

ISO 9001
BSI CE

EXTRON

VERTICAL MACHINING CENTER



M/L series

YIH CHUAN MACHINERY INDUSTRY CO., LTD.

M series

Box Way



M421

M323

L323

L262/L321



M4C



M527



M6C/M6L

1. High quality and rigidity Meehanite casting w/- enforce rib construction design.
2. The bottom of column is A Shaped design to support machine stability.
3. All axis direct drive design to ensure the least backlash & long lasting accuracy.
4. High quality precision double nut C3 class and pretension ball-screw ensure highly accuracy.
5. Box/Square slide way design on all axis to coated with Turcite-B. Heavy box way provide maximum rigidity stability. (M series)

6. Hardened and ground square way on all axis. (M series)
7. High precision Linear guide way on X, Y & Z axis to support quickly rapid feed/movement. (L series)
8. The spindle frame tough steel alloy and precision machining, Equipped with 3 sets of bearing to ensure spindle run-out less than 0.003mm.
9. Belt drive Spindle fitted with oil chiller to ensure the life.
10. Counter-weight balancing design on Z axis

L series

Linear Guide Way



L323

L421



L423



L527

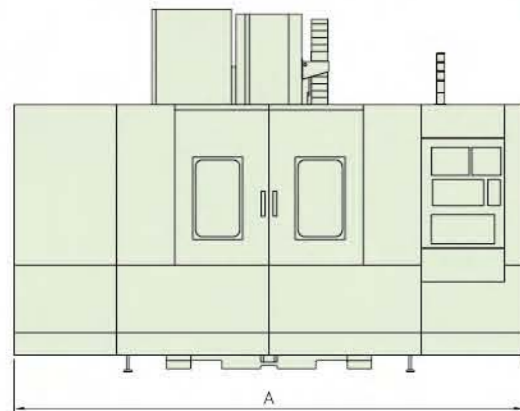


Specifications

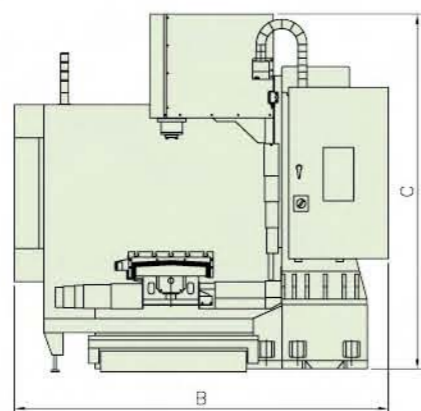
ITEM	MODEL	M323	M421	M4C	M527	M6C	M6L	L262	L321	L323	L421	L423	L527		
Table size		930 x 460 mm	1140 x 500 mm	1260 x 600 mm	1520 x 700	1800 x 800 mm	1800 x 800 mm	760 x 456 mm	900 x 456 mm	930 x 502 mm	1090 x 502 mm	1258 x 510 mm	1520 x 700 mm		
Table T-slot (W x N)		18 mm x 4	18 mm x 4	18 mm x 4	18 mm x 5	18 mm x 5	18 mm x 5	18 mm x 4	18 mm x 4	18 mm x 4	18 mm x 4	18 mm x 5	18 mm x 5		
Max. table load (Center)		660 kgs	800 kgs	800 kgs	1000 kgs	1000 kgs	1400 kgs	350 kgs	500 kgs	500 kgs	650 kgs	650 kgs	800 mm		
X travel		860 mm	1020 mm	1100 mm	1320 mm	1320 mm	1600 mm	660 mm	800 mm	860 mm	1020 mm	1060 mm	1320 mm		
Y travel		510 mm	540 mm	610 mm	710 mm	710 mm	800 mm	460 mm	510 mm	540 mm	540 mm	610 mm	710 mm		
Z travel		610 mm	610 mm	660 mm	700 mm	700 mm	800 mm	510 mm	610 mm	660 mm	660 mm	680 mm	700 mm		
Spindle nose to table		122~732 mm	134~744 mm	128~828 mm	155~855 mm	114~814 mm	175~975 mm	150~660 mm	140~750 mm	150~810 mm	150~810 mm	145~825 mm	127~827 mm 91~791 mm		
Spindle center to column		550 mm	590 mm	650 mm	755 mm	755 mm	860 mm	519 mm	569 mm	611 mm	611 mm	671 mm	782 mm		
Table surface to floor		870 mm	885 mm	854 mm	895 mm	895 mm	943 mm	847 mm	851 mm	855 mm	855 mm	846 mm	882 mm		
Spindle speed		8000 rpm (10000 rpm is Opt.)			8000 rpm (10000 rpm is Opt.)	6000 rpm (8000 rpm is Opt.)	4500 rpm (6000 rpm is Opt.)			8000 rpm (10000 rpm is Opt.)			8000 rpm (10000 rpm is Opt.)	6000 rpm (8000 rpm is Opt.)	
