



High Tensile Steel Tube Sawing by TCT Saw Blade



SA-78NCE

Complete Solution for Tube and Pipe

Sawing + Deburring + Length Measuring + Stacking
Sawing + Chamfering + Length Measuring

SA-78NCE (Left Side Feeding)
SA-78NCE-AS (NC Length Stopper)
SA-78NCE INLINE (Automation Cells)



台灣精品2010
TAIWAN EXCELLENCE



ISO 9001
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SA-78NCE

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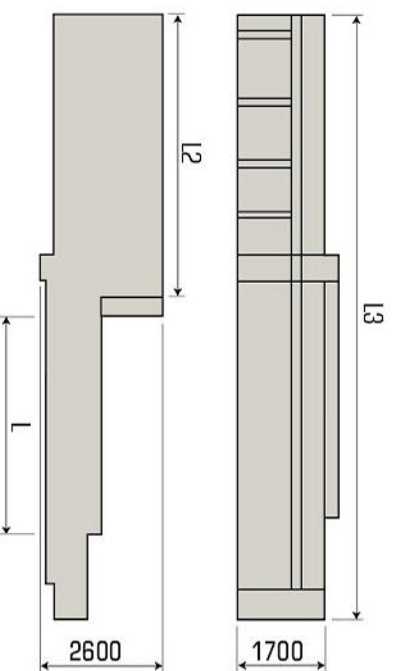
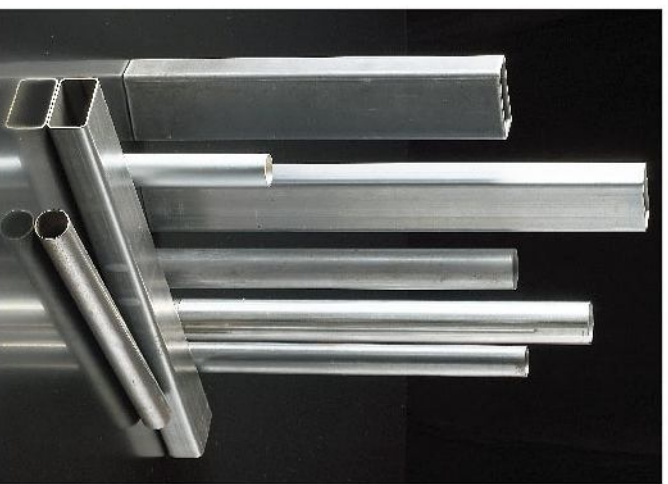
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The new SOCO SA-78NCE brings you the latest technology in High Tensile Steel Tube and General Tube Sawing. Its unique design and cutting system brings the highest saw blade life in such applications, as well as unparalleled performance and speed.



High Tensile Steel

The High Tensile Steel Tube is now widely applied in the global automotive market. In order to achieve higher fuel efficiency and lowering materials costs, thicker tubes and solid bars have been replaced by thin wall High Tensile tubes, which offer lower weight without compromising in strength and safety. With a much higher tensile strength (80~120 Kg/cm²) than conventional steels (40~50 Kg/cm²), this material is highly employed in key areas of cars in for structural (chassis) applications, impact protection, seating and other parts.



L : Max. Length of Cut (mm)
L2 : Bundle Loading Magazine (mm)
L3 : Machine Dimension (mm)

	L2=6500			L2=8500			L2=12500		
L	2000	3000	4500	2000	3000	4500	2000	3000	4500
L3	10000	10900	12400	12100	12900	14400	16000	16900	18400

Main Features:

- Especially suitable for Cutting Automotive parts such as Impact Beams, Chassis and Cross Bar tubing
- High Tensile Tube Cutting (up to 120 Kg/cm²) with SOCO HTTM Saw Blade
- High Speed Sawing: Over 1500pcs output per hour (*)
- Standard with 6.5 meters Bundle Loading Magazine (MB6), optional 8.5 meters (MB8) and 12.5 meters (MB12)
- Automatic separation of first and last cut vs. working pieces
- First and crop cuts down to 25 mm
- Quick Saw Blade Change system
- Safety covers for operational safety and minimizing noise levels
- 1 or 2 length stoppers with Digital Length Readout (2 length stoppers is optional)
- NC Control Length Stopper (AS type – Automatic Stopper)
- 2 Loading Positions available: Left Side and Right Side Loading Magazines
- Capacity up to Ø76mm tubing. Sawing Lengths up to 2 / 3 / 4.5 meters
- Electric Servo Controlled Feeding and Cutting
- i2® Touch Screen Graphical Controls with Automatic Recommendation of Cutting Parameters. 3 ~ 5 minutes setup time between most tube sizes
- Unique Blade Holders and Gearbox Brake System for complete backlash elimination
- May be connected to SOCO's Deburring (BDB-70) / or Chamfering + Length Measuring (FM-76V), Length Measuring (LM-3000) and Stacking (STK-3000)

