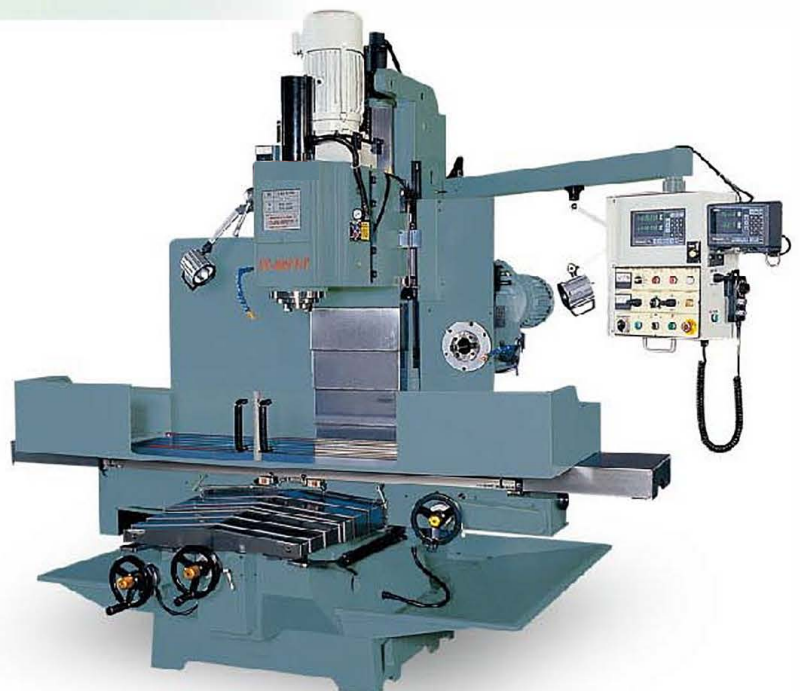


CE ISO 9001



Heavy Duty Bed Type Milling Machine

BED TYPE MILLING MACHINE



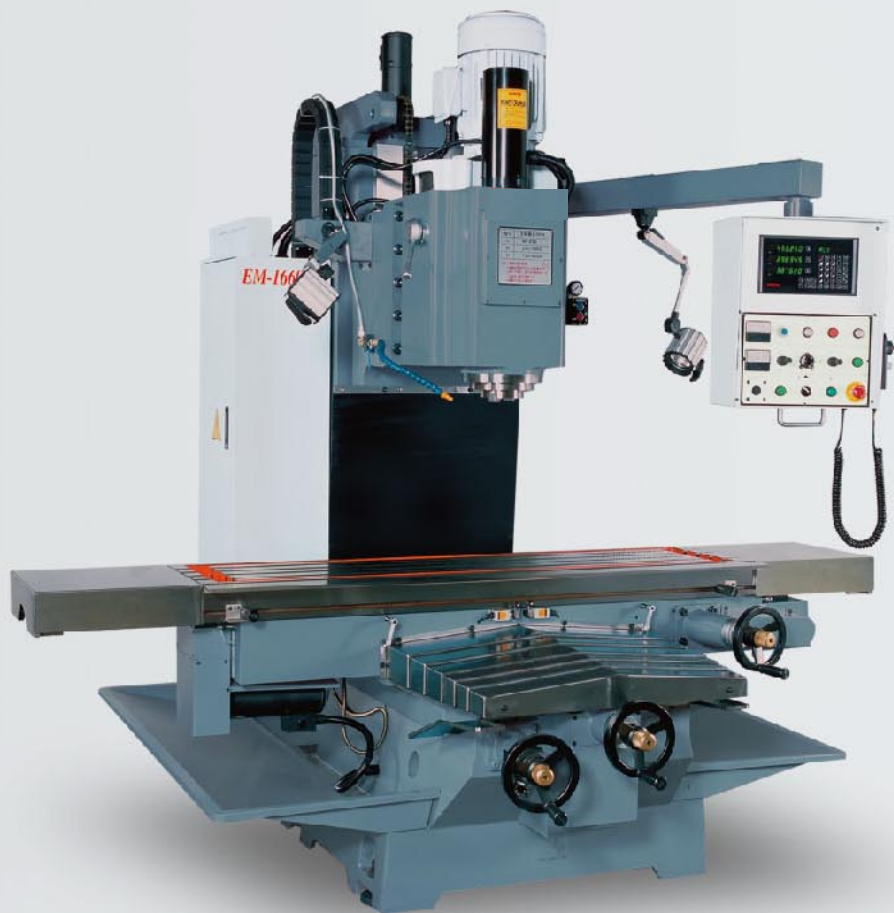
EM Series

床台型強力銑床 HEAVY DUTY BED TYPE MILLING MACHINE

EM Series



EM-1460B



EM-1660VF



EM-2065G



EM-1660VF-H



EM-1460G-H



EM-2065G-H



EM-1660B-H

規格表 SPECIFICATIONS

項目 ITEM	機型 MODEL	單位 UNIT	EM-1460B	EM-1660B	EM-2065B	EM-1460VF	EM-1660VF	EM-2065VF	EM-1460G	EM-1660G	EM-2065G
行程 TRAVEL											
左右行程 Longitudinal travel-X		mm	1400	1600	2000	1400	1600	2000	1400	1600	2000
前後行程 Cross travel-Y		mm	600	650	650	600	650	650	600	650	650
上下行程 Vertical travel-Z		mm	700 / 800 / 900 / 1000			600 / 700 / 800 / 900			600 / 700 / 800 / 900		
工作台 TABLE											
工作台尺寸 Table size		mm	1702 x 510	1900 x 510	2450 x 580	1702 x 510	1900 x 510	2450 x 580	1702 x 510	1900 x 510	2450 x 580
T型槽 T-slot		mm	4 x 18 x 80		5 x 18 x 95	4 x 18 x 80		5 x 18 x 95	4 x 18 x 80		5 x 18 x 95
工作台荷重 Table load		kgs	1000	1000	1500	1000	1000	1500	1000	1000	1500
進給速率 Speed feed		mm/min	10-3000 (X, Y, Z axis)			10-3000 (X, Y, Z axis)			10-3000 (X, Y, Z axis)		
快速進給速率 Rapid feed		mm/min	4800 (X, Y, Z axis)			4800 (X, Y, Z axis)			4800 (X, Y, Z axis)		
