



瀚捷機械股份有限公司
HAN JIE MACHINERY CO., LTD.

台灣省台南市安通路六段86-12號
No. 86-12, Sec. 6, Antong Rd., Ann An District,
Tainan City 709, Taiwan R.O.C.

TEL: +886-6-255-9625 . 255-9620

FAX: +886-6-256-1496 . 256-1343

E-mail: sales@hanjie.com.tw
hanjie.beder@gmail.com

http://www.hanjie.com.tw

LEXCO INDUSTRIES SDN. BHD.

No. 91, Jalan Metro Perdana Barat 16,
Taman Usahawan Kepong,
52100 Kuala Lumpur, Malaysia

TEL: +60-3-6257-5565

FAX: +60-3-6257-6565

E-mail: lexcogroup@gmail.com

CNC

Rotary Draw Tube Bender

CNC全自動彎管機



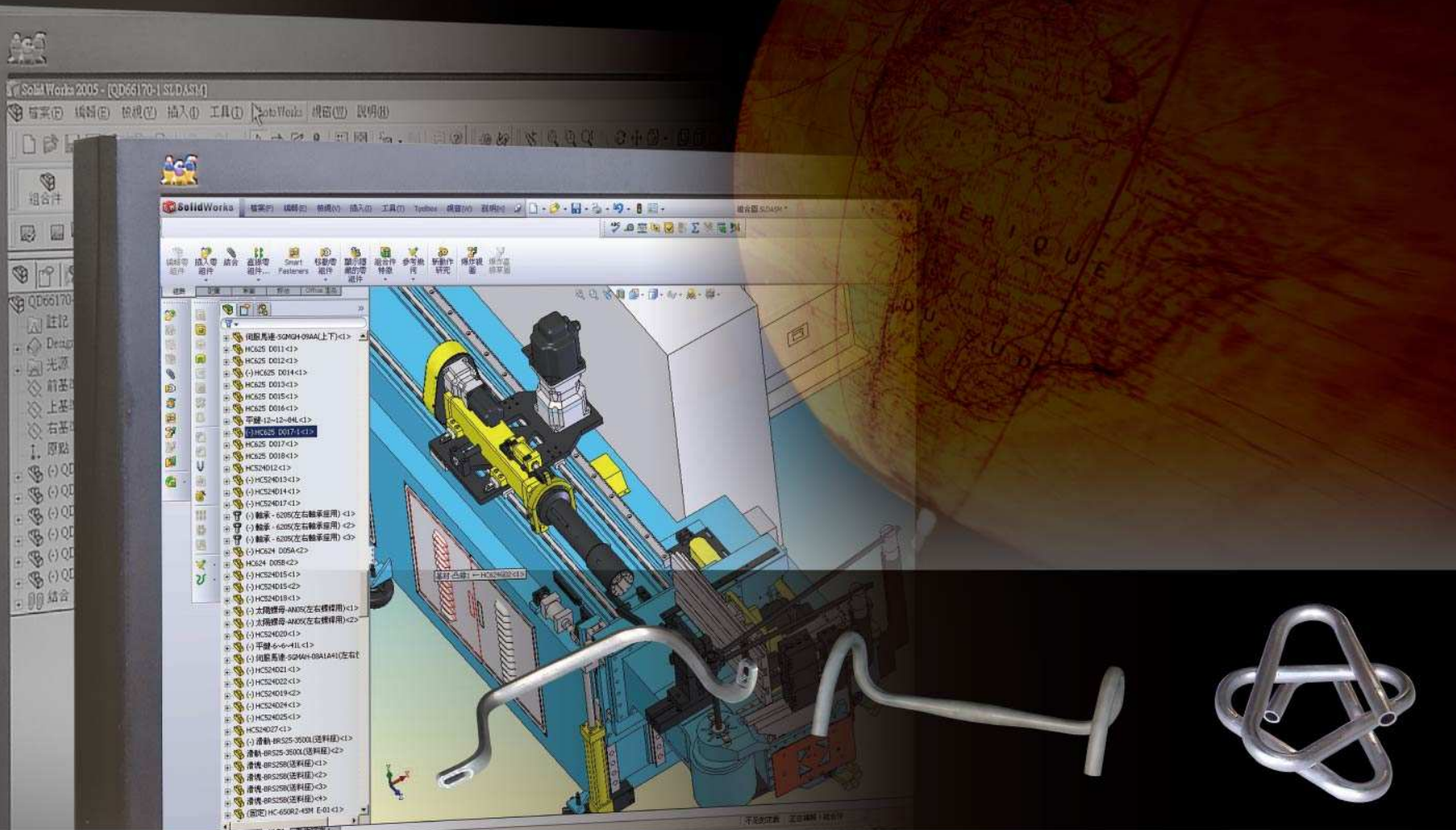
瀚捷機械股份有限公司
HAN JIE MACHINERY CO., LTD.

