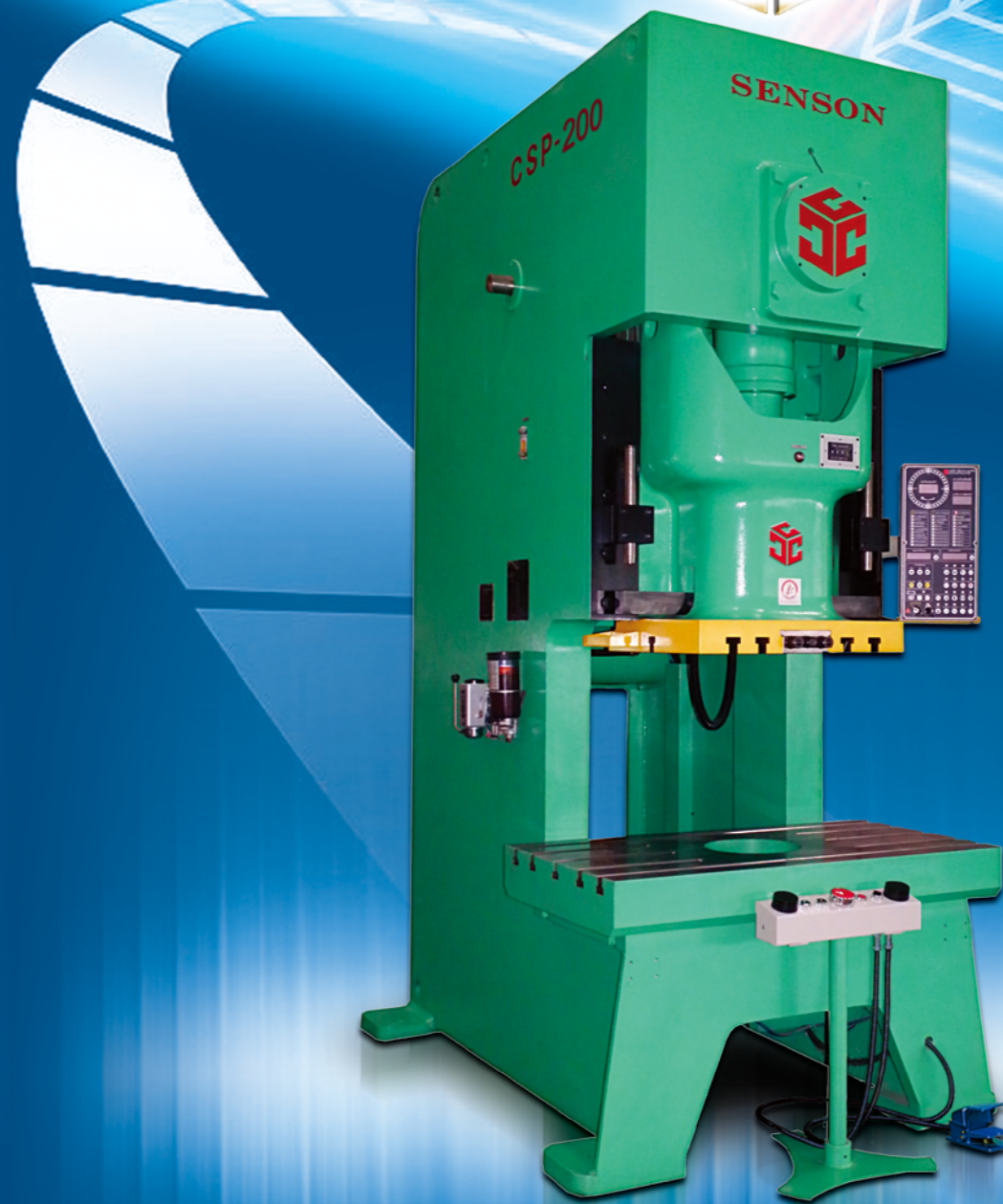




C型直軸式精密沖床 C-FRAME SINGLE CRANK PRECISION POWER PRESS

CSP-25 / 35 / 45 / 60 / 80 / 110 / 160 / 200 / 260
25~260 tons



SENSON



since1976

千昌機械股份有限公司

CHIAN CHANG MACHINE CO., LTD.

CHIAN CHANG MACHINE (THAILAND) CO., LTD.

