

外圓磨床 / 中心孔磨床
CNC Cylindrical Grinder / Center Hole Grinder



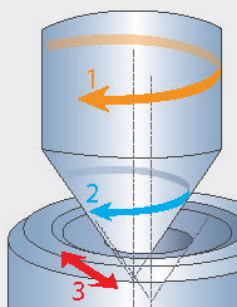
PRC 中心孔磨床

CENTER HOLE GRINDER

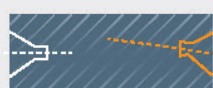
獨特的研磨動作【3D 同步研磨，保證中心孔精準】

EXCLUSIVE GRINDING MOTIONS

3D synchronize grinding guarantees high accuracy of center holes.



- 1 砂輪的旋轉運動
 - 2 砂輪主軸行星運動
 - 3 砂輪沿錐形表面直線往復運動
- 1 Grinding wheel rotation.
 - 2 Grinding wheel spindle performs planetary motion.
 - 3 Grinding wheel moves reciprocally along the conic surface.



中心孔定位精準，中心孔與軸心對準誤差小於 $10 \mu\text{m}$
Extra high positioning accuracy center hole achieves less than $10 \mu\text{m}$ of alignment error between center hole and axial center.



內錐孔角度誤差小於 10 秒
Internal taper angle error is less than 10 seconds.



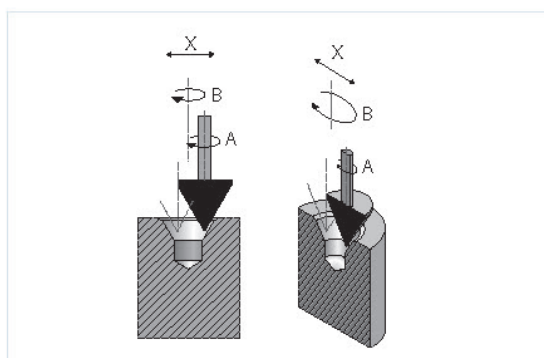
- 工件設定精準，真圓度誤差小於 $1 \mu\text{m}$
- 中心孔表面粗度 $N4 \sim N6 = 0.2 - 0.8 \mu\text{m}$
- High accuracy workpiece setup permits roundness error less than $1 \mu\text{m}$.
- Center hole surface roughness $N4 \sim N6 = 0.2 - 0.8 \mu\text{m}$.

- 砂輪修整採 NC 控制，具修整量尺寸補正功能
- 工件夾持自動對心，簡化工件設定

- Grinding wheel dressing is NC controlled with dressing amount compensation function.
- Automatic centering for workpiece clamping simplifies workpiece setup.

■ 中心孔研磨示意圖

Center Hole Grinding Examples



■ 機械規格

Machine Specifications

	PRC-1000	PRC-1500
中心孔直徑 Center hole dia.	$\varnothing 1 \sim \varnothing 60 \text{ mm}$	
工作夾持範圍 Work-piece clamping range	$\varnothing 4 \sim \varnothing 220 \text{ mm}$	
工件長度與重量 Work-piece length and weight	50 ~ 1,000 mm, max. 120 kgs	50 ~ 1,500 mm, max. 120 kgs
中心孔角度 Center hole angle	60°	
砂輪主軸轉速 Grinder wheel spindle speed	45,000 rpm/min.	

標準及選用配備

STANDARD & OPTIONAL ACCESSORIES



符合 CE 安全規範的電控系統 (標準)

- 採用高品級電氣元件。
- 具自我偵測功能，並附警示燈指示。
- 電控箱內部具防塵，防水特性。

Control System Meets European Standards

- The control system consists of top quality electronic components which comply with European safety requirements.
- The control system has a self-diagnostic function and warning light for clear identification.
- The interior of the control cabinet is dust-proof and fluid-proof.



外徑量測裝置 (選配)
Outside Diameter Measuring Device



端面量測裝置 (選配)
End Face Touch Probe

標準配備	Standard Accessories
砂輪及法蘭 x 1 組	Grinding wheel and flange x 1 set
砂輪修整座 x 1 組	Diamond tool holder x 1 set
頂針 x 2 支	Carbide center taper x 2 pcs
冷卻附件 x 1 組	Coolant equipment x 1 set
油壓幫浦及油箱 x 1 組	Hydraulic pump and oil tank x 1 set
工具箱 x 1 組	Tool box x 1set
工作燈 x 1 組	Work light x 1set
選購配備	Optional Accessories
內徑研磨裝置 (含三爪夾頭及一支選定 rpm 之主軸)	Internal grinding attachment (including 3-jaw chuck anode spindle)
內外徑通用修整座 (上掀式)	Diamond tool holder for internal and external grinding wheel dressing (upward open type)
內外徑通用修整座 (側掀式)	Diamond tool holder for internal and external grinding wheel dressing (sideward open type)
尾座修整座 (固定式)	Diamond tool holder (tailstock mounted type)
角度修整座	Angle trimming device
半徑修整座	Radius trimming device
凸輪式帶動環	Cam locked driving dogs
二端支持座	Work steady rest
二點式支持座	2-point steady rest
三點式中心架	3-point steady rest
三爪夾頭 (含法蘭板)	Adjustable 3-jaw scroll chuck
四爪夾頭 (含法蘭板)	Adjustable 4-lock chuck
電磁除屑機	Magnetic coolant separator
磁鐵 + 紙帶過濾機	Magnetic filter with paper
平衡台及心軸	Wheel balancing stand and arbor
端面量測裝置 (RENISHAW / MARPOSS)	End face touch probe (RENISHAW / MARPOSS)
外徑量測裝置 (MARPOSS / TOKYO SEIMITSU)	O.D. measuring device (MARPOSS / TOKYO SEIMITSU)



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