

# KASUGA

## General Catalog



嘉士達精機有限公司  
KASUGA SEIKI LTD.

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*All We Build in Quality*



# Strict Workpiece Measurement and R&D Team



*All We Build in Quality*

*High Performance Machining Center*

日本KASUGA公司，成立於1949年，至今已有六十多年的歷史。KASUGA品牌在日本、亞洲、歐美享負盛名。在日本及台灣的模具行業中，家喻戶曉。在美國的零部件供應鏈中，有超過800台的KASUGA機床，含大型三軸立、臥式加工中心及四、五軸大型加工中心。

由於市場的需要，KASUGA於2012年在台灣成立了KASUGA SEIKI LTD. 嘉士達精機有限公司。產品系列包括，數控鑽孔攻牙中心：T500、T700。立式高速加工中心：V50、V70、V80、V100、V120、V140、V160、V200。高速雕銑加工機：HV50、HV70。以及五軸加工中心MF/KU系列。

高質素的產品來自日本嚴謹的設計，日式的嚴格監控，台灣優良的生產技術，造就出一台又一台的極受市場歡迎的機床。

Japan KASUGA Company, founded in 1949, has a 60s-year history. KASUGA brand is renowned in Japan, Asia, Europe and the United States. KASUGA, both in Japan and Taiwan, is famous in the mold industry. In the American parts supply chain, there are over 800 KASUGA machines, including the middle-scale and the large-scale three axis milling machines, both vertical and horizontal, and the four, five axis large machining centers.

Because of the demand of the market, KASUGA founded KASUGA SEIKI LTD. in Taiwan. The products are the following: Tapping center: T500, T700. Vertical high speed machining center: V50, V70, V80, V100, V120, V140, V160, V200. High speed machining center: HV50, HV70. Five axis machining center: MF/KU series.

The combination of Japanese design, Japanese strict quality control and the Taiwanese fine production technology produces many very popular machines in the market.



**KASUGA** 高效能加工中心機  
High Performance Machining Center



▲ 數控鑽孔攻牙中心機 CNC Drilling & Tapping Center **T500** · **T700**



▲ 立式加工中心機 Vertical Machining Center **V50** · **V70** · **V80** · **V100** · **V7A**

**KASUGA** 高效能加工中心機  
High Performance Machining Center



▲ 五軸加工中心機 Vertical 5-Axis Machining Center **MF20** · **MF25** · **KU20** · **KU25**



▲ 立式加工中心機 Vertical Machining Center **V120** · **V140** · **V160** · **V200**



# KASUGA 高效能加工中心機

## High Performance Machining Center

**KASUGA**

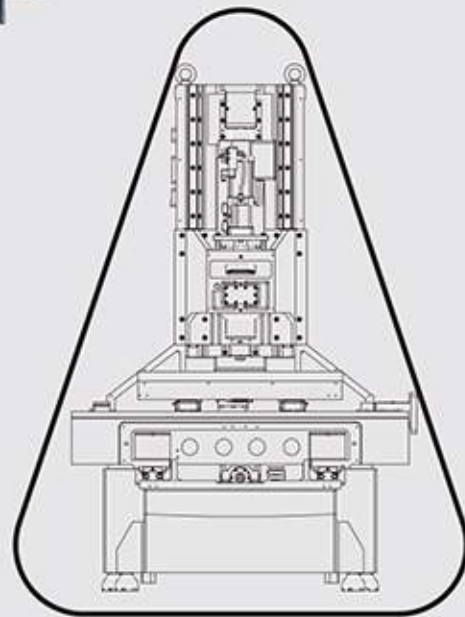
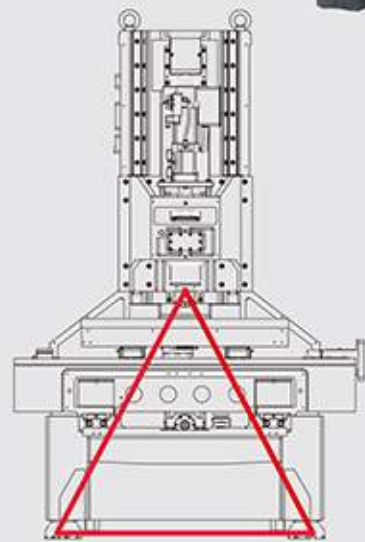
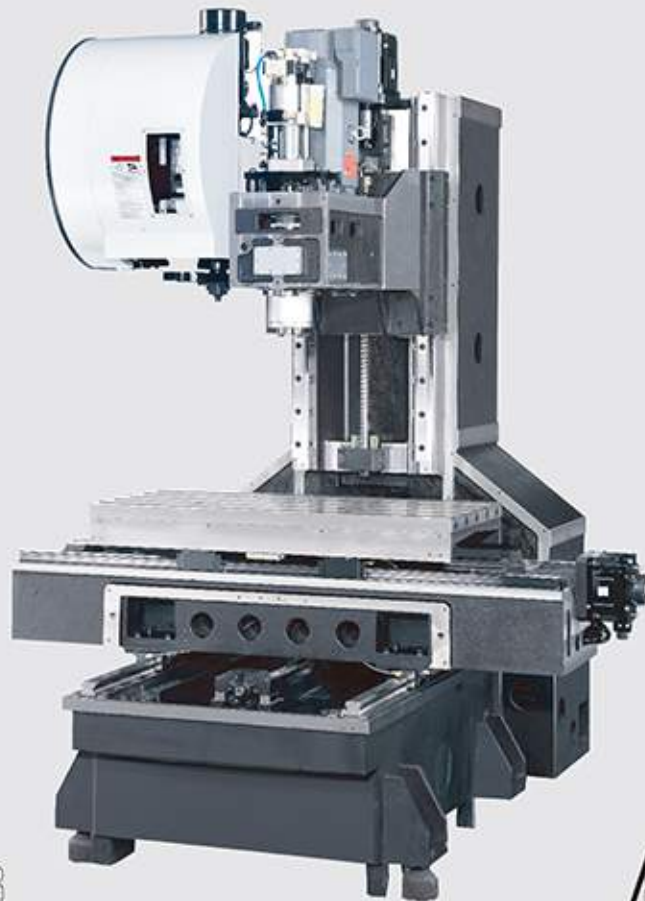
### ● 最佳化剛性結構設計、高速、高精度 Optimum Rigid Structure / Hi-speed / High-precision

