LEADYANG
Professional Technique & Service

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Since 1997 we always insist on this sincere service

V10L V12L

Vertical Machining Center

X . Y Roller Linear Way Z Box Way

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AGENT

2019/02

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Various Spindle Selections

Direct transmission

BBT40 10000/12000/15000rpm
Spindle arbor 70mm

BBT50 10000/12000rpm
Spindle arbor 90mm

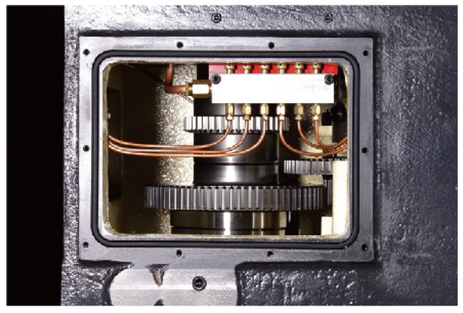
Belt transmission

BBT40 10000rpm
Spindle arbor 70mm

BBT50 6000/8000rpm
Spindle arbor 100mm

Gear transmission

BBT50 6000rpm
Spindle arbor 100mm



Gear Spindle with High / Low Torque Design

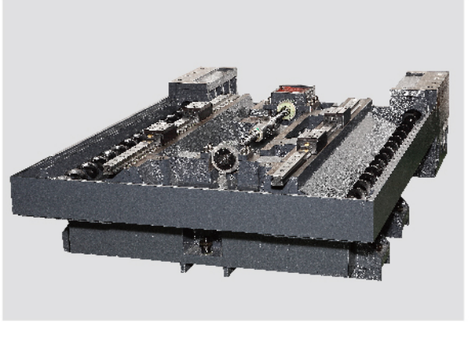
Gear designed by two stage transmission, lower speed gear is suitable for heavy cutting and provides the maximum torque of 520Nm. (Option torque of 620Nm/730Nm)

Gear materials are produced by chrome molybdenum alloy steel with heat treatment and precision grind. (Made by HAMADA)

Heavy Loading Roller Linear Guideway

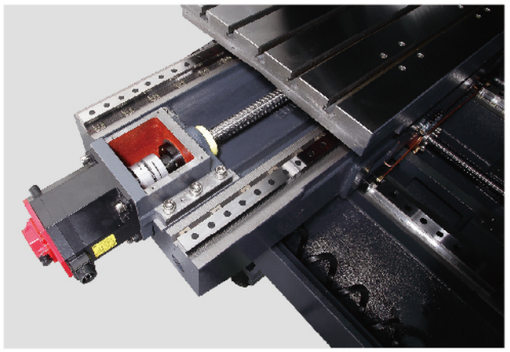
	V10L		V12L	
	X axis	Y axis	X axis	Y axis
Guideway Width	35mm	45mm	45mm	45mm
Guideway Quantity	2	2	2	2
Slider Quantity	4	4	6	4

Using enlarged slider blocks to enhance machine rigidity and loading.



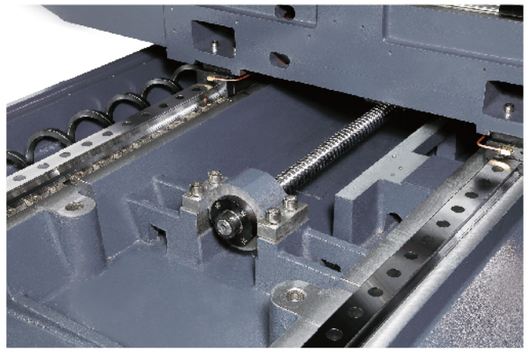
Dual Screw Chip Conveyors

One piece casting for chip flute and bottom base could solve the problem of leaking.