主軸 SPINDLE											
主軸斜度 Spindle taper			NT#40 / BT#40			NT#50 / BT#50			NT#50 / BT#50		
主軸管直徑 Quill diameter		mm	φ 110			φ 128.57			φ 128.57		
主軸行程 Quill travel		mm	140			—			—		
主軸轉速 Spindle speed		rpm/min	65-3580 16段(16-step) / 85-3600 變頻Variable (opt.)			60-3000 (變頻三段 3-step frequency inverter controlled)			60-Hz 125-1100 6段(6-step) / 50-Hz 104-1400 6段(6-step)		
主軸每轉進給 Quill feed speed		mm/rev	0.035, 0.07, 0.14			—			—		
主軸頭之旋轉角度左右 Vertical head swivelling angle (R&L)			45°			—			—		
主軸頭至工作台距離 Spindle nose to table		mm	100~800 / 900 / 1000 / 1100			80~680 / 780 / 880 / 980			120~720 / 820 / 920 / 1020		
主軸中心至滑道面距離 Spindle center to column		mm	650			610			610		
馬達 MOTOR											
主軸馬達 Spindle motor		mm	5HPx2P / 4P / 7.5HPx2P / 4P (opt.)			10HP/4P / 15HP/4P (opt.) / 變頻控制 with frequency inverter controlled			10HP / 2P / 4P		
X,Y,Z軸伺服馬達 X,Y,Z axis servo motors		Nm	4.5 Nm			4.5 Nm			4.5 Nm		
冷卻泵 Coolant pump		HP	1/8 HP			1/8 HP			1/8 HP		
淨重 Net weight		kgs	4500	4700	5700	4800	5000	6000	4800	5000	6000

★本公司保有變更設計之權利，如有更改或改進規格時不另行通知，但不影響前所售之機械品質。 ★All specification and designs are subjected to change without notice.