營業處: 新北市蘆洲區三民路196號

Office: No.196, Sanmin Road, Luchou Dist., New Taipei City 247, Taiwan

Tel: 886-2-22818331, 22810904, 22828461 Fax: 886-2-22829202

E-mail: chenchan@ms12.hinet.net

Web Site: <http://www.senson.com.tw>

工廠: 台南市後壁區長短樹50號之5

Factory: No. 50-5, Changduanshu, Houbi Dist., Tainan City 731, Taiwan

Tel: 886-6-6623329, 6623339 Fax: 886-6-6622772

E-mail: csp.hsp@msa.hinet.net

千昌泰國廠: 泰國春武里府暹縣農黎村第5社區5/1號 20000

Factory: No.5/1 Moo 5, Nongree, Muang, Chonburi, 20000 Thailand

Tel: 038079618-21 Fax: 038079622



2014.05

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C型直軸式精密沖床 C-FRAME SINGLE CRANK PRECISION POWER PRESS

滑塊及模具平衡裝置
Counter balancer (Equilibrating cylinders)

自動送料軸(在左側，送料方向左→右)
Power take-off feed shaft
(feed direction:left → right)

沖桿
Connecting rod

球螺桿
Ball Rod

六面寬長型導軌
Six-face wide-and-long guide rail

頂料裝置
Knock out device

手動黃油加油器
Manual grease pump

機油加油器
Oil pump

平板(台盤)
Bolster

二度落防止裝置
Anti-repeat device (Overrun detector)

數字式模高指示器
Die height indicator

沖頭滑塊
Slide

曲軸角度LED顯示
Crank angle LED display

光電護手安全裝置
Safety light curtain

移動式按鈕操作箱
Portable push button operation stand

腳踏開關
Foot switch

六面寬長型導軌 Six-face wide-and-long Guide Rail

六面寬長型導軌採磷青銅材質，耐磨耗並能確保滑塊平穩且精確運作，不但促進工作效率，生產完美品質，更可延長模具壽命。

Six-face wide-and-long guide rail is made of phosphor bronze, which is excellent resistance and ensures smooth and accurate slide movement. Not only improves work efficiency with perfect production quality but also extends die life.

模高指示器 Die Height Indicator

25~260噸全系列沖床採電動調整滑塊深度裝置並經獨特之氣壓鎖定。直接於雙手按鈕操作台按鍵調整滑塊昇降度，裝模容易、迅速，且模高深度定位準確。

CSP-25~60模高指示精度可達0.01mm單位；CSP-80~260指示精度為0.1mm單位。搭配刀模或鋼模沖製半斷/全斷成品(如高科技產品零件、貼紙、泡棉、Myler,PVC,EMI...)精確且易如反掌。

This series of presses from 25 to 260 Tons are all equipped with an easy-to-use motorized slide adjuster, and the slide depth is locked by a unique pneumatic mechanism. Easily and quickly adjust accurate die height by pushing up and down buttons on the operation stand. Die height is indicated digitally in 0.01mm increments for CSP-25~60, and in 0.1mm increments for CSP-80~260.

This accurately and easily match up precision dies for semi or whole-cutting products like stickers, rubber foam, Myler, PVC,EMI,etc.

電動式滑塊調整馬達 Slide Adjust Motor



光電護手安全裝置 Safety Light Curtain

安裝在沖床作業台面前端兩側，當手或身體進入其防護範圍時，沖床立即停止以保護操作者的安全。

When hands or bodies enter into the sensor protective range, the machine will immediately stop to protect the operators from the risk of injury.



球螺桿 Ball Rod

採SCM4合金鋼材質，使用壽命特長；球螺桿螺母採用鋁青銅加工成型，運轉精確平順。The ball rod is made of SCM4 alloy-steel for longer duration. Extra aluminum bronze is added as its nut for accurate movement without sudden changes.

CSP-25~CSP-260 TONS

譯碼器
Encoder

觸控式按鍵控制面板及控制箱
Touch screen control panel and box

氣壓調整器
Air pressure regulator

主馬達
(國外採無段變速VS馬達)
Main motor
[Variable speed(V.S)
motor for overseas market]

濕式煞車離合器
Wet type clutch brake

電動式滑塊調整馬達
Slide adjust motor

油壓式超負荷保護裝置
Hydraulic overload protector

高剛性機架
High rigid frame

高剛性機架 High Rigid Frame

機架採剛性極佳之鋼板焊接後經退火熱處理，承受力及延展性極佳，堅實耐用。The machine frame is welded with excellent rigid steels and treated by annealing, it is very tough, ductile, strong, and durable.

