



VB series

CNC Double Column Vertical Machining Centers

Casting Structure / 3-Axis Box way

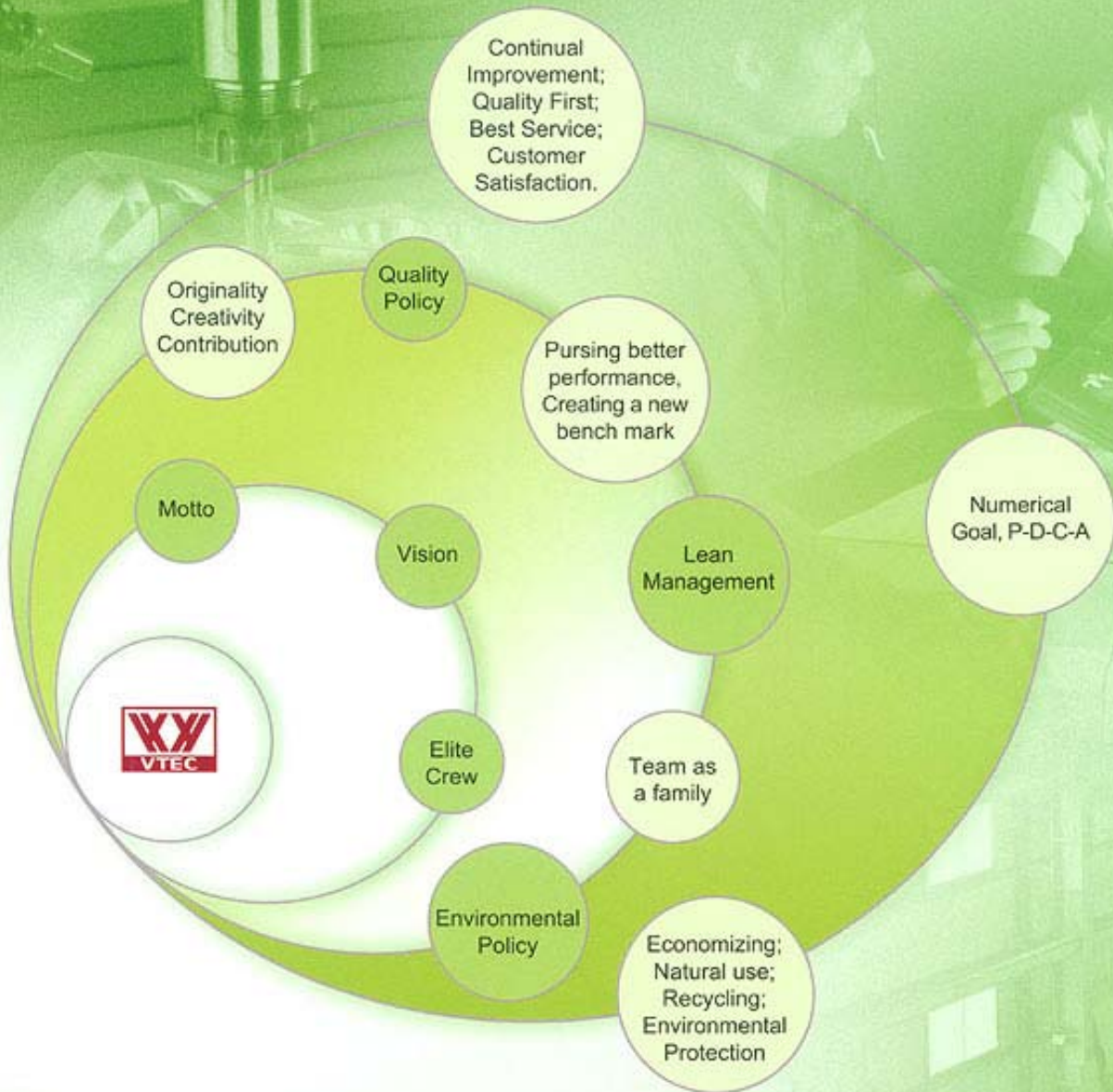
Step square beam

Ball screw cooling

800 mm Z Stroke



VISION WIDE TECH CO., LTD.



Pursuing better performance, Creating a new bench mark !