機械剛性結構設計，經3D動態模擬及有限元素分析，設計出最佳化剛性結構機械本體，呈現機械最高穩定度及床台最佳動靜態精度。

Y軸大跨距設計，立柱與底座寬大的結合面提供最穩固的支撐。

By means of Finite Element Analysis and 3D dynamic simulation, our products have the optimum structure with which the best rigidity and accuracy can be obtained.

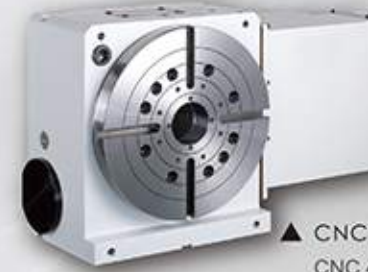
The big span structure of Y axis with wider junction between column and base provides the most stable.



### ● CNC電腦數控分度盤 CNC ROTARY TABLE

精密電腦數控分度盤可滿足不同角度加工及曲面加工。

Precision computerised indexing rotary table is suitable for machining workpiece from different angles including curve surface.



▲ CNC電腦數控四軸分度盤  
CNC 4-Axis Rotary Table



▲ CNC電腦數控五軸分度盤  
CNC 5-Axis Rotary Table (Cradle type)



▲ 橋式中底板  
CNC Rotary Table and Support  
Rotary Tailstock with Bridge Unit



▲ CNC電腦五軸分度盤(強力煞車)  
CNC 5-Axis Rotary Table  
(Super multiple pneumatic brake)

### ● 精密零件加工 Precision Parts Machining

適合各類精密零件加工，機械零件加工、3C產品零件加工、模具類零件加工、鐘錶加工、航太工業零件加工、汽機車、自行車零件加工、玩具類零件加工...等。

Our product is good for machining on all kinds of parts, such as automotive parts, machinery parts, parts used on 3C hardware, parts used in aerospace industry, molds, parts for watches, e.t.c.





● **高速、高剛性、高負荷三軸傳動系統 High speed, high rigidity, and high load transmission system on three axes**

三軸傳動使用高速、高負荷之精密滾珠螺桿與線性滑軌，配合軸向專用精密斜角滾珠軸承，提供機器絕佳的高速運轉與高精度要求。

High speed, high load precision ballscrews and linear slideways go with axial precision angular ball bearings are used on our products to achieve the requirement of high speed and accuracy.



▲ 精密滾珠線性滑軌 Precision ball linear guide  
▲ 精密高剛性滾柱線性滑軌 Precision roller linear guide  
▲ 精密斜角滾珠軸承 Precision angle bearing  
▲ 精密雙螺帽滾珠螺桿 Precision ballscrew



◀▶ KASUGA T500/T700-V50/V70機型三軸滾珠螺桿 $\phi$ 32mm，X、Y軸線性滑軌30mm，Z軸線性滑軌35mm，V80/V100 X、Y、Z軸線性滑軌45mm，比同業同機型都大一級，剛性更好、加工時穩定性更佳。KASUGA T500/T700-V50/V70機型Y軸行程430mm，也比同業同機型都大，加工範圍更大。

Three axes ballscrew used on Kasuga T500/700, V50/70 is of 32 mm dia., while the width of the linear slideway installed is 30 mm on both X & Y axes, 35 mm on Z axis. Width of linear slideway used on Kasuga V80/100 is 45 mm on all three axes which ensures better rigidity and higher stability. Kasuga T500/700, V50/70 has a longer Y axis travel at 430 mm compared with that of other competitors by which a bigger workpiece can be machined.



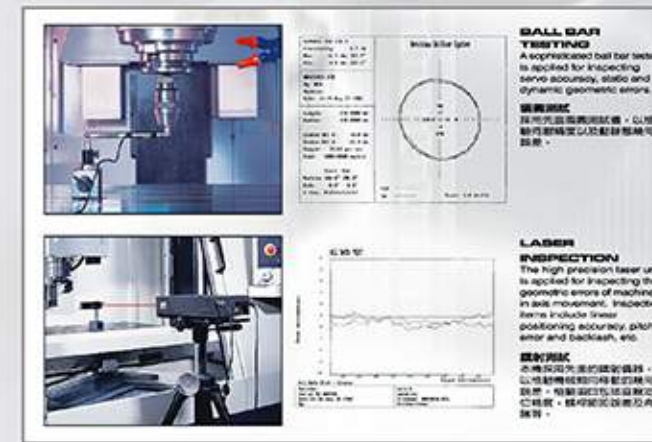
● **CNC控制器系統 CNC CONTROL SYSTEM**

- ※ 全新的控制系統，在高速、高精度及高性能的表現更優異。
- ※ 全新的伺服系統，在高速位移、高加速度及高效能的表現，更能發揮產能效益。
- ※ 機器的操作更簡便及友善人性化。

Brand-new CNC control system with better performances in speed, accuracy, and reliability is used on our product. Updated servo mechanism is also in use not only for easy operation but also for the best efficiency.



