

# EMC CNC 鋸片研磨機

## CNC SAWBLADE SHARPENING MACHINE

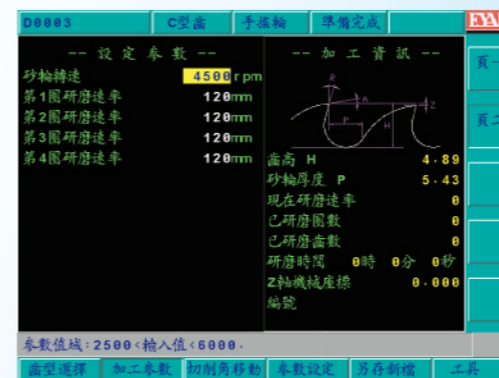
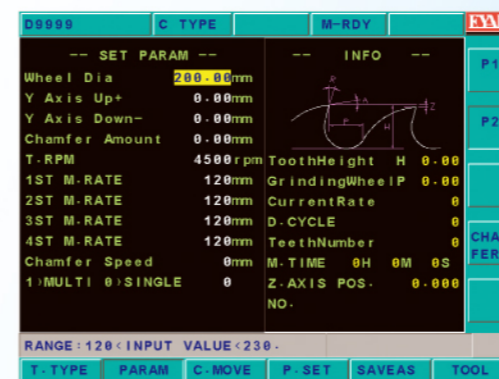
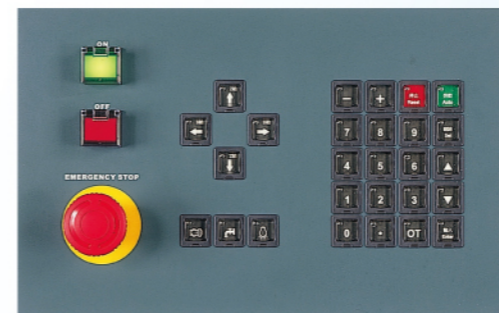
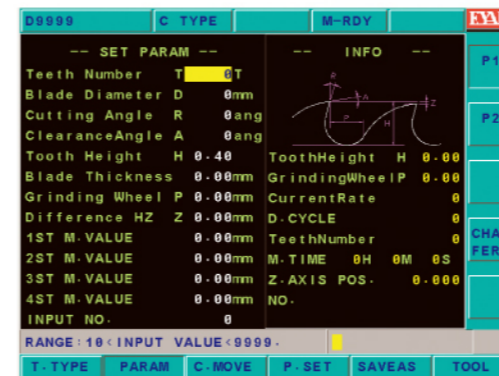
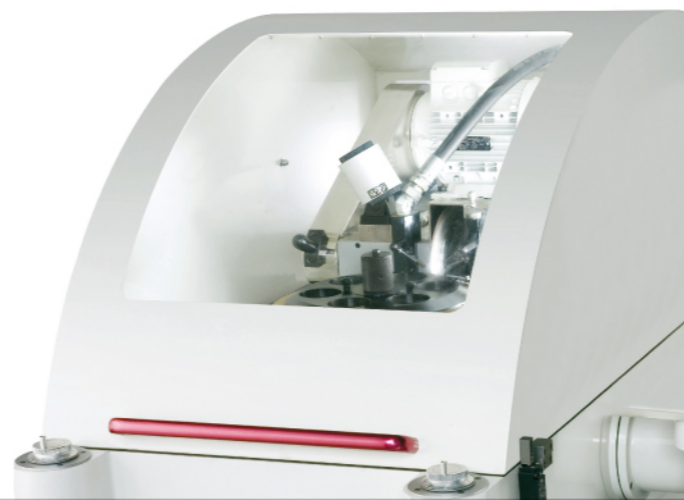


### Patented Splash Guard 專利的防護蓋

The elegant, fully-enclosed splash guard is standard equipment. The guard prevents dust pollution during wet sharpening, reduces noise, and provides an excellent working environment. The new designed and special window provides wider vision and easy to see the grinded object. It is easy to open the guard and convenient to change the saw blade.

