

BR-650 圓鋸片剖溝機 Circular Saw Blade Chip Break Machine
BW-650 圓鋸片倒角機 Circular Saw Blade Chamfering Machine

BR 650 圓鋸片剖溝機

Circular Saw Blade Chip Break Machine

Automatic and vertical-type chip break slot grinding machine, allows for Variable grinding speed from 15-50 teeth per minute.

自動立式剖溝研磨機，
使用無段變速，研磨速度每分鐘15~50齒。

Brand new design 全新的設計

- Meticulous design after years' relentless hard working. One professional class chip break m/c. 本機經過多年的精心設計，是一部專業級的鋸片剖溝機。
- Automatic chip breaker slot grinding machine is for grinding HSS-TCT saw blade. 自動剖溝研磨機適用於研磨HSS-TCT鋸片。
- BR-650 is a precision and automatic slotting machine. Patented vertical type slotting way can set interval teeth for alternate slotting quickly. All-electric type high-frequency spindle with speed up to 40000RPM which effectively extending life of grinding wheel. Installing counter, the machine will automatically stop when slotting is completed. BR-650是一部精密自動化的剖溝機設備，專利直立式的剖溝方式，能快速設定間隔齒交叉剖溝研磨，全電式高頻電動主軸速度高達40000RPM，可以有效的延長砂輪的使用壽命。由於裝置了計數器，機器會剖溝完成時自動停止。
- BR-650 Using wet grinding, to avoid saw blade charred. BR-650採用濕式研磨可避免鋸片燒焦。

Step-less speed variation 無段變速

- Use frequency converter to control the speed of grinding. Therefore, grinding speed can be adjusted with the change of teeth pitch. 使用變頻器去控制研磨速度。所以，可隨齒距的變化來調整所需要的研磨速度。



Quick clamp saw blade device
快速夾鉗裝置

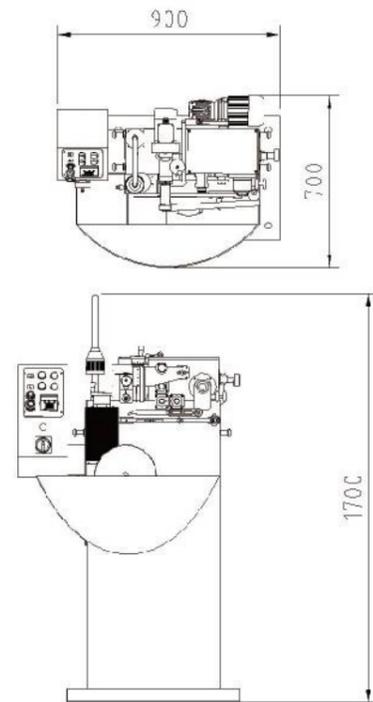


Patent certificates
專利證書



Counter
計數器

Measurement 尺寸圖



Specifications 規格表

Grinding Range 研磨範圍	Ø140~650 mm
Teeth Pitch 齒距	最大 Max. 25 mm
Saw Blade Thickness 鋸片厚度	最大 Max. 8 mm
Grinding Speed 研磨速度	15~50 teeth/min. 齒/分鐘
Grinding Wheel Diameter 砂輪外徑	Ø30 mm
Grinding Wheel ID 砂輪內徑	Ø6mm
Grinding Wheel Motor 砂輪馬達	370 W
Transmission Motor 傳動馬達	0.25 KW
Cooling Motor 冷卻馬達	0.09 KW
Grinding Wheel Speed (50Hz / 60Hz) 砂輪轉速	1000~40000 rpm
Power Supply 使用總電力	0.75 KW
Net Weight / Gross Weight 淨重/毛重	264 / 322kg
Packing Size 裝箱尺寸	88 x 108 x 185 cm

Standard Accessories 標準配備

Work Light 工作燈	1 pc 個
Bushing 軸套 32/40mm	1 pc 個
Tool Box 工具箱	1 set 套
Instruction Manual 說明書	1 copy 份
Diamond Grinding Wheel 鑽石砂輪	3 PCS 片

※ All designs, spec. and characteristics shown as above is subject to any change without further notice. 因設計或製造上的必要，如有變更恕不另行通知。

BR 650 圓鋸片剖溝機

Circular Saw Blade Chip Break Machine



BW 650 圓鋸片倒角機

Circular Saw Blade Chamfering Machine

Automatic and vertical-type chamfering machine, Using Step-less speed variation, the grinding speed can be 30~100 teeth per minute.

