

印刷電路板冲孔脱料系統

P.C. BOARD PIERCING SYSTEM



印刷電路板沖孔脫料系統

P.C. BOARD PIERCING SYSTEM

脫料台盤

台盤經嚴密加工處理，及使用耐壓、耐磨配件，長久使用不漏油，構造簡單，容易保養。

PIERCING PLATE

The plate is precisely machined and hardened, and pressure-resisting, wear-resisting parts are adopted for which, hence there won't be oil-leaking after long time of service. It features simple structure and easy maintenance.

電控操作箱

- (1) 脫料系統及快速換模系統集中操控。
- (2) 附脫料位置 (0° 或 180°) 選擇開關。

CONTROL OPERATION PANEL

- (1) Concentrated control over P.C. board piercing system and quick die change system.
- (2) Equipped with knock out position (0° or 180°) selector switch.

油壓動力單元

動力源利用空壓增壓結構設計，比電動馬達式減少50%能源浪費，且構造簡單，保養容易。

POWER UNIT

Highly reliable pneumatic-hydraulic drive (intensifier) . permits 50% cheaper energy cost to operate than the electric drive system. Simple structure assures easy maintenance.

壓板壓力調整鈕

HOLDER KNOB

脫料壓力調整鈕

KNOCK OUT KNOB

壓力調整時，將調整鈕向外拉即可調整，調整好向內推入即鎖住設定。

Pressure adjustment can be done by pulling out the adjusting knob. After adjustment, push in the knob, and the setting is locked.

夾模夾具

利用油壓夾緊，夾力穩定，具壓力檢出，確保作業安全。

DIE CLAMP

Clamping by hydraulic pressure and is quite steady, pressure inspection function is provided, thus ensuring the operation safety.

