

Cosen's SNC Series,  
your ideal production cutting solution.



# SNC series

BANDSAWS

COSEN Machinery

## Smart NC Automatic Mass Production Band Saws: Gantry Type

Models: C-320 / 420 / 520 / 560 / 620 / 7656NC

**All SNC SERIES** saws have a combination of features that all users desire. Rugged, dependable, advanced technology, all words that describe every Cosen SNC-100 Series bandsaw machines. Designed with high production and precision in mind, Cosen's SNC-100 Series offers excellent quality, precision and dependability at an affordable price.

### Smart NC-100 Technology

Smart NC-100 (SNC100) technology provides most of the benefits of NC controlled saws at a mere fraction of the cost. SNC100 controls are programmable up to 100 different jobs including quantity and length of cut. The control automatically compensates for kerf loss after data input and requires no manual calculation of number of times to index. The control also automatically shutdowns the machine, blade motor, and hydraulics, once the programmed number of cuts or out of stock situation has been achieved.

#### SNC-100 Features include:

- 5.7" HMI touch screen & Mitsubishi PLC controller
- 100 individual jobs can be programmed and stored
- Easily recalling and executing stored programs at will
- Automatic kerf loss compensation & automatic multiple indexing up to 99 M (999")
- Convenient access to blade speed and blade life
- Save-a-Blade™ – Automatic vise retracting after material cut-off, reducing abrasion and improving blade life
- Rapid troubleshooting through error feedback system
- Friendly maintenance reminder signals
- Optional blade speed adjustment via touch screen
- Optional Blade Deviation Detection monitor directly controlled from touch screen
- Optional Height Decoder enabling instant reading on current blade height, blade descending speed and cutting rates
- Optional motor amp draw
- Optional V\_Drive further upgrading your productivity and saving tooling costs



#### Rigid Dual Columns + Supportive Cross Link

The gantry type band saws feature two oversized round columns for maximum amount of support to the saw frame. The cross link on top adds to great structural strength.

These two rigid dual columns with large diameter guide the saw frame for a powerful, smooth and accurate cutting. Cutting force and feed rate are applied evenly from top to bottom of the cut.



C-620NC



C-7656NC

Dual valve design will achieve optimal cutting performance, based on the simple setting of feed rate and pre-selective cutting pressure for different materials.



C-520NC / C-560NC

The double retracting vise jaws open and close simultaneously, compensating for crooked and/or misaligned material.



**A**utomatic work height selector and quick approach rod will position the saw head to safe clearance above material to allow safe positioning of next piece. After material is positioned and vise clamps, the head will descend quickly to top of the material, where it proceeds at the preset cutting rate.



**C-420NC**



**C-320NC**



**T**he split front vise will hold the work piece on both sides of the blade for a burr-free cut. In addition, this design reduces the remnant piece to the minimum length.

## Smart NC Automatic Mass Production Band Saws: Hinge Type

Models: C-250 / 300 / 400 / 460NC

### Solid Cast Hinge + Back Tilt Design

The hinge type band saws feature precision bore cast iron hinge utilizing cutting edge technology to offer long machine use. The rigid saw frame adopts a back tilt design, which contributes to:

- Longer blade life due to less blade stress, saving your tooling costs
- Smaller footprint due to more compact design



C-400NC / C-460NC



C-250NC / C-300NC

The bearing guides eliminate stress by pre-aligning the blade before it enters the carbide guide. There are two extra inserts located on a central axis, which supports the blade from the top, providing the blade with extra penetrating force. The carbide grooved guide allows coolant through, to lubricate and cool blade as well as work piece.



Hydraulic blade tension controller ensures correct blade tension, improving cutting performance. When machine is turned off, blade is relaxed slightly, extending blade life.



## Optional accessories



### Hydraulic Chip Conveyor

Effective and convenient, the shaftless design incorporated allows for maximum chip removal. Also, this hydraulically powered shaftless chip conveyor does not burn out like traditional electric motors do when material falls and binds in the way.



### 2M Roller Table

Used when cutting long work pieces, the sturdily-built roller table keeps material level with the machine. (Other length available. Please consult Cosen.)