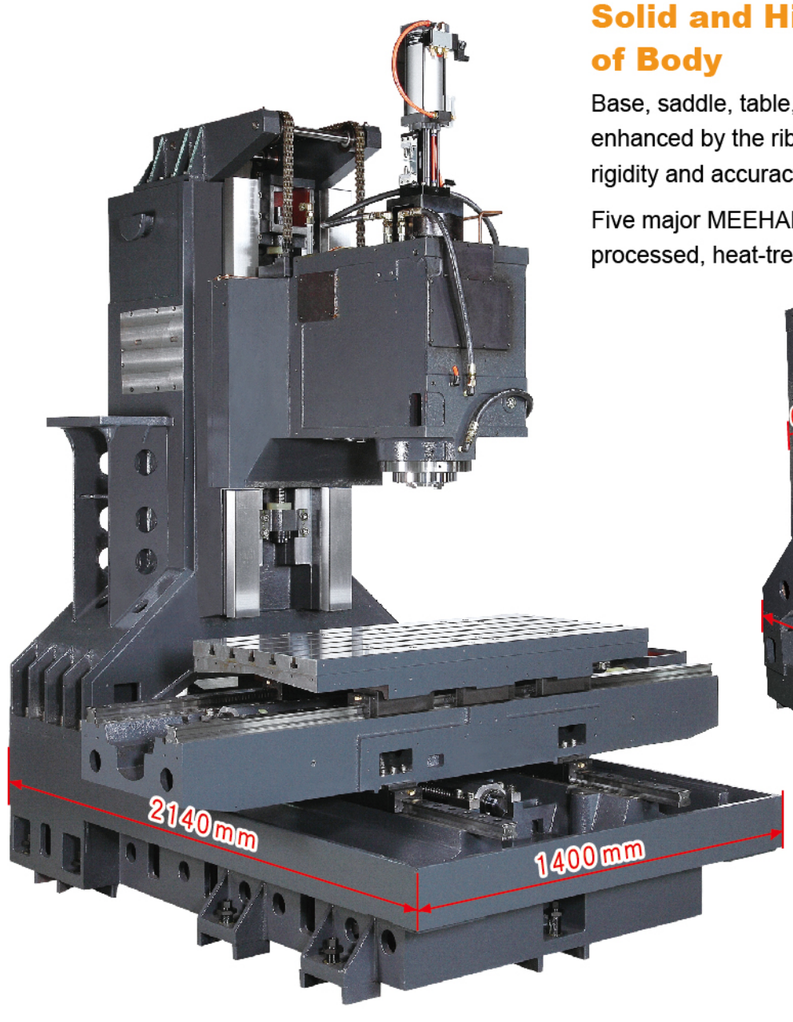
C3 Class Ballscrew

Triaxial ballscrews are equipped with diameter ∅40 and C3 class ballscrews.
All ballscrews are dealed with pre-pressing and pre-stretching to ensure lowest backlash and heat deformation.



Strengthening the Support of the Ballscrew Both Ends

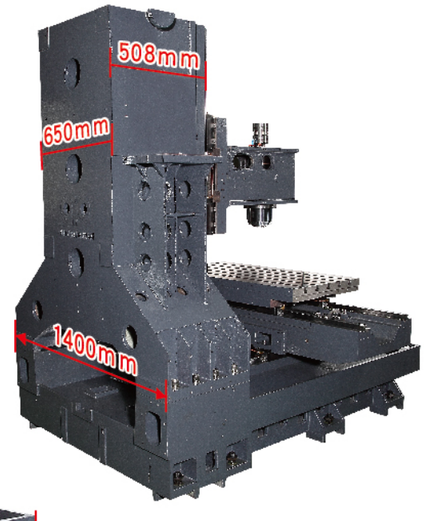
The both ends of the ballscrews are installed with 3 sets supporting bearings separately.
The machine base is supported by nine points of leveling pads and bolts.



Solid and High Rigidity Structure of Body

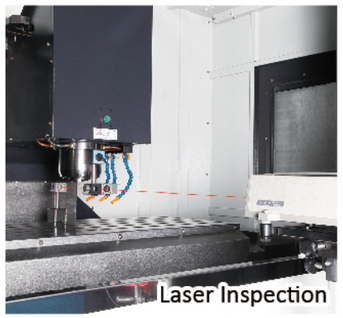
Base, saddle, table, spindle head and column are enhanced by the ribs structure to improve machine rigidity and accuracy and to avoid machine deformation.

