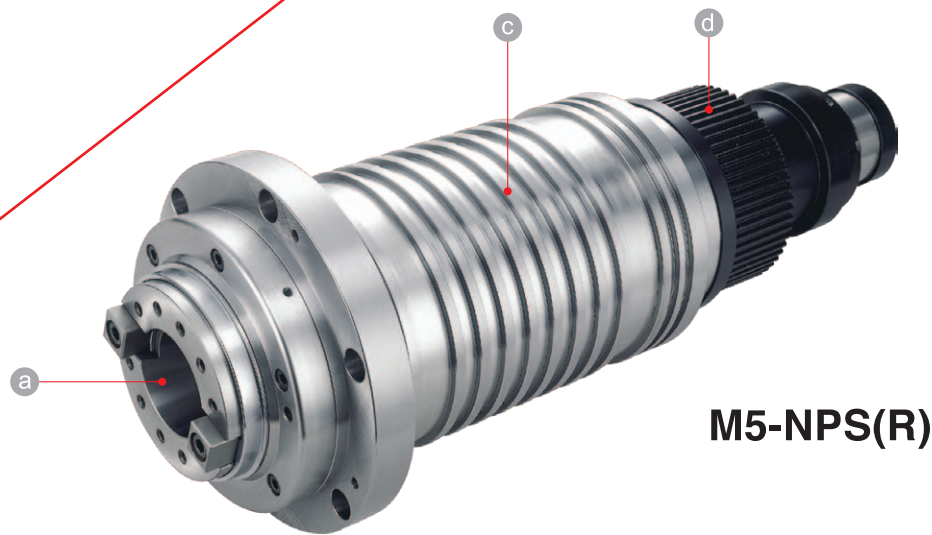


皮帶式
Pulley Driven



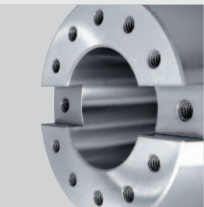
M5-NPS(R)

泛用式主軸，中低速切削加工，多元功能選項。

以高剛性、低溫升之設計為生產指標，多項選配多元運用，精準之皮帶輪齒形，減低傳動噪音，全系列冷卻循環溝預留，中速精密加工、低速重切削，長運轉壽命。

Generic Spindle, Medium/Low Speed Cutting, Multi-Function Options

With long operational life, our pulley driven spindle is specifically designed for high stiffness and low rise in temperature. Our multi-purposed spindle has precise pulley teeth that reduces drive noise and has multiple options to choose from. All our pulley driven models have reserved cooling channels to be used if desired. These spindles can be used for medium speed, precision machining or low speed, high torque cutting.



a. 高硬度心軸錐孔
多道次均厚高硬度錐孔處理，長期無磨變，錐孔換刀耐磨耗。
High Hardness Taper of the Spindle Shaft
With the addition of many hard, equally thick layers through a treatment process, the high hardness taper is able to maintain the precision of the spindle even after long term operation because the taper is resistant to wear and tear during tool exchanging.



b. 長壽命拉刀彈片設計
拉刀彈片經正確計算，確保拉刀彈片超長壽命。
Long Life Disc Springs for Tool Exchanging
We perform proper calculation of the disc springs to guarantee high tool exchange life expectancy.



c. 全系列冷卻循環溝預留
全系列冷卻循環溝預留，可隨時外加油冷卻。
Reserved Cooling Channels for Pulley Driven Spindles
Every pulley driven spindle already has cooling channels so oil cooling can be utilized if desired by the customer.



d. 各單一零件平衡
改善主軸動平衡特性，提升振動性能，減低機台共振效應。
Balance of Every Part
By balancing every part, the dynamic balance of the spindle is improved, its vibration is decreased, and resonance effects with the machine are reduced.



CTS，環噴，浮動拉刀多項選配
可選配CTS，環噴，浮動拉刀多項附加功能。
Additional functions:
CTS, SC, FTU
CTS, SC and FTU are all optional functions.



