

Automatic CNC

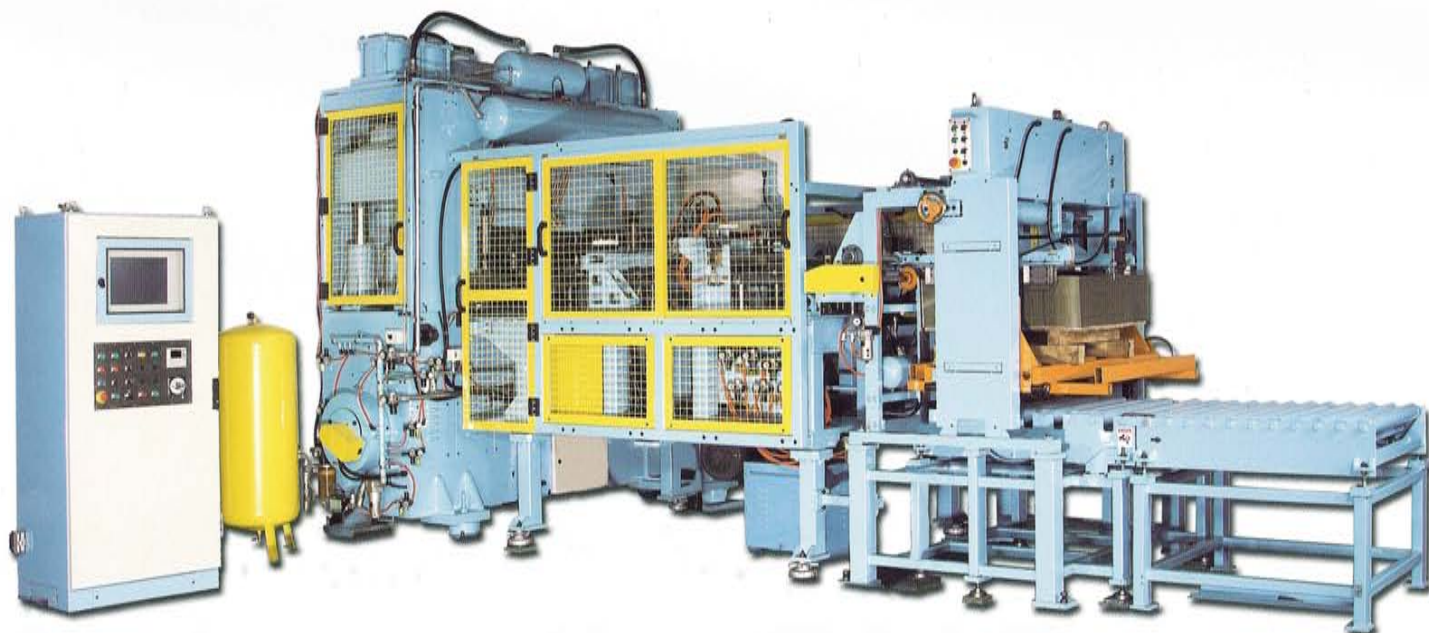
# CNC自動全張鐵皮送料沖床

Automatic CNC Sheet Feeding Press

S-B23BH+S-B86A+S-B85A

CE  
available

ISO 9001  
BSMI  
REGISTERED



Double Action!



