

**SPECIFICATIONS:**

Model	Unit	CM-1000	CM-1500	CM-1500S	CM-2000	CM-2500	CM-3000	CM-3000L
Slideways	X	Dovetail way (Box way opt.)		2 Box way	2 Box way	2 Box way	2 Box way	2 Roller linear guide way
	Y	2 Box way		2 Box way	4 Box way	6 Box way	6 Box way	6 Roller linear guide way
	Z	2 Box way		2 Box way	2 Box way	2 Box way	2 Box way	2 Box way
Longitudinal travel (X-axis)	mm	1000	1500	1500	2000	2500	3000	3100
Cross travel (Y-axis)	mm	550	650	800	800 (850 Opt.)	800	800	1100
Vertical travel (Z-axis)	mm	600	600 (650 Opt.)	650	700 (800 Opt.)	700 (800 Opt.)	700 (800 Opt.)	1100
Table size	mm	1400x410	1850x610	1854x610	2200x600	2700x800	3200x800	3200x1100
T-slot (W x N x Pitch)	mm	18x3x115	18x5x100	18x5x100	18x5x110	18x5x130	18x5x130	18x6x180 22x6x180 (Opt.)
Max. table load	kgs	800	1000	1000	2000	2500	2500	3000
Max. cutting area	mm	1000x550	1500x650	1500x800	2000x800 (850 Opt.)	2500x800	3000x800	3100x1100
Spindle center to column surface	mm	610	660	860	880	880	880	1190
Spindle nose to table surface	mm	110~710	140~740	140~790	120~820	120~820	120~820	200~1300
Spindle taper		BT40 or CAT40			BT40 / 50 or CAT 40 / 50			BT50 or CAT50
Spindle speeds	rpm	8000	8000	8000	6000	6000	6000	6000
Spindle power	kW	5.5 / 7.5 (7.5 / 11 Opt.)	5.5 / 7.5 (7.5 / 11 Opt.)	7.5 / 11 (11 / 15 Opt.)	7.5 / 11 (11 / 15 Opt.)	11 / 15 (15 / 18.5 Opt.)	11 / 15 (15 / 18.5 Opt.)	11 / 15 (15 / 18.5 Opt.)
Rapid feedrate	M/min	12	12	12	10	10	10	XY:15 Z:12
Cutting feedrate	M/min	6	6	6	5	5	5	5
XY/Z-axis servo motor	kW	1.0 / 1.0 / 1.0	1.5 / 1.5 / 1.5	2.8 / 2.8 / 2.8	3.5 / 3.5 / 3.5	4.5 / 4.5 / 4.5	4.5 / 4.5 / 4.5	5.5 / 5.5 / 5.5
Ballscrew diameter	mm	Ø32xP5	Ø40xP5	Ø40xP5	Ø45xP6	XY: Ø63xP8 Z: Ø50xP8	XY: Ø63xP8 Z: Ø50xP8	Ø63xP8
Coolant pump	HP	1 / 2	1 / 2	1 / 2	1 / 2	3 / 4	3 / 4	3 / 4
Coolant tank capacity	liter	50	58	95	160	610	610	610
Auto lubrication	liter	2	2	8	8	8	8	8
Power consumption	KVA	14	16	18	28	35	35	43
Pneumatic unit	kgf/cm <sup>2</sup>	6~8	6~8	6~8	6~8	6~8	6~8	6~8
Machine dimension (LxW1xH)	mm	2685x2400x2690	3027x3455x2630	3040x3700x3000	3300x3745x3100	3715x6650x2955	3715x7200x2955	4050x7400x3200
Net weight	kgs	4000	4500	4680	8500 / 11000 (BT50)	11000 / 13500 (BT50)	11500 / 14000 (BT50)	18000

• All specifications, design and characteristics shown on this catalogues are subject to change without prior notice.

