

# CNC All-Electric Tube Bender - Left & Right Bending HC Series Model:HC-250LR-NSM



## Control System

- 1.PC-Based Control system features the best flexibility instead of conventional PLC control system.
- 2.Industrial grade computer assorted with 17" touch screen, a high capacity hard drive, dual-core Intel 2.0G CPU, DDR2 2,048MB or above memory bring the friendly operating experience.
- 3.Over 1 million programs can be stored in the hard drive and no limit to the amount of bends in a program.

## ALL-Electric / Operation mode

- 1.Motions driven by all electric-servo motors(8 axes) assure the high accuracy & repetitive performance.
- 2.Innovative dual-direction bending of single bend-arm is capable of completing jobs that needs left and right bending during a cycle.
- 3.Push and draw bend functions are available to cover comprehensive bending tasks.
- 4.Manual servo-control offers machine movement in absolute / relative methods.
- 5.Clamp / Pressure die position can be set up automatically according to the setting torque without tiring mechanical adjustment.
- 6.X.Y.Z can be converted into Y.B.C
- 7.Overall necessary length of tube is shown once Y.B.C program has been completed.
- 8.Multi-modes are available, manual, semi-auto, auto
- 9.Workload counter offers total, present, count-down quantity functions, cycle time for completing a work piece is shown to effectively control productivity.

## Flexible / Powerful Processing Setting

- 1.The brand-new control software equips the machine with optimized settings and re-organized sequences to execute jobs and minimize touch points efficiently.
- 2.Programmable Bending Sequence : users can preview the bending sequence in advance, and also switch/insert/add/delete motions as demand.
- 3.Associated Motion Setting : In the bending sequence, the relationship between motion and motion can be set as Step by step, Synchronize, Anticipate, Lag, Match, 5 modes are available to associate motions to greatly save the cycle time.
- 4.All-electric control system, each axis offers 99 speeds to get well adjustment.
- 5.Pressure die hitch move may perform the large angle bending with the short pressure die length.
- 6.Carriage features with standard feeding mode and recapture feeding mode.
- 7.The length of workpiece is not limited if no mandrel is fitted, automatic repeatedly feeding function.

## 3D Simulation

- 1.When opening files, 3D graphics & relative tooling information can be previewed in advance to help users choose the file quickly.
- 2.3D Tube Preview function, it displays real-time 3D tube view during the editing of Y.B.C program.
- 3.3D Bending Process Simulation ( Optional )

## Comprehensive Safety Protection / Error Warning

- 1.In manual operating mode, system equips with "error warning" function to avoid the damage of machine due to the artificial mistakes.
- 2.Before processing tubes, system automatically screens Y.B.C program to point out the error in advance for users' modification.
- 3.System keeps the machine & users' safe through the comprehensive proximity switches, sensors, EMS that suspend the machine as long as it's abnormal.
- 4.Air conditioner equipped in the electric cabinet keeps at a constant temperature to prevent abnormal actions from high temperature affection.
- 5.System indicates the specific abnormal section on the screen for users' analysis and reduces the turn around time of machine.

## Specification

Max. O.D x W.T ( Mild Steel )			φ25.4x 1.5t
Max. CLR			60mm
Max. Mandrel Length			1400mm
Max. Bending Angle Range			190°
Bending	Speed	°/sec	160°
	Accuracy		±0.05°
Feeding	Speed	mm/sec	1100mm
	Accuracy		±0.05
Rotation	Speed	°/sec	300°
	Accuracy		±0.05°
Max. Radius Difference			25mm
Horse Power			11hp
Dimension (M)			3.6*1.4*1.5
Weight			1,350 kgs



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# CNC單臂左右旋彎管機

HC系列  
型號:HC-250LR-NSM



## 控制系統

- 1.採高規格工業級電腦PC-Based控制，大大增加軟體之擴充性及靈活性，非一般PLC控制。
- 2.搭配17" 觸控式大螢幕，大容量硬碟，高速CPU及記憶體，增加操作人員之方便性及舒適度。
- 3.開放式輸入，不限彎管次數及程式數量(可儲存1百萬組以上程式)。

## 全電氣伺服 一操作模式

- 1.全電氣伺服控制(8軸)，提供機械運作之高精度、高重現度。
- 2.具單臂左旋與右旋進彎功能，一次完成需左、右彎工件。
- 3.具備拉彎和推彎功能，適用於廣泛彎管應用。
- 4.手動伺服操控，可設定相對值或絕對值移動，精準、方便、快速。
- 5.模具安裝(夾、導模)，採扭矩自動定位方式，無需繁複的人工調整。
- 6.X.Y.Z 可轉換成Y.B.C。
- 7.於Y.B.C完成程式編輯後，自動計算所需工件總長。
- 8.多種操作模式，手動、半自動、全自動等模式。
- 9.工件計數有總數、數量、倒數功能，顯示單件完成時間，有效掌握產能。

## 彈性且強大的加工設定

- 1.全新控制介面，可任意排程動作順序，提升效能且避開干涉，克服刁鑽工件。
- 2.可程式流程功能，可預先瀏覽彎管各動作流程，並進行動作增加、刪除、交換等需要之順序動作，強化操控性。
- 3.各動作相依功能，於各動作間可進行關聯設定，如單動、同動、提前、延遲、匹配，可大幅的提昇工作效率，節省工件製造時間。
- 4.全電氣伺服控制，各軸提供99段速度調整。
- 5.導模往覆送功能，可使導模長度縮短，減少加工死角。
- 6.送料方式具有直送、夾送功能。
- 7.機器不裝置通蕊時，工件長度不受限制，送料座往覆送料功能。

## 3D 模擬

- 1.開啟檔案時，可立即預覽3D管件及模具資訊，且檔名分類搜尋功能，方便快速。
- 2.3D管件預視功能，於編輯Y.B.C程式時，立即顯示管件令編寫更簡便。
- 3.3D彎管模擬軟體(選配)。

## 完善的安全提示、防護

- 1.手動操作模式中，系統具錯誤操作提示功能，避免人為失誤操作而損壞機器。
- 2.工件於加工前，系統自動進行Y.B.C程式檢測，並指出錯誤供人員修正，避免不正常操作，造成機器碰撞。
- 3.於機器各重點部位，佈滿感應開關、緊急開關，隨時進行監控，有任何異常現象即中斷機器運行，有效保護設備及人員之安全。
- 4.於電氣箱裝設空調冷氣機，以保持恆溫，避免溫度引起電控誤動作，安全可靠。
- 5.機器異常時，螢幕上明確顯示異常部位，供人員進行處理，有效縮短修復工時。

## 機械規格

最大管徑x厚度(鐵管)		φ25.4x 1.5t
最大彎曲半徑		60mm
最大通蕊距離		1400mm
最大彎曲角度		190°
進彎	速度	%/sec 160°
	精度	±0.05°
送料	速度	mm/sec 1100mm
	精度	±0.05
轉角	速度	%/sec 300°
	精度	±0.05°
最大R差		25mm
總馬力		11hp
機台尺寸(M)		3.6*1.4*1.5
機台重量		1,350kgs



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