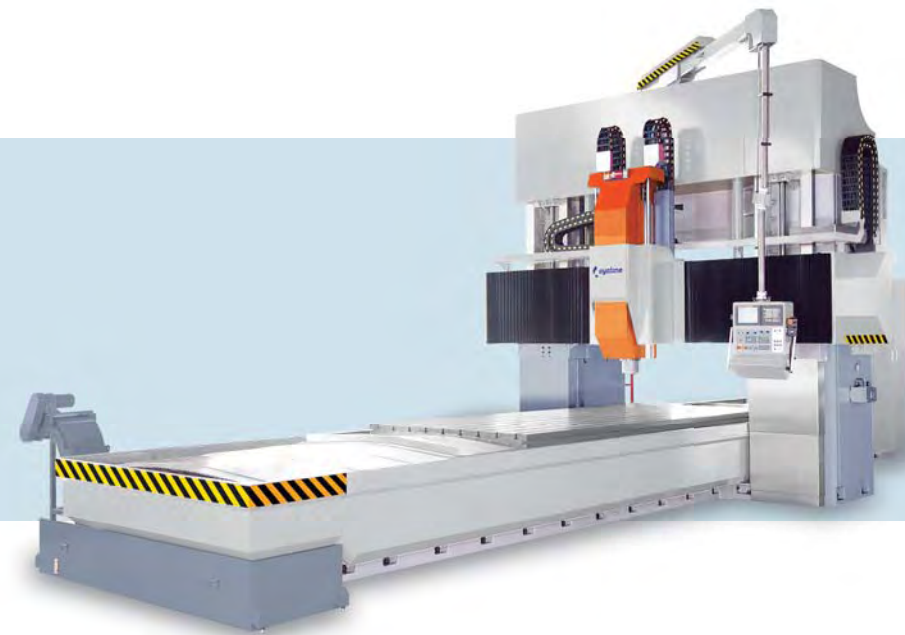


CNC Double Column Machining Center

CMT series
CFT series



L&W MACHINE TOOLS, INC.

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CNC Double Column Machining Center

Crossrail Movable Type (CMT Series)

Characteristic or Cross-rail upon-down

The cross rail (W axis) could move upon the height of working piece, to increase the efficiency of machining, save the production cost and enlarge the production range.

Superb machining ability

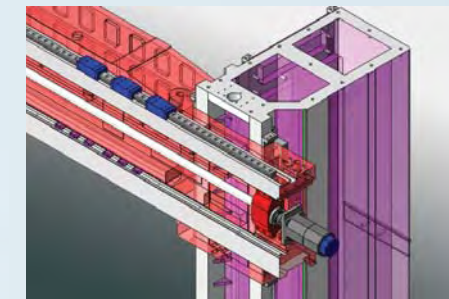
The cross rail could be close to working piece, make sure the shortest extending length of spindle, increasing the performance of machining, and extend the lifetime of tooling.

High flexibility features

When ATC is equipped, the command of tool change could be executed at any position, and the user have several different choices of ATC numbers.

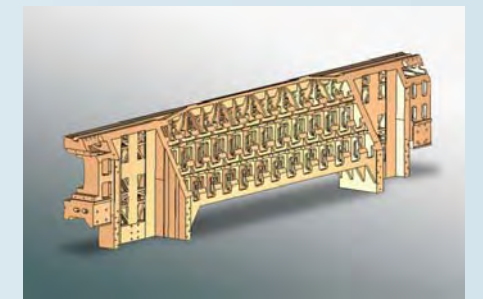
Strong structure

Both cross rail and column were equipped with hydraulic locking system ensure the cross rail and column matched closest, high rigidity and high accuracy.



Y axis

Parallel slide ways design for Y axis, accompanying with both Roller and Flat type tracker. The linear guide ways keep the sensibility of high-speed moving, and flat type tracker offers higher loading capacity.



Cross rail

One-piece Cross rail, high rigidity structure design, Crossing Rib design for front part and Box type design for rear part. Accompanying bridge type outline, it could support the vertical force of gravity and horizontal resistance, to make sure the best rigidity in machining process.



Pendant arm of controller cabinet (optional)

Friendly design of pendant arm. The cabinet of controller could be moved forward-backward, upon-down, right-left, to makes sure the operator could operated the machine in the best position.



Characteristic of mold machining

Rough molding machining

Large cutting capacity, high speed, stabilized and lower vibration.

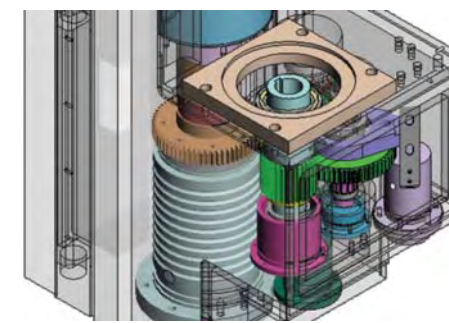
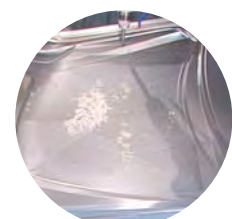
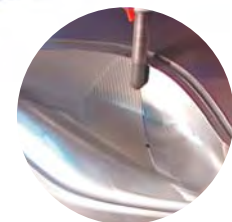
Finished molding machining

Excellent surface, minimized error of curve / roundness, without segment mark.