Han Jie Machines

Provide the Most Flexible Choice in Tube Bending!

Han Jie Machinery Co., Ltd. specializes in design and manufacturing of tube bender. For over 10 years, we have been dedicated to constantly technological innovation and research and development. Till now, Han Jie has successfully developed various series of tube forming machinery, including CNC tube benders, NC tube benders, tube end forming machines, rolling benders and special-purpose tube processing machines etc.

Under the company's policy of "Quality; Service; Innovation", Han Jie's R&D staffs always strive hard for pursuing a new level of technology, that enables us to offer higher performance machines to our customers. Insisting on offering the best possible machines to customers is Han Jie's commitment. This is one of the reasons why Han Jie machines have been fully recognized by customers in many countries.



瀚捷機械

為您提供全方位的彎管需求！

致力於彎管機設計製造的瀚捷機械股份有限公司，十多年來始終秉持不斷創新研發的信念，截至目前為止已成功開發出各種系列之管件成型機械。瀚捷廣泛的系列產品包括：CNC彎管機，NC彎管機，管端成型機，滾圓機與管類專用機等。

在公司理念「品質，服務，創新」的引導下，瀚捷公司的研發人員始終不斷追求技術的新境界。為客戶提供更高性能的機械。堅持為客戶提供最佳品質的機械，是瀚捷公司對客戶的承諾。也因此多年來瀚捷機械已深獲許多國家客戶的肯定。

Model Identification 機型辨識 :

HC-160R2-4SM

(a) Quantity of Servo-motor
伺服馬達數量

1. Feeding 送料	2. Rotation 轉角
3. Bending 彎曲	4. Left/Right movement 左右移動
5. Pressure Die booster 導模	6. Up/down movement 上下移動

(b) HT2SM: Including HT2SM: 包括

1. Hydraulic-control: Bending 油壓控制: 彎曲
2. Servo motor-control: Feeding & Rotation 伺服控制: 送料與轉角

Stack of tooling set:
模具層數

R1 1 Stack 單層模	R2 2 Stack 雙層模	R3 3 Stack 三層模
----------------	----------------	----------------

Outside diameter:
管外徑

From 16mm to 125mm 16~125mm		
1. 160: 16mm	2. 250: 25mm	3. 380: 38mm
4. 500: 50mm	5. 650: 63mm	6. 800: 76.2mm
7. 1000: 100mm	8. 1300: 125mm	

Han Jie
CNC tube bender series
瀚捷
CNC彎管機系列

HC-380 Series

Max. Tube O.D.: Ø38(O.D)x2.0(W.T.)mm
Max. Bending Radius: 150mm
適用管徑: Ø38(外徑)x2.0(壁厚)mm
彎曲半徑: 150mm



HC-500 Series

Max. Tube O.D.: Ø50(O.D)x2.5(W.T.)mm
Max. Bending Radius: 250mm
適用管徑: Ø50(外徑)x2.5(壁厚)mm
彎曲半徑: 250mm



HC-650 Series

Max. Tube O.D.: Ø63(O.D)x3.0(W.T.)mm
Max. Bending Radius: 300mm
適用管徑: Ø63(外徑)x3.0(壁厚)mm
彎曲半徑: 300mm



HC-800 Series

Max. Tube O.D.: Ø76(O.D)x3.0(W.T.)mm
Max. Bending Radius: 400mm
適用管徑: Ø76(外徑)x3.0(壁厚)mm
彎曲半徑: 400mm



HC-1300 Series

Max. Tube O.D.: Ø125(O.D)x4.0(W.T.)mm
Max. Bending Radius: 500mm
適用管徑: Ø125(外徑)x4.0(壁厚)mm
彎曲半徑: 500mm



3D Simulation / Software Function

- 3D real-time display software provides program editing convenience for Y.B.C-axis.
- When performing semi-auto or fully auto bending operation, 3D tube graphic is real-time displayed on the screen.
- When opening files 3D tube graphics and related tooling information can be previewed. This results in convenient and fast files categorizing and storing as well as data searching.
- 3D bending process simulation. (Optional)

