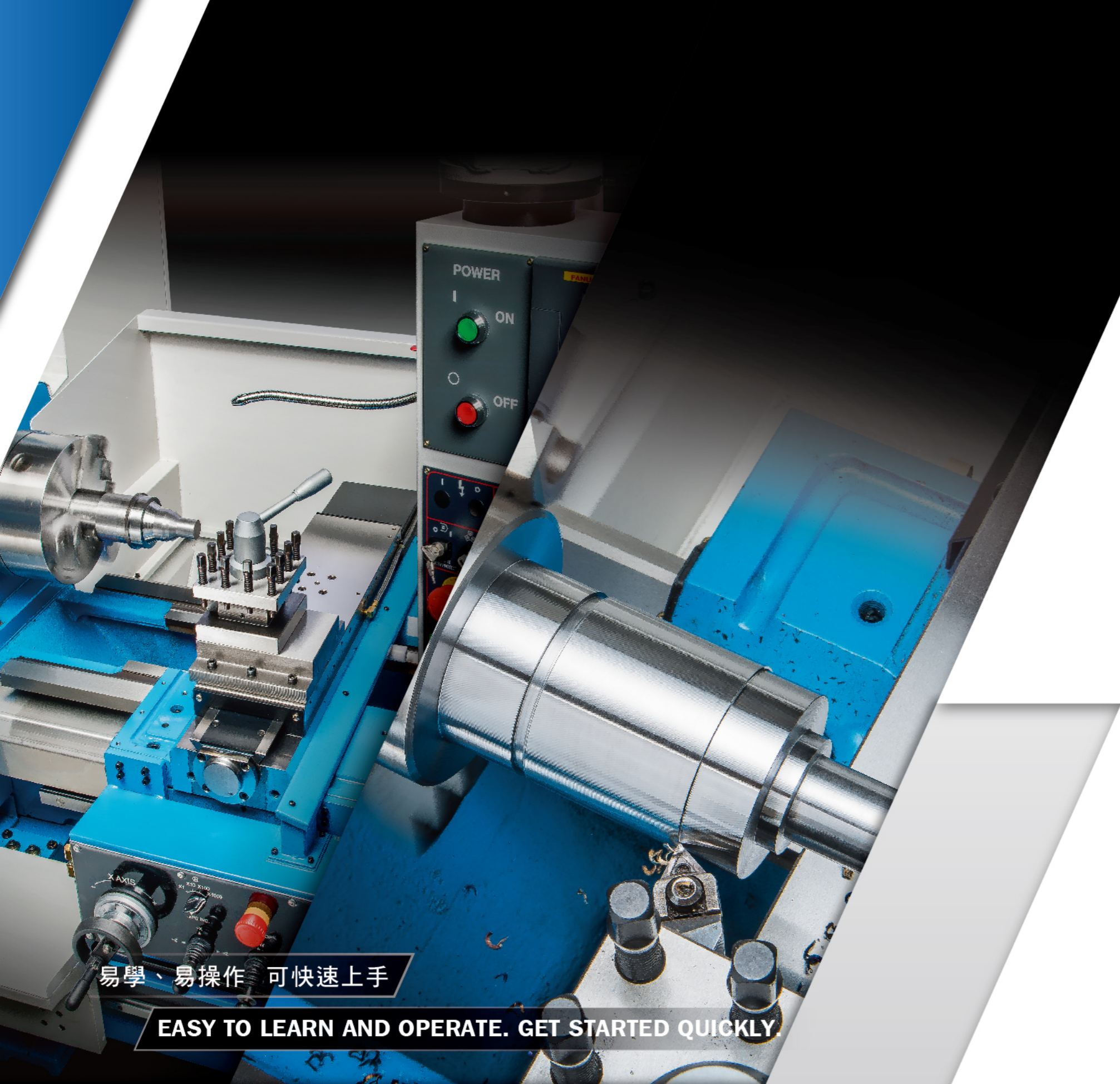


CL530 series

# 對話式車床 CONVERSATION LATHE





易學、易操作 可快速上手

EASY TO LEARN AND OPERATE. GET STARTED QUICKLY.