氣動油壓泵浦單元

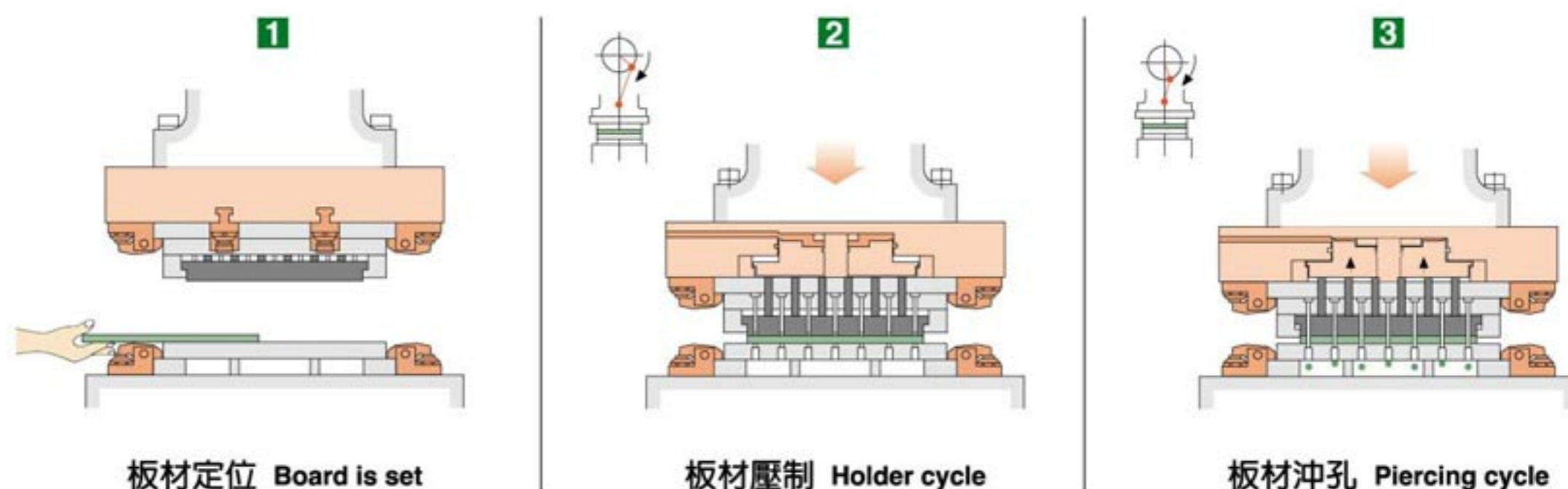
此單元由空油壓轉換之泵浦及防洩壓之控制閥組合，提供夾模夾具之動力源。

PUMP UNIT

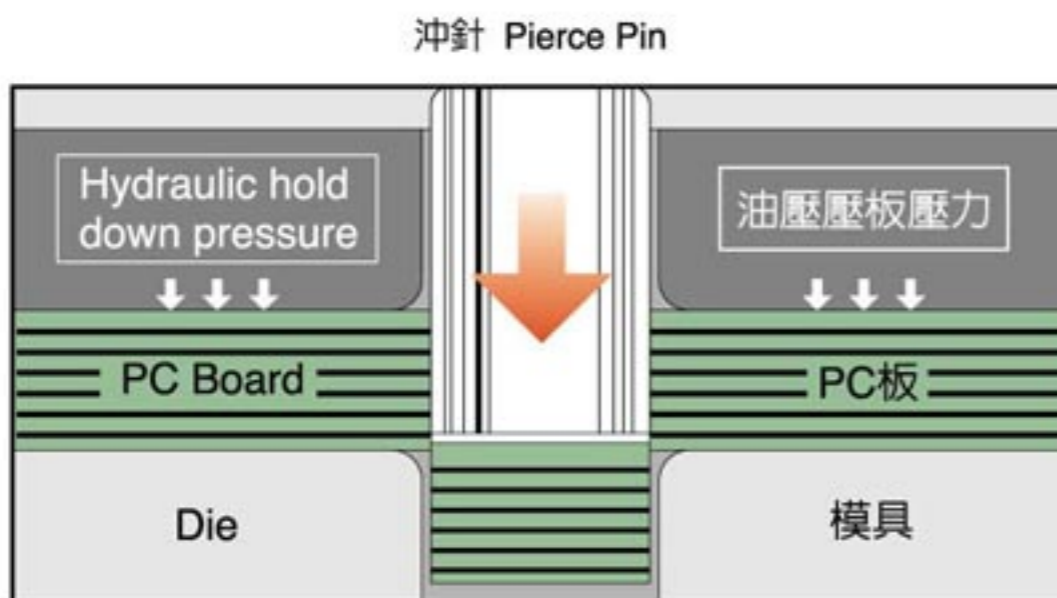
This unit consists of a pump for converting air pressure to oil pressure and a non-leak valve. It is equipped with valves for each pair of hydraulic circuits for upper and lower dies.



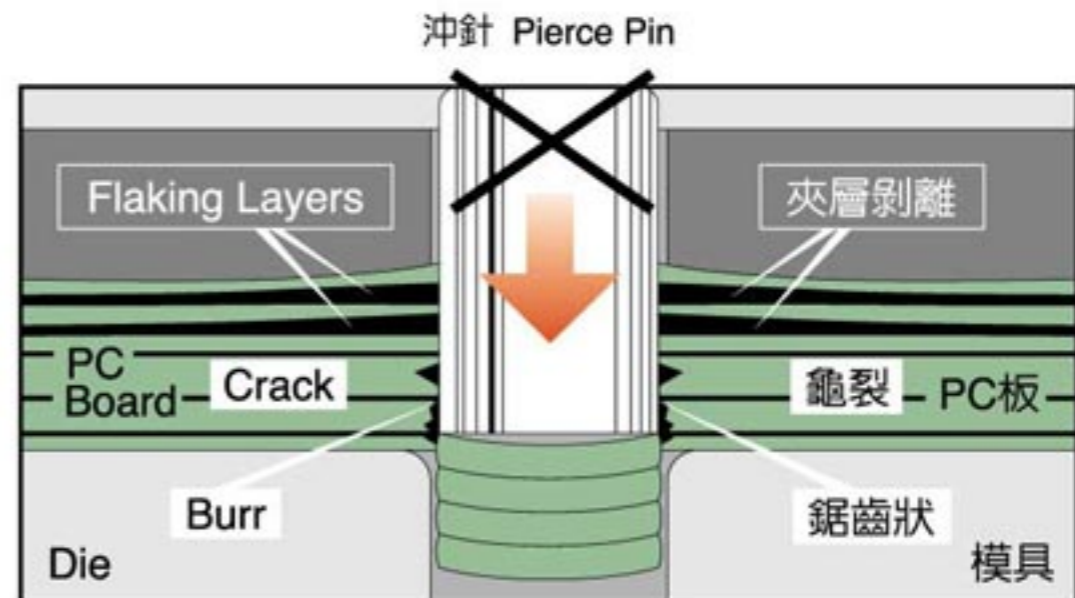
作業流程與機能 (WORKING PROCESS & FUNCTION)



山田順油壓沖孔脫料系統 SANDSUN PIERCING SYSTEM



傳統機械式頂出脫料（無壓板功能） CONVENTIONAL METHOD (Without Holder System)