Vision Wide offers high quality and competitive priced products, our advantages are derived from customer-oriented machine designs, utilizing reliable high quality components and suppliers, integrating our precise process control during production, assembly and testing.

Pursuing better performance, Creating a new bench mark ! We solidify our commitment to the company motto of "Originality", "Creativity", and "Contribution" for best performance and organizational enhancements from a professional team-based environment.

From the little improvements to the future new products, we have the technology for today's industries. We continue to make us more competitive nowadays and afterwards in the CNC machining centers.



1



2

High Value . High Precision High Reliability Products

- 1. **DV series** X:900mm-1400mm
Y:610mm-720mm
Z:610mm
- 2. **VB series** X:1.5m-4.0m
Y:1.6m-2.0m
Z:800mm
- 3. **VF series** X:2.0m-6.0m
Y:2.3m/2.6m
Z:920mm / 1020mm
- 4. **VH series** X:4.2m-10.2m
Y:3.0m/3.5m
Z:1000mm
- 5. **BM series** X:4.0m-10.0m
Y:3.0m-3.5m
Z:1000mm
W:1000mm
- 6. **Diversified Heads** 90 degree
Extended
Universal



3



4



90° Angle head

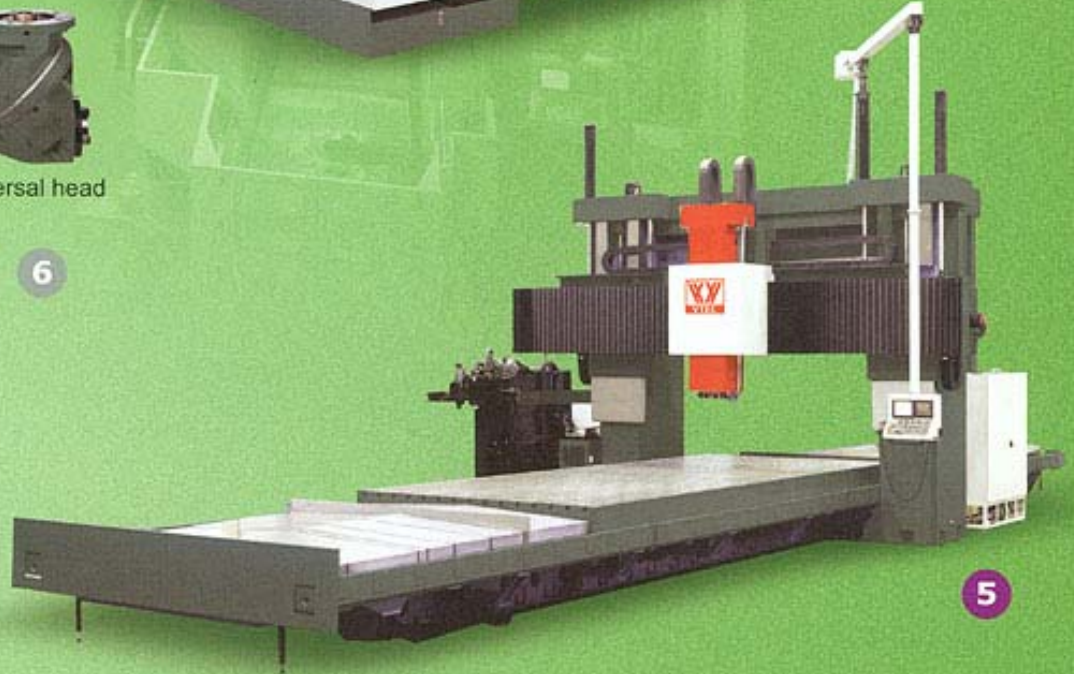


Universal head



Automatic 5-side head

6



5



VB series

Casting Structure, 3-Axis Box Way, High Rigidity, High Precision, High Performance !

Casting structure: Bed, Table, Column, Beam, Saddle, Headstock.

X, Y, Z Hardened box way with low friction Turcite material.