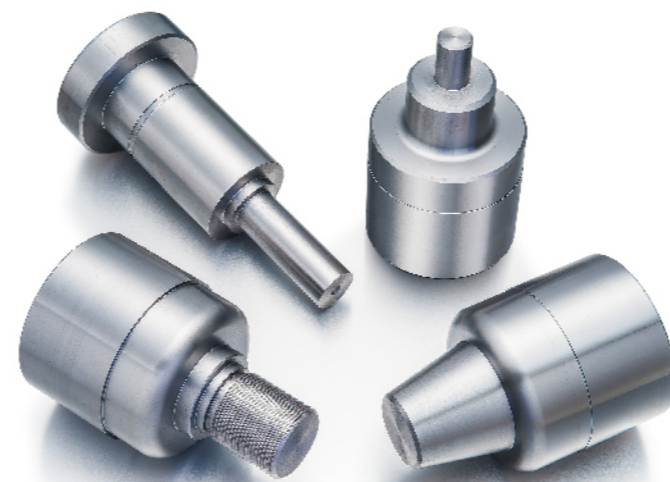
## 對話式車床 CONVERSATION LATHE

金茲再度成功的開發出CL530系列對話式車床，免除製作NC程式之麻煩。不需要程式背景之人員，即可輕鬆操作機台。

- 搭載FANUC Oi-TF電腦控制器，配合使用FANUC TURN MATE i 對話軟體。
- 利用圖形導引，輕鬆輸入加工參數。
- 主軸鼻端A2-6。
- 主軸2檔變速，適合重切削及精加工。
- X、Z軸伺服馬達驅動。
- 高剛性機器結構，展現非凡加工穩定性。

Chin Hung has successfully developed the CL530 series conversation lathe that aims to eliminate troublesome NC programming. An operator, without a background in programming, can easily operate the machine.

- Equipped with FANUC Oi-TF computer control in combination with the use of FANUC TURN MATE i conversation software.
- Easy to input machining parameters through the guidance of graphs.
- Spindle nose: A2-6.
- The spindle allows for 2 ranges of speed change, making it possible to perform rough cutting and fine finishing.
- X, Z axes are driven by servo motors.
- Highly rigid machine construction exhibits exceptional machining stability.



### FANUC Oi-TF 電腦控制器 / COMPUTER CONTROL

#### 內建FANUC TURN MATE i 對話軟體

- 10.4"彩色液晶螢幕(LCD)
- 不需寫入NC程式，只需依據圖形導引，輸入加工參數，即可執行加工

#### BUILT-IN FANUC TURN MATE i CONVERSATION SOFTWARE

- 10.4" LCD Color Screen.
- No writing of NC programs required. The operator only needs to input machining parameters according to the graphic guidance before performing machining.

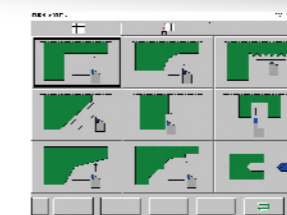


#### 圖形導引畫面

提供簡易的加工資料輸入。操作者只需依據圖形輸入所需的加工數據即可。

#### GRAPHIC GUIDANCE DISPLAY

This display provides easy input of machining data. It allows the operator to simply enter the desired machining data.

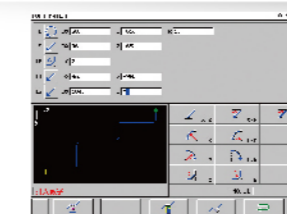


#### 圖形選擇畫面

FANUC TURN MATE i 對話軟體內建37個圖形，提供各種零件加工之選擇。

#### GRAPH SELECTION DISPLAY

FANUC TURN MATE i conversation software provides up to 37 graphs to select to suit various workpiece types for machining.

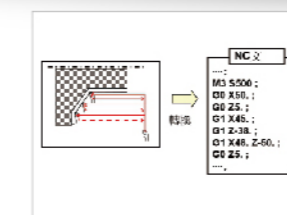


#### 自設圖形畫面

如果欲加工之工件，無法在內建的圖形找到相對應的圖形，操作者也可自設圖形。

#### CUSTOMIZED GRAPHIC DISPLAY

In case a workpiece machining cycle can't corresponded to the built-in graphs, the operator may draw a specific graph by using the customized graph function.