Controller cabinet

No-shape design cabinet of controller to avoid any accident during operation. Single-unit controlling button could be replaced separately when it was damaged, Background light makes sure the correct operation under the dark operation environment.



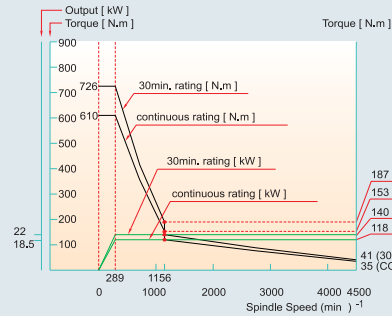
Gear box of spindle

1. Square type design, 440x440mm dimension, high rigid structure, minimized the possibility of interference with working piece. Ladder type slide-way makes the spindle center most close to the cross rail, increasing the stabilization of machining.
2. Gear box and Spindle housing is one-piece die-casting, offer the best machining performance and lowest noise.

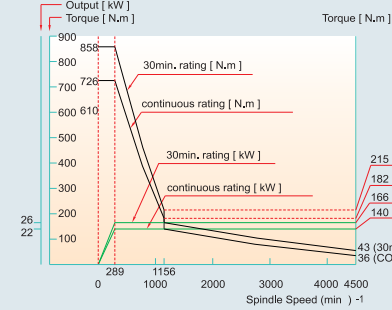
Technical Data

CMT 3 4

18.5/22kw 4500rpm (Standard)

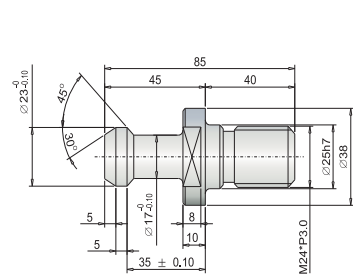


22/26kw (OPTIONAL)

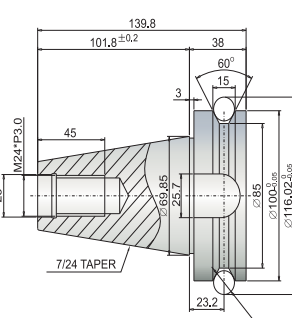


TOOL SHANK APPLICABLE

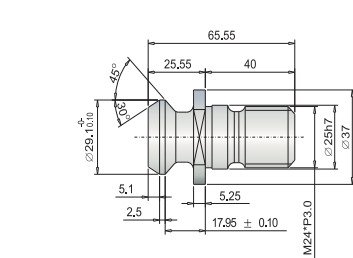
MAS 403-P50T-1



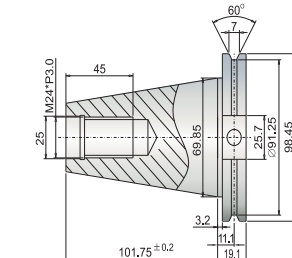
BT-50



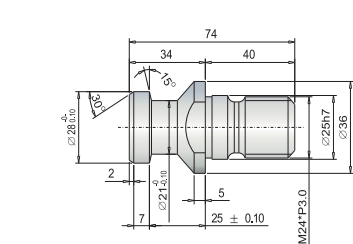
ANSI B5.50 CAT50
ISO 7388/2 Type B



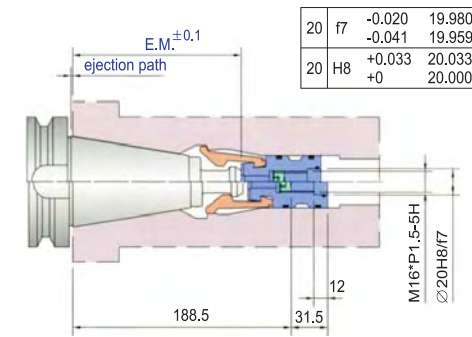
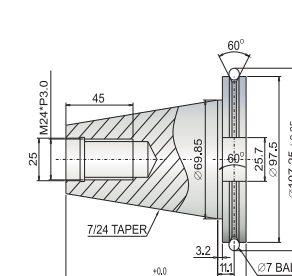
ISO-7388/2
CAT-50



DIN 69872 Type A
ISO 7388/2 Type A



DIN 69871

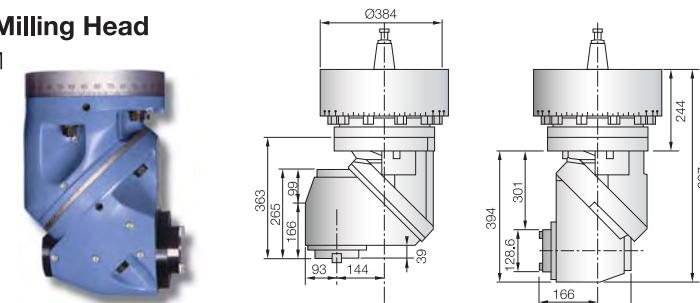


Pull-Stud Type	I	II	III	IV
E.M. (mm)	134.6	126	145.75	145.75
Ejection path (mm)	1	1	1	1
Max pull force (N)	25,000	25,000	25,000	25,000
Max Stroke (mm)	6	6	6	6
medium transfer	axial transfer			

