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Multifunction High Productivity
7 Axis Machining at a Low Cost

CSBII-S

金鑽 CSBII-S
多功能機型

With Special Tool Device

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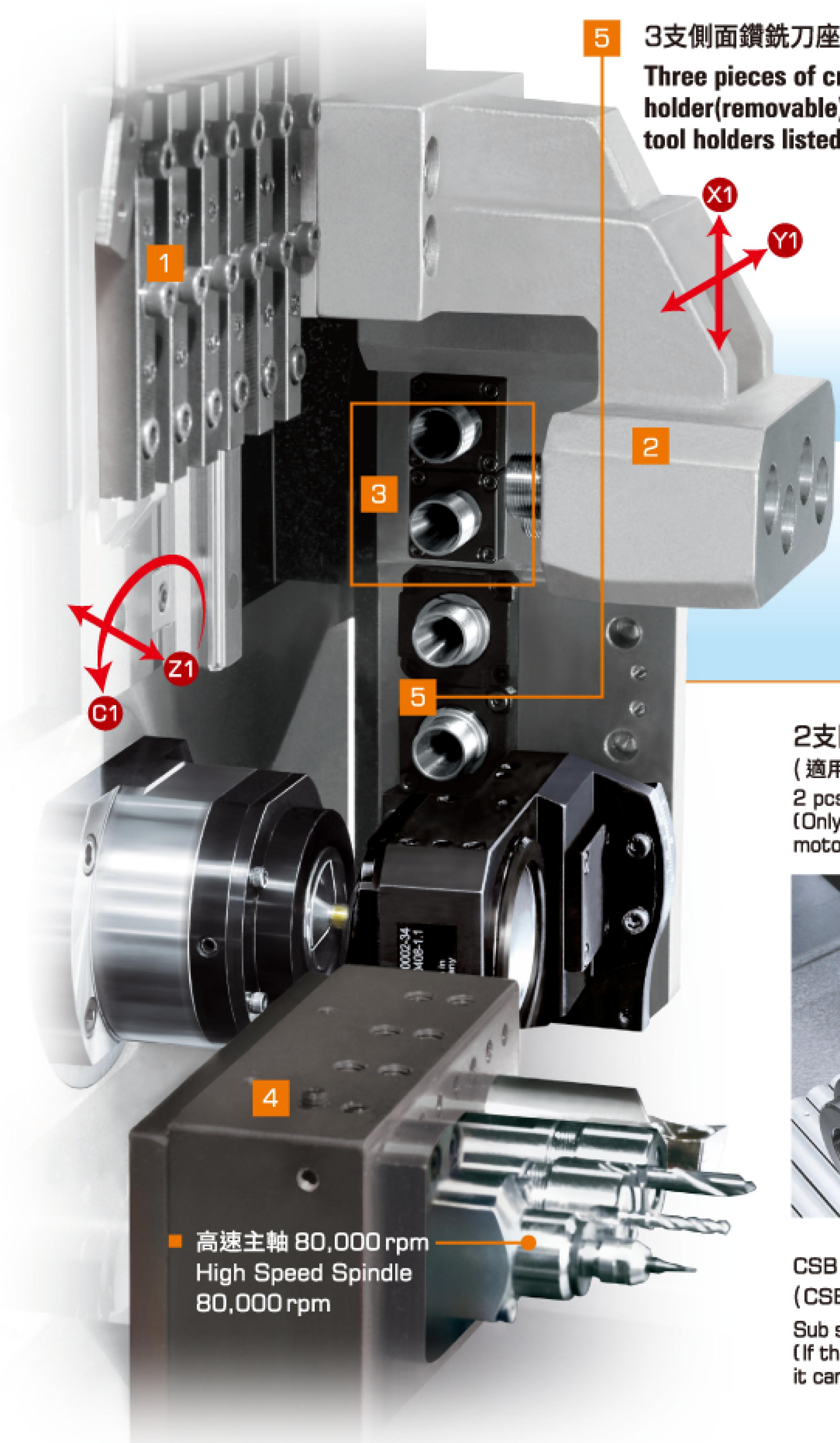
走心式 CNC 自動車床 金鑽 CSBIII-S 多功能機型