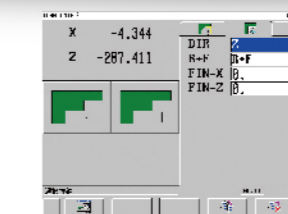
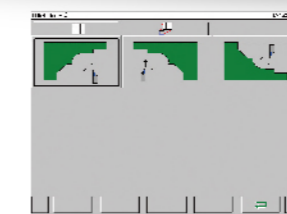


#### NC程式產生

FANUC TURN MATE i 可經由加工循環產生NC程式。

#### GENERATION OF NC PROGRAM

FANUC TURN MATE i enables NC programs to be generated through a machining cycle.



#### 加工程序快速設定

工件之各種加工程序，例如：外徑車削、溝槽加工、車螺紋等，都可利用內建的圖形輸入加工尺寸。

#### FAST SETTING OF MACHINING SEQUENCES

The operator may use the built-in graphs to input machining sizes for various machining sequences, such as, outside diameter turning, grooving and thread cutting, etc.

# BUILT TO DELIVER EASY, FAST AND HIGH PRECISION CUTTING PERFORMANCE

## 主軸頭 SPINDLE HEAD

- 高剛性主軸箱體結構配合高精主軸，確保無振顫之車削性能。
- 手動強力型三爪夾頭9"為標準配備。
- 主軸轉速提供2段變速，低速檔具有高扭力輸出，適合重切削。高速檔適合精加工。
- 主軸孔徑Ø78 mm。

- The highly rigid headstock construction, in combination with the high precision spindle, ensures chatter-free turning performance.
- 3-jaw powerful type scroll chuck 9" is standard.
- Spindle speeds allow for 2-step change. The low speed range provides high torque output, making the machine suitable for heavy cutting. The low speed range is suitable for fine finishing.
- Spindle bore is Ø78 mm.