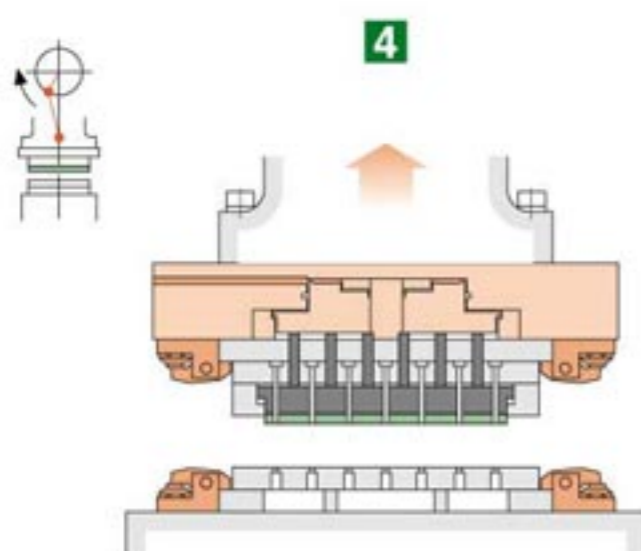


特點

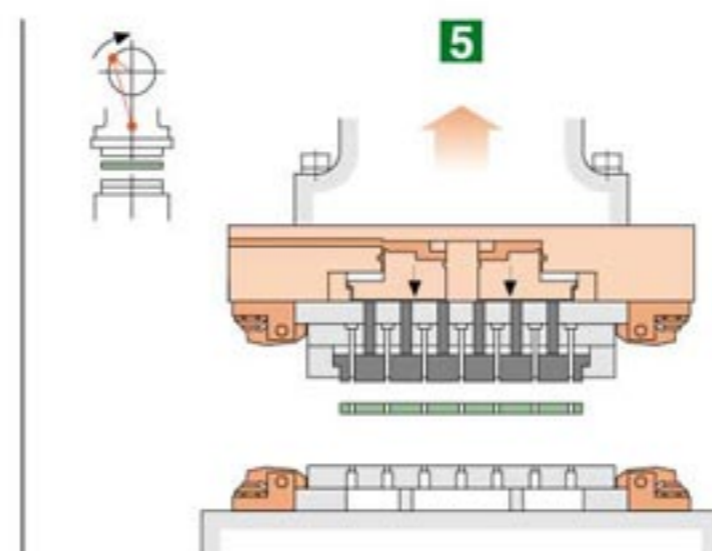
- 此系統利用油壓作動脫料盤脫料，不同於傳統機械式結構，避免板材，模具受沖床大力撞擊，可減少沖針斷裂，延長模具使用壽命。
- 脫料及壓板使用壓力，可依PC板之規格、材質作簡易的調整。
- 具有壓板功能，可避免沖孔時造成龜裂、剝離、產生鉅齒狀。
- 配備快速換模系統，可縮短換模時間，確保人員操作安全。

FEATURES

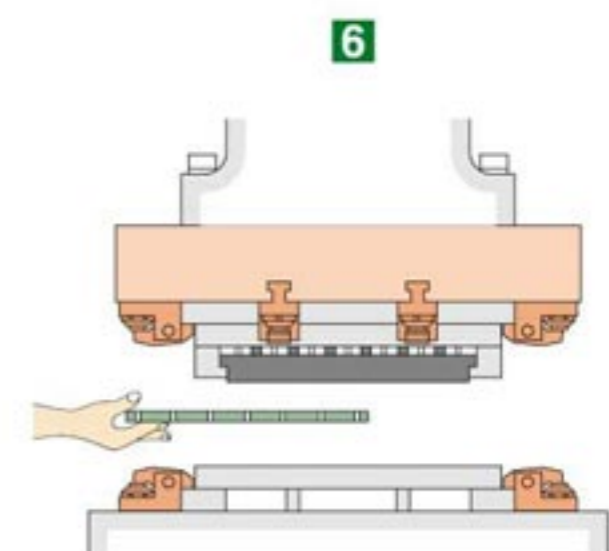
- This system employs hydraulic pressure for activating the plate to knock out . It is totally different from the conventional mechanical structure, and can prevent the board and the dies from being heavily impacted by the press,thus minimize the breaking of pierce pin and prolong the dies service life.
- Simple adjustment can be made for the operating pressure for knock out and holder according to the P.C. board materials and specifications.
- Holder function is provided in order to avoid cracking, flaking and burr during hole piercing.
- Quick die change system is equipped in order to minimize the dies changing time and ensure the work safety.