結合美學的流線型全罩式安全防護蓋為標準配備，並以溼式研磨，防止粉塵污染及降低噪音，提供您最佳的工作環境。

EMC系列設計新穎，獨樹一格的大型窗口，提供寬闊視野，可用於觀察被磨物件，無需費勁即可打開弧形門工作，更換鋸片更方便。



### ADVANCED CNC CONTROL 先進CNC控制

EMC series with CNC controller employs a colorful LCD screen offers user-friendly operations. According to characters and figures inside the screen, operator can use it easily and save time. In order to grind all teeth of the saw blade perfectly, it designed with CNC automatic machine with three axes control. Users can input all datas including diameter, teeth number, teeth depth, cutting angle, clearance angle, feed speed, and grinding wheel rotation speed in EMC series machines. Consistent grinding quality is easily achieved.

EMC系列 CNC電腦控制器採對話式操作，操作簡易，畫面軟體改變數據輸入減少，操作者可根據LCD彩色螢幕上的文字及圖形進行操作，由於採用新設計，可減少非生產時間。為了完美地研磨鋸片的各個齒面，特別開發帶有三個CNC數控軸自動化機器，EMC系列機種，外徑、齒數、齒高、切削角、背隙角、進給速度、砂輪轉速全部數值化輸入，不但可經濟快速研磨鋸片，且不需要高級技術員，也可以輕易操作。

### GREAT MEMORY CAPACITY 超強記憶功能

The computer provides memory capacity of 9,999 sets of sharpening parameters. When changing the sawblade, the operator can quickly access previous set parameters according to part number, customer number and customer telephone number.

可記憶9999組鋸片研磨參數，於更換鋸片時，可依工作號碼、客戶編號或客戶電話，快速讀取原有的設定參數。

### CBN Diamond Grinding Wheel and Wheel Speed Setting

#### CBN 鑽石砂輪配合砂輪回轉速設定功能

EMC series uses a CBN grinding wheel to do the sharpening work. The grinding wheel speed can be set by the screen operation. By frequency conversion to adjust the speed of grinding wheel, the grinding wheel maintains the best linear speed and grinding efficiency. It can prolong the life of grinding wheel while reduce the cost. (Grinding wheel speed set up range 2500~6000r.p.m.)

EMC系列是以CBN成型砂輪來研磨，砂輪速度可由畫面操作，經由變頻來調整砂輪轉速，使砂輪保持最佳之線速度，維持砂輪最佳之研削率，可有效降低砂輪之磨耗，增加砂輪的使用壽命、降低研磨成本。(砂輪設定範圍2500~6000r.p.m.)

## TOOTH TYPE 研磨齒型



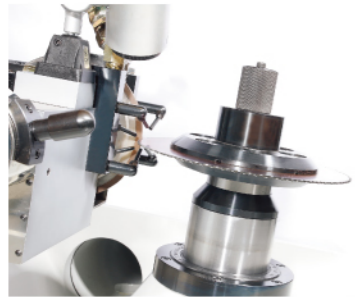
A-Type Teeth 齒型A	B-Type Teeth 齒型B	BW-Type Teeth 齒型BW	C-Type Teeth 齒型C	O-Cutting Off Teeth ○磨除斷齒
For grinding Copper pipe and Aluminum pipe. 可研磨，切銅 管、鋁管之A型 齒。	For grinding curved teeth. 可研磨，一般圓 弧齒之B型齒。	For grinding curved teeth. Grinding and Chamfering. 可研磨，一般圓 弧齒和倒角之BW 型齒。	For the C type teeth with high-low difference. 可研磨，具有高 低差之C型齒。	For whole cutting off teeth could be ground off in one circle. 可磨除斷齒， 轉一圈即可將 斷齒全部磨除。

## FOUR AXES SERVO CONTROL 四軸全伺服控制

EMC series machines are CNC sawblade sharpening machines with four axes servo control. Fully automatic operations for sawblade outer diameter, number of teeth, sharpening amounts, cutting angles, and clearance angles. Humanized two handwheels make re-sharpen old teeth easy to operate.

