

# DIAMOND CSL 42-2Y SPECIFICATIONS 機械規格

ITEMS 項目		Y1 (System 1)	Y2 (System 2)
Working Range 加工範圍	Max. Machining Dia.	最大加工外徑	Ø42 mm
	Max. Machining Length	最大加工長度	280 mm
	Max. Drilling Capacity	最大鑽孔直徑	Ø30 mm
	Max. Tapping Capacity	最大攻牙外徑	M16
Tooling System 工具系統	O.D. Turning Tool	外徑刀具數	5
	O.D. Turning Tool Dimension	外徑刀具尺寸	□20x20x120
	Cross Tool (power – driven tool)	側銑刀具數	4
	Cross Tool Dimension	側銑刀具尺寸	16 mm (ER25)
	Cross Tool Speed	側銑刀具轉速	200~6000 rpm
	Power - driven Tool / Station	轉塔刀具數量	12
Power Turret 動力刀塔	O.D. Tool Dimension	外徑刀具尺寸	□20 x 20
	I.D. Tool Dimension	內徑刀具尺寸	Ø25 mm
	Max. O.D. Turning Tool / Station	外徑刀具數(最多)	6
	Max. I.D. bore Tool / Station	內徑刀具數(最多)	6
	Power – driven Tool Dimension	動力刀具尺寸	16 mm (ER25)
	Power – driven Tool Speed	動力刀具轉速	200~4000 rpm
Spindle 主軸	Max. Radial Mill / Drill Tool / Station	徑向動力刀具數(最多)	12
	Max. Axial Mill / Drill Tool / Station	軸向動力刀具數(最多)	12
	Spindle Hole Dia.	主軸內徑	Ø42 mm
	Spindle Speed	主軸轉速	200~6000 rpm
Sub-spindle 背主軸	Sub-spindle Hole Dia.	背主軸內徑	Ø42 mm
	Sub-spindle Speed	背主軸轉速	200~6000 rpm
	Max. Length for Front Ejection	前面出料最大長度	120 mm
	Sub-spindle Max. Drilling Dia.	背面加工最大鑽孔徑	Ø30 mm
Rapid Speed 快速位移	Sub-spindle Max. Tapping Dia.	背面加工最大攻牙徑	M16
	A Axis	A 軸	30m/min
	X1, Z1, Y1 Axes	X1, Z1, Y1 軸	30m/min
	X2, Z2, Y2 Axes	X2, Z2, Y2 軸	30m/min
Travel 行程	A Axis	A 軸	460 mm
	X1 Axis	X1 軸	45 mm
	Z1 Axis	Z1 軸	300 mm
	Y1 Axis	Y1 軸	360 mm
	X2 Axis	X2 軸	140 mm
	Z2 Axis	Z2 軸	470 mm
Motors 馬達	Y2 Axis	Y2 軸	170 mm
	Main Spindle	主軸馬達	7.5 kW
	Sub-spindle	背軸馬達	7.5 kW
	Y1, Y2 Axes	Y1, Y2 軸馬達	1.5 kW
	A, X1, Z1, X2, Z2 Axes	A, X1, Z1, X2, Z2 軸馬達	1.0 kW
	Rotary Tools	動力刀具馬達	2.2 kW
	Coolant Pump	切削馬達	1 HP
	Lubrication	潤滑油馬達	25 w
Machine Dimensions 機械尺寸	Center Height	主軸中心高	960 mm
	Weight	重量	6380 kgs
	Dimension	機械尺寸	3000 x 1800 x 1980 mm
Air 氣壓	Air Pressure	空氣壓力	5 kg/cm
	Air Supply	空氣量	10 L/min

### Standard Accessories:

- Main spindle
- Sub-spindle
- CS Axis
- Working Light
- Coolant System
- Part off Detective Sensor
- Live Bushing
- Chip Conveyer
- Chip Bucket
- Part Catcher
- 5 pcs O.D. Turning Tool Holder
- 4 pcs Cross Working Driven Tool Holder
- 4 pcs Double Side Turning Holder (Turret)
- 4 pcs Double Boring Bar Holder (Turret)
- 2 pcs Axial Drilling and Milling Head (Turret)
- 2 pcs Radial Drilling and Milling Double Head (Turret)
- Rough Material Bushing (Max. Machining = Bar Diameter x 3)