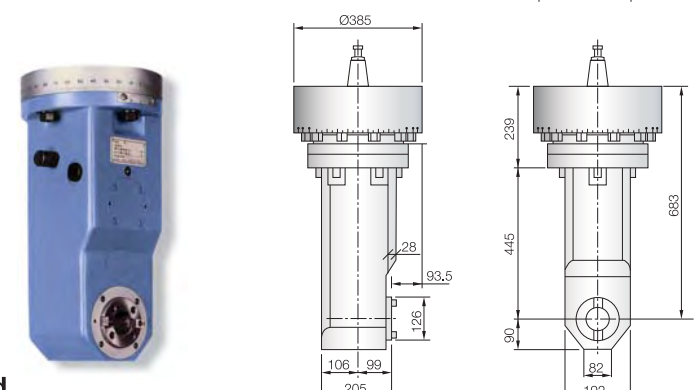
- Pull-Stud Type :
- I . DIN 69871/69872 ISO 7388/1/1 Type A
 - II . ANSI B 5.50-78 ISO 7388/1/2 Type B
 - III . MAS 403-1982 BT/PT 2 (30°)
 - IV . MAS 403-1982 BT/PT 1 (45°)

Optional Specification

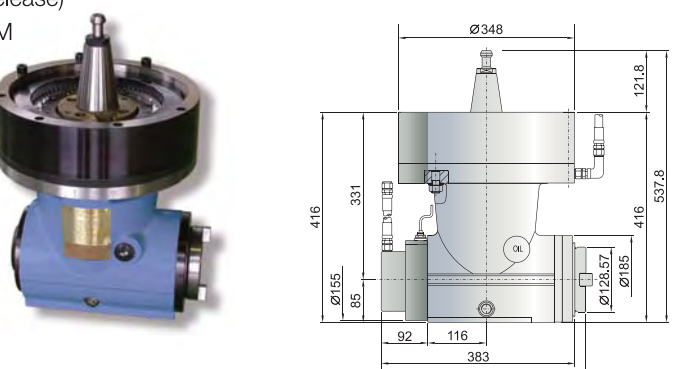
Multiangular Milling Head
Speed:1200RPM
BT50



Long-Neck Angular Head
Speed:800RPM
BT50



Angular Head
(Conical Teeth Positioning
Hydraulic Tool release)
Speed:1500RPM
BT50



Tool Magazine Capacity

BT50-24

Specification
Model NO:BT50-20, 24DV
Power Supply of Magazine:Electric
Power Supply of ATC:Electric
Max. Tool Weight: 15 kgs
Max. Tool Length:350 mm
Max. Tool Dia (All pockets full):Ø110, 200mm



BT50-32

Specification
Model NO:BT50-32, 40CV
Power Supply of Magazine:Electric
Power Supply of ATC:Electric
Max. Tool Weight: 18 kgs
Max. Tool Length:350 mm
Max. Tool Dia (All pockets full):Ø125, 250mm



◀ MP10-Workpiece measurement

▼ TS27R-Tool length measurement



▲ Patents # M304395
• Special design for tool change system patents approved by USA, KOREA, TAIWAN and CHINA.