譯碼器 Encoder

本沖床採新型多功能可程式控制器(PLC)作為控制核心，經由譯碼器同步監控系統狀態，沖床動作更為穩定且安全。

The machine adopts multi-function P.L.C., simultaneously monitor the system status by an encoder, so punching movement is stable and safe.

油壓式超負荷保護裝置 Hydraulic Overload Protector

沖床滑塊裝有油壓式超負荷保護裝置，用以保護沖床及模具之安全，無咬模之顧慮。

When an overload occurs, the press instantly goes into emergency stop mode to protect the die and the press, without concern about die jam.

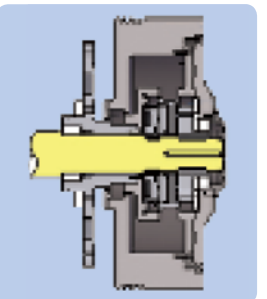
適用範圍廣泛 Extensive Scope of Application

滑塊底面積及平板面積寬廣，適合各種汽機車零件、機械零件、電器五金、及PC零件(如外殼、CD-ROM、散熱片、軟/硬板沖孔..等)之抽拉、沖壓作業。

Broad slide bottom and bolster are suitable for the drawing and punching operation with various automotive, motorcycle and machine components, appliance and hardware parts, and computer parts like Cases, CD-ROM, Fan, PC board.

濕式煞車離合器 Wet Type Clutch Brake

使用浸油濕式來令片，煞車敏捷，耐磨損，壽命長。適用於無塵室，無污染低噪音，符合環保。(另有乾式煞車離合器可供選擇) Use oiled wet type brake pad: Quick brake, wear resistance and long lifetime. Suitable for clean room, zero pollution, low noise and environment protection.(Compound clutch brake could be the other choice for customers.)



濕式煞車離合器
Wet type clutch brake



乾式煞車離合器
Compound clutch brake

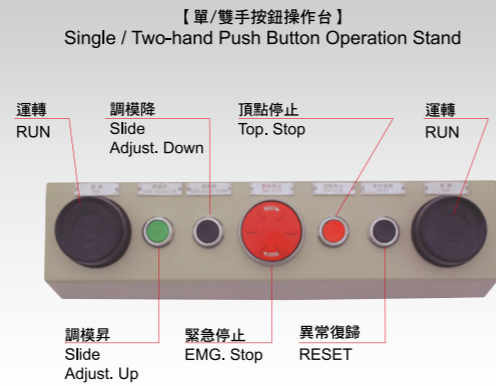


先進多功能控制器 MULTI-FUNCTION CONTROLLER

防油污觸控式控制面板 Touch Screen Control Panel

搭配曲軸角度LED顯示器及電子數字顯示幕，沖床運轉狀態易懂易操作。直接於觸控式面板設定欲動作及停止角度，免除傳統PLC及繼電器迴路須自凸輪箱調整角度之不便。值得一提的是，本機可細調動作角度每1度的變化量，符合最精密的製程。另備有電子式凸輪5組，可自由規劃角度功能輸出搭配沖床週邊設備，自動化作業便利。

A multi-function controller with crank angle LED display and digital screen, easy-to-see and easy-to-operate. Direct input desired movement and stop angles on the touch screen control panel, without the trouble of adjusting angles from the cam box for conventional PLC and relay loop. It is worth mentioning that the variation associated with each degree fine-tuned in the machine matches perfectly with the most precise manufacturing process. Five (5) addition electronic rotary cams are ready for connecting with press peripherals for automatic operation.

