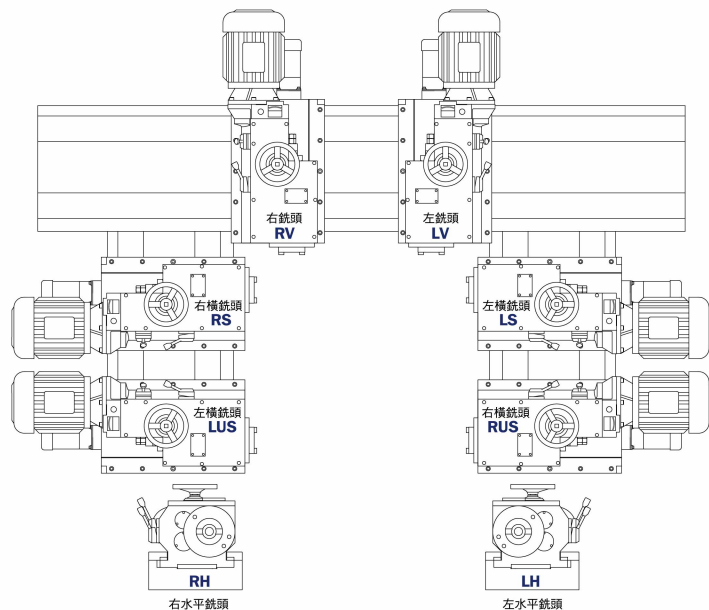




Rigid, Accurate & Efficient



since1986

美立固精機廠股份有限公司

PARA MILL PRECISION MACHINERY CO., LTD.

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MILLING Head Units 美立固搪銑頭

*High Precision Gear Transmission
Great Rigidity / Heavy Duty Cutting*

精密齒輪傳動 高剛性 耐重切削

美立固搪銑頭 MILLING Head Units

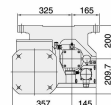
Features 產品特點

- The NC milling head provides right hand side milling and left hand side milling selection. It also allows for vertical, horizontal and reversed horizontal milling and it can be mounted with to mount with the angular head.
- Easy to operate with high rigidity. The NC milling head is applicable for plano miller or special purpose machines and it is suitable for heavy duty Change to: cutting, boring, drilling and tapping operations.
- The lubrication system are lubricated by using an automatic pump or automatic lubricator.
- Gears and shafts are manufactured from Chrome-molybdenum alloy steel (SCM415), quenched and precision ground to JIS Class 1. Rugged material is not easy to crack even through impact.
- The casting parts are manufactured from Meehanite cast iron and stress relieved to ensure the accuracy and stability of the milling head.
- The slideway surfaces are hardened and precision ground, allowing accurate movement and maximum wear-resistance.
- Air curtain device prevents chips and dusts from entering. Circulated oil cooling system reduces the temperature of the milling head.
- Two-step hydraulic control system.
- The gearbox structure is fitted with high speed bearing and fixed well on both sides to avoid vibration during heavy duty cutting.
- The transmission shaft is designed for straight type gear and has separated design for easy maintenance.
- Multiple seal design and optimized bearing construction. The needle bearing provides better cutting capability.
- Precision assembly skill with guaranteed accuracy.
- NC搪銑頭有左銑型及右銑型兩種，分別可作立銑、橫銑、水平銑、逆橫銑，並可加裝90度銑頭。
- 操作簡便，結構剛性極佳，適合安裝於龍門刨床、銑床或各種專用機上可作重切削、搪孔、鑽孔及攻牙...等。
- 各部位潤滑系統均以自動幫浦或電動注油機進行強制潤滑。
- 齒輪及軸均採用鉻鉬合金鋼(SCM415)，經淬火後精密研磨至JIS1級，材質剛性強，受到撞擊不易崩裂。
- 鑄件均採用米漢納鑄鐵，經應力消除，常保銑頭精度穩定。
- 軌道滑動面經硬化熱處理，精密研磨，確保滑動面精準耐磨。
- 氣幕式保護裝置，可防止鐵屑與灰塵侵入。
- 循環式油泵冷卻系統，以降低銑頭溫度。
- 二段式油壓控制入檔。
- 內部結構採用高速軸承，由雙方固定，不易晃動，可承受重切削，傳動軸直型齒輪，採用分離式維修更容易。
- 多種密封設計，更優化的軸承結構，採用滾針軸承，角度頭具有更好的承載力。
- 工精良，裝配精密，保證精度。