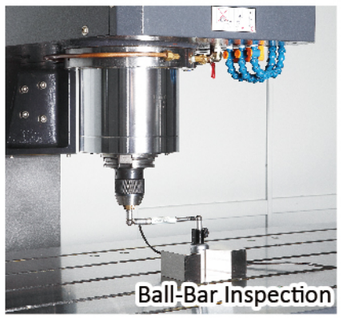
Five major MEEHANITE castings are molded processed, heat-treated and ground in Taiwan.



Strict Quality Inspection Regulation

① Each machine has 100% full inspection.
② Entire machine has Geometric Accuracy Test.
③ Ball-Bar inspection: Use circular tester to adjust accuracy of roundness and machine.
④ Laser inspection: According to VDI3341 (ISO230-2) standard, machine will do multiple back and forth operation with compensation to meet the suitable machine accuracy.
Each machine has individual inspection report.
⑤ Spindle dynamic balancing correction. This can ensure the spindle stability during high rotation speed.


Laser Inspection


Ball-Bar Inspection

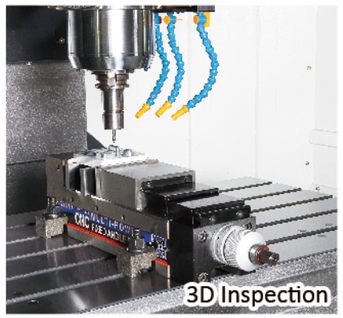
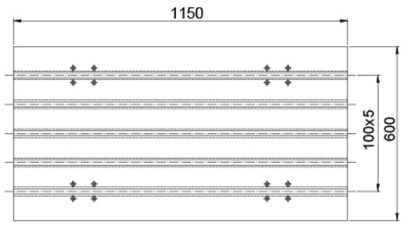
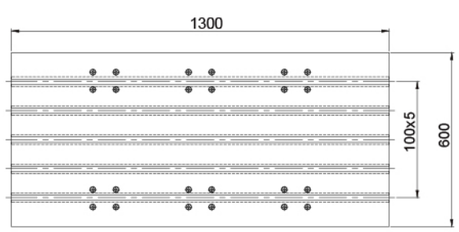

3D Inspection

Table Dimension (mm)

V10L

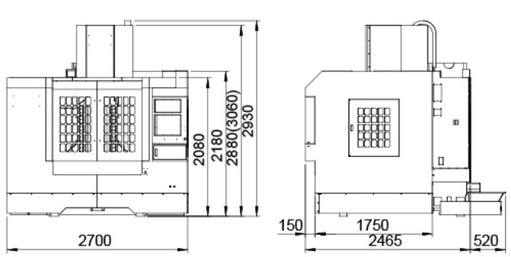


V12L

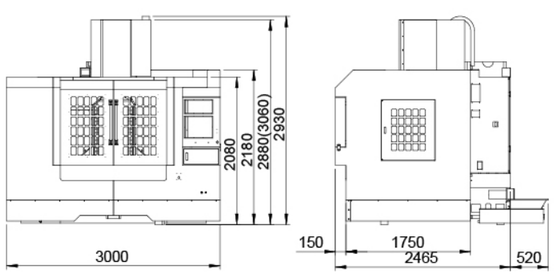


Machine Dimension (mm)

V10L



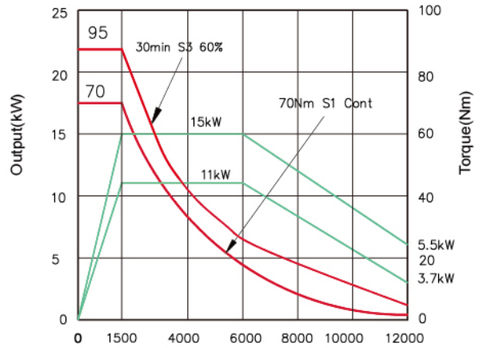
V12L



LEADYANG reserves the right to change the appearance design and specification.
And the above specifications are subject to change without notice.