3D模擬/軟體功能

- 3D即時顯示軟體。Y.B.C軸程式編寫更簡便。
- 半自動與全自動彎管時，即時3D仿真管件。
- 開啓檔案時可預覽3D管件與相關模具資料，檔案分類儲存資料尋找方便快捷。
- 3D彎管模擬軟體。(選購)

Accurate And Beautiful Bending Result

MINIMUM OVALITY AND WALL THINNING RATIO

- Minimum tube ovality and wall thinning ratio can be achieved through pressure die cycle booster function, feeding booster function, delay time setting of clamp return and auxiliary bending function.
- By setting the clamp return time after bending spring-back problem can be minimized.

FLEXIBLE MACHINING SETTING

- Allow for setting move in/out position before performing feeding, return bending and rotating functions. This may leave from interference position.
- Also, available to specify the stack number to be rotated, which will prevent interference due to tube rotating.
- Multi-function selection for tube loading to avoid interference.

99-STEP SPEEDS ADJUSTMENT

- Multi-axes servo motions permit micrometric adjustment with 99-step speeds.
- 5 simultaneously controlled processes dramatically increase operational speed, while avoiding interference problem.

彎管成型精準、美觀

最少變形量與扁薄率

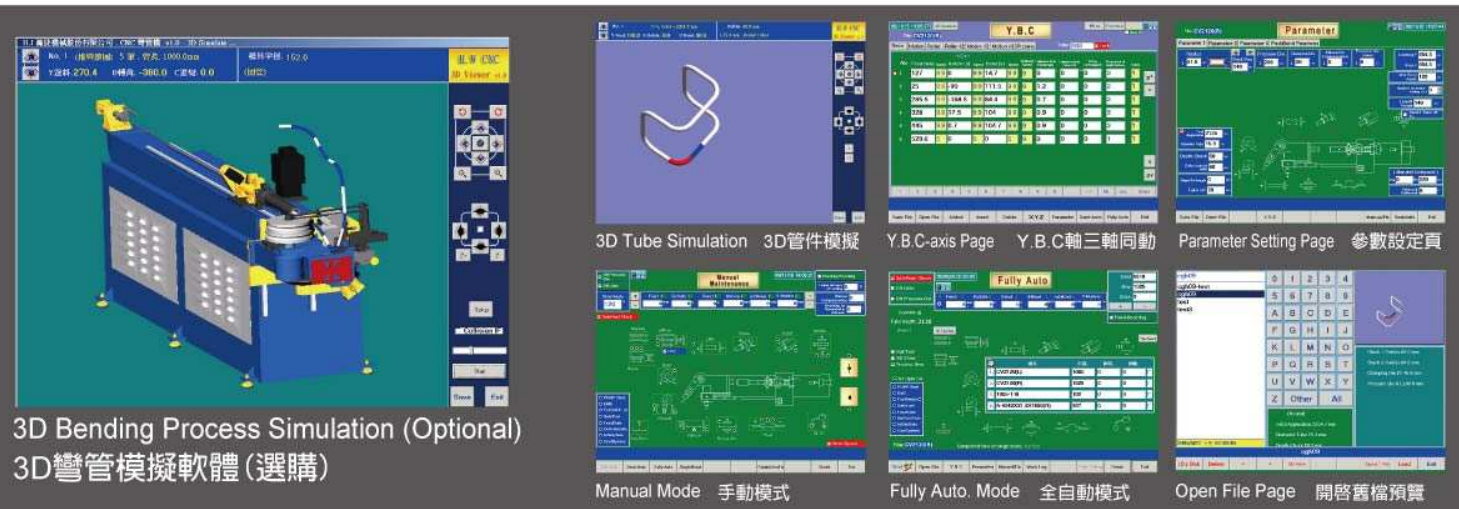
- 導模往覆送功能，送料輔推功能，進彎延遲退夾時間，輔助彎管，將延展變形與扁薄率降到最低程度。
- 可設定進彎後退夾時間，以防止管件反彈。

彈性化加工設定

- 可設定位移出入後作送料，退彎，轉角功能，以避開干涉點。
- 也可指定轉角時的所在層數，避免因轉管所造成的干涉。
- 置管動作多重功能選項，避免干涉問題。

99段速變微調

- 多軸伺服動作，可設定99段速度微調。
- 5種同動流程，提升作業速度，並且避免干涉問題。



3D Bending Process Simulation (Optional)
3D彎管模擬軟體(選購)

Operation Mode/Servo Control

6 AXES SERVO CONTROL

- Japanese servo motor drive combined with servo control.
- Feeding, bending, rotation, pressure die servo, up/down movement and right/left movement accuracy reach in ± 0.05 .
- Pressure and feeding boosters exhibit extra powerful bending capability.
- Manual servo control allows for setting absolute and relative data to perform accuracy movement.

