



# LIH JAAN PRECISION MACHINERY GRINDER EXPERT

The provider of the best grinding solutions.



## 通展精機股份有限公司

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ISO 9001:2015  
Quality  
Management System



ISO 14064-1:2018  
Greenhouse Gases  
Specification with Guidance  
at the Organization Level



最佳研磨方案的提供者

# 通展精機

研磨解決師

高精度、高效率、高品質、高穩定、高耐用

HIGH PRECISION、HIGH EFFICIENCY、HIGH QUALITY、HIGH STABILITY、HIGH DURABILITY

# 公司簡介 Company Profile

**通展精機工業股份有限公司**：成立於1984年，初期以「立展工業社」名義經營，並於1990年正式登記成立。憑藉超過40年的精密研磨技術經驗，本公司專注於研發與製造高精度、高效率的CNC與油壓磨床，致力於為全球客戶提供優質的精密研磨解決方案。

公司自創立以來，秉持「**高精度、高品質、高效率、高耐用、高穩定**」的五大核心理念，打造兼具卓越性能與長久耐用的磨床設備，滿足各產業對精密加工的嚴苛需求。我們的產品涵蓋**CNC精密螺紋磨床、圓筒磨床、內徑磨床、蝸桿磨床及重壓滾輪磨床**等，廣泛應用於航太、汽車、工具機、精密傳動與電子產業。

通展精機持續投入技術創新與品質管理，陸續獲得多項國內外專利，包括M369812、M528828、M577775、M576933及M579568等，確保產品技術領先業界。此外，公司於2023年取得**全系列圓筒油壓磨床CE認證**，並通過**ISO 9001品質管理系統與ISO 14064-1溫室氣體盤查標準認證**，展現對品質與環保責任的高度承諾。

未來，通展精機將持續秉持「五高」核心價值，提升研磨技術與設備性能，攜手產業夥伴，提供全球客戶最佳的研磨解決方案。

**LIH JAAN Precision Machinery Co., Ltd.** was established in 1984, with over 40 years of experience in precision grinding technology. We specialize in high-precision, high-efficiency CNC and hydraulic grinders, providing top-tier grinding solutions for customers worldwide.

Guided by our "Five High" principles—**High Precision, High Quality, High Efficiency, High Durability, and High Stability**—we are creating grinders that deliver exceptional performance and long-lasting reliability. Our product range includes CNC precision thread grinders, cylindrical grinders, internal grinders, worm grinders, and heavy-duty roller grinders, widely used in aerospace, automotive, machine tool, precision transmission, and electronics industries.

LIH JAAN leads in innovation with multiple patents (M369812, M528828, M577775, etc.) and certifications, including **CE, ISO 9001, and ISO 14064-1, ensuring superior quality and environmental responsibility.** Moving forward, we remain committed to advancing grinding technology and delivering the best precision grinding solutions worldwide.

# 磨床

CNC精密螺紋磨床	CNC Precision Thread Grinder
CNC精密內徑螺紋磨床	CNC Precision Inner Thread Grinder
CNC精密蝸桿磨床	CNC Precision Worm Grinder
CNC精密食付磨床	CNC Precision Chamfer Grinder
CNC精密偏心磨床	CNC Precision Eccentric Grinder
CE-精密油壓圓筒磨床	CE-Precision Hydraulic Cylindrical Grinder
NC/CNC精密圓筒磨床	NC/ CNC Precision Cylindrical Grinder
CNC直進式/斜進式圓筒磨床	CNC Horizontal /Slope Type Cylindrical Grinder
重壓滾輪磨床	Precision Heavy Duty Cylindrical Grinder
NC 超重壓滾輪磨床	NC Super Heavy Duty Cylindrical Grinder
內徑油壓圓筒磨床	Precision Inner Cylindrical Grinder
CNC雙軸內徑圓筒磨床	CNC Dual-Axis Inner Cylindrical Grinder
精密端面磨床	Precision End Face Grinder

# GRINDER

# 公司沿革與未來展望

## Milestones

- 1984年設立立展工業社
- 1990年正式工商登記-通展精機工業股份有限公司
- 1990公司宗旨設定高精度、高效率、高品質
- 2009獲得中華民國98年獲得M369812專利。
- 2010年新增二廠，增加機械產能
- 2016中華民國105年獲得M528828專利。
- 2018公司宗旨增加高穩定、高耐用，共五高宗旨
- 2019中華民國107年獲得M577775、M576933、M579568專利
- 2023全系列圓筒油壓磨床CE認證完成，取得證書
- 2023年ISO90001品質管理系統，完成認證，取得證書。
- 2023年ISO14064-1溫室氣體盤查標準，完成認證，取得證書。

## Milestones

- 1984 : Established LIH JAAN Industrial Workshop.
- 1990 : Officially registered as LIH JAAN Precision Machinery Co., Ltd.
- 1990 : Company mission set to high precision, high efficiency, and high quality.
- 2009 : Obtained Taiwan Patent M369812.
- 2010 : Expanded with a second factory to increase machinery production capacity.
- 2016 : Obtained Taiwan Patent M528828.
- 2018 : Expanded company mission to include high stability and high durability, forming the Five Highs principles.
- 2019 : Obtained Taiwan Patents M577775, M576933, and M579568.
- 2023 : Achieved CE certification for the entire range of hydraulic cylindrical Grinders.
- 2023 : Successfully obtained ISO 9001 Quality Management System certification.
- 2023 : Successfully obtained ISO 14064-1 Greenhouse Gas Inventory Standard certification