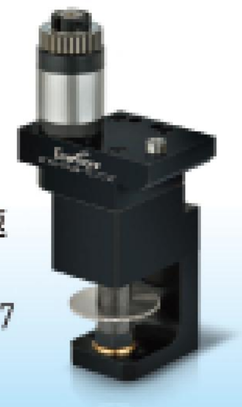
Swiss Type CNC Auto Lathe CSBIII-S With Special Tool Device



5 3支側面鑽銑刀座(抽換式)可選配以下八種刀座

Three pieces of cross driven tool holder(removable), eight pieces optional tool holders listed as below:

鋸片座
Saw Blade Seat



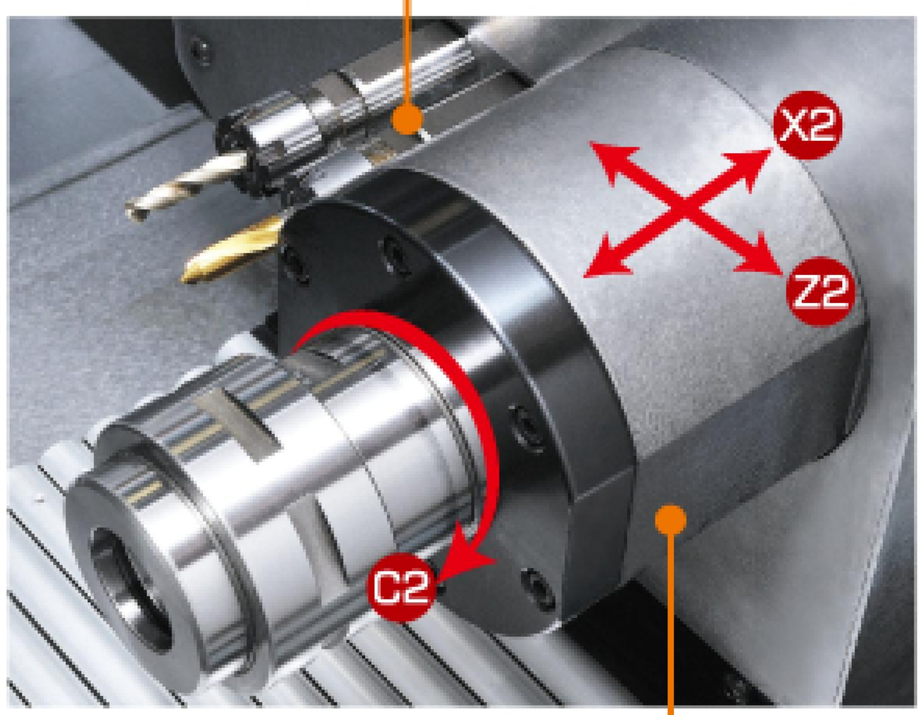
轉速比 Speed Ratio: 1:0.5806 減速
最高轉速 Max. (rpm): 4000 RPM
鋸片孔徑 Saw Blade Aperture: 12.7
鋸片最大外徑 Max. Diameter of Saw Blade: 50

多邊形銑角刀座
Polygon Milling Tool Holder

轉速比 Speed Ratio: 1: 0.6 減速
最高轉速 Max. (rpm): 4000 RPM
軸徑 Shaft Diameter: 13
刀片最大外徑 Max. Diameter of Blade: 70

2支固定正面內徑刀具刀座
(適用於 CSB III-S 配皮帶式背軸)

2 pcs front I.D. stationary tool holder (Only available for CSBIII-S with belt type motor on sub-spindle)



CSB III-S 背主軸標準是配 C 軸
(CSB III-S 如果換配內藏式馬達可選配 CS 軸)