## 主軸傳動齒輪

### SPINDLE TRANSMISSION GEARS

- 主軸頭內部之所有齒輪均經熱處理硬化，再經研磨至一級齒輪精度，達到最佳的齒輪傳動精度，運轉順暢，無噪音。
- 齒輪採用浸油式潤滑。

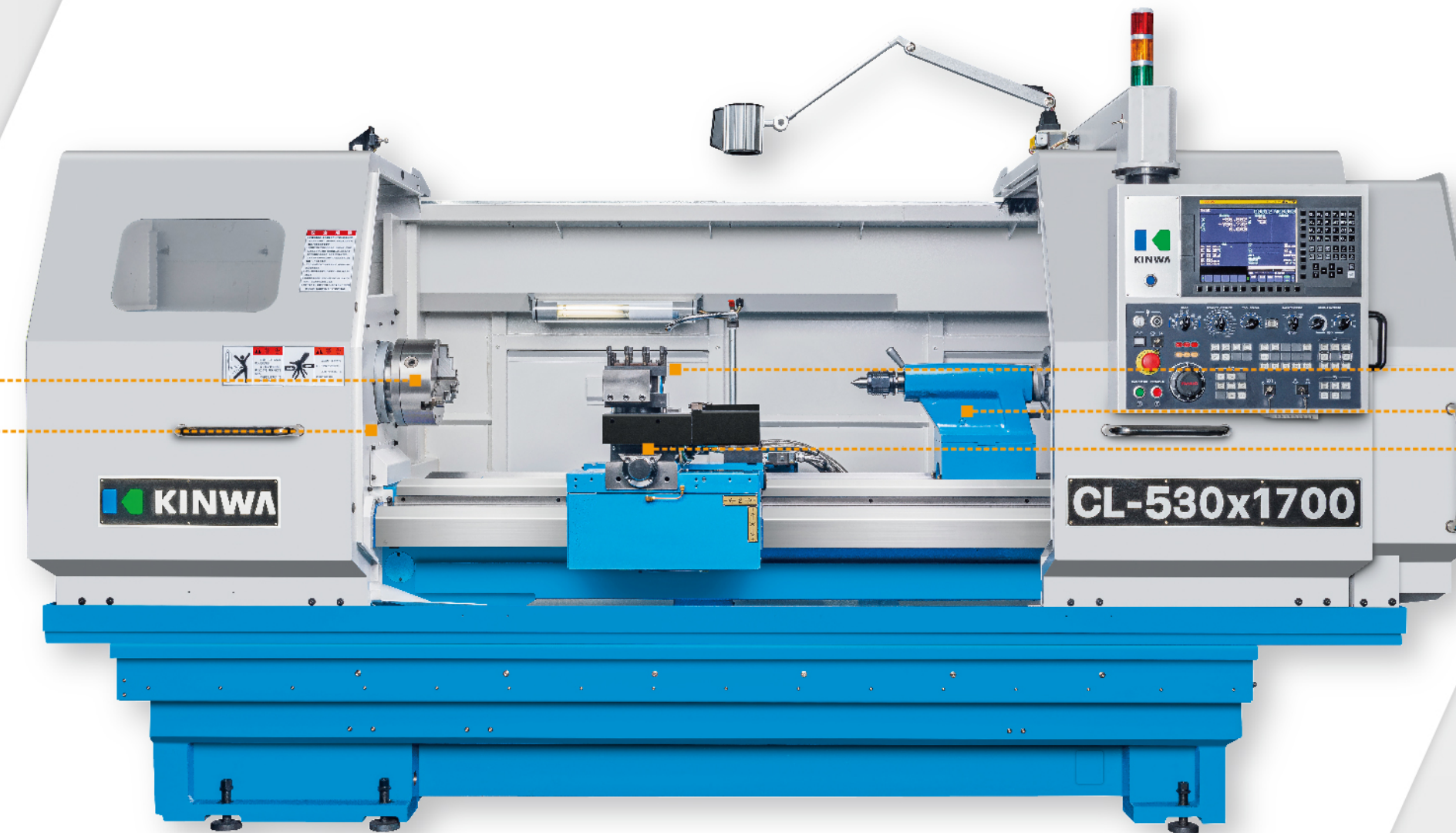
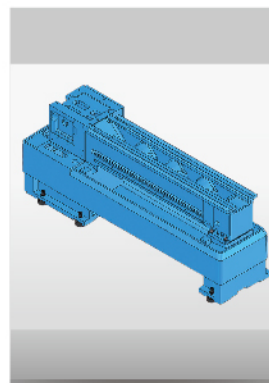
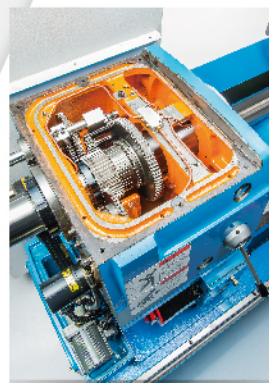
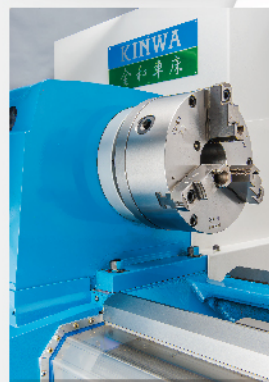
- All gears in the headstock are hardened then precision ground to class1 gear accuracy, leading to an optimal gear transmission accuracy. Smooth running and no noise.
- Gears are oil bathed.

## 穩重的床身及底座

### MASSIVE BED AND BASE

- 床身及底座均為箱形結構體，配合內部肋骨強化，具有優異的剛性。
- 床身及底座採用高級米漢納鑄鐵製成，經應力消除，以確保結構不變形。
- 床身滑道經硬化處理到硬度HRC52以上，再經精密研磨，耐磨耗性佳。

- The bed and base are box type construction with internal rib reinforcement to exhibit outstanding rigidity.
- Both bed and base are made of meehanite and stress relieved to ensure deformation-free performance.
- Bed-ways are hardened to HRC52 above and precision ground featuring maximum wear-resistance.