精密研磨 · 專業之選

Precision Grinding · The Professional Choice

of LIH JAAN

# CNC 精密螺紋磨床 ———— LJ-TG

## Precision Thread Grinder

機型 Model	LJ-2720TG	LJ-2740TG	LJ-3765TG	LJ-37100TG	LJ-37200TG	LJ-37300TG
<b>研磨能力 Grinding Capability</b>						
最大工件長度 Max Work Length bwtween Center	200mm	400mm	650mm	1,000mm	2,000mm	3,000mm
最大研磨長度 Max Grinding Length	150mm	350mm	550mm	900mm	1,900mm	2,900mm
最大研磨直徑 Max Grinding Diameter	250mm	250mm	250mm	250mm	250mm	250mm
最大研磨重量 Max Grinding Weight	50kg	100kg	100kg	350kg	500kg	1000kg
中心高 Heights of Center	135mm	135mm	185mm	185mm	185mm	185mm
<b>砂輪座 Wheelhead</b>						
砂輪尺寸 Grinding Wheel Size	φ 355×10-40 × φ 203.2(160)	φ 406×10-40× φ 203.2(160)		φ 508×10-40× φ 203.2		
最小砂輪外徑 Min Wheel Outer Diameter	φ 300	φ 320		φ 400		
砂輪轉速 Grinding Wheel Speed	0-2030RPM(變頻無段變速)					
砂輪最大周數 Max Grinding Linear Velocity	60M/S or 45M/S (依砂輪轉速限制配置)					
砂輪軸傾斜迴轉度 Tilt Rotation Angle of Wheel	(R)±20°			(R)±25°		
<b>工件主軸 Work Spindle</b>						
夾具最大孔徑 Max Chuck Size	5" φ 30	5" φ 30	7" φ 58	7" φ 58	7" φ 58	7" φ 58
主軸轉速 Spindle Speed	Max : 100					
最小迴轉角度 Min Rotation Angle	0.005					
主軸錐度 Spindle Taper	MT#4				MT#5	
<b>尾座 Tailstock</b>						
尾軸孔錐度 Tailstock Quill Taper	MT#4				MT#5	
尾軸行程 Tailstock Quill Stroke	15mm		20mm		30mm	
<b>工作台 Worktable</b>						
工作台行程 Worktable Stroke	200mm	400mm	650mm	1,000mm	2,000mm	3,000mm
工作台最快速度 Max Table Moving Speed	4,000mm/min					
<b>馬力 Motor Power</b>						
砂輪馬達 Grinding Wheel Motor	5HP(3.75kw)	7.5HP(5.6kw)		30HP(22.5kw)		40HP(30kw)
砂輪軸潤滑馬達 Lubricant Motor	1/2HP(0.4kw)					
切消油冷卻馬達 Cooling Pump	1/4HP(0.2kw)					
<b>機械規格 Machine Size</b>						
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	150x200x320	250x250x320	388x230x240	460x280x230	660x280x230	950x220x230
機械重量 Machine Net Weight	4,000kgs	6,000kgs	6,000kgs	7,000kgs	9,000kgs	14tons

## LJ-TG系列 - 螺紋研磨的最佳選擇！

### LJ-TG Series - Your Best Choice for Thread Grinding!



智能對話式CNC介面，提升生產效率。 高精度 - 確保複雜螺紋的卓越精度。 廣泛應用 - 適用於滾珠螺桿、塑膠螺桿、金剛滾輪、絲攻、螺紋規等各類螺紋研磨。

Easy Operation & Efficient. Superior accuracy for complex threads. Wide Applications - Ideal for ball screws, plastic screws, diamond rollers, taps, thread gauges, and more.

#### 智能精控，高效對話 Smart Control, Efficient Interface



智能對話式CNC介面，提升生產效率。 智慧研磨 - 複雜研磨路徑生成可配合多家控制器FANUC、Siemens、SYNTEC等多家廠牌。

Easy Operation & Efficient. Smart Grinding - Generates complex grinding paths Pair with variety controller brands FANUC, Siemens, SYNTEC and so on.

#### ▽▽▽ 確保高精度 - 螺紋的卓越精度 Superior Accuracy for Threads

##### 機構精度 Mechanism

X軸重複定位精度: 3 μ  
Z軸重複定位精度: 5 μ  
C軸重複定位精度: ±10"  
※搭仔光學尺測量

X Axis Positioning Accuracy: 3 μ  
Z Axis Positioning Accuracy: 5 μ  
C Axis Positioning Accuracy: ±10"  
※All with optical scale

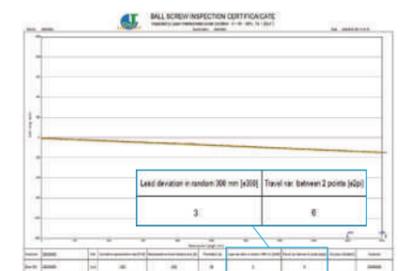
#### 砂輪整修軸(A/B) Wheel Dressing Axis (A/B)



砂輪整修軸 (A/B) 安裝於砂輪座上，可在砂輪座旋轉至加工角度螺紋時，同角度直接修整砂輪。無需復歸砂輪座及重新校正，大幅節省調整時間。

Wheel dressing axis (A/B) is mounted on the wheelhead, allowing in-place dressing when the wheelhead is rotated for grinding an angled thread. This eliminates the need to reset the wheel head position, significantly reducing adjustment time.

#### 實際量測精度報告 Actual Measurement Accuracy Report



擷取自客戶驗機精度 工件三米滾珠螺桿符合C3精度

Extracted from customer machine inspection accuracy report The workpiece three-meter ball screw meets C3 accuracy

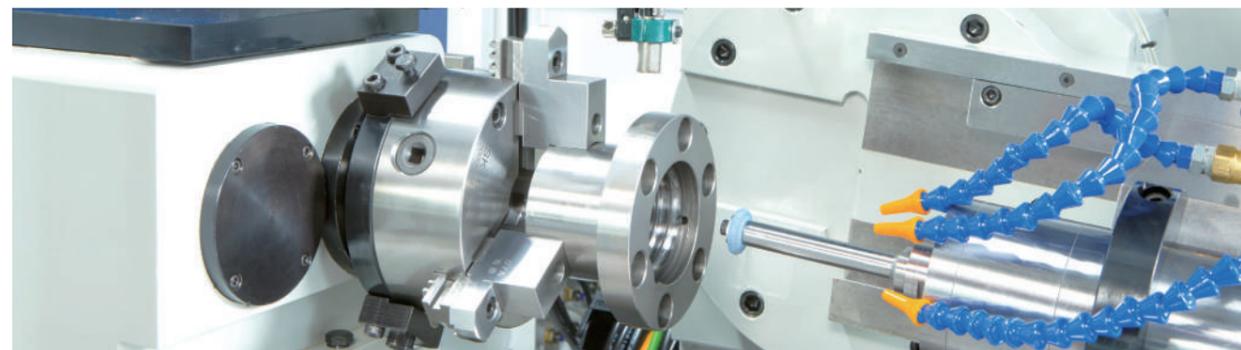
#### 工件 Workpiece



# CNC 精密內徑螺紋磨床 LJ-TGI

## Precision Thread Grinder

機型 Model	LJ-2710TGI	LJ-2715TGI
<b>研磨能力 Grinding Capability</b>		
最大工件長度 Max Work Length bwtween Center	100mm	150mm
最大研磨長度 Max Grinding Length	50mm	50mm
內徑研磨範圍 Max Grinding Inner Diameter	φ 12~ φ 100mm	φ 12~ φ 100mm
導程範圍 Range of Pitch	0.25~10mm	0.25~10mm
最大研磨重量 Max Grinding Weight	50kg	50kg
中心高 Heights of Center	135mm	135mm
<b>砂輪座 Wheelhead</b>		
砂輪尺寸 Grinding Wheel Size	標準型：φ 14-35	
砂輪轉速 Grinding Wheel Speed	標準型：30,000RPM	
砂輪尺寸 Grinding Wheel Size	強力型：φ 35-50	
砂輪轉速 Grinding Wheel Speed	強力型：15,000RPM	
砂輪尺寸 Grinding Wheel Size	高速型：φ 8-14	
砂輪轉速 Grinding Wheel Speed	高速型：45,000 / 60,000RPM	
砂輪軸傾斜迴轉度 Tilt Rotation Angle of Wheel	(R)±10°	
<b>工件主軸 Headstock</b>		
主軸轉速 Spindle Speed	Max : 100	
最小迴轉角度 Min Rotation Angle	0.005	
主軸錐度 Spindle Taper	MT#4	
<b>尾座 Tailstock</b>		
尾軸孔錐度 Tailstock Quill Taper	MT#4	
尾軸行程 Tailstock Quill Stroke	15mm	
<b>工作台 Worktable</b>		
工作台行程 Worktable Stroke	100mm	
工作台最快速度 Max Table Moving Speed	5,000mm/min	
<b>馬力 Motor Power</b>		
砂輪軸潤滑馬達 Lubricant Motor	1/2HP(0.4kw)	
切消油冷卻馬達 Cooling Pump	1/4HP(0.2kw)	
<b>機械規格 Machine Size</b>		
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	150x200x320	220x255x225
機械重量 Machine Net Weight	4,000kgs	6,000kgs



