Y	1440 (55.1)	1800 (70.9)
M	130 (5.1)	200 (7.87)
N	6	6
Q	170 (6.7)	200 (7.87)
P	60 (2.36)	100 (3.94)





Item \ Model	VB-215	VB-315	VB-415	VB-320	VB-420
A	6363 (250.5)	8363 (329.3)	10405 (409.6)	8363 (329.3)	10405 (409.6)
B	2353 (92.6)			2078 (81.8)	

WELE MECHATRONIC CO., LTD
(http : //www.welegroup.com)

HEADQUARTERS:
No.458, Shinsing Rd., Hukou Town, Hsin-Chu County 303, Taiwan
TEL : +886-3-696-0360 (rep.) FAX : +886-3-696-0370

TAICHUNG BRANCH:
No.600, Sec. 4, Sanfeng Rd., Houli Dist., Taichung City 421, Taiwan
TEL : +886-4-2558-0762 FAX : +886-4-2558-2334

WELE MECHATRONIC (SU-ZHOU) CO., LTD.

No. 16, Fuhua Rd., Changshu Economic Development Zone,
Changshu City, Jiangsu Province, China 215513
TEL : +86-512-5229-7868
FAX : +86-512-5229-7866
SALES: 150-5141-3969, 150-5141-3981

17022401 Macis. TEL 04-24753326

WELE

We lead the way by a new business model

ISO 9001 ISO 14000 2013 TAMI Supreme Excellence Award

VB SERIES

Double Column
Machining Center

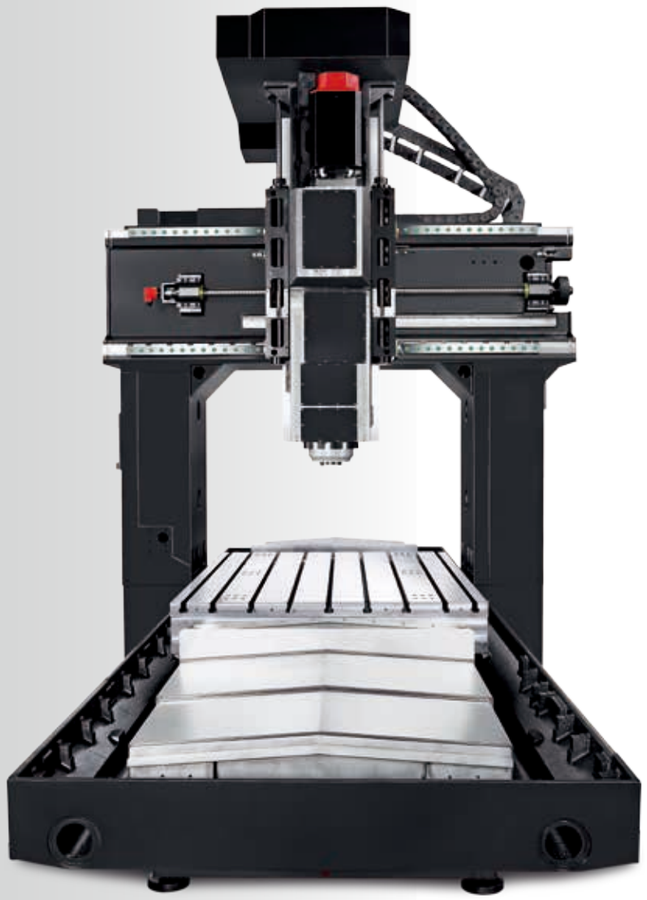
Machining Center

WELE MECHATRONIC CO., LTD

VB series

Feature

- Bridge casting made in one piece.
- Spindle output torque has 1077 Nm Max.(30min) with 4000rpm gear-driven optional available.
- Uses low friction coefficient and ultra heavy loading linear roller guide way on X/Y axis, Box way on Z axis.
- New hydraulic application design will saving energy and client's consumption.

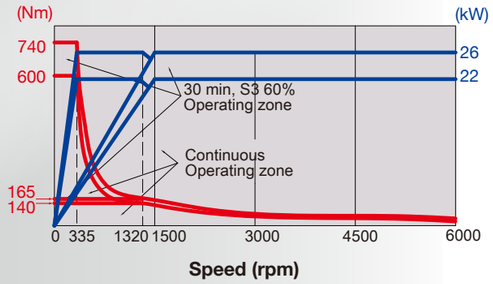


● *Above figure as VB215's main structure.*

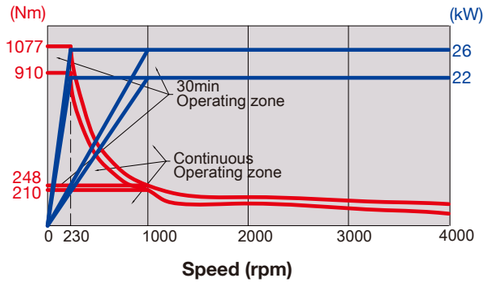
● *Above figure as VB215 with full enclosure guarding system.*