Sub spindle only with simple C axis for CSB III-S (If the sub-spindle option with built-in motor, it can option CS axis for CSB III-S)

■ 高速主軸 80,000 rpm
High Speed Spindle 80,000 rpm

單孔側面鑽銑刀具裝置
Cross Driving Tool Holder

轉速比 Speed Ratio: 1: 1
最高轉速 Max. (rpm): 8000 RPM
筒夾 Collet: ER16M

2孔 360° 旋轉刀座
2 pcs 360° Rotary Driven Tool Holder

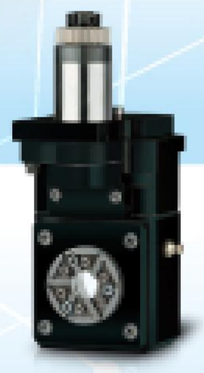
轉速比 Speed Ratio: 1: 1
最高轉速 Max. (rpm): 6000 RPM
角度調整範圍 Angle Adjustment Range: 360
筒夾 Collet: ER11-AC (內藏式)

3孔偏心鑽銑刀具裝置
3 pcs off-center Driven Tool Holder

轉速比 Speed Ratio: 1: 1
最高轉速 Max. (rpm): 6000 RPM
筒夾 Collet: ER16

銑牙座(進口)
Thread Whirling Device (import)

轉速比 Speed Ratio: 1:1
最高轉速 Max. (rpm): 6000 RPM
角度調整範圍 Angle adjustment range: 20
加工最大尺寸 Max. machining size: 11.4



銑牙座(國產)
Thread Whirling Device (Domestic)

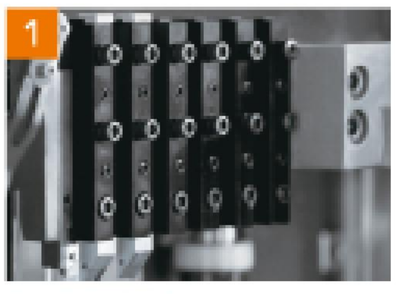
轉速比 Speed Ratio: 1: 0.896 減速
最高轉速 Max. (rpm): 6000 RPM
角度調整範圍 Angle adjustment range: 15
加工最大尺寸 Max. machining size: 10.5

6孔偏心鑽銑刀座
6 pcs Off-center Driven Tool Holder

轉速比 Speed Ratio: 1: 1
最高轉速 Max. (rpm): 6000 RPM
筒夾 Collet: 主軸 ER16 / 副主軸 ER11

結構體 CSBIII-S Structure

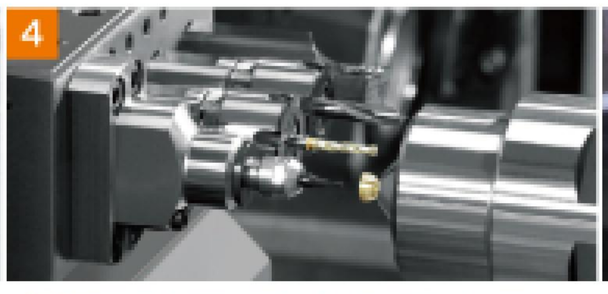
選配：背面選配Y2軸時可加選配立式鑽銑刀具刀座
Opt:Optional Radial drilling tool holder when Y2 axis is selected on the sub-spindle



外徑刀座
O.D. Turning Tool

內徑刀座
I.D. Stationary Tool Holder

2支側面鑽銑刀座
(不能抽換)
Cross Working Driven Tool (unremovable)



標配：背面4支內孔固定刀座
選配：背面4支動力鑽銑刀座
Std: 4 pcs Back I.D Stationary Tool Holder
Opt: 4 pcs Back Working Driven Tool Holder