自動立式鋸片倒角機，
使用無段變速，研磨速度每分鐘30~100齒。

Brand new design 全新的設計

- Meticulous design after years' relentless hard working. One professional class chamfering m/c.
本機經過多年的精心設計，是一部專業級的鋸片倒角機。
- Patented CBN grinding wheels each on left and right, synchronized chamfer. Humanize vertical sawblade grinding way, you can operate the machine easily.
專利左右兩片鑽石砂輪，同步倒角，人性化直立式鋸片研磨方式，可以使您輕易的操作機器。
- Automatic chamfering machine is for grinding HSS saw blade.
自動倒角研磨機適用於研磨HSS鋸片。
- BW-650 Using wet grinding, to avoid saw blade charred.
BW-650採用溼式研磨可避免鋸片燒焦。

Step-less speed variation 無段變速

- Use frequency converter to control the speed of grinding. Therefore, grinding speed can be adjusted with the change of teeth pitch.
使用變頻器去控制研磨速度。所以，可隨齒距的變化來調整所需要的研磨速度。

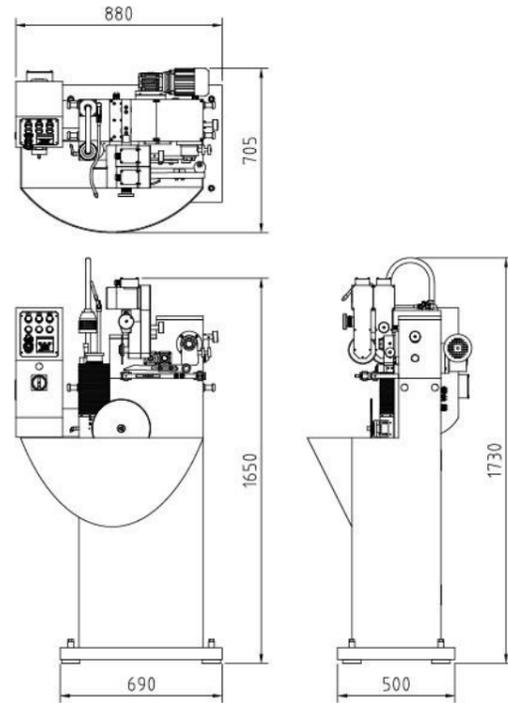


Patent certificates
專利證書



Counter
計數器

Measurement 尺寸圖



Specifications 規格表

Grinding Range 研磨範圍	Ø150~650 mm
Teeth Pitch 齒距	最大 Max. 25 mm
Saw Blade Thickness 鋸片厚度	最大 Max. 8 mm
Grinding Speed 研磨速度	30~100 teeth/min. 齒/分鐘
Grinding Wheel Diameter 砂輪外徑	Ø125 mm
Grinding Wheel ID 砂輪內徑	Ø 25 mm
Grinding Wheel Motor 砂輪馬達	300 W
Transmission Motor 傳動馬達	0.18 KW
Cooling Motor 冷卻馬達	0.09 KW
Grinding Wheel Speed (50Hz / 60Hz) 砂輪轉速	6600 rpm
Power Supply 使用總電力	0.75 KW
Net Weight / Gross Weight 淨重/毛重	288 / 348kg
Packing Size 裝箱尺寸	88 x 108 x 192 cm

