

LV Series 4 Linear Way

BV Series 4 Box Way

VERTICAL MACHINING CENTER
1400~2000 (BT40/BT50)



MILLSTAR
JIUH-YEH

LV / BV Series (4 Linear Way /

LV/BV 1400/1500A/1500B/1600/



MACHINE FEATURES

- Machine is made of Meehanite Casting with internal ribs running throughout each section, featuring long term metallic rigidity and stability.
- The 4 slide ways design (1400-2000) base is a one piece casting, the slide ways are coated with Turcite B, and all mating surfaces are precision hand scraped to increase the flatness and improve geometric accuracy of the whole assembly.
- High precision ball screws (C3 class) on 3 axes are pre-loaded to eliminate thermal displacement. The ball screws are modularly assembled, the parallelism and squareness accuracy are calibrated within ± 0.01 mm, in full length.
- Laser check, ball screw test and spindle dynamic balance are performed to ensure the optimum static and dynamic accuracy.
- Linear type use precision Roller type linear way (LV1400-2000).
- Durable hardened-treatment for Box type guide ways (BV series).
- ATC arm type 24 tools (std.) for 1400-2000.
- Under 1500A model can shipment by 40"HQ container.

4 Box Way)

1700/1800/2000 (BT40/BT50)



LV / BV Series



**4 Linear Way
LV1400-2000**



**4 Box Way
BV 1400-2000**

High Performance Main Parts

HIGH PRECISION SPINDLE A KEY PRECISION MACHINING



• BELT DRIVE
10,000 rpm BT-40



• DIRECT DRIVE (Opt.)
12,000 / 15,000 rpm BT-40

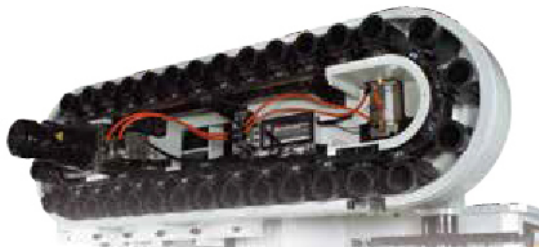


• BELT DRIVE
6,000 rpm BT-50



• GEAR HEAD SPINDLE (Opt.)
6,000 rpm BT-50

AUTOMATIC TOOL CHANGER



• Chain Type Magazine 32T (BT50, Opt.)



• Arm Type Magazine 24T (BT40/BT50)

CNC ROTARY TABLE



• CNC Rotary Table (Opt.)



• CNC Tilting Rotary Table (Opt.)

COMPREHENSIVE CHIP FLUSHING DESIGN



• Coolant Through Spindle CTS (Opt.)

HIGH PRECISION HIGH / LOW SPEED



• Powerful Gear Head (High / Low Speed) (Opt.)

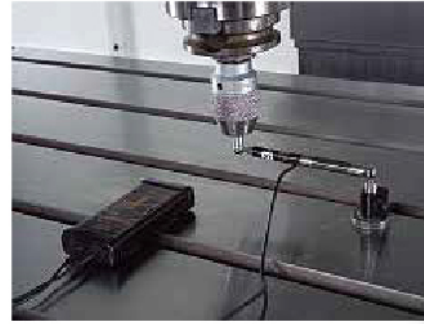
Quality and Dependability Through Comprehensive Inspections



• Substantial Processing Test



• Laser inspection is applied for every machine after installation to ensure perfect quality



• High precision ball bar circle inspection



• Frequency / Balance detect



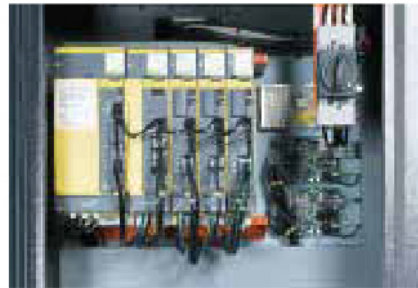
• Dynamic Vibration Inspection



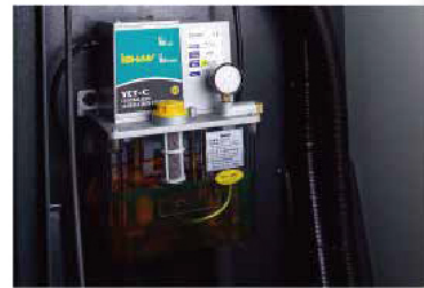
• Work piece testing



• Spindle oil cooler (Std.)