**Standard Accessories**

- Table splash guard
- Splash guard next to column
- Chip pan
- Cable chains
- Coolant unit
- Auto lubrication system
- Heat exchanger

- Alarm light
- Work lamp
- Tool box
- 8000rpm spindle (BT-40)
- Telescopic covers on 3 axes

**Optional Accessories**

- Full splashguard enclosure
- Spindle oil cooler
- Armless type ATC (16, 20T, 24T)
- Arm type ATC (24T)
- Coolant through spindle (CTS)
- 10000 / 12000 rpm spindle (BT40)
- ZF gearbox

- Screw type chip conveyor
- Chain type chip conveyor
- CE Norms
- Rotary table
- Tool measurement system

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**L&W  
MACHINE**

# NEAT and MIGHTY

■ **L&W Tool Room Bed Mills**  
**CiNCh-Mill – CM Series**





## Less is More

- In the tool room, for new technicians or experienced craftsmen, all they need are powerful and easy-to-operate machine tools to concretize their machining idea. Machines with dazzling functions do not mean they are the most suitable equipments you need for varied complex jobs. With less unnecessary, trivial and costly functions on the machine, in exchange for more efficiency and productivity, the L&W CM Series CNC Miller is exactly the equipment you need for your tool room.



**CE** For the markets or customers who require additional guarding, the optional Full Enclosure splashguard is available.