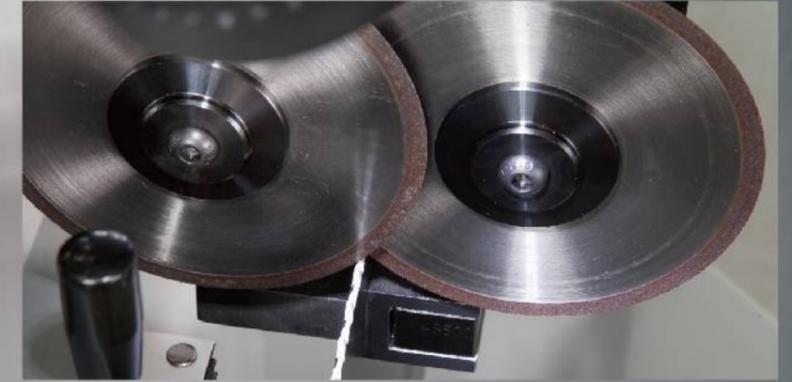
Standard Accessories 標準配備

Work Light 工作燈	1 pc 個
Bushing 軸套 32/40mm	1 pc 個
Tool Box 工具箱	1 set 套
Instruction Manual 說明書	1 copy 份
Diamond Grinding Wheel 鑽石砂輪	2 pc 片

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BW 650 圓鋸片倒角機

Circular Saw Blade Chamfering Machine



CBN grinding wheels each on left and right, synchronized chamfer.
Quick chamfering which can cooperate to 5~6 sets of saw blade sharpening machine.
This is the best machine for grinding company to save labor and reduce the cost.

左右兩片鑽石砂輪，同步倒角。
本機操作簡單。倒角快速，可配合5~6部鋸片研磨機作業，是研磨業者節省人力降低成本的最佳利器。



Chamfering Examples 倒角加工例



Alternative Teeth 交互齒

High-low Teeth 高低齒

SU1200/850/650

FRICITION SAW BLADE SHARPENING MACHINE 摩擦式鋸片研磨

SUPERIOR INNOVATION AND BRAND NEW DESIGN / 全新設計

- A new generation design based on years practical experience and therefore create one professional class friction saw blade sharpening machine.
本機經過多年的精心設計，是一部專業級的摩擦式鋸片研磨機。
- The patented vertical grinding direction, easy to operate controls.
專利直立式鋸片研磨方式，可以使您輕易的操作機器。
- Brand New Deign: The vertical type friction saw blade sharpening machine is made with the thinking of operator as top priority. All adjustment levers have been properly arranged, which allows operator to adjust rather cutting angle, back clearance angle, tooth depth and pitch of saw blade easily. Therefore, grinding sharp saw blade became quick and precise.
全新的設計，本著操作者的立場所設計的直立式摩擦式鋸片研磨機，其所有的調整桿，均做了合理的排列，讓操作者可以很容易調整鋸齒的切削角、背隙角、齒深及齒距，所以可以快而準確的研磨出鋒利的鋸片。

PATENTED SAW BLADE THICKNESS ADJUSTMENT / 專利的鋸片厚度調整

- Saw blade thickness is clamped by two synchronic movement mechanisms at the same time.
It can help the saw blade in the center position. Therefore, no need to adjust the thickness of saw blade manually. Besides, as saw blade is clamped well, the grinding noise can be lowered.
鋸片厚度經兩個同動的機構同時夾持，可將鋸片夾持在中心位置，所以不必再手動調整鋸片厚度。同時因為將鋸片夾持研磨，所以可以降低研磨時的噪音。

INVERTER CONTROLS THE SPEED / 變頻器變速

- The machine equipped with inverter which can control the speed of grinding.
使用變頻器來控制研磨速度。
- The grinding speed can be adjusted with the change of tooth pitch.
可隨齒距的變化來調整所需要的研磨速度。
- Main parts all utilize SKD 11 high carbide steel and have been through grinding and heat treatment.
主要零件均採用SKD11高碳鋼，並經熱處理研磨。
- Prop stand for feeding shaft of saw blade: Use high strength copper alloy as basic material with high-tech made solid lubricant added inside. It got features of high loading capacity and wearing resistance even without any need to apply lubricant additionally.
鋸片推給軸支撐座：使用高強度銅合金作基材，埋入高科技技術製造之固體潤滑劑，其高負荷、耐磨耗的特性更達到完全無給油功能。