EMC系列是一部四軸伺服控制CNC鋸片研磨機，外徑、齒數、研磨量、切削角、背隙角全部自動化。人性化的雙手輪設計，使你在翻修齒輪時更加簡單易操作。

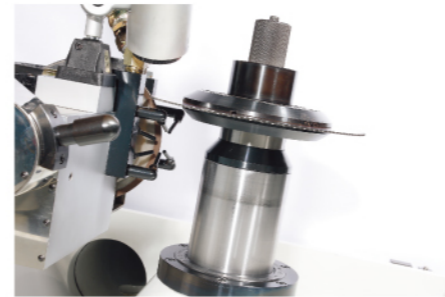
### EMC-500 4A, EMC-620 4A, EMC-810 4A 4 axes chamfering pictures 4軸倒角示意圖



Y axis grinding well picture  
Y軸研磨圖片



Y axis down chamfering picture  
Y軸下面倒角圖片



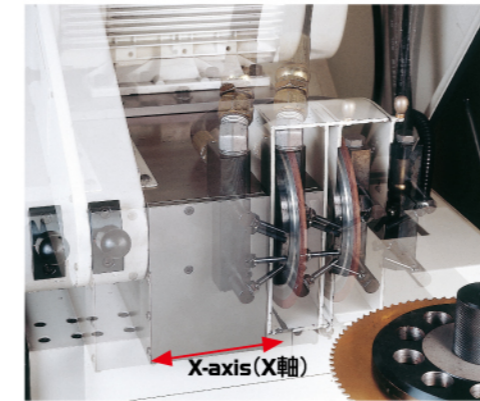
Y axis up chamfering picture  
Y軸上面倒角圖片

## ADVANCED CNC CONTROL 先進CNC控制 High Precision and Easy to Operate 精密、操控簡易



### High Precision Grinding Wheel Spindle 高精密砂輪主軸

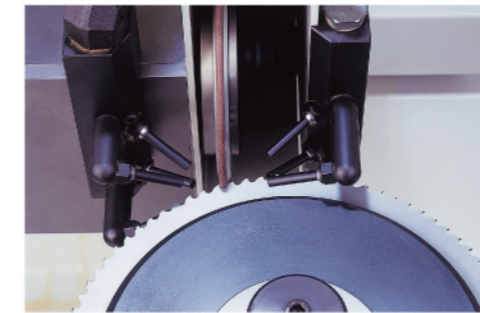
The high precision cartridge-type spindle is an advanced modular construction. This allows for complete spindle unit change, which does not require a highly skilled technician. The feature increases maintenance convenience and reduces the loss of machine down time. 高精密彈筒式主軸，採用先進的模組化設計，提供整組更換式砂輪主軸，不需要高級技術人員，也可以輕易更換，增加你維修的方便性，更可以減少你停機的損失。



### Automatic Cutting Angle Setting 切削角設定自動化

The cutting angle setting (X-axis) is controlled by servomotor. All the operator needs to do is to input the desired cutting angle and the X-axis servomotor will automatically offset to the set angle. Now, with the series of EMC, time-consuming cutting angle adjustment becomes fast and easy. It greatly increases working efficiency, lowers production costs while creating excellent working condition.

切削角設定採用伺服馬達控制，輸入需要的切削角度X軸之伺服馬達即會自動的偏移你所需要的切削角度，從現在起，你不再需費力去調整切削角，可有效的增加你的工作效率，降低了操作成本。



For both cutting new teeth or re-sharpening old teeth, the CBN grinding wheel provides sharpening accomplished in only one circle. This greatly reduces sharpening time.

使用CBN砂輪為研磨材料，不管開新齒或翻修舊齒，平均只需研磨一圈即可，大幅減少研磨時間



Locking Device for Grinding Wheel Dismantling  
拆卸砂輪的剎車裝置

### Waste Oil Collector 廢油回收裝置



### Automatic Lubrication System 自動潤滑系統

The automatic lubricator delivers lubricating oil to all parts that require proper lubrication. Lubrication frequency and oil flow can be set as desired to ensure that the machine runs in the best condition at all times.