Optional 16 Tools Umbrella Type ATC



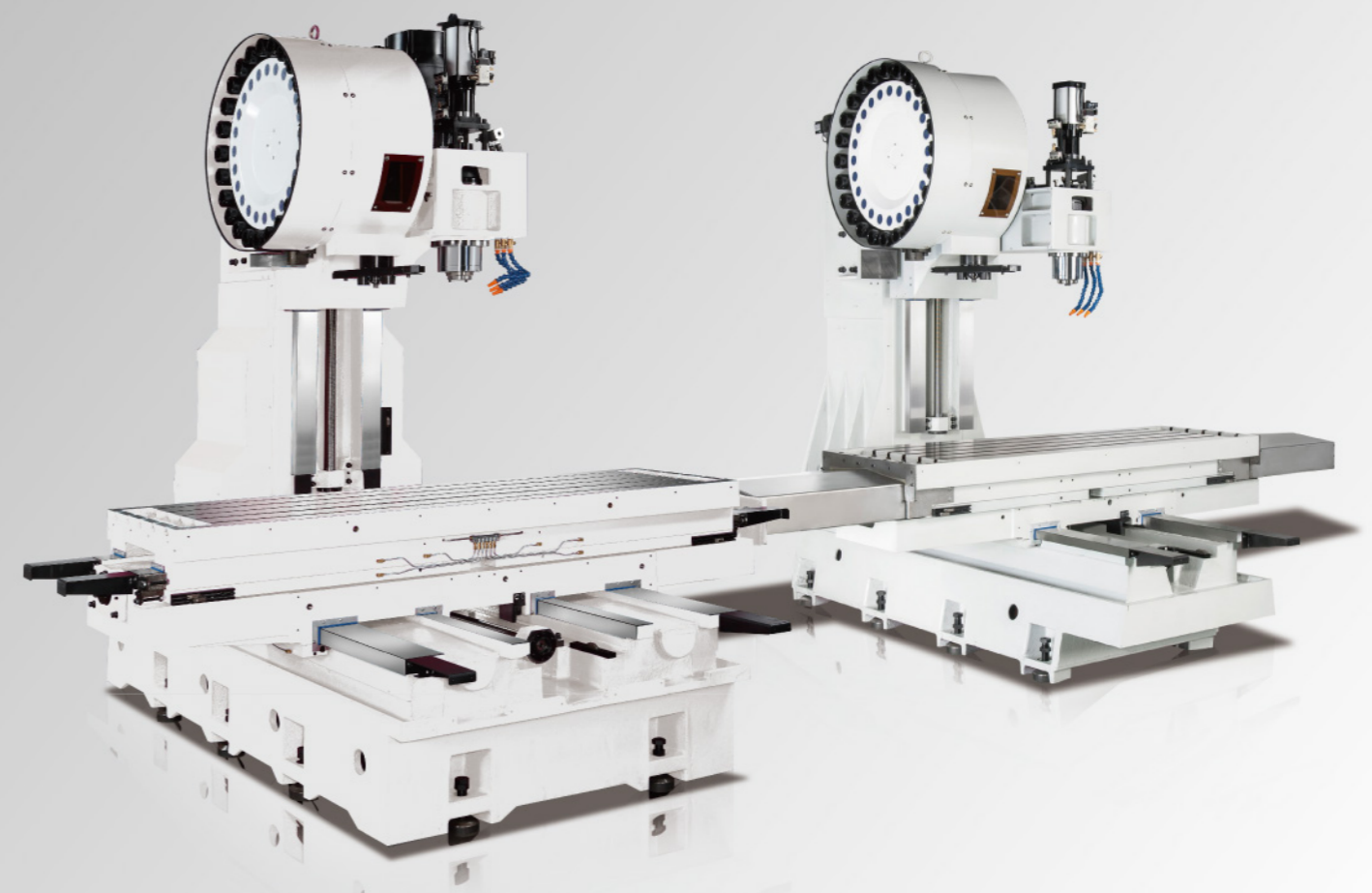
Optional 24 Tools Arm Type ATC



Chain type ATC for models above 2000 (Optional)

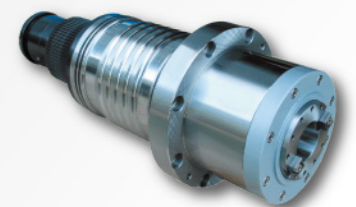
## Rigidity with Static and Dynamic Precision

- Under the sturdy structure of a machining center, the L&W CM series machines are built with all operation convenience of a milling machine. In addition, machines are designed via Finite Element Analysis for the optimum structural rigidity and stability.



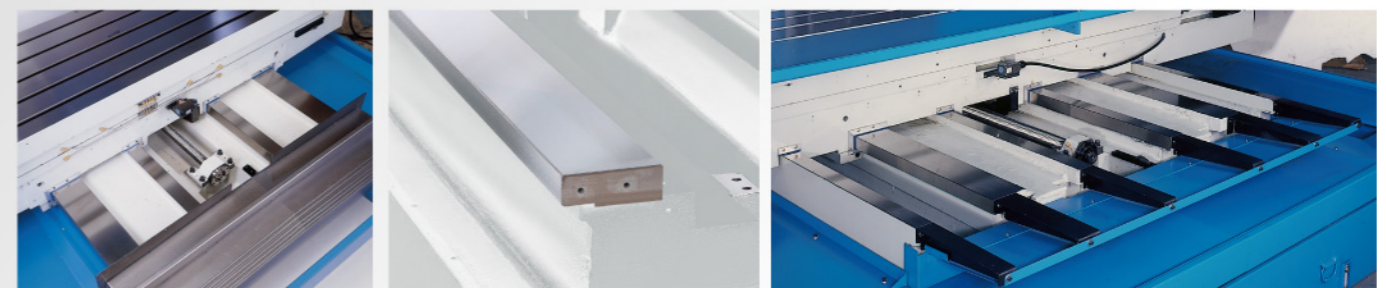
## High Performance Spindle

- Before each spindle is mounted to the head stock, it is tested for vibration, noise level and temperature rising to ensure the optimum dynamic accuracy and the best work piece surface finish.