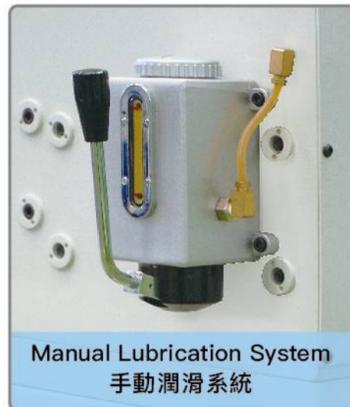
Professional Class Friction Saw Blade Sharpening Machine 專業級的摩擦式鋸片研磨機



Optional Accessories / 選購配件



Acrylic Guard
壓克力護罩



Manual Lubrication System
手動潤滑系統



易研精密機械有限公司
EYAN MACHINE TOOLS CO., LTD.



SU-1200/SU-850/SU-650 摩擦式鋸片研磨機
FRICITION SAW BLADE SHARPENING MACHINE



SU1200

摩擦式鋸片研磨機

FRICITION SAW BLADE SHARPENING MACHINE

GRINDING SERIES 研磨例



● Friction Saw Blade 摩擦式鋸片

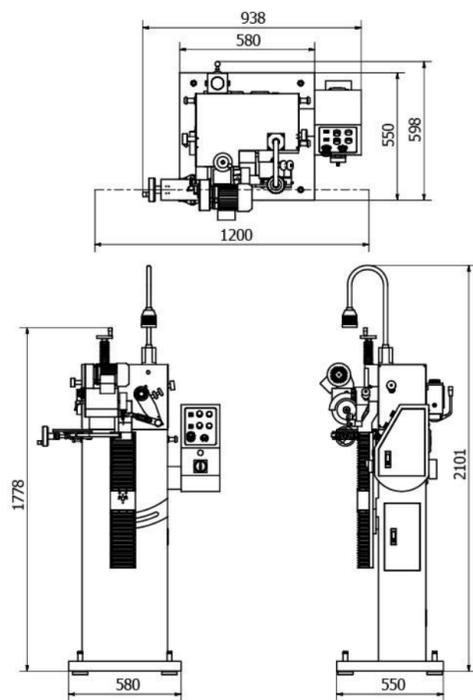


● Friction Saw Blade ECO



● Stepless speed variation adjustment button
無段變速調整鈕

Machine Dimensions / 機械尺寸圖



Standard Accessories / 標準配備

Work Light工作燈	1 pc/個
Tool Box工具箱	1 set/套
Instruction Manual說明書	1 copy/份
Guide Plate導板	1 pc/片
Grinding Wheel砂輪	10 pcs/片

Specifications / 規格表

Saw Blade Diameter研磨範圍	Ø450 ~ Ø1200mm
Tooth Pitch齒距	25 mm
Saw Blade Thickness鋸片厚度	12 mm
Grinding Speed研磨速度	10 ~ 100
Cutting Angle切削角	-5 ~ +15
Grinding Wheel Diameter砂輪外徑	Ø180
Grinding Wheel Motor砂輪馬達	0.75 kw
Transmission Motor傳動馬達	0.37 kw
Grinding Wheel Speed (50HZ/60HZ)砂輪轉速	3800 / 4500 rpm
Net Weight / Gross Weight淨重/毛重	373 / 443 kg
Package Size裝箱尺寸	125x114x210 cm

