



**CIRCULAR SAW MACHINES
SONIC FANC SERIES FOR BAR & PIPE CUTTING**

ZEAL TECH AUTOMATION

An ISO 9001 : 2015 Company

www.zealtechautomation.com

SONIC FANC 60/80/100/125/150/200

FEATURES

- ◆ Suitable for processing of various materials grade and sections: solid material, tubes, square, Rectangle, Hex and many profiles sections.
- ◆ Torsion free construction, Heavy duty Fabricated Structure of Machine.
- ◆ Infinitely variable controlled Cutting feed through Ball Screw Servo motor arrangement.
- ◆ Variable Frequency Drive (Inventor) for various cutting speed.
- ◆ Precise Indexing of job through Ball Screw Servo motor arrangement with $\pm 0.05\text{mm}^*$ Accuracy
- ◆ Cut of length measured by PLC Using Servo Drive arrangement.
- ◆ Multiple Shuttle index stroke for cutting length up to 3000mm.
- ◆ PLC Control system with Touch Screen HMI allows easy operation without the need for machining of programming knowledge.
- ◆ HMI with self diagnostic feature for easy trouble shooting, warning, alerts, etc.
- ◆ Auto and manual mode for cycle sequence.
- ◆ Hydraulic Operated job clamping horizontal and Inclined Vice.
- ◆ Heavy duty reduction Gearbox for heavy cutting torque mounted on precision Linear Motion Guide ways for vibration free cutting to optimize cutter life and production.
- ◆ Unique design of in-build micro mist cooling arrangement (100% Maintenance Free).
- ◆ Separate Hydraulic Power pack with all control valves, gauges & Oil level indicator for easy check & maintenance.
- ◆ Electrical Control Panel with high quality switch gears.
- ◆ Unique Free Lifting mechanism reduces Wear & Tear of Jaw liners and helps in accepting over bend bars up to 3 mm/mtr.
- ◆ The robust 45° inclined guide of the saw head ensures a perfect rake angle and guarantees high cutting accuracy with maximum performance.
- ◆ Powered wire brush for cleaning of chips from circular saw blades
- ◆ To reduce saw blade face out and vibration, the machine is equipped with special carbide guides the blade near to the teeth on both sides, This enables maximum cutting precision and the best saw blade life at low unit cost.
- ◆ Automatic Trim Cut.
- ◆ Crop Cut & End Cut Separator.
- ◆ Powered Chip conveyor.
- ◆ PLC controlled Auto Lubrication unit for periodic lubrication of all slides.

Standard Auto Bar Loader

Automatic material feeding via an inclined loading magazine allows unmanned sawing operation even for material length in excess of 6 m with stacking area for raw material up to 800 mm (Above FANC 100) Model this loader works on cam mechanism which helps the bar smoothly loaded on the machine without any Impact. This support detection of the work piece starting point for firm cutting. We also provided universal loader for auto loading of section such as HEX, RCS, Rectangle & almost all varied section



*On Bright Bar



Robust and Torsion-Resistant Saw Head

A Heavy Duty Saw Head with special backlash free gearbox and a ball screw drive with High Precision Liner Guide ways mounted on torsion - free machine bed, cutter is guided with 3+3 Carbide pads for guides, are the basis for maximum cutting accuracy and to ensure life of saw blade is extended to its optimum.

Main Work Table

Main Work Table equipped with side clamp and inclined Top Clamp with 4 Point clamping ensures rigid clamping during cutting also allows square, rectangle, HEX & almost all virtual sections also equipped with job clamping feedback sensor to ensure perfect clamping of component before cutting starts.



High Precision Stock Feeder Assembly

The material feed via servo-controlled precision gripper with ball screw & Servo Driven guarantees the most accurate length & a Maximum repeatability within $\pm 0.05 \text{ mm}^*$. The intelligent control always ensures the optimum position of grip feed as well as high repeatability.

Automatic Cut Length And Crop/Remnant Sorting

The trim cut length can be freely selected Between 10-50mm. During automatic operation trim cuts and remnants are separated to the left side and cut pieces are fed into a coparated made available on the other side.



Free Lifting Mechanism

This special feature is to facilitate contact free movement of material for cut to length, this helps for smooth feeding of over bend bars, surface of the material is protected against scratch damages & reduces Wear & Tear of jaw liner resulting improved life.

Touch Screen HMI with Selector Switches

The Data for cutting length & numbers can be easily entered step-by step via user friendly color "TOUCH SCREEN" display with graphics easy for feeding the required data & monitoring of cutting in single screen. User friendly operating module includes self diagnostic function on-screen for trouble shooting with an automatic detector, for any malfunction, the screen will show an alarm with cause, so that the problem can be easily identified & resolved also equipped with selector switches for operating the machine facilitates, increased HMI life



TECHNICAL SPECIFICATION

		SONIC FANC 60	SONIC FANC 80	SONIC FANC 100	SONIC FANC 125	SONIC FANC 150	SONIC FANC 200
Cutting Capacity	Round / Pipe	10-60 mm	15-80 mm	20-100 mm	40 -125 mm	40-150 mm	60-200 mm
	Square Bar	10-40 mm	15-65 mm	20-75 mm	40 -100mm	45-110 mm	60 -160 mm
	Cut of Length	10-3000 mm	10-3000 mm	10-3000 mm	10-3000 mm	10-3000 mm	10-3000 mm
	Crop Cut Length	10-50 mm	10-50 mm	10-50 mm	10-50 mm	10-50 mm	10-50 mm
	Remnant Length	60 mm	60	60	70	80	80
	Saw Blade Speed in MPM	20-180 MPM	30-180 MPM	30-180 MPM	30-180 MPM	30-180 MPM	30-180 MPM
	Cutter Type	TCT / HSS	HSS / TCT	HSS / TCT	HSS / TCT	HSS / TCT	HSS / TCT
	Cutter Size	250/285X2X32	285/315x2	315/360x2.2/2.6	420/460x2.7	460/510x2.7/3	560/630x3.3/4
	Coolant	Mist	Mist	Mist	Mist	Mist	Mist
Saw Feed Servo Driven	Infinitely Adjustable in mm/min	1000	1000	1000	1000	1000	1000
	Rapid Return in mm/min	8000	8000	8000	8000	8000	8000
Feed Carriage Servo Driven	Advance in MPM	7.5-10	7.5-10	7.5-10	7.5-10	7.5-10	7.5-10
	Rapid Return in MPM	15-20	15-20	15-20	15-20	15-20	15-20
	Single feeding length in auto cycle	500	775	775	1050	1050	1050
Loading Table	Bar Length in Mtr.	03-06.	03-06	03-06	03-06	03-06	03-06
Electrical	Supply	415/3ph/50 Hz	415/3Ph/50Hz	415/3Ph/50Hz	415/3Ph/50Hz	415/3Ph/50Hz	415/3Ph/50Hz

Above specifications are subjected to change for continuous improvement

MODELS

▶ **SONIC FANC:**
Fully Automatic Numerical Controlled

▶ **SONIC FAHC:**
Fully Automatic Hydraulic Controlled

▶ **SONIC SANC:**
Semi Automatic Numerical Controlled

▶ **SONIC SAHC:**
Semi Automatic Hydraulic Controlled

We also manufacture special purpose customized machine as per individual requirement.

Note : These machine require stabilized power supply of 3 Phase 415 VAC, to avoid any malfunctioning of sensitive Servo motors and drives. It is recommended to have a Servo Stabilizer. These machines work with Micro-mist Cooling arrangement, which requires dry air at 4 bar pressure & 10 CFM regular supply air input line.



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