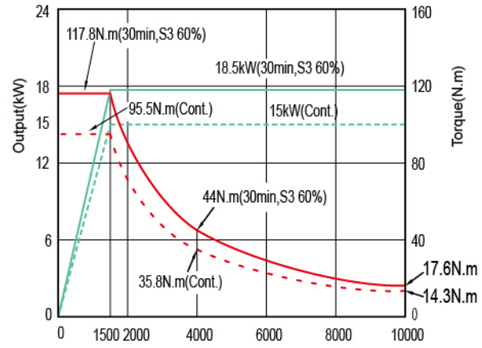
Spindle Power and Torque Curve

Spindle motor αil 12 / 12000i



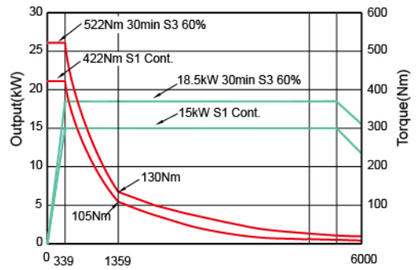
Direct Transmission

Spindle motor αil 15/12000i



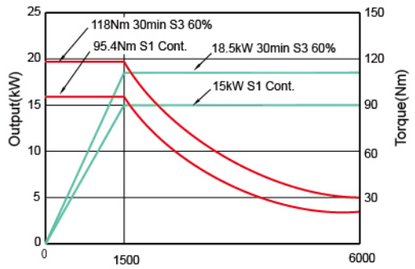
Direct transmission

Spindle motor αil 15/8000i



Gear transmission

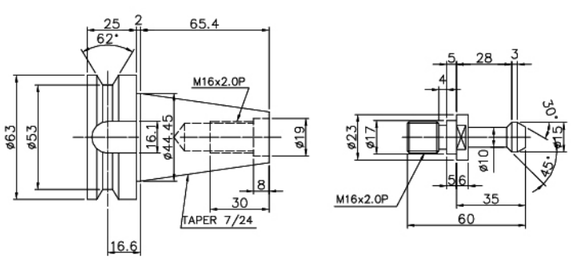
Spindle motor αil 15/8000i



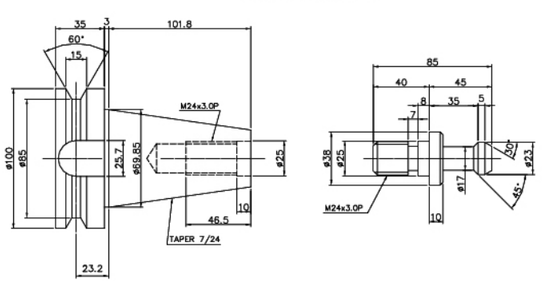
Belt transmission

Tool Taper Dimension (mm)