Spindle Torque chart

Speed up to 6000 rpm with gear-driven of Faunc α22/7000i Spindle Motor (30 / 35 HP) (STD)

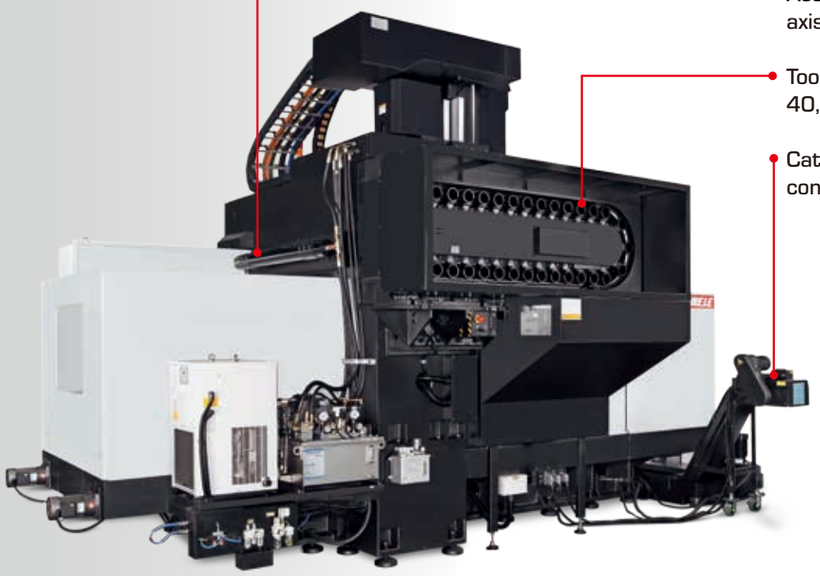


Speed up to 4000 rpm with gear-driven of Faunc α22/7000i Spindle Motor (30 / 35 HP) (OPT)



Standard & optional accessories:

- Rapid tool change system to save working time and more efficiency.
- Equip with the magazine operator panel as standard.
- 32 tools magazine is standard; 40, 60 tools as optional available.

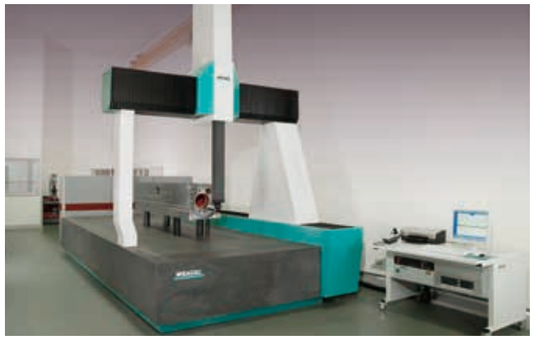


- Accumulator of balancer on Z axis (STD).
- Tool magazine: 32 tools (STD); 40, 60 tools (OPT)
- Caterpillar type chip conveyor(STD)

Outstanding Machining Performance

Face milling with 6000 rpm geared spindle	
Material	S45C
Tool diameter	ϕ125mm
Speed	477 rpm
Cutting width	100 mm
Cutting depth	6 mm
Feedrate	1000 mm/min
Spindle motor power	22 kW
Removal rate	27 cc/min-kW
Cutting capacity	600 cc/min

Strict manufacturing and quality assurance:



Technical Specification

Specification / Model	UNIT	VB-215	VB-315	VB-415	VB-320	VB-420
Travel						
X travel (Left & right)	mm (in)	2020 (79.5)	3020 (118.9)	4020 (158.2)	3020 (118.9)	4020 (158.2)
Y travel (in & out)	mm (in)	1500 (59.1)			2000 (78.7)	
Z travel (up & down)	mm (in)	800 (31.5)			800 (31.5)	
Distance from spindle nose to table top	mm (in)	200 - 1000 (7.9 - 393.7)			200 - 1000 (7.9 - 393.7)	
Distance between columns	mm (in)	1600 (63)			1600 (63)	
Table						
Table size (X direction)	mm (in)	2100 (82.7)	3100 (122)	4100 (161.4)	3100 (122)	4100 (161.4)
Table size (Y direction)	mm (in)	1400 (55.1)			1800 (70.8)	
Table load capacity	kg (lb)	8000 (17637)	10000 (22046)	12000 (26455)	10000 (22046)	12000 (26455)
Table T slot size (W x distance x number)	mm (in)	22x170x9 (0.9x6.7x9)			22x200x9 (0.9x7.8x9)	
Spindle						
Spindle speed	rpm	10 - 6000 (0.4 - 236.2)			10 - 6000 (0.4 - 236.2)	
Spindle driven type		Geare driven			Geare driven	
Spindle motor (Const./30min)	kW (HP)	22/26 (30/35)			22 / 26 (30 / 35)	
Spindle Max Torque(S1/S6)	Nm	626/740			626 / 740	
Spindle taper		BBT#50			BBT#50	
Feedrate						
Rapid traverse rate X axis	mm (in)/min	24000 (944.9)			24000 (944.9)	
Rapid traverse rate Y axis	mm (in)/min	24000 (944.9)			24000 (944.9)	
Rapid traverse rate Z axis	mm (in)/min	15000 (590.6)			15000 (590.6)	
Cutting feedrate	mm (in)/min	1-10000 (0.04-393.7)			1-10000 (0.04-393.7)	
Tool magazine						
Tool magazine capacity	pockets	32			32	
Max. tool diameter / adjacent pocket empty	mm (in)	127 / 215 (5 / 8.5)			127 / 215 (5 / 8.5)	
Max. tool length (from guage line)	mm (in)	400 (15.7)			400 (15.7)	
Max. tool weight	kg (lb)	20 (44)			20 (44)	
Accuracy						
Positioning accuracy (JISB 6338)	mm (in)	±0.010 (±0.0004)			±0.015 (±0.0006)	
Positioning accuracy (VDI 3441)	mm (in)	P=0.016 (0.0006)	P=0.019 (0.0007)	P=0.025 (0.0009)	P=0.019 (0.0007)	P=0.025 (0.0009)
Repeatability (JIS 6338)	mm (in)	±0.003 (±0.0001)			±0.003 (±0.0001)	
Repeatability (VDI 3441)	mm (in)	Ps=0.013 (0.0005)	Ps=0.015 (0.0006)	Ps=0.020 (0.0008)	Ps=0.015 (0.0006)	Ps=0.020 (0.0008)
Other						
Coolant capacity	liter (gallon)	500 (132)			600 (23.6)	
Hydraulic system capacity	liter (gallon)	60 (16)			60 (16)	
Pneumatic pressure requirement	kg/cm²	5			5	
Total required power (AC220V±10%, 3 Phase, 50/60 Hz)	kVA	50			50	
Machine length (area reuired)	mm (in)	5831 (229.6)	8363 (329.3)	10563 (415.9)	8363 (329.3)	10563 (415.9)
Machine width (area required)	mm (in)	4182 (164.6)			4773 (187.9)	
Machine height	mm (in)	4128 (162.5)			4153 (163.5)	
Machine weight	kg (lb)	20000 (44092)	25000 (55115)	30000 (66138)	27000 (59524)	32000 (70547)

**Product specifications and accessories are subject to change without notice.

Accessories

● : Standard ○ : Option

Specification \ Model	VB
*BBT50 spindle taper+MAS pull stud	●
*DIN50 spindle taper	○
*CAT50 spindle taper+ANSI pull stud	○
*6,000 rpm geared driven spindle (30/35HP)	●
*4,000 rpm geared driven spindle (30/35HP)	○
*Column raise up for 200mm or 300mm	○
*Twin balancer system on Z axis by accumulator	●
*Spindle & gearbox temperature control system	●
*Twin semi-close encoder feedback system on X/Y/Z axis	●
*Torque-limit clutch (3 axes)	●
*Centralized automatic lubricating system	●
*Four splash guard	●
*Full splash guard with one slider door	○
*Flood Coolant system (Pump & tank)	●
*Recycling lubricating oil collector for 3 axes	●
*Twin screw & caterpillar types conveyor and bucket	●
*32 tools capacity of tool magazine	●
*40 tools capacity of tool magazine	○
*60 tools capacity of tool magazine	○
*Rigid tapping	●
*Footswitch for tool clamping	●
*Remote handwheel control (MPG)	●
*Work light	●
*Operation cycle finish and alarm lights	●
*Spray hose for chip wash down	●
*Heat exchanger to refit air-conditioning for electric cabinet	○
*Oil Skimmer	○
*Foundation bolt kit	●
*Machine manuals	●
*Linear scale feedback system for 3 axes (Heidenhain)	○
*Coolant around spindle	●
*Coolant through the spindle (Form A) w/1000 liter tank	○
*90° head, index in 4 positions manual	○
*30° head, index in 4 positions manual	○
*Universal head indexable in C and A axis manually	○
*Extension head	○
*Swing type operator panel (moveable in horizontal direction)	●
*Automatic tool length measurement (Blum or Renishaw)	○
*Automatic workpiece measuring system (Blum or Renishaw)	○
*FANUC 0iM controller	●
*4th axis interface prepared	○
*CNC rotary table	○