

先進鈹金加工設備 最齊全的機種選擇

Advanced Sheet Metal Processing Equipment
The Most Comprehensive Range

RM11/13

Tailift

CNC 轉塔式沖床機 CNC TURRET PUNCH PRESS

Tailift CNC Machine

Tailift

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www.tailift.com

高集成小型化轉塔式電腦沖床

Compact CNC turret punch press with high integration



台勵福 Tailift

RM11 / RM13

- ◆ RM系列是承襲台勵福R系列機種的高可靠性與高耐用性的特色，下刀盤的新設計，有效提高模具同心度穩定性與其使用壽命。高集成式組裝，大大縮小油壓單元與整個機臺的佔地面積。再者，緊湊型油壓系統與分區式空壓迴路，亦是節能考量下的新設計。對於新創業或廠區空間侷限的工廠，RM系列是理想的選擇。

RM series is new generation, high accuracy, durable feature, the new design for lower turret, efficiently enhance the durable of concentricity and service life. The integration assembly, reduce floor space requirement and hydraulic, fulfill the ideal of ECO-friendly.



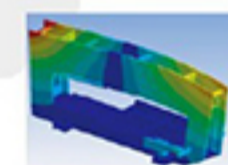
◆ O 型龍門型架構 Closed O Shape Frame Structure

高剛性、高穩定性 High Rigidity & High Stability

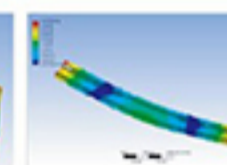
- O 型龍門型架構設計。機體結構經“有限元素分析”，以模擬機器之應力/應變情況，達到最佳化的結構設計。
- The closed O shape frame structure is analyzed by the "Finite Element Analysis" software to simulate stress / strain conditions to enable the optimal structure design.

高強度鋼材結構 High Tensile Strength Steel Construction

- 機體結構採用高強度鋼材焊接而成。加工前再經過高強度張力測試、正常化處理、震動應力消除，以確保機器之組裝精度。
- The machine frame is welded by high tensile strength steel, which is subject to high tensile strength tests, normalization treatment and vibration stress relief so as to ensure the machine assembling accuracy.



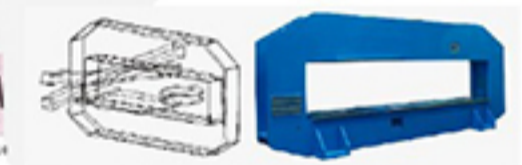
Transient State Analysis



Static Analysis

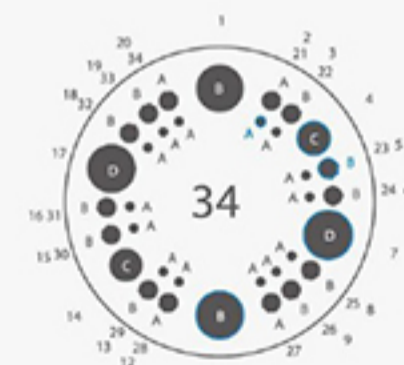


Model Analysis



Transient State Analysis

◆ 34 刀站刀盤 Turret with 34 Stations



- 採用蝸桿 / 蝸輪傳動設計。雙軸同步連桿傳動，定位安全可靠。
- 刀盤具有 34 刀站。可使用 1/2"~3-1/4" 之刀具。並可依客戶需求，自行變更刀具。
- 各刀站可使用各種廠牌刀具，如 Mate 及 Wilson。
- 雙環式刀盤設計

34 刀站 stations		
形式 Type	規格 Specification	數量 Qty
A	1/2"	18
B	1-1/4"	10
C	2	2
D	3-1/2"	2
自動轉刀 Auto Index		
B	1-1/4"	2