板材提昇 Lifting cycle



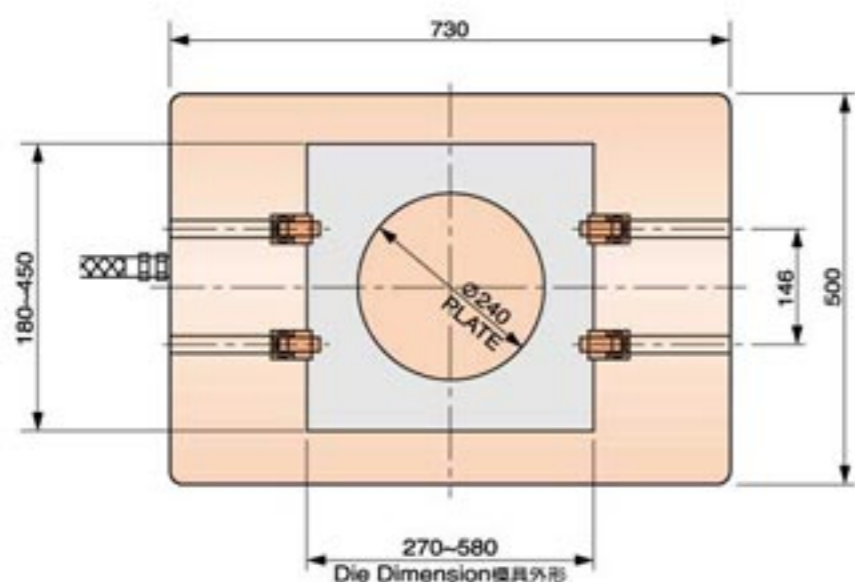
板材脫料 Knock out cycle



板材取出 Removing the board

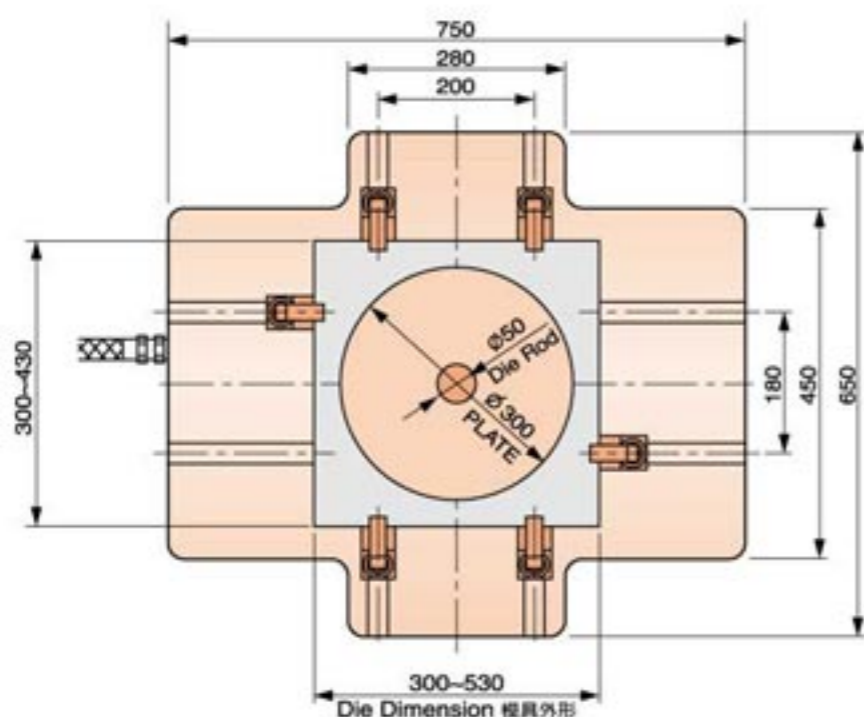
型式及外觀尺寸

MODEL & OUTLINE DIMENSIONS



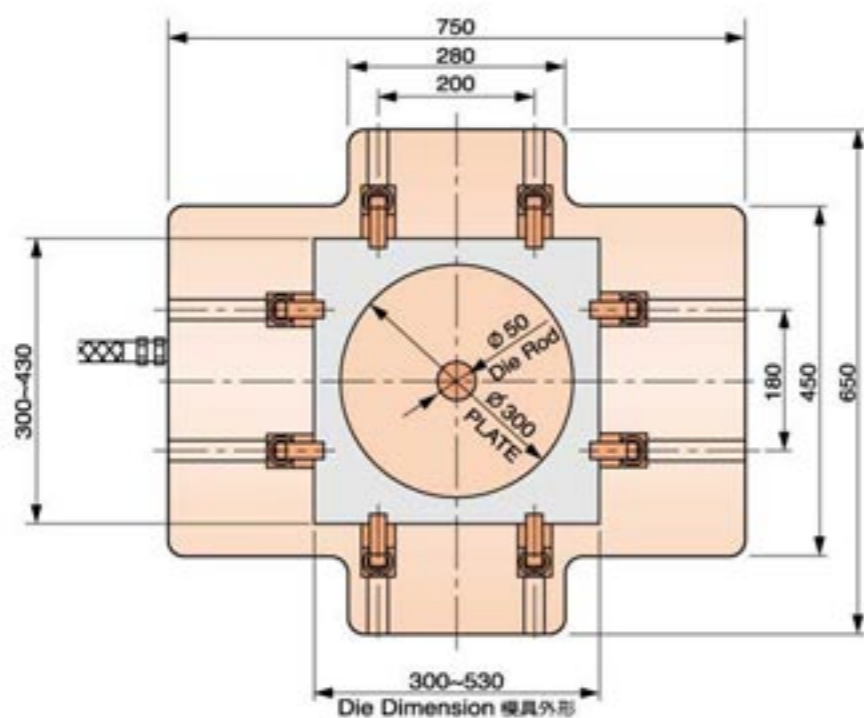
Model: SP-1

型式	Model	SP-1
適用沖床	Press Tonnage	齒輪式 Gear Type
脫料能力	Knock Out Capacity	(MAX) 11 tons
壓板能力	Holder Capacity	(MAX) 5 tons
脫料行程	Knock Out Pad Stroke	6 mm
脫料盤厚度	Plate Thickness	80 mm