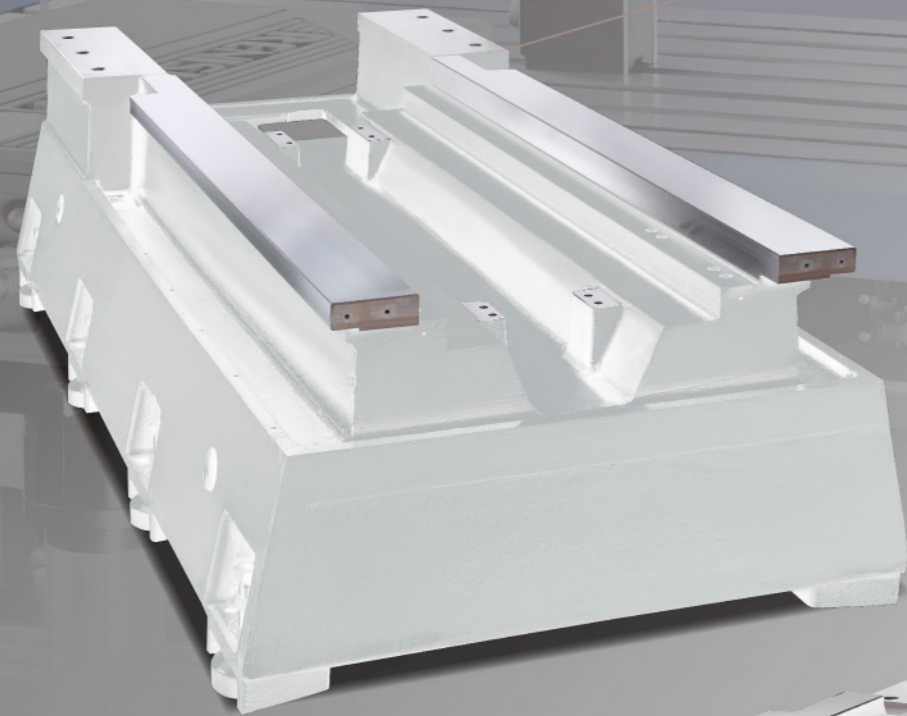
## Hardened Box Ways

- The box ways are high frequency hardened. The slideways are coated with Turcite B, in combination with precision hand scraping on all mating surfaces to ensure optimum flatness, straightness, parallelism and perpendicularity.