• Electrical control box (complied with ce standards)



• Uniform and reliable Slideway Lubrication

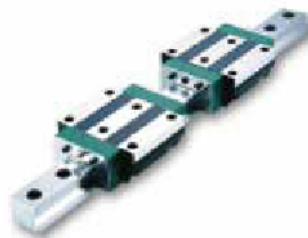
HIGH PRECISION BALLSCREW



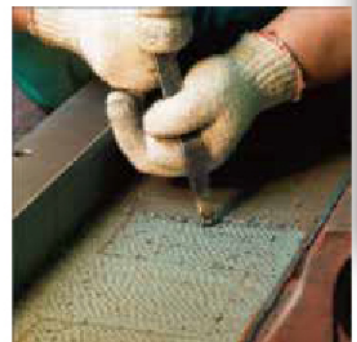
• High Speed Ballscrew (FDC Type)



• Accurate Transmission



• High Rigidity Linear Guideway



• Precision Scraping

Machine Specifications

	MODEL	LV / BV 1400	LV / BV 1500A	LV / BV 1500B
TABLE	Work Table	1550 x 700 mm	1550 x 700 mm	1700 x 700 mm
	T-slot	130 x 18 mm x 5T	130 x 18 mm x 5T	125 x 22 mm x 5T
	Max. Loading	1500 kg	1500 kg	1800 kg
TRAVEL	Three Axes Travel	1400 x 720 x 610 (BT40) 1400 x 720 x 680 (BT50)	1500 x 720 x 610 (BT40) 1500 x 720 x 680 (BT50)	1500 x 850 x 750 (BT40) 1500 x 850 x 750 (BT50)
	Spindle Nose to Table Surface	150 ~ 760 mm (BT40) 150 ~ 830 mm (BT50)	150 ~ 760 mm (BT40) 150 ~ 830 mm (BT50)	150 ~ 900 mm
	Spindle Center to Column Slide Ways	BT40 / BT50 : 745 mm	BT40 / BT50 : 745 mm	BT40 / BT50 : 870 mm
SPINDLE	Spindle Taper	BT40 / BT50	BT40 / BT50	BT40 / BT50
	Spindle Diameter	Ø 70 / Ø100 mm	Ø 70 / Ø100 mm	Ø 70 / Ø100 mm
	Spindle Speed	10000rpm (BT40, belt) 6000rpm (BT50, belt)	10000rpm (BT40, belt) 6000rpm (BT50, belt)	10000rpm (BT40, belt) 6000rpm (BT50, belt)
FEEDRATE	3 axes Slide Ways	LV : X,Y: Linear / Z: Box BV : XYZ: Box Way	LV : X,Y: Linear / Z: Box BV : XYZ: Box Way	LV : X,Y: Linear / Z: Box BV : XYZ: Box Way
	3 axes Rapid Feedrate	LV : 24 / 24 / 15 m/min BV : 15 / 15 / 12 m/min	LV : 24 / 24 / 15 m/min BV : 15 / 15 / 12 m/min	LV : 24 / 24 / 15 m/min BV : 15 / 15 / 12 m/min
	3 axes Cutting Feedrate	10 / 10 / 10 (M/min)	10 / 10 / 10 (M/min)	10 / 10 / 10 (M/min)
ATC	Tool Magazine type	Arm type 24 T	Arm type 24 T	Arm type 24 T
	Tool Selection	Bi-direction shortest path	Bi-direction shortest path	Bi-direction shortest path
	Max. Tool Diameter x Length	BT40 : Ø80 x 350 mm BT50 : Ø127 x 400 mm	BT40 : Ø80 x 350 mm BT50 : Ø127 x 400 mm	BT40 : Ø80 x 350 mm BT50 : Ø127 x 400 mm
	Max. Tool Weight	7 / 15 kg	7 / 15 kg	7 / 15 kg
	Tool Shank	BT40 / BT50	BT40 / BT50	BT40 / BT50
MOTOR	Spindle Motor (cont. / 5 min.)	15 / 18.5 kw	15 / 18.5 kw	15 / 18.5 kw
	X / Y / Z axis Servomotor	4.5 / 4.5 / 4.5 kw	4.5 / 4.5 / 4.5 kw	4.5 / 4.5 / 4.5 kw
	X / Y / Z axis Ball Screw	Ø50/50/40 x Pitch 10(40) Ø50/50/50 x Pitch 10(50)	Ø50/50/40 x Pitch 10(40) Ø50/50/50 x Pitch 10(50)	Ø50/50/40 x Pitch 10(40) Ø50/50/50 x Pitch 10(50)
	Coolant Pump	750w	750w	750w
MISCELLANEOUS	External Dimensions (L x W x H) mm	3690 x 3030 x 2585 (40) 3690 x 3030 x 2685 (50)	3800 x 3030 x 2585 (40) 3800 x 3030 x 2685 (50)	4250 x 3030 x 3100 (40) 4250 x 3030 x 3200 (50)
	N.W / G.W. (approx.)	10000 / 11000 kg (40) 10500 / 11500 kg (50)	10500 / 11500 kg (40) 11000 / 12000 kg (50)	13500 / 15000 kg (40) 14000 / 15500 kg (50)
	Splash Guard	Fully Splash Guard	Fully Splash Guard	Fully Splash Guard
	Shipment Require	40"HQ	40"HQ	20"FR
	Coolant Tank Capacity	600L	600L	650L

