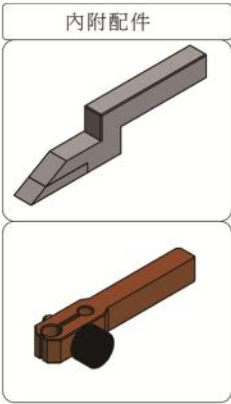


畫線台

SCRIBING WORKBENCH



CV-400

CV-600

型號 Model No.	CV-400	CV-600
量測範圍 Range	0~350 mm	0~550 mm
精確度 Accuracy		
真直度 Straightness	± 0.015mm	± 0.02mm
垂直度 Squares	± 0.015mm	± 0.02mm
操作方式 Operation	手動Manual	手動Manual
重量 Weight	8Kg	10Kg
解析度 Resolution	0.01 mm	0.01 mm

垂直儀

VERTICAL TESTER



V-300

V-600

型號 Model No.	V-300	V-600
量測範圍 Range	0~300 mm	0~600 mm
精確度 Accuracy		
真直度 Straightness	≤ 3 um	≤ 5 um
垂直度 Squares	≤ 3 um	≤ 5 um
操作方式 Operation	手動Manual	手動Manual
重量 Weight	8Kg	10Kg
環境溫度 Temperature	T=20 - 23℃	T=20 - 23℃



建緯精密科技股份有限公司
CHIEN WEI PRECISE TECHNOLOGY CO., LTD.

台灣高雄總公司地址: 高雄市鳳山區830001鎮北里鎮北北巷20-16號
No. 20-16, Zhenbei N. Ln., Zhenbei Vil., Fengshan Dist.,
Kaohsiung City 830001, Taiwan (R.O.C.)

TEL : 886-7-7313911 FAX : 886-7-7314976

E-Mail : info@chienwei.com.tw http : //www.chienwei.com/

桃園辦事處: 334桃園市八德區豐田七街35號

電話: 886-3-3681739 ; 傳真: 886-3-3680094

E-MAIL : taoyuan@chienwei.com.tw

台中辦事處: 406台中市北屯區軍福18路13號

電話: 886-4-2436-6250 ; 傳真: 886-4-2439-2589

E-MAIL : taichung@chienwei.com.tw

昆山長豐精密儀器有限公司

KUNSHAN CHANGFENG PRECISE INSTRUMENTS CO., LTD.

江蘇省昆山市張浦鎮大市中山路12號

TEL : 86-512-57258001 FAX : 86-512-57258006

E-Mail : kschangfeng@163.com



※本公司保留對此型錄做修改之權利,修改時恕不另行通知。(2025-9)
※Chien Wei reserves the right to change specifications without notice.

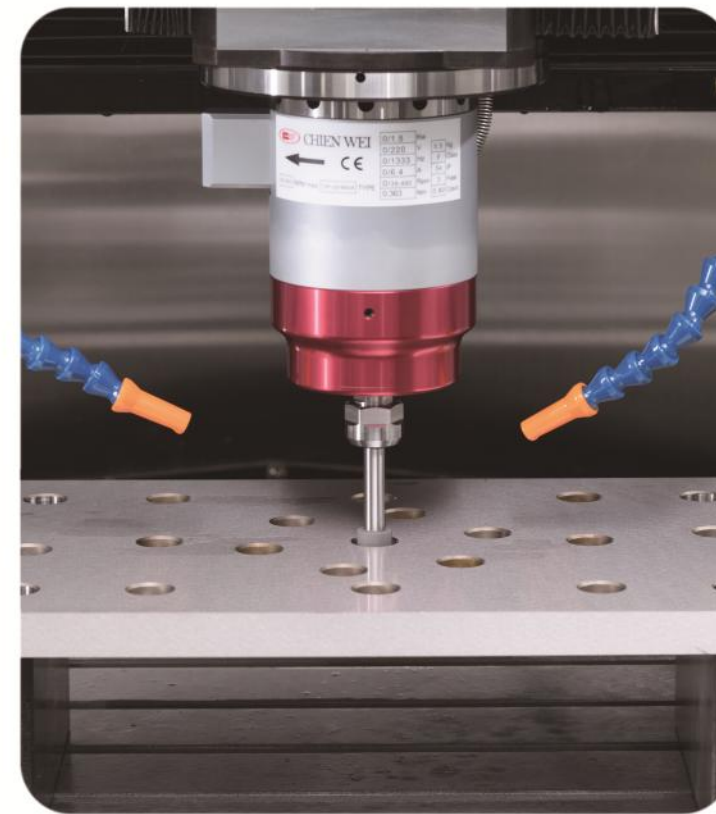


建緯精密科技股份有限公司
CHIEN WEI PRECISE TECHNOLOGY CO.,LTD.

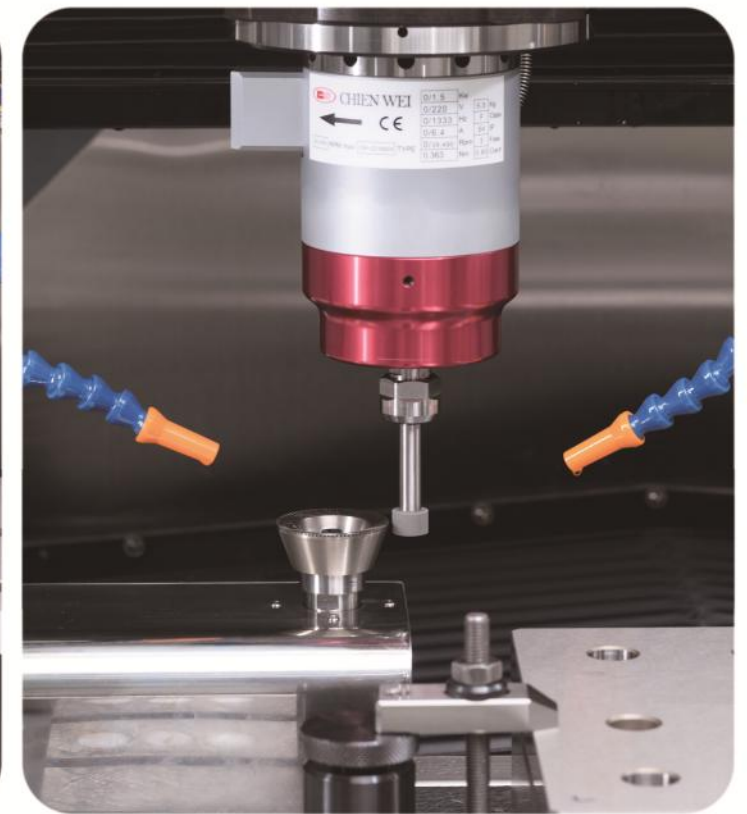


CNC高精度坐標磨床
CNC HIGH PRECISION JIG GRINDER

JG 640CM PRECISION JIG GRINDER 高精度治具研磨機



加工應用 Measurement Application



旋轉修砂器 Rotary type dresser

JG-640CM

- (1) 控制器：FANUC 31i-B Plus
- (2) 同機實現精密異形輪廓研削
- (3) X、Y、Z、Cs 四軸同時控制行程
- (4) 垂直研削機能直覺式操控
- (5) 開機診斷全自動異常輸出
- (6) 面板調控研磨頭動力輸出
- (7) 工作行程(mm)：600 x 400 x 120 x 450 (X、Y、Z、W)
- (8) 最大載重(kg)：350kgs

