



## PAT MOONEY, INC.

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# FMB Solar Vertical Tilt Bandsaw

The Solar Vertical Tilt Bandsaw is a true semi-automatic machine with full hydraulic operation. As standard, the sawhead will tilt 60 degrees to the left AND right. The machine also comes standard with hydraulic tilt so the saw operator will set the angle position from the control panel using the digital angle display. The Solar's large cast saw head moves on linear guides for added rigidity.

### Standard Features:

- Fully Hydraulic, Semi-Automatic Operation
- Sawhead Tilts 60 degrees to the left AND right
- Laser Light for Cut Line
- Left and Right Hand Hydraulic Vise Clamps
- Hydraulic Sawhead Tilt
- Digital Display of the Cutting Angle
- 4.5 degree Cant Sawhead
- Inverter Controlled Variable Saw Blade Speed

### Cutting Capacity:

	<u>Round</u>	<u>Square</u>	<u>Rectangle (w x h)</u>
0 degree	18"	18" x 18"	18" x 22"
45 degree Right	14"	14" x 14"	18" x 14"
60 degree Right	8-2/3"	8-2/3" x 8-2/3"	18" x 8-2/3"
45 degree Left	15"	15" x 15"	18" x 15"
60 degree Left	10"	10" x 10"	18" x 10"

### Technical Data:

Blade Size	Blade Speed	Saw Motor Power	Voltages Available	Foot Print	Weight
16' 3" x 1-1/4" x 0.042	Variable 52-394 FPM	5.5 HP	220v/3PH 440v/3PH	79" x 106" x 98.5"	3,256 LBS

#### Machine Base

The heavy duty machine base supports the saw head and saw table. The base is manufactured of heavy duty welded steel in a torsion free construction. The Base also houses the hydraulic unit and reservoir for the flood cleaning unit.

#### Work Table

The large steel table incorporates the clamping system. The table has hardened, replaceable wear strips for long wear and easy maintenance. The table allows flood cleaning solution to drain properly.



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### Material Clamping System

The machine comes standard with hydraulic vises that are mounted on the left and right side of the saw table. The stroke of the clamping cylinders cover the full 18" width cutting capacity so all of the clamp movement is controlled hydraulically.

### Saw Drive System

The Saw Motor and inverter drive a high efficiency planetary reduction gear box. This system allows for a wide range of blade speeds (52 to 394 FPM) with most efficient transmission of power. The Drive System is 95% efficient in turning the HP into power.

### Vertical Saw Head with Laser Light for Cut Line

The Massive Saw Head tilts left and right at a full 60 degrees. The Tilt is hydraulic and is set from the control panel. The saw head rotates on a 6 inch diameter shaft that is hardened and ground for durability. The saw head is a cast piece for added rigidity. The saw head also has a mounted laser light to show the cut line.

### Vertical Saw Head Cutting Control

The Saw Head is designed on a 4.5 Degree Cant for maximum sawing efficiency. This cant translates into 20% faster sawing. The saw head travels on linear rails and the slide has linear guides for most efficient power transmittal. The sawhead is driven by a hydraulic cylinder so the operator is able to control the feed rate using the flow control located on the operator panel.

### Saw Guide System

The Vertical Saw Head also incorporates top and bottom saw guides. The precision guide blocks allow accurate sawing. Guides are carbide with a precision roller to guide the blade into the carbide guide. Bottom guide is fixed, the top guide is located on a movable guide arm.

### Blade Lubrication System

As standard, the machine comes with a flood coolant system with coolant nozzles located at the top and bottom guide blocks so there is coolant at the entrance and exit of the cut. As an option, a mist lubrication system is available.

### Operator Panel and Machine's Control:

The Operator Panel is located in a convenient location in front of the machine and allows the operator a clear view of the work area. It is ergonomically designed and easy-to-use. The machine's operation is monitored by a PLC.