Shin-I

新 益

SINCE 1956

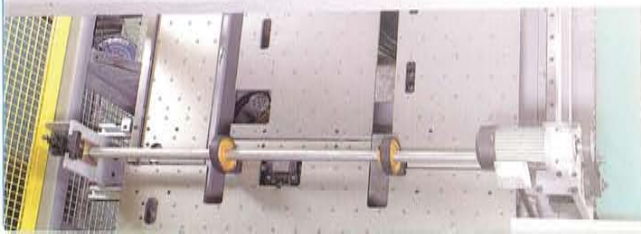
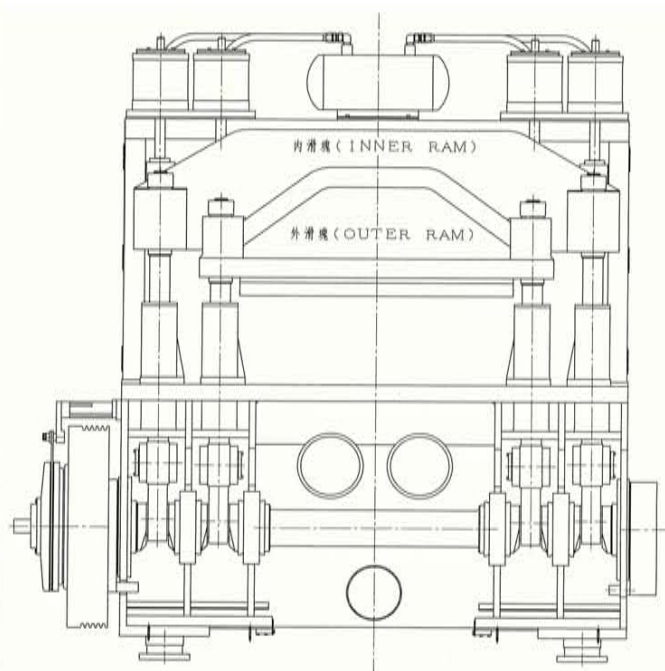
新益機械工廠股份有限公司  
SHIN-I MACHINERY WORKS CO., LTD.

# CNC自動全張鐵皮送料沖床

## Automatic CNC Sheet Feeding Press

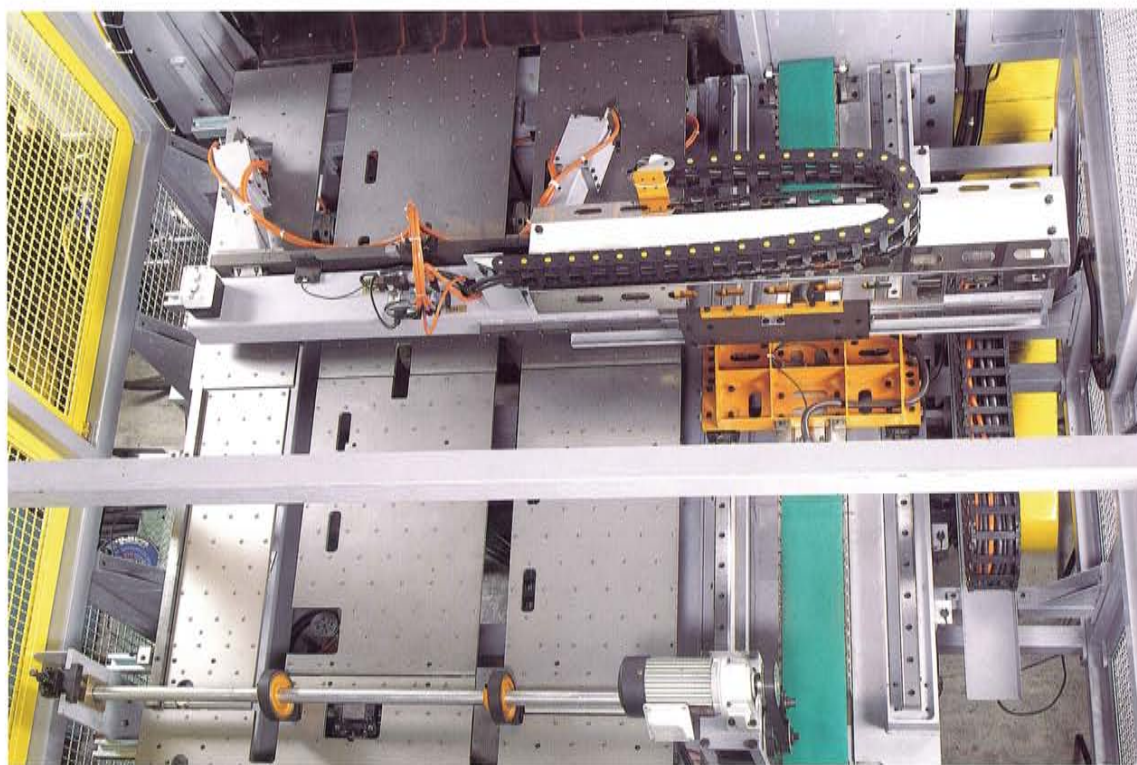
此套CNC全張鐵鋁皮送料沖床為三軸同步運動之現代化沖蓋用沖床，採用精密線性伺服馬達及其控制系統，可程式控制整合料片交接系統，送料精準確實。另外，利用人機介面作為核心控制執行資料傳輸及顯示，安全可靠。沖床本體採用單曲軸雙滑塊設計使沖剪毛邊位於罐蓋捲緣內側，可以有效減少罐蓋因堆疊運送所產生之擦傷。