### DIAMOND CSL 42-2YII

Additional: 4 pcs Back Working Driven Tool Holder

### 標準附件:

- 正主軸
- 背主軸
- CS軸
- 工作燈
- 冷卻系統
- 工件切斷檢測
- 同期迴轉套筒
- 鐵屑機
- 鐵屑桶
- 工件收集器
- 5 支外徑刀具刀座
- 4 支側銑刀具刀座
- 4 支雙側外徑刀具刀座 (刀塔)
- 4 支雙孔內徑刀具刀座 (刀塔)
- 2 支軸向動力刀具刀座 (刀塔)
- 2 支雙頭徑向動力刀具刀座 (刀塔)
- 粗料套筒 (最大加工長度=材料外徑x3)

### DIAMOND CSL 42-2YII

增加: 4 支背面鑽銑刀具刀座

# DIAMOND CSL 42-2YII SPECIFICATIONS 機械規格

ITEMS 項目		Y1 (system 1)	Y2 (system 2)	(system 3)	
Working Range 加工範圍	Max. Machining Dia.	最大加工外徑	Ø42 mm	Ø42 mm	
	Max. Machining Length	最大加工長度	280 mm	280 mm	
	Max. Drilling Capacity	最大鑽孔直徑	Ø30 mm	Ø30 mm	
	Max. Tapping Capacity	最大攻牙外徑	M16	M16	
Tooling System 工具系統	O.D. Turning Tool	外徑刀具數	5		
	O.D. Turning Tool Dimension	外徑刀具尺寸	□20x20x120		
	Cross Tool (power – driven tool)	側銑刀具數	4		
	Cross Tool Dimension	側銑刀具尺寸	16 mm (ER25)		
	Cross Tool Speed	側銑刀具轉速	200~6000 rpm		
	Back I.D. Tool	背面內徑刀具數		4	
Power Turret 動力刀塔	Back I.D. Tool Dimension	背面內徑刀具尺寸		Ø25 mm	
	Back Working Driven Tool	背面鑽銑刀具數		4	
	Back Working Driven Tool Dimension	背面鑽銑刀具尺寸		16 mm (ER25)	
	Back Working Driven Tool Speed	背面鑽銑刀具轉速		200~6000 rpm	
	Power - driven Tool / Station	轉塔刀具數量	12		
	O.D. Tool Dimension	外徑刀具尺寸	□20 x 20		
Spindle 主軸	I.D. Tool Dimension	內徑刀具尺寸	Ø25 mm		
	Max. O.D turning Tool / Station	外徑刀具數(最多)	6		
	Max. I.D. bore Tool / Station	內徑刀具數(最多)	6		
	Power – driven Tool Dimension	動力刀具尺寸	16 mm (ER25)		
Sub-spindle 背主軸	Power – driven Tool Speed	動力刀具轉速	200~4000 rpm		
	Max. Radial Mill / Drill Tool / Station	徑向動力刀具數(最多)	12		
	Max. Axial Mill / Drill Tool / Station	軸向動力刀具數(最多)	12		
	Spindle Hole Dia.	主軸內徑	Ø42 mm		
Rapid Speed 快速位移	Spindle Speed	主軸轉速	200~6000 rpm		
	Sub-spindle Hole Dia.	背主軸內徑		Ø42 mm	
	Sub-spindle Speed	背主軸轉速		200~6000 rpm	
	Max. Length for Front Ejection	前面出料最大長度		120 mm	
Travel 行程	Sub-spindle Max. Drilling Dia.	背面加工最大鑽孔徑		Ø30 mm	
	Sub-spindle Max. Tapping Dia.	背面加工最大攻牙徑		M16	
	X1, Z1, Y1, X2, Z2, Y2, X3, Z3 Axes	X1, Z1, Y1, X2, Z2, Y2, X3, Z3 軸	30m/min	30m/min	30m/min
	X1 Axis	X1 軸	45 mm		
	Z1 Axis	Z1 軸	300 mm		
	Y1 Axis	Y1 軸	360 mm		
Motors 馬達	X2 Axis	X2 軸	140 mm		
	Z2 Axis	Z2 軸	470 mm		
	Y2 Axis	Y2 軸	170 mm		
	X3 Axis	X3 軸		245 mm	
	Z3 Axis	Z3 軸		450 mm	
	Main / Sub-spindle	主/ 背軸馬達	7.5 kW		7.5 kW
	Y1, Y2 Axes	Y1, Y2 軸馬達	1.5 kW	2.2 kW	
	X1, Z1, X2, Z2, X3, Z3 Axes	X1, Z1, X2, Z2, X3, Z3 軸馬達	1.0 kW	1.0 kW	1.0 kW
Machine Dimensions 機械尺寸	Rotary Tools	動力刀具馬達	2.2 kW	2.2 kW	
	Coolant Pump	切削馬達	1 HP	1 HP	
	Lubrication	潤滑油馬達	25 w	25 w	
Air 氣壓	Center Height	主軸中心高		990 mm	
	Weight	重量		6480 kg	
	Dimension	機械尺寸		3600x2650x2130 mm	
	Air Pressure	空氣壓力		5 kg/cm	
Air Supply	空氣量		10 L/min		