Y.B.C-AXIS CONTROLLED SIMULTANEOUSLY

- The simultaneous control function for Y.B.C-axis significantly upgrades productivity.
- X.Y.Z-axis can be converted into Y.B.C-axis.

AUTOMATIC TOTAL LENGTH CALCULATION

- Once the dynamic process for Y.B.C-axis have been set, the computer may automatically calculate total length of tube.

MULTIPLE OPERATION MODES

- Allows for selecting various operation modes such as single bending, manual, semi-auto and fully auto.
- Workload counter functions are equipped with total quantity, present quantity and count-down quantity.

BENDING CYCLE TIME DISPLAY

- In fully automatic operation mode, the bending cycle time for each tube and related tube data are displayed.

操作模式/伺服控制

6軸伺服控制

- 日本製伺服馬達配合6軸電子伺服控制。
- 送料，進彎，轉角，導模伺服，上下位移與左右位移精度可達 ± 0.05 。
- 導模輔推與料座輔推，展現強勁彎管能力。
- 手動伺服操控可設定絕對值與相對值移動，精準，方便，快速。

Y.B.C軸三軸同動

- Y.B.C三軸同動功能，大幅提升產能。
- X.Y.Z軸可轉換成Y.B.C軸。

自動計算工作總長

- Y.B.C軸動作流程設定後，自動計算出工件總長度。

多種操作模式

- 可選擇單彎、手動、半自動、全自動操作模式。
- 工作計數有總數、數量、倒數功能。

彎管時間顯示

- 全自動時間顯示每支管件彎管完成總時間與管件資料。

Comprehensive Safety Protection

- The servo feed system has front and rear limit switch, that prevents machine parts from damage ceased by operational error or machine malfunction.
- Automatic mandrel lubrication system: Air blast and lubrication time can be set as desired.
- The data and programs can be retained for 3 years in case of power failure.
- Screen protection and password protection functions prevent the computer malfunction due to unauthorized modification of files.
- The electrical cabinet is equipped with an air conditioner to keep at a constant temperature. In may prevent electronic parts from damage caused by high temperature.
- Equipped with emergency control stop switch.
- In case no mandrel is fitted, work piece length is not restricted (Auto matic repeatedly feeding function)

完善的安全防護

- 送料伺服有前極，後極開關，可避免人為疏忽或機台失常造成機件損壞。
- 通心蕊自動潤滑系統：噴氣/油量時間可設定。
- 斷電後，資料與程式可保存3年。
- 螢幕保護，密碼保護功能，可防止外人私自更動造成異常。
- 電氣箱加裝空調冷卻機，以保持恆溫。可避免因高溫造成電子零件損壞。
- 緊急控制停止開關。
- 機器不裝置心蕊時，工件長度不受限制(可自動往復送料功能)。

PC Base Control System

PC Base 控制系统

Windows Operation System

- The PC Base control system features maximum flexibility instead of conventional PLC control system.
- DVD-ROM
- 17" LCD screen features big display with high resolution and smoothness.
- Above Intel Pentium 4 2.8G Hz CPU or same class CPU.
- The latest high speed memory 512MB DDR RAM or above.
- Double high capacity hard disk combined with double copy system. In case hard disk is abnormal, it can be replaced immediately and fast maintained. It is not necessary to wait for 3-5 days for a normal disk, that may seriously affect customers production.
- Equipped with high performance industrial grade computer.
- USB port can be connected to multi-media and handy disk, providing convenient data access and loading.
- High capacity hard disk (80GB or above) are equipped to provide sufficient memorizing space for files.
- Single bending data can be saved individually, automatic system recovery software is featured in case software is abnormal.
- Built-in big capacity handy disk. Every time when turning power on, bending data will be copied automatically to prevent information loss.
- Programmable bending times are not restricted.

