

KINWA

金和車床

CL-10  
CL-12

金和CNC車床  
CNC LATHE



夾頭Chuck 6", AD-65

旋徑Swing 320mm

棒材容量Bar capacity 42, 65mm

# CL-10 CL-12



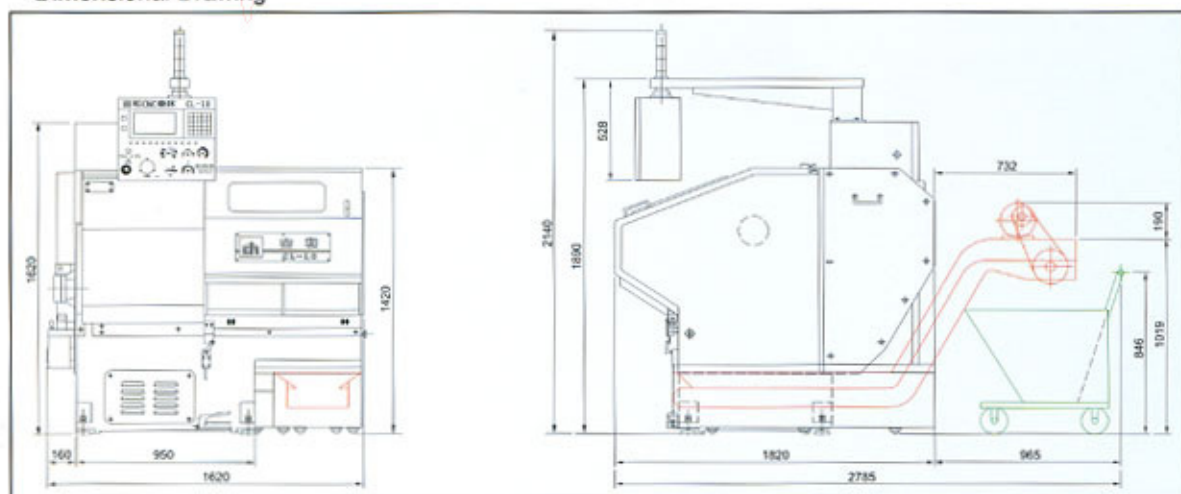
## 加工速度較一般NC車床快

- 橢圓型工作台換刀時間縮短，大幅節省了一般NC車床退刀
- 加工件多種少量時，使用普通刀座固定，加工件更改時比單能機、自動車床換置刀具的時間大幅減少。
- 獨特的卡式刀座板，可以整體換置，加工件為長期性，且更換別類加工件時，只需整體取下存放即可，不需逐一

## PROCESSING SPEED IS FASTER THAN OTHER NC LATHE

- Gang type table saves work time of tool's feeding, change and return.
- Using tool holder when the workpiece are various kinds and small quantity. When the workpiece wanna be changed, only alter programs. It is more convenient and economical than automatic lathe and automatic turning machine.
- All sets of special subplate can be changed. Setting a special subplate in advance is suitable for long-range and large quantity processing. Don't alter the tools one by one, only replace subplate when change workpiece. Saving large time of

## ▶ 機械外型圖 Dimensional Drawing



◀ 櫛型工作台  
Gang type table



、換刀、進刀的時間。  
只需設定程式即可。

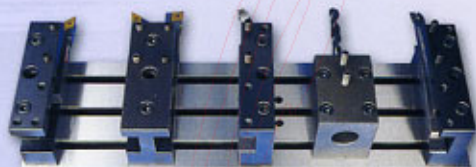
且多量時，可預先將所有刀具設置於刀架上。  
更換刀具，將可大量節省校正刀具時間。

C LATHE

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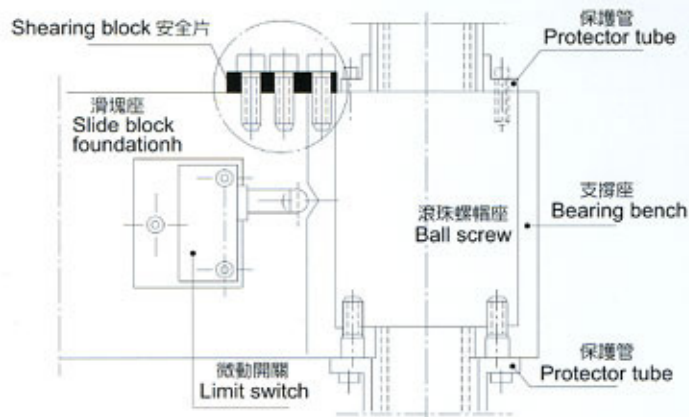
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▶ 卡式刀座板 Subplate (選購Option)