● **精度檢測 Accuracy Test**



嚴格執行品質驗證，從生產製程中到成品機檢驗，每一台機器都經過檢驗儀器設備的檢測，尤其雷射定位精度檢測及循圓精度檢測，是確保整機品質的必要驗證。

TQC are executed in every stage of production process from components to completed machine. All accuracy tests have been carried out by using professional measuring instruments under strict standard accepted world-wide, especially the laser positioning test and ball bar test.

● **快速自動換刀機構 High Speed A.T.C**

高可靠度的自動換刀機構，最高可達快速換刀1.3秒，配合三軸高速位移，可縮短加工時間，達到最高產能效益。

Tool change time up to 1.3 sec. and highly reliable automatic tool change mechanism cooperated with rapid traverse of three axes shorten the machining time enhancing the output.



● **高精度、高速、高剛性主軸 6000rpm ~ 30000rpm High precision, high speed, and high rigidity spindle (6000 ~ 30000rpm)**

主軸採用多種傳動方式及多種不同轉速，傳動方式有皮帶式、直結式、內藏電主軸，轉速範圍從6000rpm~30000rpm，滿足各種加工需求。

Various transmission system are adopted for main spindle, such as belt driven, direct coupling, built in motor, with a speed range of 6000 to 30000 rpm to meet with different machining demands.



▲ BT-40皮帶式高速高剛性主軸 8000rpm ~ 12000rpm Belt Type High Speed Spindle  
▲ BT-50皮帶式高速高剛性主軸 6000rpm ~ 8000rpm Belt Type High Speed Spindle  
▲ 直結式高速高剛性主軸 10000rpm ~ 15000rpm Direct Drive Type High Speed Spindle  
▲ 內藏式高速高精度電主軸 18000rpm ~ 30000rpm Built-in Type High Speed Motorized Spindle



# KASUGA 數控鑽孔攻牙中心機 T500/T700

## CNC Drilling & Tapping Center

### ● 機台加工照片 Machine Cutting



▲ MF20 (4+1軸) 4+1 Axis  
3+2 定位加工  
3+2 Position cutting



▲ HV50 (4+1軸) 4+1 Axis  
4+1 軸錶殼加工 (AL7075)  
4+1 Watch bezel cutting



▲ V100 / V140  
粗銑挖槽加工  
Wide milling cutting



▲ HV50  
雕銑加工 (AL7075)  
Milling & engraving cutting



▲ V50 / V70  
高速精銑加工 (AL7075)  
High speed & precision cutting



▲ T500 / T700  
高速加工極高速鑽孔攻牙 (AL7075)  
High speed & drilling cutting



項目ITEM / 機型MODEL	T500	T700
X/Y/Z 軸行程 X/Y/Z Axis travel (mm)	510 / 430 / 330	700 / 430 / 330
主軸鼻端至台面距離 Spindle nose to table surface (mm)	130 ~ 460	
工作台面至地面距離 Table height from floor (mm)	890	
工作台尺寸 Table size (mm)	560 x 400	850 x 400
主軸轉速 Spindle speed (rpm)	直結式 DDS 12000 / 15000 (opt.)	
主軸錐度 Spindle taper (Tool shank)	BT-30	
最大工件荷重 Max. loading capacity (kg)	250 (Max. feed rate 60 m/min) 350 (Max. feed rate 48 m/min)	
快速進給 X/Y/Z 軸 X/Y/Z Axis rapid feed rate (m/min)	60 / 60 / 60	
切削進給 X/Y/Z 軸 X/Y/Z Axis cutting feed rate (m/min)	30 / 30 / 30	
軌道規格 X/Y/Z 軸 X/Y/Z Axis linear guide (mm)	30 / 30 / 35	
螺桿規格 X/Y/Z 軸 X/Y/Z Axis ballscrew (mm)	32 / 32 / 32	
主軸驅動馬達規格 Spindle motor (kW) (M)	3.7 / 5.5	
X/Y/Z 軸驅動馬達規格 X/Y/Z Axis servo motor (kW) (M)	1.5 / 1.5 / 2.2	
定位精度 X/Y/Z 軸 X/Y/Z Axis positioning (mm)	±0.005	
重複定位精度 X/Y/Z 軸 X/Y/Z Axis repeatability (mm)	±0.003	
換刀方式 / 刀庫容量 ATC type / Magazine No.	前置轉塔式 Turret 16T (21T opt.)	
換刀時間 Tool change time (sec)	1.6	
機械外型尺寸 Machine dimension W x L x H (mm)	1250 x 2660 x 2410	1850 x 2660 x 2410
機械重量 Machine weight (kg)	2770	3070
CNC 控制系統 CNC Control	M70-2BV / Oi-MF / 828D / TNC620	

本型錄之規格如有變更，恕不另行通知。Specifications are subject to change without notice.  
本型錄精度檢測之數值為廠內檢測結果。The result of accuracy data is subject to field test.