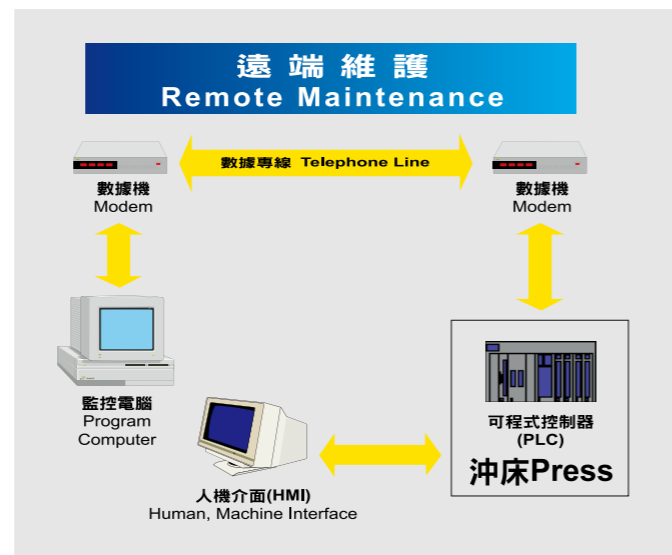
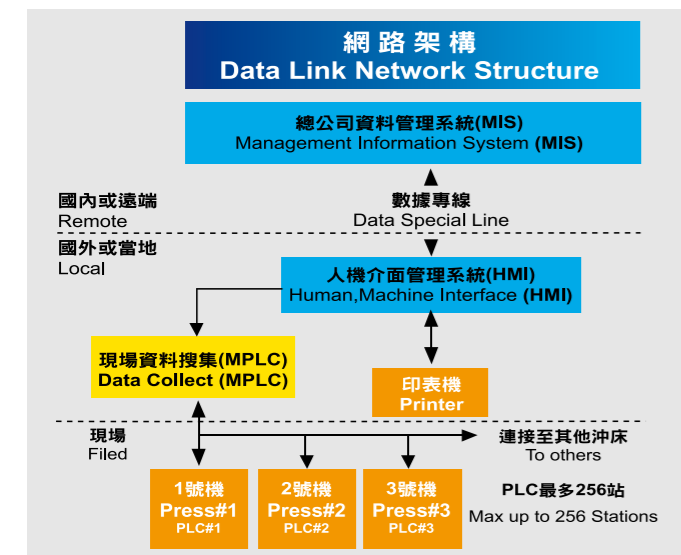


◎ 多台開放式網路連結功能: ◎ Open network for a number of presses:

一個網路可提供256台沖床同時連線，整廠集中監控，降低管理成本，提高產業競爭力。
(該功能軟、硬體為選擇配件並視客戶實際需求編寫，費用另計。)
A network can simultaneously serve 256 online presses. The entire plant is under centralized monitor, so the management cost is considerably reduced and the business competitiveness is greatly improved.
*Additional charge for the software and hardware depends on customer's needs. (Optional Accessory)

- 曲軸角度LED顯示 Crank Angle LED Display
- 系統狀態顯示 System Status Display
- 總量計數設定 / 顯示, 功能參數設定 / 顯示 Total Counter Setting/Display, Function Parameter Setting/Display
- 程式設定 Program Setting
- 馬達狀態 Main Motor Status
- 電源開關 Power On / Off
- 調速旋鈕 Speed Adjuster
- 沖床轉速顯示 S.P.M. LED Display
- 異常碼指示 Error Monitor (Error Code Display)
- 批量計數器 Product Lot Counter
- 操作功能設定鍵 Function Setting Key
- 操作模式選擇鍵 Operation Modes ("Off," "inching"/"single"/"continuous"/"safe single")