### Full Stroke Vises

Vise clamping and unclamping for any work size can be controlled directly from control panel without any need to manually position the vises. (Optional for C-250/300/320NC)



### Vise Pressure Regulator

Used to control the pressure of the vise, this device becomes extremely important when it comes to cutting tubes or softer material. With Cosen's vise pressure regulator, infinitely variable clamping pressure from 0 to full system pressure can be easily adjusted and monitored.

### Vibration Damper

Cosen's vibration damper can effectively reduce blade vibration produced under high-speed cutting. Especially for cutting small materials on bandsaws of large width capacity, the vibration damper can reduce blade vibration, increase cutting rate, and enable smooth cut-off surfaces.

### Blade Deviation Detector

With the blade deviation detector, the machine will stop automatically once the blade deviates beyond preset range, preventing unnecessary loss in material or tooling costs. The control panel displays instant reading on detected deviation value; deviation range can be easily configured with a few touches away.

### Height Decoder

Through advanced encoder technology the machine displays the exact height position of the saw frame. This allows a linear downfeed rate to be calculated and displayed, eliminating any guessing work once and for all. The height decoder helps the operator to get the best performance from the machine by being able to cut at the proper downfeed rate recommended by the blade manufacturer.

### V\_Drive

With Cosen's V\_Drive, you can cut hard-to-cut materials like Titanium, Hastelloy and other metals at significantly increased rates. V\_Drive saves you cutting time by 25~50% and at the same time improves blade life, reducing your tooling costs!



### Hydraulic Top Clamps

Required for bundle cut applications, the top clamps are hydraulically powered to provide secure clamping and works with the single/bundle cut select switch on the HMI touch panel.

● STANDARD ■ OPTION Gantry type Hinge type

	C-7658NC	C-620NC	C-520NC C-560NC	C-420NC	C-320NC	C-250NC	C-300NC	C-400NC	C-460NC
Built in work light	●	●	●	●	●	●	●	●	●
Complete coolant system	●	●	●	●	●	●	●	●	●
Digital blade speed indicator	●	●	●	●	●	●	●	●	●
Hydraulic blade tension	●	●	●	●	●	●	●	●	●
Hydraulic shuttle vise	●	●	●	●	●	●	●	●	●
Out of stock sensor	●	●	●	●	●	●	●	●	●
Power driven blade brush	●	●	●	●	●	●	●	●	●
Quick approach	●	●	●	●	●	●	●	●	●
SNC 100 system	●	●	●	●	●	●	●	●	●
Split front vise	●	●	●	●	●	●	●	●	●
Stepless variable speed	●	●	●	●	●	●	●	●	●
Tool box with tools	●	●	●	●	●	●	●	●	●
Double retraction vise	●	●	●	●	●	●	●	●	●
Hydraulic blade clamping	●	●	●	●	●	●	●	●	●
Hydraulic powered guide arm	●	●	●	●	●	●	●	●	●
Full stroke vises	●	●	●	●	■	■	■	■	■
2M roller table	■	■	■	■	■	■	■	■	■
Hydraulic chip conveyor	■	■	■	■	■	■	■	■	■
Hydraulic top clamp	■	■	■	■	■	■	■	■	■
Vise pressure regulator	■	■	■	■	■	■	■	■	■
Powered roller table	■	■	■	■	■	■	■	■	■

Model		C-250NC	C-300NC	C-400NC	C-460NC
Capacity	Round	250mm (10")	300mm (12")	400mm (16")	460mm (18")
	Square	250 mm (10")	300 mm (12")	400 mm (16")	460 mm (18")
	Rectangular (W x H)	280 x 250 mm (11"x10")	340 x 300mm(13.4"x12")	400 x 400 mm (16"x16")	460 x 460 mm (18"x18")
Speed		20~100m/min (66~328fpm)			
Saw Blade	Size (LxWxT)	3505 x 34 x 1.1mm (138"x1.3"x0.042")	3820 x 34 x 1.1mm (150.4"x1.3"x0.042")	4570 x 41 x 1.3 mm (180" x 1.6" x 0.05")	4670 x 41 x 1.3 mm (184" x 1.6" x 0.05")
	Tension	Hydraulic (Automatic blade breakage detection)			
Motor Output	Saw blade	3HP (2.2KW)	5HP (3.75KW)	7.5HP (5.5KW)	7.5HP (5.5KW)
	Hydraulic	1HP (0.75KW)	1HP (0.75KW)	2HP (1.5KW)	2HP (1.5KW)
	Coolant	1/8HP (0.1KW)	1/8HP (0.1KW)	1/4HP (0.19KW)	1/4HP (0.19KW)
Hydraulic Tank		20l (5.3gal.)	25l (6.6gal.)	40l (10.6gal.)	40l (10.6gal.)
Coolant Tank		45l (11.9gal.)	45l (11.9gal.)	80l (21gal.)	80l (21gal.)
Vise Control		Hydraulic		Hydraulic Full Stroke Cylinder	
	Automatic	Single	403mm (15.9")	403mm (15.9")	593mm (23.3")
Indexing	Multiple	Max. 99 M (max. 999")			
Length	Rest Piece	50mm (2")	50mm (2")	90mm (3.5")	90mm (3.5")
Height of Work Bed		660mm (26")	660mm (26")	750mm (29.5")	750mm (29.5")
Gross Weight		1650 kgs	1800 kgs	2750 kgs	2900 kgs
Floor Space (LxWxH)		1956*2159*1676 mm (77"*85"*66")	2010*1890*1500 mm (79"*75"*59")	2450*2310*2300 mm (97"*91"*91")	2450*2310*2300 mm (97"*91"*91")