# KASUGA 立式加工中心機 V50/V70

## Vertical Machining Center



項目ITEM / 機型MODEL	V50	V50X	V70	V70X	V7A
X/Y/Z 軸行程 X/Y/Z Axis travel (mm)	510 / 430 / 460		700 / 430 / 460		
主軸鼻端至台面距離 Spindle nose to table surface (mm)			120 ~ 580		185 ~ 645
工作台面至地面距離 Table height from floor (mm)	890				
工作台尺寸 Table size (mm)	650 x 400		850 x 400		
主軸轉速 Spindle speed (rpm)	10000	12000	10000	12000	12000
	12000(opt)	15000(opt)	12000(opt)	15000(opt)	—
	皮帶式 Belt	直結式 DDS	皮帶式 Belt	直結式 DDS	皮帶式 Belt
主軸軸度 Spindle taper (Tool shank)	BT-40 (CAT / DIN / HSK / BBT opt.)				BT-40
最大工件荷重 Max. loading capacity (kg)	350 (Max. feed rate 48 m/min)				
	450 (Max. feed rate 36 m/min)				
快速進給 X/Y/Z 軸 X/Y/Z Axis rapid feed rate (m/min)	48 / 48 / 48				60 / 60 / 48
切削進給 X/Y/Z 軸 X/Y/Z Axis cutting feed rate (m/min)	24 / 24 / 24				30 / 30 / 24
軌道規格 X/Y/Z 軸 X/Y/Z Axis linear guide (mm)	30 / 30 / 35				
螺桿規格 X/Y/Z 軸 X/Y/Z Axis ballscrew (mm)	32 / 32 / 32				
主軸驅動馬達規格 Spindle motor (kW) (M)	5.5 / 7.5				
X/Y/Z 軸驅動馬達規格 X/Y/Z Axis servo motor (kW) (M)	1.5 / 1.5 / 3.0				
定位精度 X/Y/Z 軸 X/Y/Z Axis positioning (mm)	±0.005				
重覆定位精度 X/Y/Z 軸 X/Y/Z Axis repeatability (mm)	±0.003				
換刀方式 / 刀庫容量 ATC type / Magazine No.	刀臂式 ARM 20T (24T opt.)				
換刀時間 Tool change time (sec)	2.3				
機械外型尺寸 Machine dimension W x L x H (mm)	1900 x 2660 x 2530		2100 x 2660 x 2530		
機械重量 Machine weight (kg)	3070		3370		
CNC 控制系統 CNC Control	M70-2AV / Oi-MF / 828D / TNC620				M70-2BV

本型錄之規格如有變更，恕不另行通知。Specifications are subject to change without notice.  
本型錄精度檢測之數值為廠內檢測結果。The result of accuracy data is subject to field test.

# KASUGA 立式加工中心機 V80/V100

## Vertical Machining Center



項目ITEM / 機型MODEL	V80	V80X	V100	V100X
X/Y/Z 軸行程 X/Y/Z Axis travel (mm)	800 / 560 / 575		1020 / 560 / 575	
主軸鼻端至台面距離 Spindle nose to table surface (mm)	125 ~ 700			
工作台面至地面距離 Table height from floor (mm)	978			
工作台尺寸 Table size (mm)	900 x 500		1100 x 500	
主軸轉速 Spindle speed (rpm)	10000	12000	10000	12000
	12000 (opt.)	15000 (opt.)	12000 (opt.)	15000 (opt.)
	皮帶式 Belt	直結式 DDS	皮帶式 Belt	直結式 DDS
主軸軸度 Spindle taper (Tool shank)	BT-40 (CAT / DIN / HSK / BBT opt.)			
最大工件荷重 Max. loading capacity (kg)	450 (Max. feed rate 48 m/min)			
	700 (Max. feed rate 36 m/min)			
快速進給 X/Y/Z 軸 X/Y/Z Axis rapid feed rate (m/min)	48 / 48 / 36			
切削進給 X/Y/Z 軸 X/Y/Z Axis cutting feed rate (m/min)	24 / 24 / 18			
軌道規格 X/Y/Z 軸 X/Y/Z Axis linear guide (mm)	45 / 45 / 45			
螺桿規格 X/Y/Z 軸 X/Y/Z Axis ballscrew (mm)	40 / 40 / 40			
主軸驅動馬達規格 Spindle motor (kW) (M)	7.5 / 11			
X/Y/Z 軸驅動馬達規格 X/Y/Z Axis servo motor (kW) (M)	2.0 / 2.0 / 3.0			
定位精度 X/Y/Z 軸 X/Y/Z Axis positioning (mm)	±0.005			
重覆定位精度 X/Y/Z 軸 X/Y/Z Axis repeatability (mm)	±0.003			
換刀方式 / 刀庫容量 ATC type / Magazine No.	刀臂式 ARM 24T (28T opt.)			
換刀時間 Tool change time (sec)	2.3			
機械外型尺寸 Machine dimension W x L x H (mm)	3100 x 2530 x 2840		3300 x 2530 x 2840	
機械重量 Machine weight (kg)	4690		5090	
CNC 控制系統 CNC Control	M70-2AV / Oi-MF / 828D / TNC620			