選購配備 Optional Equipment



配件一覽表 ACCESSORIES

標準型配件 Standard Accessories

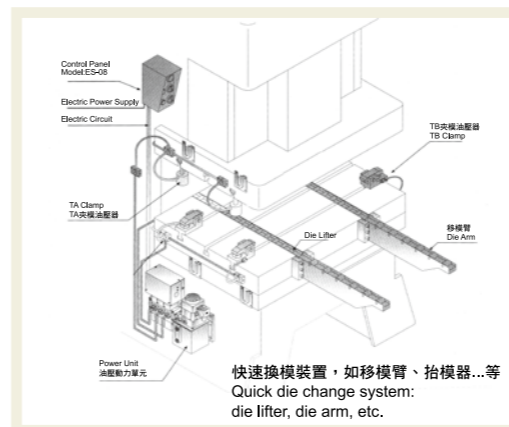
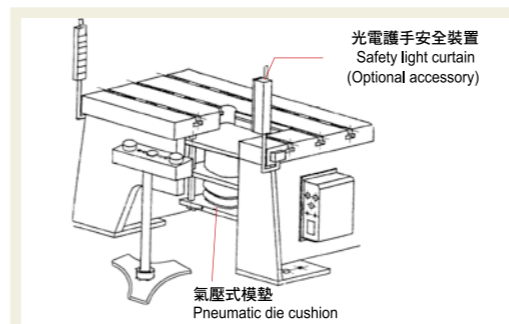
- ▶ 選擇開關 (切、寸動、單動、安全一行程、連續) Operation modes ("off", "inching"/"single"/"safe single"/"continuous")
- ▶ 複合式煞車離合器 Compound clutch & brake
- ▶ 滑塊及模具平衡裝置 Counter balancer (Equilibrating cylinders)
- ▶ 電動式滑塊調整裝置 Motorized slide adjuster
- ▶ 數字式模高指示器 - CSP-25 ~ 60噸 : 以0.01mm為單位 CSP-80 ~ 260噸 : 以0.1mm為單位 Die height indicator - In 0.01mm increments for CSP-25 ~ 60, In 0.1mm increments for CSP-80 ~ 260.
- ▶ 譯碼器 Encoder
- ▶ 360° 曲軸角度LED顯示器 Crank angle LED display
- ▶ 沖床轉數顯示器 S.P.M. LED display
- ▶ 批量計數器(可預調, 6位數) Product lot counter (Preset, 6-digit)
- ▶ 總量計數器(可預調, 6位數) Total counter (Preset, 6-digit)
- ▶ 煞車角度監視裝置 Brake angle monitor device
- ▶ 截斷輸出裝置2組 Cutting outlet: 2-set
- ▶ 備用電子式凸輪4組, 可自由規劃角度功能輸出 Spare electronic rotary cams: 4-set
- ▶ 定期里程保養自動檢知 Mileage maintenance reminder
- ▶ 前一日/前一個月/前一年產量紀錄備查 Pre-date/month/year production performance recorder
- ▶ 變頻器(國外採:無段變速V.S.馬達) Inverter (or Variable speed V.S. motor -for overseas market)
- ▶ 主馬達正轉/逆轉裝置 "FOR." & "REV." modes for main motor
- ▶ 頂料裝置 Knock out device
- ▶ 手動黃油加油器 Manual grease pump
- ▶ 空氣吹料裝置 Air ejector
- ▶ 空氣源插座 Air source socket
- ▶ 電源插座110V,5A (國外採:220V,5A) Power socket 220V, 5A (for overseas market)
- ▶ 自動送料軸 (在左側,送料方向:左-->右) Power take-off feed shaft (feed direction:left-->right)
- ▶ 移動式按鈕操作箱 Portable push button operation stand
- ▶ 腳踏開關 Foot switch
- ▶ 防震腳墊 Rubber mount (shock absorber)
- ▶ 維護工具及工具箱 Maintenance tools with box
- ▶ 操作保養說明書 Operation Manual

安全裝置保護人身或模具 Safety devices for protecting workers or tools :

- ▶ 油壓式超負荷保護裝置 Hydraulic overload protector
- ▶ 誤送檢知迴路3組(A,B) Mis-feed detective circuit: 3-set (A,B)
- ▶ 二度落防止裝置 Anti-repeat device (overrun detector)
- ▶ 光電護手安全裝置 Safety light curtain

選購配件 Optional Accessories

- ▶ 氣壓式模墊 Pneumatic die cushion
- ▶ 油壓式模墊 Hydraulic die cushion
- ▶ 電動黃油加油器 Auto grease pump
- ▶ 空氣送料機 Air feeder
- ▶ 滾輪送料機 Roll feeder
- ▶ 自動材料整平機 Auto material straighter
- ▶ PC板沖孔脫料系統 PC Board punching removal system
- ▶ 快速換模裝置, 如抬模器、移模臂...等 Quick die change system: die lifter, die arm, etc.