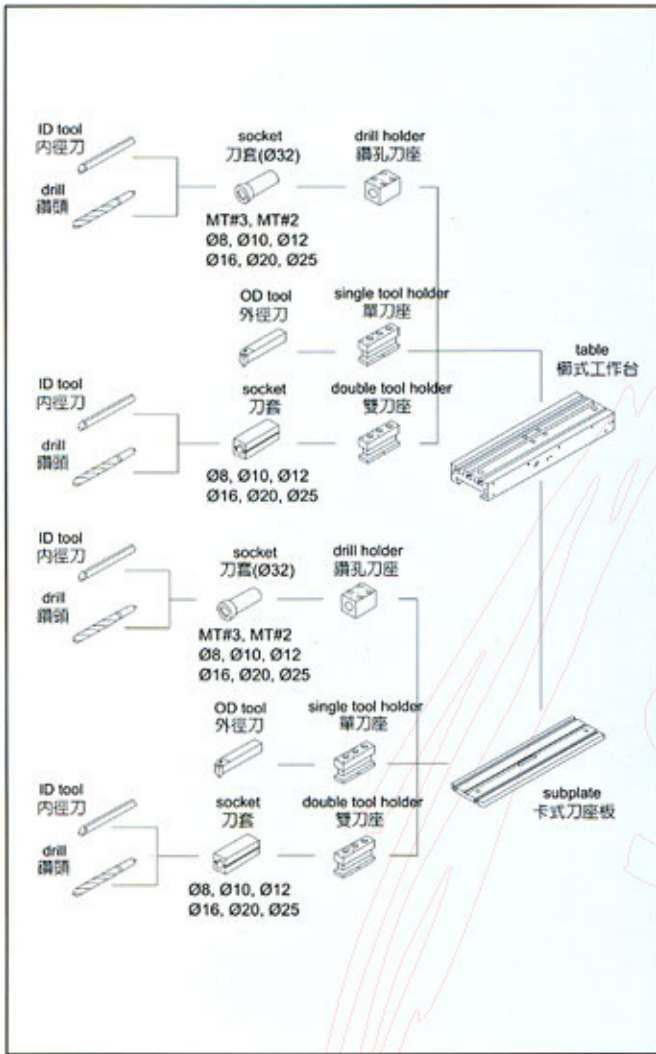
- ▶ Manual-loading automatic feeder system ● 手排式自動送料
- ▶ 適用工件:最大直徑 $\varnothing 50\text{mm}$ ，長度 $30\text{mm}$   
size of work-piece : OD=50(Max.) L=30mm

- ▶ Z軸設有保護裝置，使操作不當之損壞減到最低。  
Over-Travel stopper were designed for Z-Axis to prevent any accident.