脫料盤重量	Plate Weight	200 kg
上模夾具	Upper Die Clamp	4-CB2
下模夾具	Lower Die Clamp	2-CB2



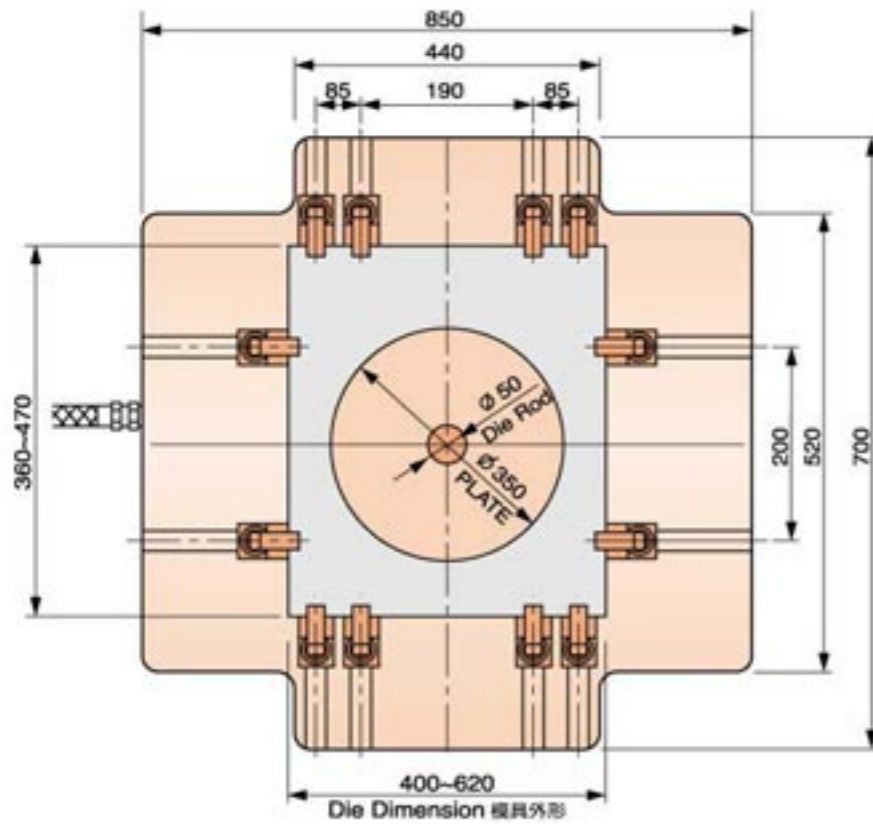
Model: SP-2

型式	Model	SP-2
適用沖床	Press Tonnage	45~80 tons
脫料能力	Knock Out Capacity	(MAX) 22 tons
壓板能力	Holder Capacity	(MAX) 10 tons
脫料行程	Knock Out Pad Stroke	5 mm
脫料盤厚度	Plate Thickness	100 mm
脫料盤重量	Plate Weight	330 kg
上模夾具	Upper Die Clamp	6-CB4
下模夾具	Lower Die Clamp	2-CB4