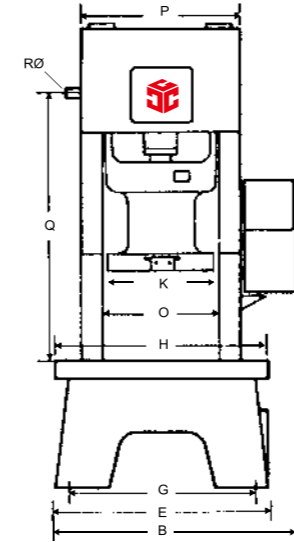
規格表 SPECIFICATION

| 型號 Model Number | CSP-25 | CSP-35 | CSP-45 | CSP-60 | CSP-80 | CSP-110 | CSP-160 | CSP-200 | CSP-260 | | | | | | | | | | | |
|--|------------|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 沖壓能力(噸) Capacity (tonf) | 25 | 35 | 45 | 60 | 80 | 110 | 160 | 200 | 260 | | | | | | | | | | | |
| 行程 Stroke Length (mm) | 80 | 50 | 100 | 50 | 120 | 60 | 130 | 60 | 150 | 100 | 180 | 100 | 200 | 120 | 210 | 120 | 250 | 160 | | |
| 衝分數沖數 Strokes Per Minute | S.P.M. | 定速(標準) Constant Speed(standard) | 90 | 110 | 80 | 100 | 70 | 95 | 65 | 90 | 60 | 80 | 50 | 70 | 40 | 62 | 35 | 52 | 30 | 47 |
| | | 變速(特殊) Variable Speed(special) | 70 110 | 80 140 | 60 100 | 70 130 | 50 85 | 60 120 | 40 75 | 55 110 | 40 75 | 50 100 | 35 65 | 45 90 | 30 50 | 25 70 | 30 45 | 22 60 | 30 40 | 30 50 |
| 衝力發生位置 Tonnage Rating Point (mm) | 3.2 | 3.2 | 3.2 | 4 | 5 | 5 | 6 | 6 | 7 | | | | | | | | | | | |
| 閉合高度(下死點至平板面距離)*N* Shut Height (S.D.A.U.) (mm) | 240 | 200 | 250 | 220 | 270 | 240 | 300 | 280 | 330 | 300 | 340 | 330 | 400 | 360 | 450 | 400 | 470 | 420 | | |
| 滑塊調整量 Slide Adjustment (mm) | 50 | 50 | 65 | 75 | 80 | 90 | 100 | 110 | 120 | | | | | | | | | | | |
| 滑塊底面積 *K x L* Slide Bottom Area (mm) L-R x F-B | 350 x 260 | 400 x 300 | 460 x 350 | 490 x 400 | 580 x 460 | 660 x 520 | 720 x 580 | 860 x 660 | 960 x 760 | | | | | | | | | | | |
| 滑塊孔徑 Shank hole diameter (mm) | Ø 38.1 | Ø 50.8 | Ø 50.8 | Ø 50.8 | Ø 50.8 | Ø 50.8 | Ø 50.8 | Ø 65 | Ø 65 | | | | | | | | | | | |
| 台盤(平板)面積 *H x I* Bolster Area (mm) | 720 x 340 | 800 x 400 | 850 x 450 | 880 x 560 | 1060 x 620 | 1150 x 660 | 1350 x 760 | 1500 x 830 | 1600 x 900 | | | | | | | | | | | |
| 台盤(平板)厚度 Bolster Thickness (mm) | 65 | 90 | 95 | 105 | 135 | 145 | 155 | 180 | 190 | | | | | | | | | | | |
| 台盤(平板)下料孔(標準) Bolster Hole diameter (mm) (standard) | Ø 120 | Ø 120 | Ø 130 | Ø 150 | Ø 160 | Ø 200 | Ø 300 | Ø 300 | Ø 300 | | | | | | | | | | | |
| 作業面高度 *M* Work Height (mm) | 755 | 780 | 780 | 810 | 820 | 860 | 860 | 900 | 920 | | | | | | | | | | | |
| 機架內側寬度 *O* Frame Inside Width (mm) | 400 | 480 | 524 | 540 | 600 | 680 | 750 | 900 | 980 | | | | | | | | | | | |
| 機器尺寸 *B x C* Overall Size (mm) L-R x F-B | 935 x 1120 | 1015 x 1210 | 1075 x 1320 | 1140 x 1435 | 1235 x 1650 | 1345 x 1820 | 1480 x 2090 | 1680 x 2270 | 1780 x 2450 | | | | | | | | | | | |
| 機器總高度 *A* *A* Overall Height (mm) | 2015 | 2130 | 2320 | 2495 | 2760 | 2985 | 3295 | 3580 | 3800 | | | | | | | | | | | |
| 主馬達 Main Motor | (KW x P) | 定速(標準) Constant Speed(standard) | 2.2 x 4 | 3.7 x 4 | 3.7 x 4 | 3.7 x 4 | 5.5 x 4 | 7.5 x 4 | 11 x 4 | 15 x 4 | 19 x 4 | | | | | | | | | |
| | | 變速(特殊) Variable Speed(special) | 3.7 x 4 | 3.7 x 4 | 3.7 x 4 | 5.5 x 4 | 7.5 x 4 | 11 x 4 | 15 x 4 | 19 x 4 | 22 x 4 | | | | | | | | | |
| 滑塊調整馬達 (KW x P) Slide Adjust Motor (KW x P) | 0.12 x 4 | 0.4 x 4 | 0.4 x 4 | 0.4 x 4 | 0.4 x 4 | 0.4 x 4 | 0.75 x 4 | 0.75 x 4 | 1.5 x 4 | | | | | | | | | | | |
| 使用空氣壓力 Air Pressure (kgf/cm ²) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | | | | | | | | | | |
| 模墊 (選購配件) Die Cushion - to facilitate drawing (Optional accessory) | | | | | | | | | | | | | | | | | | | | |
| 模墊能力 Cushion Capacity (tonf) | 2.2 | 2.2 | 2.2 | 6 | 6 | 8 | 12 | 13 | 14 | | | | | | | | | | | |
| 模墊行程 Cushion Stroke Length (mm) | 60 | 60 | 60 | 70 | 85 | 95 | 110 | 120 | 130 | | | | | | | | | | | |
| 頂板面積 (L-R x F-B) Pad Dimensions (mm)(L-R x F-B) | 280 x 200 | 310 x 210 | 340 x 220 | 400 x 250 | 440 x 320 | 480 x 330 | 540 x 420 | 550 x 400 | 720 x 540 | | | | | | | | | | | |