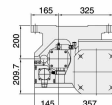


ML-02 NC搪銑頭 無底座

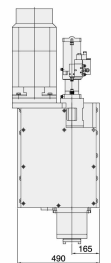
ML-02 NC Milling Head
Without the Slideway Base



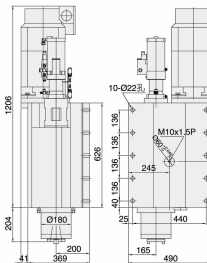
RV,RUS 前視Top View



LV,LUS 前視Top View

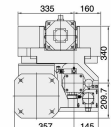


※ML02-3000 無底座外型圖
Without the Slideway Base Dimension

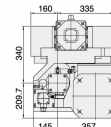


ML-02 NC搪銑頭 有底座

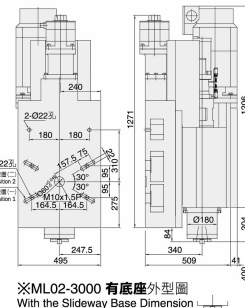
ML-02 NC Milling Head
With the Slideway Base



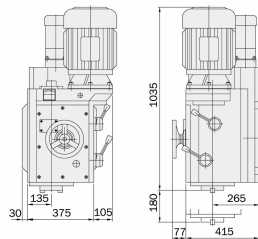
RV,RUS 前視Top View



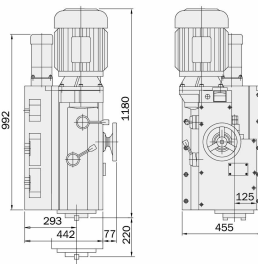
LV,LUS 前視Top View



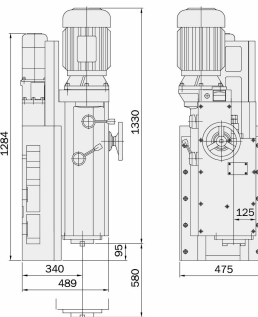
※ML02-3000 有底座外型圖
With the Slideway Base Dimension



※2 L Milling Head Units



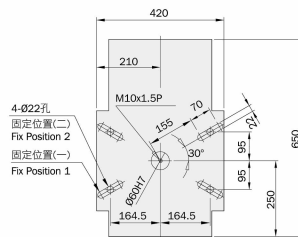
※1 R Milling Head Units



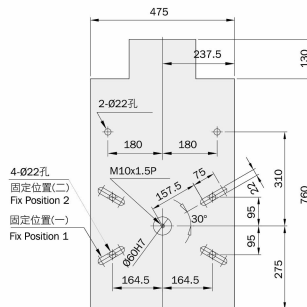
※1 R Milling Head Units



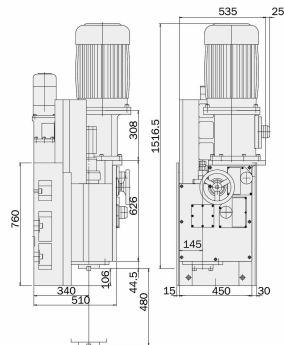
※1 R Milling Head Units



CL-06

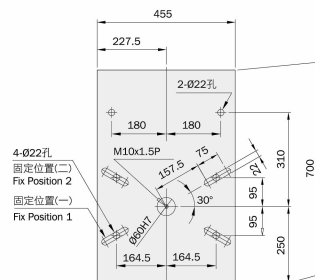


CL-09L,ML-08



背視圖

Connecting Dimension



CL-09



CL-SL 90° 銑頭

90° Angular Head



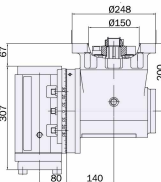
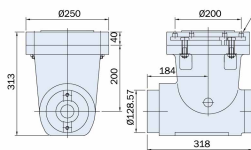
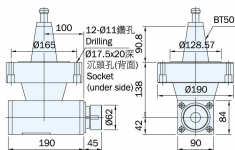
CL-L 90° 銑頭

90° Angular Head



CL-L 90° 萬向銑頭

90° Multi-Angular Head



■特殊附件 / OPTIONS

1. 氣動鎖刀機 Pneumatic Tool Lock
2. CL-06, CL-09 另使用AC變頻馬達 CL-06, CL-09 come with 3/4hp AC motor for feeding device
3. 滾珠螺桿 Ball Screw
4. 氣壓配重 Air Balancer
5. 最大銑刀直徑 315mm Max. Cutter Dia. can be up to 315mm
6. 無底座設計可供選 Without base design available.

