

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



ZEAL TECH AUTOMATION

An ISO 9001 : 2015 Company



SONIC FANC 70/80/100/125/150

Circular Saw Machines for Carbide and HSS Cutters

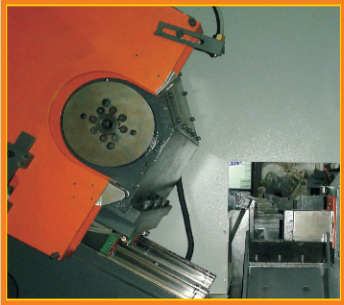
The Perfect solution for Cutting bar material with highest precision with minimized costing.....



FEATURES

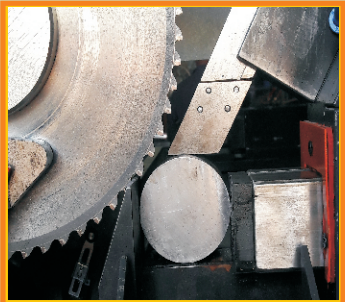
- ◆ Suitable for processing of a large number of materials and shapes: solid material, tubes, square, Rectangle material and profiles.
- ◆ Torsion free construction, Heavy duty Fabricated Structure of Machine.
- ◆ Infinitely variable controlled Cutting feed through Ball Screw Servo motor arrangement.
- ◆ Variable Frequency Drive (Inventor) for various cutting speed.
- ◆ Precise Indexing of job through Ball Screw Servo motor arrangement with $\pm 0.050\text{mm}$ Accuracy.
- ◆ Cut of length measured by PLC Using Servo Drive arrangement.
- ◆ Multiple Shuttle Index stroke for cutting length up to 3000 mm.
- ◆ PLC Control system with Touch Screen HMI allows easy operation without the need for machining or 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 vertical Vice.
- ◆ Heavy duty reduction Gearbox for heavy cutting torque mounted on Linear Motion Guide ways for vibration free cutting to optimize cutter life and production.
- ◆ Inbuilt micro mist cooling arrangement.
- ◆ Separate Hydraulic Power pack with all control valves, gauges & Oil level Indicator for easy check & maintenance.
- ◆ Electrical Control Panel with high quality switch gears
- ◆ The robust inclined guide of the saw head ensures a perfect rake angle and guarantees high cutting accuracy with maximum performance.
- ◆ Driver brushes for cleaning of chips from circular blades
- ◆ To reduce saw blade vibration, the machine is equipped with special saw blade plate guides that move 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.

SONIC FANC 70/80/100/125/150



Robust and Torsion-Resistant Saw Head

A Heavy Duty Saw Head with special backlash free gearbox and a ball screw drive in a torsion-free machine bed, cutter is guided with carbide pads, 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 with side clamp and inclined Top Clamp ensures rigid clamping during cutting also allows square and rectangle clamping for cutting various job sizes.



High Precision Stock Feeder

The material feed via servo-controlled precision gripper with ball screw and linear guiding guarantees the most accurate cutting lengths and a maximum repeatability of under $\pm 0.050\text{mm}$. The circular saw is equipped with free lifting function for smooth feeding of bend bars and the surface of the material is protected against damage. the intelligent control always ensures the optimum position of the grip feed as well as high repeatability.



Automatic cutting and remnant sorting

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

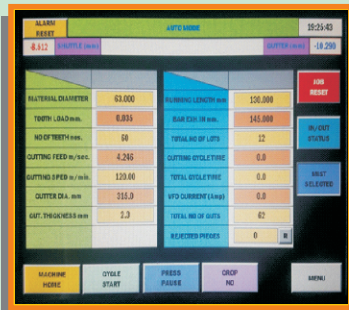
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Bar Feeder Assembly



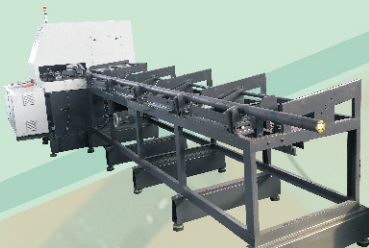
Bar Feeding assembly is fitted on Hardened Ground Hard Chrome Plated Bars for frictionless feeding of jobs by ball screw servo motor for repeatability within $\pm 0.050\text{mm}$ equipped with FREE LIFTING mechanism helps to feed even bend bars, reduces the friction and scratch marks on the surface of bar during feeding, increases jaw liner life.

Touch Screen Human Machine Interface



The data for cutting lengths and numbers can be easily entered step-by step via user friendly colour "touch screen" display with graphics. Easy for feeding the required data and 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, so that the problem can be easily identified and resolved

Standard Auto Bar Loader

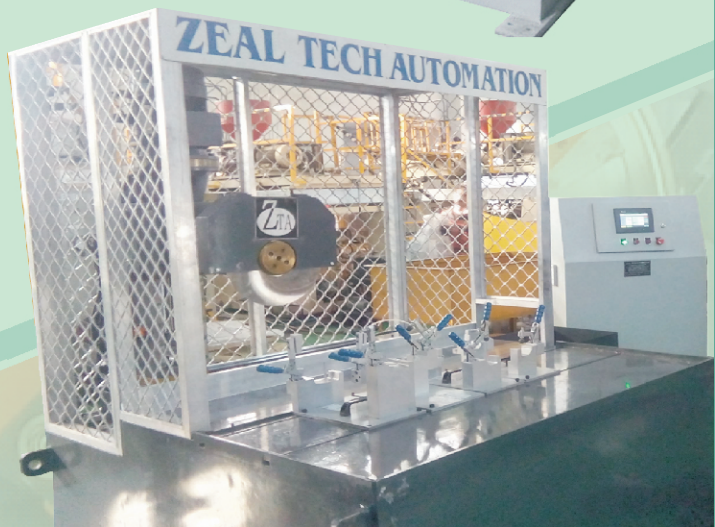


Auto Bundle Loader



Automatic material feeding via an inclined loading magazine allows unmanned sawing operation even for material lengths 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 supported detection of the work piece starting point for trim cutting.

**Application Oriented
Special Purpose
Circular Saw
Machines**



TECHNICAL SPECIFICATION

		SONIC FANC 70	SONIC FANC 80	SONIC FANC 100	SONIC FANC 125	SONIC FANC 150
Cutting Capacity	Round / Pipe	10-70 mm	15-80 mm	20-100 mm	25-125 mm	25-150 mm
	Square Bar	10-50 mm	10-60 mm	20-70 mm	25-90 mm	25-120 mm
	Cut of Length	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
	Remnant Length	60	60	60	60	60
	Saw Blade Speed in MPM	30-150 MPM	30-150 MPM	30-150 MPM	30-150 MPM	30-150 MPM
	Cutter Type	HSS / TCT	HSS / TCT	HSS / TCT	HSS / TCT	HSS / TCT
	Cutter Size	250/285x2	250/285/315x2	360/420x2.6	420/460x2.7	420/460/510x2.7
	Coolant	Mist	Mist	Mist	Mist	Mist
Saw Feed Servo Driven	Infinitely Adjustable in mm/min	1000	1000	1000	1000	1000
	Rapid Return in mm/min	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
	Rapid Return in MPM	15-20	15-20	15-20	15-20	15-20
	Single feeding length in auto cycle	800	800	800	800	800
Loading Table	Bar Length in Mtr.	02-06	02-06	02-06	02-06	02-06
Electrical	Supply	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.



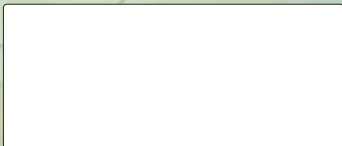
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