Equipped with a Bundle Loading Magazine and with an Output Gate of 2, 3 or 4.5 meters, the SA-78NCE offers the highest sawing output for High Tensile, Mild Steel and Stainless Steel tubes and pipes. SA-78NCE may be equipped with 2 different saw blades:
- TCT saw blades : High Tensile Materials and other Steels
- HSS saw blades : Mild and Stainless Steel

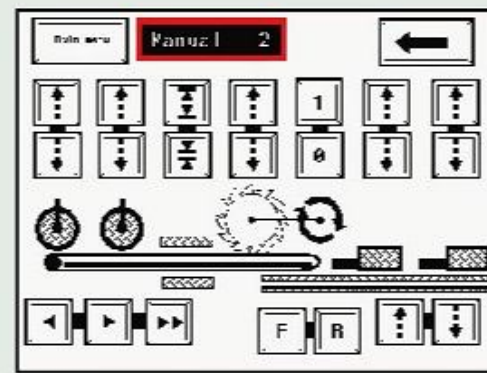
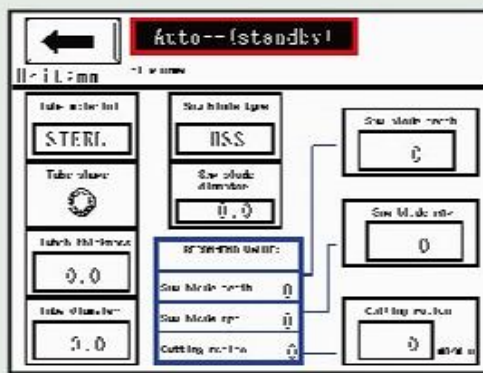
Together with SOCO's i2® (Intelligent Interface) control system and Touch Screen, the SA-78NCE offers precision and versatility, while allowing for quick setup times between different tube materials, sizes and lengths.

It is capable of sawing various shapes of profiles such as round, rectangular, square tubes and round bars. As part of an automation cells, It may connected to :

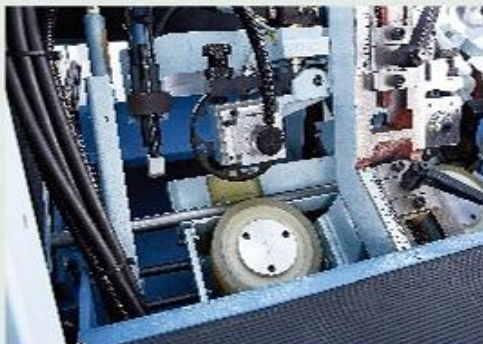
- Brush Deburring (BDB-70) / Length Measuring (LM-3000) / Stacking (STK-3000)
- Chamfering + Length Measuring (FM-76V)

Performance

Ø50 x 30 X 1.2t, L = 366mm, Tensile Strength = 100 Kg/cm² (with SOCO's TCT Saw Blades HTTM Ø280X1202):
Sawing Time: 5 seconds
Cycle Time: 7 seconds
Saw Blade Life: more than 10,500 Cuts



Bundle Loading Magazine. For Tube Length up to 6.5 / 8.5 / 12.5 meters



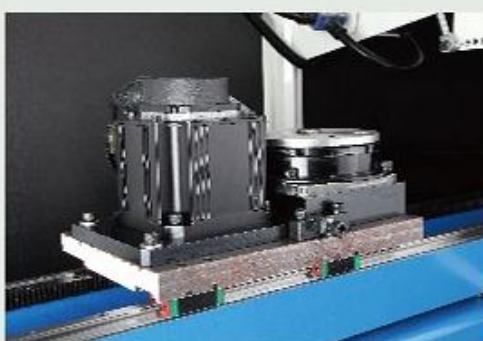
Servo Controlled Feeding



Suitable for TCT and HSS Saw Blade



1 or 2 Digital Readout Length Stoppers



AS - Automatic Stopper (Optional NC Length Stopper)