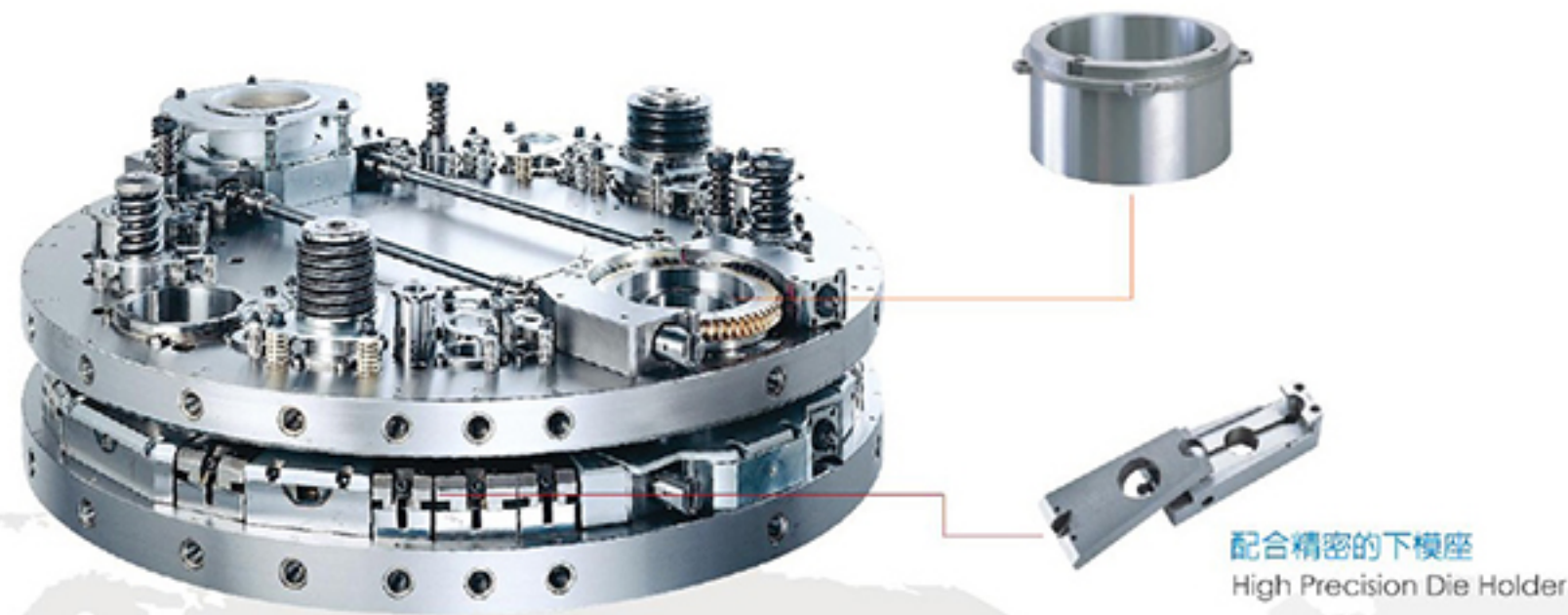
- The turret is transmitted through the worm and worm gear mechanism. Two shafts are synchronously transmitted via a connecting rod for safe and dependable positioning.
- The turret is designed with 34 stations, and accommodates various tool sizes from 1/2" to 3-1/4". Changing tool size is available upon customer request.
- Designed with two circular track stations.

◆ 可替換式刀站襯套 **Replaceable Bushing**

維護保養簡易 Easy to Maintain



- 各刀站均裝置可替換式襯套，具高強度及耐腐蝕特色。不需拆卸整組刀盤，即可維修。除了可縮短保養工時，並可節省維修費用。
- Each tool station is equipped with replaceable bushing that features maximum durability and wear-resistance. Easy to replace without dismantling the entire turret. This not only shortens maintenance time but also saves maintenance cost.



◆ 移動式沖頭 **Movable Ram**



- 移動式沖頭，具有過載保護特性。配合雙環式刀盤，讓加工更具彈性。
- Movable ram has overload protection, combined with a two circular track stations, making operation more flexible.