Width between Columns: 1.7m/2.1m,

Cutting length:1.5m-4.0m

Z Stroke: 800 mm

Face milling capability (Mild steel) : 45 CC/kW-minute

Extra wide front door opening

Fast cam-type ATC (3 second tool-to-tool)

Large ATC capacity: Ø180mm x 380mm L

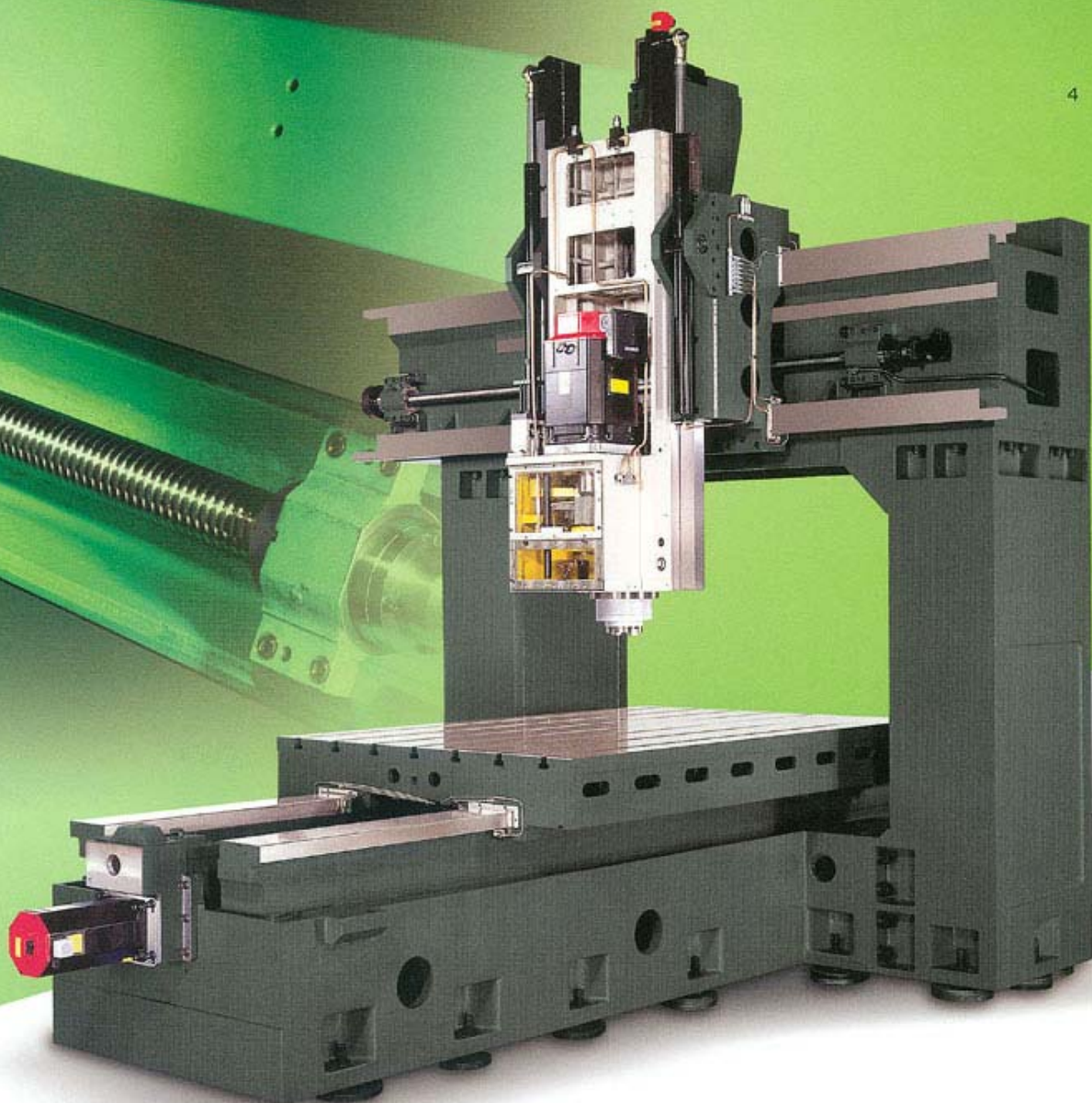
Hanged and swivel able operation panel

Diversified heads: 90 degree / extended / universal

Visionwide FX series operation interface

Visionwide FTP server software





- **Best center-line layout of the spindle system**
- **Larger size columns and beam**
- **Rigid step square beam**
- **Ground table as datum of machine accuracy**
- **Self-alignment twin hydraulic cylinders with pressured nitrogen accumulator headstock balancing design**
- **High accuracy and High stability feeding design:**
 - Pre-tensioned C3 grade ball screws with temperature controlled design
 - Special design ball screws supporter and vibration damper (4 m above)



