

CNC SCREW CUTTING MACHINE CNC螺桿切削專用機



Follow rest (manual type)
工件扶持座

Chain type chip conveyor
with cart
排屑機

Oil skimmer
油水分離裝置



CNC Controller
CNC電腦操作面板

LM-1500 / 2000 / 3000 / 4000 / 5000

Bar Dimension 加工直徑: Ø30~120 mm



規格表 SPECIFICATIONS

項目 ITEM	機型 MODEL	單位 UNIT	LM-1500	LM-2000	LM-3000	LM-4000	LM-5000
床面最大行程	Swing over bed	mm	720				
鞍面最大行程	Swing over cross slide	mm	370				
兩心間距離	Distance between centers	mm	1600	2100	3100	4100	5100
床面寬度	Width of bed	mm	410				
C軸孔徑	C axis bore	mm	Ø115		Ø105 / 160 (Opt.)		
C軸轉速	C axis speed	mm	3000°				
C軸伺服馬達	C axis servo motor	Nm	20				
立銑頭	Milling head		NT 50#				
主軸馬達	Main motor	kW	11 / 15				
主軸轉速	Spindle speed	RPM	40 ~ 4000				
Y軸上下移動行程 (手動式)	Y axis travel (manual)	mm	50				
支持座夾持範圍	Support clamping capacity	mm	Ø30 ~ Ø120				
X軸行程	X axis travel	mm	1300	1800	2800	3800	4800
Z軸行程	Z axis travel	mm	250				
伺服馬達	Servo motor	Nm	X=20 Z=11				
快速進給	Rapid traverse	mm/min	5000				
進給範圍	Feed rate	mm/min	1 ~ 5000				
尾座心軸直徑	Quill diameter	mm	Ø80				
尾座心軸行程	Quill travel	mm	180				
尾座頂心直徑	Taper of center		5#				
滾珠螺桿X軸	X axis ball screw	mm	Ø50 P=10				
滾珠螺桿Z軸	Z axis ball screw	mm	Ø32 P=5				
電腦控制器	CNC controller		FANUC Oi-M				
控制軸數	Control axes		3 / 4 (Opt.)				

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標準附件

- 12"三爪夾頭 (強力型)
- 自動潤滑系統
- 手動式雙投尾座
- 支持座 (手動式)
- 冷却裝置
- 全罩式吸金
- 工作燈
- 鏈板式排屑機
- 油水分離裝置

特別附件

- 16"三爪夾頭 (強力型)
 - 12"運動四爪 (強力型)
 - 油壓夾頭
 - 油壓支持座
 - 氣動換刀裝置
 - Y軸自動上下 (同吸)
- 註：
Y軸滾珠螺桿：
Ø32 mm P=6 mm,
Y軸行程 100 mm,
Y軸伺服馬達βS22B / 2000
附剎車

STANDARD ACCESSORIES

- 3-jaw scroll chuck 12" (Strong type)
- Automatic lubrication system
- Manual two step tailstock
- Follow rest (Manual type)
- Coolant system
- Full splash guard
- Work light
- Chain type chip conveyor with cart
- Oil skimmer

OPTIONAL ACCESSORIES

- 3-jaw scroll chuck 16" (Strong type)
 - 4-jaw scroll chuck 12" (Strong type)
 - Hydraulic chuck
 - Hydraulic support
 - Air draw bar
 - Y axis servo control
- Remarks:**
Y axis ball screw:
Ø32 mm, P=6 mm,
Y axis travel 100 mm,
Servo motor (Y) βS22B / 2000
with brake