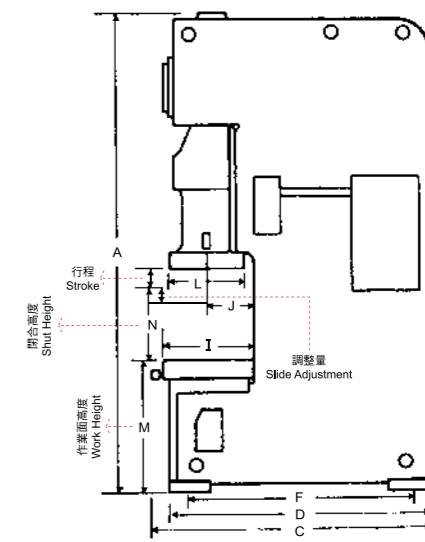
1. 上列標示之機器總高度，未包含"防震腳墊"高度。
2. 規格如變更不另通知，以實際出廠產品規格為主。

1. The above overall height excludes "rubber mount" height - (CSP-25: 38mm, CSP-35 ~ 60: 41mm, CSP-80 ~ 160: 47mm, CSP-200 ~ 260: 60mm)
2. Based on main factory production, rights of modification reserved.

外觀尺寸 MAJOR DIMENSION



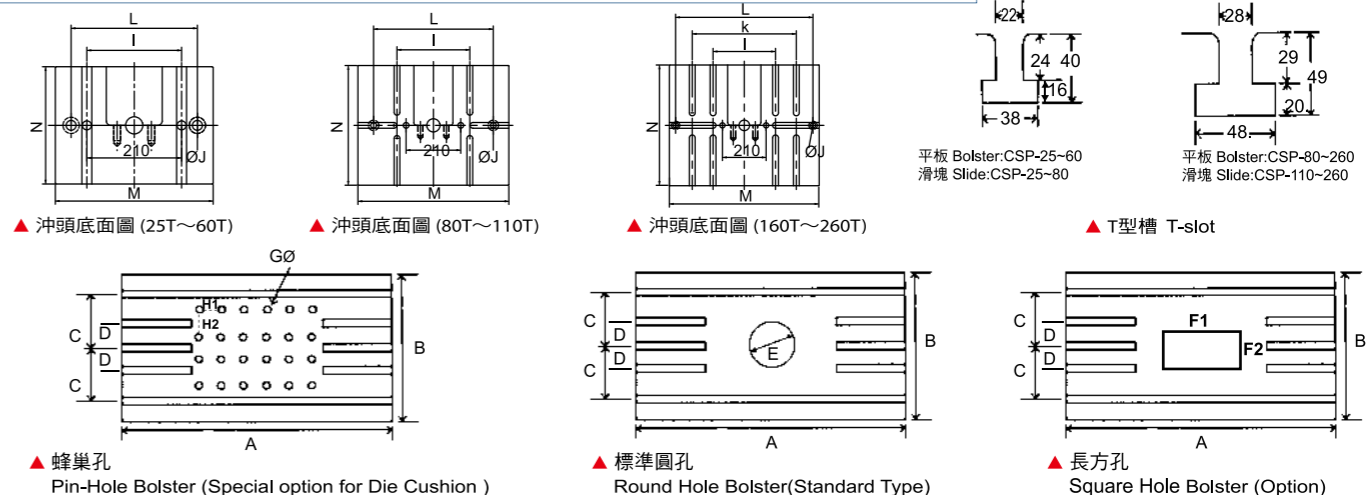
▲ 正視圖 FRONT VIEW



▲ 右視圖 RIGHT VIEW

| Model | Size | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
|---------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| CSP-25 | | 2015 | 935 | 1120 | 1060 | 720 | 900 | 640 | 720 | 340 | 175 | 350 | 260 | 755 | 240 | 400 | 540 | 960 | Ø 30 |
| CSP-35 | | 2130 | 1015 | 1210 | 1120 | 820 | 950 | 720 | 800 | 400 | 210 | 400 | 300 | 780 | 250 | 480 | 620 | 1050 | Ø 45 |
| CSP-45 | | 2320 | 1075 | 1320 | 1250 | 900 | 1060 | 800 | 850 | 450 | 230 | 460 | 350 | 780 | 270 | 524 | 680 | 1175 | Ø 45 |
| CSP-60 | | 2495 | 1140 | 1435 | 1350 | 1000 | 1140 | 890 | 880 | 560 | 290 | 490 | 400 | 810 | 300 | 560 | 745 | 1305 | Ø 50 |
| CSP-80 | | 2760 | 1235 | 1650 | 1560 | 1100 | 1360 | 970 | 1060 | 620 | 315 | 580 | 460 | 820 | 330 | 600 | 840 | 1470 | Ø 50 |
| CSP-110 | | 2985 | 1345 | 1820 | 1720 | 1250 | 1470 | 1100 | 1150 | 660 | 340 | 660 | 520 | 860 | 340 | 680 | 950 | 1590 | Ø 60 |
| CSP-160 | | 3295 | 1480 | 2090 | 1990 | 1480 | 1710 | 1260 | 1350 | 760 | 385 | 720 | 580 | 860 | 400 | 750 | 1070 | 1820 | Ø 60 |
| CSP-200 | | 3580 | 1680 | 2270 | 2140 | 1680 | 1740 | 1480 | 1500 | 830 | 420 | 860 | 660 | 900 | 450 | 900 | 1250 | 2070 | Ø 75 |