Safety Covers for Protection and Comfort

Specifications		SA-78NCE (Left Side Feeding) SA-78NCE-R (Right Side Feeding)	SA-78NCE-AS (Left Side Feeding) SA-78NCE-R-AS (Right Side Feeding)
Cutting Capacity (mm)	<input type="radio"/> Round Tube	Ø10 ~ Ø76	
	<input type="checkbox"/> Square Tube	10 x 10 ~ 70 x 70	
	<input type="checkbox"/> Rectangular Tube	15 x 10 ~ 80 x 70	
	<input checked="" type="radio"/> Solid Round Bar	O.D.12 ~ O.D.30	
Saw Blades (mm)	TCT	SOCO HTTM Ø285 x 2.0 t	
	HSS	Ø175 ~ Ø 275	
Length of Cut (mm)		50 ~ 2000 / 3000 / 4500	Type 1 : 200 ~ 2000 / 3000 / 4500 Type 2 : 50 ~ 1850 / 2850 / 4350
Programmable Cutting Lengths		1 or 2 Digital Readout Length Stoppers	NC Control Length Stopper Electric Servo Control
Loading Length (M)		3.0 ~ 6.5 / 8.5 / 12.5	
Min. Length between 2 Stoppers (mm)		30	
Sawing Speed (M / min)		45 ~ 272 (Ø285mm Saw Blades)	
Feeding Speed (M / Sec)		0.35 ~ 2.80	
Saw Blade Lubrication		Air-Oil Mist or Coolant Circulation (Optional for HSS Saw Blades)	
Cutting Head		Electric Servo Control	
Material Feeding		Electric Servo Control	
L = 3000mm	Dimension (mm)	10900 x 2600 x 1900 (L x W x H)	
	L2 = 6500mm	Weight (Kg)	SA-78NCE
MB6			1300

* Suit for mild steel tube (< 500N/mm²) & the High Tensile Steel tube (up to 1200N/mm²)

** For 1200N/mm² High Tensile Steel tube, the max. cutting capacity of tube is Ø76x2t m/m

※ Depend on Tube Size and Material

AUTOMATION CELLS

SA-78NCE INLINE

- Process Flow :
- SA-78NCE + BDB-70 + LM-3000 + STK-3000
Cutting + Deburring + Length Measuring + Stacking
 - SA-78NCE + FM-76V
Cutting + Chamfering + Length Measuring



Length Measuring - LM-3000

- Length Measuring System with Programmable Interface and Touch Screen
- Length measuring tolerances of $\pm 0.01\text{mm}$.
- Motorized measuring length adjustment.
- Automatic separation against rejected parts
- Automatic Stoppage when rejected parts reach a set quantity

Stacking – STK-3000

- Suitable for Round , Square Tubes and Profiles
- Standard with Safety System for Unloading of finished parts without production stoppage



V Shape Guide Way for Square and Rectangular Tubing (BDB-70)



Flat Guide Way for Round Tubing (BDB-70)



Built-in Air Blow (BDB-70)



Double Tube Ends Chamfering + Length Measuring (FM-76V)



Length Measuring (LM-3000)