### Option Accessories for Power Turret:

- Double Side Turning Holder
- Double Boring Bar Holder
- Axial Drilling And Milling Head
- Radial Drilling And Milling Double Head

### 刀塔用選擇配件:

- 雙側外徑刀具刀座
- 雙孔內徑刀具刀座
- 軸向動力刀具刀座
- 雙頭徑向動力刀具刀座

**PO LY GIM**

PO LY GIM MACHINERY CO., LTD.  
富格蘭科技有限公司

TEL: +886-37-981220/980599  
FAX: +886-37-985306

polygim@ms69.hinet.net  
www.polygim.com.tw

LYS-FRINT 230202-1000

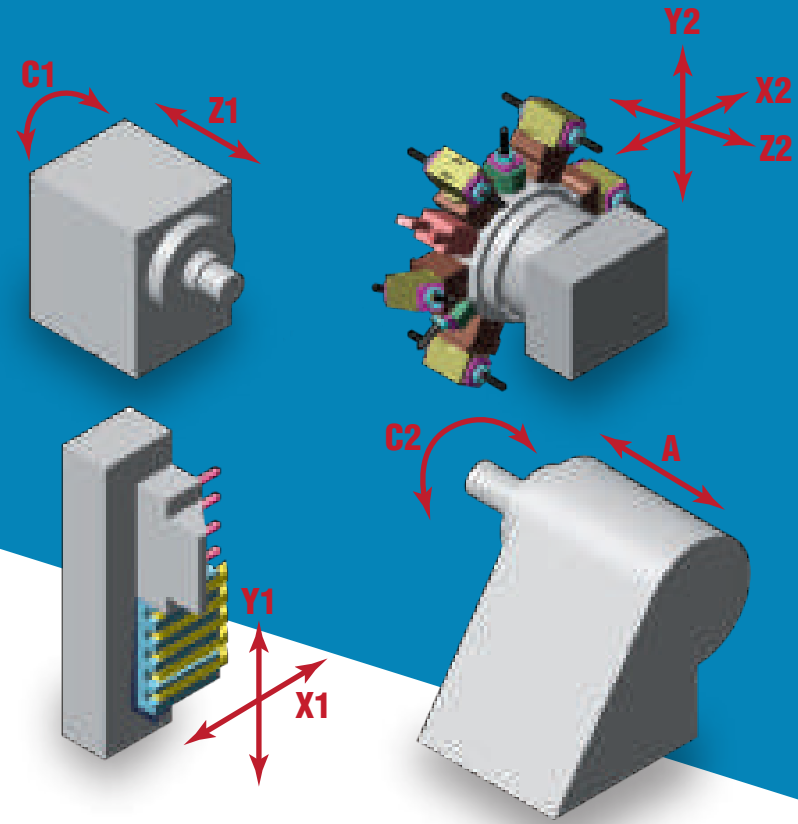


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**DIAMOND  
CSL 42-2Y  
SERIES**

Swiss Type CNC Auto Lathe 走心式CNC自動車床  
金鑽CSL 42型雙Y系列

# DIAMOND CSL 42-2Y



## Machine Features

★ **Diamond CSL 42-2Y** offers up to 9 axes complex manufacturing capability using the most advanced multi-axes control system.

★ **Diamond CSL 42-2YII** is upgraded with MITSUBISHI 830 controller which possessed control axis superimposition function. It offers up to 10 axes complex manufacturing capability and it can simultaneously to process at 3 channels.

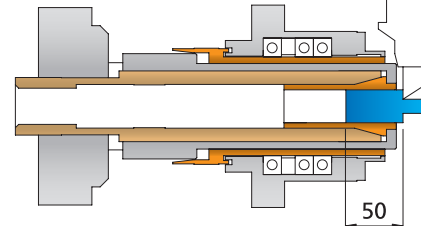
### 機械特點：

★ **金鑽 CSL 42-2Y** 採用最先進的多軸控制系統，可提供多達 9 軸的複雜製造能力。

★ **金鑽 CSL 42-2YII** 升級採用具有控制軸疊加功能的三菱 830 控制器，它提供多達 10 軸的複雜製造能力，並且可以同時在 3 個系統進行處理。