## LJ-TGI系列 - 內徑螺紋研磨的最佳選擇！

### LJ-TGI Series - Your Best Choice for Inner Thread Grinding!



智能對話式CNC介面，提升生產效率。  
高精度 - 確保內徑螺紋的卓越精度。  
廣泛應用 - 適用於氣動零件、自動化零件、傳動零件等各類內徑螺紋研磨。

Easy Operation & Efficient  
Superior accuracy for complex inner threads.  
Wide Applications - Ideal for pneumatic & transmission components, automation parts, and more inner thread.



### 智能精控，高效對話

#### Smart Control, Efficient Interface



智能對話式CNC介面，提升生產效率。  
智慧研磨 - 複雜研磨路徑生成可配合多家控制器FANUC、Siemens、SYNTEC等多家廠牌。

Easy Operation & Efficient.  
Smart Grinding - Generates complex grinding paths Pair with variety controller brands FANUC, Siemens, SYNTEC and so on.

### 砂輪整修軸(A/B)

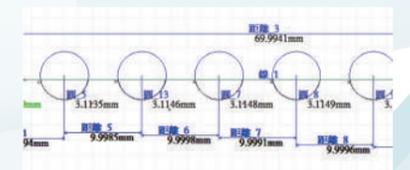
#### Wheel Dressing Axis (A/B)



高制震性與穩定性，確保研磨精度。  
With high damping and stability for guaranteed precision.

### 實際量測精度報告

#### Actual Measurement Accuracy Report

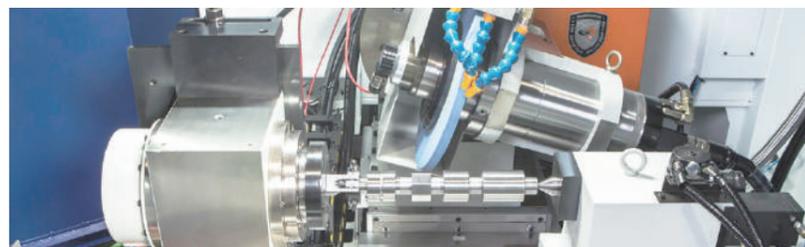


擷取自客戶驗機精度 導程(Pitch)誤差 ±2u  
珠徑輪廓誤差 ±1u  
Extracted from customer inspection accuracy report Pitch error ±2u Profile error ±1u

# CNC 精密蝸桿磨床 —— LJ-WG

## Precision Worm Grinder

機型 Model	LJ-3740WG
<b>研磨能力 Grinding Capability</b>	
最大工件長度 Max Work Length bwtween Center	400mm
最大研磨長度 Max Grinding Length	350mm
最大研磨直徑 Max Grinding Diameter	200mm
牙口數範圍 Number of Start	1~180
最大研磨重量 Max Grinding Weight	50kgs
中心高 Heights of Center	185mm
<b>砂輪座 Wheelhead</b>	
砂輪尺寸 Grinding Wheel Size	φ 406×10-40× φ 160
最小砂輪外徑 Min Wheel Outer Diameter	φ 320
砂輪轉速 Grinding Wheel Speed	視砂輪最高線速度調整 Max : 4,000RPM Adjust based on the grinding wheel's max m/s
砂輪軸傾斜迴轉度 Tilt Rotation Angle of Wheel	(R)±35°
修砂軸傾斜迴轉度 Tilt Rotation Angle of Dresser	(R)±40°
<b>工件主軸 Headstock</b>	
夾具最大孔徑 Max Chuck Size	7" φ 56
主軸轉速 Spindle Speed	Max : 100
最小迴轉角度 Min Rotation Angle	0.005
主軸錐度 Spindle Taper	MT#4
<b>尾座 Tailstock</b>	
尾軸孔錐度 Tailstock Quill Taper	MT#4
尾軸行程 Tailstock Quill Stroke	15mm
<b>工作台 Worktable</b>	
工作台行程 Worktable Stroke	400mm
工作台最快速度 Max Table Moving Speed	4,000mm/min
<b>CNC控制器伺服軸及其他軸向 CNC Control Axial</b>	
砂輪移動軸 Wheelhead Moving Axial	X
工作台移動軸 Worktable Moving Axial	Z
工件主軸 Work Spindle Axial	C
砂輪軸 Grinding Wheel Axial	S1
砂輪整修軸 Wheel Dressing Axial	S3
砂輪角度軸 Wheel Angle Axial	A
砂輪整修角度軸 Dressing Angle Axial	A2 手動 / 自動 A2 Manual / Auto
<b>機械規格 Machine Size</b>	
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	250x250x320cm
機械重量 Machine Net Weight	6,000kg



## LJ-WG - 引領蝸桿研磨的精密革新!

### LJ-WG Series - Redefining Worm Grinding Precision!



LJ-WG 系列 CNC 蝸桿磨床搭載 NUM Flexium Plus 8 控制系統，採用 FC30 米漢納底座，確保高精度、高穩定性與耐用性。通展專屬對話式介面簡化操作，縮短設定時間，提升加工效能。

The LJ-WG series CNC worm grinder, with NUM Flexium Plus 8 and an FC30 Meehanite base, ensures precision, stability, and durability. LIH JAAN's dialogue program simplifies operation, reducing setup time for optimal performance.

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▽▽▽ 工件圖 workpiece photo



智能精控，高效對話  
Smart Control, Efficient Interface



智能對話式CNC介面，提升生產效率。智慧研磨 - 複雜研磨路徑生成 配合NUM Flexium8+ 控制器

Easy Operation & Efficient Smart Grinding - Generates complex grinding paths Pair with NUM Flexium8+ Controller

全方位研磨，精準適配  
Versatile Grinding, Precision Fit!



LJ-WG 蝸桿磨床專為各類蝸桿研磨設計，適用標準型蝸桿 (ZA、ZK、ZI、ZN)、雙導程蝸桿及 ZC 蝸桿。

The LJ-WG worm grinding machine is designed for grinding various types of worms, including standard worms (ZA, ZK, ZI, ZN), dual-lead worms, and ZC worms.

高效驅動，精密無隙!  
High-Efficiency Drive, Zero Backlash



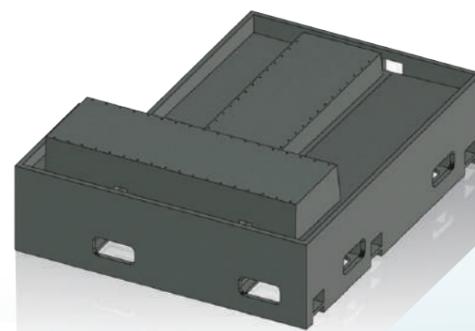
搭載 DD 馬達，實現高動態響應的螺紋角度分度，有效降低背隙，提升精度。

Its DD motor enables fast thread angle indexing with minimal backlash.

