



Complete Solution for
Tube and Pipe



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ALL ELECTRIC TUBE BENDER

3 ~ 12 Electric Servo Axis

Advanced Bending Technology
DGT / Double Blades Shearing (2C) / IB (Material Saving)



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TUBE BENDER ▪ TUBE LASERS ▪ TUBE + BAR CUTTING ▪ TUBE END FINISHING



LEFT & RIGHT TUBE BENDERS

This line combines Draw + Roll + Dual Direction Bending Way technology. It is especially suitable for complex parts and shapes, such as automotive exhaust pipe, health care and fitness equipment. It also uses SOCO's unique DGT technology (Direct Gear Transmission). It may also be optionally provided with Automatic Loader (AF / AFM / ROBOTS) and Automatic Unloader (AUL / ROBOTS) for full automation.

Specifications / Model	SB-22X8A-MR-V-U	SB-32X7A-2S-V-U	SB-32X9A-2S-V-U	SB-52X10A-2S-V-U
Max. Mild Steel Capacity (mm) (CLR 1.5D)	Ø20.0 X 1.2t	Ø32.0 X 1.6t	Ø32.0 X 1.6t	Ø50.8 X 2.0t
Max. Stainless Capacity (mm) (CLR 1.5D)	Ø16.0 x 1.2t	Ø30.0 x 1.0t	Ø30.0 x 1.0t	Ø42.7 x 1.65t
Max. Tube Length with Mandrel (mm) (*)	2750	3750	3750	4500
Max. Draw Bending Radius (mm)	80	120	120	180
CNC axis	8	7	9	10
Max. Bending Stacks	Left x 3 , Right x 3	Left x 2 , Right x 2	Left x 2 , Right x 2	Left x 2 , Right x 2

(*) Can be extended by request
Due to continuous improvements and designs : the manufacturer reserves the right to modify or make any change of all models without notice.



SB-32x7A-2S-V-U



SB-22x8A-MR-V-U Cell

Tube Bending + Automatic Loader +
Unloader + Length Measuring



SB-39X9A-MRV



SB-80X11A-MRV(+2C)

ROLL + 1D BENDING TUBE BENDERS

The V series CNC tube benders combine Draw, Roll and 1D Bending technology. This combination allows 2 different fixed radiuses and multiple large roll bending radiuses in a single part, as well as a programmable carriage boost for CLR = 1D Bending.

Specifications / Model	SB-20X6A-MRV	SB-39X9A-MRV	SB-63X9A-MRV	SB-80X11A-MRV	SB-100X11A-MRV	SB-131X11A-MRV
Mild Steel Capacity (mm) (CLR 1.5D)	Ø20 x 1.2t	Ø38.1 x 3.17t	Ø63.5 x 2.5t	Ø76.2 x 2t	Ø100 x 3.5t	Ø127x3.5t
Stainless Capacity (mm) (CLR 1.5D)	Ø16 x 1.2t	Ø38.1 x 2.2t	Ø63.5 x 1.5t	Ø76.2 x 1.2t	Ø90 x 2t	Ø125 x 2.5t x CLR1D
Max. Tube Length With Mandrel (mm)	2070	3850	3700	4600	4600	4600
Max. Draw Bending Radius (mm)	80	180	250	250	250	250
CNC axis	6	9	9	11	11	11
Max. Bending Stacks	6	6	6	6	6	6
SOCO 2C system	-	-	Optional	Optional	Optional	Optional

Due to continuous improvements and designs : the manufacturer reserves the right to modify or make any change of all models without notice.

1D BOOSTER TUBE BENDERS

SOCO introduces the most advanced and complete line of Booster Benders for the automotive industry. With machines ranging from O.D. 76.2 mm ~ 127mm, this line of booster benders fulfills all needs for the manufacturing of exhaust systems for cars, motorcycles, trucks and buses.

Specifications / Model	SB-65x9A-MR-SR	SB-80x11A-MR-SR SB-81x12A-MR-PT	SB-101x11A-MR-SR SB-101x12A-MR-SR	SB-131x11A-MR-SR
Max. Mild Steel Capacity (mm) (CLR 1.5D)	Ø63.5 x 2.5t	Ø76.2 x 2t	Ø100 x 3.5t	Ø127 x 3.5t
Max. Stainless Capacity (mm) (CLR 1.5D)	Ø63.5 x 1.5t	Ø76.2 x 1.3t	Ø90 x 2t x CLR 1.0D	Ø125 x 2.5t x CLD1.0D
Max. Tube Length with Mandrel (mm)	3700	4600 4700	4600	5700
Max. Draw Bending Radius (mm)	127	150	200	50 - 254
CNC axis	9	11 axis (11A) / 12 axis (12 A)	11 axis (11A) / 12 axis (12 A)	11
Max. Bending Stacks	6	6	6	6
SOCO 2C system	Optional	Optional	Optional	Optional

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SB-81x12A-MR-PT (+2C)



SB-Oil Tube Master



SB-12X3A-2S

OTHER ALL ELECTRIC TUBE BENDERS

Equipped with all electric CNC axis, multiple bending stacks and the unique DGT technology, this line of SOCO tube benders can offer one of highest performance solutions available in the market.