Spindle motor		15 HP (7.5/11 kW)	15 HP (7.5/11 kW)	15 HP (7.5/11 kW)	20 HP (11/15 kW)	25 HP (15/18.5 kW)	25 HP (15/18.5 kW)	25 HP (15/18.5 kW)	10 HP (5.5/7.5 kW)	10 HP (5.5/7.5 kW)	15 HP (7.5/11 kW)	15 HP (7.5/11 kW)	15 HP (7.5/11 kW)	20 HP (11/15 kW)	25 HP (15/18.5 kW)
Spindle taper		CAT or BT#40	CAT or BT#40	CAT or BT#40	CAT or BT#40	CAT or BT#50	CAT or BT#50	CAT or BT#50	CAT or BT#40	CAT or BT#40	CAT or BT#40	CAT or BT#40	CAT or BT#40	CAT or BT#40	CAT or BT#50
Spindle pulling force		#40:1000 kgs±10%	#40:1000 kgs±10%	#40:1000 kgs±10%	#40:1000 kgs±10%	#50:1800 kgs±10%	#50:1800 kgs±10%	#50:1800 kgs±10%	#40: 850 kgs±10%	#40: 1000 kgs±10%	#40:1000 kgs±10%	#40:1000 kgs±10%	#40:1000 kgs±10%	#40:1000 kgs±10%	#50:1800 kgs±10%
Spindle belt		8YU/5GT belt	8YU/5GT belt	8YU/5GT belt	8YU/5GT belt	8YU/5GT belt	8YU/5GT belt	8YU/5GT belt	5GT belt	8 YU	8 YU	8 YU	8 YU	8 YU	
Ball-screw diameter		φ 32 mm	φ 40 mm	φ 40 mm	φ 40 mm	φ 40 mm	φ 50 mm	φ 50 mm	φ 32 mm	φ 32 mm	φ 40 mm	φ 40 mm	φ 40 mm		
Pitch of ball-screw X/Y/Z		8mm/8mm/6mm	8mm/8mm/8mm	8mm/8mm/6mm	8mm/8mm/6mm (Z: 8mm is Opt.)	8mm/8mm/6mm (Z: 8mm is Opt.)	12mm/12mm/10mm	12mm/12mm/10mm	12 mm/12 mm/10 mm	12 mm/12 mm/10 mm	12 mm/12 mm/10 mm	12 mm/12 mm/10 mm	12 mm/12 mm/10 mm	12 mm/12 mm/10 mm	
X & Y axis rapid feed		20 M/min	20 M/min	20 M/min	20 M/min	20 M/min	15 M/min	15 M/min	30 M/min	30 M/min	30 M/min	30 M/min	30 M/min	30 M/min	
Z axis rapid feed		16 M/min	16 M/min	16 M/min	16 M/min	16 M/min	12 M/min	12 M/min	24 M/min	24 M/min	24 M/min	24 M/min	24 M/min	24 M/min	
Cutting feed		10 M	10 M	10 M	10 M	10 M	10 M	10 M	10 M	10 M	10 M	10 M	10 M		
ATC type		Armless type (Arm type is Opt.)			Armless type (Arm type is Opt.)	Arm type			Armless type (Arm type is Opt.)			Armless type (Arm type is Opt.)	Arm type		
Tool storage capacity		16 tools	16 tools	20 tools	20 tools	20 tools	24 tools	24 tools	16 tools	16 tools	16 tools	16 tools	20 tools	24 tools	
Max. tool diameter		φ 90 mm	φ 90 mm	φ 90 mm	φ 90 mm	φ 125 mm	φ 125 mm	φ 125 mm	φ 90 mm	φ 90 mm	φ 90 mm	φ 90 mm	φ 90 mm	φ 125 mm	
Max. tool weight		7 kgs	7 kgs	7 kgs	7 kgs	15 kgs	15 kgs	15 kgs	7 kgs	7 kgs	7 kgs	7 kgs	7 kgs	15 kgs	
Coolant pump		0.5 HP	0.5 HP	0.5 HP	0.61 HP	0.61 HP	0.61 HP x 2	0.61 HP x 2	0.5 HP	0.5 HP	0.5 HP	0.5 HP	0.5 HP	0.61 HP	
Machine weight (Approx)		4550 kgs	5350 kgs	5900 kgs	8000 kgs	8400 kgs	12600 kgs	12600 kgs	3500 kgs	4650 kgs	5200 kgs	5700 kgs	6200 kgs	7700 kgs	8100 kgs
Machine size	A	2790 mm	3515 mm	3200 mm	3400 mm	3400 mm	4300 mm	4300 mm	2610 mm	2612 mm	3020 mm	3414 mm	3180 mm	3350 mm	
	B	2600 mm	2515 mm	2665 mm	2860 mm	2965 mm	3200 mm	3490 mm	2145 mm	2145 mm	2620 mm	2620 mm	2465 mm	2800 mm	
	C	2490 mm	2675 mm	2540 mm	2810 mm	2810 mm	3100 mm	3100 mm	2400 mm	2500 mm	2670 mm	2670 mm	2570 mm	2810 mm	