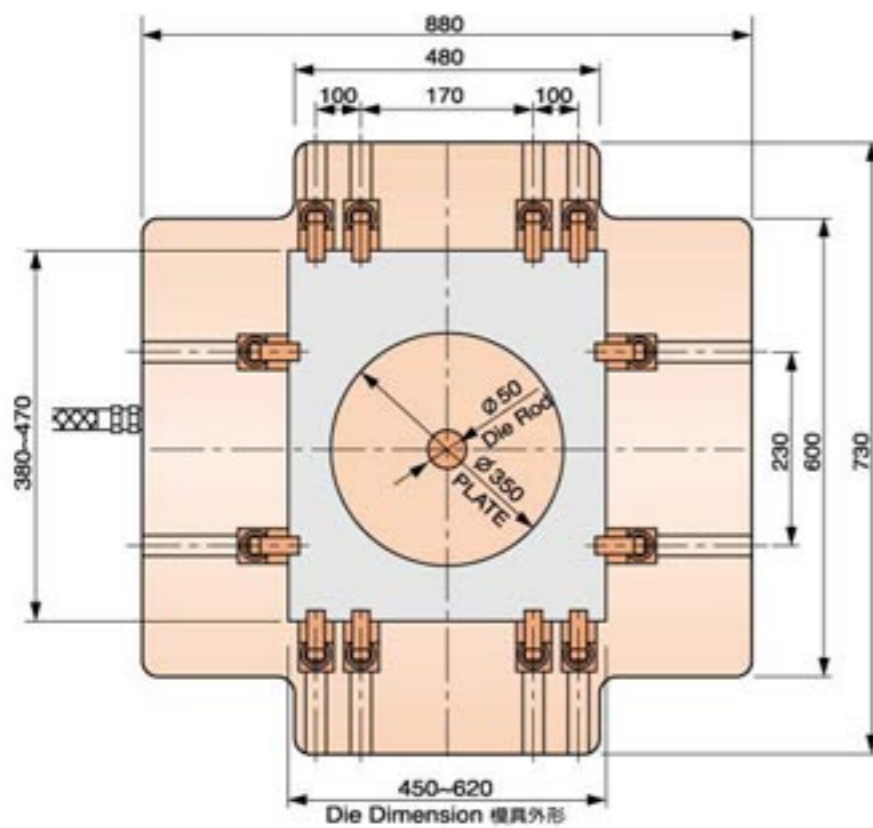
Model: SP-3

型式	Model	SP-3
適用沖床	Press Tonnage	80~100 tons
脫料能力	Knock Out Capacity	(MAX) 32 tons
壓板能力	Holder Capacity	(MAX) 16 tons
脫料行程	Knock Out Pad Stroke	5 mm
脫料盤厚度	Plate Thickness	100 mm
脫料盤重量	Plate Weight	340 kg
上模夾具	Upper Die Clamp	8-CB4
下模夾具	Lower Die Clamp	2-CB4



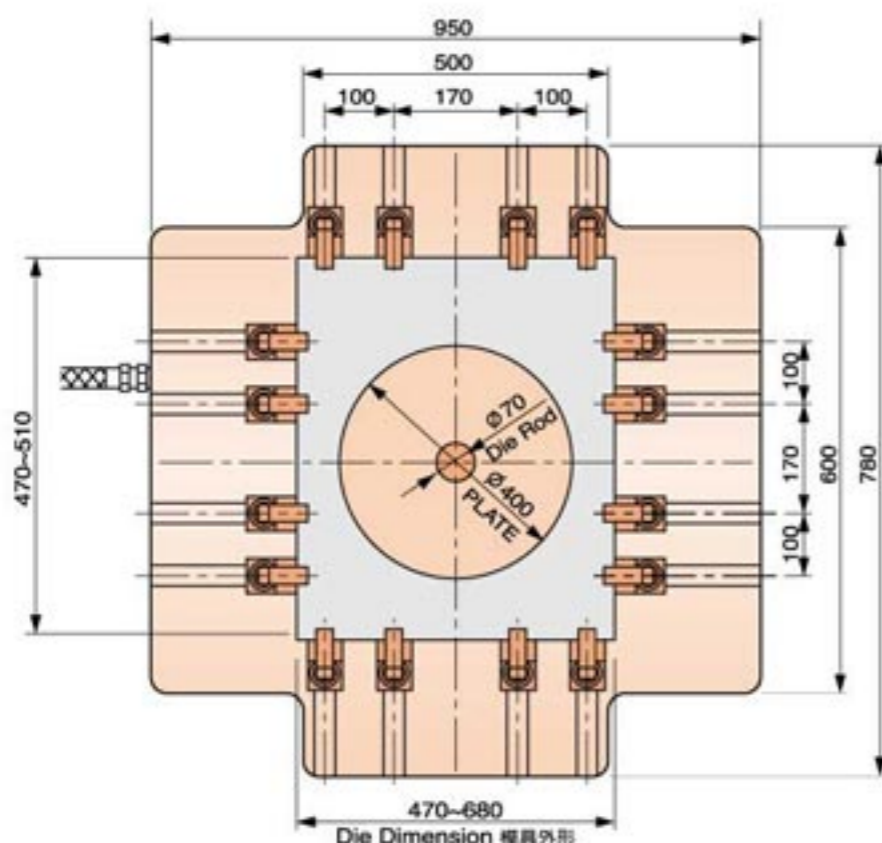
Model: SP-5

型式	Model	SP-5
適用沖床	Press Tonnage	110~150 tons
脫料能力	Knock Out Capacity	(MAX) 45 tons
壓板能力	Holder Capacity	(MAX) 22 tons
脫料行程	Knock Out Pad Stroke	6 mm
脫料盤厚度	Plate Thickness	130 mm
脫料盤重量	Plate Weight	580 kg
上模夾具	Upper Die Clamp	12-CB4
下模夾具	Lower Die Clamp	2-CB6