- (9) 切削進給 (mm/min)：1-12000 (X、Y、Z)
- (10) 最大位移速率 (m/min)：(X)20、(Y)20、(Z)20、(W)10
- (11) 光學尺解析度：0.02 um 最小設定單位：±0.0001 mm
- (12) 定位精度：±0.0015 mm
- (13) 行星研磨真圓度 ≤0.002 mm
- (14) X、Y、Z三軸由線性馬達作高速、高精度動力傳輸
W軸由伺服馬達雙螺桿&雙光學尺解析、保持平衡上下
- (15) 12組進刀軸設定

JG-640CM

- (1) Controller: FANUC 31i-B Plus
- (2) Implementable of diverse shape grinding
- (3) Capability of synchronize movement of 4 axis(X、Y、Z、Cs)
- (4) Friendly chapping operation
- (5) Abnormity detecting capability when power on
- (6) Adjustment of grinding head power output by LCD control panel
- (7) Working Travel: 600 x 400 x 120 x 450 (X、Y、Z、W)
- (8) Max load(kg): 350kgs

- (9) Cutting feed (mm/min): 1~12000 (X、Y、Z)
- (10) Rapid traverse Max (m/min): (X)20、(Y)20、(Z)20、(W)10
- (11) Resolution: 0.02um Min. Setting Unit: ±0.0001 mm
- (12) Positioning accuracy: ±0.0015 mm
- (13) Planetary grinding roundness ≤0.002 mm
- (14) X, Y, Z 3 axes are driven by linear motors for high speed, high precision transmission.
The W axis applied servo motors with dual ball screws and dual linear scales for balanced vertical movement.
- (15) 12 grinding setting modes configured



精密零件研磨 Precision part grinding

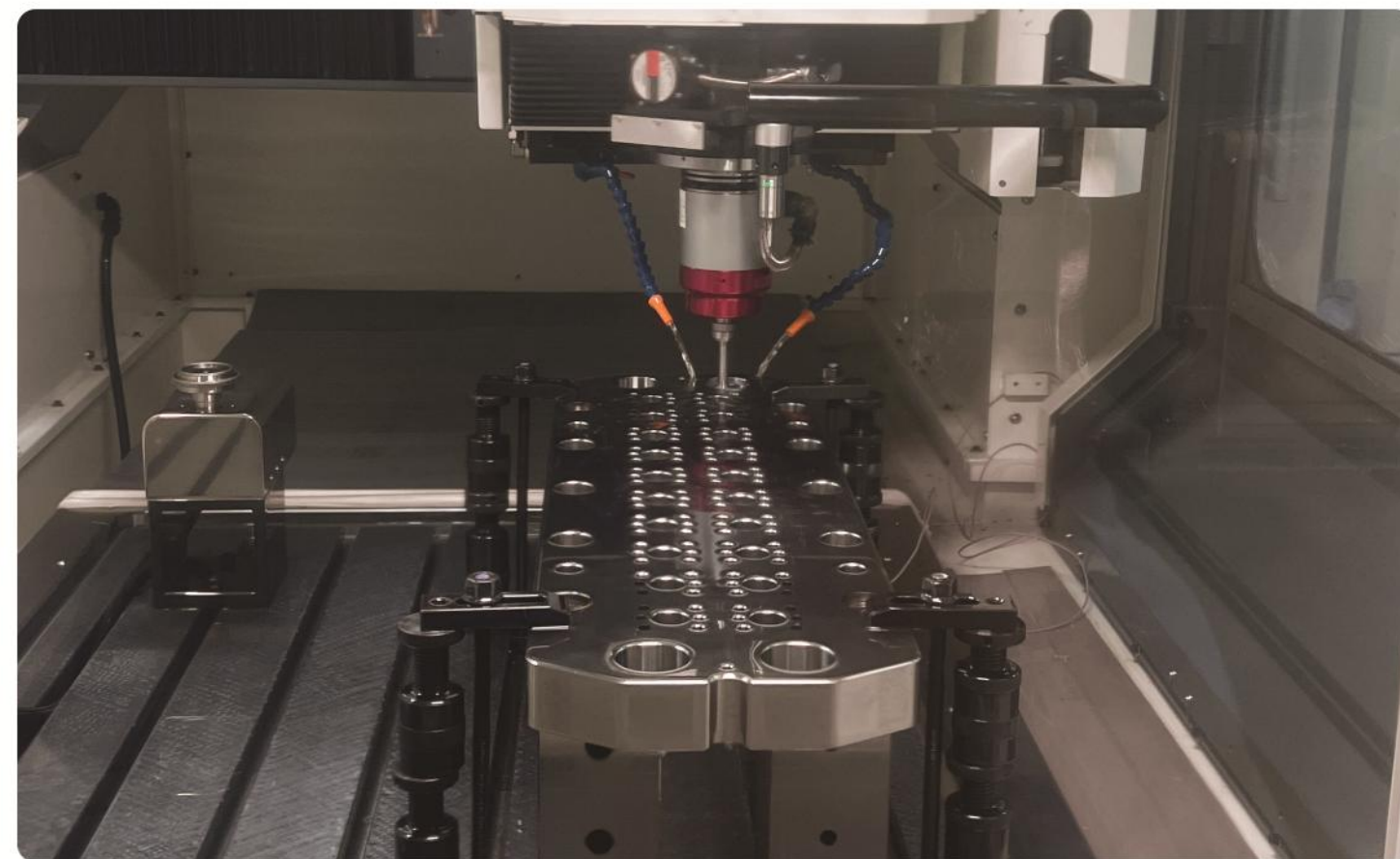


模具外輪廓研磨 Mold external chopping

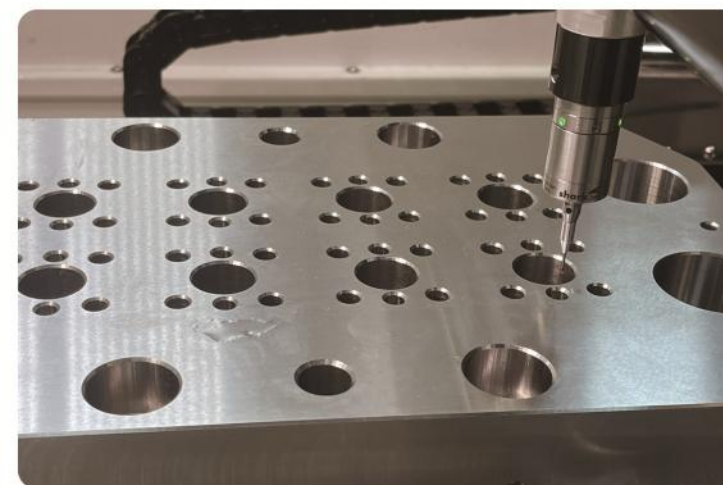
JG 1270CM

PRECISION JIG GRINDER

高精度治具研磨機



可並用第四軸作等分連續圓孔加工 Capable of synch the 4th axis for machining process



量測應用 Measurement Application



砂輪修整器 Dresser

JG-1270CM

1. 控制器：FANUC 31i-B Plus
2. 同機實現精密異形輪廓研削。
3. X、Y、Z、CS 四軸同時控制。
4. 垂直研削機能直覺式操控。
5. 開機診斷全自動異常輸出。
6. 面板調控研磨頭動力輸出。
7. 加工行程：1200 x 700 x 120 mm (X, Y, Z)

8. 最大載重：1000kg
9. 最大進給速率：10 m / min (X, Y, Z)
10. 解析度：XYZ軸：0.01 μ m
11. 位置取決精度X, Y軸： ± 0.0025 mm
12. 行星研磨真圓度 ≤ 0.002 mm
13. Z軸由線性馬達作高速、高精度動力傳輸。
14. 12組進刀軸設定。