■ We reserve the right to change design, color or specification without notice.

Dimensions



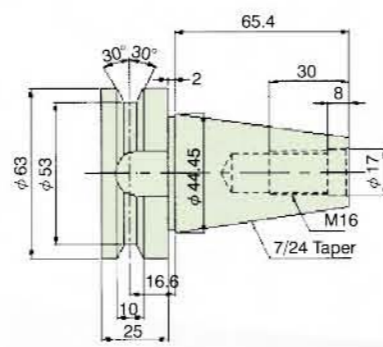
Front View



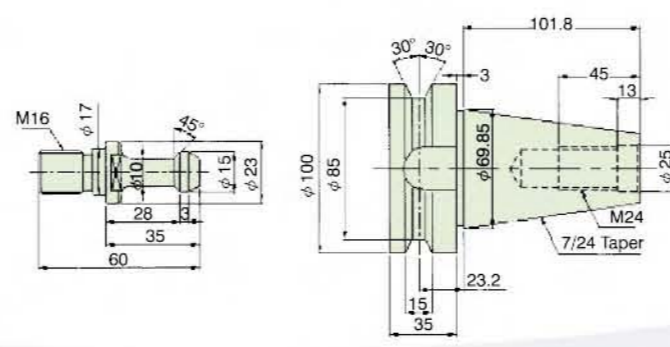
Side View

Tool shank & pull stud

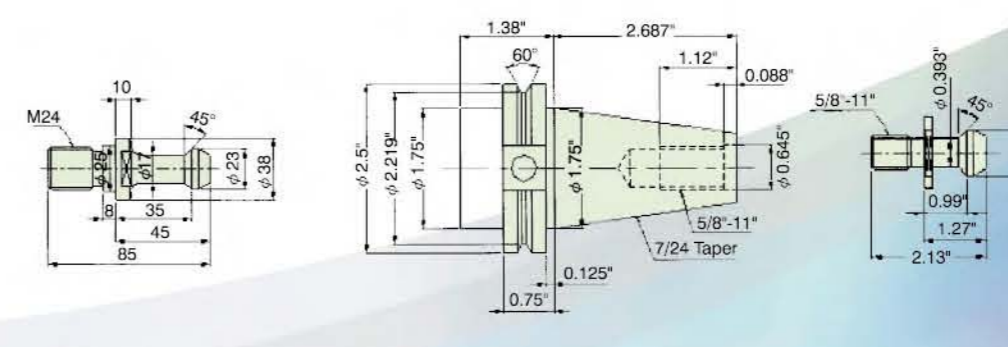
BT#40



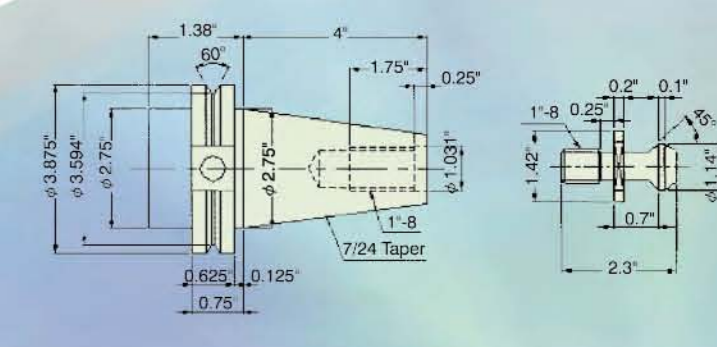
BT#50



CAT#40



CAT#50



■ ISO, SK, DIN are available

Features



- The spindles frame tough steel alloy and precision machined ground then equipped with 3 sets (6 pcs.) (Except L262 and L321) Abec-class 7 bearings, this insures the spindle runout less than 0.003 mm.