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# KASUGA 立式加工中心機 V120/V140

## Vertical Machining Center



項目ITEM / 機型MODEL	V120	V120X	V120D	V140	V140X	V140D
X/Y/Z 軸行程 X/Y/Z Axis travel (mm)	1200 / 650 / 660			1400 / 650 / 660		
主軸鼻端至台面距離 Spindle nose to table surface (mm)	110~770		65~725	110~770		65~725
工作台面至地面距離 Table height from floor (mm)	950					
工作台尺寸 Table size (mm)	1300 x 600			1500 x 600		
主軸轉速 Spindle speed (rpm)	10000	12000	6000	10000	12000	6000
	12000(opt.)	15000(opt.)	8000(opt.)	12000(opt.)	15000(opt.)	8000(opt.)
	皮帶式 Belt	直結式 DDS	皮帶式 Belt	皮帶式 Belt	直結式 DDS	皮帶式 Belt
主軸錐度 Spindle taper (Tool shank)	BT-40		BT-50	BT-40		BT-50
	CAT / DIN / HSK / BBT (opt.)					
最大工件荷重 Max. loading capacity (kg)	800 (Max. feed rate 36 m/min)					
	1200 (Max. feed rate 24 m/min)					
快速進給 X/Y/Z 軸 X/Y/Z Axis rapid feed rate (m/min)	36 / 36 / 30					
切削進給 X/Y/Z 軸 X/Y/Z Axis cutting feed rate (m/min)	18 / 18 / 15					
軌道規格 X/Y/Z 軸 X/Y/Z Axis linear guide (mm)	55 / 55 / 55					
螺桿規格 X/Y/Z 軸 X/Y/Z Axis ballscrew (mm)	45 / 45 / 45					
主軸驅動馬達規格 Spindle motor (kW) (M)	11 / 15		15 / 18.5	11 / 15		15 / 18.5
X/Y/Z 軸驅動馬達規格 X/Y/Z Axis servo motor (kW) (M)	3.0 / 3.5 / 4.5					
定位精度 X/Y/Z 軸 X/Y/Z Axis positioning (mm)	±0.005					
重複定位精度 X/Y/Z 軸 X/Y/Z Axis repeatability (mm)	±0.003					
換刀方式 / 刀庫容量 ATC type / Magazine No.	刀臂式 ARM 24T					
	28T (opt.)		30T (opt.)	28T (opt.)		30T (opt.)
換刀時間 Tool change time (sec)	2.3		5.0	2.3		5.0
機械外型尺寸 Machine dimension W x L x H (mm)	3800 x 2750 x 3100			4000 x 2750 x 3100		
機械重量 Machine weight (kg)	7200			7500		
CNC 控制系統 CNC Control	M70-2AV / 0i-MF / 828D / TNC620					

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本型錄精度檢測之數值為廠內檢測結果。The result of accuracy data is subject to field test.

# KASUGA 立式加工中心機 V160/V200

## Vertical Machining Center



項目ITEM / 機型MODEL	V160	V160D	V200	V200D
X/Y/Z 軸行程 X/Y/Z Axis travel (mm)	1650 / 850 / 820		2050 / 850 / 820	
主軸鼻端至台面距離 Spindle nose to table surface (mm)	165 ~ 985	120 ~ 940	165 ~ 985	120 ~ 940
工作台面至地面距離 Table height from floor (mm)	978			
工作台尺寸 Table size (mm)	1750 x 800		2150 x 800	
主軸轉速 Spindle speed (rpm)	10000	6000	10000	6000
	12000 (opt.)	8000 (opt.)	12000 (opt.)	8000 (opt.)
	皮帶式 Belt			
主軸錐度 Spindle taper (Tool shank)	BT-40		BT-50	
	CAT / DIN / HSK / BBT (opt.)			
最大工件荷重 Max. loading capacity (kg)	1000 (Max. feed rate 36 m/min)		1500 (Max. feed rate 30 m/min)	
	2000 (Max. feed rate 20 m/min)		2500 (Max. feed rate 20 m/min)	
快速進給 X/Y/Z 軸 X/Y/Z Axis rapid feed rate (m/min)	36 / 36 / 30		30 / 30 / 30	
切削進給 X/Y/Z 軸 X/Y/Z Axis cutting feed rate (m/min)	18 / 18 / 15			
軌道規格 X/Y/Z 軸 X/Y/Z Axis linear guide (mm)	65 / 65-55 / 65			
螺桿規格 X/Y/Z 軸 X/Y/Z Axis ballscrew (mm)	50 / 50 / 50		63 / 50 / 50	
主軸驅動馬達規格 Spindle motor (kW) (M)	11 / 15	15 / 18.5	11 / 15	15 / 18.5
X/Y/Z 軸驅動馬達規格 X/Y/Z Axis servo motor (kW) (M)	4.5 / 4.5 / 4.5			
定位精度 X/Y/Z 軸 X/Y/Z Axis positioning (mm)	±0.005			
重複定位精度 X/Y/Z 軸 X/Y/Z Axis repeatability (mm)	±0.003			
換刀方式 / 刀庫容量 ATC type / Magazine No.	刀臂式 ARM 24T			
	28T (opt.)		30T (opt.)	28T (opt.)
換刀時間 Tool change time (sec)	2.3		5.0	2.3
機械外型尺寸 Machine dimension W x L x H (mm)	4200 x 3355 x 3500		5200 x 3355 x 3500	
機械重量 Machine weight (kg)	11500		14500	
CNC 控制系統 CNC Control	M70-2AV / 0i-MF / 828D / TNC620			

本型錄之規格如有變更，恕不另行通知。Specifications are subject to change without notice.  
本型錄精度檢測之數值為廠內檢測結果。The result of accuracy data is subject to field test.