Technical Data

Machine Specification-CMT Series

Description	Unit	CMT-2504	CMT-2505	CMT-2506	CMT-3004	CMT-3005	CMT-3006	CMT-3504	CMT-3505	CMT-3506
X-axis travel	mm	4150	5150	6150	4150	5150	6150	4150	5150	6150
Y-axis travel	mm	2800			3300			3800		
Z-axis travel	mm	600 (800-1000 Optional)			600 (800-1000 Optional)			600 (800-1000 Optional)		
Distance from spindle nose to table	mm	400-1500			400-1800			400-1800		
Distance between columns	mm	2600			3100			3600		
Work table size (LxW)	mm	4000 x 2100	5000 x 2100	6000 x 2100	4000 x 2550	5000 x 2550	6000 x 2550	4000 x 2750	5000 x 2750	6000 x 2750
T slot size of worktable	mm	Width 22 x Pitch 210x8T			Width 22 x Pitch 210x10T			Width 22 x Pitch 220x10T		
Max. worktable load	kg	13000	15000	17000	17000	19000	21000	18000	20000	22000
Spindle motor (Cont./30min)	HP	25/30 (30/35 Opt.)			25/30 (30/35 Opt.)			25/30 (30/35 Opt.I)		
Spindle speed	rpm	40-4500 Gear Box			40-4500 Gear Box			40-4500 Gear Box		
Spindle speed variation		H/L			H/L			H/L		
Spindle taper		BT50 (ISO50)			BT50 (ISO50)			BT50 (ISO50)		
Rapid feed rate-X/Y/Z axis (Box Way)	mm/min	9000/ 10000/ 10000		8000/ 10000/ 10000	8000/ 9000/ 10000		8000/ 9000/ 10000		7000/ 9000/ 10000	
Cutting feed speed	mm/min	1-5500			1-5500			1-5500		
W-axis motor	HP	AC5			AC5			AC5		
W-axis motor for NC	KW	5 (Optional NC System)			5 (Optional NC System)			5 (Optional NC System)		
W-axis ball screw (for NC)		Ø70, P10 (Optional NC System)			Ø80, P10 (Optional NC System)			Ø80, P10 (Optional NC System)		
W-axis speed	mm/min	500			500			500		
FANUC-X.Y.Z servo motor		α 40, α 30, α 30			α 40, α 30, α 30	α 40, α 30, α 30	α 50, α 30, α 30	α 40, α 30, α 30	α 50, α 30, α 30	α 50, α 30, α 30
MITSUBISHI-X.Y.Z. servo motor		HA700, 300, 300			HA700, 300, 300	HA700, 300, 300	HA900, 300, 300	HA700, 300, 300	HA900, 300, 300	HA900, 300, 300
ATC Tool magazine	pcs	24 std. (32, 40, 60,120 Optional)								
Maximum tool Dia. (All pockets full)	mm	24pcs/Ø110, Ø200, 32pcs/Ø125, Ø250								
Maximum tool length	mm	350								
Maximum tool Weight	kg	15kg (24T) / 18kg (32T)								
Tool selection		Random tool change system								
Tool holder		BT50(ISO50)								
Pull stud		MAS403P50T-I (45°) / DIN69872 (Optional)								
Tool changing time	sec	8								
Electrical Power Supply		60KVA, AC220V, 3 phase, 60Hz			65KVA, AC220V, 3 phase, 60Hz			75KVA, AC220V, 3 phase, 60Hz		
Single spindle pressure	kg/cm2	5 ↑			5 ↑			5 ↑		
Hydraulic Oil capability	Liter	300 (5HP pump)			300 (5HP pump)			300 (5HP pump)		
Lubricator Oil capability	Liter	20			20			20		
Cutting fluid box capacity	Liter	1000			1200			1300		
Floor space length	mm	11742	13742	15742	11742	13742	15742	11742	13742	15742
Machine WxH	mm	6582 x 5236 / 5736 (lowest/highest)			7082 x 6036 / 6536 (lowest/highest)			7582x 6036 / 6536 (lowest/highest)		
Machine net weight	kg	46600	51800	57000	55000	61000	67000	79000	85000	91000

L&W Machine Tools Inc. reserves the right to alter any mechanical specification without prior notice in the interests of product development.

Technical Data

Standard Accessories

1. Spindle speed 4500 rpm (gear box)
2. Tool magazine capacity 24 tools
3. Spindle temperature control system
4. Z axis lubrication monitoring device
5. Spindle H/L gear box
6. Protection of mechanism for three axes
7. Galvanized telescopic cover for X axis
8. Centralized automatic lubricating system
9. Cutting fluid system
10. Cooling water nozzle
11. Y axis slideway with dust cover
12. Foot-paddle automatic tool release switch
13. MPG
14. Working lamp
15. Program ending & warning light
16. RS-232 Interface
17. Screw type chip conveyor
18. Tool kit
19. Operation manual

T-slot Size

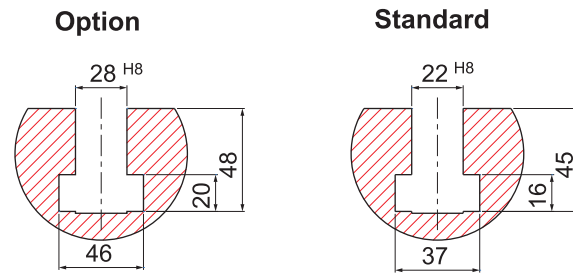
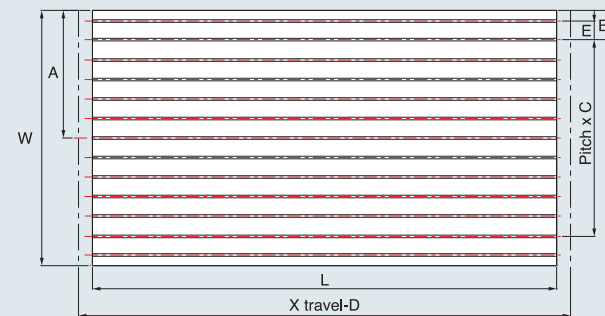