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電腦螺桿切削專用機 / 深孔鑽孔加工機

CNC SCREW CUTTING MACHINE BTA DEEP HOLE DRILLING MACHINE



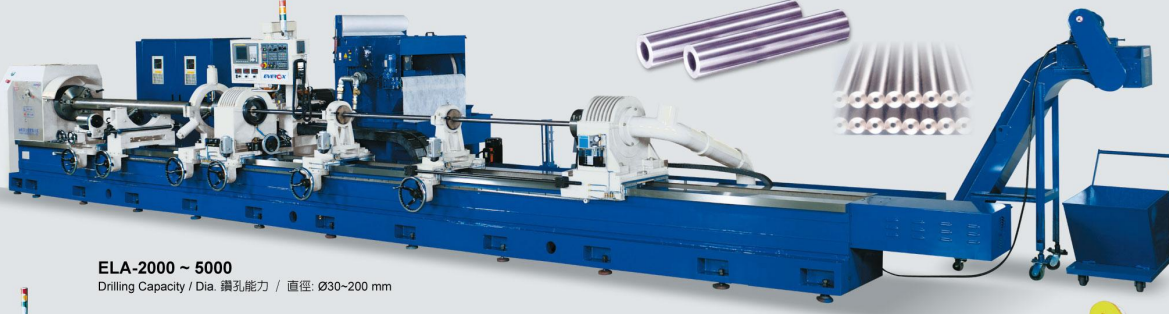
●●● LM/ELA/ELB
Series

永峻昌工業有限公司
EVEROX INDUSTRIAL CO., LTD.

深孔鑽孔加工機 BTA DEEP HOLE DRILLING MACHINE

ELA / ELB Series

- 特性**
- 軸心類產品利用BTA技術深孔加工以提高效率及精度要求，鑽孔能力 30—200 mm 孔徑，最大深度達到 5000 mm (ELA機型) / 11000 mm (ELB機型)。
 - 本機型為工件旋轉，並分為刀具不轉動加工方式及刀具轉動加工方式(選配)，精度高。
 - 搭配 FANUC Oi-T 電腦控制器，操作簡便，並有扭力檢知功能，能於刀具受損時自動退出，且加工不剩斷屑材質之材料，亦有間歇功能使其斷屑切屑，這是一般傳統機台無法達成的。
 - 床台底座採雙刀型滑軌設計，機台結構高刚性，能承受重切削要求，荷重佳。
 - 所有鑄件材料採用 FC-30 並於高溫回火處理，不易變形。
 - 主軸頭採用二段 (ELA機型) 及四段 (ELB機型) 手動變速齒輪設計，齒輪數 6，齒寬大，適合重切削，並配合向變型頻器，主軸轉速分配適當，能有效發揮加工能力。
 - ELB機型主軸頭部有移動設計(Z軸)方便於工件長短變換，配合刀桿長度，以達更有效率的加工。
 - 本機設於床台平穩，動力平均，採用滾珠螺桿，間隙小，壽命長。
 - 自動潤滑裝置於夾力能及及數枚球螺桿處，強制給油。
 - 機台所附附件完善，全置於地面上，施工安裝容易，免於一般須挖深地盤之工程，節省成本。



ELA-2000 ~ 5000
Drilling Capacity / Dia. 鑽孔能力 / 直徑: Ø30-200 mm

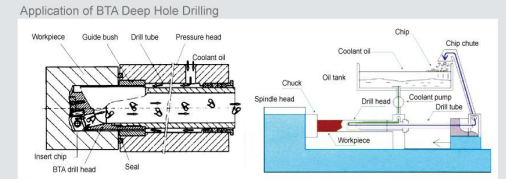


ELB-2000 ~ 11000
Drilling Capacity / Dia. 鑽孔能力 / 直徑: Ø30-200 mm

- FEATURES**
- Shafts can be machined by applying BTA technology deep hole drilling to upgrade efficiency and accuracy. Drilling capacity is 30-200 mm with maximum depth up to 5000mm(model ELA), 11000mm (model ELB).
 - This model is rotating workpiece, in addition, it divides cutting tool into no rotation type and rotation type (opt), ensuring increased accuracy.
 - The machine employs a FANUC Oi-T CNC controller for easy operation. Equipped with a torque detection function. Cutting tool will retract in case of damage. And drilling a Workpiece with hard to break chips, the intermittent drilling function will facilitate chips breaking, which can't be achieved on conventional machines.
 - Two box ways on the machine bed features maximum rigidity of structure. This provides heavy cutting resistant performance and excellent heavy loading capability.
 - All casting parts are manufactured from FC-30 high quality cast iron, and are tempered for deformation-free.
 - The headstock is designed with two-step (model ELA) and 4-step (model ELB) manual speed change combined with heavy module-6 gears, making the machine ideal for heavy cutting. A vector type frequency inverter features uniform spindle speed distribution, that enables the machine to fully develop its machining performance.
 - The headstock for ELB has removable design for changing workpiece length conveniently, matching bar length to fully develop its machining performance.
 - Z-axis is correctly located at the center of bed for uniform loading. Transmitted by precision ball screw with minimum backlash and long service life.
 - An automatic lubricator is mounted at the tool clamping mechanism and Z-axis ball screw position for forced lubrication.
 - All equipment are mounted on the floor for convenient installation. No need to dig into ground for installation to save installation costs.