This CNC sheet feeding press equipped with three axis synchronized movement is suitable for tin or aluminum end stamping. Reliable linear servo motors, and PLC control system are incorporated. Programmable integrated sheet take-over system can get precise sheet feeding. Besides, a reliable human-machine interface is introduced as a main control unit for data transmission and display. Single crankshaft with double action makes the cutting bur stay at the inner side of the curl. This can avoid the scratch on the end seaming panel while ends are piled up during transportation.



## 特點

- 採用人機介面觸控螢幕作為核心，螢幕可顯示各軸實際運動曲線。
- 送料運動曲線自動產生及傳輸下載，換型參數設定容易。
- 採用穩定性高之精密線性伺服馬達，降低高速運動時產生之慣性。
- 單軸手動正負轉測試及自動產生之運動曲線並檢核是否超出各軸之能力範圍，安全保證。
- 附電眼偵測送料夾是否確實夾料
- 多重安全控制，如氣壓不足、無油、馬達過載、出口卡蓋等停機控制及各軸極限安全防護。
- 配備空氣離合器，確實可靠。
- 導柱式沖模直接由沖床側向推入，換型快速。
- 氣動式入口面板升降及氣動式排廢料機構升降，方便調整及維護模具。
- 排蓋控制時序採用電子凸輪調整，以防止雙沖。
- 曲柄軸軸襯採用自動機油循環強制潤滑系統及油溫冷卻系統。
- 四個滑塊緩衝氣缸平衡滑塊及模具重量。
- 適用於直邊或預波鐵鋁皮。



送料台及送料三軸  
Sheet Feeding Table and Three Axis

## Features

- Human-Machine Interface (15" touchable screen) acts as a main control unit.
- Movement orbit generate and download automatically, easy for different end size parameters set up.
- With reliable linear servo motors to reduce the inertia at high speed.
- Each axis movement can be manually checked. Besides, created movement orbit is confirmed automatically to ensure if it is within the safety range on each axis.
- Equipped with sensors to detect if the clips certainly hold the sheet.
- Multiple safety control; for example, machine stop for low air pressure, lack of oil, jam at exit. Moreover, safety range detection on each axis is equipped.
- Equipped with air brake clutch, safe and reliable.
- Tooling with pillar die set can be easily pushed into via rollers buried on bolster.
- Pneumatic cylinders are equipped to lower scrap ejection system and inlet guide plate to easily access the toolings.
- End ejection is controlled by electronic cam adjustment to avoid double punch.
- Bushes on crankshaft are properly lubricated by an automatic recycling oil pump. An oil cooling system is incorporated.
- Four sets of air cushion cylinders located at upper side to balance the weight of rams and toolings.
- Suitable for straight or pre-scrolled tin /aluminum sheet.