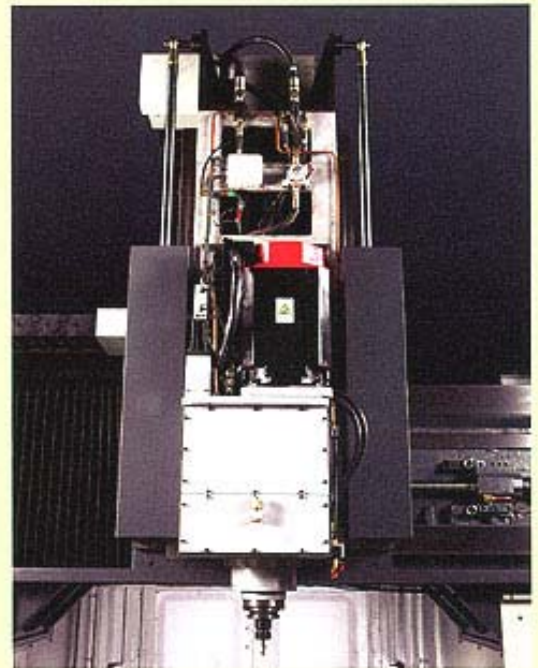
Best center-line layout of spindle system provides powerful, reliable performance !

Design feature of spindle system

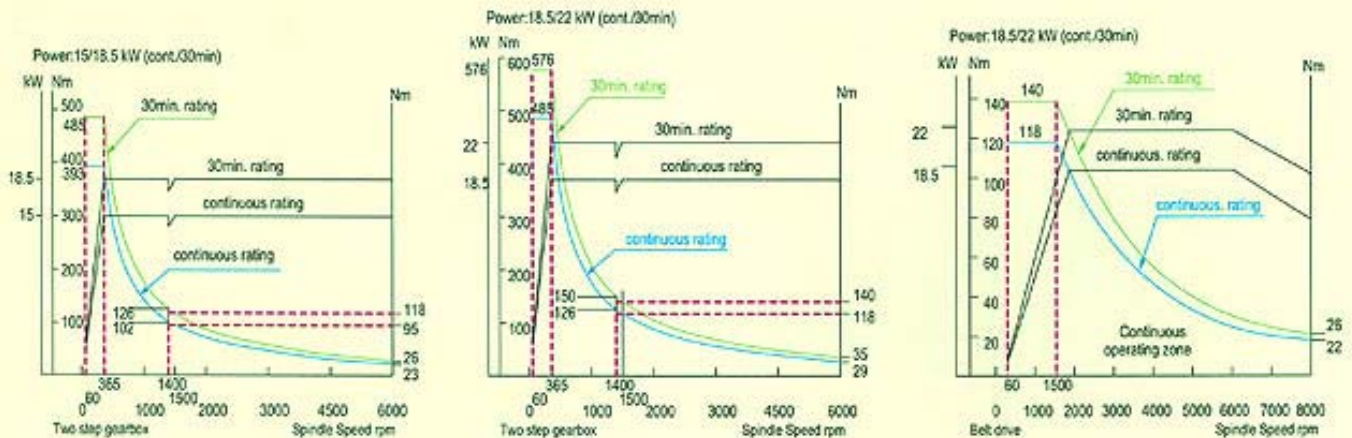
- One piece casting with square shape headstock.
- Spindle at the center of the motor, Z ball screw and twin cylinders, reduces the thermal offset of the spindle to minimum.
- Short transmission shaft, Japan made JIS 0 grade gears ensures smooth, efficient running.
- Spindle made by first class supplier, equipped with floating tool release mechanism.
- Temperature cooling system for gears, bearings and spindle.