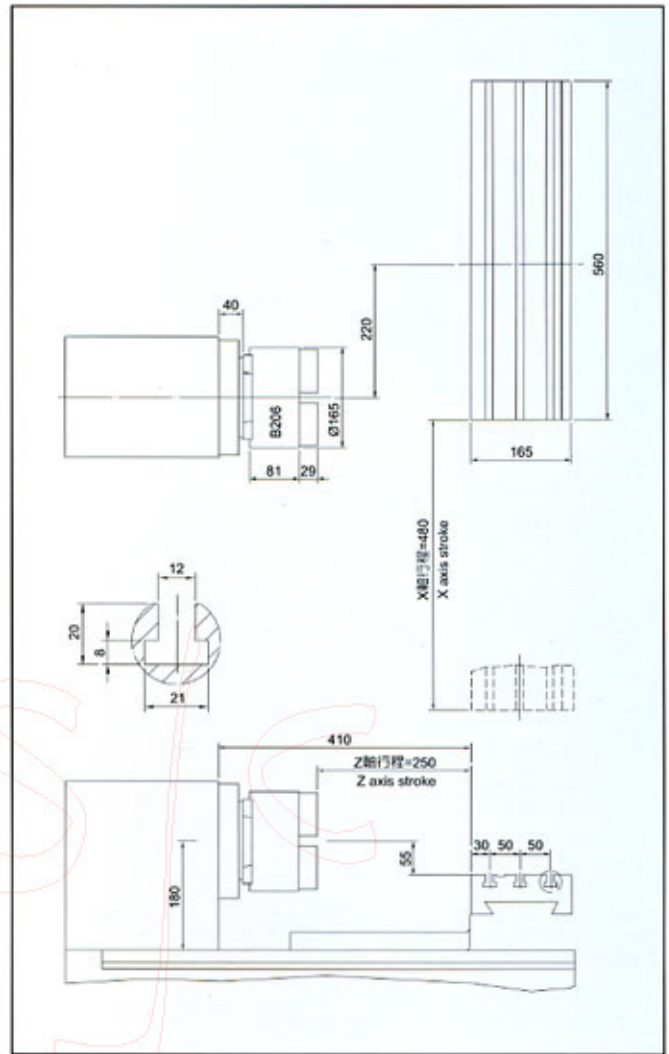


過負荷或撞車時，滾珠螺帽座位移，安全片折斷，微動開關作動停機。  
Bearing bench moved, shearing block snapped, then limit switch showed "alarm" sigh to stop circle when tool hits workpiece over load.

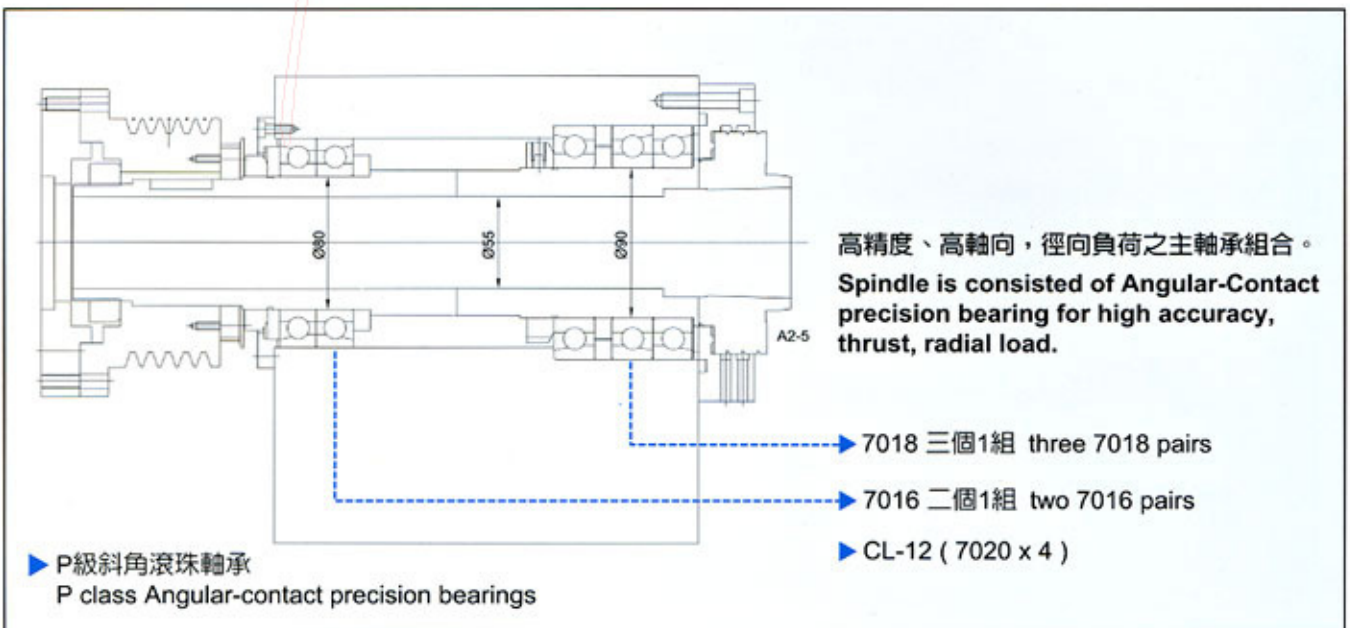
▶ 刀具系統  
Tooling System(mm)



