



# Complete Solution for Tube and Pipe

## 5 B Series

**CNC 5 Controlled Axis  
Tube Bender**

Max. Capacity up to Ø127mm



# 5B Series

## CNC Proportional Servo Bending

5 controlled axis with max. Ø127mm capacity

5 servo electric / proportional servo controlled axis

- Feeding ( Y )
- Rotation ( B )
- Bending ( C )
- Horizontal Movement ( X1 and X2 )
- Pressure Die Assist ( V1 )

With models that extend up to Ø127mm capacity, the SOCO CNC 5B series tube bender brings the optimal tube bending power and accuracy solutions for the automotive, trucking, buses, boiler, ship building and other heavy industries.

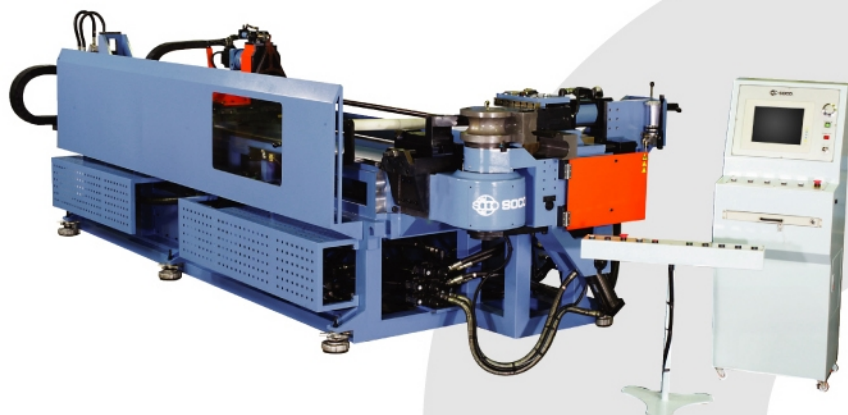
### ■ SB - 76 x 5B - 2S

CNC tube bender with capacity up to Ø76.2mm. Equipped with 5 individually programmable axis and 1-2 stacks of tooling



### ■ SB - 90 x 5B - 1S

CNC tube bender with capacity up to Ø88.9mm. Equipped with 5 individually programmable axis and 1 stack of tooling (2S/2 stacks of tooling)



### ■ SB - 130 x 5B - 1S

CNC tube bender with capacity up to Ø127mm. Equipped with 5 individually programmable axis and 1 stack of tooling (2S/2 stacks of tooling)



**Machine Features:**

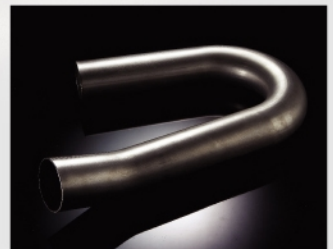
- 5 individually programmable axes
- Max. Ø127mm capacity
- Individually controllable pressure die assists for Each Bending Stack
- Programmable 2 speeds early mandrel extraction
- Each axis may be individually programmed during arm return mode
- SOCO proprietary control software with IPC & Touch Screen
- Built-in wiper die, pressure die and clamping die seats
- High accuracy and repeatability ( $\pm 0.1\text{mm}$  /  $\pm 0.1^\circ$  for all axes )
- Ability for 1D Bending (\*) and Roll Bending (\*\*)
- Single and multi-stacks models
- Standard with Automatic Mandrel Lubrication System
- Centralized greasing and lubrication system for all sliding areas

**Optional Equipment**

- Digital Hydraulic Temperature control unit
- Connection to Local Area Network ( LAN )
- SOCO bending simulation and collision detection software