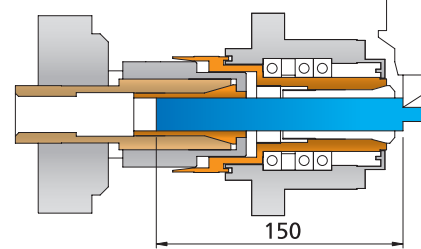
## Guide Bush vs. Non Guide Bush

導套和無導套區別



Using Rough Material Bushing without Guide Bush  
無導套之主軸構造

Remnant Material 50mm  
剩餘材料 50mm



Using Live Bushing with Guide Bush  
有導套之主軸構造

Remnant Material 150mm  
剩餘材料 150mm

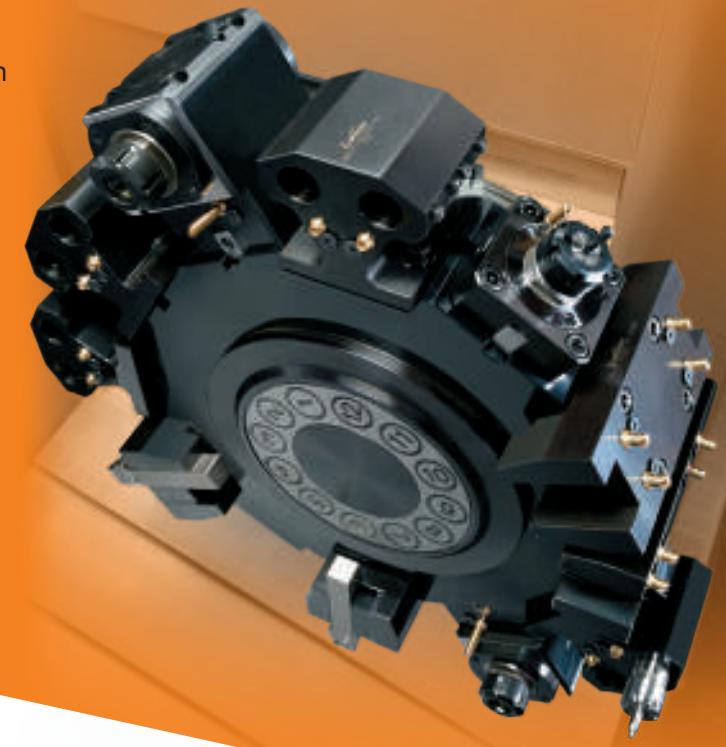
# DIAMOND CSL 42-2YII



# SWISS Type CNC Auto Lathe

**Main and Sub-Spindle** are up to 42mm with 12 stations power turret. Both built-in spindle are with CS axis indexing. This helps to obtain spindle rotation high accuracy and better surface finish during cutting operation.

主軸和副主軸高達42毫米，配有12工位的動力刀塔。兩個內藏式主軸均帶有CS軸分度。這有助於在切削操作過程中，獲得主軸旋轉的高精度和更好的表面光潔度。



12 Stations Power Turret  
Can Do Double-side Processing  
12 角動力刀塔可做雙面加工

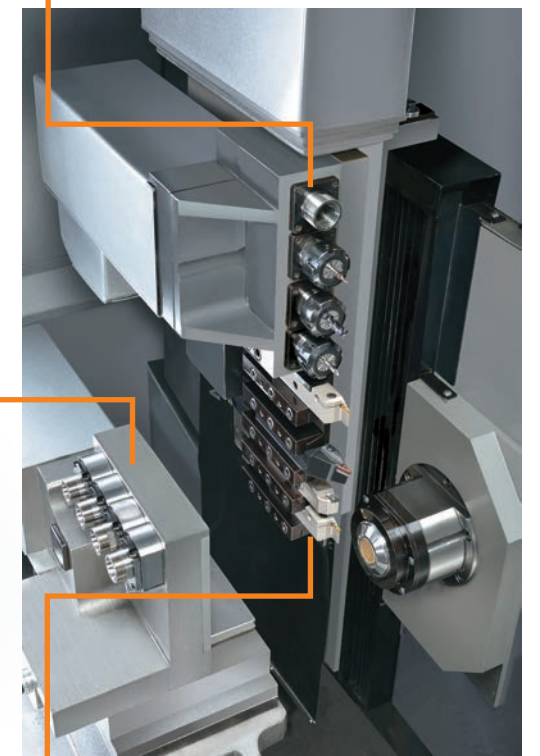


## Parts Catcher with Parts Conveyor

工件收集器配成品輸送帶

4 pcs Cross Working Driven Tool Holder  
4 支側銑刀具刀座

4 pcs Back Working Driven Tool Holder ( for 42-2YII )  
4 支背面鑽銑刀具刀座 ( 只限42-2YII )



5 pcs O.D. Turning Tool Holder  
5 支外徑刀具刀座