Table Size

Unit:mm

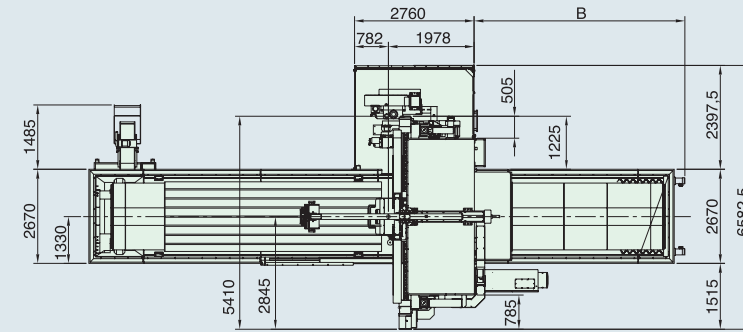


	W	L	A	B	C	D	E
CMT-2504	4000					4300	
CMT-2505	2100	5000	1050	210	210x8	5300	—
CMT-2506	6000					6300	
CMT-3004	4000					4300	
CMT-3005	2550	5000	1275	175	220x10	5300	—
CMT-3006	6000					6300	
CMT-3504	4000					4300	
CMT-3505	2750	5000	1375	275	220x10	5300	200
CMT-3506	6000					6300	

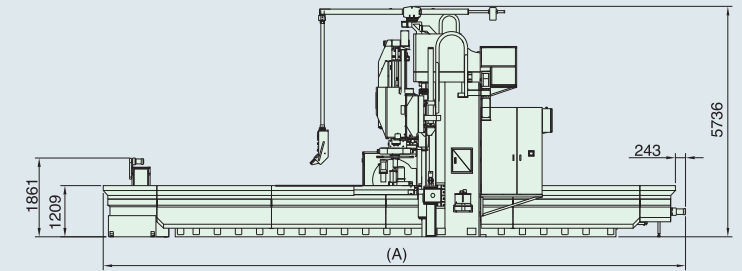
Optional Accessories

1. Spindle speed 6000 rpm (Gear Box) / 8000 rpm (Pulley Type)
2. Heidenhain optical scale
3. Tool magazine capacity:32,40,60,120 tools
4. Manual type angular head
5. Angular head with air power drawbar
6. Manual type universal milling head
7. Link type chip conveyor
8. CTS system
9. Auto-tool length measurement system
10. Auto-workpiece measurement system
11. Rotary table
12. Cross rail (W axis) with NC system
13. Z-axis travel 800~1000 mm
14. X-axis Steel roller way