需要油潤滑部份，全部使用自動給油潤滑系統，給油時間及油量，可依據實際需要來設定。以確保機器之最佳狀態。



Patented Sawblade Locking Device Design  
專利鋸片鎖緊裝置



Water Tank 水箱

## SPECIFICATIONS 規格表

Item 項目	EMC-500 3A	EMC-500 4A	EMC-620 3A	EMC-620 4A	EMC-810 3A	EMC-810 4A
Grinding Range 研磨範圍	Ø35-Ø500 mm (Optional Ø35-Ø120 mm) (35-120選配)	Ø35-Ø500 mm (Optional Ø35-Ø120 mm) (35-120選配)	Ø35-Ø650 mm (Optional Ø35-Ø120 mm) (35-120選配)	Ø35-Ø620 mm (Optional Ø35-Ø120 mm) (35-120選配)	Ø100-Ø810 mm	Ø100-Ø760 mm
Chamfering Range 倒角範圍		190-500 mm		190-620 mm		300-750 mm
Number of Teeth 研磨齒數	10-998 Teeth 齒	10-998 Teeth 齒	10-998 Teeth 齒	10-998 Teeth 齒	10-998 Teeth 齒	10-998 Teeth 齒
Sawblade Thickness 鋸片厚度	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm
Cutting Angle 切削角	0°-30°	0°-30°	0°-30°	0°-30°	0°-30°	0°-30°
Grinding Speed 研磨速度	1-60 Teeth / Min 齒 / 分	1-60 Teeth / Min 齒 / 分	1-60 Teeth / Min 齒 / 分	1-60 Teeth / Min 齒 / 分	1-60 Teeth / Min 齒 / 分	1-60 Teeth / Min 齒 / 分
Wheel Diameter 砂輪外徑	Ø200 mm	Ø200 mm	Ø200 mm	Ø200 mm	Ø200 mm	Ø200 mm
Wheel Bore 砂輪內徑	Ø32 mm	Ø32 mm	Ø32 mm	Ø32 mm	Ø32 mm	Ø32 mm
Wheel Thickness 砂輪厚度	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm	最厚 Max. 8 mm
Wheel Motor 砂輪馬達	4.0 kw	4.0 kw	4.0 kw	4.0 kw	4.0 kw	4.0 kw
Wheel Speed 砂輪轉速	2500-6000 rpm	2500-6000 rpm	2500-6000 rpm	2500-6000 rpm	2500-6000 rpm	2500-6000 rpm
X-axis Motor X軸馬達	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服
Z-axis Motor Z軸馬達	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服
B-axis Motor B軸馬達	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服	AC Servomotor 伺服
Y-axis Motor Y軸馬達		AC Servomotor 伺服		AC Servomotor 伺服		AC Servomotor 伺服
Coolant pump Motor 冷卻液馬達	1.5 kw	1.5 kw	1.5 kw	1.5 kw	1.5 kw	1.5 kw
Oil Mist Recycle Device 油霧回收器	0.55 kw	0.55 kw	0.55 kw	0.55 kw	0.55 kw	0.55 kw
Magnetic Filter 磁鐵過濾機	25 w	25 w	25 w	25 w	25 w	25 w
Power Require 使用總電力	7.6 kw	8.6 kw	8.5 kw	9.5 kw	8.5 kw	9.5 kw
Net Weight 淨重	1070 kg	1150 kg	1215 kg	1340 kg	1440 kg	1440 kg
Packing Gross Weight 裝箱毛重	1510 kg	1530 kg	1510 kg	1790 kg	1920 kgs	1920 kgs
Packing Size 裝箱尺寸	187x192x197 cm	187x192x197 cm	193x197x205 cm	193x197x205cm	200x201x216 cm	200x201x216 cm

All specifications, dimensions and design characteristics shown in this catalogue are subject to change without prior notice.  
機械規格尺寸若有變更，本公司有修改的權力，不另行通知。