★ All specifications and designs are subject to change without notice.

STANDRAD ACCESSORIES

- Spindle air blow system
- Automatic lubrication system
- Mitsubishi M80 controller (10.4"LCD display)
- 24 tools Arm type ATC, BT40/BT50
- Steelbelt (Chain) type chip conveyor with cart
- Spindle speed 6,000 rpm, BT50, Belt drive
- Spindle speed 10,000 rpm, BT40, Belt drive
- Ragid tapping
- Auto power off
- Coolant system
- Heat exchanger
- CF/USB Interface/RJ45
- Spindle oil cooler
- Fully splash cover
- M code air blasting
- Tool box with tools
- Quartz working light
- Water gun and air gun
- Leveling kits and blocks
- Transformer (Export only)

LV/BV 1400~2000(BT40/BT50)

LV / BV 1600	LV / BV 1700	LV / BV 1800	LV / BV 2000
1700 x 800 mm	1900 x 800 mm	1900 x 800 mm	2100 x 800 mm
125 x 22 mm x 6T	125 x 22 mm x 6T	125 x 22 mm x 6T	125 x 22 mm x 6T
2000 kg	2200 kg	2200 kg	2500 kg
1600 x 850 x 750 (BT40) 1600 x 850 x 750 (BT50)	1700 x 850 x 750 (BT40) 1700 x 850 x 750 (BT50)	1800 x 850 x 750 (BT40) 1800 x 850 x 750 (BT50)	2000 x 850 x 750 (BT40) 2000 x 850 x 750 (BT50)
150 ~ 900 mm	150 ~ 900 mm	150 ~ 900 mm	150 ~ 900 mm
BT40 / BT50 : 870 mm	BT40 / BT50 : 870 mm	BT40 / BT50 : 870 mm	BT40 / BT50 : 870 mm
BT40 / BT50	BT40 / BT50	BT40 / BT50	BT40 / BT50
Ø 70 / Ø100 mm	Ø 70 / Ø100 mm	Ø 70 / Ø100 mm	Ø 70 / Ø100 mm
10000rpm (BT40, belt) 6000rpm (BT50, belt)	10000rpm (BT40, belt) 6000rpm (BT50, belt)	10000rpm (BT40, belt) 6000rpm (BT50, belt)	10000rpm (BT40, belt) 6000rpm (BT50, belt)
LV : X,Y: Linear / Z: Box BV : XYZ: Box Way	LV : X,Y: Linear / Z: Box BV : XYZ: Box Way	LV : X,Y: Linear / Z: Box BV : XYZ: Box Way	LV : X,Y: Linear / Z: Box BV : XYZ: Box Way
LV : 20 / 20 / 15 m/min BV : 15 / 15 / 12 m/min	LV : 20 / 20 / 15 m/min BV : 15 / 15 / 12 m/min	LV : 20 / 20 / 15 m/min BV : 15 / 15 / 12 m/min	LV : 20 / 20 / 15 m/min BV : 15 / 15 / 12 m/min
10 / 10 / 10 (M/min)	10 / 10 / 10 (M/min)	10 / 10 / 10 (M/min)	10 / 10 / 10 (M/min)
Arm type 24 T	Arm type 24 T	Arm type 24 T	Arm type 24 T