CMT-2500 Series

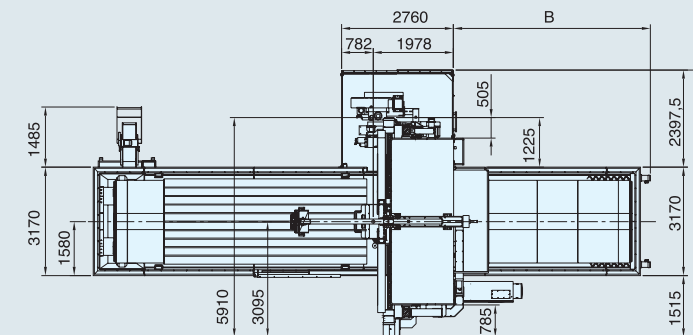


(B)-CMT 2504-4856/mm
(B)-CMT 2505-5856/mm
(B)-CMT 2506-6856/mm

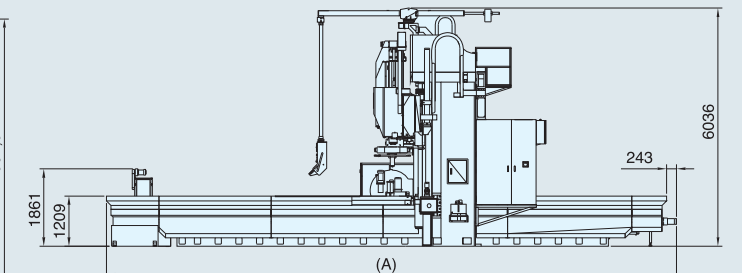


(A)-CMT 2504-11742/mm
(A)-CMT 2505-13742/mm
(A)-CMT 2506-15742/mm

CMT-3000 Series

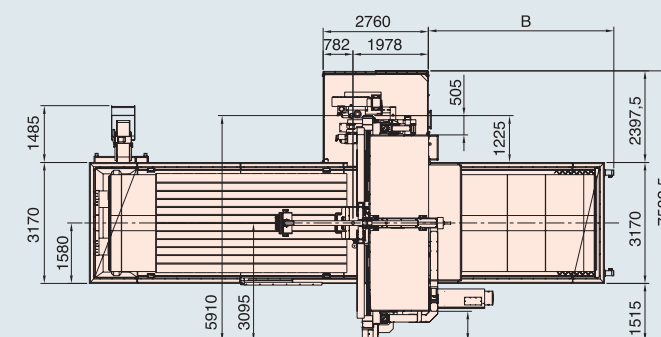


(B)-CMT 3004-4856/mm
(B)-CMT 3005-5856/mm
(B)-CMT 3006-6856/mm

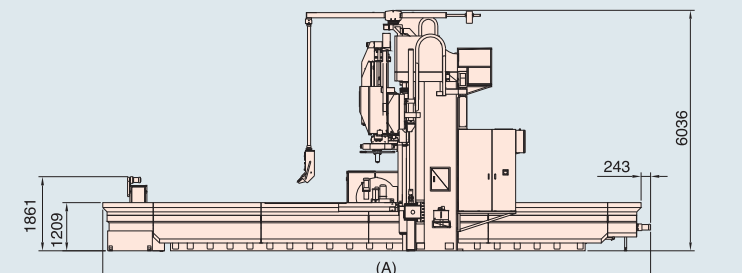


(A)-CMT 3004-11742/mm
(A)-CMT 3005-13742/mm
(A)-CMT 3006-15742/mm

CMT-3500 Series



(B)-CMT 3504-4856/mm
(B)-CMT 3505-5856/mm
(B)-CMT 3506-6856/mm



(A)-CMT 3504-11742/mm
(A)-CMT 3505-13742/mm
(A)-CMT 3506-15742/mm

CNC Double Column Machining Center

Crossrail Fixed Type (CFT Series)

Stabilized structure

Fixed type cross-rail with strong structure, keeping the excellent verticality and parallelism even through long period operation.

Active design

Lower position of center of gravity plus stabilized structure columns avoid the vibration when spindle moving with high speed.

Simplified maintenance

High rigidity and stabilized structure keep machine's accuracy for longest period, and simplified the maintenance.

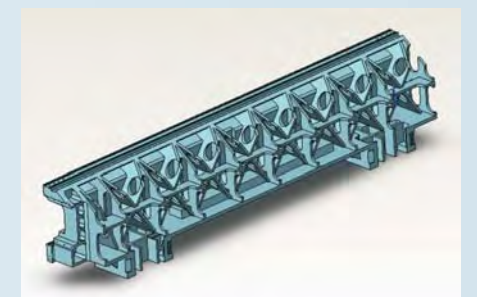
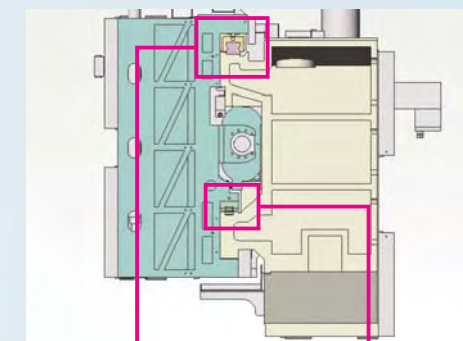
Stabilized Cross-rail

Stabilized cross-rail offers the best parallel stabilization to support the weight of spindle and headstock.

Fast assembling / disassembling

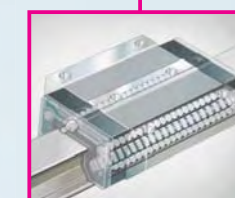


Cross Rail Way System-CMT/CFT Series

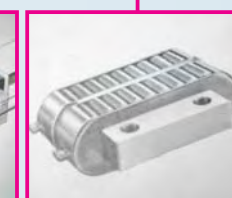


Cross rail

One-piece cross rail, high rigidity structure & Crossing rib design for front part, box type design for rear part. Accompanying bridge type outline, it could support the vertical force of gravity and horizontal resistance, to make sure the best rigidity in machining process.



