

INDTOOLS

# Technology with Time



NC Circular Saw Machine



**ITL Industries Ltd.**



**ITL** -Provides 360° metal cutting solutions in all the spheres of engineering field. Being an aggressive, solution-centric and customer service oriented company, ITL has identified the needs of various cutting requirements from easy to most difficult to cut materials like Titanium, Hot Die steels, Alloys for Aerospace applications, case-hardened steels etc.

ITL has also provided unparalleled support to the industry for special purpose cutting applications like Aluminum runner-riser, Graphite slabs, Silicon, Gas Cylinder neck/end cutting, Radial Tyre etc. with complete tooling up/fixturing.

In the endeavor to bring the latest and most advanced solutions, ITL has developed - India's first NC & CNC Controlled Circular Saw Machines with TCT as well as HSS saw blades.

TCT Circular Saw Machines are the new benchmark of productivity in Mass – production applications. Such machines are replacing shearing machines, Automatic bundle cutting bandsaw machines, and Automat lathes (Traub) machines.



\* Optional features shown in photo are at extra cost.

## Applications of Circular Saw Machines-

- Most suitable for cold forge shops as very close weight variation in cut piece
- Forging Units
- Cutting Traders
- Automobile Industries
- Fittings/ Fasteners Manufacturing
- Arms & Ammunitions
- Infrastructure
- Refineries & Petrochemical
- Forging Units to cut end pieces
- End cutting in CNC production centres for Auto components.
- General purpose application where batch cutting required.

## Salient Features:

- High precision machine with the cut-length accuracy up to  $\pm 0.050$  mm. Using high precision ball screw with AC Servo motor for the super fast and precise movement of the shuttle table.
- Rigid construction of the Slant type cutting head, moves on state of the art Linear Motion Guide ways which facilitates very accurate and nearly friction less movement. Because of the use of linear motion guides the life of cutter is substantially increased.
- Micro mist oil used as coolant is clean, eco-friendly and highly effective. No water-flood coolant is used thus no spillage and no dirty shop-floors. No requirement of coolant filtration processing. Swarf generated from cutting is absolutely dry thus the cost-realization of scrap after selling is much better than conventional band-sawing machines. This implies better business economics !
- Controlled Crop cut feature for precise length setting of first cut piece of new bar.
- Ergonomically designed Electric control panel with HMI touch screen, located at the front-bottom for easy operation and maintenance.
- Back-Lash Free Gear Box using Electro Magnetic Powder Break Mechanism, which improves the cutting finish and enhances the cutter life.
- HMI Self diagnostic feature for easy trouble shooting, warning, cautions, alerts, etc.
- HMI display feature lot size programmed & cut completed, program number in use, current drawn by saw motor, etc.
- Excellent cut-surface finish which does not require any facing operations. Thus significant material and production time savings.
- Crop cut separator for Trim-cut and Remnant end-piece.
- Top Clamping + Horizontal clamping possible in work Table.
- Double bar Cutting for Round job as per machine capacity.
- No additional Jaws required for Min. & Max. Job capacity of Machine.
- Having strengthen Fix Jaw in Work table for better clamping of Job.
- Feed Assly with Dead Weight Cylinder for better performance.
- Hard Carbide Shoe is provided for guiding Cutter which Helps in better cutter life & performance.
- Hard Shoe position is very close during Cutting of Bigger Job, which helps to improve Cutting accuracy & Better Cutter life.
- New improved Look of Cabinet Assly & Control Panel Assly.
- Well Placed hydraulic Power pack for easy maintenance and trouble-free operation.
- Having of Shuttle with Floating facility for insertion of Job in Work Table of Avoid Rubbing.
- Automatic Bar loader for Round/Square/Hex jobs, for continuous feeding of the bars into the machine.
- Automatic swarf conveyor suitable to take out the chips out of the machine.
- Feed Assly is at  $45^\circ$  of cutter entry for better performance.
- Longer cut pieces can be cut very easily as the shuttle stroke is 500 to 3000 mm, with multi indexing.
- Hydraulic Wire brush for efficient and positive cleaning to the saw blade.
- PLC programmable controlled Auto lubrication system for periodic and desired Quantity lubrication.
- Ergonomically designed machine canopy provides ample space for cutter change, regular check up and preventive maintenance.
- Infinitely variable saw speed control through Inverter/Variable Frequency Drive.
- Variable vice pressure for cutting pipes. (Optional)
- Flood coolant system (Optional)
- Exhaust fume oil separator (Optional)
- Auto loader front guard of sheet metal. (Optional)