SU850

摩擦式鋸片研磨機

FRICITION SAW BLADE SHARPENING MACHINE

GRINDING SERIES 研磨例



● Friction Saw Blade 摩擦式鋸片

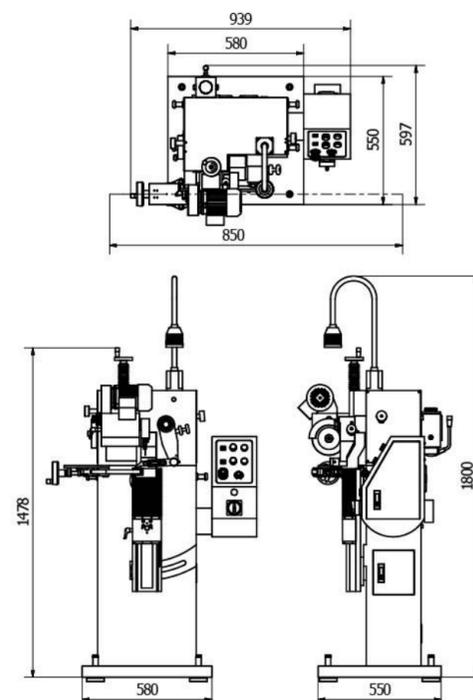


● Friction Saw Blade ECO



● Stepless speed variation adjustment button
無段變速調整鈕

Machine Dimensions / 機械尺寸圖



Specifications / 規格表

Saw Blade Diameter研磨範圍	Ø350 ~ Ø850mm
Tooth Pitch齒距	25 mm
Saw Blade Thickness鋸片厚度	12 mm
Grinding Speed研磨速度	10 ~ 100
Cutting Angle切削角	-5 ~ +15
Grinding Wheel Diameter砂輪外徑	Ø180mm
Grinding Wheel Motor砂輪馬達	0.75 kw
Transmission Motor傳動馬達	0.37 kw
Grinding Wheel Speed (50HZ/60HZ)砂輪轉速	3800 / 4500 rpm
Net Weight / Gross Weight淨重/毛重	277 / 354 kg
Package Size裝箱尺寸	117x114x176 cm

Standard Accessories / 標準配備

Work Light工作燈	1 pc/個
Tool Box工具箱	1 set/套
Instruction Manual說明書	1 copy/份
Guide Plate導板	1 pc/片
Grinding Wheel砂輪	10 pcs/片

SU650

摩擦式鋸片研磨機

FRICITION SAW BLADE SHARPENING MACHINE

GRINDING SERIES 研磨例



● Friction Saw Blade 摩擦式鋸片

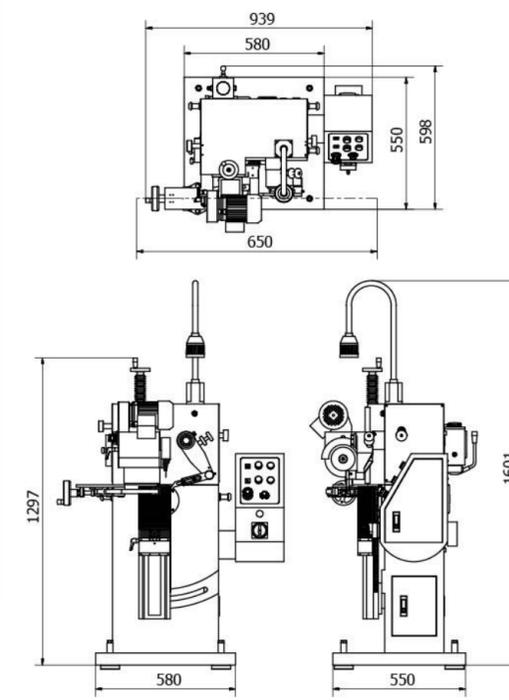


● Friction Saw Blade ECO



● Stepless speed variation adjustment button
無段變速調整鈕

Machine Dimensions / 機械尺寸圖



Specifications / 規格表

Saw Blade Diameter研磨範圍	Ø250 ~ Ø650mm
Tooth Pitch齒距	25 mm
Saw Blade Thickness鋸片厚度	12 mm
Grinding Speed研磨速度	10 ~ 100
Cutting Angle切削角	-5 ~ +15
Grinding Wheel Diameter砂輪外徑	Ø180mm
Grinding Wheel Motor砂輪馬達	0.75 kw
Transmission Motor傳動馬達	0.37 kw
Grinding Wheel Speed (50HZ/60HZ)砂輪轉速	3800 / 4500 rpm
Net Weight / Gross Weight淨重/毛重	261 / 340 kg
Package Size裝箱尺寸	102x114x165 cm