(\*) Depending on tube O.D. and elongation ratio

(\*\*) May be added by request - 2SV models



Specifications / Model		SB-76x5B-1S/2S	SB-90x5B-1S/2S	SB-110x5B-1S/2S	SB-130x5B-1S/2S
Mild Steel Capacity ( mm )		Ø76.2 x 2.5t x CLR1.5D	Ø88.9 x 2.1t x CLR1.5D	Ø110 x 2.8t x CLR1.5D	Ø127 x 4.0t x CLR1.5D
		Ø63.5 x 4.2t x CLR1.5D	Ø76.2 x 3.5t x CLR1.5D	Ø100 x 4.0t x CLR1.5D	Ø120 x 4.5t x CLR1.5D
Stainless Steel Capacity ( mm )		Ø76.2 x 2.0t x CLR1.5D	Ø76.2 x 2.4t x CLR1.5D	Ø110 x 1.7t x CLR1.5D Ø100 x 2.8t x CLR1.5D	Ø120 x 3.0t x CLR1.5D
Max. Die Radius Difference (R1-R2) ( mm )		80	80	100	150
Max. Length over Mandrel ( mm )		4130	4130	5000	5500
Max. Bending Angle		190°	190°	190°	190°
Max. Bending Draw Radius ( mm )		250	250	300	350
Accuracy	Bending	$\pm 0.1^\circ$	$\pm 0.1^\circ$	$\pm 0.1^\circ$	$\pm 0.1^\circ$
	Rotation	$\pm 0.1^\circ$	$\pm 0.1^\circ$	$\pm 0.1^\circ$	$\pm 0.1^\circ$
	Feeding ( mm )	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$
Dimension ( mm ) ( L x W x H )		5500 x 2100 x 1720	5500 x 2100 x 1720	7300 x 1800 x 1400	7500 x 2215 x 1900
Weight ( Kg )		6600 / 7100 (1S / 2S)	7500 / 8000 (1S / 2S)	9600 / 10200 (1S / 2S)	11000 / 11800 (1S / 2S)

\* Due to continuous improvements and designs; the manufacturer reserves the right to modify or make any changes of all models without notice.



# Software and Operation Interface

SOCO bending range is available with an Industrial PC (IPC) + Touch Screen.  
Here are some of the features included:

## Software Features :

- Automatic Springback compensation
- Recapturing function for short lengths
- Data entry for both XYZ and YBC coordinates
- XYZ to YBC coordinates conversion
- YBC to XYZ coordinates conversion
- Arm return programming mode (Overmode)
- Ability to use Positive and Gripper Mode Feeding in the same part
- File management for parts and tooling
- Data storage of files ( 2 million files , 50 bends per file ) ( \* )
- 3D display and rotation of parts
- Mirroring and image reversal of parts
- Elongation ratio + Cycle Time display for each bend
- Windows 2000 / XP platform
- Self diagnostics + Error messages display
- Connection and Auto compensation to CMM systems ( \*\* )
- Simultaneous opening of files ( 4 files at one time )
- Programmable mandrel extraction and lubrication
- Individually programmable axes
- Multiple action (arm return) and bending sequences
- Built-in Internet Connection for Remote troubleshooting

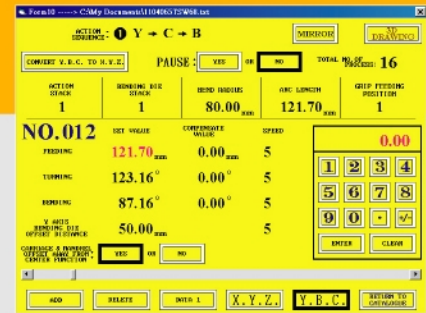
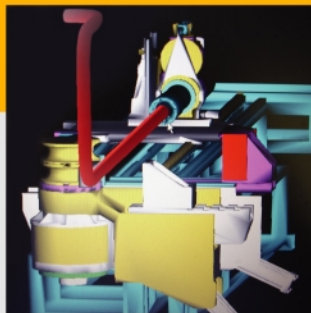
## Options

- Bending interference and collision simulator ( \*\*\* )
- Report System for Production Management
- Reading AUTOCAD files (with Auto LISP)
- Remote monitoring system of bending production

( \* ) May be extended upon request

( \*\* ) On most CMM, non-contact probe measuring systems

( \*\*\* ) On selected CNC tube bender models



## SOCO MACHINERY CO., LTD.

#7, 14TH RD. TAICHUNG INDUSTRIAL PARK. TAICHUNG TAIWAN  
TEL : 886-4-23591888 FAX : 886-4-23592386  
E-MAIL : sales@soco.com.tw

[www.soco.com.tw](http://www.soco.com.tw)