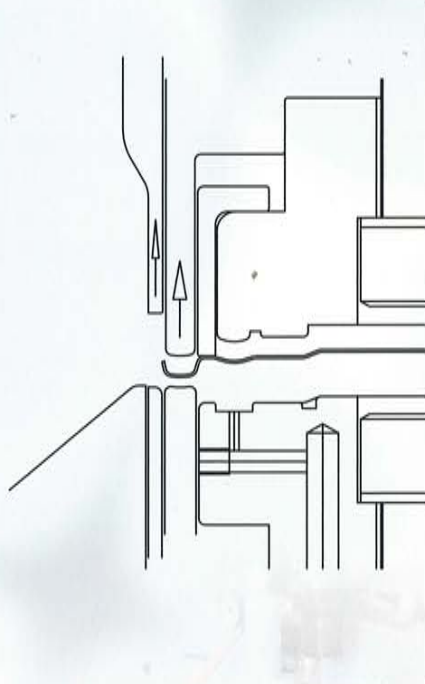
定位吸盤  
Positioning Suction Pad



送料夾 Sheet Clips

## 動作原理

鐵鋁皮於送料機S-B23BH內經分離器分離後由真空吸盤送入CNC送料機S-B86A，經由吸盤導正後，Y2軸夾住料片先將料片送至交接區，Y2軸將料片送入沖床S-B85A沖第一孔，在此運動過程中同時完成Y1，Y2軸爪夾料交接。Y2軸退回原點準備夾送下一張料，X1及Y1軸負責沖第二孔以後之料片夾送，X1軸左右移動Y1軸向前移動。沖最後一孔後X1及Y1軸退回交接區準備接收下一張料片，在此退回過程中沖床約有2次之空沖。外滑塊執行剪切，內滑塊執行罐蓋成形。沖製好之罐蓋由高壓空氣自沖模處排出後由輸送機帶出，鐵鋁皮廢料由滾輪排出。



罐蓋成形 End Forming



沖模側向入口及雙滑塊  
Tooling Entrance and Dual Rams



沖模及導柱模座  
Punch Toolings and Pillar Die Set



線性伺服馬達  
Linear Servo Motor

## Working Principle

In the sheet feeder S-B23BH, sheet is separated by separating device then is fed by vacuum pads into CNC feeding unit S-B86A. Sheet is positioned well by a suction pad then Y2 axis clips the sheet and moves the sheet to take-over area first. Y2 axis carry the sheet forward into press S-B85A for first punch. At the same time, Y1 axis takes over the sheet from Y2 axis. Y2 axis withdraws to origin for next sheet feeding, X1 and Y1 axis take the responsibility for succeeding punches. X1 axis moves left-right while Y1 axis moves forward. After last punch, X1 and Y1 axis return back to take-over area to receive next sheet. There will be 2 idle strokes during this withdraw. Outer ram undertakes cutting while inner ram fulfills end forming. Ends are ejected out by air blowing and carried away by conveyors, sheet scrap is ejected by rollers.