## 最佳化機體結構設計

### OPTIMAL STRUCTURE DESIGN

- 金益CL530系列對話式車床，擁有紮實的機體結構，占地面積小，動作輕巧靈活。主要結構鑄件採用高級米漢納鑄鐵製成，具有優異的材質穩定性，吸震性能及高剛性。

- Chin Hung CL530 series conversation lathe is provided with compact construction, space saving and extremely smooth motions. Its major structural parts are manufactured from high quality machined cast iron, featuring excellent material-stability and vibration-dampening capacity as well as high rigidity.

## 手動四方刀架

### MANUAL FOUR-WAY TOOL HOLDER

- 手動四方刀架可安裝四支外徑刀(口25 mm)，可作360°轉動定位。
- 四方刀架轉動採用二片式離合齒，以提升刀架之定位精度。

- The manual four-way tool holder holds four O.D. cutting tools (□25 mm) and can be rotated through 360 degrees.
- The tool holder rotation employs a curvic coupling for upgrading the positioning accuracy of the tool holder.

## 雙V結構 DUAL V DESIGN

- 高剛性工作台配合箱形結構體，雙V床身滑軌，可確保長期的高精度及加工穩定性。

- Rigid table with box-type structure, dual V design bed way, to provide long lasting accuracy and stability.

## 手動尾座 MANUAL TAILSTOCK

- 高剛性尾座結構，可穩固支撐長工件。
- 尾座心軸直徑Ø60 mm，並具有MT4錐度。
- 尾座心軸經熱處理及精密研磨，且附有公制 / 英制刻度。

- Featuring a highly rigid structure, the tailstock is able to hold a long workpiece firmly.
- The tailstock quill diameter is Ø60 mm with MT4 taper.
- The tailstock quill is hardened and precisely ground with inch/metric graduations.

## 手動操作台 TS規範不可選配

### MANUAL OPERATOR STATION

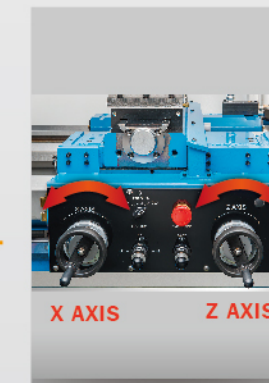
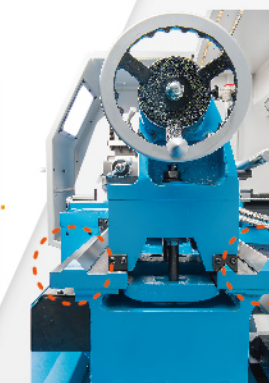
TS Specification doesn't apply to this function.

手輪及把手控制功能

- X, Z軸手動移動
- X, Z自動進給
- X, Z同動控制
- 主軸正逆轉切換
- 緊急停止

The handwheels and levers on the front of the apron provide the following functions:

- Manual movement on X, Z-axis
- Simultaneous control on X, Z-axis.
- Spindle clockwise or counter-clockwise rotation change.
- Emergency stop.