# CNC 精密食付磨床 —— LJ-CG

## Precision Chamfer Grinder

機型 Model	LJ-2725CG
研磨能力 Grinding Capability	
最大研磨長度 Max Grinding Length	200mm
最大研磨直徑 Max Grinding Diameter	80mm
最小研磨直徑 Min Grinding Diameter	3mm
刃數範圍 Number of Flute	1-12
最大研磨重量 Max Grinding Weight	50kg
中心高 Heights of Center	135mm
砂輪座 Wheelhead	
砂輪尺寸 Grinding Wheel Size	φ 355×25-100× φ 127
砂輪轉速 Grinding Wheel Speed	Max : 3,000RPM Adjust based on the grinding wheel's max m/s 視砂輪最高線速度調整
砂輪座迴轉角度 Rotation Angle of Wheelhead	(R)+30° Negative angles are primarily limited by mechanical constraints.
工件主軸 Headstock	
主軸轉速 Spindle Speed	40-360RPM
主軸錐度 Spindle Taper	MT#3
尾座 Tailstock	
尾軸孔錐度 Tailstock Quill Taper	MT#3
尾軸行程 Tailstock Quill Stroke	30mm
工作台 Worktable	
工作台行程 Worktable Stroke	200mm
工作台最快速度 Max Table Moving Speed	4,000mm/min
CNC控制器伺服軸及其他軸向 CNC Control Axial	
砂輪移動軸 Wheelhead Moving Axial	X
砂輪座旋轉軸 Wheelhead Angular Axial	U
工作台移動軸 Worktable Moving Axial	Z
工件主軸 Work Spindle Axial	C
砂輪整修軸 Wheel Dressing Axial	A
砂輪整修軸 Wheel Dressing Axial	B
砂輪軸 Grinding Wheel Axial	S1
機械規格 Machine Size	
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	220x240x210
機械重量 Machine Net Weight	4,500kgs

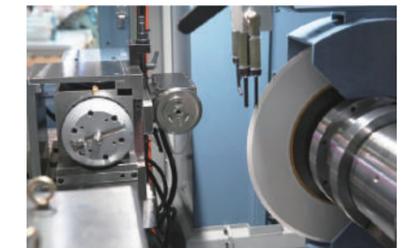


## LJ-CG - 量身打造，精準食付！

### LJ-CG Series - Tailor-Made for Chamfer/Relief Grinding!



#### 雙軸高度匹配 Dual-axis height matching



砂輪移動軸 (X Axial) 與工件主軸 (C Axial) 隨動研磨，確保加工效率與精度。

Wheelhead Moving Axial (X Axial) and Work Spindle Axial (C Axial) synchronized grinding with dual-axis height matching.

#### 線性馬達驅動 Linear Motor Driving



砂輪移動軸(X Axial)採用線性馬達，實現高動態響應，有效降低背隙並提升精度。

The grinding wheel movement axial (X Axial) utilizes a linear motor for high dynamic response, minimizing backlash and enhancing precision.

LJ-CG 食付磨床專為絲攻食付(落量/離隙)研磨設計，搭載全自動砂輪座旋轉軸，實現多角度加工。砂輪座上方修砂設計，提升精度且節省時間。配備友好對話式 CNC 介面，大幅提高生產效率。

The LJ-CG is designed for precision tap relief/chamfer grinding, featuring an automatic rotating wheelhead for multi-angle processing. Its top-side dressing enhances accuracy and efficiency, while the user-friendly CNC interface boosts productivity.

#### 最高刃數可達12刃， 適合多樣食付加工 Max 12 flutes, ideal for chamfer grinding.



可加工食付製品含直槽絲攻(HT)、類直槽絲攻(POT)、螺帽絲攻(HSNT)、螺旋槽絲攻(SFT)。

Capable of grinding chamfered products including straight flute taps (HT), quasi-straight flute taps (POT), nut taps (HSNT), and spiral flute taps (SFT).

#### G 工件圖 workpiece photo



# CNC 精密偏心磨床 ———— LJ-CA

## Precision Cam Grinder

機型 Model		LJ-3740CA
研磨能力 Grinding Capability		
最大工件長度 Max Work Length bwtween Center		400mm
最大研磨長度 Max Grinding Length		350mm
最大研磨直徑 Max Grinding Diameter		200mm
最大研磨重量 Max Grinding Weight		50kg
中心高 Heights of Center		185mm
偏心研磨能力 Eccentric Grinding Capability		
偏心最小外徑 Min Eccentric OD		30mm
偏心最大軸深 Max Eccentric Depth		60mm
最大偏心率 Maximum Eccentricity		35mm
偏心段範圍 Number of Eccentric Sections		1-99
砂輪座 Wheelhead		
砂輪尺寸 Grinding Wheel Size		φ 406 × 10-40 × φ 160
最小砂輪外徑 Min Wheel Outer Diameter		φ 360
砂輪轉速 Grinding Wheel Speed		Max : 4,000RPM Adjust based on the grinding wheel's max. m/s 視砂輪最高線速度調整
工件主軸 Headstock		
夾具最大孔徑 Max Chuck Size		7" φ 58
主軸轉速 Spindle Speed		Max : 100
最小迴轉角度 Min Rotation Angle		0.005
主軸錐度 Spindle Taper		MT#4
尾座 Tailstock		
尾軸孔錐度 Tailstock Quill Taper		MT#4
尾軸行程 Tailstock Quill Stroke		15mm
工作台 Worktable		
工作台行程 Worktable Stroke		400mm
工作台最快速度 Max Table Moving Speed		4,000mm/min
CNC控制器伺服軸及其他軸向 CNC Control Axial		
砂輪移動軸 Wheelhead Moving Axial		X
工作台移動軸 Worktable Moving Axial		Z
工件主軸 Work Spindle Axial		C
砂輪軸 Grinding Wheel Axial		S1
砂輪整修軸 Wheel Dressing Axial		S3
機械規格 Machine Size		
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)		250x250x320
機械重量 Machine Net Weight		6,000kgs

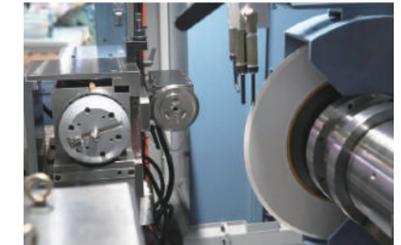


## LJ-CA - 精準同步，極致研磨！

### LJ-CA Series - Series Perfect Synchronization, Ultimate Grinding!



#### 雙軸高度匹配 Dual-axis height matching



砂輪移動軸 (X Axial) 與工件主軸 (C Axial) 隨動研磨，確保加工效率與精度。

Wheelhead Moving Axial (X Axial) and Work Spindle Axial (C Axial) synchronized grinding with dual-axis height matching.