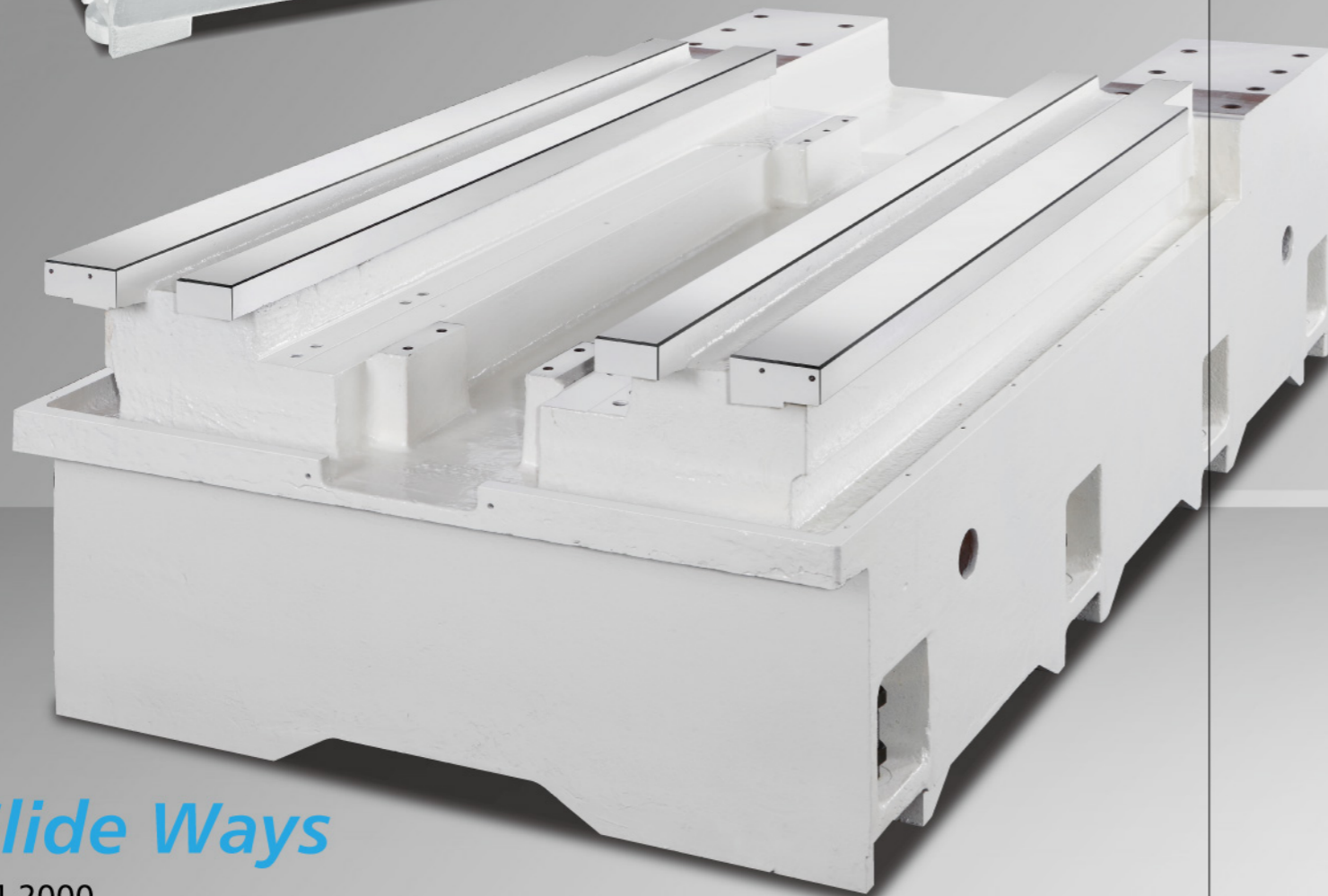
## Dynamic Accuracy Starts from Base

- CM Series machines are designed respective with 2, 4 or 6 ways to rule out the overhang phenomenon. The slide ways are hardened with induction heat treatment to stand up the high dynamic requirements.