# KASUGA 高速雕銑加工機 HV50/HV70

## High Speed Machining Center



項目ITEM / 機型MODEL	HV50	HV70
X/Y/Z 軸行程 X/Y/Z Axis travel (mm)	510 / 430 / 460	700 / 430 / 460
主軸鼻端至台面距離 Spindle nose to table surface (mm)	160 ~ 620	
工作台面至地面距離 Table height from floor (mm)	890	
工作台尺寸 Table size (mm)	650 x 400	850 x 400
主軸轉速 Spindle speed (rpm)	30000	
	40000 (opt.)	
	內藏式 Built-in	
主軸直徑 Spindle taper (Tool shank)	BT-30 (HSK-40E / ISO-25 opt.)	
最大工件荷重 Max. loading capacity (kg)	350 (Max. feed rate 48 m/min)	
	450 (Max. feed rate 36 m/min)	
快速進給 X/Y/Z 軸 X/Y/Z Axis rapid feed rate (m/min)	48 / 48 / 48	
切削進給 X/Y/Z 軸 X/Y/Z Axis cutting feed rate (m/min)	24 / 24 / 24	
軌道規格 X/Y/Z 軸 X/Y/Z Axis linear guide (mm)	30 / 30 / 35	
螺桿規格 X/Y/Z 軸 X/Y/Z Axis ballscrew (mm)	32 / 32 / 32	
主軸驅動馬達規格 Spindle motor (kW) (M)	5.5	
X/Y/Z 軸驅動馬達規格 X/Y/Z Axis servo motor (kW) (M)	1.5 / 1.5 / 3.0	
定位精度 X/Y/Z 軸 X/Y/Z Axis positioning (mm)	±0.005	
重複定位精度 X/Y/Z 軸 X/Y/Z Axis repeatability (mm)	±0.003	
換刀方式 / 刀庫容量 ATC type / Magazine No.	刀臂式 ARM 20T	
換刀時間 Tool change time (sec)	2.3	
機械外型尺寸 Machine dimension W x L x H (mm)	1900 x 2660 x 2530	2100 x 2660 x 2530
機械重量 Machine weight (kg)	3070	3370
CNC 控制系統 CNC Control	M70-2AV / Oi-MF / 828D / TNC620	

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# KASUGA 五軸加工中心機 MF20/MF25/KU20/KU25

## Vertical 5-Axis Machining Center



項目ITEM / 機型MODEL	MF20	KU20	MF25	KU25
雙軸旋轉分度盤 (A + C 軸) CNC tilting rotary table (A + C)	4+1 Axis	5 Axis	4+1 Axis	5 Axis
工作範圍 Working piece (mm)	Ø210 x 210		Ø250 x 250	
轉盤直徑 Worktable diameter (mm)	Ø210		Ø255	
X/Y/Z 軸行程 X/Y/Z Axis travel (mm)	320 / 500 (±250) / 450		365 / 540 (±270) / 450	
A 軸行程 A Axis tilt rang	+30° ~ -120°			
C 軸行程 C Axis rotary rang	360° (0.001°)			
主軸鼻端至轉盤面距離 Spindle nose to table surface (mm)	130 ~ 580			
轉盤面距離至地面距離 Worktable height from floor (mm)	978			
最大工件荷重 / Max. loading capacity / (0°) / (90°) (kg)	75 / 50		100 / 75	
主軸轉速 - 直結式 Spindle speed - DDS (rpm)	12000 / 15000 (opt.)			
主軸直徑 Spindle taper (Tool shank)	BT-40 (CAT / DIN / HSK / BBT opt.)			
快速進給 X/Y/Z 軸 X/Y/Z Axis rapid feed rate (m/min)	36 / 36 / 30			
切削進給 X/Y/Z 軸 X/Y/Z Axis cutting feed rate (m/min)	18 / 18 / 15			
軌道規格 X/Y/Z 軸 X/Y/Z Axis linear guide (mm)	45 / 45 / 45			
螺桿規格 X/Y/Z 軸 X/Y/Z Axis ballscrew (mm)	40 / 40 / 40			
X/Y/Z 軸馬達驅動規格 X/Y/Z Axis servo motor (kW) (M)	2.0 / 2.0 / 3.0			
定位精度 X/Y/Z 軸 X/Y/Z Axis positioning (mm)	±0.005			
重複定位精度 X/Y/Z 軸 X/Y/Z Axis repeatability (mm)	±0.003			
換刀方式 / 刀庫容量 ATC type / Magazine No.	刀臂式 ARM 24T (28T opt.)			
換刀時間 Tool change time (sec)	2.3			
主軸驅動馬達規格 Spindle motor (kW) (M)	7.5 / 11			
機械外型尺寸 Machine dimension W x L x H (mm)	3100 x 2530 x 2900		3300 x 2530 x 2900	
機械重量 Machine weight (kg)	4800 kg		5200 kg	
CNC 控制系統 CNC Control	M720-4VS /	SIEMENS /	M720-4VS /	SIEMENS /
	Oi-MF	HEIDENHAIN	Oi-MF	HEIDENHAIN

本型錄之規格如有變更，恕不另行通知。Specifications are subject to change without notice.  
本型錄精度檢測之數值為廠內檢測結果。The result of accuracy data is subject to field test.



## 機床標準配備與選擇配備

Standard & Optional Features

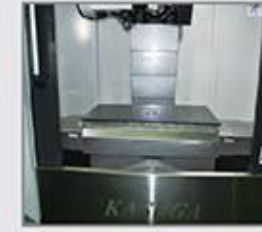
標準配備 Standard: ✓  
 選擇配備 Option: ○  
 不可選擇 NO Available: ✕