#### 線性馬達驅動 Linear Motor Driving



砂輪移動軸 (X Axial) 採用線性馬達，實現高動態響應，有效降低背隙並提升精度。

The grinding wheel movement axial (X Axial) utilizes a linear motor for high dynamic response, minimizing backlash and enhancing precision.

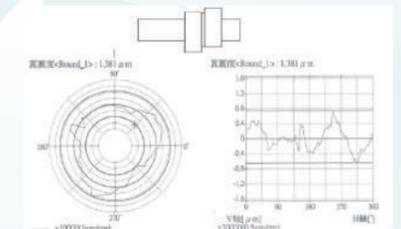
LJ-CA系列搭載高階控制器，精密運算實現雙軸同步高精度追隨研磨。研發直覺式對話介面，大幅提升操作便利性。機構最大偏心率可達35mm，並支援凸輪、桃心軸、CAPTO 等各類異型工件研磨。

The LJ-CA series features a Siemens 840D controller for precise dual-axis synchronized grinding. Wide Applications - Supporting up to 35mm eccentricity for cams, eccentric shafts, CAPTO, and more.

#### G 工件圖 workpiece photo



#### 實際量測精度報告 Actual Measurement Accuracy Report



擷取自客戶驗機精度 雙段偏心真圓度3u內 雙段偏心相位角誤差5'內

Extracted from customer machine accuracy report Dual-stage eccentric roundness within 3 μm Dual-stage eccentric phase angle error within 5'

# 精密油壓圓筒磨床 ———— LJ27/37

## Precision Hydraulic Cylindrical Grinder

機型 Model	LJ27-600	LJ27-1000	LJ27-1500	LJ27-2000	LJ37-600	LJ37-1000	LJ37-1500	LJ37-2000
<b>研磨能力 Grinding Capability</b>								
最大研磨長度 Max Grinding Length	600mm	1,000mm	1,500mm	2,000mm	600mm	1,000mm	1,500mm	2,000mm
最大研磨直徑 Max Grinding Diameter	250mm				350mm			
最大研磨重量 Max Grinding Weight	150kg				150kg			
中心高 Heights of Center	135mm				185mm			
<b>砂輪座 Wheelhead</b>								
砂輪尺寸 Grinding Wheel Size	φ 406×25-75× φ 152.4(127)				φ 406×25-75× φ 152.4(127)			
砂輪轉速 Grinding Wheel Speed	1,500 / 1,700 RPM				1,500 / 1,700 RPM			
砂輪最大周數 Max Grinding Linear Velocity	45M/S				45M/S			
<b>工件主軸 Headstock</b>								
夾具最大孔徑 Max Chuck Size	7" φ 58				9" φ 70			
主軸轉速 Spindle Speed	40-360RPM				40-360RPM			
主軸迴轉角度 Spindle Swing Angle	±45°				±45°			
主軸錐度 Spindle Taper	MT#4				MT#4(5)			
<b>尾座 Tailstock</b>								
尾軸孔錐度 Tailstock Quill Taper	MT#4				MT#4(5)			
尾軸行程 Tailstock Quill Stroke	30mm				30mm			
<b>工作台 Worktable</b>								
工作台行程 Worktable Stroke	600mm	1,000mm	1,500mm	2,000mm	600mm	1,000mm	1,500mm	2,000mm
工作台最快速度 Max Table Moving Speed	5,000mm/min				5,000mm/min			
工作台迴轉角度 Table Swing Angle	9° 4°	7° 3°	5° 2°	3° 1°	9° 4°	7° 3°	5° 2°	3° 1°
<b>馬力 Motor Power</b>								
砂輪馬達 Grinding Wheel Motor	5HP(3.7kw) / 7.5HP(5.6kw)				5HP(3.7kw) / 7.5HP(5.6kw)			
主軸馬達 Main Spindle Motor	1/2HP(0.4kw)				1/2HP(0.4kw)			
油壓馬達 Hydraulic Pump Motor	2HP(1.5kw)				2HP(1.5kw)			
砂輪軸潤滑馬達 Lubricant Motor	1/2HP(0.4kw)				1/2HP(0.4kw)			
切消油冷卻馬達 Cooling Pump	1/4HP(0.2kw)				1/4HP(0.2kw)			
<b>機械規格 Machine Size</b>								
機械尺寸(長×寬×高) Machine Dimensions (LxWxH)	270x160x150	460x160x150	520x160x150	620x160x150	270x160x170	460x160x170	520x160x170	620x160x170
機械重量 Machine Net Weight	2,200kg	3,500kg	4,200kg	5,000kg	2,200kg	3,500kg	4,200kg	5,000kg

# LJ27 & LJ37 - 精密研磨的靈活選擇！

## LJ27 & LJ37 - Your Flexible Choice for Precision Grinding!

LJ27, LJ37系列適用於研磨圓柱形、圓錐形零件，工件直徑在20mm-350mm之小型零件，機構設計可達成少量多樣加工需求並可依加工需求搭載附屬內孔研磨裝置、NC人機伺服、CNC控制器。

LJ27 and LJ37 series are suitable for small size grinding cylindrical and conical parts with diameter of 20mm ~ 350mm. The mechanism design can meet large-variety production and can be equipped with Subsidiary Internal Grinding, NC servo and CNC Controller.

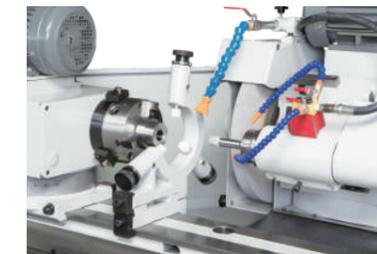
▶ LJ37-600NC



▶ LJ27-2000



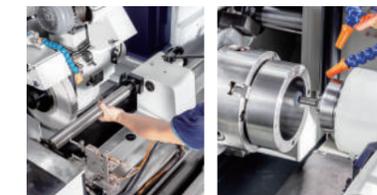
**內孔研磨**  
Internal grinding attachment



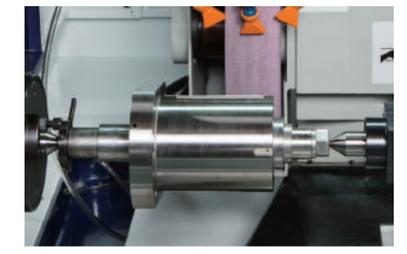
搭載內孔研磨裝置，擴展加工能力

Internal grinding attachment for expanded capabilities

**G 加工示意**  
▽▽▽ Machining schematic



**G 加工應用**  
▽▽▽ Machining application



**多元控制模式**  
Versatile Control Options



支援油壓、NC、CNC 操作，也可以進階搭配自動手臂完成全自動化需求。

Supports hydraulic, NC, and CNC modes. Moreover, can pair with automatic arm to fulfill the fully automatic production.