Specifications / Model	SB-Oil Tube Master	SB-12X3A-2S
Mild Steel Capacity (mm) (CLR 1.5D)	Ø8 x 0.7t x CLR3.0D	Ø10.0 x 1.2t
Stainless Capacity (mm) (CLR 1.5D)	-	Ø8.0 x 0.9t
Max. Tube Length (mm)	4000 / 5000 / 6000	1000
Max. Draw Bending Radius (mm)	35	60
CNC axis	3	3
Max. Bending Stacks	2	2

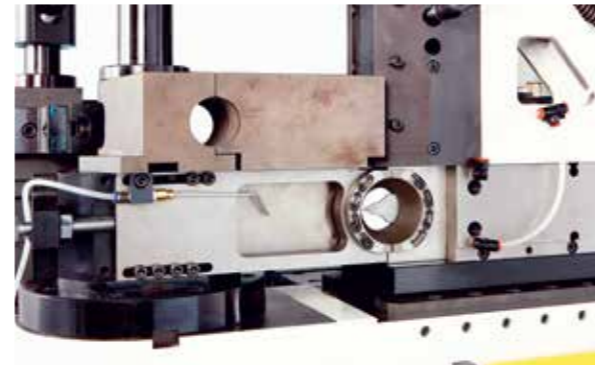
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ADVANCED BENDING TECHNOLOGY

2C - THE SOCO DBS SYSTEM

This patented Double Blades Shearing System may be implemented on all SOCO Booster benders. Some of the features:

- The Double Blades Shearing System allows for automation of bending and cutting processes in one machine, from a single tube
- This system creates the least amount of cutting deformation, enabling the finished part to be immediately used for a subsequent process without having to calibrate or deburr it
- By bending and cutting continuously, there is virtually no waste between bends, saving vast amounts of material per year
- Savings on space, manpower, machinery and material, while increasing production rates
- Higher precision and quality in finished parts, as the bent part does not need to be manually taken to a separate machine to be cut into pieces on a semi-automatic saw
- The software allows for programming up 4 different parts on the same stock material, maximizing utilization of the complete tube.

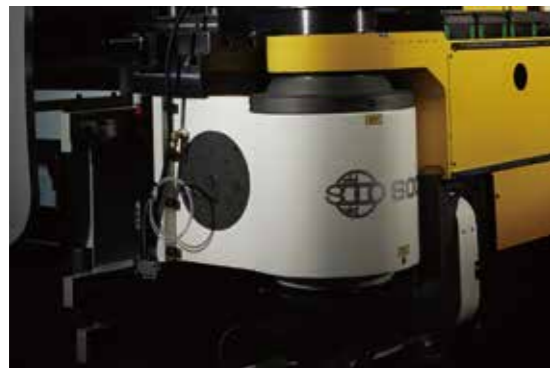


SOCO Patent - DBS System



DBS System - Perfect Cutting Face Non-DBS System

ADVANCED DGT



SOCO's unique DGT technology (Direct Gear Transmission) is the worldwide patented bending system that brings you the most efficient and stable bending process, offering the highest accuracy and repeatability in draw and roll bending.

The Advantages of DGT

- Chain free transmission
- Built-in gearbox with direct connection to electric servo
- Highest transmission performance (90%+ efficiency) against other gear based systems
- High bending accuracy ($\pm 0.05^\circ \sim \pm 0.1^\circ$)
- Low noise level
- Maximum Working Area = Minimal Interference
- Elongated neck for superior clearance (***)
- Compact bending head
- Side carriage and bending head (***)
- Lowest maintenance



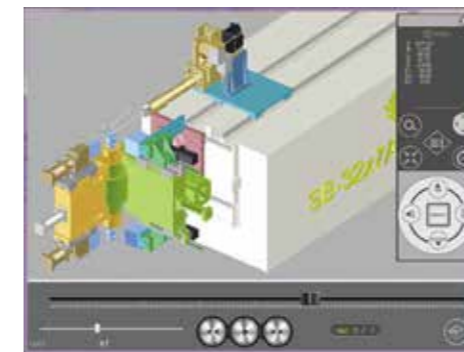
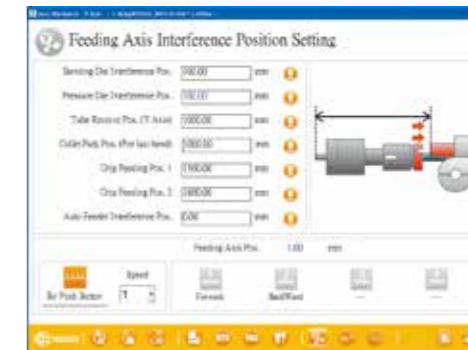
Material Saving –Bending Inside Interference Zones



SOCO Patent
IB - Interference Zone Booster for short pieces



Inner Collet – Inner Inside Collet System



SOFTWARE AND OPERATION INTERFACE

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

Software Features:

- Automatic interference zone calculation
- Automatic tube length calculation
- 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 (Over mode / Teach mode)
- Arc Radius calculator for large radius bending
- Carriage Booster settings' page for 1D Bending
- 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
- Bending + Cutting interface (2C option)
- IRMS – Internet Remote Monitoring System

- Mirroring and image reversal of parts
- Elongation ratio + Cycle Time display for each bend
- Windows 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 mandrel lubrication
- Individually programmable axes
- Multiple built-in action and bending sequences
- Built-in internet connection for Remote troubleshooting

Options

- SOCO Bending Interference and Collision Simulator (***)
- Report system for Production Management
- SOCO CAD reader
- VRM

(*) May be extended upon request

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

(***) On selected CNC tube bender models