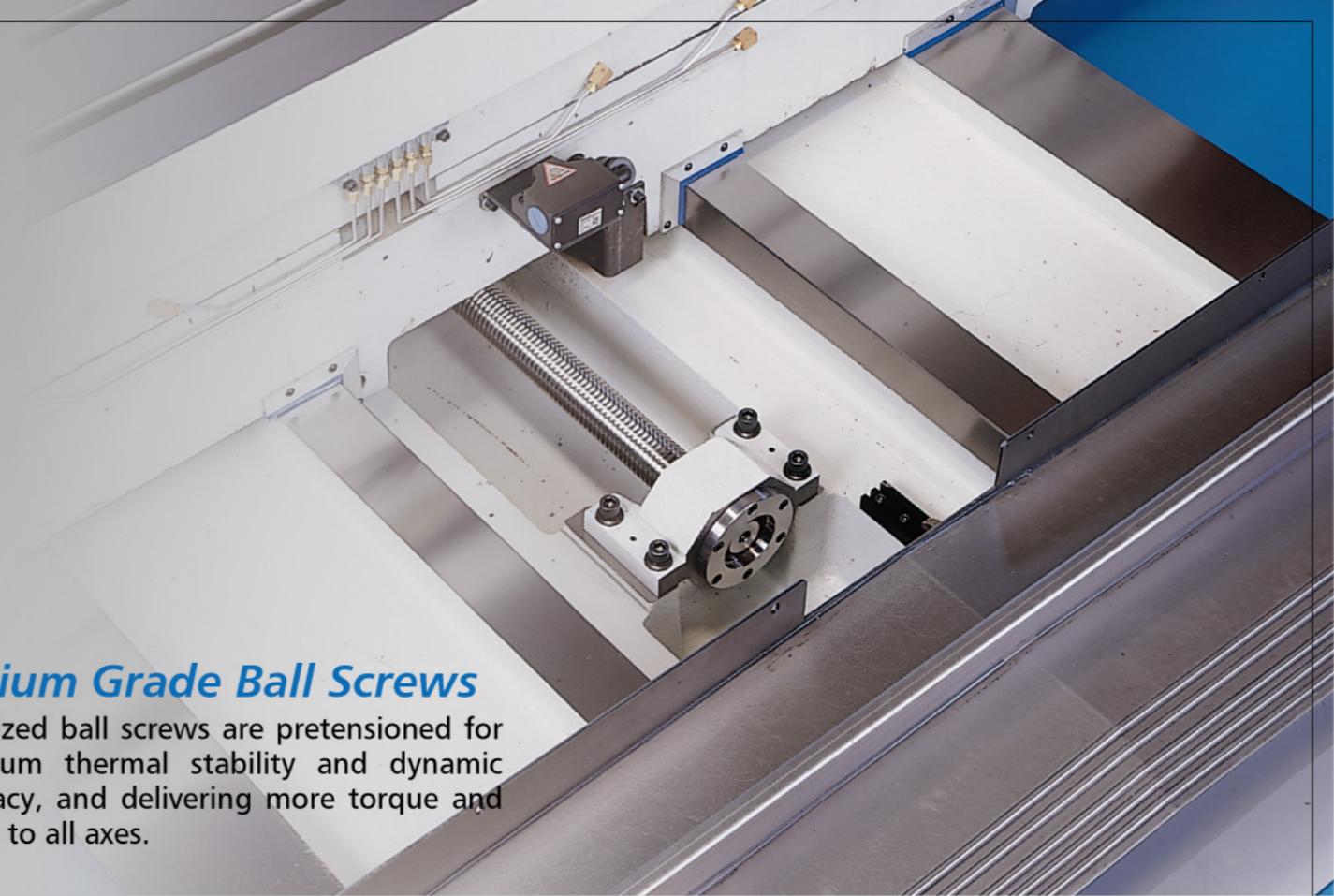
### 2 Slide Ways

For CM-1000 / 1500 / 1500S



### 4 Slide Ways

For CM-2000

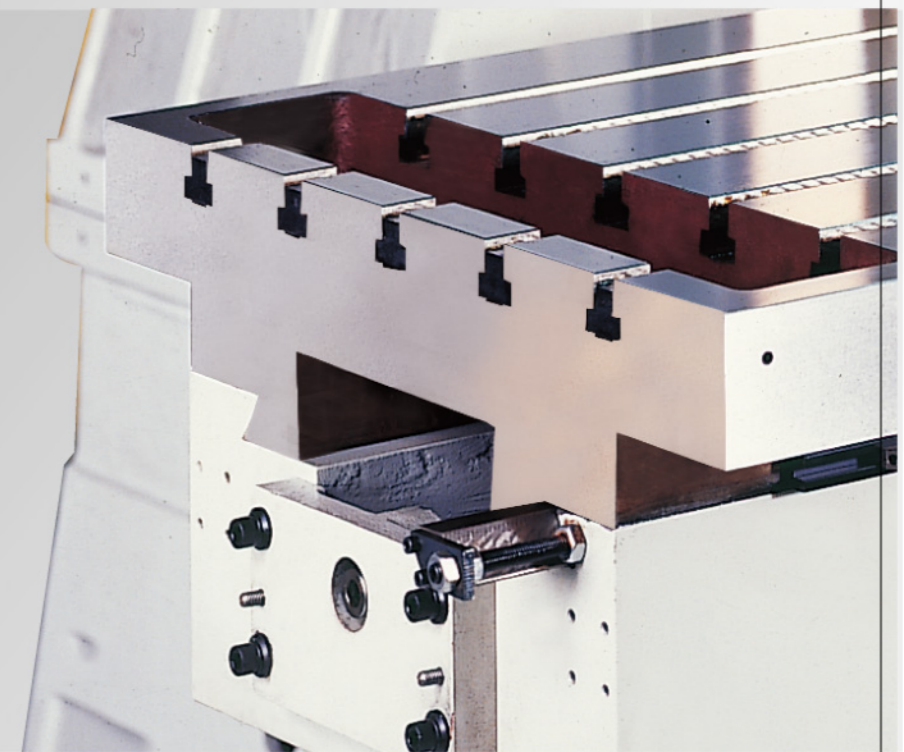


### Premium Grade Ball Screws

- Oversized ball screws are pretensioned for optimum thermal stability and dynamic accuracy, and delivering more torque and thrust to all axes.

### Dovetail Design

- Dovetail Design on X Axis for CM-1000 / CM-1500



### Internal Ribbed Column

- For high accuracy and smoother motion, the span of Z axis slide ways and the anchoring bolt holes are extended.

Column for CM-2000 / 2500 / 3000 / 3000L

### Floor Type Control Panel



The back side of floor type control panel is ingeniously designed with tool rack for storage.