JG-1270CM

1. Controller: FANUC 31i-B Plus
2. Implementable of diverse shape grinding
3. capability of synchronize movement of 4 axis (X, Y, Z, CS)
4. Friendly chopping operation
5. Abnormity detecting capability when power on
6. Adjustment of grinding head power output by LCD control panel
7. Working Travel: 1200 X 700 X 120 mm (X, Y, Z)

8. MAX load: 1000kgs
9. MAX feeding speed: 10 m / min (X, Y, Z)
10. Resolution: 0.01 μ m
11. Positioning accuracy subject to X, Y axis : ± 0.0025 mm
12. Planetary grinding roundness ≤ 0.002 mm
13. Z axis is driven by high-speed precise linear motor.
14. 12 grinding setting modes



油霧回收器 Lubricant mist collector



切削系統 Cutting fluid filtration

JG 1012CM

PRECISION JIG GRINDER

龍門型高精度治具研磨機



JG-1012CM特色

機器名稱：龍門型高精度治具研磨機

機器特性：

JG-1012CM龍門型高精度治具研磨機,底座及橫樑採用花崗岩構件所組成的結構體,主要是利用花崗石的特性,震動阻尼良好、動態特性佳,大大改善加工件的表面光度,此外,花崗岩的熱傳導係數低,受熱源及大環境溫度變化影響小,故能維持機台的穩定度,提昇加工件精度穩定性,而且花崗岩不生鏽、耐酸鹼,無須特別保養。

JG-1012CM (X / Y / Z) 三軸採用線性馬達提高工作效率及精密度。

W軸採用C1級 精密滾珠螺桿。

FANUC 控制器: 31i-B Plus

X / Y / Z / W移動行程: (1000 x 1000 x 250 x 400 mm)

床台平面度 ≤ 0.01 mm

(X / Y / Z) 三軸採用重負荷NSK(P4超精密級)滾柱型線性滑軌,軌道面寬45 mm,滑塊滾柱與軌道接觸面積大,軌道接觸面彈性變形量小、強度大、吸震係數高。
快速移位X / Y / Z軸24 m / min。

Z軸進給採用線性馬達作為動力傳輸,主要是利用線性馬達的特性,高響應性、直驅傳動高剛性,且具有高速、高加速度性、無背隙誤差等,不但簡化Z軸結構,而且大幅提昇工作效率,實現高速、超高精度的加工。

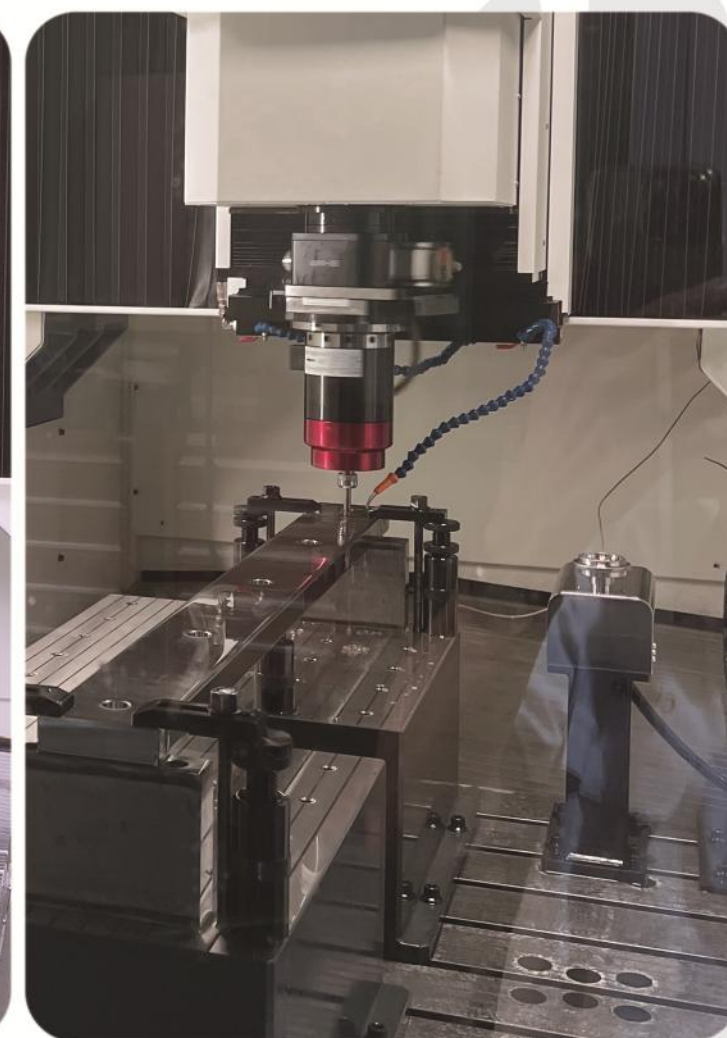
JG-1012CM 結構體設計, 增加兩層防震墊材質,隔絕內部/外部的震源,確保加工工件高精度品質。
搭配高頻研磨主軸,提升研磨加工效率。

定位精度(X / Y / Z) : ± 0.0025 mm

重覆精度(X / Y / Z) : ± 0.002 mm



增加第四軸之應用 Additional fourth axis install to use



旋轉修砂器 Rotary type dresser

JG-1012CM

MODEL : JG-1012CM DOUBLE COLUMN JIG GRINDER

Feature :

JG-1012CM double column Jig Grinder with superstructure fabricated by granite, which is well-known by its excellent damping, low heat conductivity, rust-proof, and corrosion resistance, is capable of stabilizing the machine accuracy and enhancing the roughness on workpiece.

The JG-1012CM (X/Y/Z) axes use linear motors to increase efficiency and precision.

The W axis employs a C1 grade precision ball screw.

FANUC controller : 31i-B

X, Y, Z, W travel : 1000 X 1000 X 250 X 400 mm

Plate Flatness ≤ 0.01 mm

NSK P4 heavy load ultra precise linear guideway with rail width of 45 mm is adopted in 3 axis (X, Y, Z) and has a wider engagement in order to a low deformation, high strength, vibration resistance as well as capability of max feed speed of 24 m/min.

Feeding movement of Z axis is driven by linear motor, which features instrument with hyperresponsiveness, rigidity, high speed, excellent acceleration, and no backlash and not only simplifies the superstructure but also fulfills rapid and precise machining process.

The JG-1012CM structure design includes two layers of vibration-damping material to isolate internal and external vibration sources, ensuring high precision quality of the workpiece. Paired with a high-frequency grinding spindle, it enhances grinding efficiency.