▶ LJ37-600NC



# 重壓滾輪磨床 Precision Chamfer Grinder

# LJ56

機型 Model	LJ56-1000	LJ56-2000	LJ56-3000	LJ56-4000
研磨能力 Grinding Capability				
最大研磨長度 Max Grinding Length	1,000mm	2,000mm	3,000mm	4,000mm
最大研磨直徑 Max Grinding Diameter	550mm(650mm)			
最大研磨重量 Max Grinding Weight	1,000kg			
中心高 Heights of Center	280mm(350mm)			
砂輪座 Wheelhead				
砂輪尺寸 Grinding Wheel Size	φ 710×50-100× φ 203.2			
砂輪轉速 Grinding Wheel Speed	890 / 1,000 RPM			
砂輪最大周數 Max Grinding Linear Velocity	33M/S			
工件主軸 Work Spindle				
夾具最大孔徑 Max Chuck Size	10" φ 89			
主軸轉速 Spindle Speed	25-165RPM			
主軸台迴轉角度 Spindle Swing Angle	固定式 Not Available			
主軸錐度 Spindle Taper	MT#5(6)			
尾座 Tailstock				
尾軸孔錐度 Tailstock Quill Taper	MT#5(6)			
尾軸行程 Tailstock Quill Stroke	30mm			
工作台 Worktable				
工作台行程 Worktable Stroke	1,000mm	2,000mm	3,000mm	4,000mm
工作台最快速度 Max Table Moving Speed	3500mm/min			
工作台迴轉角度 Table Swing Angle	3° 1'	2° 1'	2° 1'	1° 30'
馬力 Motor Power				
砂輪馬達 Grinding Wheel Motor	15HP(11kw)			
主軸馬達 Main Spindle Motor	2HP(1.5kw)		3HP(2.25kw)	
砂輪軸潤滑馬達 Lubricant Motor	1/2HP(0.4kw)			
油壓馬達 Hydraulic Pump Motor	2HP(1.5kw)		3HP(2.25kw)	
切消油冷卻馬達 Cooling Pump	1/4HP(0.2kw)			
機械規格 Machine Size				
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	480x260x180	680x260x180	900x260x180cm	1200x260x180
機械重量 Machine Net Weight	6,000kg	8,000kg	10tons	11 tons

## LJ56系列 - 獨家規格，精密穩定展現！ LJ56 Series - Exclusive Specifications, Precision & Stability Unleashed!

LJ56系列適用於Ø350mm-550(650)mm中大型圓柱及圓錐零件研磨。  
廣泛應用 - 油壓閥、主軸、大型傳動軸、分條刀串列等各類精密零件。

LJ56 Series is designed for Ø350mm to 550(650)mm medium to large workpiece.  
Wide Applications - Ideal for hydraulic valves, spindles, large transmission shafts, slitting knife assemblies, and other precision components.

### ▶ LJ56-4000



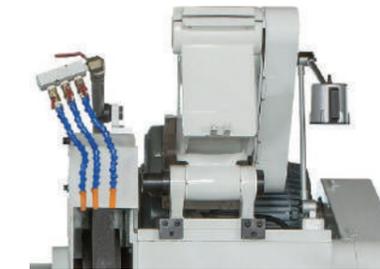
#### 固定式工件主軸箱 Fixed Headstock



穩定支撐，大型工件研磨更精準！

Stable Support for Precision Grinding of Large Workpieces!

#### 內孔研磨裝置 Internal grinding attachment for



搭載內孔研磨裝置，擴展加工能力

expanded capabilities

#### 多元控制模式 Versatile Control Options



支援油壓、NC、CNC 操作，也可以進階搭配自動手臂完成全自動化需求。

Supports hydraulic, NC, and CNC modes. Moreover, can pair with automatic arm to fulfill the fully automatic production.

#### G 加工應用 ▽▽▽ Machining application



### ▶ LJ56-1000



### ▶ LJ56-3000



# NC 超重壓滾輪磨床 — LJ80/100

## Super Heavy Duty Cylindrical Grinder LJ80/100

機型 Model	LJ80			LJ100		
研磨能力 Grinding Capability						
最大研磨長度 Max Grinding Length	5,000mm	6,000mm	8,000mm	5,000mm	6,000mm	8,000mm
最大研磨直徑 Max Grinding Diameter	800mm			1000mm		
最大研磨重量 Max Grinding Weight	5000kg			10000kg		
中心高 Heights of Center	450mm			550mm		
砂輪座 Wheelhead						
砂輪尺寸 Grinding Wheel Size	φ 610×50-100×φ 203.2			φ 610×50-100×φ 203.2		
砂輪轉速 Grinding Wheel Speed	890RPM			890RPM		
砂輪最大周數 Max Grinding Linear Velocity	30M/S			30M/S		
砂輪座進給速率 (X軸) Wheelhead Feedrate (X Axis)	0-3000mm/min			0-3000mm/min		
工件主軸 Work Spindle						
夾具最大孔徑 Max Chuck Size	12" φ 105			12" φ 105		
主軸轉速 Spindle Speed	5-80(5-50)RPM			5-80(5-50)RPM		
主軸台迴轉角度 Spindle Swing Angle	固定式/ Not Available			固定式/ Not Available		
主軸錐度 Spindle Taper	MT#5(6)			MT#5(6)		
尾座 Tailstock						
尾軸孔錐度 Tailstock Quill Taper	MT#5(6)			MT#5(6)		
尾軸行程 Tailstock Quill Stroke	40(80)mm			40(80)mm		
工作台 Worktable						
工作台行程 Worktable Stroke	5,000mm	6,000mm	8,000mm	5,000mm	6,000mm	8,000mm
工作台進給速率 (Z軸) Worktable Feedrate (Z Axis)	0-4,000mm/min			0-4,000mm/min		
工作台迴轉角度 Table Swing Angle	固定式/ Not Available			固定式/ Not Available		
馬力 Motor Power						
砂輪馬達 Grinding Wheel Motor	15HP(11kw) / 30HP(22kw)			15HP(11kw) / 30HP(22kw)		
主軸馬達 Main Spindle Motor	10HP(7.5kw) / 15HP(11kw)			10HP(7.5kw) / 15HP(11kw)		
砂輪軸潤滑馬達 Lubricant Motor	1/2HP(0.4kw)			1/2HP(0.4kw)		
切消油冷卻馬達 Cooling Pump	1/4HP(0.2kw)			1/4HP(0.2kw)		

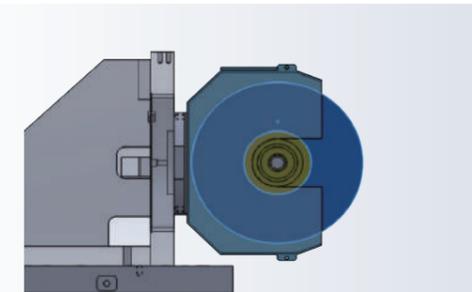
## LJ80 & LJ100 NC - 強大、穩定、精準！

### LJ80 & LJ100 NC - Powerful, Stable, Precise!

LJ80 & LJ100 NC 系列專為 Ø650mm-1000mm 超大型圓柱與圓錐工件研磨設計。廣泛應用於哥林柱、重型導桿、塑料螺桿等超大型精密工件的研磨加工。

The LJ80 & LJ100 NC Series is designed for Ø650mm-1000mm large workpieces. Wide Applications - Ideal for Corinthian pillar, Heavy-duty Guide Rod, plastic screws, and other extra-large precision components.