- Three axis telescoping way cover avoid chip & coolant water damage surface of slide way.

- Pre-tension precision hardened and ground ballscrew.



- Linear guide ways for quickly movement. (L series)



- Armless type ATC system.

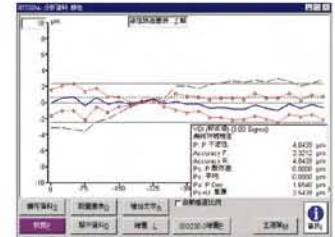
- Oil chiller the refrigerated spindle cooling system circulates cooling oil to maintain a constant temperature for high accuracy, regardless of the ambient temperature or cutting conditions.



Motor dynamic Balancing



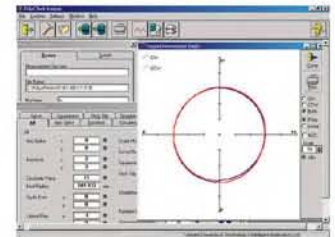
Laser compensation



Spindle dynamic Balancing



Ball bar test



Control System



Centroid



Mitsubishi



Siemens



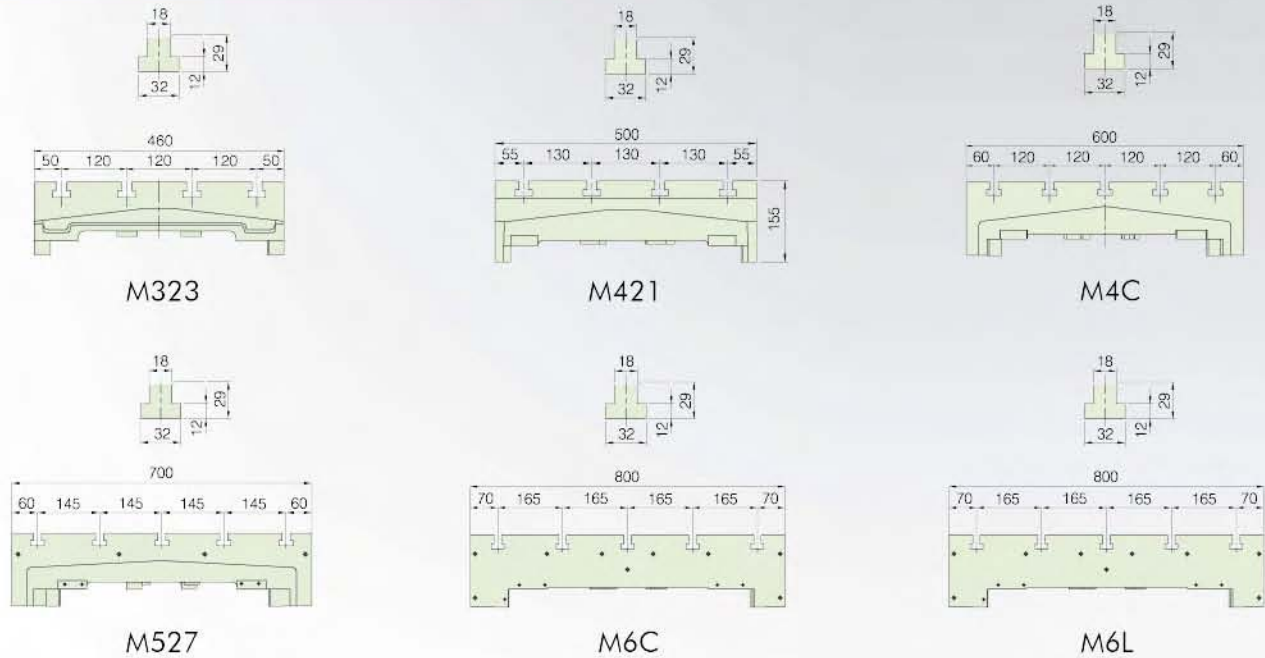
Mirl



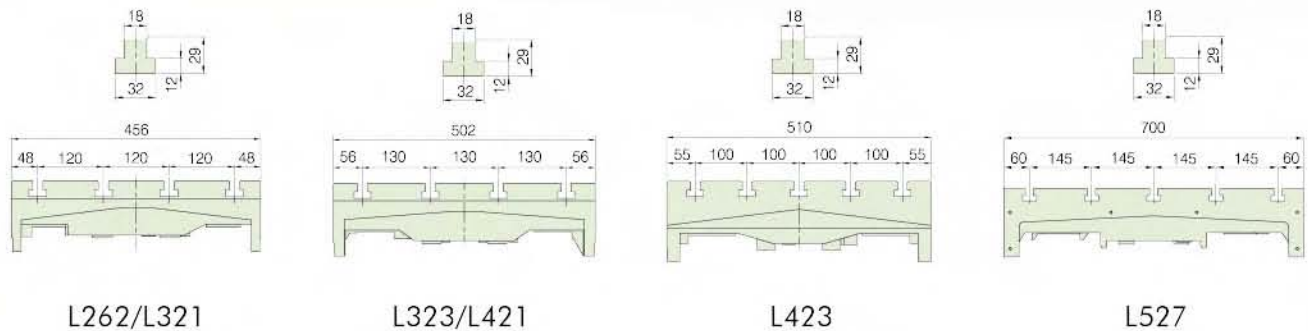
Fanuc

Table & T-slot

M series



L series



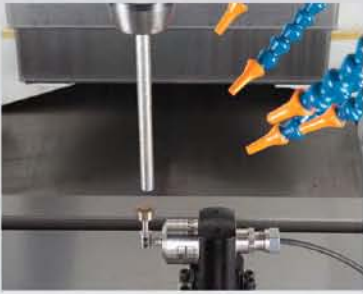
Standard accessories

1. Booster (Unclamp) Cylinder.
2. Air gun and Water gun.
3. Spindle chiller.
4. Coolant system.
5. Halogen work light.
6. Auto. Lubrication system.
7. Full enclosure w/- chip tank.
8. Armless type ATC system.
9. Arm type ATC system. (L527#50 / M527#50 / M6C / M6)
10. CNC tilting rotary table.
11. Telescoping way cover.