標準附件

- X軸左右伸縮鉸金
- Y軸前後伸縮鉸金
- Z軸刹車缸
- 三軸滾珠螺桿
- 三軸DC伺服馬達
- 石英燈x2只
- 可觸式自動注油器
- 冷卻系統
- 進給速率拉桿
- 工具、工具箱

特別附件

- 水盤
- 機身兩側遮板
- 工作台護罩
- Z軸下方伸縮鉸金
- 氣動拉桿
- 數字光學尺
- 外掛式手輪
- Z軸加高100 / 200 / 300 mm
- H型臥式銑頭 NT#50

STANDARD ACCESSORIES

- X axis telescopic steel cover
- Y axis telescopic steel cover
- Z axis brake cylinder
- X,Y,Z axis ball screw
- X,Y,Z axis DC servo motor
- Halogen lamp x 2 pcs
- Automatic lubrication system
- Coolant system
- Draw bar
- Tools & tool box

OPTIONAL ACCESSORIES

- Chip pan
- Rear splash guard
- Semi table guard
- Z axis telescopic steel cover
- Air draw bar
- Digital read out
- Remote MPG
- Increased Z-axis travel by 100/200/300 mm
- Horizontal cutting system NT#50



特殊配件 OPTIONAL EQUIPMENT

H 型強力臥式切削機構

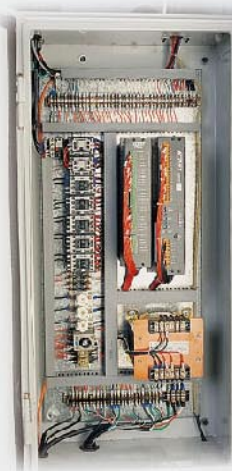
H Type Power Horizontal Cutting Structure

- 主軸鼻端：NT#50
- 主軸轉速：125-1100 RPM (6段變速)
- 主軸馬達：7.5HP / 2P / 4P
- 上下行程：500 / 600(opt.) mm
- 上下DC伺服馬達
- 上下進給速度：10~1000 mm/分
- 臥銑頭中心至主軸頭中心515 mm
- Spindle taper: NT#50
- Spindle speed: 125-1100 RPM (6-step speed)
- Spindle motor: 7.5HP / 2P / 4P
- Vertical travel: 500 / 600(opt.) mm
- Vertical DC servo motor
- Vertical feed speed: 10~1000 mm/min.
- Distance from horizontal head center to spindle head center is 515 mm

特性 FEATURES

- X,Y,Z軸採用精密滾珠螺桿搭配雙螺帽，剛性好，壽命長。
- X,Y,Z軸DC伺服馬達，無段自動進給，且有快速進給功能，於低速進給穩定；扭力大，快速進給比變頻效率多三倍，工作效率大增。並可加裝MPG電子手輪(選配)。
- 自動潤滑系可調定時，強調潤滑各滑道，油量不足有警示聲。
- VF機型主軸頭為三段變速，配合變頻器主軸，主軸速度分配適當可重切削及高轉速加工。
- VF/G型機頭為齒輪頭部更適合重切削。
- 可特選H型強力臥式切削機構，齒輪頭部設計上下進給配合DC伺服馬達，並附有外掛式手輪，操作靈活。

- X, Y and Z-axis are all equipped with double nut-precision ball. It keeps high precision and durability life of machine.
- X, Y, Z axis employ DC servo motors, providing variable feed speed change. Rapid feed rate provides 2-3times which has higher efficiency than frequency inverter controlled motor. Greater torque output at low speed running. **Can be fitted with optional MPG hand wheel. (opt.)**
- The automatic lubrication system with adjustable the timing and flow to provide the excellent lubricating oil onto all the sliding ways. When lubricant reaches control-limited, it will ring to remind you to fill oil.
- The VF type head provides 3-step speed change. With inverter, the spindle speeds can be properly arranged which is very suitable for heavy duty machining and high speed machining.
- Gears milling head of model VF & G, which design for rigidity heavy duty cutting.
- Available equip with H type powerful horizontal cutting mechanism. To easier operate, it's also driven with gear head drive, servo motor drive on vertical feed and handwheel control.