BT40 / BBT40



BT50 / BBT50



Machine Specification

Model	Unit	V10BL		V12BL		V10GL	V12GL	V10DL		V12DL	
TRAVEL											
X/Y/Z Axes Travel	mm	1050/600/600		1200/600/600		1050/600/600	1200/600/600	1050/600/600		1200/600/600	
Spindle Nose to Table	mm	100~700	50~750	100~700	150~750	150~750	150~750	100~700	150~750	100~700	150~750
Spindle Center to Column	mm	670		670		670	670	670		670	
Types of Guideway (X/Y/Z)		Roller linear/ Roller linear/ Box way				Roller linear/ Roller linear/ Box way		Roller linear/ Roller linear/ Box way			
Width of Linear Guideway	mm	35/45		45/45		35/45	45/45	35/45		45/45	
Slider Quantity		4/4		6/4		4/4	6/4	4/4		6/4	
TABLE											
Table Size	mm	1150x600		1300x600		1150x600	1300x600	1150x600		1300x600	
T-Slot Size	mm	18x5x100		18x5x100		18x5x100	18x5x100	18x5x100		18x5x100	
Max.Table Load	kgs	800		1000		800	1000	800		1000	
SPINDLE											
Spindle Transmission		Belt type	Belt type	Belt type	Belt type	Gear type	Gear type	Direct type	Direct type	Direct type	Direct type
Spindle Taper		BBT-40	BBT-50	BBT-40	BBT-50	BBT-50	BBT-50	BBT-40	BBT-50	BBT-40	BBT-50
Spindle Speed	rpm	10000	6000/8000	10000	6000/8000	6000	6000	10000/12000	10000/12000	10000/12000	10000/12000
Spindle Motor(cont./30mins)	kw	11/15	15/18.5	11/15	15/18.5	15/18.5	15/18.5	11/15	15/18.5	11/15	15/18.5
CUTTING FEED RATE											
X/Y/Z Rapid Travel Rate	m/min	24/24/16		24/24/16		24/24/16	24/24/16	24/24/16		24/24/16	
X/Y/Z Cutting Feed Rate	m/min	1~12		1~12		1~12	1~12	1~12		1~12	
A.T.C (Optional)											
Tool Change Method		Cam arm type		Cam arm type		Cam arm type	Cam arm type	Cam arm type		Cam arm type	
Magazine Capacity	set	24/30/36	24/32	24/30/36	24/32	24/32	24/32	24/30/36	24/32	24/30/36	24/32
Tool Change Time (Tool to Tool)	sec	2	3.5	2	3.5	3.5	3.5	2	3.5	2	3.5
Max. Tool Diameter	mm	75/150	125/200	75/150	125/200	125/200	125/200	75/150	125/200	75/150	125/200
Max. Tool Length	mm	250	300	250	300	300	300	250	300	250	300
Max. Tool Weight	kgs	7	15	7	15	15	15	7	15	7	15
ACCURACY STANDARD VDI3441 ISO 230-2											
Positioning Accuracy	mm	0.007		0.007		0.007	0.007	0.007		0.007	
Repetitive Positioning	mm	0.006		0.006		0.006	0.006	0.006		0.006	
Ball-bar Accuracy	mm	0.01/300		0.01/300		0.01/300	0.01/300	0.01/300		0.01/300	
ACCESSORY EQUIPMENT											
Spindle Coolant Ability	kcal	1000	1500	1000	1500	3000	3000	1000/1500	3000	1000/1500	3000
Cutting Coolant Pump	w	1270X2		1270X2		1270X2	1270X2	1270X2		1270X2	
Grease System Pump	w	100		100		100	100	100		100	
OTHERS											
Air Pressure Requirement	kgs/cm²	6		6		6	6	6		6	
Electric Power Requirement	kva	35		35		35	35	35		35	
Machine Weight (Approx.)	kgs	8700		9000		9000	9350	8700		9000	

NOTE:

1. Standard controller. Fanuc OIMF. Depend on customer's demand can choose Siemens series or Mitsubishi series.
2. LEADYANG reserves the right to change the design and planning. And the above specifications are subject to change without notice.
3. Above accuracy value is in accordance with the new machine and standard inspection status of the test data.
4. Depends on customer's request, the columns can be heightened by one 200mm riser blocks as option.

Accessories

Standard Accessories

- 10.4 Inch LCD screen
- Fully enclosed splash guard
- Dual screw chip conveyor for Y axis
- Three axes telescopic covers
- Heat exchanger for electric cabinet
- Spindle oil coolant system
- Spindle air blast syetem (Automatic controlled by M07 program)
- Cutting coolant system
- Chips flushing system on both sides
- Spindle water ring with 4 water blast
- 3-axes auto lubrication system
- Removable MPG
- Oil purifier (proportion type)
- Leveling pads and bolts
- Tri-color indicating light
- Air/ water gun for chip remove
- Work lights on both sides
- Auto power off (M30)
- RS232C interface
- Fine molding machining function
- Tool box and adjustment tools
- Accuracy inspection report
- Machine operating and maintenance manual
- E- book of FANUC program operating and maintenance manual

Optional Accessories

- Independent water pump for water gun
- Oil coolant device of deep drilling
- Air conditioner for electric cabinet
- CNC rotary table
- Auto tool length measurement
- Auto workpiece measurement
- Data serve & 2G memory
- Three axes linear scales
- Oil mist blast system
- Oil mist collector
- Disc type oil skimmer
- 20/30/70 bar C.T.S and external filtration tank
- Transformer (380V)
- Japan NSK ballscrews of three axes
- BT40/BBT40 24/30/36 Tools magazine capacity
- BT50/BBT50 24/32 Tools magazine capacity