#### 移動式砂輪頭裝置 Travailing Wheelhead



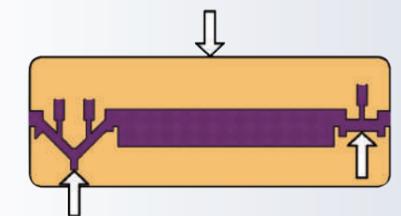
移動式砂輪頭設計可承載更重型、更大件工件。搭配主軸速度範圍0.1-165RPM之間，可穩定慢速旋轉、連續細微進給，完成大型精密研磨加工。

Travailing wheelhead design can carry heavier, larger pieces of the workpiece. Pair with the spindle speed range of 0.1 - 165RPM, could stable slow rotation and continuous fine feed, to complete large-scale precision grinding.

#### G 中高研磨(選配) ▽▽▽ Convex Grinding(Optional)



#### 工作台強制潤滑系統 Forced Lubricating System



工作台強制循環潤滑使油膜平均於滑道上減低摩擦負荷，確保研磨精度及壽命

Forced Lubricating system makes the oil film averaged on the worktable, which could reduce the friction and assure the grinding accuracy and prolong the machine life.

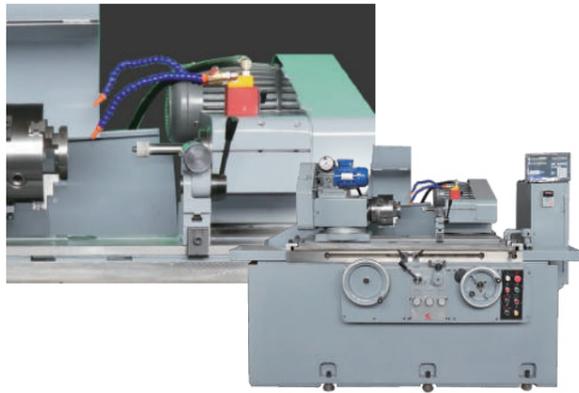
#### G 加工範例 ▽▽▽ Work-piece Samples



# 內徑油壓圓筒磨床、CNC雙軸內徑圓筒磨床 LJIG

Precision Inner Cylindrical Grinder、Precision Inner Cylindrical Grinder

小巧靈活，內徑研磨唯一選擇！  
LJ-IG - Compact & Agile,  
Ultimate Choice for ID Grinding!



LJ150IG適用於研磨內孔圓柱形、圓錐形零件，工件內徑在15mm-150mm之小型零件，機構設計可達成少量多樣加工需求。

LJ150IG is suitable for small size inner grinding cylindrical and conical parts with inner diameter of 15mm - 150mm. The mechanism design can meet large-variety production.

內徑油壓圓筒磨床	
機型 Model	LJ150IG
研磨能力 Grinding Capability	
最大研磨長度 Max Grinding Length	150MM
最大研磨內徑 Max Grinding Inner Diameter	φ 15- φ 150mm
最大研磨重量 Max Grinding Weight	50kg
中心高 Heights of Center	135mm
砂輪座 Wheelhead	
砂輪轉速 Grinding Wheel Speed	標準型Standard Type : 15,000/20,000/30,000RPM
砂輪轉速 Grinding Wheel Speed	強力型Heavy Duty Type : 8,000/10,000RPM
砂輪轉速 Grinding Wheel Speed	高速型High Speed Type : 40,000/50,000RPM
工件主軸 Headstock	
主軸轉速 Spindle Speed	40-360RPM
主軸台迴轉角度 Spindle Swing Angle	± 45°
主軸錐度 Spindle Taper	MT#4
工作台 Worktable	
工作台行程 Worktable Stroke	標準400mm
工作台最快速度 Max Table Moving Speed	5000mm/min
機械規格 Machine Size	
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	215x125x135
機械重量 Machine Net Weight	2300kg

重新定義內徑研磨！  
Redefining Internal Grinding!



LJ250IG配備CNC控制器與雙主軸設計，內孔與端面研磨一機搞定。適用於φ15mm-150mm的小型圓柱與圓錐內徑工件，機構靈活，滿足少量多樣的精密加工需求。

The LJ250IG with CNC control and dual spindles ensures precise ID and face grinding. Ideal for φ15mm-150mm cylindrical and tapered bores, it offers flexibility for diverse precision tasks.

CNC雙軸內徑圓筒磨床	
機型 Model	LJ250IG-CNC
研磨能力 Grinding Capability	
最大研磨長度 Max Grinding Length	250MM
最大研磨內徑 Max Grinding Inner Diameter	φ 15- φ 200mm
最大研磨重量 Max Grinding Weight	50kg
中心高 Heights of Center	185mm
砂輪座 Wheelhead	
砂輪轉速 Grinding Wheel Speed	標準型Standard Type : 15,000/20,000/30,000RPM
砂輪轉速 Grinding Wheel Speed	強力型Heavy Duty Type : 8,000/10,000RPM
砂輪轉速 Grinding Wheel Speed	高速型High Speed Type : 40,000/50,000RPM
工件主軸 Headstock	
主軸轉速 Spindle Speed	40-360RPM
主軸台迴轉角度 Spindle Swing Angle	± 45°
主軸錐度 Spindle Taper	MT#4
工作台 Worktable	
工作台行程 Worktable Stroke	標準400mm
工作台最快速度 Max Table Moving Speed	5000mm/min
CNC控制器伺服軸及其他軸向 CNC Control Axial	
砂輪移動軸(ID) Wheelhead Moving Axial	X1
砂輪移動軸(END FACE) Wheelhead Moving Axial	X2
工作台移動軸 Worktable Moving Axial	Z
工件主軸 Work Spindle Axial	C
機械規格 Machine Size	
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	215x125x135
機械重量 Machine Net Weight	2300kg

# 精密端面磨床 LJ300E

Precision End Face Grinder

LJ-300E系列端面磨床適用於高平整度工件之加工，盤面直徑φ300mm。應用領域 - 適用於刀片、間隔環、治具、夾具及筒夾。

The LJ-300E Series end face grinder is designed for high-flatness workpieces with a φ 300mm disk. Application - Ideal for blades, spacers, jigs, fixtures, and collets.



機型 Model	LJ300E
研磨能力 Grinding Capability	
最大研磨長度 Max Grinding Length	150mm
最大研磨直徑 Max Grinding Diameter	300mm
最大研磨重量 Max Grinding Weight	50kg
中心高 Heights of Center	210mm
砂輪座 Wheelhead	
砂輪尺寸 Grinding Wheel Size	φ 355×25-50 × φ 152.4(101.6)
砂輪轉速 Grinding Wheel Speed	1,500 / 1,700 RPM
砂輪座最小移動量 Min Movement of Wheelhead	0.005mm
工件主軸 Headstock	
主軸轉速 Spindle Speed	40-360RPM
主軸台迴轉角度 Spindle Swing Angle	± 45°
主軸錐度 Spindle Taper	MT#4
工作台 Worktable	
工作台行程 Worktable Stroke	300mm
工作台最快速度 Max Table Moving Speed	4,000mm/min
工作台迴轉角度 Table Swing Angle	9° 4°
機械規格 Machine Size	
機械尺寸(長x寬x高) Machine Dimensions (LxWxH)	226x195x140
機械重量 Machine Net Weight	3,000kg

智慧研磨，高平整度與刀口首選！  
Smart Grinding for High Flatness  
and Sharp Edges!