Standard Accessories / 標準配備

Work Light工作燈	1 pc/個
Tool Box工具箱	1 set/套
Instruction Manual說明書	1 copy/份
Guide Plate導板	1 pc/片
Grinding Wheel砂輪	10 pcs/片



EMA-650/EMA-500 CNC 圓鋸片研磨機
CNC Circular Saw Blade Sharpening Machine

EMA

CNC 圓鋸片研磨機
CNC Circular Saw Blade Sharpening Machine



Double hand wheel design makes the operator can move Z axis & B axis at the same time to locate quickly. Also increase the grinding efficiency.

雙手輪的設計，Z軸和B軸同時移動，可快速定位；增加研磨效率。

Stainless Steel Half-lift Type Full Cover

全罩半掀式不鏽鋼護蓋

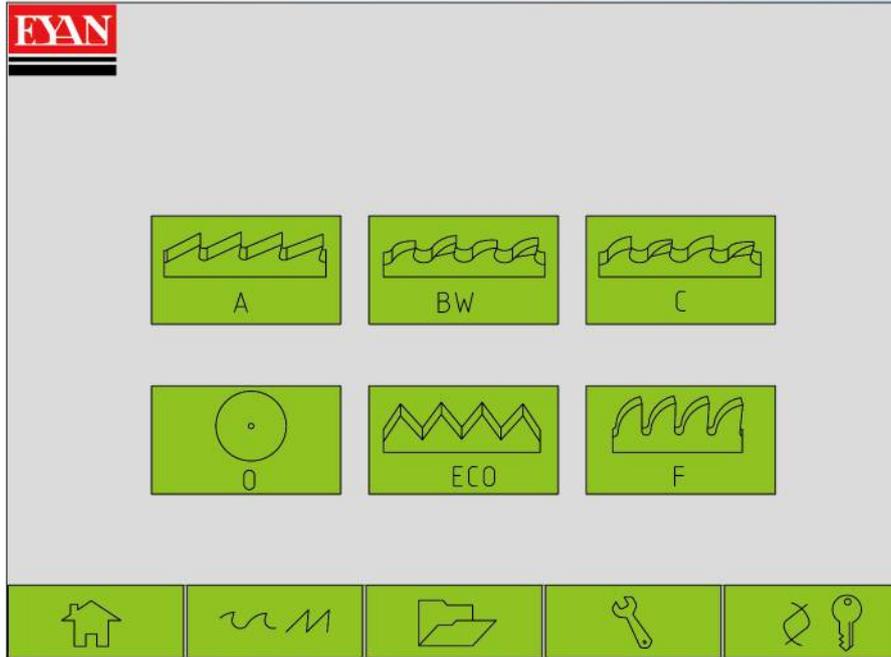
Stainless steel SU304 half-lift type full cover

全罩半掀式SU304不鏽鋼護蓋

All inner cover plate using SU304 stainless steel; not rust permanently.

所有內部板金蓋板均為SU304不鏽鋼材質，永不生鏽





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

The newly designed touch screen with patented graphical display which makes no more language barriers. Any language speakers can learn quickly. Add F & ECO teeth type for friction saw blade. EMA models are the best choice for your working requirement.

In order to grind all teeth of the saw blade perfectly, it designed with CNC automatic machine with four axes control. Users can input all datas including diameter, teeth number, teeth height, cutting angle, back clearance angle, feed speed, grinding wheel rotation speed, and up-down chamfer in EMA series machines. Sawblade can be grinded fast and economical, the machine can easily be operated without needing skilled technician.