# 規格 Specification

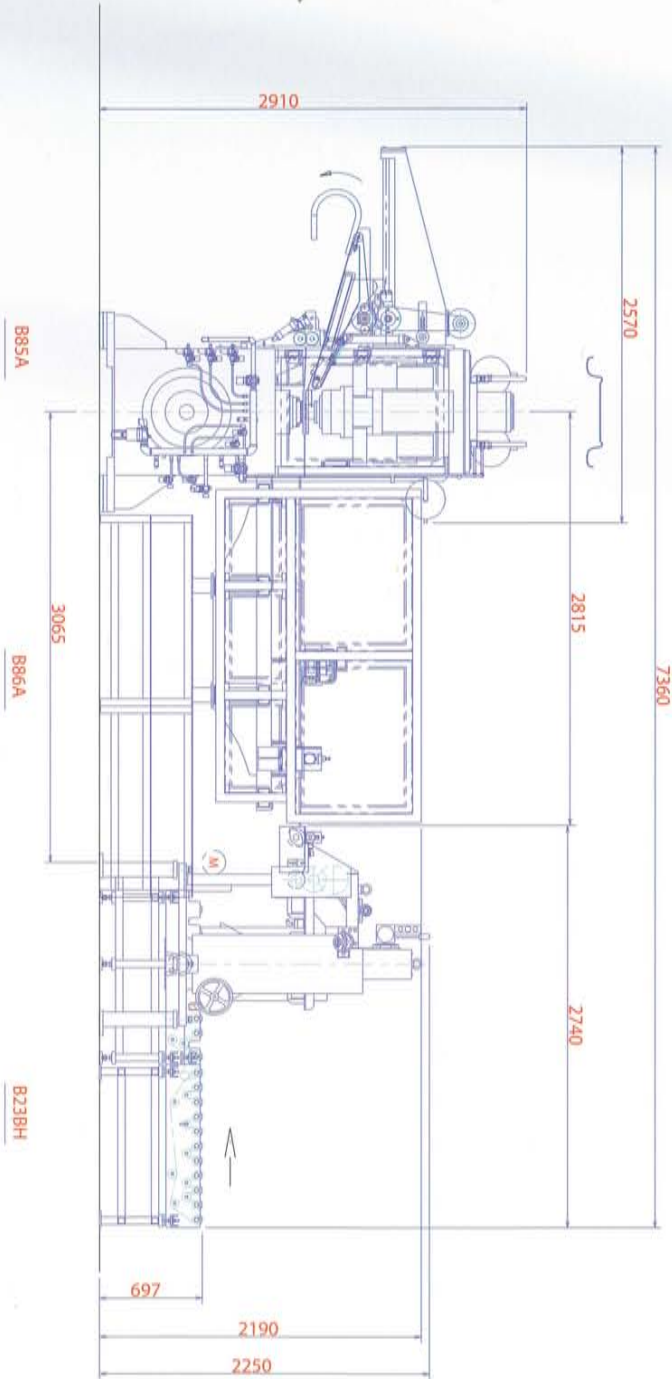
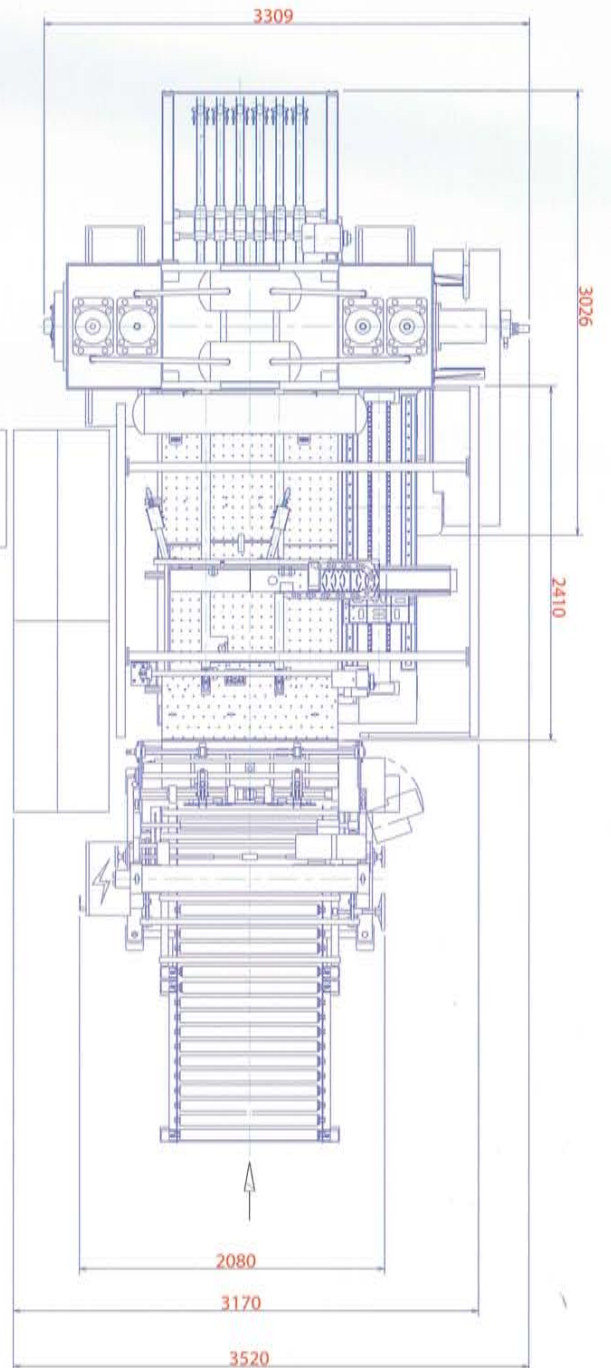
|                                                        |                                                          |
|--------------------------------------------------------|----------------------------------------------------------|
| 機型 MACHINE TYPE                                        | S-B23BH, S-B86A, S-B85A                                  |
| 適用罐徑 Range of end dia                                  | 113D~603D                                                |
| 沖模模數 Number of tooling set                             | 2~8 sets (依罐蓋及鐵皮尺寸而異)<br>(Depends on end and sheet size) |
| 每分鐘產能 Capacity per min                                 | variable 100~220 strokes                                 |
| 適用鐵皮尺寸 Sheet Size range                                | (700~1067)W x (830~1067) Lmm                             |
| 沖床噸數 Capacity of press                                 | 30/60 tons.                                              |
| 需要馬力 X1,Y1,Y2 各軸<br>Horse power required X1,Y1,Y2 axis | 3 Kw, 5 Kw, 3 Kw                                         |
| 沖床主馬達 Main motor for press                             | 30 HP x 6 P                                              |
| 排蓋輸送帶馬達 End discharge conveyor                         | 1 HP x 6 P                                               |
| 排廢料馬達 Scrape discharge conveyor                        | 1/2 HP x 6 P                                             |
| 空壓機馬達 Air compressor motor                             | 30 Hp                                                    |
| 外滑塊面積 Area of outer ram                                | 1350 x 300 mm                                            |