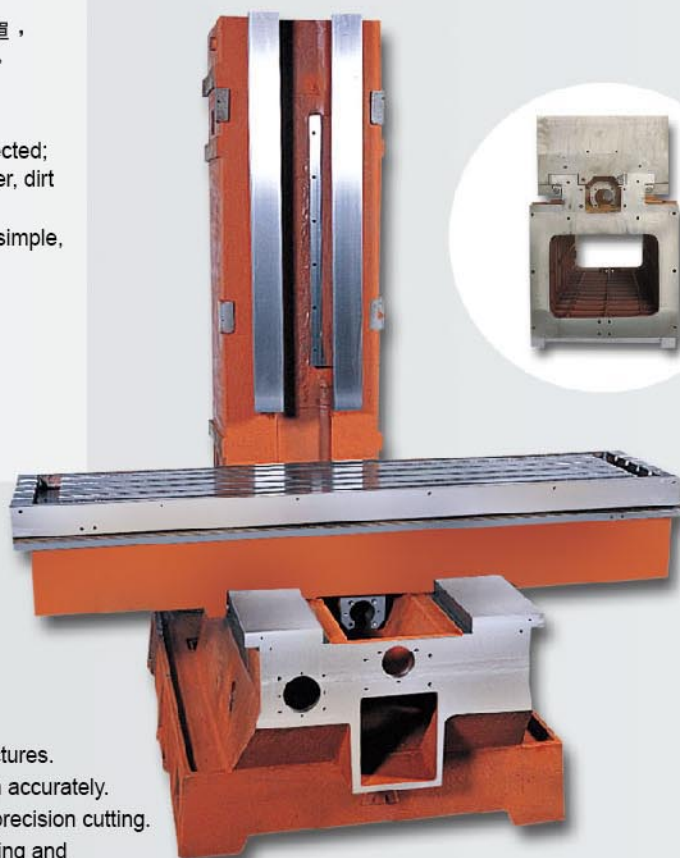


防水防塵安全控制箱，配線簡單，系統完整，故障顯示，易維護。(模組化組合搭配DC伺服馬達)

The electric cabinet is seal protected; it can against the ingress of water, dirt and other contaminants. The wiring is very compact and simple, easy to maintain and operate.

寬大的底座，立柱內部採箱形肋骨，重型床式結構，且Y,Z軸為內插梢式，確保床台前、後、左、右，動作平穩，耐重切削精密加工。
鑄件採FC30米漢鈉材質，並經淬火調質處理，無變形之慮，軌道經熱處理加工研磨，X,Y軸並貼耐磨片，提高耐磨壽命及精度。

The bed and column are designed as box type with rigid structures. The saddle has wide design and can be moved in all direction accurately. Y & Z axis features inside taper gibs to ensure heavy duty & precision cutting. All the main components are made of FC-30 high quality casting and annealing. X, Y also coated with Turcite-B to ensure smooth and accuracy movement in long time.



- X,Y軸伸縮鉸金可完全保護軌道及滾珠螺桿。
- Z軸下方伸縮鉸金。(選配)
- X,Y,Z軸微調把手可立即微調，方便操作，提高精度易控制。
- X, Y axes have telescopic cover in order to avoid chips into the slide ways and ball screws.
- Z axis telescopic cover (opt.)
- X, Y, Z axis micro adjustment handle permits efficient adjustment without the need of handwheel.



- X,Y,Z軸接觸面均黏貼Rulon，具低摩擦及減震等特性，運轉平穩滑順，並確保精度。
- X, Y, Z axis are coated with Rulon to reduce friction and shock. This ensures that it moves smoothly and accurately.



- X,Y,Z軸採用精密雙螺帽預壓式滾珠螺桿，均有預拉，確保精度穩定持久，Y, Z採內插梢，以確保前後上下平穩移動。
- The X, Y, Z axis are equipped with precision double nut pretensioned ball screw, to keep stable and long-lasting precision. Y, Z axes are also adopted inner pin which ensures smooth vertical and horizontal movement.