Position accuracy : ± 0.0025 mm

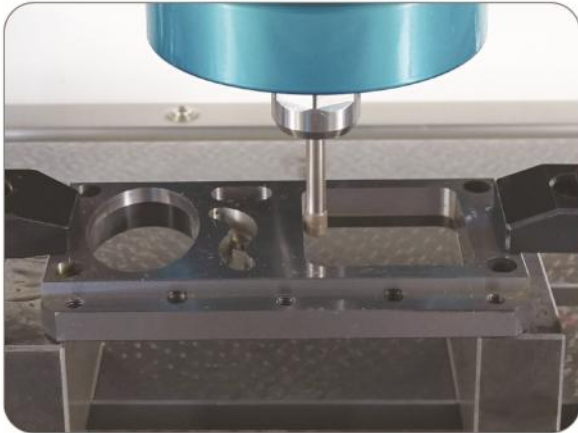
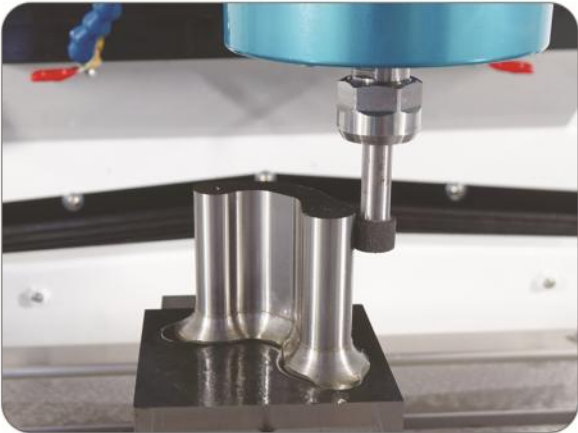
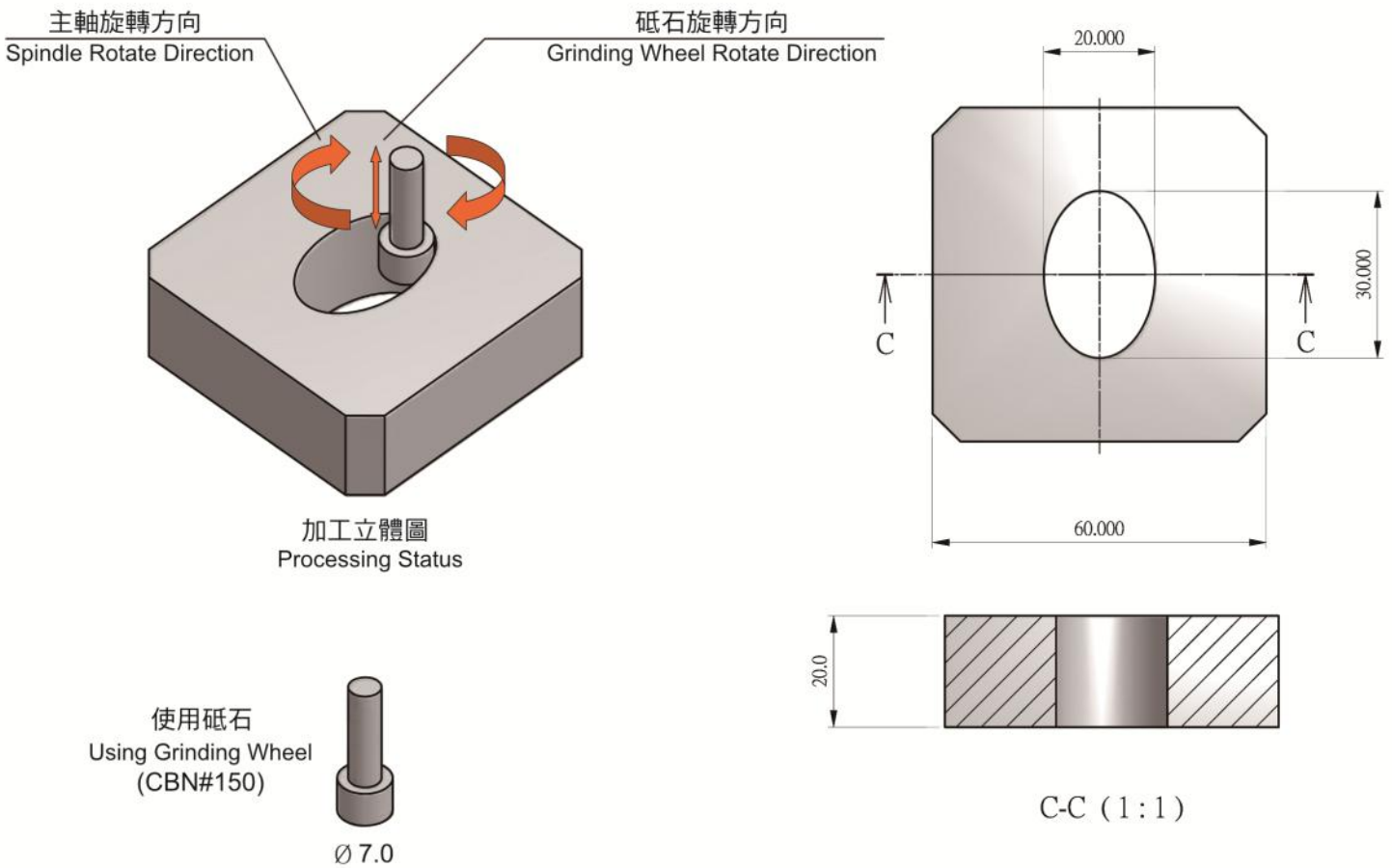
Repeatability : ± 0.002 mm