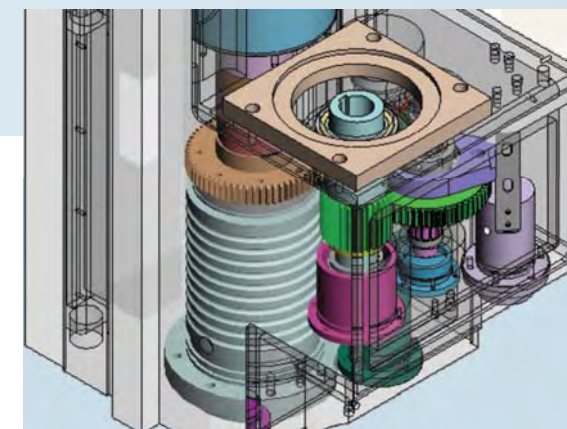
Roller Rail Way



Roller Tracker

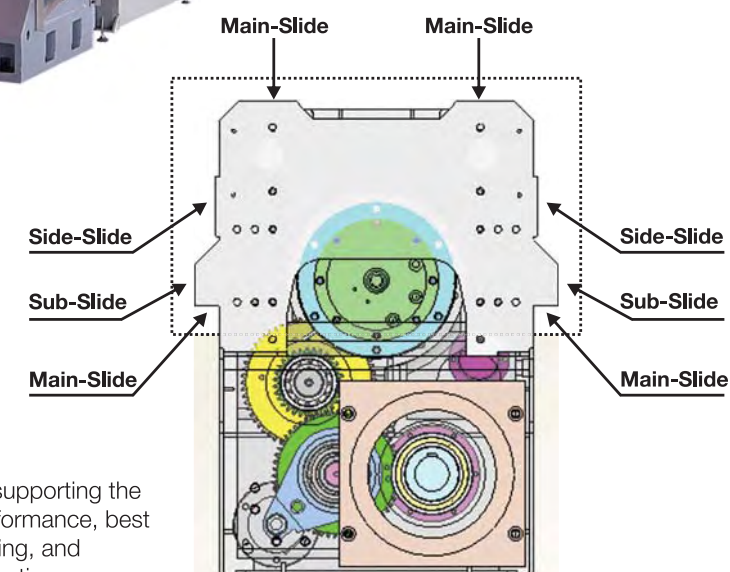
Combination system of Y axis sliding

Roller rail way has been equipped for upper slide and roller tracker was used for bottom slide, combination system offers faster speed of moving. And box way matches with tracker closely to make sure the stabilization of machining and keep the accuracy.



Gear box of spindle

1. Square type design, 440x440mm dimension, high rigid structure, minimized the possibility of interference with working piece. Ladder type slide-way make the spindle center most close to the cross rail, increasing the stabilization of machining.
2. One-piece die-casting of gear box and spindle housing offers the best machining performance and lowest noise.



Milling Head

Full-covered sliding supporting the excellent cutting performance, best rigidity when machining, and increasing the stabilization.

Technical Data

Machine Specification-CFT Series

Description	Unit	CFT-2004	CFT-2005	CFT-2006	CFT-2504	CFT-2505	CFT-2506	CFT-3004	CFT-3005	CFT-3006
X-axis travel	mm	4150	5150	6150	4150	5150	6150	4150	5150	6150
Y-axis travel	mm	2300			2800			3300		
Z-axis travel	mm	800			800			800		
Distance from spindlenose and to table	mm	200~1000			200~1000			200~1000		
Distance betwan column	mm	2100			2600			3100		
Work table size (LxW)	mm	4000 x 1700	5000 x 1700	6000 x 1700	4000 x 2100	5000 x 2100	6000 x 2100	4000 x 2550	5000 x 2550	6000 x 2550
T solt size of worktable	mm	Width 22 x Pitch 210x6T			Width 22 x Pitch 210x10T			Width 22 x Pitch 220x10T		
Max. worktable load	kg	10000	12000	14000	13000	15000	17000	18000	20000	22000
Spindle motor (Cont./30min)	HP	30/25 (35/30 Optional)			30/25 (35/30 Optional)			30/25 (30/35 Optional)		
Spindle speed	rpm	40-4500 (6000 Optional) Gear Box			40-4500 (6000 Optional) Gear Box			40-4500 (6000 Optional) Gear Box		
Spindle speed variation		H/L			H/L			H/L		
Spindle taper		BT50 (ISO50)			BT50 (ISO50)			BT50 (ISO50)		
Rapid feed rate-X/Y/Z axis (Box Way)	mm/min	10000/10000/10000		8000/10000/10000	10000/10000/10000		8000/10000/10000	8000/10000/10000		
Cutting feed speed	mm/min	1-5500			1-5500			1-5500		
FANUC-X.Y.Z servo motor		$\alpha 30, \alpha 30, \alpha 30$	$\alpha 30, \alpha 30, \alpha 30$	$\alpha 40, \alpha 30, \alpha 30$	$\alpha 40, \alpha 30, \alpha 30$	$\alpha 40, \alpha 30, \alpha 30$	$\alpha 40, \alpha 30, \alpha 30$	$\alpha 40, \alpha 30, \alpha 30$	$\alpha 40, \alpha 30, \alpha 30$	$\alpha 50, \alpha 30, \alpha 30$
MITSUBISHI-X.Y.Z. servo motor		HA300, 300, 300	HA300, 300, 300	HA700, 300, 300	HA700, 300, 300	HA700, 300, 300	HA700, 300, 300	HA700, 300, 300	HA700, 300, 300	HA900, 300, 300
ATC Tool magazine	pcs	32 (40~60 Optional)								
Maximum tool Dia. (All pockets full)	mm	Ø125, Ø250								
Maximum tool length	mm	350								
Maximum tool Weight	kg	18kg								
Tool selection		Random tool change system								
Tool holder		BT50 (ISO50)								
Pull stud		MAS403P50T-I (45°) / DIN69872 (Optional)								
Tool changing time	sec	4								
Electrical Power Supply		55KVA, AC220V, 3 phase, 60Hz			60KVA, AC220V, 3 phase, 60Hz			65KVA, AC220V, 3 phase, 60Hz		
Single spindle pressure	kg/cm2	5 ↑			5 ↑			5 ↑		
Hydraulic Oil capability	Liter	250 (5HP pump)			250 (5HP pump)			250 (5HP pump)		
Lubricator Oil capability	Liter	20			20			20		
Cutting fluid box capacity	Liter	900			1000			1000		
Floor space Length	length/mm	11500	13500	15500	11500	13500	15500	11500	13500	15500
Machine WxH	mm	4285 x 3295 / 4095 (lowest/highest)			5600 x 3295 / 4095 (lowest/highest)			6100 x 3295 / 4095 (lowest/highest)		
Machine net weight	kg	28500	32000	35500	34100	38000	41000	40500	46500	52500

L&W Machine Tools Inc. reserves the right to alter any mechanical specification without prior notice in the interests of product development.