| 內滑塊面積 Area of inner ram                                | 1640 x 200 mm                                            |
| 台盤面積 Area of bolster                                   | 1640 x 300 mm                                            |
| 外滑塊最大閉模高 Max. die height of outer ram                  | 380 mm                                                   |
| 內滑塊最大閉模高 Max. die height of inner ram                  | 510 mm                                                   |
| 外滑塊行程 Stroke of outer ram                              | 60 mm                                                    |
| 內滑塊行程 Stroke of inner ram                              | 80 mm                                                    |
| 安裝面積及高度 Floor space overall height                     | 7360 L x 3520 W x 2910 H mm                              |
| 淨重 Net weight (approx)                                 | Kgs                                                      |

\*最小鐵鋁皮長度依罐蓋尺寸而異

\*Min. sheet length depends on end size.

註：規格如有變更，恕不另通知 Subject to change without notice.

實際產能依罐蓋尺寸而定 Actual capacity depends on end size.





罐蓋出口輸送機及排廢料滾輪  
End Discharge Conveyor and Scrap Ejector



空壓系統 Air Supply System

## 主要產品 Main Business

- 馬口鐵罐空罐製罐設備整廠輸出（用以生產飲料罐、食品罐、高壓噴霧罐、二片引伸罐、油漆罐、一加侖油罐、奶粉罐及其他空罐）
- 食品罐頭機械（真空封罐機、加湯機.....等）
- 爪蓋製造全線設備
- 高壓噴霧罐上下蓋製造全線設備
- 詳細資料請參觀我們的網頁
- Complete line of tin can making machinery for food, beverage, aerosol, DRD, paint, milk powder and other cans.
- Food canning machinery including vacuum seamer, liquid filler...etc.
- Twist-off cap (lug cap) production line.
- Aerosol cone/dome forming and lining machine.
- Punch dies and other toolings for can making industry.
- Please visit our web site for more information.

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