Windows 作業系統

- 靈活PC Base 控制系統，非一般 PLC 控制系統。
- DVD-ROM。
- 17吋液晶螢幕，大畫面清晰流暢。
- 原廠 Intel Pentium 4 2.8G Hz 以上中央處理器或同等級中央處理器。
- 最新高速記憶體 DDR RAM 512MB以上。
- 雙高容量硬體，雙備份系統，硬碟若故障可立即替換，維修迅速，不必再等公司寄硬碟修，少則3-5天影響公司生產。
- 使用高規格級工業電腦。
- USB連接埠可外接多媒體及隨身碟，方便資料存取及下載。
- 大電腦硬碟容量(80GB以上)及設備，提供客戶更充足的記憶庫使用。
- 單彎管件資料可個別儲存，具有軟體故障自動回復功能。
- 內藏大容量隨身碟，每次開機自動備份文件資料，不怕資料遺失，安全有保障。
- 程式彎次不受限制。



■ The slide ways are mounted with precision linear guide ways.
滑道配置精密線性滑軌



■ Driven by Japan YASKAWA servo motor
採用日本YASKAWA伺服馬達



■ The high-performance hydraulic system features smooth running and long service life.
高性能油壓系統，運轉順暢，壽命長。



■ The foot switch increases operational convenience.
腳踏開關提升操作之方便性



■ The electrical cabinet is a modular design, and is separately mounted from the machine to prevent affection by the machine vibration.
電氣箱模組化。與機台分離安裝，避免機台震動之影響。



■ The electrical cabinet is equipped with an air conditioner to keep at a constant temperature.
電氣箱附空調冷卻機，以保持恆溫。



■ Automatic lubrication for mandrel.
通心蕊自動潤滑

SEPARATELY MOUNTED CONTROL BOX

■ The control box can be moved to the desired position that increases convenience of operation.

分離式控制箱

■ 可移動到喜愛位置，提升操作之方便性。



CNC Rotary Draw Tube Bender

CNC 全自動彎管機

Standard Bending Tooling 彎管模具



Optional Tooling 選購模具



SPECIFICATIONS 機器規格



ITEM	MODEL	HC-160R2-4SM	HC-250R2-4SM	HC-380R2-4SM	HC-500R2-4SM	HC-650R2-4SM	HC-800R2-4SM	HC-1000R1-HT2SM	HC-1300R1-HT2SM
最大彎曲能力 (管外徑X管壁厚) Max. Tube O.D.&W.T. (O.D.xt)	鐵管 Mild Steel	Ø16x1.5t	Ø25x2.0t	Ø38x2.0t	Ø50x2.5t	Ø63x3.0t	Ø76x3.0t	Ø100x3.0t	Ø125x4.0t
	不銹鋼 Stainless Steel	Ø12x1.5t	Ø22x1.5t	Ø32x1.8t	Ø45x2.0t	Ø50x2.0t	Ø65x2.5t	Ø90x2.0t	Ø100x3.0t
	角管 Rectangle Pipe	□12x1.2t	□22x1.5t	□32x1.8t	□45x2t	□50x2.5t	□63x3t	□90x2t	□100x3t
最大拉彎曲半徑(最大R) Max. Draw Bending Radius (mm)		90	120	150	250	300	400	450	500
彎曲角度範圍 Max. Bending Angle		200°	200°	200°	200°	200°	200°	200°	200°
最大有效通芯距離 Max. Effective Mandrel Length (mm)		1000	1500	2000	2500	3000	3500	4000	4500
彎曲 Bending	精度 Accuracy	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.1	±0.1
	速度 Speed/Sec.	180°	160°	150°	150°	100°	90°	80°	70°
送料 Feeding	精度 Accuracy	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
	速度 Speed/Sec.	1200	1100	1100	1000	1000	950	950	950
轉角 Rotation	精度 Accuracy	±0.05	±0.06	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
	速度 Speed/Sec.	300°	260°	240°	200°	200°	180°	165°	150°
兩層R最大差距R1-R2 Max. Bending Radius Difference (R)		30	40	50	60	65	70	75	80
總功率 Total Motor Power (HP)		6	8	15	25	28	32	30	35
最大壓力 Max. Pressure (Bar)		70	70	100	110	110	140	180	180
機器外型 Dimension of Machine (LxWxH)		2500x1100x1100	3200x1500x1200	4000x1800x1200	5500x2100x1200	6000x2100x1200	7000x2400x1500	7500x2600x1500	8000x3000x1800
機台重量 Weight of Machine (Kgs)		1200kg	1400kg	2200kg	4500kg	5000kg	8000kg	11000kg	13000kg

■由於持續性的設計精進，改良。上述規格若有些許更動，恕不另行通知。

■Due to the continuous improvement on design, the specifications above are subject to change without notice.