JG-640CM / JG-1270CM

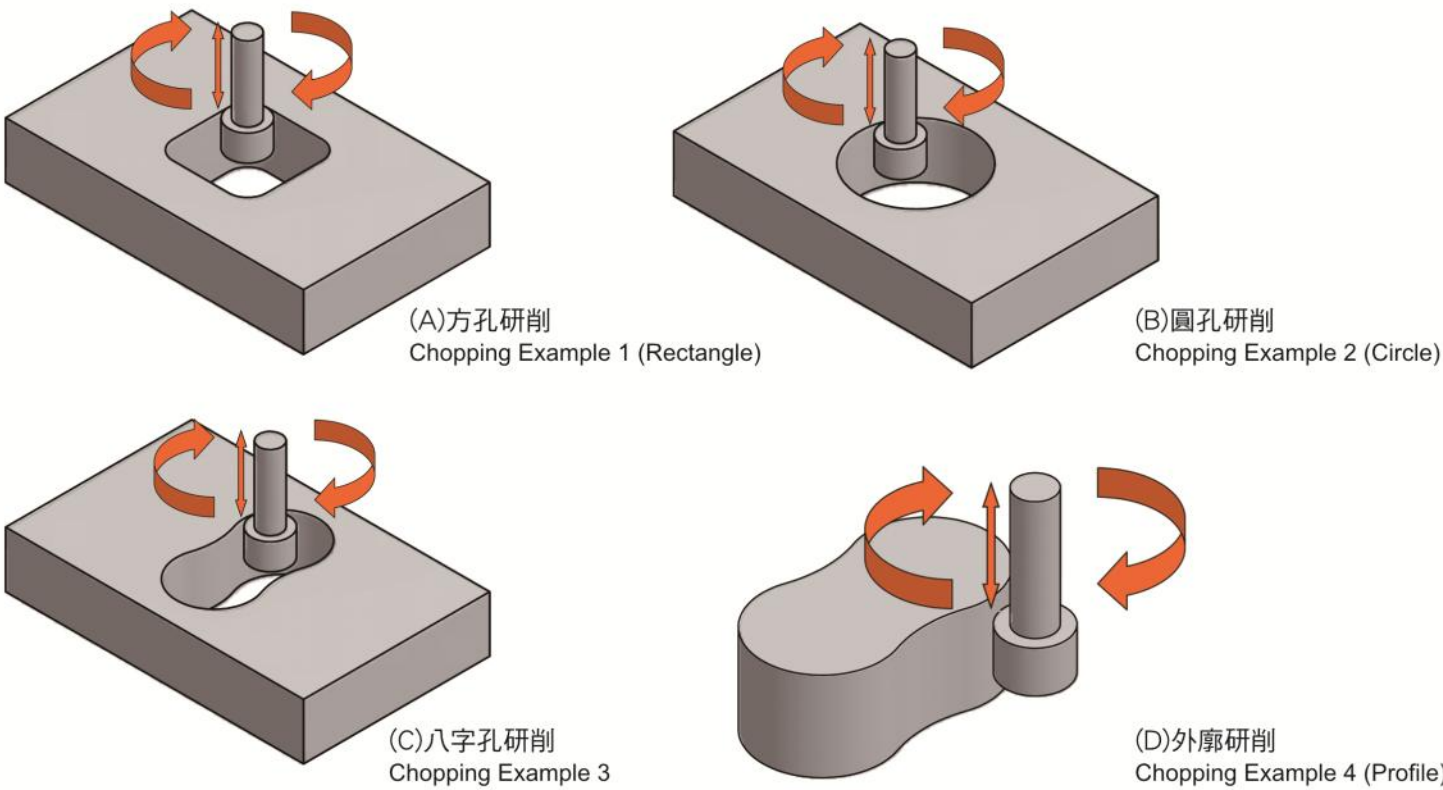
Samples of Finished Parts

研磨加工範例圖

=SKD11 HRC 62°材質	粗加工Rough Cut	精加工Finish Machining
砥石Grinding Pencil (or Grinding Wheel)	(CBN#150)	(CBN#150)
砥石回轉速Rotating Speed	40.000 rpm	40.000 rpm
預留量Reserving	0.2 mm	0.015 mm
進給率Cutting Feed Rate	40 mm / min	20 mm / min
進刀量Cutting Feed	0.1 mm	0.005 mm
加工時間Process Time	約12分鐘About 12 minutes	約20分鐘About 20 minutes



研磨加工示意圖 Processing Drawing



JG-640CM 研削磨樣品參考 JG-640CM Chopping Finished Parts



JG-640CM

Machine Specifications

精密治具研磨機規格表

1.滑台作業範圍 WORK RANGE OF THE SLIDES

移動範圍 RANGE OF MOVEMENT		JG-640CM
工作台移動量(左右)[X軸]	X Axis	600 mm(23.6")
滑台移動量 (前後)[Y軸]	Y Axis	400 mm(15.7")
研磨頭移動量(上下)[Z軸]	Z Axis	120 mm(4.7")
主軸移動量 (上下)[W軸]	W Axis	450 mm(17.7")

最大進給速度 Max FEED SPEED

X,Y軸	X,Y Axis	20 m/min
Z軸	Z Axis	24 m/min

解析度 READING RESOLUTION (Linear scales)

X,Y軸	X,Y Axis	0.05 um
Z軸	Z Axis	0.05 um
Cs軸	Cs Axis	0.001deg

定位精度 LOCATION ACCURACY

X,Y軸	X,Y Axis	±0.0015 mm
------	----------	------------

位置檢出器 POSITION CODER

X,Y軸	X,Y Axis	Linear encoder
Z軸	Z Axis	Linear encoder
Cs軸	Cs Axis	Magnetic sensor

工作台 TABLE

作業面積(長X寬)	Table area (LxW)	700 x 450 mm(27.6"x17.7")
最大載重	Permissble load (max.)	350 kg
T溝數量	Number of T-slot	5
T溝形狀	Shape of T-slot	14 mm(width)

2.研磨頭作業範圍 WORK RANGE OF THE GRINDING HEAD / 研磨頭主軸速度 GRINDING-SPINDLE SPEEDS

電動研磨頭轉速(中型)	Electrical grinding head	40000 rpm(medium)
研磨頭重量	Weight	11.5kg
砂輪直徑範圍	Diameter range of Wheel	Ø3~Ø55 mm
電動研磨頭 (高速)	Electrical grinding head (High-speed)	60000 rpm
研磨頭重量	Weight	11.5 kg
砂輪直徑範圍	Diameter range of Wheel	Ø1~Ø10 mm
行星回轉速度	Planetary speed	5~200 rpm
研磨直徑	Bore-diameter capacity	1~100 mm(0.04"~3.9")
套筒	Collets	Ø3、Ø6、Ø10、Ø12 mm
進刀軸最小進給量(U軸)	U Axis last input increment	0.001 mm
最大移動行程	U Axis max.stroke	F-35 mm (1.38")

3.馬達 Motor		JG-640CM
X軸(線性馬達)	X Axis (Liner Motor)	3.6 / 4.8 KW (1200N)
Y軸(線性馬達)	Y Axis (Liner Motor)	2 x 2.2 / 5 KW (2400N)
W軸 (伺服馬達)	W Axis (Servo Motor)	2 x 4 KW (8NM)
Z軸(線性馬達)	Z Axis (Liner Motor)	2 x 1.4 / 4.8 KW (720N)
Cs軸 (主軸馬達)	Cs Axis (Spindle Motor)	0.5 / 1.5 KW (1.75NM)
U軸 (步進馬達)	U Axis (Stepping Motor)	1.2 NM

4.外形尺寸及重量 OUTER DIMENSIONS AND WEIGHT

長	Length	3460 mm
寬	Width	3130 mm
高(最大)	Height (Max.)	3080 mm
高(最小)	Height (Min.)	2800 mm
重量	Weight	13000 kg

5.動力需求 POWER REQUIREMENT

電壓	Voltage	220v ± 10%
最大消耗電力	Max. Voltage consumption	20 KW
氣壓	Compressed air	7 kg/cm²
最大消耗流量	Air consumption	420 nl/min

6. 數值控制器功能 NC CONTROLLER FUNCTION

數值控制器	Nc Controller	FANUC 31i-B Plus
控制軸數	Simultaneously controlled axes	4 axes
最大可擴充控制軸數	Max increase up to number of controlled axes	26 axes
Cs輪廓控制	Cs contouring control	1 axis
垂直研削功能	Chopping function	Building in
最小設定單位	Last input increment	0.0001 mm/ 0.0001 deg
最大行程	Max. stroke	±9999.9999 mm /±9999.9999 deg
快速位移	Rapid traverse Max	20 m/min
快速位移控制	Rapid traverse override	F0,25,50,100%
進給速率單位	Feed per minute	mm/min
手輪進給	Manual handle feed	4 axes
手輪進給速率	Manual handle feed rate	x1,x10,x100,x1000
程式碼(自動識別)	Tape code (auto.recognitiom)	EIA/ISO
程式儲存長度	Program storage length	640 m
同位檢查	Parity check	Horizontal and vertical parity

7.標準週邊配備樣式表 ACCESSORIES / 數量 Q'ty

1.小型千斤頂	Mini Jack S75	4	10.保養工具	Maintenance Tool Box	1	18. CBN鑄磨棒	CBN Grinding Tool	1 set
2.小型千斤頂	Mini Jack S95	4	11.單向壓板	Clamping Chuck 12 X 65 L	4	19.助聽器	Hearing Aid	1
3.小型千斤頂	Mini Jack S125	4	12.單向壓板	Clamping Chuck 12 X 80 L	4	20.環規	Indicator	1
4. T型螺絲	T-bolt M12x50L	4	13.單向壓板	Clamping Chuck 12 X 100 L	4			
5. T型螺絲	T-bolt M12x75L	4	14.量錶支持架	Dial Gauge Frame	1			
6. T型螺絲	T-bolt M12x100L	4	15.切削液過濾+油霧回收		1 set			
7. T型螺絲	T-bolt M12x125L	4	Cutting fluid filtration + Oil mist recovery					
8. T型螺絲	T-bolt M12x150L	4	16.電動機油注油機	Electric grease lubricator	1			
9.法蘭螺帽	Flange Nut M12	4	17.循環式水冷卻機	Cooler (Cycle Type)	1 set			