全新設計的觸控螢幕，專利的圖形顯示，不再有語言障礙，任何語言均可快速學習。全新的EMA-500、EMA-650除了原有的A、BW、C、O型齒外再新增加摩擦式齒型F和ECO齒型，使EMA機型更能符合您的工作需要。

為了完美地研磨鋸片的各個齒面，特別開發帶有四個CNC數控軸自動化機器，EMA系列機種，外徑、齒數、齒高、切削角、背隙角、進給速度、砂輪轉速，上下倒角全部數值化輸入，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。

TOOTH TYPE 研磨齒型

 <p>A</p>	 <p>BW</p>	 <p>C</p>	 <p>ECO</p>	 <p>F</p>	 <p>O</p>
<p>For grinding Copper pipe and Aluminum pipe.</p> <p>可研磨，切銅管、鋁管之A型齒。</p>	<p>For grinding Curved teeth. Grinding and Chamfering.</p> <p>可研磨，一般圓弧齒和倒角之BW型齒。</p>	<p>For the C type teeth with high-low difference.</p> <p>可研磨，具有高低差之C型齒。</p>	<p>For grinding ECO teeth type of Friction Saw Blade.</p> <p>可研磨，摩擦式鋸片之ECO型齒。</p>	<p>For grinding F teeth type of Friction Saw Blade.</p> <p>可研磨，摩擦式鋸片之F型齒。</p>	<p>For whole cutting off teeth could be ground off in one circle.</p> <p>可磨除斷齒，轉一圈即可將斷齒全部磨除。</p>

FOUR AXES SERVO CONTROL 四軸全伺服控制

EMA 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, back clearance angles, and up-down chamfer. Humanized two handwheels make re-sharpen old teeth easy to operate.

EMA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，上下倒角全部自動化。人性化的雙手輪設計，使你在翻修齒輪時更加簡單易操作。

EMA-650 4A, EMA-500 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



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。



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



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

SPECIFICATIONS 規格表

Item 項目	EMA-500 3A	EMA-500 4A	EMA-650 3A	EMA-650 4A
Grinding Range 研磨範圍	Ø95~Ø500 mm (Optional Ø45~Ø120 mm) (45~120選配)	Ø95~Ø500 mm (Optional Ø45~Ø120 mm) (45~120選配)	Ø100~Ø650 mm	Ø100~Ø650 mm
Chamfering Range 倒角範圍		Ø155~Ø500 mm		Ø170~Ø650 mm
Number of Teeth 研磨齒數	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
Cutting Angle 切削角	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
Wheel Diameter 砂輪外徑	Ø200 mm	Ø200 mm	Ø200 mm	Ø200 mm
Wheel Bore 砂輪內徑	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
Wheel Motor 砂輪馬達	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
X-axis Motor X軸馬達	AC Servo motor 伺服	AC Servo motor 伺服	AC Servo motor 伺服	AC Servo motor 伺服
Z-axis Motor Z軸馬達	AC Servo motor 伺服	AC Servo motor 伺服	AC Servo motor 伺服	AC Servo motor 伺服
B-axis Motor B軸馬達	AC Servo motor 伺服	AC Servo motor 伺服	AC Servo motor 伺服	AC Servo motor 伺服
Y-axis Motor Y軸馬達		AC Servo motor 伺服		AC Servo motor 伺服
Coolant pump Motor 冷卻液馬達	1.6 kw	1.6 kw	1.6 kw	1.6 kw
Oil Mist Recycle Device 油霧回收器	0.55 kw	0.55 kw	0.55 kw	0.55 kw
Iron Filter 鐵屑過濾機	25 w	25 w	25 w	25 w
Power Require 使用總電力	9 kw	10 kw	9 kw	10 kw
Net Weight 淨重	870 kg	954 kg	968 kg	1002 kg
Packing Gross Weight 裝箱毛重	1264 kg	1342 kg	1362 kg	1425 kg
Packing Size 裝箱尺寸	188x173x206 cm	188x173x206 cm	197x198x225 cm	197x198x225cm