選配：背面Y2軸含4支動力鑽銑刀具刀座
Opt: Y2 axis with 4 pcs Back Working Driven Tool Holder

機械特點

- **十字型走向背主軸**
  十字型走向背主軸設計，主軸和背軸可以同時或單獨加工，節省加工時間，提供高度及多樣的前後混合加工。
- **餘料短**
  選擇粗料套筒即可走心機當走刀機用，殘料長度約50mm，可有效達到精簡材料成本。
- **粗料加工**
  選擇粗料套筒，非研磨棒材也能在走心機加工，材料公差容忍 0.1mm。
- **可替換式固定/ 動力刀座組**
  4 支背面固定 / 動力鑽銑刀具刀座是新研發可拆卸安裝固定或動力刀具組之刀座，使您在刀具使用上有更靈活的運用。

FEATURES

- **Cross Travel Sub-spindle** Cross travel sub spindle design. The main and sub spindles can work either one at a time or simultaneously for reduced machining duration. This design brings multi-function front and rear machining.
- **Short Remnant Material** With the optional Rough Material Bushing, the remnant material can be 50mm (depending on the parts length).
- **Raw Material Machining** 0.1mm material tolerance can be achieved by using the Rough Material Bushing.
- **Replaceable Fixed / Driven Toolholder Set**
  The 4 pc back stationary / driven tool holder is replaced by the newly designed replaceable fixed tool holder or driven tool holder.
  This enables increased tooling flexibility.

CSBIII-S With Special Tool Device

Specifications

	型 號	Model	金鑽 DIAMOND 12CSBIII-S	金鑽 DIAMOND 16CSBIII-S	金鑽 DIAMOND 20CSBIII-S	金鑽 DIAMOND 25CSBIII-S
加工範圍 Working Range	最大加工外徑	Max. Machining Dia.	Ø12.7mm	Ø16.5mm	Ø20mm	Ø26mm
	最大加工長度	Max. Machining Length Per Chucking	200mm			
	最大鑽孔直徑(主軸)	Max. Drilling Dia.(Main Spindle)	Ø7mm	Ø10mm	Ø10mm	Ø10mm
	最大鑽孔直徑(副主軸)	Max. Drilling Dia.(Sub Spindle)	Ø7mm			
	最大攻牙外徑(主軸)	Max. Tapping Dia.(Main Spindle)	M6	M8	M8	M8
	最大攻牙外徑(副主軸)	Max. Tapping Dia.(Sub Spindle)	M6			
外徑刀 O.D. Tooling	刀具數	Number of Tools	6			
	刀具尺寸	Dimension	□12 x12 x120			
內徑刀 I.D. Tooling	刀具數	Number of Tools	4			
	刀具尺寸	Dimension	10mm (ER16)			
側面鑽銑刀 Cross Working Driven Tooling	刀具數	Number of Tools	2+3			
	刀具尺寸	Dimension	10mm (ER16)			
	刀具轉速	Speed	200~6,000rpm			
背面內徑刀 Back I.D. Tooling	刀具數	Number of Tools	4 + 4			
	刀具尺寸	Dimension	10mm (ER16)			
背面鑽銑刀(選配) Back Working Driven Tooling (Option)	刀具數	Number of Tools	4			
	刀具尺寸	Dimension	10mm (ER16)			
	刀具轉速	Speed	5,000rpm			
主軸 Spindle	主軸內徑	Spindle Hole Dia.	Ø13mm	Ø17mm	Ø22mm	Ø27mm
	主軸轉速	Spindle Speed	200~12,000rpm	200~10,000rpm		200~8,000rpm
	主軸定位角度	Main Spindle Indexing Angle	C-axis			
背主軸 Back Spindle	背主軸內徑	Spindle Hole Dia.	Ø13mm	Ø17mm	Ø22mm	Ø27mm
	背主軸轉速 (選配內藏馬達)	Spindle Speed (Option built-in motor)	200~6,000rpm			
			200~12,000rpm	200~10,000rpm		200~8,000rpm
	前面出料最大長度	Max. Length for Front Ejection	50mm			
	背主軸定位角度	Sub Spindle Indexing Angle	C-axis			
快速位移 Rapid Traverse	X1, Y1, Z1, X2, Z2	X1, Y1, Z1, X2, Z2	30M / MIN			
馬達 Motor	內藏主軸馬達	Built-in Spindle Motor	1.5 / 2.2kW		2.2 / 5.5kW	
	背主軸馬達 (選配內藏馬達)	Back Spindle Motor (Option built-in motor)	1.1 / 3.7kW		1.1 / 3.7kW	
			1.5 / 2.2kW		2.2 / 5.5kW	
	Y1, Z1, X2, Z2 軸馬達	Y1, Z1, X2, Z2 Axes Motor	1kW			
	X1 軸馬達	X1 Axis Motor	1.6kW			
	Y2 軸馬達 (選配)	Y2 Axis Motor(Option)	1.6kW			
	冷卻幫浦馬達	Coolant Pump Motor	1 HP			
	潤滑油馬達	Lubrication Motor	4 w			
	側面鑽銑馬達	Cross Driven Tool Motor	2.2kW			
	背面可替換式動力刀座馬達 (選配)	Back Driven Tool Motor(Option)	1kW			
	背面 Y2 軸可替換式動力刀座馬達 (選配)	Y2 Axis with Back Driven Tool Motor(Option)	2.2kW			
	主軸中心高	Center Height	890mm			
機械尺寸 Machine Dimensions	重量 (選配 Y2 軸)	Weight (Option Y2 Axis)	2,020kg	2,170kg	2,220kg	2,270kg
			2,400kg	2,550kg	2,600kg	2,650kg
	機器尺寸 (選配 Y2 軸)	Machine Dimensions (Option Y2 Axis)	2,440 x 1,430 x 1,650mm			
			2,690 x 1,495 x 1,890mm			
氣壓 Air	空氣壓力	Air Pressure	5kg/cm			
	空氣量	Air Supply	10L/min			