- Headstock 主軸頭部 ELA-2段 (2-step) ELB-4段 (4-step)
- Roller type workpiece supporter 滾筒式扶件座
- Two point supporter 二點式扶件座
- Steady rest 中心架
- Pressure head 壓力頭
- Vibration damper 減震扶刀座
- Boring head 夾刀座
- Coolant system 切削液系統
- Chip conveyor with cart 排屑機
- Paper filter unit 紙帶過濾機
- CNC Controller CNC電腦操作面板
- Movable workpiece headstock (for ELB) 工件主軸頭部可移動，只適用ELB機型
- Tool rotating headstock with rotatable type workpiece supporter (選配) 刀具旋轉主軸頭+刀桿旋轉支撐座 (選配)
- Spindle bore: Ø180 mm
- Spindle speed: 100-1100 rpm(3-step)
- Spindle motor: 100HP~100HP inverter
- With oil coolant.
- 主軸孔徑: Ø180mm
- 主軸轉速: 100-1100rpm (3段)
- 主軸馬達: 100HP~100HP變頻器
- 耐油冷機



規格表 SPECIFICATIONS

項目 ITEM	機型 MODEL	單位 UNIT	ELA	ELB
鑽孔孔徑 Hole dia		mm	Ø30-Ø120	Ø30-Ø200
最大鑽孔深度 Max. depth		mm	2000/3000/4000 4000 / 5000	2000/3000/4000/5000/6000 7000/8000/9000/10000/11000
最大加工內徑 Max. turning diameter		mm	Ø400	Ø610
床面寬度(切軌) Width of bed (square track)		mm	570	800
主軸轉速 Spindle nose / Spindle bore		mm	A2-8 / Ø81	A2-11 / Ø83
床面行程 Swing over bed		mm	860	1160
主軸轉速 Spindle speed		rpm	100-1100 (二段 / 2-step)	50-1100 (四段 / 4-step)
主軸馬達(工件) Spindle motor(Workpiece)		HP	75 / 100	100 / 125 (選配 / opt.)
Z軸馬達 Z axis motor		HP	4	9
Z軸轉速 Z axis speed		rpm	—	3 (選配/option motor) 變頻器/ Inverter
Z軸軸線速度 Z axis traverse speed		m/min	1-200	1-200
Z軸快速移動 Z axis rapid feed		mm/min	3000	3000
Z軸滾珠螺桿 Z axis ball lead screw		mm	Ø80 × P=10	Ø80 × P=10
Z軸螺桿 Z axis lead screw		mm	—	Ø80 × P=10
高壓泵 High pressure pumps		Liter/min	400-750	400-1000
泵浦輸出 Pump output		Liter/min	25	25
液壓馬達 (含變頻器) Hyd. motor / inverter		HP	750	1000
切削液箱 Coolant tank		l	10+15	15+15+15
控制器 Controller			4000	5000

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 • All specification and designs are subjected to change without notice. • Different specification and design are available according to customer's demand.

- 標準附件**
- 雙軸心/雙軸線控制
 - 工件主軸頭部可移動式(Z軸)適用ELB機型
 - 自動潤滑系統
 - 16"三刀架刀架
 - 試車用鑽孔導套及輔助刀片(每一尺寸)
 - 自動潤滑機
 - 切削液冷機
 - 工具櫃及調整工具
- 特別附件**
- 刀架調整系統
 - 滾筒式扶件座
 - 高、低壓切削液系統
 - 刀架調整機
 - 切屑夾送
 - 壓力滾筒加壓夾送
 - CECSA配電
- STANDARD ACCESSORIES**
- FANUC Oi-T Controller
 - Movable workpiece headstock (Z axis) for ELB supporter
 - High & low pressure coolant pump
 - Automatic lubricator
 - 16" 3-jaw strong-type scroll chuck
 - Guide bush for deep hole drilling (PH)
 - Paper filter unit
 - Chip conveyor
 - Coolant cooler
 - Tool/Tool box
- OPTIONAL ACCESSORIES**
- Tool rotating headstock with rotatable type workpiece supporter
 - Roller type workpiece supporter
 - Boring head & drill tube
 - 4-jaw chuck
 - Pressure head with chuck
 - CECSA approval specification