Spindle available

- 4500 rpm (Two-step gear)
- 6000 rpm (Two-step gear)
- 8000 rpm (Belt Drive)
- 10000 rpm (Belt Drive)



Spindle Power and torque chart



Diversified head attachments (Opt.) provides wider applications



90 degree angular head



Universal head

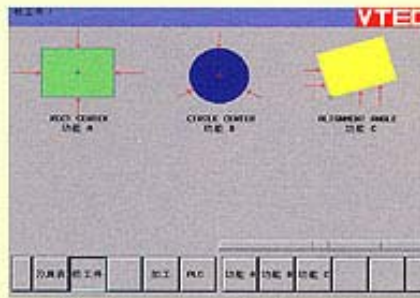


Extended head

Visionwide convenient software for safe and easy operation



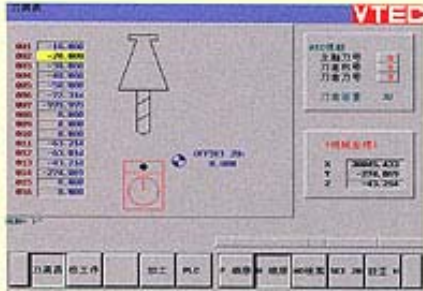
Visionwide FX software



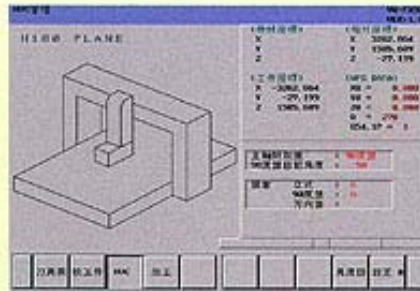
Workpiece coordinate setting



Visionwide FTP Server Software

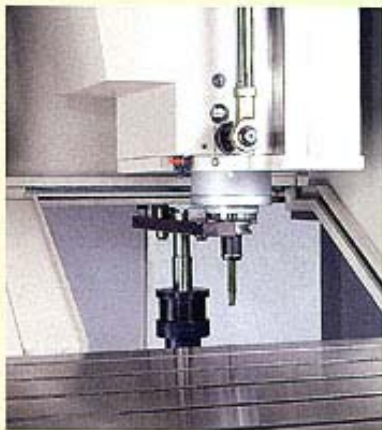


Tool management & Tool length compensation

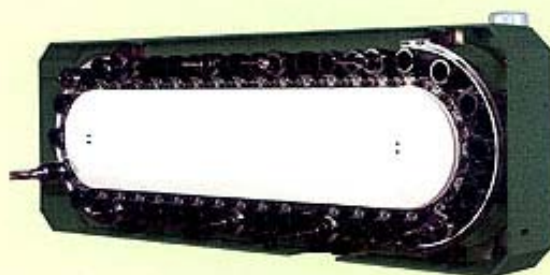
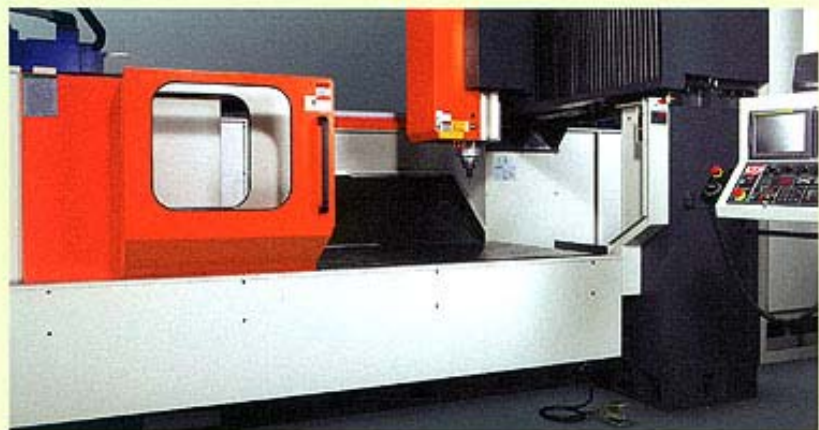


Horizontal spindle machining function

Multi-layer front door design provides the widest door opening



Fast Cam-type Automatic Tool changer
(3 second tool-to-tool)