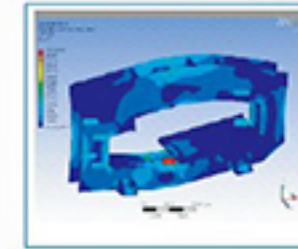
◆ 緊湊型油壓系統 **Compact hydraulic system**



- 有效降低油壓在管路的消耗，大幅提升能量利用率。
- Efficiently reduce hydraulic pipes consumption, greatly boosting capacity usage.



◆ Y軸座穩定結構 **Y axis chassis construction**



- 機身與Y軸座結合設計，結構穩定有效提高精度控制，並經ANSYS有限元素分析。
- Integrated with O frame, Y axis chassis construction approved by ANSYS and ensures high accuracy.

◆ 原點定位系統 **Origin positioning**



- 國際化規格原點定位系統，從動凸輪定位擋塊設計提高定位精度與使用壽命。
- International origin position system, increase the efficiency of positioning and extend the service life by latest design of CAM positioner block.

◆ 空壓迴路 **Air-pressure circuit**



- 分區式設計的空壓迴路，線路簡單，可減少空壓體積的消耗，且查修方便。
- Air-compressed circuit with zoned design, simple distribution, reducing waste compressed air and easy for troubleshooting.

◆ 專利線軌式夾爪 **Patented linear guide of clamp**



- 利用線性滑軌做傳動，鋼性佳、作動順暢，提升抗扭矩能力，防脫料偵測以提高自動化操作的安全性。
- Transmit by linear guide. High rigidity, smooth and sleek movement, enhance anti-torque abilities. Along with sheet escape detector, improve operation safety.

◆ 手動潤滑系統 **Manual Lubrication System**



- 新一代定量閥模塊設計手動黃油系統，確保各部潤滑功能，提高元件使用壽命。
- New design metered valve for manual grease system, ensuring grease functions, and increasing moving parts' life

◆ LED壓沖位置顯示 LED



- 高識別度的LED顯示沖壓位置，不同顏色指示，適時讓使用者知悉機器沖壓位置。
- With high identification, LED shows the punch position through different colors display.

◆ 可替換毛刷檯面 Replaceable brush table



- 新式可替換毛刷檯面設計，減少板件刮傷與移動摩擦阻力。(可選配滾珠檯面)
- New table design with replaceable brush, protecting sheet from scratch and friction. (Rising ball is option)

◆ 避震腳墊 Anti-vibration Foot Mounts



- X、Y 軸頻繁的加減速造成對滾珠螺桿的衝擊，可藉由避震腳墊加以緩衝。
- 附有水平調整功能。
- With the use of anti-vibration foot mounts, reduce the impact on the ball screw caused by frequent acceleration / deceleration on X, Y-axis can be effectively cushioned.

◆ FANUC 控制器 FANUC Controller (RM11/RM13)



- RM 系列搭載 FANUC 新一代 Oi-PD 沖床專用高速、高精度控制器，配合全新操作面板設計，具有簡易的操控特性。

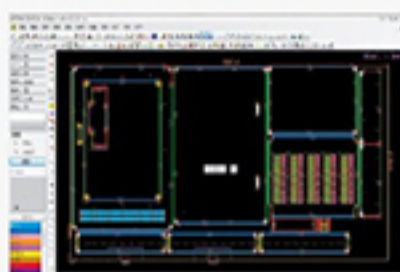
• RM series is equipped with FANUC Oi-PD controller, designed specifically for punch press with the all new control panel design provides easy operation control.

◆ 西門子控制器 SIEMENS Controller (RM11-S)



- RM11-S 搭載西門子802d SI G/N pro，人機界面類似個人電腦，易操作，快速上手，內建3mb記憶體容量，USB支援4G、CF支援4G，可並存，無須切換。
- The RM11-S is equipped with SIEMENS 802d SI G/N pro. The interface of HMI is similar to PC and user friendly, built-in 3mb memory and supporting compatible 4G USB and CF card.