## 機械規格 SPECIFICATIONS

項目	MODEL	CL530x1100	CL530x1700
最大旋徑	Max. swing	Ø530 mm	
鞍面上旋徑	Swing over carriage	Ø285 mm	
床面寬度	Width of bed	346 mm	
兩心距離	Distance between centers	1067 mm	1667 mm
主軸孔徑	Spindle bore	Ø60, Ø78 mm / Ø60 mm*1	
主軸鼻端	Spindle nose	A2-6	
主軸轉速	Spindle speeds	3 ~ 1650 rpm / 5 ~ 3500 rpm*1	
主軸變速檔數	Number of spindle speed range	2 / Non*1	
主軸馬達 (15min./連續)	Spindle motor (15 min./cont.)	βi18 (15 HP / 10 HP)	
H4手動刀架 (座)	H4 manual tool holder	H4 / □25 mm	
移動量	X軸	240 mm	
	Z軸	910 mm	1510 mm
X軸快速進給速度	Rapid traverse rates (X Axis)	8000 mm/min	
Z軸快速進給速度	Rapid traverse rates (Z Axis)	8000 mm/min	
螺紋切削	螺紋切削方法 (種)	6種 (螺紋種類任意) 6 kinds (Arbitrary threading)	
	公制螺紋範圍 (mm)	Range of metric pitches (mm) 0.001~500 (任意), 進給量 mm x 主軸轉速 (min <sup>-1</sup> ) 限制6000以下	
	英制螺紋範圍 (TPI)	Range of inch pitches (TPI) 999.9999~0.0508 (任意), 進給量 mm x 主軸轉速 (min <sup>-1</sup> ) 限制6000以下	
	切削進給範圍	Range of turning 0.001~500.000 (mm/rev)	
伺服馬達	Servo motor	X: βiS 8 (1.6 HP) / Z: βiS 8 (1.6 HP)	
手動心軸移動量	Manual Quill stroke	185 mm	
尾座套筒直徑	tailstock Quill diameter	Ø60 mm / MT4	
切削液馬達	Coolant pump motor	1/2 HP	
控制器	控制器型式	Controller type FANUC Oi-TF Plus	
	控制軸數	Controlled axes 2軸 2 axes	
	可同時控制軸數	Simultaneously controlled axes 2軸 2 axes	
	最小設定單位	Min. setting unit 0.001 mm	
	對話機能	Conversation function FANUC TURN MATE i	
	G code NC 編譯機能	G code NC editing function 標準 Standard	
機械長度	Length of machine	2905 mm	3575 mm
機械寬度	Width of machine	1500 mm	
機械高度	Height of machine	1815 mm	
機械重量	Machine weight	3200 kgs	3600 kgs

· 以上規格如有變更，恕不另行通知。以報價單為主。 Specifications are subject to change without notice.

· \*1為皮帶傳動式主軸。 \*1 is for belt-drive spindle model.

### 標準配備 STANDARD ACCESSORIES

標配依報價單為主  
Standard accessory depends on quotation.

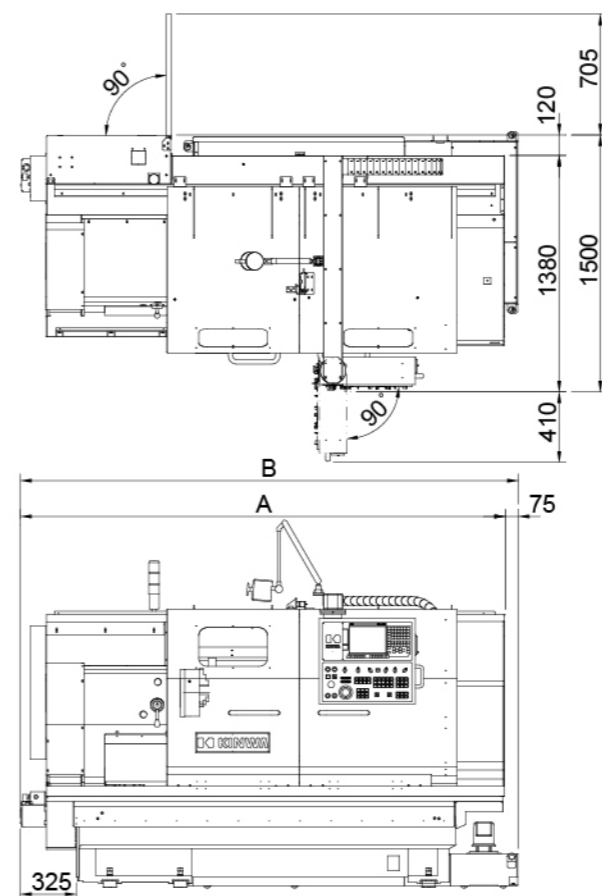
- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>電腦FANUC Oi-TF TURN MATE i</li> <li>彩色螢幕10.4"</li> <li>主軸馬達β i18(15HP)</li> <li>主軸孔徑Ø60, Ø78 mm</li> <li>9"強力型三爪夾頭</li> <li>Controller FANUC Oi-TF TURN MATE i</li> <li>10.4" color screen</li> <li>Spindle motor 10HP, β i16</li> <li>Spindle bore Ø78 mm</li> <li>3-jaw powerful type scroll chuck 9"</li> </ul> | <ul style="list-style-type: none"> <li>手動四方刀架 (齒式離合)</li> <li>軸承中心架</li> <li>手動尾座及固定頂針MT#4</li> <li>冷卻水槽及冷卻系統</li> <li>拉門及擋屑板</li> <li>Manual four-way tool post (coupling type)</li> <li>Steady rest with roller jaw</li> <li>Manual tailstock &amp; MT#4 dead center</li> <li>Coolant pan &amp; coolant system</li> <li>Sliding door &amp; splash guard</li> <li>Work light</li> <li>Tool box with adjusting tools</li> <li>Spindle center sleeve MT#4</li> </ul> |
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### 選購配備 OPTIONAL ACCESSORIES

選配依報價單為主  
Optional accessory depends on quotation.