LASER inspection for automatic backlash compensation



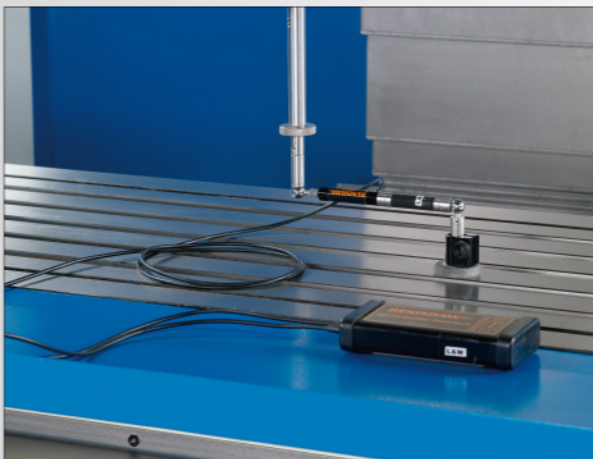
### Pedant Type Control Panel



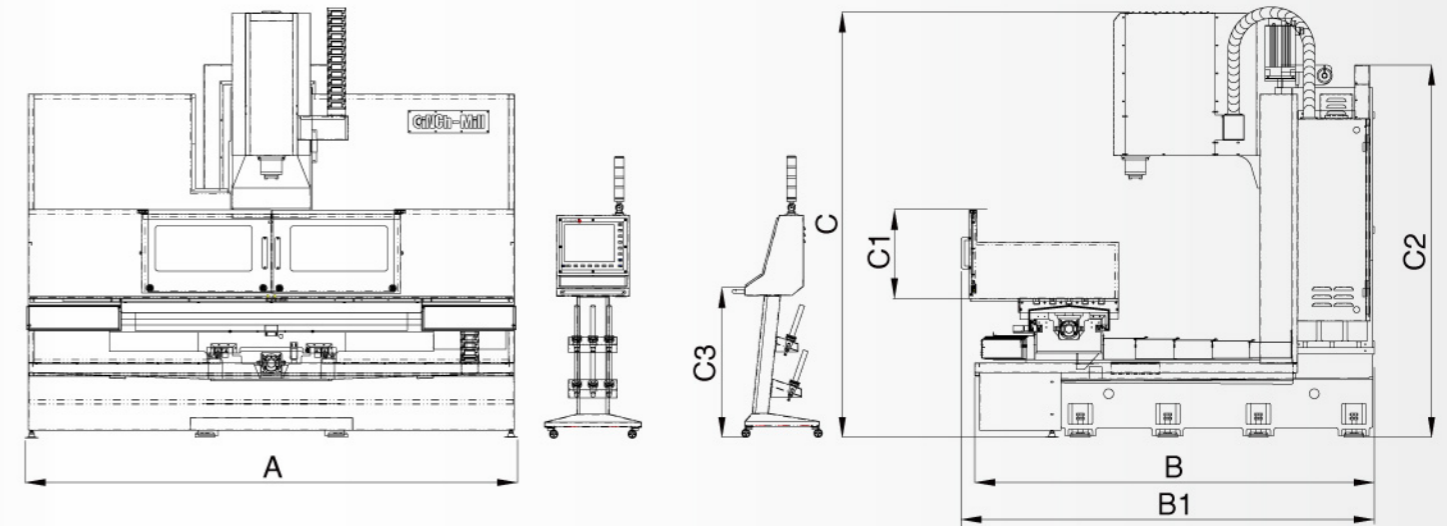
Versatile and Operator Friendly Control  
In addition to FAGOR, all major controllers are available upon request.



Ball bar test for optimum geometric accuracy



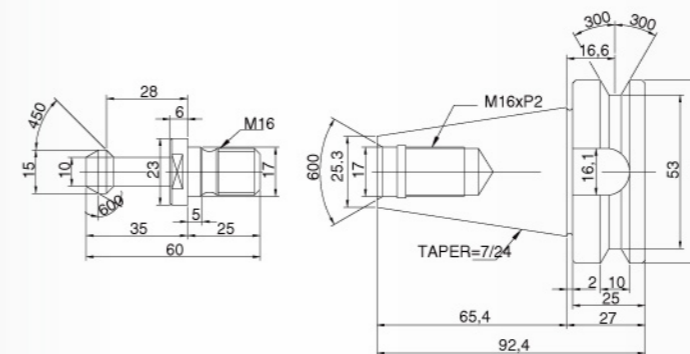
## Machine Dimension: (unit:mm)



MODEL	A	B	B1	C	C1	C2	C3
CM-1000	2400	1930	2450	2620	450	2365	925
CM-1500	3000	2070	2270	2620	500	2365	925
CM-1500S	3040	2470	2550	2630	550	2375	925
CM-2000	3500	3040	3125	2900	600	2400	925
CM-2000 (BT50)	3500	3040	3125	3450	600	2960	925
CM-2500	6900	3040	3125	2900	600	2400	925
CM-2500 (BT50)	6900	3040	3125	3450	600	2960	925
CM-3000	7400	3040	3125	2900	600	2400	925
CM-3000 (BT50)	7400	3040	3125	3450	600	2960	925
CM-3000L (BT50)	7350	3450	3550	3600	600	3680	925

## TOOLING

BT-40 TYPE



CAT-40 TYPE