| CSP-260 | | 3800 | 1780 | 2450 | 2420 | 1780 | 2100 | 1580 | 1600 | 900 | 450 | 960 | 760 | 920 | 470 | 980 | 1360 | 2600 | Ø 90 |

沖床平板/滑塊底面/T型槽尺寸圖 Bolster / Slide Bottom / T-Slot Diagram



| Model | Size | A | B | C | D | E | F1x F2 | G | H1x H2 | I | J | K | L | M | N |
|---------|------|------|-----|-----|-----|-------|-----------|------|-----------|-----|--------|-----|-----|-----|-----|
| CSP-25 | | 720 | 340 | 130 | - | Ø 120 | 260 x 130 | Ø 25 | 60 x 60 | 210 | 4-Ø 20 | - | 280 | 350 | 260 |
| CSP-35 | | 800 | 400 | 130 | - | Ø 120 | 280 x 140 | Ø 25 | 60 x 60 | 210 | 4-Ø 20 | - | 320 | 400 | 300 |
| CSP-45 | | 850 | 450 | 160 | - | Ø 130 | 300 x 150 | Ø 25 | 60 x 60 | 210 | 4-Ø 22 | - | 340 | 460 | 350 |
| CSP-60 | | 880 | 560 | 200 | - | Ø 150 | 320 x 160 | Ø 25 | 70 x 70 | 300 | 4-Ø 22 | - | 400 | 490 | 400 |
| CSP-80 | | 1060 | 620 | 210 | - | Ø 160 | 360 x 180 | Ø 32 | 80 x 80 | 280 | 4-Ø 22 | - | 460 | 580 | 460 |
| CSP-110 | | 1150 | 660 | 220 | - | Ø 200 | 400 x 200 | Ø 32 | 90 x 90 | 280 | 4-Ø 25 | - | 560 | 660 | 520 |
| CSP-160 | | 1350 | 760 | 290 | 165 | Ø 300 | 440 x 220 | Ø 32 | 100 x 100 | 300 | 4-Ø 25 | 500 | 660 | 720 | 580 |
| CSP-200 | | 1500 | 830 | 330 | 170 | Ø 300 | 480 x 240 | Ø 32 | 100 x 100 | 360 | 4-Ø 25 | 560 | 760 | 860 | 660 |
| CSP-260 | | 1600 | 900 | 360 | 180 | Ø 300 | 520 x 260 | Ø 32 | 100 x 100 | 380 | 4-Ø 25 | 780 | 860 | 960 | 760 |

台盤(平板)下料孔尺寸可為標準圓孔、長方孔、蜂巢式24孔，或由客戶指定下料孔尺寸訂製
Bolster can be selected from standard round hole, square hole, pin-holes, or custom-made hole size.