Automatic Tool changing: 32 / 40 tools
(Opt.) Tool size(Max.) Ø180 x L380 mm



HEIDENHAIN iTNC530



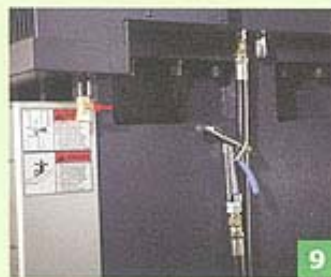
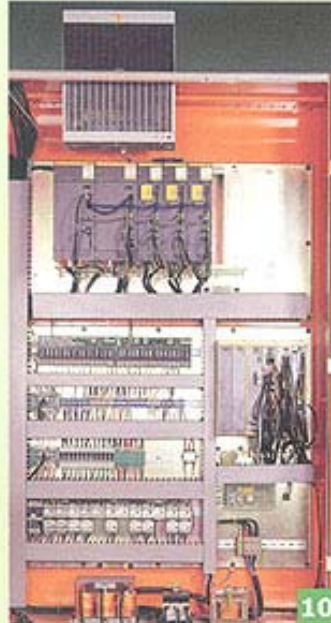
FANUC 0i/18i/21i



SIEMENS 840D

With more Standard/Optional accessories

- 01. Pressured air assist balancing
- 02. Cam type ATC
- 03. X axis ball screw supporter(4 m above)
- 04. Ball screw cooling system(Opt.)
- 05. Ring & nozzle type flood coolant
- 06. Screw type chip conveyor
- 07. Caterpillar chip conveyor
- 08. Spindle cooling system
- 09. Splash water gun & air outlet
- 10. Heat exchanger for electrical cabinet
- 11. Auto. Tool length measurement(Opt.)



"Needs-Oriented" is the motive behind our product development and improvement. From the minutest improvement to future new product design, we have the technology to contribute to the industry and society.

100% ISO 9001:2000 Quality management

1 R & D



CNC software development

2 Production control



Machine assemble



ATC assemble

3 Quality Check



Autocollimator



Laser Check



Ball Bar tuning

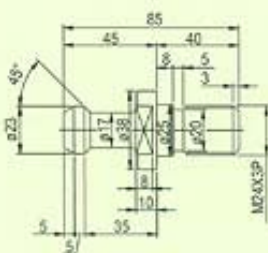
4 Customer database & record



5 Customer technical support

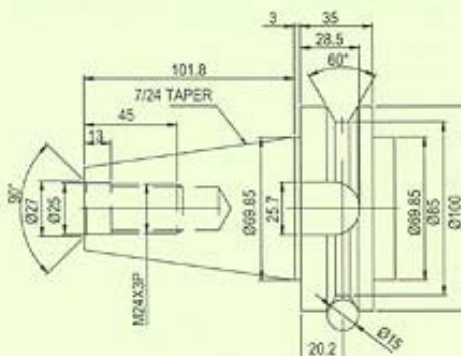


Pull stud dimension:

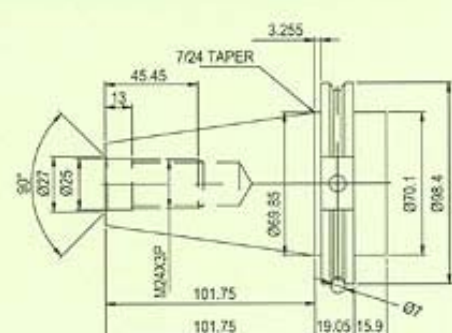


Pull stud Bolt (P50t-1) for both BT-50 and CAT-50

Tool shank dimension:



Tool shank (BT-50)



Tool shank (CAT-50)