12. Screw type chip conveyor system. (L527 / M527 / M6C / M6L)
13. Leveling bolts & pads.
14. Rigid tapping.
15. Alarm light.
16. Tools and tool box.
17. Operating manuals.

Optional accessories

1. Pull stud.
2. Power transformer.
3. Automatic voltage regulator.
4. Arm type ATC system.
5. Screw type chip conveyor.
6. Chain type chip conveyor.
7. 10000rpm package.
8. Coolant through spindle system.
(20 bar pump full enclosure)
9. CNC rotary table package.
10. Oil mist system.
11. Oil skimmer.
12. Tool length measurement.
13. Work piece measurement.
14. Air condition for electrical cabinet.
15. Linear scale on X/Y/Z.
16. ZF gearbox package.

Optional accessories



Tool length measurement



Work piece measurement



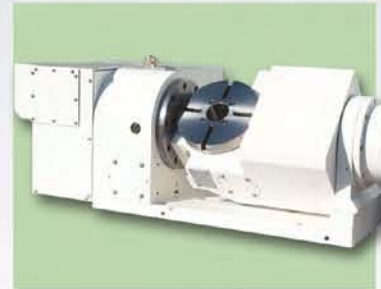
Pull stud



Air condition for electrical cabinet.



CNC Rotary table



CNC Tilting Rotary table



Arm type tool changer



Chain type chip conveyor



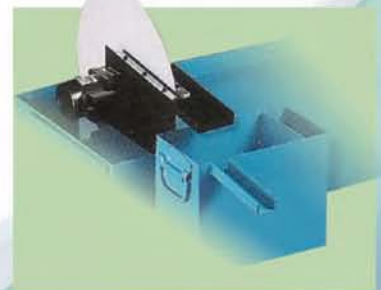
Chip auger (screw type chip conveyor)



Auto. voltage regulator



Coolant through spindle system



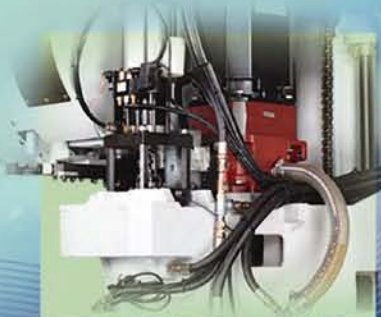
Oil skimmer



Coolant through jointer



Linear scale



ZF gearbox

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