JG-1012CM / JG-1270CM

Machine Specifications

精密治具研磨機規格表

1.滑台作業範圍 WORK RANGE OF THE SLIDES			
移動範圍 RANGE OF MOVEMENT		JG-1012CM	JG-1270CM
工作台移動量(左右)[X軸]	X Axis	1200 mm (39.4")	1200 mm(47.2")
滑台移動量 (前後)[Y軸]	Y Axis	1000 mm (39.4")	700mm(27.6")
研磨頭移動量(上下)[Z軸]	Z Axis	250 mm (9.8")	100 mm(3.9")
主軸移動量 (上下)[W軸]	W Axis	400 mm (15.7")	360mm(15.7")
最大進給速度 Max FEED SPEED			
X,Y軸	X,Y Axis	24m/min	10m/min
Z軸	Z Axis	24m/min	
解析度 READING RESOLUTION (Linear scales)			
X,Y軸	X,Y Axis	0.05 um	
Z軸	Z Axis	0.05 um	
Cs軸	Cs Axis	0.001deg	
定位精度 LOCATION ACCURACY			
X,Y軸	X,Y Axis	±0.0025mm	±0.0025mm
位置檢出器 POSITION CODER			
X,Y軸	X,Y Axis	Linear encoder	
Z軸	Z Axis	Linear encoder	
Cs軸	Cs Axis	Magnetic sensor	
工作台 TABLE			
作業面積(長X寬)	Table area (LxW)	1200x1200mm(47.2"x47.2")	1280x860mm(50.4"x33.9")
最大載重	Permissble load (max.)	1500 kg	1000 kg
T溝數量	Number of T-slot	9	8
T溝形狀	Shape of T-slot	18mm (width)	18mm (width)
2.研磨頭作業範圍 WORK RANGE OF THE GRINDING HEAD / 研磨頭主軸速度 GRINDING-SPINDLE SPEEDS			
(1)電動研磨頭轉速	Eiectrical grinding head	12000 rpm	40000 rpm (大型) large
研磨頭重量	Weight	17.2 kg	11.5kg
砂輪最大直徑	Max.diameter of wheel	Ø180mm	Ø3~Ø80mm
(2)電動高速研磨頭轉速	Eiectrical grinding head speed	30000 rpm (大型) large	40000 rpm (中型) medium
研磨頭重量	Weight	11.5kg	11.5kg
砂輪最大直徑	Max.diameter of wheel	Ø80mm	Ø1~Ø50mm
行星回轉速度	Planetary speed	5~150 rpm	5~200 rpm
研磨直徑	Bore-diameter capacity	20~240mm(0.8"~9.5")	1~100mm(0.04"~3.9")
套筒	Collets	Ø3、Ø6、Ø8、Ø10 mm	
進刀軸最小進給量(U軸)	U Axis last input increment	0.001 mm	
最大移動行程	U Axis max.stroke	標準 F-35 / 特規 F-70 (option)	

3.馬達 Motor		JG-1012CM	JG-1270CM
X軸(線馬/伺服馬達)	X Axis (Liner Motor/Servo Motor)	14.4 KW (7200NM)Liner Motor	4 KW (22NM)Servo Motor
Y軸(線馬/伺服馬達)	Y Axis (Liner Motor/Servo Motor)	7.2 KW (3600NM)Liner Motor	4 KW (22NM)Servo Motor
W軸 (伺服馬達)	W Axis (Servo Motor)	1.6KW (8NM)	1.6KW (8NM)
Z軸 (線性馬達)	Z Axis (Liner Motor)	3.6 KW (1800N)	2 x 1.4 KW (720N)
Cs軸 (主軸馬達)	Cs Axis (Spindle Motor)	1.5KW Spindle	0.55KW Spindle
U軸 (步進馬達)	U Axis (Stepping Motor)	Stepping	

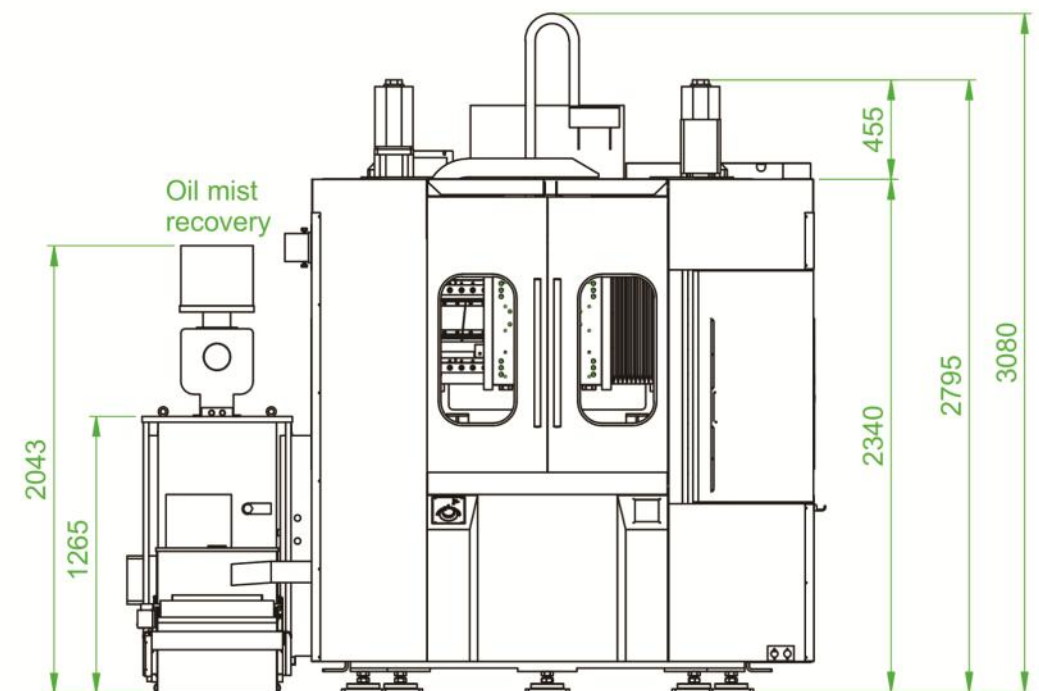
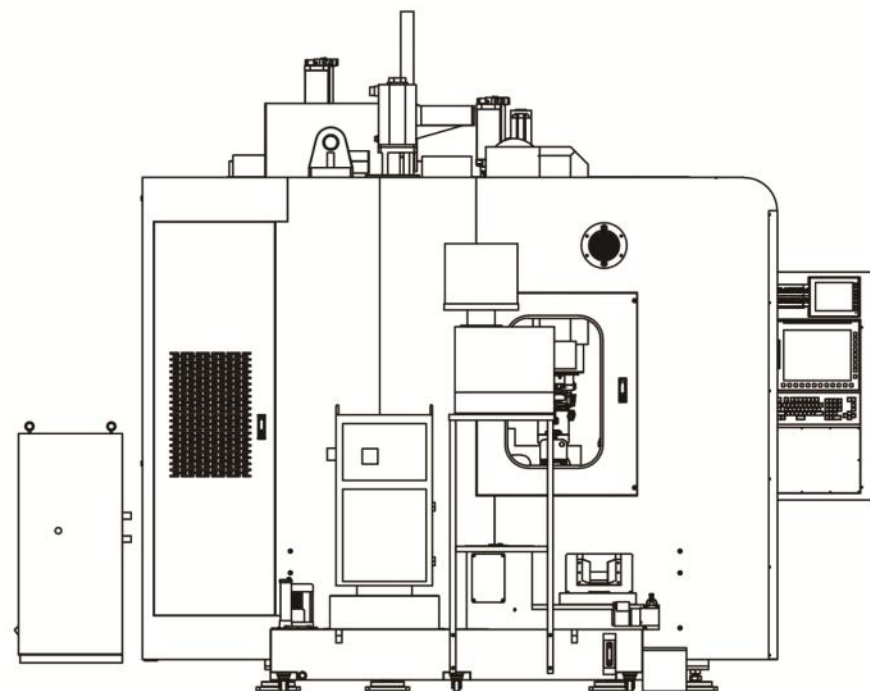
4.外形尺寸及重量 OUTER DIMENSIONS AND WEIGHT			
長	Length	5674 mm	4600 mm
寬	Width	3959 mm	3377 mm
高(最大)	Height (Max.)	3665 mm	3050 mm
重量	Weight	13033 kg	9555 kg