Model		C-320NC	C-420NC	C-520NC	C-560NC	C-620NC	C-7656NC
Capacity	Round	320mm (12.6")	420mm (16.5")	520mm (20.5")	560mm (22")	620mm (24.4")	560mm (22")
	Square	320mm (12.6")	420mm (16.5")	520mm (20.5")	560mm (22")	620mm (24.4")	560mm (22")
	Rectangular (W x H)	380x320mm (15"x12.6")	420x420 mm (16.5"x 16.5")	560 x 520 mm (22" x 20.5")	600 x 560 mm (23.6"x 22")	760 x 620 mm (30"x 24.4")	760 x 560 mm (30"x 22")
Speed		20~100m/min (66~328fpm)					
Saw Blade	Size (LxWxT)	4240x34x1.1 mm (167"x1.33"x0.04")	4770x41x1.3 mm (187.8"x 1.6"x0.05")	6040x54x1.6mm (238"x 2.1"x 0.06")	6040x54x1.6mm (238"x 2.1"x 0.06")	7200x54x1.6mm (283"x 2.1"x 0.06")	6665x54x1.6mm (262.4"x 2.1"x 0.06")
	Tension	Hydraulic(Automatic blade breakage detection)					
Motor Output	Saw blade	5HP (3.7kw)	7.5HP (5.6kw)	7.5HP (5.6kw)	10HP (7.5kw)		10HP (7.5kw)
	Hydraulic	1HP (0.75kw)	2HP (1.5kw)	2HP (1.5kw)	2HP (1.5kw)		2HP (1.5kw)
	Coolant	1/8HP (0.1kw)	1/8HP (0.1kw)	1/4HP (0.19 kw)			1/4HP(0.19kw)
Hydraulic Tank		25l (6.6gal.)	40l (10.6gal.)	40l (10.6gal.)			50l (13 gal)
Coolant Tank		45l (11.9gal.)	85l (22.5gal.)	85l (22.5gal.)			85l (21.25 gal)
Vise Control		Hydraulic Full Stroke Cylinder					
	Automatic	Single	403mm (15.9")	503mm (19.8")	503mm (19.8")	503mm (19.8")	600mm (23.6")
Indexing	Multiple	Max. 99 M (max. 999")					
Length	Rest Piece	50mm (2")	60mm (2.4")	90mm (3.5")	90mm (3.5")	160mm (6.3")	200mm (7.9")
Height of Work Bed		700 mm (27.5")	700 mm (27.5")	690 mm (27.2")	690 mm (27.2")	600mm (23.6")	680 mm (26.8")
Gross Weight		2200 kgs	3300 kgs	4900 kgs	4300 kgs	5400 kgs	5400 kgs
Floor Space (LxWxH)		2010*2000*1900 mm (79"*79"*75")	2490*2360*1735 mm (98"*93"*68")	3175*2261*2261 mm (125"*89"*89")	3175*2261*2261 mm (125"*89"*89")	2200*3700*2450 mm (86.6"*145.6"*96.4")	2330*3890*2385 mm (91.7"*153.1"*93.9")

\* Design and specifications are subject to change without notice and obligation. Machine may be shown with some optional accessories.