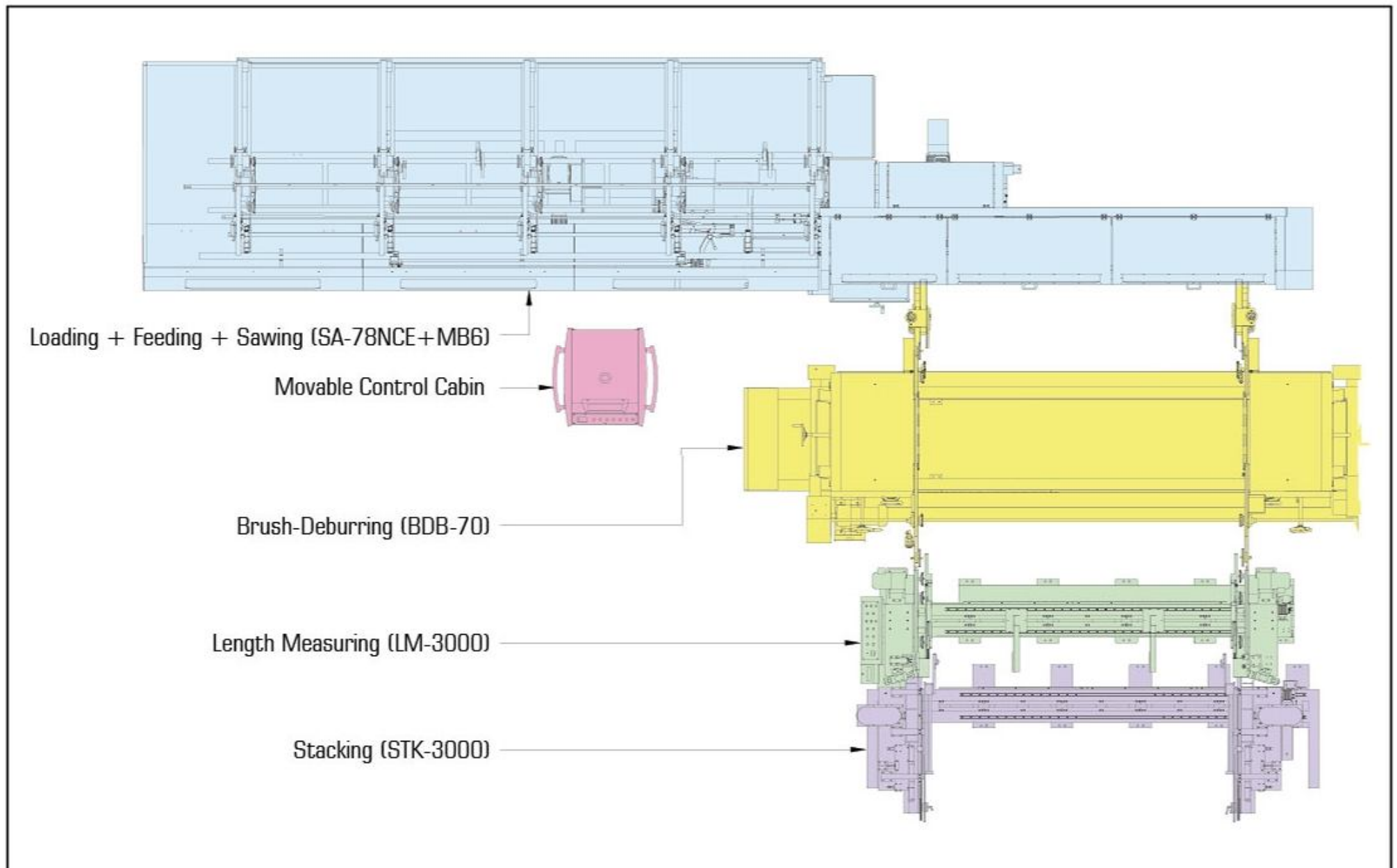


Tube Stacking (STK - 3000)

Processing Flow:

SA-78NCE + BDB-70 + LM-3000 + STK-3000

SA-78NCE + FM-76V



Specifications		FM-76V	BDB-70 (Model 3)	LM-3000	STK-3000
Working Capacity (mm)	○ Round Tube	Ø16 ~ Ø76	Ø12.5 ~ Ø76	Ø16 ~ Ø76	Ø16 ~ Ø76
	□ Square Tube	---	12.5 x 12.5 ~ 70 x 70	12.5 x 12.5 ~ 70 x 70	12.5 x 12.5 ~ 70 x 70
	▭ Rectangular Tube	---	15 x 10 ~ 80 x 70	15 x 10 ~ 80 x 70	15 x 10 ~ 80 x 70
Material Length (mm)		250 ~ 3000	300 ~ 3000	300 ~ 3000	300 ~ 3000
Measuring Tolerance (mm)		+/- 0.02	---	+/- 0.01	---
Dimension (mm) (L x W x H)		2560 x 1650 x 1800	5900 x 2600 x 1500	3950 x 1140 x 1290	4230 x 1540 x 1500
Weight (Kg)		1470	5300	1130	1030

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

** The above spec. is for single machine.



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