▶ 刀具干涉及加工行程圖  
Tool Interference & Working Range(mm)



▶ 主軸結構與主要尺寸  
Structure and dimensions of spindle

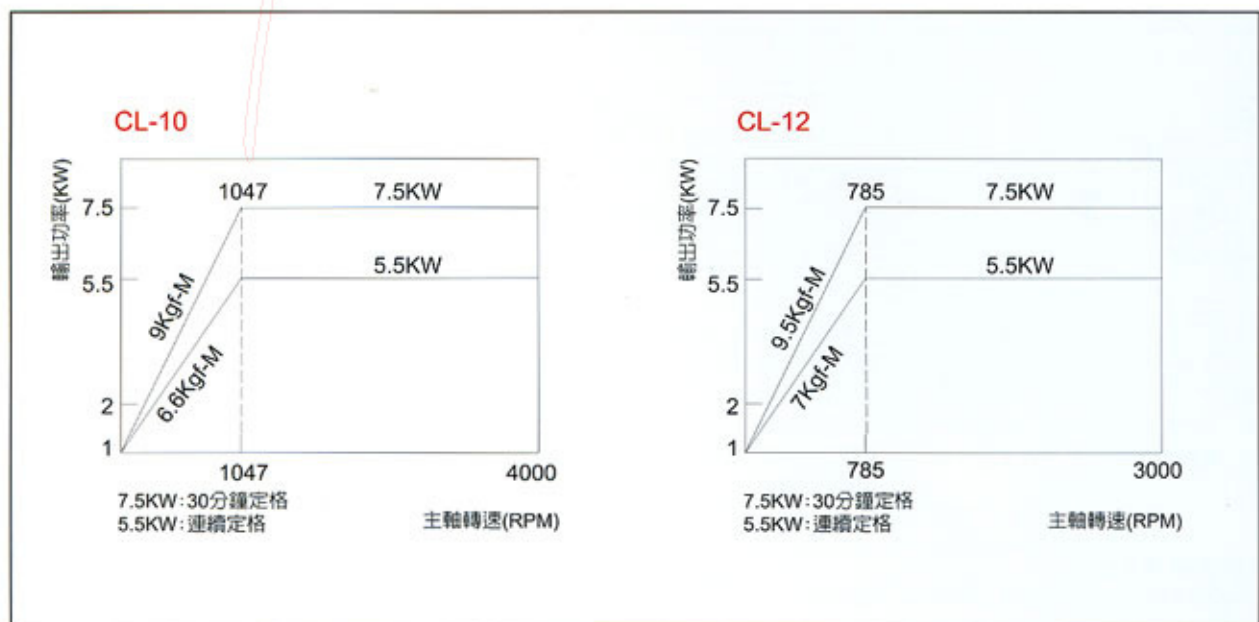


▶ P級斜角滾珠軸承  
P class Angular-contact precision bearings

項目 Item	規格 Specification	項目 Item	規格 Specification
控制軸數 Controlled axes	2軸 2axes	刀鼻半徑補償 Tool nose radius compensation	G40,G41,G42
同時控制軸數 Simultaneous controllable axes	2軸 2axes	固定馬數控制 Constant surface speed control	G96,G97
圓弧補間 Circular interpolation	G02, G03	主軸實際轉數輸出 Actual spindle speed output	
參考點復歸 Reference position return	G27,G28	刀具補正 Tool offset	64組 pairs
第2參考點 2nd reference position return	G30	補正值量測直接輸入 Direct input of offset value measured	
CRT/MDI	9" 單色 Monochrome	記憶容量 Part program storage length	640mm
暫停 Dwell	G04	可存程式數目 Registered programs	400
背隙補償 Backlash compensation		背景編輯功能 Background editing	
自我診斷功能 Self-diagnosis function		語言顯示 Multi-language display	英文, 日文, 德文, 中文, 法文 韓文, 義大利文, 西班牙文 English, Japan, German, French, Chinese, Korean, Italian, Spanish
主程式/副程式 Main program/sub-program			
跳躍機能 Skip function	G31	加工時間/零件數顯示 Run hour and parts count display	
程式停止/程式結束 Program stop/program end	M00/M01/M02/M30	圖形顯示 Graphic display	
座標系統設定 Coordinate system setting	G50	固定循環指令 Canned cycles	G90,G92,G94
計算機型小數點輸入 Pocket calculator type decimal point input		複式循環指令 Multiple repetitive cycles	G70-G76
可程式資料輸入 Programmable data input	G10	X軸直徑/半徑程式指令 X axis diameter/radius programming	
公制/英制轉換 Metric/Inch conversion	G20,G21		