MODEL	機型	CL-SL	CL-L	CL-L90
Spindle Taper	主軸錐度	M.S.T-CTA型	N.T.50#	N.T.50#
Spindle End O.D	主軸端外徑		Ø128.57mm	Ø128.57mm
Spindle Speed (R.P.M.)	主軸轉速(R.P.M.)	1800 R.P.M.	800 R.P.M.	800 R.P.M.
Weight	重量	20 kg	58 kg	100 kg

CL-L銑刀最大直徑: 200mm / Max Dia. of CL-L cutter: 200mm

■銑頭規格 / SPECIFICATIONS

MODEL 機型	ML02-3000	
Spindle taper 主軸錐度	BT-50	
Spindle speed 主軸變速段速	Two-step 2段	
Spindle speed (R.P.M.) 主軸轉速(R.P.M.)	High gear 高速檔	Gear ratio 齒數比 = 0.85
	Low gear 低速檔	Gear ratio 齒數比 = 0.27
Circulated oil 循環油品	Circulated oil 循環機油 #32	
Hydraulic pressure for change gear system 檔位切換油壓	8~10	
Max. cutter Dia. 最大刀盤直徑	Ø200	
Max. torque transmission 大扭矩輸出	500 N-m	
Hydraulic oil for change gear system 檔位切換油品	Hydraulic oil 液壓油 #32	
Air pressure for pneumatic tool cylinder 鎖刀缸風壓	5~7 kg/cm ²	
Spindle speed 主軸轉速	3000 RPM	
Spindle motor (optional) 馬達(選配)	18.5 kW / 22 kW (Ø55)	
Rigid tapping (optional) 剛性攻牙(選配)	N/A	
Servo motor (optional) 伺服馬達(選配)	N/A	
Work travel 工作行程	400 mm (With the slideway base 有底座)	
Weight 重量	560 kg (無底座)	890 kg (有底座)
	(Without the slideway base)	(With the slideway base)

MODEL 機型	CL-06		CL-09		CL-09L		ML-08	
Spindle Motor 主軸馬達	10HP x 4P		15HP x 4P		15HP x 4P		20(25)HP x 4P	
Spindle Taper 主軸錐度	N.T.50#		N.T.50#		N.T.50#		N.T.50#	
Spindle End O.D 主軸端外徑	Ø128.57 mm		Ø128.57 mm		Ø128.57 mm		Ø128.57 mm	
Spindle Speed 主軸變速段速	6 step		9 step		9 step		8 step	
Spindle Speed 主軸轉速 (R.P.M.)	50 HZ	76.120 168.250 335.501	50 HZ	66.83.116 166.216.291 375.493.662	50 HZ	66.83.116 166.216.291 375.493.662	50 C/S	82.139.174 228.284.375 465.760
	60 HZ	93.145 203.303 406.608	60 HZ	80.100.140 200.260.350 450.592.795	60 HZ	80.100.140 200.260.350 450.592.795	60 C/S	101.165.207 286.337.465 585.950
Max. Cutter Dia. 銑刀最大直徑	Ø200 mm		Ø200 mm		Ø250 mm		Ø250 mm	
Work Travel 工作行程	300 mm		380 mm		580 mm		480 mm	
AC Motor AC 快速馬達	1/2 HP x 1/25		1/2 HP x 1/25		3/4 HP x 1/25		3/4 HP x 1/25	
Rapid Speed 快速速度	360 mm/min		360 mm/min		540 mm/min		540 mm/min	
Hand Wheel 手輪轉速	2 mm/rev		2 mm/rev		2 mm/rev		2 mm/rev	
Weight 重量	420 kg		530 kg		740 kg		900 kg	

本型錄規格及尺寸僅供參考,若有變更恕不另行通知
Specifications subject to change without notice for improvement and modification.