SPECIFICATION	UNIT	VB-1516	VB-2016
TRAVEL			
X axis	mm	1500	2000
Y axis	mm	1600	1600
Z axis	mm	800	800
Distance from spindle nose to table (Standard column)	mm	150-950	150-950
Distance from spindle nose to table (+200mm column)	mm	350-1150	350-1150
Distance from spindle center to column	mm	430	430
Distance between columns	mm	1700	1700
TABLE			
Working surface	mm	1500x1300	2000x1300
T-slot (Size x Number x Pitch)	mm	22x7x180	22x7x180
Max. table load	kg	7000	8000
SPINDLE			
Spindle motor (Continuous/30 minute rated)	kW	15 / 18.5(Opt. 18.5 / 22)	
Spindle speed (2 steps Gear box)	rpm	4500/6000(Opt.)	4500/6000(Opt.)
Spindle speed (Belt)	rpm	8000/10000(Opt.)	8000/10000(Opt.)
Spindle taper		ISO 50	ISO 50
FEED			
Cutting feedrate	mm/min	1-7000	1-7000
Rapid traverse	m/min	X Y Z:15	X Y Z:15
Motor capacity	kW	X:4.5 , Y:3.5, Z:3.5	X:4.5 , Y:3.5, Z:3.5
ACCURACY			
Positioning accuracy	mm	P0.025	P0.025
Repeatability	mm	±0.003 Ps0.02	±0.003 Ps0.02
ATC			
Tool storage capacity	pcs	32/40(Opt.)	32/40(Opt.)
Max. tool weight	kg	18	18
Tool size (D x L) (Full tools)	mm	Ø125x380L	Ø125x380L
Max. tool size (D x L) (next pockets empty)	mm	Ø180x380L	Ø180x380L
Tool shank		BT50/CAT50	BT50/CAT50
Pull stud bolt		P50T-1	P50T-1
OTHERS			
Electric power consumption	kVA	55	55
Machine net weight	kg	18500	21500
Machine gross weight	kg	22000	25000
Max. floor space (Standard column)	mm	6600x5355x4043	7580x5355x4043
Max. floor space (+200mm column)	mm	6600x5355x4243	7580x5355x4243

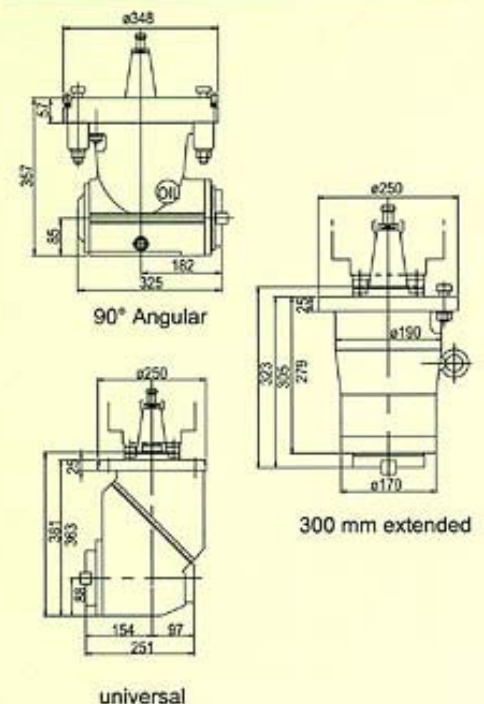
Standard Accessory & Function

1. Fanuc 18iM CNC
2. 4500 rpm two-step gear spindle
3. Spindle and gear box cooling system
4. Twin hydraulic cylinders with pressured air assistance balancing system
5. X-axis ball screw supporter (4m above)
6. 32 tools magazine with arm type ATC
7. Centralized Auto. Lubrication system
8. Independent lubrication oil collector
9. Enclosed splash guard(without roof)
10. Working Lamp
11. 3-color signal lamp
12. Air blast through spindle
13. Movable manual pulse generator
14. Wash gun and pneumatic interface
15. RS232 interface
16. Absolute pulse coder
17. Macro executor
18. Flood coolant system (Ring & Nozzle)
19. Heat exchanger for electrical cabinet
20. Twin chip screws on table side
21. Caterpillar type chip conveyer
22. Foundation pads and bolts kits
23. Tool kits
24. Operation manual, PLC & electrical circuit diagram

