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FMB Pegasus CNC Automatic Automatic Mitre Band Saw

Standard Features and Equipment of Pegasus CNC

Overview

Pegasus CNC designed for mitre sawing from 0 to 60 degrees in automatic cycle. The CNC control allows you to set a cut length AND cutting angle for each step in a cycle. For instance: Index the work piece 32 inch and cut at 0 degrees; index 64 inch and cut at 45 degrees. Movement of the saw head into the cutting angle is controlled by the CNC control.

Saw Head Design and Features

A Massive Heavy Duty Torsion Free Saw Head is manufactured from special aluminum alloy; steel and cast iron for a balanced saw head that absorbs cutting vibrations. Height return of the saw band is set automatically to the work piece.

Rotation of the Saw Head

Rotation of the saw head is fully programmable from the control panel of the machine. Rotation is powered by a hydraulic cylinder and the cutting angle is maintained via magnetic band. Once the saw head is at the desired cutting angle; the saw head is locked into position via hydraulic cylinder.

Dynamometric Band Tension

The blade is tensioned dynamometrical to the proper tension. A saw blade breakage switch shuts the machine down in the event band tension is lost for any reason.

Blade Rotation Sensor

Rotation of the band wheel is monitored and if any deviation is detected, the machine will shut down.

Saw Blade Drive and Blade Speed Control

Direct drive reduction gear box features gears with ground teeth that are induction hardened. The gear box is an enclosed system greased for long life. The direct drive gear box transmits power directly to the band wheel. This feature allows maximum torque to be delivered to the cut. Blade speeds (50-400 FPM) are controlled via an inverter. The blade speed is changed via input in the CN control.

Saw Blade Feed System

The saw blade is fed via hydraulic system with dual controls of pressure and rate of feed. Controls are located conveniently near the operator.

CN Cutting Control Panel

CN cutting control manages your cutoff programs. Simply input via keypad, desired length, angle of cut, number of pieces, blade speed, etc. and the machine will monitor cutoff jobs for accuracy.

99 Cutting Programs can be stored and each program can have 100 steps.
(Number of cuts and cut length)

Desired cut length is input and if more than one index is required, the CN will automatically calculate required number of strokes and blade kerf calculation.

Blade Guide System

The saw blade is supported by roller and carbide guides which are wear resistant. The saw blade has reduced twist as it enters the guide putting less strain on the blade backing material.

Material Index System

Material is indexed to the cut length via hydraulic gripper vise. The gripper vise travels on dual linear rails that reduce friction. The length gauge is set via a servo motor and ball screw. The vise is activated by a dual limit switch. The index vise has a two speed index with creep feed to an exact length.



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Vises are self-centering thus, even a bent bar can be fed without incident.

There are 4 rollers on the in feed side of the blade. Two of the rollers move in automatic cycle with the gripper vise to better support the work piece as it becomes shorter. Accuracy of the Index System is +/- 0.004". Length of a single index is 39 inches and the drop end in auto cycle is 12 inches.

Part Clamping System

The clamping vises are on a rack system with hydraulic cylinder. This allows for rapid adjustment of the cutting vise according to the work piece.

Chip Collection Pan

A large chip collection pan allows for chips to collect, as the coolant drains from the chips. The chip pan can be emptied of dry chips.

Blade Brush

The Blade Brush is driven via motor and gear box. This cleans the blade of chips and promotes long blade life.

Electrical Panel

The electrical panel and operator control are ergonomically located in the front of the machine. Control Voltage is 24 VAC. The panel has built in protection of high voltage and short circuit. The CN control offers many self-diagnostic features.

Technical Data:

Cutting Capacity	0 Degree	45 Degree	60 Degree	Bundle
Round	13"	12-1/2"	9"	--
Rectangle A	13" x 20"	10-1/4" x 13-1/2"	6-1/4" x 9"	8" x 16-1/8"
Square	13" x 13"	10-1/4" x 10-1/4"	6-1/4" x 6-1/4"	--

Blade Size	Blade Speed	Saw Motor Power	Stroke	Voltages Available	Foot Print	Weight
13'6" x 1-1/4" x .042"	Variable 52-394 FPM	4 HP	39.37"	220v/3PH 440v/3PH	181" x 95"	4,775 lbs.