Model: SP-7

型式	Model	SP-7
適用沖床	Press Tonnage	160~200 tons
脫料能力	Knock Out Capacity	(MAX) 63 tons
壓板能力	Holder Capacity	(MAX) 31 tons
脫料行程	Knock Out Pad Stroke	6 mm
脫料盤厚度	Plate Thickness	148 mm
脫料盤重量	Plate Weight	770 kg
上模夾具	Upper Die Clamp	12-CB6
下模夾具	Lower Die Clamp	2-CB10



Model: SP-9

型式	Model	SP-9
適用沖床	Press Tonnage	250 tons
脫料能力	Knock Out Capacity	(MAX) 100 tons
壓板能力	Holder Capacity	(MAX) 50 tons
脫料行程	Knock Out Pad Stroke	7 mm
脫料盤厚度	Plate Thickness	150 mm
脫料盤重量	Plate Weight	880 kg
上模夾具	Upper Die Clamp	16-CB6
下模夾具	Lower Die Clamp	4-CB10

快速換模系統 QUICK DIE CHANGE SYSTEM

氣動油壓泵浦單元 AIR DRIVE HYDRAULIC PUMP UNIT

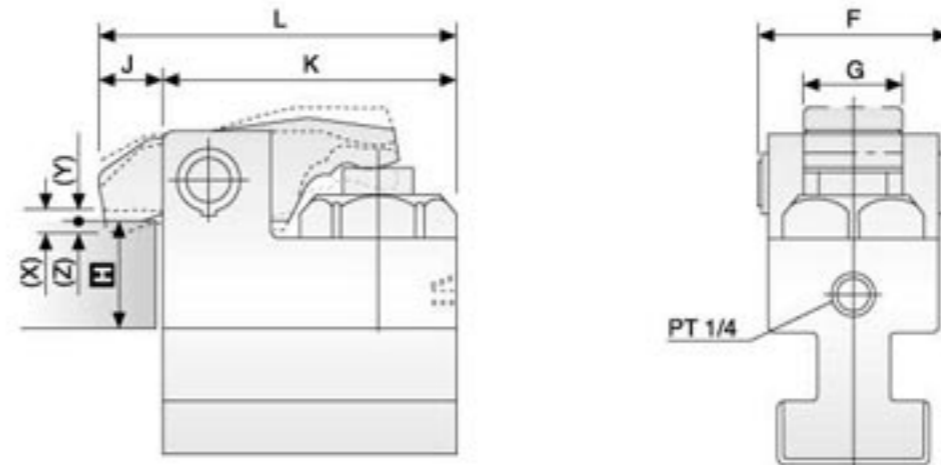


- 利用空氣壓力驅動泵浦，出口油壓達設定即停止作動不需繼續消耗能源，若出口壓力下降則自動補壓，具持續保持該壓力功能。
 - 迴路控制系統具逆止功能，空氣壓力消失時油壓壓力可保持。
 - 具壓力檢出功能，與沖床連線確保作業安全。
 - 油壓迴路分上模及下模夾具二迴路控制。
- Use the air drive hydraulic pump. Once the outlet hydraulic pressure reaches the set pressure, it will stop driving which won't waste any energy. Or, it will add the pressure automatically if the outlet pressure is reducing. it consists of the function to keep the pressure continuously.
 - The circuit control system has the function of check. If there is no pneumatic pressure, the hydraulic pressure will still keep.
 - Pressure inspection function is provided, which is on-line with the press for ensuring work safety.
 - There are 2 hydraulic control circuits for upper and lower dies respectively.

夾模夾具 DIE CLAMP



外型尺寸 Outline dimensions:



規格說明 Instruction of specification :

型式	Model	CB-2	CB-4	CB-6	CB-10
夾力	Capacity of clamp tons	2	4	6	10
總行程	Total stroke (X) mm	8	8	8	8
夾具行程	Stroke of clamp (Y) mm	4	4	4	4
預留行程	Preserved stroke (Z) mm	4	4	4	4

型式 MODEL	L	K	J	F	G	上模 Upper die H	下模 Lower die H
CB-2	110	90	20	68	32	30~34	60~64
CB-4	134	110	24	79	40	30~34	60~64
CB-6	159	130	29	96	46	30~34	60~64
CB-10	189	159	30	117	54		60~64

上述 **H** 尺寸為一般正常模板使用厚度。 **H** is the die clamp thickness for normal operation.