系列 Series	T	V	Vx	MF	HV
全密閉式護罩板金 Fully enclosure guard	✓	✓	✓	✓	✓
三軸防屑護蓋 3 Axes telescopic cover	✓	✓	✓	✓	✓
皮帶式主軸轉速10000rpm Belt type spindle speed 10000rpm	✕	✓	✕	✕	✕
皮帶式主軸轉速12000rpm Belt type spindle speed 12000rpm	✕	○	✕	✕	✕
直結式主軸12000rpm Direct drive spindle 12000rpm	✓	✕	✓	✓	○
直結式主軸15000~18000rpm Direct drive spindle 15000~18000rpm	○	✕	○	○	○
內藏式主軸20000~30000rpm Build-in spindle 20000~30000rpm	✕	○	○	○	✓
主軸油冷裝置 Spindle oil cooler	○	○	✓	✓	✓
主軸吹氣裝置 Air blast through spindle	✓	✓	✓	✓	✓
主軸氣幕裝置 Spindle air sealing	✓	✓	✓	✓	✓
切削液裝置 Cutting coolant system	✓	✓	✓	✓	✓
切削吹氣裝置 Cutting air blast system	✓	✓	✓	✓	✓
氣槍 Air gun	✓	✓	✓	✓	✓
水槍 Water gun	✓	✓	✓	✓	✓
操作警示燈及工作燈 Operation status lamp and working lamp	✓	✓	✓	✓	✓
M30自動斷電 M30 power off	✓	✓	✓	✓	✓
移動式手輪 MPG handwheel	✓	✓	✓	✓	✓
RS232介面盒 RS232 interface	✓	✓	✓	✓	✓
剛性攻牙 Rigid tapping	✓	✓	✓	✓	○
自動潤滑裝置 Automatic lubrication system	✓	✓	✓	✓	✓
電氣箱熱交換器 Heat exchanger for electrical cabinet	✓	✓	✓	✓	✓
工具箱及工具&基礎螺絲及墊塊 Tool box with tools, and leveling bolts & pads	✓	✓	✓	✓	✓
滾柱線性滑軌 Roller linear guideways	○	○	○	○	○
X/Y/Z光學尺 X/Y/Z Axis optical linear scale (5μ)	○	○	○	○	○
A軸&C軸半閉環 A Axis rotary encoder & C axis rotary encoder	○	○	○	○	○
主軸中心出水裝置 Coolant through spindle	○	○	○	○	✕
主軸環狀噴水裝置 Ring type cutting coolant flushing system	✕	○	○	○	○
前門及側門安全開關 Front door and side door switch	○	○	○	○	○
螺旋/鏈條式排屑機 Auger / Chain type conveyor	○	○	○	○	○
沖屑裝置 Chip flushing system	✓	○	○	○	○
雷射刀具長度量測裝置 Laser tool length measurement system	○	○	○	○	○
接觸式刀具長度量測裝置 Contact type tool length measurement system	○	○	○	○	○
工件量測裝置 Workpiece measurement system	✕	○	○	○	○
夾持裝置空壓供給 Air supply for clamping fixture	○	○	○	○	○
CE規格 CE conformity	○	○	○	○	○
圓盤式油水分離機 Disc type oil skimmer	○	○	○	○	○
電氣箱空調冷氣機 Air conditioner for electrical cabinet	○	○	○	○	○
油霧回收裝置 Oil mist collector	○	○	○	○	○
變壓器 Transformer	○	○	○	○	○