Optional Accessory & Function

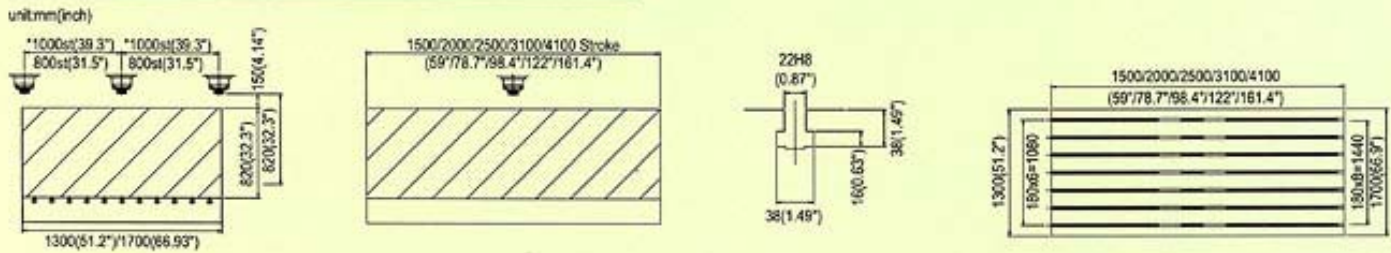
1. 6000 rpm two-step gear spindle
2. 8000 rpm/10000 rpm spindle
3. 40 tools magazine
4. Coolant through tool holder interface
5. Coolant through spindle system
6. Ball screw cooling system
7. Heidenhain linear scale feedback
8. 200/300/400 mm higher column
9. Sub working table
10. Oil skimmer
11. Oil-mist cooling device
12. Rotary table
13. Interface preparation for rotary table
14. 3 axis manual pulse generator
15. Automatic tool length measurement
16. Automatic work piece measurement
17. Manual/90 degree/extended/universal attachment
18. Transformer

Dimension of Head Attachment



VB-2516	VB-3016	VB-2020	VB-2520	VB-3020	VB-4020
2500	3100	2000	2500	3100	4100
1600	1600	2000	2000	2000	2000
800	800	800	800	800	800
150-950	150-950	150-950	150-950	150-950	150-950
350-1150	350-1150	350-1150	350-1150	350-1150	350-1150
430	430	430	430	430	430
1700	1700	2100	2100	2100	2100
2500x1300	3100x1300	2000x1700	2500x1700	3100x1700	4100x1700
22x7x180	22x7x180	22x9x180	22x9x180	22x9x180	22x9x180
9000	10000	9000	10000	11000	12000
15 / 18.5(Opt. 18.5 / 22)			18.5 / 22		
4500/6000(Opt.)	4500/6000(Opt.)	4500/6000(Opt.)	4500/6000(Opt.)	4500/6000(Opt.)	4500/6000(Opt.)
8000/10000(Opt.)	8000/10000(Opt.)	8000/10000(Opt.)	8000/10000(Opt.)	8000/10000(Opt.)	8000/10000(Opt.)
ISO 50	ISO 50	ISO 50	ISO 50	ISO 50	ISO 50
1-7000	1-7000	1-7000	1-7000	1-7000	1-7000
X Y Z:15	X Y Z:15	X Y Z:15	X Y Z:15	X Y Z:15	X Y Z:15
X:4.5, Y:3.5, Z:3.5	X:4.5, Y:3.5, Z:3.5	X:4.5, Y:3.5, Z:3.5	X:4.5, Y:3.5, Z:3.5	X:4.5, Y:3.5, Z:3.5	X:7, Y:3.5, Z:3.5
±0.005 / 300, ±0.015 / Full Travel					
P0.025	P0.03	P0.025	P0.03	P0.03	P0.03
±0.003	±0.003	±0.003	±0.003	±0.003	±0.003
Ps0.02	Ps0.025	Ps0.02	Ps0.02	Ps0.025	Ps0.025
32/40(Opt.)	32/40(Opt.)	32/40(Opt.)	32/40(Opt.)	32/40(Opt.)	32/40(Opt.)
18	18	18	18	18	18
Ø125x380L	Ø125x380L	Ø125x380L	Ø125x380L	Ø125x380L	Ø125x380L
Ø180x380L	Ø180x380L	Ø180x380L	Ø180x380L	Ø180x380L	Ø180x380L
BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50	BT50/CAT50
P50T-1	P50T-1	P50T-1	P50T-1	P50T-1	P50T-1
55	55	55	55	55	55
24500	27500	23500	26500	29500	32500
28000	31000	27000	30000	33000	35000
8580x5355x4043	9780x5355x4043	7580x5755x4043	8580x5755x4043	9780x5755x4043	11780x5755x4043
8580x5355x4243	9780x5355x4243	7580x5755x4243	8580x5755x4243	9780x5755x4243	11780x5755x4243

Table and T-slot dimension



Major machine dimensions