電控操作箱 CONTROL OPERATION PANEL



- 夾模操控鈕配有鎖匙，具有防止誤操作之安全控制。
 - 夾模系統分上模、下模之夾模正常及異常燈號指示，易於分辨。
 - 附脫料位置選擇開關可分：
 - (1) 0° 脫料：沖孔完成，沖床滑塊上昇至9點方向以上(可調整)才脫料。
 - (2) 180° 脫料：沖孔完成，直接於下死點脫料。
- A key is provided as a safety feature for the die clamp control knob for avoiding misoperation.
 - The die clamp system is provided with normal and abnormal indicating lights for upper and lower dies respectively for easy identification.
 - Equipped with knock out position selector switch for:
 - (1) 0° Knock out: When holes pierced, the press slide upward rapidly to 9 o'clock direction (adjustable) for knock out.
 - (2) 180° Knock out: Knock out is done directly at lower dead point When holes pierced.

訂購時請告知下列資料 PLEASE SPECIFY THE FOLLOWING WHEN ORDERING

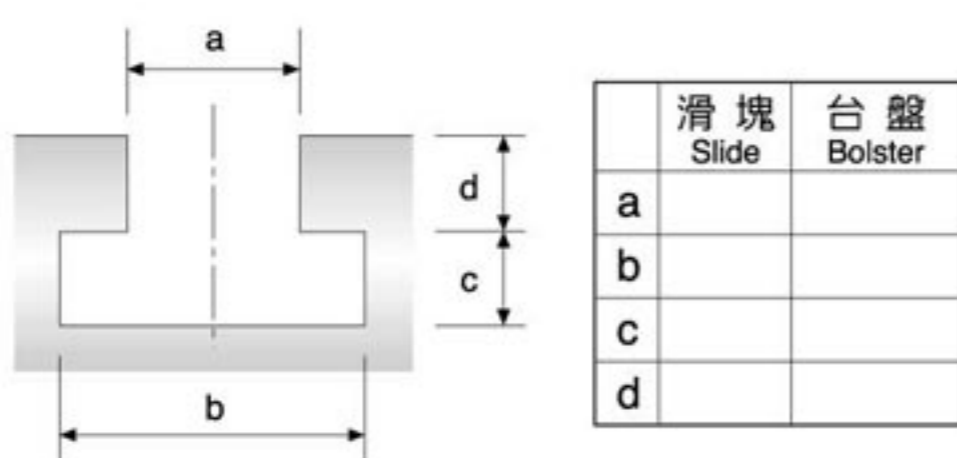
沖床規格 SPECIFICATIONS OF PRESS

機型	Maker & Model	
沖壓能力	Capacity	ton
行程	Stroke	mm
最大模高	Die Height (Max.)	mm
滑塊調整	Slide Adjustment	mm
電控電壓	Control Volt'	V

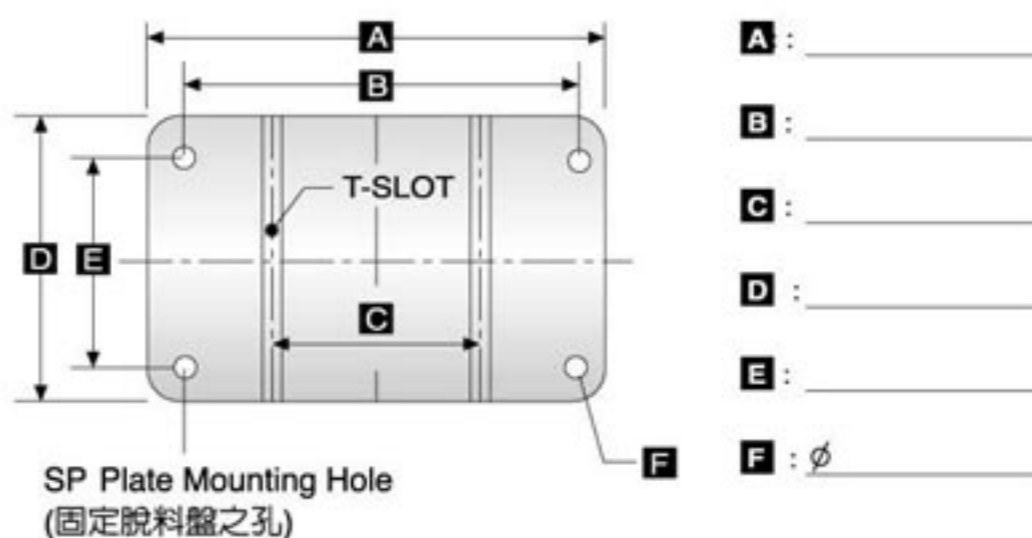
模具外型 DIE DIMENSIONS

寬度 Width	M	MAX.	mm
		MIN.	mm
深度 Depth	N	MAX.	mm
		MIN.	mm
模板厚度 Templet Thickness	H1		mm
	H2		mm

沖床T型槽 T-SLOT OF PRESS



沖床滑塊底面圖 PRESS SLIDE BOTTOM VIEW



外型尺寸 OUTLINE DIMENSIONS