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## 友善化設計 · 方便操作化設計 · 安全性設計

Unique designs based on user-friendly and safety



▲ 前門及視窗大尺寸設計  
Larger viewer's window on front door



▲ 側門大視窗設計  
Larger viewer's window on both sides of the machine



▲ 伸縮防屑蓋斜度設計  
Slope on telescopic cover for easy chip flow



▲ 底座大斜度排屑設計  
Steep slope surface on the base for chip removal



▲ ATC刀倉安全護蓋  
Safety cover of ATC



▲ 風槍及水槍掛吊設計  
Convenient locations of both air & water guns



▲ 旋轉式操作箱  
Swivelable control box



▲ 增加刀倉設計  
Second tool magazine located in front of the machine



▲ 移動式電子手輪  
Movable MPG



▲ 雙LED工作燈  
Dual LED worklights

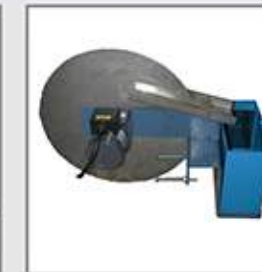
## 選擇配備 Optional Features



▲ 螺旋式排屑機  
Auger type chip conveyor



▲ 鏈條式排屑機  
Chain type chip conveyor



▲ 油水分離機  
Oil skimmer



▲ 主軸油冷卻機  
Spindle oil cooler



▲ 電氣箱冷氣機  
Air condition for electrical cabinet



▲ 三軸光學尺  
Linear scale



▲ 主電源變壓器  
Main power transformer



▲ 刀具長度量測  
Tool length measurement



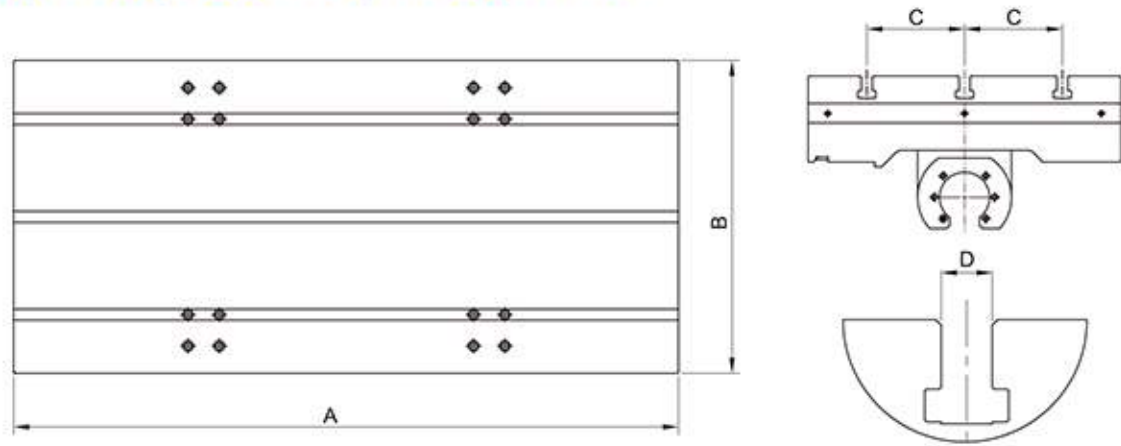
▲ 標準型主軸中心出水機  
CTS filter unit



▲ 雷射刀具量測  
Laser tool length measurement

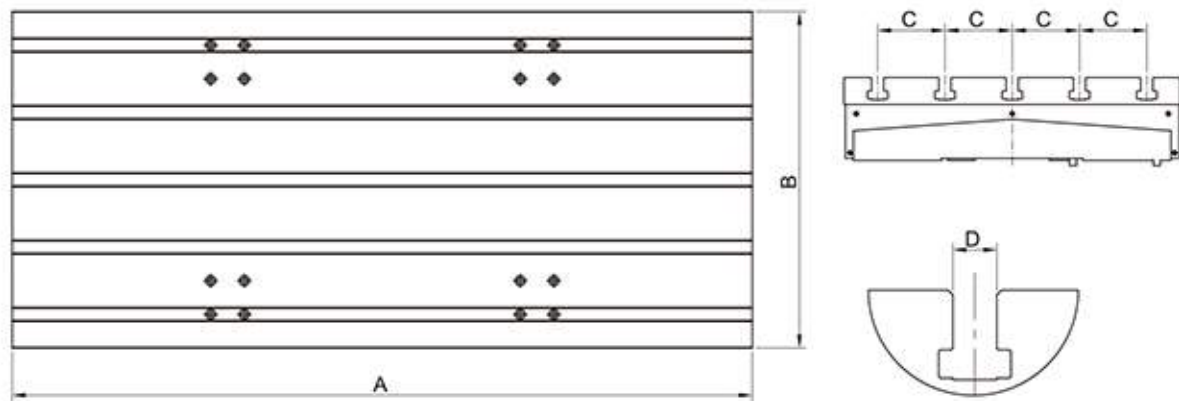


### T500/T700/V50/V70/HV50/HV70



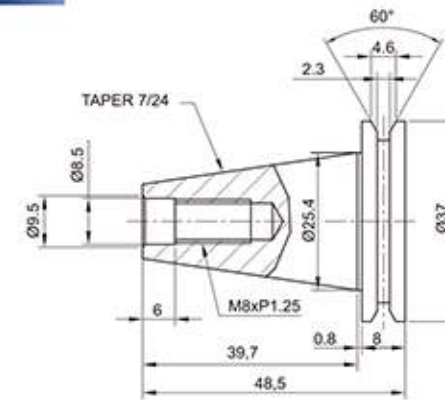
機型 MODEL	A	B	C	D
T500	560	400	125x3	14
T700	850	400	125x3	14
V50	650	400	125x3	14
V70	850	400	125x3	14
HV50	650	400	125x3	14
HV70	850	400	125x3	14

### V80/V100/V120/V140/V160/V200

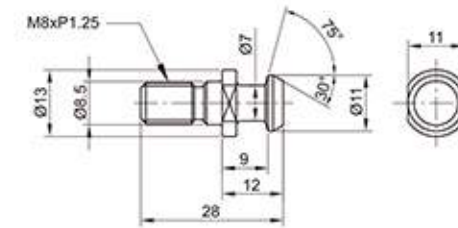


機型 MODEL	A	B	C	D
V80	900	500	100x5	18
V100	1100	500	100x5	18
V120	1300	600	125x5	18
V140	1500	600	125x5	18
V160	1750	800	100x7	18
V200	2150	800	100x7	18

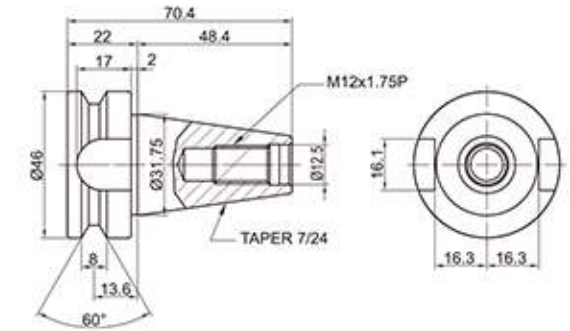
#### 刀把: ISO25



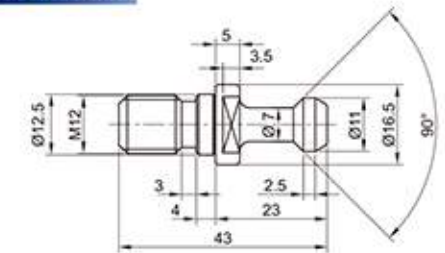
#### 拉栓: ISO25



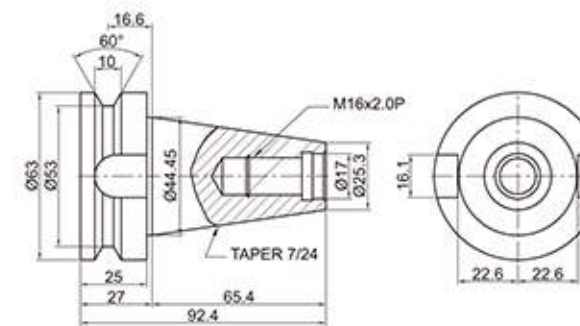
#### 刀把: BT30



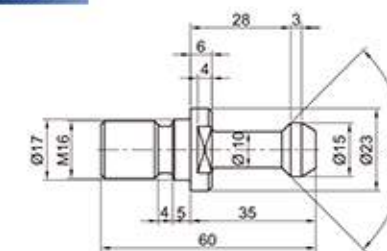
#### 拉栓: MAS-P30T-1



#### 刀把: BT40



#### 拉栓: MAS-P40T-1



#### 刀把: HSK40E