M4-APSN, M4-APRN, M4-VAPS

#40皮帶式主軸
最高轉速8,000~12,000rpm
#40 Pulley Spindle
Max. Speed : 8,000~12,000rpm



M4-VNPS, M4-VNPSG

#40皮帶式主軸
最高轉速8,000~12,000rpm
#40 Pulley Spindle
Max. Speed : 8,000~12,000rpm

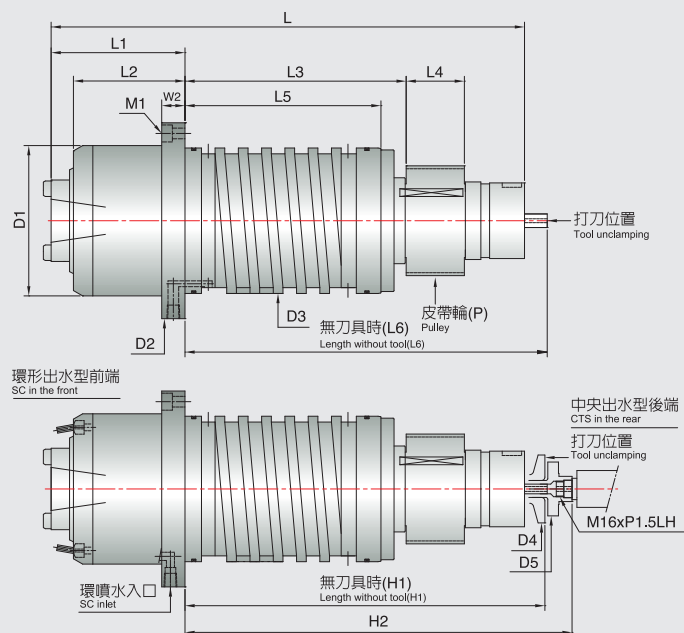
皮帶傳動式 M/C主軸 Pulley Driven M/C Spindle

型號 MODEL NO.	最高轉速 Max. Speed (rpm)	規格 (SPECIFICATION)							
		軸承數目 No. of Bearings	刀具 TOOL HOLDER	中央出水 (CTS)	環形噴水 (SC)	拉刀方式 clamping type	前軸承直徑 Diameter of Front Bearing (mm)	套筒外徑 Outer Diameter of Housing (mm)	建議適用機行程 Travel for Recommended Machine Type
M25-GPS	10000 12000 15000	2	ISO25			四瓣爪 grippers	Ø30	Ø70	450以下
M3-FPS	10000 12000 15000	4	BT30	(OP)	(OP)	鋼珠式 steel ball	Ø45	Ø100	650以下
M4-VNPSG 註	8000 10000 12000	4	BBT40 BT40 DIN40 CAT40	(OP)	(OP)	四瓣爪 grippers	Ø60	Ø120	500~850
M4-VNPRG 註	8000	6	BBT40 BT40 DIN40 CAT40	(OP)	(OP)	四瓣爪 grippers	Ø60	Ø120	500~850
M4-LNPSG 註	8000 10000 12000	4	BBT40 BT40 DIN40 CAT40	(OP)	(OP)	四瓣爪 grippers	Ø60	Ø120	500~850
註:型號G省略則為鋼珠式拉刀，刀具僅可使用BT40。 Note 1. Leaving out the G in the model numbers above will change the clamping type to steel ball.									
M4-HPS	10000 12000	4	BBT40 BT40 DIN40 CAT40	(OP)	(OP)	四瓣爪 grippers	Ø65	Ø140	800~1300
M4-VAPS	8000 10000	4	BBT40 BT40 DIN40 CAT40	(OP)	(OP)	四瓣爪 grippers	Ø70	Ø150	800~1300
M4-APSN	8000 10000 12000	4	BBT40 BT40 DIN40 CAT40	(OP)	(OP)	四瓣爪 grippers	Ø70	Ø150	800~1300
H6-APSN			HSK63A						
M4-APRN	6000 8000 10000	6	BBT40 BT40 DIN40 CAT40	(OP)	(OP)	四瓣爪 grippers	Ø70	Ø150	800~1300
H6-APRN			HSK63A						
M5-DPS	6000 8000 10000	4	BT50 DIN50 CAT50	(OP)	(OP)	四瓣爪 grippers	Ø80	Ø155	1000~1600
M5-DPR	6000	6							
M5-NPS	5000 6000 8000	4	BBT50 BT50 DIN50 CAT50	(OP)	(OP)	四瓣爪 grippers	Ø100	Ø190	1100以上
M5-VMPS									
M5-NPR	4500 5000 6000	6	BBT50 BT50 DIN50 CAT50	(OP)	(OP)	四瓣爪 grippers	Ø100	Ø190	1100以上
M5-VMPR									

