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Semi-Automatic Canted Frame Straight Cutting Saws

- Model Number : SH-1000F
- Design Style : Double Column Type

Specifications

Model		SH-1000F (7.5 blade tilt)
Max. Capacity	Round	660 mm (26")
	Rectangular (H x W)	520 x 1020 mm (20.5" x 40")
Saw Blade	Speed(60Hz)	20-100 m/min (66-330 fpm)
	Size (LxWxT)	8000L x 54W x 1.6Tmm (315" x 2" x 0.063")
	Tension	Hydraulic
Motor Output	Saw Blade	10 HP (7.5 KW)
	Hydraulic	2 HP (1.5 KW)
	Coolant pump	1/4 HP (0.18 KW)
Tank Capacity	Hydraulic	75 L (18.8 gal)
	Coolant	120 L (30 gal)
Work Bed Height		650 mm (25.6")
Net Weight		5200 kgs (11440 lbs)
Gross Weight		5600 kgs (12320 lbs)
Floor Space(LxWxH)		1370 x 4000 x 2620 mm (54" x 157.5" x 103")
Shipping Space(LxWxH)		1675 x 4215 x 2460mm (66" x 166" x 97")

Machine Features

SH-1000F Machine Features

Structure:

Cosen employs a rigid, oversized round column design, which keeps the same penetrating angle to the material from top to bottom of cut, to enable smooth and consistent feed rate throughout the entire cutting cycle.

The 7.5º blade cant is designed for cutting large I-beams or other structural shapes creating more even load per blade tooth, thus increasing cutting efficiency and blade life, meanwhile eliminating blade binding in the web.

The oversized round columns provide over **450** square inches of continuous surface contact with the sawhead throughout the entire cutting process. Both columns are precision ground for smooth and consistent feed pressure & feed rates.

Blade Drive & Lubrication System:

The specially designed Planetary Drive will provide smooth and powerful cutting thru the heaviest of materials. Cosen's planetary drive is designed for long life in the fabricator's environment. Because the drive system was designed to accept high lateral pressure, this design will not create thermal distortion.

Heavy Duty Inverter blade drive system provides infinitely variable blade speed control from the operator's control station.

LED speed indicator is conveniently located on the control panel.

Powered Chip Brush is driven by a separate motor in sync with blade motor for optimum blade cleaning prolonging blade life & blade guides.

Complete coolant system with integral recovery system.

Blade Guidance:

Automatic hydraulic blade tension device insures proper tension to blade when machine is turned on and will relax blade tension slightly when turned off, extending blade life.

Hydraulically powered guide arm is activated from the operator's counsel & permits more efficient cutting by being able to be moved close to the material, regardless of size.

Hydraulically operated carbide blade guides are relieved to provide unsurpassed lubricating and cooling of the blade and blade guides.

Additional blade guiding bearings contacting the back of the blade provides extra support for added penetrating force for faster cuts.

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.

Control & Automation:

Independent Control Station is located ergonomically at waist height featuring convenient accessing and ease of operation.

Cosen's Dual Valve Feed System achieves optimal cutting performance. The operator can easily pre-select the correct feed pressure and feed rate for efficient cutting of any material.

The "On-Off" switch is an added feature that makes blade changing quicker and easier.

"Last Cut" or "Keep On" selector enables you to choose either to turn the machine off or return the saw head to the pre-selected cut height ready for the next cut.

Material Clamping & Feeding:

Hydraulically powered infeed lift roller makes material placement easy by using the gear reduction driven infeed roller. It gives operator the option to move material quickly for fast travel or micro-feed the material for fine adjustment to line up with blade line projected from shadow light.

Heavy duty machine vise provide ample hydraulic pressure onto the material.? Cosen uses a detector to monitor vice pressure on your work piece. This feature insures that the piece will be held tightly in the vise through a long cutting period.

Two take-in rollers work with the powered infeed lift roller to facilitate feeding of long structural steel into the cutting area.

Shadow Light projects the blade line onto the work piece for convenient length measurements.

Two full stroke vises securely hold the material during the cutting process

Safety:

A proximity switch senses both blade slippage and blade breakage, and if sensed, it will automatically shut off machine.

Vise must be at full pressure prior to the machine commencing its cutting mode. This safety feature is standard and is verified by the system interlocking design.

Interlock design in electrical and hydraulic system prevents the saw from accidental start, i.e. work vise and blade guides need to be clamped first before blade starts, guide arm will not move until the blade guides are released from clamp pressure, etc.

All moving parts, blade covers, and guarding on the saw are painted Alert Orange to increase safety alertness.

All exposed electric wiring and hydraulic circuit are protected by conduits.

Standard Accessories:

Bi-metal saw blade

Tool Box with tools, leveling pads, and an additional wire brush

Operation & parts manual

OPTIONAL ACCESSORIES

Vise pressure regulator ??Infinitely variable clamping pressure between 0 and full system pressure is easily adjusted and monitored by this device.

Hydraulic nesting fixture (top clamp)-- Hydraulically powered to provide secure clamping for bundle cut applications.

Hydraulic chip conveyor-- Hydraulic driven shaftless design allows maximum chip removal rate without worrying about burnt up motor when material falls and binds in the chip conveyor.

NC Controlled LCD Screen with Deviation Detector

a. The feed rate and cutting rate show up automatically.
b. Work height setting.
c. Cutting condition scanning system.
d. In case the error occurred, the error message and the reference failure position will show up.
e.The record of the operation time and the blade life (time and cutting area) is saved in memory.
f.In case the deviation is over the default value, the machine will automatically stop.

Harmonics Dampener --While cutting structural materials i.e. H-beam of large width, the distance between the two guide seats will be too far apart resulting harmonics at the blade. Applying this device between the guide seats can effectively eliminate harmonics by clamping the blade back. When the blade cuts into the material, harmonics dampener will stay above the material and re-clamp the blade when saw frame rises back up.

Automatic Wedging Resistance --When cutting some heavy wide-flange beams, the material may stress relieve and pinch the blade. To prevent the blade from becoming wedged in the cut, the Automatic Wedging Resistance option detects the increase in required amperage and cause the saw bow to automatically rise and return into the cut repeated throughout the remainder of the cut.

Prism Vise --The prism vise is constructed to cut hexagonal shaped bundles without having to loosen the pack. With the prism vise, there is more contact between the vises and the pipes; the gap between pipes will be less as well. It will provide a more stable clamping force on the material.

Floor plan

Close