※詳細規格請參考 FANUC Oi-Mate 操作手冊 Please refer the FANUC Oi-Mate manual for detail information

▶ 主軸轉速/馬達輸出曲線圖  
Spindle speed / output diagram



項目 Item		CL-10	CL-12
容量 Capacity	床身上旋徑Swing over bed	320mm	
	標準加工直徑Standard turning diameter	150mm	
	標準加工長度Standard cutting length	100mm	
移動量 Stroke	X軸X-axis	480mm	
	Z軸Z-axis	250mm	
主軸 Spindle	轉速Speed	80-4000rpm	60-3000rpm
	主軸鼻端Spindle nose	A2-5	A2-6
	軸承內徑Spindle bearing ID	90mm	100mm
	主軸通孔Spindle bore	50mm	75mm
	棒材容量Bar Capacity	42mm	65mm
刀具台 Toolholder	型式 Type	櫥式固定式 Gang bed fixed on cross slide	
	外徑切削刀具OD tool shank	□20mm	
	內徑切削刀具(最大) ID tool shank(Max.)	ø32mm	
進給速度 Feed traverse	X軸 X - axis	10m/min	
	Z軸 Z - axis	8m/min	
馬達 Motor	主軸馬達(30分)Main motor(30min.)	10HP \ 7.5kw	
	進給軸馬達Servo motor	1.6HP\1.2kw	
	油壓單元馬達Hydraulic unit motor	1HP \ 0.75kw	
	切削液馬達Coolant pump motor	1/2HP \ 0.37kw	
機械尺寸 Machine dimension	機械高度Height	1900mm	
	佔地面積 Floor space	1750x1900mm	
	機械重量Weight	2100 kgs	2200 kgs

※以上規格如有變更恕不另行通知 Specifications are subject to change without notice.

**標準配備及附件**

- FANUC Oi-Mate 控制器
- 主軸馬達 10HP
- 油壓系統
- 6吋中空油壓三爪夾頭(CL-10)
- 硬爪及軟爪各1組(CL-10)
- AD-65 彈性夾頭 (CL-12)
- 冷卻水槽及冷卻系統
- 活動門及擋屑板
- 工作燈
- 單刀座4只
- 雙刀座1只
- 鑽孔刀座1只
- 內孔刀套(M8,10,12,16,20,25)各1只
- 莫氏套筒(MT#2,#3)各1只

**選購配備及附件**

- 卡式刀座板
- 單刀座・雙刀座 (卡式刀座板用)
- 鑽孔刀座 (卡式刀座板用)
- 鐵屑輸送機及集屑車
- 變壓器
- 主軸機械式24點定位
- 鑽孔裝置
- 圖形顯示
- 手排式自動送料
- 銑角裝置
- 拉料器

**Standard equipment & accessorier**

- FANUC Oi-Mate controller
- Main motor 10HP
- Hydraulic system
- 6" hollow 3-jaw hydraulic chuck for CL-10
- Hard jaws & soft jaw 1 SET/EACH for CL-10
- AD-65 collet chuck for CL-12
- Coolant tank & coolant system
- Moving door & splash guard
- Work light
- Single tool holder 4 PCS
- Double tool holder 1 PC
- Drill holder 1 PC
- Boring bar socket 1 SET
- Drill socket 1 SET

**Optional equipment & accessories**

- Subplate
- Single, double tool holder for subplate
- Drill holder for subplate
- Chip conveyor & chip bucket
- Transformer
- Spindle mechanical orientantion, 15', 24 position
- Drill attachment
- Graphic display
- Manual-loading automatic feeder system
- Milling angle attachment
- Material puller