5.動力需求 POWER REQUIREMENT			
電壓	Voltage	220v ± 10%	220v ± 10%
最大消耗電力	Max. Voltage consumption	17.5 KW	15 KW
氣壓	Compressed air	7 kg/cm²	7 kg/cm²
最大消耗流量	Air consumption	420 nl/min	420 nl/min

6. 數值控制器功能 NC CONTROLLER FUNCTION			
數值控制器	Nc Controller	FANUC 31i-B Plus	
控制軸數	Simultaneously controlled axes	4 axes	
最大可擴充控制軸數	Max increase up to number of controlled axes	26 axes	
Cs輪廓控制	Cs contouring control	1axes	
垂直研削功能	Chopping function	Building in	
最小設定單位	Last input increment	0.0001 mm / 0.0001 deg	
最大行程	Max. stroke	±9999.9999mm / ±9999.9999 deg	
快速位移	Rapid traverse Max	24 m/min	10 m/min
快速位移控制	Rapid traverse override	F0,25,50,100%	
進給速率單位	Feed per minute	mm/min	
手輪進給	Manual handle feed	4 axes	
手輪進給速率	Manual handle feed rate	x1,x10,x100,x1000	
程式碼(自動識別)	Tape code (auto.recognitiom)	EIA/ISO	
程式儲存長度	Program storage length	640 m	
同位檢查	Parity check	Horizontal and vertical parity	

7.標準週邊配備樣式表 ACCESSORIES / 數量 Q'ty									
1.小型千斤頂	Mini Jack S75	4	10.保養工具	Maintenance Tool Box	1	18.CBN鑄磨棒	CBN Grinding Tool	1 set	
2.小型千斤頂	Mini Jack S95	4	11.單向壓板	Clamping Chuck 12 X 65 L	4	19.助聽器	Hearing Aid	1	
3.小型千斤頂	Mini Jack S125	4	12.單向壓板	Clamping Chuck 12 X 80 L	4	20.環規	Indicator	1	
4. T型螺絲	T-bolt M12x150L	4	13.單向壓板	Clamping Chuck 12 X 100 L	4				
5. T型螺絲	T-bolt M12x175L	4	14.量錶支持架	Dial Gauge Frame	1				
6. T型螺絲	T-bolt M12x200L	4	15.切削液過濾+油霧回收		1 set				
7. T型螺絲	T-bolt M12x225L	4	Cutting fluid filtration + Oil mist recovery						
8. T型螺絲	T-bolt M12x250L	4	16.電動機油注油機	Electric grease lubricator	1				
9.法蘭螺帽	Flange Nut M12	4	17.循環式水冷卻機	Cooler (Cycle Type)	1 set				