### STANDARD ACCESSORIES 標準附件

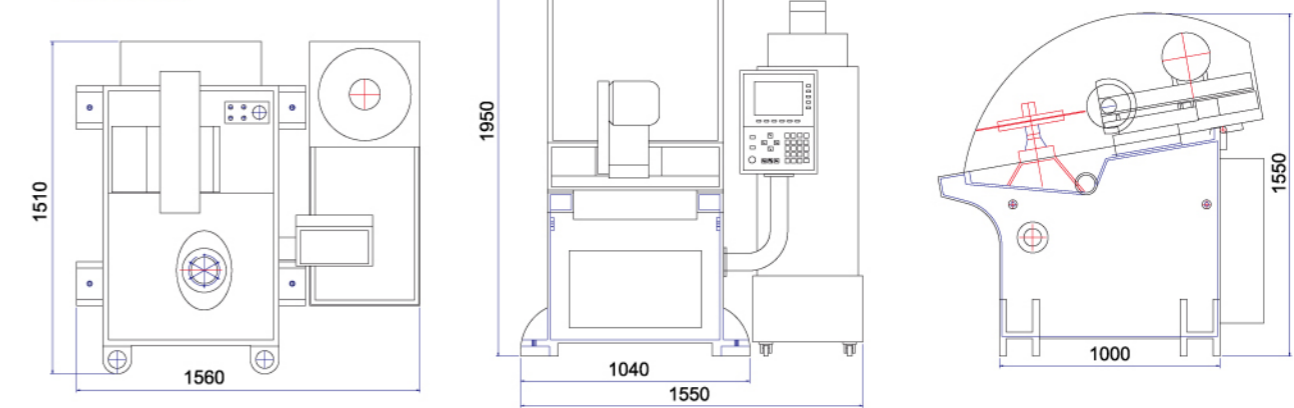
Sawblade Thickness Adjusting Seat Ø 90 mm. (Not for 4A series)	1 set 組
鋸片厚度調整座 Ø 90 mm. (不含4A系列)	1 set 組
Sawblade Clamp Ø 130 mm.	1 set 組
鋸片夾緊盤 Ø 130 mm.	1 set 組
Sawblade Clamp Ø 170 mm.	1 set 組
鋸片夾緊盤 Ø 170 mm.	1 set 組
Sawblade Clamp Ø 200 mm.	1 set 組
鋸片夾緊盤 Ø 200 mm.	1 set 組
Sawblade Clamp Ø 250 mm.	1 set 組
鋸片夾緊盤 Ø 250 mm.	1 set 組
Sawblade Clamp Ø 300 mm.	1 set 組
鋸片夾緊盤 Ø 300 mm.	1 set 組
Fully Enclosed Splash Guard 全密封防護罩	1 set 式
Quartz Work Light 石英燈	1 set 支
High Pressure Cooling System 高壓冷卻液系統	1 set 組
Automatic Lubrication System 自動給油系統	1 set 組
Heat Exchanger for Electrical Cabinet 電器箱熱交換器	1 set 組
Tool Box 工具箱	1 set 組
Oil Mist Collector 油霧回收器	1 set 組
Cutting Oil 切削液	1 tank 桶
CBN Grinding Wheel Ø 200 x 32 x 1.2T	1 pc 片
CBN Grinding Wheel Ø 200 x 32 x 1.4T	1 pc 片