■ 標準配件

1. 控制器:發那科 0I-TF PLUS
2. 主軸
3. 背面主軸
4. 工作燈
5. 冷卻系統
6. 工件切斷檢測
7. 工件收集器
8. 同期迴轉套筒
9. 固定式套筒 (25CSBIII-S 無此配件)
10. 6 支外徑刀具刀座
11. 4 支正面內徑刀具刀座
12. 4 支背面內徑刀具刀座
13. 4 支背面固定刀具刀座
14. 2 支+3 支側面鑽銑刀具刀座

■ Standard Accessories :

1. Controller: Fanuc 0I-TF PLUS
2. Main Spindle
3. Back Spindle
4. Working Light
5. Coolant System
6. Part off Detection Sensor
7. Part Catcher
8. Live Bushing
9. Fixed Bushing (Except 25CSBIII-S)
10. 6 pcs O.D. Turning Tool Holder
11. 4 pcs I.D. Stationary Tool Holder
12. 4 pcs Back I.D. Stationary Tool Holder
13. 4 pcs Back I.D. Stationary Tool Holder
14. 2 pcs+3 pcs Cross Working Driven Tool Holder

■ 選擇配件 :

1. 控制器:發那科31i-B 或三菱M80
2. CS 軸 (0.001° 定位)
3. 排屑機 + 鐵屑車
4. 背面4支動力鑽銑刀具刀座 (選擇Y2軸必選)
5. 背面Y2軸含4支動力鑽銑刀具刀座
6. 2支固定正面內徑刀具刀座 (限配皮帶式背軸)

■ Option Accessories :

1. Controller: Fanuc 31i-B or Mitsubishi M80
2. CS Axis (0.001° Orientation)
3. Chip Conveyor + Bucket
4. 4 pcs Back Working Driven Tool Holder (If choose Y2 axis need to option)
5. Y2 axis with 4 pcs Back Working Driven Tool Holder
6. 2 pcs Front I.D. Stationary Tool Holder (sub-spindle with belt type motor)