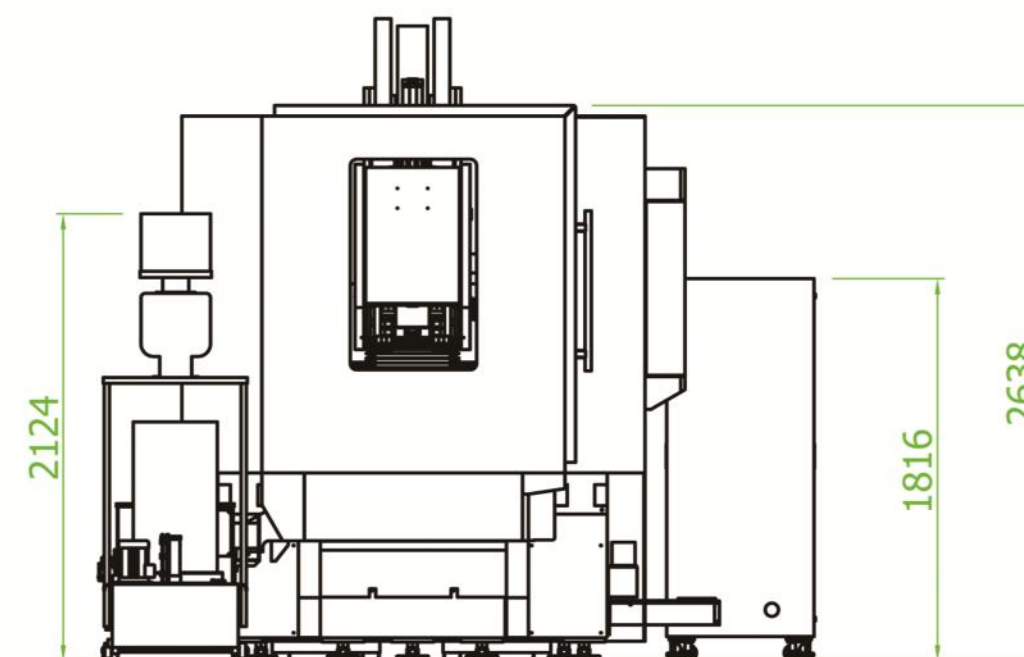
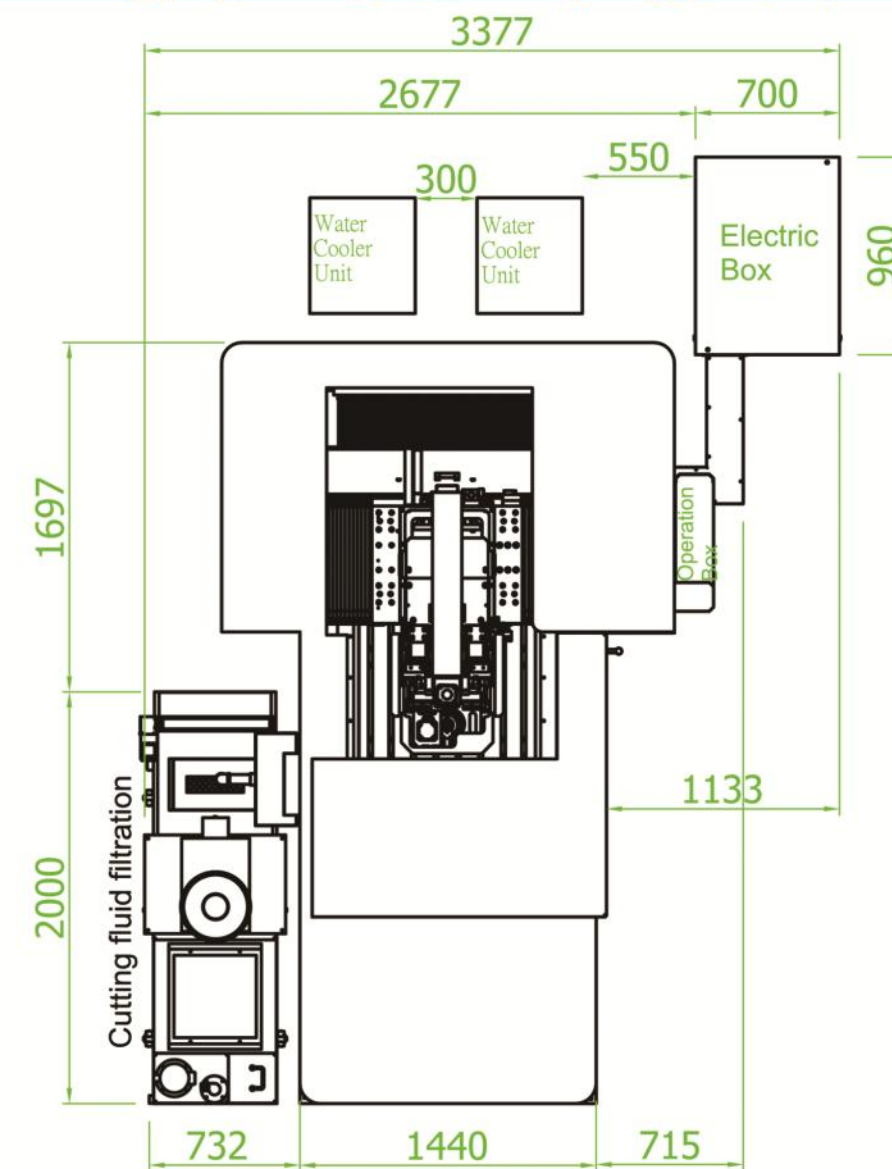
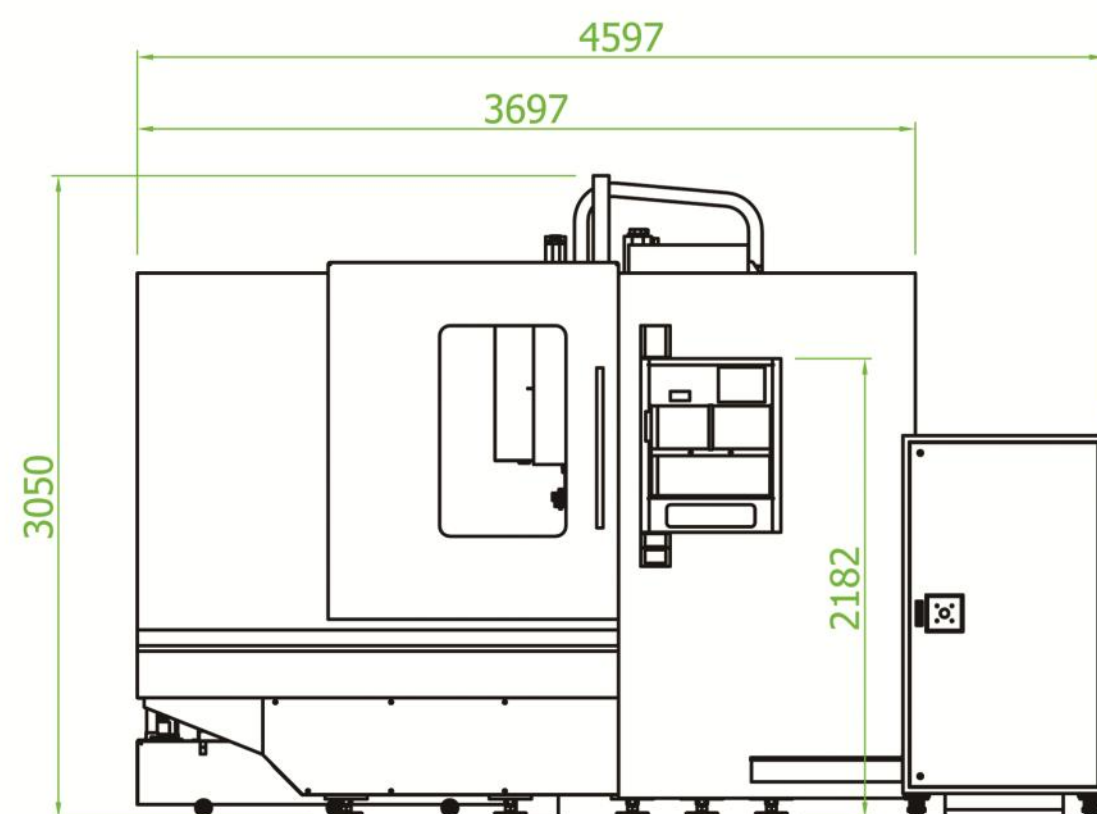
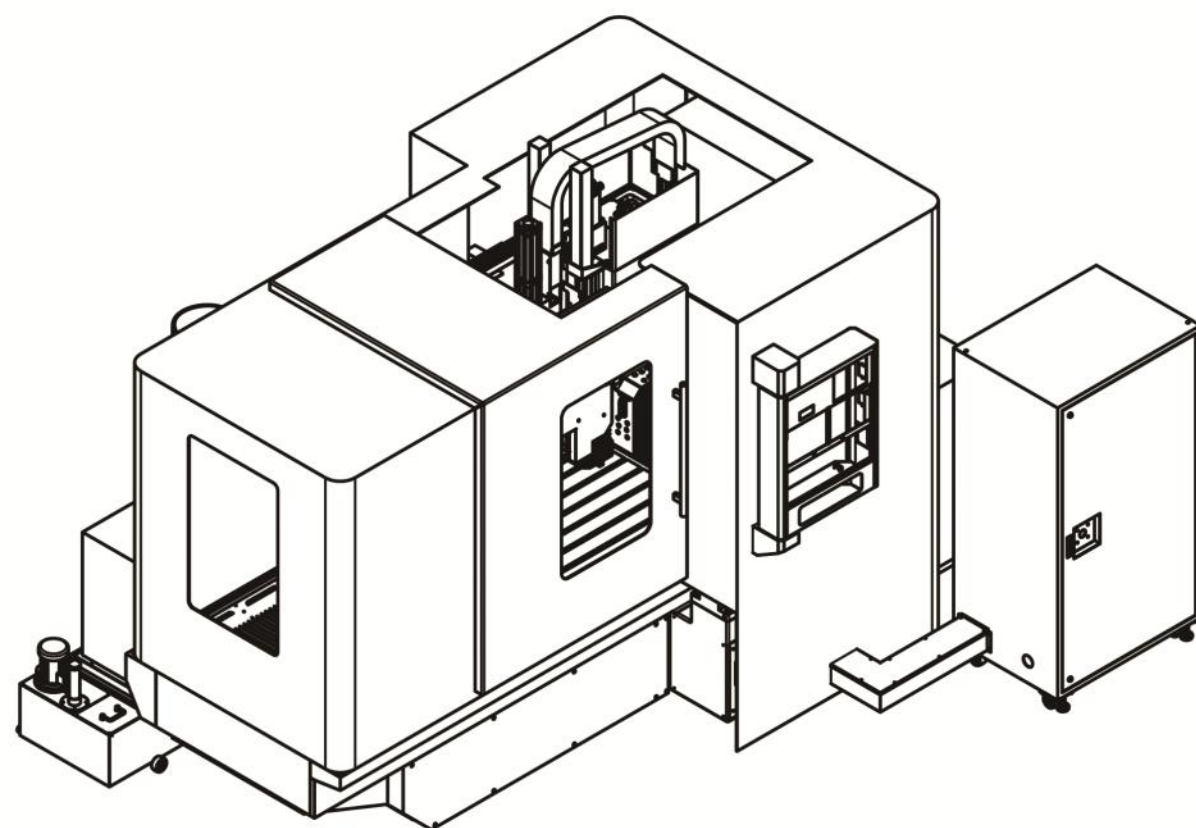
精密治具研磨機外觀尺寸圖



JG-1270CM

External Dimension for Precise Jig Grinder

精密治具研磨機外觀尺寸圖



JG-1012CM

External Dimension for Double-Columned Jig Grinder

龍門型高精度治具研磨機外觀尺寸圖