Technical Data

Standard Accessories

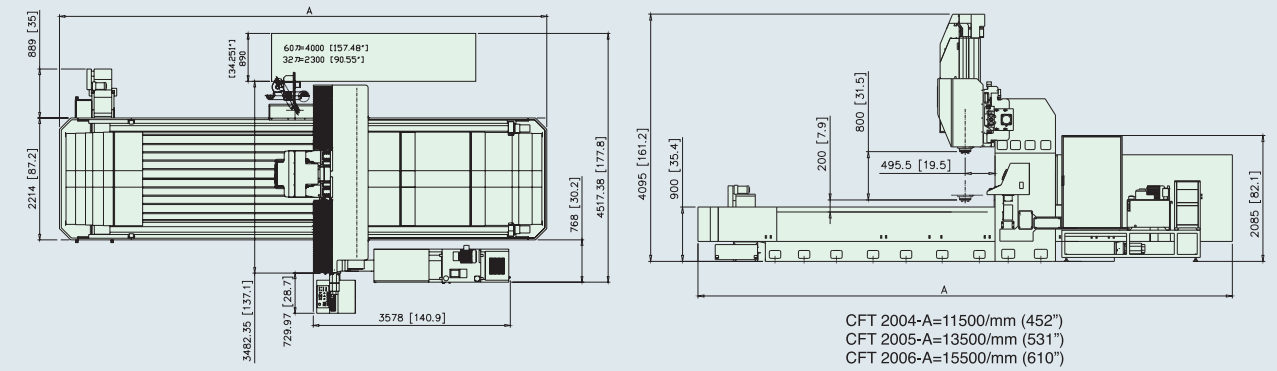
1. Spindle speed 4500rpm (gear box)
2. Tool magazine capacity 32 tools
3. Spindle temperature control system
4. Spindle lubrication monitoring device
5. Spindle H/L gear box
6. Protection of mechanism for three axes
7. Galvanized telescopic cover for X axis
8. Centralized automatic lubricating system
9. Cutting fluid system
10. Cooling water nozzle
11. Y axis slideway with dust cover
12. Foot-paddle automatic tool release switch
13. MPG
14. Working lamp
15. Program ending & warning light
16. RS-232 Interface
17. Screw type chip conveyor
18. Tool kit
19. Operation manual

Optional Accessories

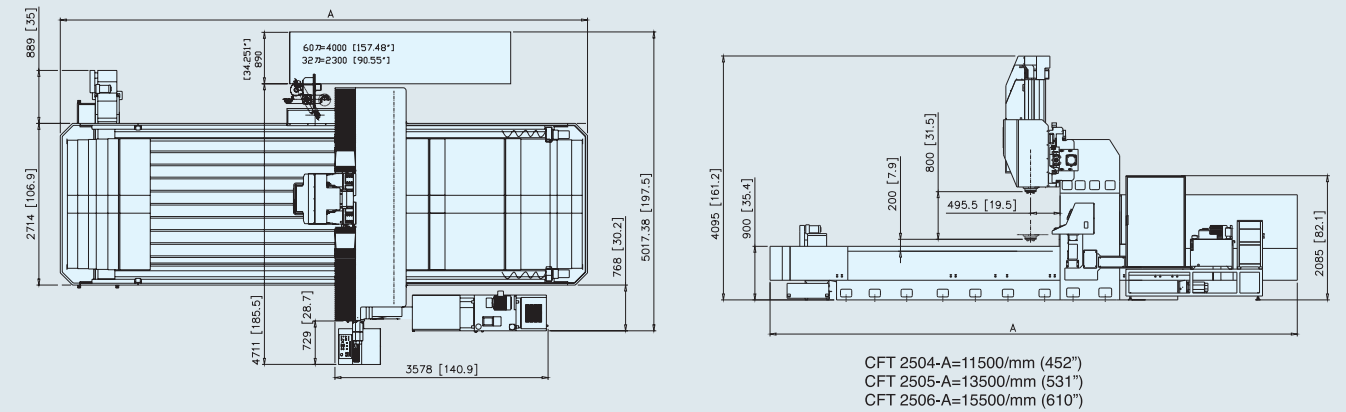
1. Full-closed splash guard
2. Spindle speed 6000 rpm (Gear Box) / 8000 rpm (Pulley Type)
3. Heidenhain optical scale
4. Tool magazine capacity: 40, 60 tools
5. Manual type angular head
6. Angular head with air power drawbar
7. Manual type universal milling head
8. Link-type chip conveyer
9. CTS system
10. Auto-tool length measurement system
11. Auto-workpiece measurement system
12. Rotary table



CFT-2000 Series



CFT-2500 Series



CFT-3000 Series