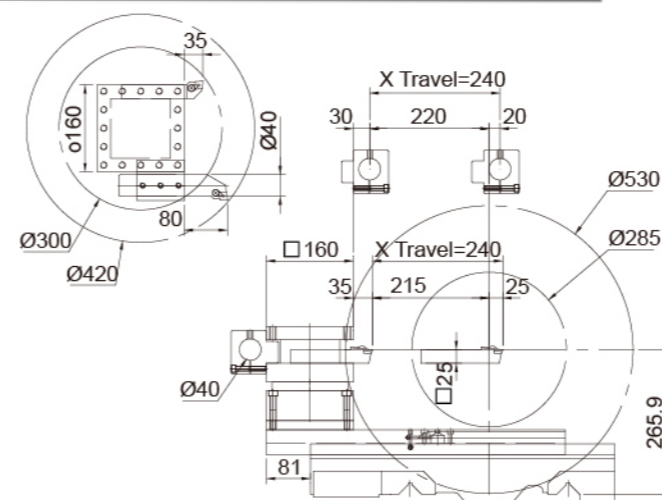
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|---|--|---|--|
| <ul style="list-style-type: none"> <li>控制器品牌可選擇</li> <li>H4伺服刀塔</li> <li>Controller alternative</li> <li>Servo H4 turret</li> </ul> | <ul style="list-style-type: none"> <li>變壓器</li> <li>跟刀架</li> <li>Transformer</li> <li>Follow rest</li> </ul> | <ul style="list-style-type: none"> <li>兩段式尾座</li> <li>8"三爪中空油壓夾頭</li> <li>2-speed tailstock</li> <li>8" 3-jaw hollow power chuck</li> </ul> | <ul style="list-style-type: none"> <li>活動頂針MT#4</li> <li>手動操作台 (TS規範不可選配)</li> <li>Live center MT#4</li> <li>Manual operator station (TS Specification doesn't apply to this function.)</li> </ul> |
|---|--|---|--|

## 機械外觀圖 DIMENSIONAL DRAWING



MODEL	A	B
CL530x1100	2830	2905
CL530x1700	3500	3575

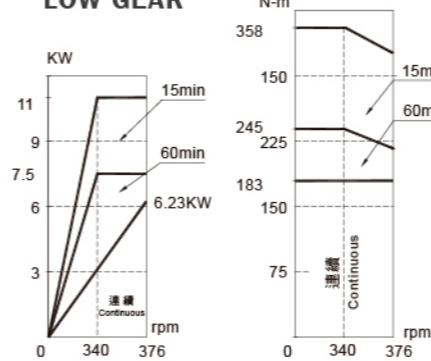
### 行程圖 WORKING RANGE



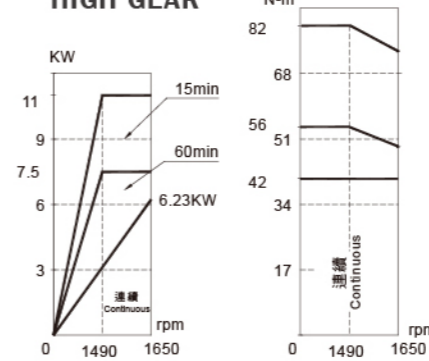
MODEL	A	B
CL530x1100	1067	910
CL530x1700	1667	1510

### 主軸扭力圖 SPINDLE MOTOR

低速檔扭力圖  
LOW GEAR



高速檔扭力圖  
HIGH GEAR



皮帶直轉扭力圖  
BELT DIRECT ROTATION TORQUE DIAGRAM