◆ CAD / CAM 軟體 CAD / CAM Software



- Windows 版本之操作畫面使操作者可快速上手，並可簡化加工程式編輯。
- The Windows operation displays enable the operator to learn in a short time. Also, machining program editing is simplified.

項目 Item	單位 Unit	RM11	RM11-S	RM13
沖壓噸數 Punching Capacity	公噸 Ton	20	20	20
X 軸行程 X Traverse Length	公厘 mm	1250 ± 10	1250 ± 10	2490 ± 10
Y 軸行程 Y Traverse Length	公厘 mm	1250 ± 10	1250 ± 10	1250 ± 10
最大加工板件尺寸 Max Sheet Size	公厘 mm	1250*2500	1250*2500	1250*4980
最大加工板件厚度 Max Sheet Thickness	公厘 mm	6.35	6.35	6.35
工件最大質量 Max Mass of Material	公斤 kg	110	110	110
X 軸最大移動速度 X Axis Traverse Speed	米/分鐘 M/min.	70	70	80
Y 軸最大移動速度 Y Axis Traverse Speed	米/分鐘 M/min.	60	65	70
最大移動速度 Max Traverse Speed	米/分鐘 M/min.	92	95.5	105
最大沖孔速度 (孔距 25mm) Punching Speed at 25mm pitch	下/分鐘 hits/min.	210	200	210
最大蠶食速度 Nibbling Speed	下/分鐘 hits/min.	350	350	350
刀具型式 Tool Type		長刀 Thick turret	長刀 Thick turret	長型 Thick turret
沖孔最大孔徑 Max Punching Diameter	公厘 mm	88.9	88.9	88.9
刀站總數 Number of Tool Stations		34	34	34
自動轉刀刀站數 Number of Auto Index Stations	支(型式) pcs(type)	2 (B)	2 (B)	2(B)
刀盤轉速 Turret Rotating Speed	轉/分鐘 rpm	30	30	30
自動轉刀轉數 Auto Index Rotating Speed	轉/分鐘 rpm	50	50	50
沖錘行程 Ram Stroke Distance	公厘 mm	32	32	32
工作檯型式 Working Table		刷毛 Brush	刷毛 Brush	刷毛 Brush
上升滾珠 Supporting Ball Set		選配 Optional	選配 Optional	
夾爪數 Number of Sheet Clamps	支 pcs	2	2	3
電力供應 Power Supply	KVA	15	15	18.72
空氣供應 Air Supply	NL/min	250	250	250
油箱容量 Oil Tank Volume	公升 Litre	85	85	85
壓縮空氣供應 Air Pressure	Bar	5	5	5
機器(長*寬*高) Machine Dimension(LxWxH)	mm	4520*2640*2145	4520*2640*2145	5102*4687*2110
機器概重 Machine Weight (approx.)	kg	11000	11000	13000
分離式電控箱尺寸 Control Cabinet Dimension	mm	700*525*1880	700*525*1880	1200*600*1900
CNC控制器 CNC Controller		FANUC Oi-PD	Siemens 802d sl G/N pro	FANUC Oi-PD
可控制軸數 Number of Controllable axis	軸 Axis	4	5	4
記憶體容量 Memory Capacity	KB	512	3060	512
傳輸界面 Serial Interface		RS232/RJ45/PCMCIA	RS232+RJ45+USB	RS232/RJ45/PCMCIA
定位精準 Accuracy	mm	± 0.1	± 0.1	± 0.1

- 產品規格若有變動，恕不另行通知。 Specifications are subjects to change without prior notice.
- X/Y 軸的加減速度依工件的重量而定。 Acceleration / deceleration rate of X / Y-axis are dependent on weight of materials.
- 沖孔速度依不同的加工條件、沖錘行程、加速度及轉的速度而定。 Punch speed depends on processing conditions, stroke length, acceleration / deceleration rate of axes speeds.

佔地面積圖 Floor Plan