### OPTIONAL ACCESSORIES 選購附件

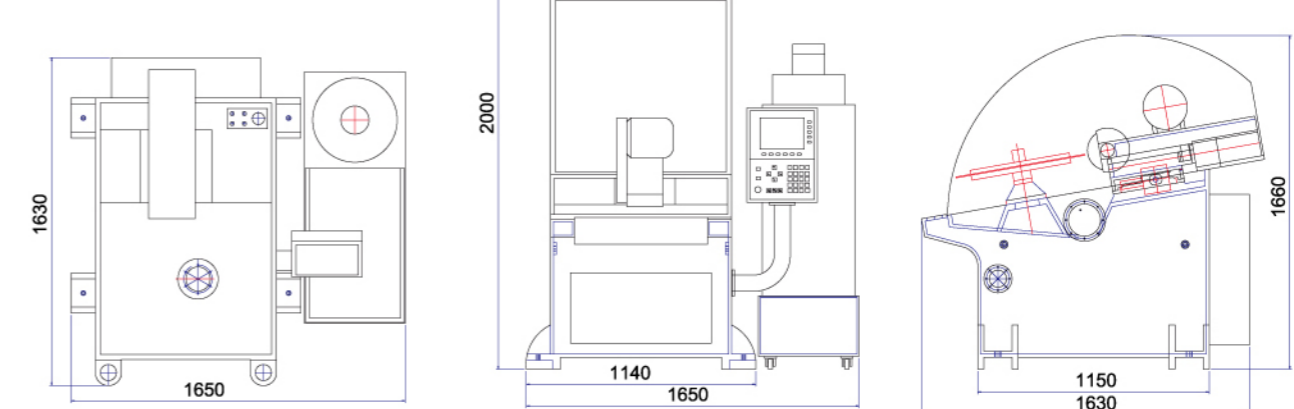
EMC-500	EMC-620	EMC-810
Sawblade Thickness Adjusting Seat Ø 35 mm.	Sawblade Thickness Adjusting Seat Ø 35 mm.	Sawblade Clamp Ø 360 mm.
鋸片厚度調整座 Ø 35 mm.	鋸片厚度調整座 Ø 35 mm.	鋸片夾緊盤 Ø 360 mm.
Sawblade Thickness Adjusting Seat Ø 65 mm.	Sawblade Thickness Adjusting Seat Ø 65 mm.	Sawblade Clamp Ø 410 mm.
鋸片厚度調整座 Ø 65 mm.	鋸片厚度調整座 Ø 65 mm.	鋸片夾緊盤 Ø 410 mm.
Sawblade Clamp Ø 35 mm.	Sawblade Clamp Ø 35 mm.	Sawblade Clamp Ø 460 mm.
鋸片夾緊盤 Ø 35 mm.	鋸片夾緊盤 Ø 35 mm.	鋸片夾緊盤 Ø 460 mm.
Sawblade Clamp Ø 65 mm.	Sawblade Clamp Ø 65 mm.	Sawblade Clamp Ø 510 mm.
鋸片夾緊盤 Ø 65 mm.	鋸片夾緊盤 Ø 65 mm.	鋸片夾緊盤 Ø 510 mm.
Sawblade Clamp Ø 225 mm.	Sawblade Clamp Ø 225 mm.	Sawblade Clamp Ø 560 mm.
鋸片夾緊盤 Ø 225 mm.	鋸片夾緊盤 Ø 225 mm.	鋸片夾緊盤 Ø 560 mm.
Sawblade Clamp Ø 275 mm.	Sawblade Clamp Ø 275 mm.	Sawblade Clamp Ø 610 mm.
鋸片夾緊盤 Ø 275 mm.	鋸片夾緊盤 Ø 275 mm.	鋸片夾緊盤 Ø 610 mm.
Sawblade Clamp Ø 325 mm.	Sawblade Clamp Ø 325 mm.	Sawblade Clamp Ø 660 mm.
鋸片夾緊盤 Ø 325 mm.	鋸片夾緊盤 Ø 325 mm.	鋸片夾緊盤 Ø 660 mm.
Sawblade Clamp Ø 350 mm.	Sawblade Clamp Ø 350 mm.	Sawblade Clamp Ø 710 mm.
鋸片夾緊盤 Ø 350 mm.	鋸片夾緊盤 Ø 350 mm.	鋸片夾緊盤 Ø 710 mm.
Sawblade Clamp Ø 400 mm.	Sawblade Clamp Ø 400 mm.	Diamond Dressing Bar 鑽石修整石
鋸片夾緊盤 Ø 400 mm.	鋸片夾緊盤 Ø 400 mm.	Grinding Wheel Dresser 白色修利石
Diamond Dressing Bar 鑽石修整石	Sawblade Clamp Ø 450 mm.	Automatic Voltage Stabilizer A.V.S. 穩壓器AV
Grinding Wheel Dresser 白色修利石	鋸片夾緊盤 Ø 450 mm.	Cutting Oil 切削液
Automatic Voltage Stabilizer A.V.S. 穩壓器AV	Sawblade Clamp Ø 510 mm.	Lubricating Oil 滑道油
Cutting Oil 切削液	鋸片夾緊盤 Ø 510 mm.	
Lubricating Oil 滑道油	Sawblade Clamp Ø 560 mm.	
	鋸片夾緊盤 Ø 560 mm.	
	Diamond Dressing Bar 鑽石修整石	
	Grinding Wheel Dresser 白色修利石	
	Automatic Voltage Stabilizer A.V.S. 穩壓器AV	
	Cutting Oil 切削液	
	Lubricating Oil 滑道油	

## Measurement 機械尺寸圖

### EMC-500



### EMC-620



### EMC-810