Bi-direction shortest path	Bi-direction shortest path	Bi-direction shortest path	Bi-direction shortest path
BT40 : Ø80 x 350 mm BT50 : Ø127 x 400 mm	BT40 : Ø80 x 350 mm BT50 : Ø127 x 400 mm	BT40 : Ø80 x 350 mm BT50 : Ø127 x 400 mm	BT40 : Ø80 x 350 mm BT50 : Ø127 x 400 mm
7 / 15 kg	7 / 15 kg	7 / 15 kg	7 / 15 kg
BT40 / BT50	BT40 / BT50	BT40 / BT50	BT40 / BT50
15 / 18.5 kw	15 / 18.5 kw	15 / 18.5 kw	15 / 18.5 kw
4.5 / 4.5 / 4.5 kw	4.5 / 4.5 / 4.5 kw	4.5 / 7 / 4.5 kw	4.5 / 7 / 4.5 kw
Ø50/50/40 x Pitch 10(40) Ø50/50/50 x Pitch 10(50)	Ø50/50/40 x Pitch 10(40) Ø50/50/50 x Pitch 10(50)	Ø50/50/40 x Pitch 10(40) Ø50/50/50 x Pitch 10(50)	Ø50/50/40 x Pitch 10(40) Ø50/50/50 x Pitch 10(50)
750w	750w	750w	750w
4350 x 3030 x 3100 (40) 4350 x 3030 x 3200 (50)	4450 x 3030 x 3100 (40) 4450 x 3030 x 3200 (50)	4550 x 3030 x 3100 (40) 4550 x 3030 x 3200 (50)	4800 x 3030 x 3100 (40) 4800 x 3030 x 3200 (50)
14000 / 15500 kg (40) 14500 / 16000 kg (50)	14500 / 16000 kg (40) 15000 / 16500 kg (50)	15000 / 17000 kg (40) 15500 / 17500 kg (50)	15500 / 17500 kg (40) 16000 / 18000 kg (50)
Fully Splash Guard	Fully Splash Guard	Fully Splash Guard	Fully Splash Guard
20"FR	20"FR	20"FR	20"FR
650L	680L	700L	700L

are subject to change without prior notice.

OPTIONAL ACCESSORIES

- CTS 20/30/50 bar (Coolant through spindle)
- 32 tools chain type ATC, BT50
- Renishaw automatic tool length measuring device
- Renishaw automatic work piece measuring device
- 4th axis preparation (IO connect only, not include motor & drive)
- Spindle speed 8,000/10,000/12,000 rpm, BT50, Direct drive
- Spindle speed 6000 rpm, BT50, Powerful Gear Head
- Spindle speed 10,000/12,000/15,000 rpm, BT40, Direct drive
- CNC 4th axis Rotary table with drive, motor.
- Fanuc/Siemens/Heidenhain controller
- Machine half cover
- Air conditioner for electric cabinet
- Heidenhain linear scale
- Chip flushing system
- 15" LCD display
- Oil skimmer
- CE Standrad



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鉅業精機 股份有限公司

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