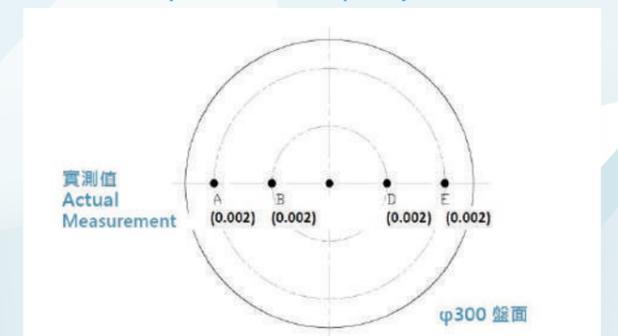
精巧安全設計 - 節省空間，適應性佳  
Compact & Safe Design - Space-saving  
with excellent adaptability



多種治具相容 - 適應各類工件夾持需求  
Multi-Fixture Compatibility - Adapts to various  
workpiece clamping needs



高平整度研磨 - 確保卓越的表面品質  
High Flatness Grinding  
- Ensures superior surface quality



# 附件清單 Accessories

## ▶ 圓筒磨床附件 Cylindrical Grinder Accessories

### 標準附件 Standard Accessories

砂輪及法蘭 Grinding Wheel and Flange
砂輪修整器 Dressing Attachment
砂輪平衡棒 Balance Arbor
碳化鎢頂針 Carbide Tipped Center
X軸光學尺+DRO(油壓型) X Axis Optical Scale +DRO (Hydraulic Type)
X軸光學尺(CNC/NC用FAGOR) X Axis Optical Scale (FAGOR : NC/CNC)
兩點中心架 2 Point Steady Rest
冷卻水箱 Coolant Tank
防濺裝置 Coolant Splash Guard
工具及工具箱 Tool Box
工作燈 Work Lamp

### 選配附件Optional Accessories

附屬內孔研磨裝置 Internal Grinding Attachment
砂輪平衡台 Wheel Balance Base
手提式砂輪動平衡儀 Portable Wheel Dynamic Balancer
砂輪線上動平衡 3Dynamic Wheel Balancing System
端面量測 Touch Probe
外徑量測 OD Measurement
三爪夾頭及連接板(依工件配置) 3 Jaw Chuck and Flange
兩點中心架 2 Point Steady Rest
三點中心架 3 Point Steady Rest
磁鐵過濾機 Coolant Filter-Magnetic Type
紙袋過濾機 Coolant Filter-Fabric Type
Z軸光學尺 Z Axis Optical Scale
客製化牽引治具 Customized Fixture / Carrier

## ▶ 內圓磨床 Inner Cylindrical Grinder Accessories

### 標準附件 Standard Accessories

平面皮帶 Flat Belt
砂輪連接棒 Connection Bar
砂輪修整器 Dressing Attachment
鑽石修刀 10Diamond Dresser
X軸光學尺+DRO(油壓型) X Axis Optical Scale +DRO (Hydraulic Type)
X軸光學尺(CNC/NC用FAGOR) X Axis Optical Scale (FAGOR : NC/CNC)
三爪夾頭及連接板 3-Jaw Chuck and Flange
三點中心架 Three Point Steady Rest
冷卻水箱 Coolant Tank
防濺裝置 Coolant Splash Guard
工具及工具箱 Tool Box
工作燈 Work Lamp

### 選配附件Optional Accessories

端面量測 Touch Probe
三爪夾頭及連接板 3-Jaw Chuck and Flange
三點中心架 3 Point Steady Rest
磁鐵過濾機 Coolant Filter-Magnetic Type
紙袋過濾機 Coolant Filter-Fabric Type
Z軸光學尺 Z Axis Optical Scale
客製化牽引治具 Customized Fixture / Carrier



## ▶ 螺紋磨床及其他CNC磨床 Thread Grinder and Other Grinder Accessories

### 標準附件 Standard Accessories

砂輪及法蘭 Grinding Wheel and Flange
砂輪修整器 Dressing Attachment
砂輪平衡棒 Balance Arbor
X軸光學尺(FAGOR) X Axis Optical Scale (FAGOR)
Z軸光學尺(FAGOR) Z Axis Optical Scale (FAGOR)
C軸光學尺(FAGOR) C Axis Optical Scale (FAGOR)
碳化鎢頂針 Carbide Tipped Center
冷卻水箱 Coolant Water Tank
安全門鎖 Safety Door Lock
工具及工具箱 Tool Box
工作燈 Work Lamp

### 選配附件Optional Accessories

修砂輪 Dressing Roller
手提式砂輪動平衡儀 Portable Wheel Dynamic Balancer
砂輪線上動平衡 3Dynamic Wheel Balancing System
端面量測 Touch Probe
外徑量測 OD Measurement
三爪夾頭及連接板(依工件配置) 3 Jaw Chuck and Flange
三點中心架 Three Point Steady Rest
油霧回收機 Oil Mist Collector
油溫控制冷卻器 Oil Cooler Unit
磁鐵過濾機 Coolant Filter-Magnetic Type
紙袋過濾機 Coolant Filter-Fabric Type
離心過濾機 Collant Filter-Centrifuge Type
客製化牽引治具 Customized Fixture / Carrier

## ▶ 內徑螺紋磨床 Inner Thread Grinder Accessories

### 標準附件 Standard Accessories

砂輪連接棒 Connection Bar
X軸光學尺(FAGOR) X Axis Optical Scale (FAGOR)
Z軸光學尺(FAGOR) Z Axis Optical Scale (FAGOR)
C軸光學尺(FAGOR) C Axis Optical Scale (FAGOR)
角度儀 Digital Angle Protractor
冷卻水箱 Coolant Water Tank
安全門鎖 Safety Door Lock
工具及工具箱 Tool Box
工作燈 Work Lamp

### 選配附件Optional Accessories

修砂輪 Dressing Roller
端面量測 Touch Probe
水聽器 HYDROPHONE
三爪夾頭及連接板 3-Jaw Chuck and Flange
三點中心架 Three Point Steady Rest
油霧回收機 Oil Mist Collector
油溫控制冷卻器 Oil Cooler Unit
磁鐵過濾機 Coolant Filter-Magnetic Type
紙袋過濾機 Coolant Filter-Fabric Type
離心過濾機 Collant Filter-Centrifuge Type
客製化牽引治具 Customized Fixture / Carrier

◎ 規格數據僅供參考，變更時恕不另行告知。 Specifications are subject to change without prior notice.  
◎ 另有特殊規格螺紋磨床，最長八米。 Special specifications up to eight meters.