CTS : coolant through spindle
SC : surrounding coolant

ST : 標準Standard OP : 可選配Option

皮帶傳動式外觀尺寸表 Table of Outer Dimensions of Pulley Driven Spindle



主軸型號 MODEL NO.	L	L1	L2	L3	L4	L5	L6	P	系列代碼 SERIES NO.
M25-GPS	184.5	75	67.5	70	21	51	119	10k/12krpm 5GT30T	PD-70
M3-FPS	323	100	88	145	50	124	235	15krpm PJ-V Belt	
M4-VNPS M4-VNPR M4-VNPSG M4-VNPRG	416.5	128	108.5	8krpm 175 10k/12krpm 190	8krpm 55 10k/12krpm 60	171.5	301.5	10k/12krpm 5GT40T	PD-100
M4-LNPS M4-LNPSG	416.5	128	108.5	175	55	171.5	301.5	15krpm PJ-V Belt	
M4-HPS	420	65	47.5	250	60	238	364.5	8krpm 5GT68T	PD-120
M4-VAPS	484	138	115	228	60	202	375.5	10k/12krpm 5GT54T	
M4-APSN M4-APRN H6-APSN H6-APRN	488	138	115	228	60	202	375.4	8krpm 5GT68T	PD-140
M5-DPS M5-DPR	586.5	185	160	286	58	244	424.5	10k/12krpm 5GT54T	
M4-HPS	420	65	47.5	250	60	238	364.5	8krpm 5GT68T	PD-150
M4-VAPS	484	138	115	228	60	202	375.5	8YU40T	
M4-APSN M4-APRN H6-APSN H6-APRN	488	138	115	228	60	202	375.4	8k/10krpm 8YU40T	PD-155
M5-DPS M5-DPR	586.5	185	160	286	58	244	424.5	12krpm 5GT54T	
M5-NPS M5-NPR	632	94	64	320	60	274	556	8YU56T	PD-190
M5-VMPS M5-VMPR	632	200	170	290	60	231.5	450	8YU60T	

皮帶傳動式-中央出水(CTS)相關尺寸表 Table of Pulley Driven - Coolant Through Spindle (CTS) Dimensions

主軸型號 MODEL NO.	D1	D2	D3(h7)	M1	CTS				系列代碼 SERIES NO.
					H1	H2	D4	D5	
M25-GPS	70	93	70	6-M5 PCDØ82					PD-70
M3-FPS	100	140	100	6-M8 PCDØ120	274	302	70	56	PD-100
M4-VNPS M4-VNPR M4-VNPSG M4-VNPRG	130	165	120	6-M8 PCDØ146	333	359.5	70	56	PD-120
M4-LNPS M4-LNPSG	130	165	120	6-M8 PCDØ146	333	359.5	70	56	PD-120
M4-HPS	140	185	140	8-M10 PCDØ160	394.7	422.7	70	56	PD-140
M4-VAPS	155	202	150	8-M10 PCDØ180	373	399	70	56	PD-150
M4-APSN M4-APRN H6-APSN H6-APRN	155	202	150	8-M10 PCDØ180	373	399	70	56	PD-150
M5-DPS M5-DPR	163	206	155	8-M10 PCDØ180	440	465.5	70	56	PD-155
M5-NPS M5-NPR	193	246	190	6-M12 PCDØ220	571	597	70	56	PD-190
M5-VMPS M5-VMPR	198	246	190	6-M12 PCDØ220	465	491	70	56	