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。

EMA-500		EMA-650	
STANDARD ACCESSORIES 標準附件	OPTIONAL ACCESSORIES 選購附件	STANDARD ACCESSORIES 標準附件	OPTIONAL ACCESSORIES 選購附件
Sawblade Thickness Adjusting Seat Ø90 mm. 鋸片厚度調整座 Ø90 mm. Sawblade Clamp 鋸片夾緊盤 Ø150 mm Sawblade Clamp 鋸片夾緊盤 Ø200 mm Sawblade Clamp 鋸片夾緊盤 Ø250 mm. Sawblade Clamp 鋸片夾緊盤 Ø300 mm. Sawblade Clamp 鋸片夾緊盤 Ø350 mm. Sawblade Clamp 鋸片夾緊盤 Ø400 mm. Oil Mist Recycle Device 油霧回收器 Iron Filter 鐵屑過濾機 Tool Box 工具箱 Cutting Oil 切削液 Diamond Dressing Bar 鑽石修整石 Grinding Wheel Dresser 白色修利石 CBN Grinding Wheel Ø200 x 32 x 1.3T CBN砂輪 Ø200 x 32 x 1.3T CBN Grinding Wheel Ø200 x 32 x 1.75T CBN砂輪 Ø200 x 32 x 1.75T	Sawblade Thickness Adjusting Seat Ø35 mm. 鋸片厚度調整座 Ø35 mm. Sawblade Thickness Adjusting Seat Ø65 mm. 鋸片厚度調整座 Ø65 mm. Sawblade Clamp Ø35 mm. 鋸片夾緊盤 Ø35 mm. Sawblade Clamp Ø65 mm. 鋸片夾緊盤 Ø65 mm. Sawblade Clamp Ø90 mm. 鋸片夾緊盤 Ø90 mm. Sawblade Clamp Ø120 mm. 鋸片夾緊盤 Ø120 mm. Diamond Dressing Bar 鑽石修整石 Grinding Wheel Dresser 白色修利石 Automatic Voltage Stabilizer 穩壓器 Cutting Oil 切削液 Lubricating Oil 滑道油	Sawblade Thickness Adjusting Seat Ø90 mm. 鋸片厚度調整座 Ø90 mm. Sawblade Clamp 鋸片夾緊盤 Ø150 mm Sawblade Clamp 鋸片夾緊盤 Ø200 mm. Sawblade Clamp 鋸片夾緊盤 Ø250 mm. Sawblade Clamp 鋸片夾緊盤 Ø300 mm. Sawblade Clamp 鋸片夾緊盤 Ø350 mm. Sawblade Clamp 鋸片夾緊盤 Ø400 mm. Sawblade Clamp 鋸片夾緊盤 Ø450 mm. Sawblade Clamp 鋸片夾緊盤 Ø500 mm. Oil Mist Recycle Device 油霧回收器 Iron Filter 鐵屑過濾機 Tool Box 工具箱 Cutting Oil 切削液 Diamond Dressing Bar 鑽石修整石 Grinding Wheel Dresser 白色修利石 CBN Grinding Wheel Ø200 x 32 x 1.3T CBN砂輪 Ø200 x 32 x 1.3T CBN Grinding Wheel Ø200 x 32 x 1.75T CBN砂輪 Ø200 x 32 x 1.75T	Diamond Dressing Bar 鑽石修整石 Grinding Wheel Dresser 白色修利石 Automatic Voltage Stabilizer 穩壓器 Cutting Oil 切削液 Lubricating Oil 滑道油 Sawblade Clamp Ø90 mm 鋸片夾緊盤 Sawblade Clamp Ø120 mm 鋸片夾緊盤

Measurement 機械尺寸圖