## Examples of Productivity of ITL Circular Saw Machines

Model	Dia (mm)	Cutting Time (In Sec)	Number of Cut Pieces / Hour*
CSNC 80 XL	80	9.70	370
CSNC 110 XL	110	17.0	211
CSNC 130 XL	130	23.00	156

\*Condition apply.

Material Considered C - 35 Normalized, Cut length consider - 100 mm.

## Specifications

SPECIFICATIONS		CSNC-80XL	CSNC-110XL	CSNC-130XL
Cutting Capacity	Round Bar	10-80 mm	25-110 mm	25-130 mm
	RCS Bar	10-60 mm	25-80 mm	25-100 mm
	Square Bar	10-55 mm	25-75 mm	25-90 mm
	Double Bar Cutting	Round	10-32mm	25-45mm
		Square	10-27mm	25-38mm
	Stock Bar Length	3-6 mtr.	3-6 mtr.	3-6 mtr.
	Cut-Off Length	Min 6mm upto 1000mm or higher length with multiple indexing	Min 10mm upto 1000mm or higher length with multiple indexing	Min 10mm upto 1000mm or higher length with multiple indexing
	Remnant Length (in mm)	60+ Cut length	65+ Cut length	65+ Cut length
Circular Saw Cutter	Type	TCT/HSS	TCT/HSS	TCT
	Dia. X Thickness Body	285x2.0x1.70x32	360x2.6x2.25x40	420x2.7x2.25x50
	Thickness x Bore	4/9/50 + 4/11/63	4/12/90 + 4/15/80	4/12/90 + 4/15/80
	Nos. of Mounting Hole & PCD	Only one cutter can cut mentioned cutting capacity	Only one cutter can cut mentioned cutting capacity	Only one cutter can cut mentioned cutting capacity
	Saw Speed by VFD	50-180 mpm	50-170 mpm	50-160mpm
	Coolant	Flood / Micromist	Flood / Micromist	Flood / Micromist
Coolant	Flood Coolant (Optional) Tank Capacity	80 Ltrs.	90 Ltrs.	90 Ltrs.
	Micro-mist Tank Capacity	3 Ltrs.	3 Ltrs.	3 Ltr.
	Air Pressure for Micro-mist	6 Bar	6 Bar	6 Bar
Saw Motor	Power (KW / HP)	11.2 KW/ 15HP	15 KW/ 20HP	22.5 KW/ 25 HP
Hyd. Motor	Power (KW / HP)	2.2 KW/ 3HP	2.2 KW/ 3HP	2.2 KW/ 3HP
Hydraulics	Tank Capacity	80 Ltrs.	80 Ltrs.	80 Ltrs.
Electricals	Control Volts	24 V DC	24 V DC	24 V DC
	Supply	415 V/3 Ph/ 50 Hz	415 V/3 Ph/ 50 Hz	415 V/3 Ph/ 50 Hz
Floor Space Machine Size with conveyor	LxWxH without auto loader in mm (approx.)	2550x2500 x2100	2600x2600 x2300	2600x2600 x2300
Weight (Approx.)	Standard Machine	3000 kgs	3800 kgs	3900 kgs

The above specifications & designs are subject to change without prior notice. Optional accessories shown in the pictures may not be part of standard equipment.

**Note:** These machine require stabilized power supply of 3 Phase 415 VAC. through an IGBT Type Stabilizer. These machines work with Micro-mist Cooling arrangement, which require dry compressed air (compressor must have dryer in it) at 6 bar (minimum) continuous pressure & regular supply with an FRL unit in the air input line.  
30-35 CFM - In CSNC-110 XL & CSNC-130 XL models.  
25 CFM - In CSNC-80 XL model.



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(a BSE Listed, ISO 9001:2015 Certified Company)

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