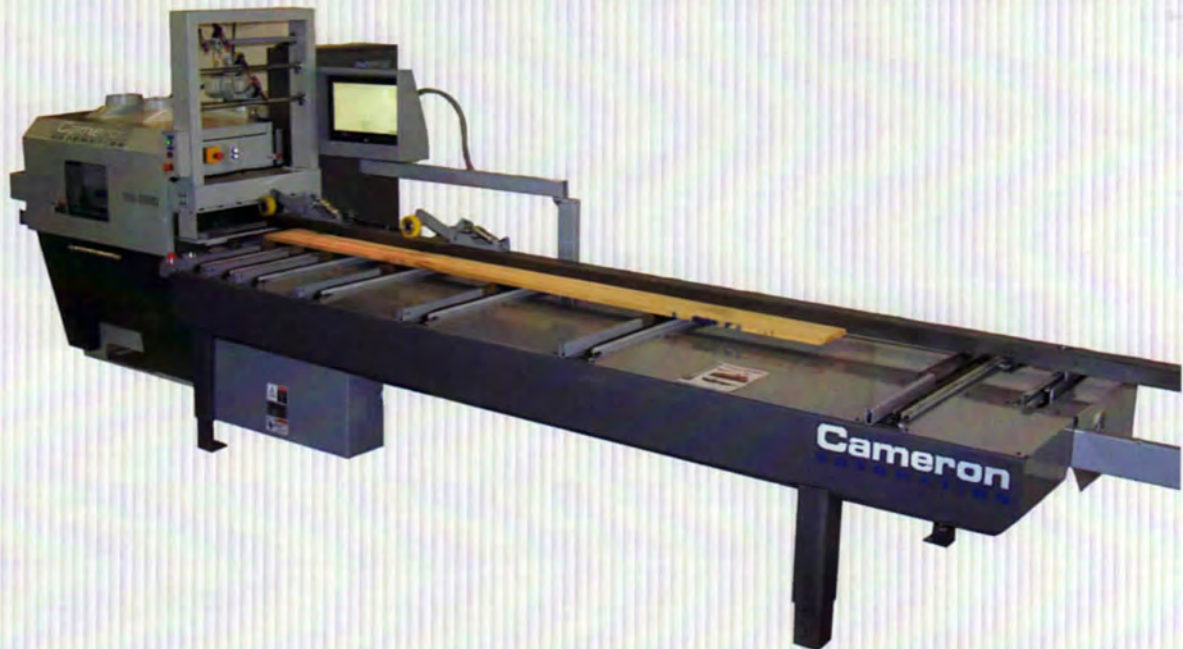


Cameron

A U T O M A T I O N

High Yield Rip Systems



Cameron Rip Systems - The Quick Rip System

Laser rack and moving lasers provide rip solution to the operator prior to ripping the lumber.

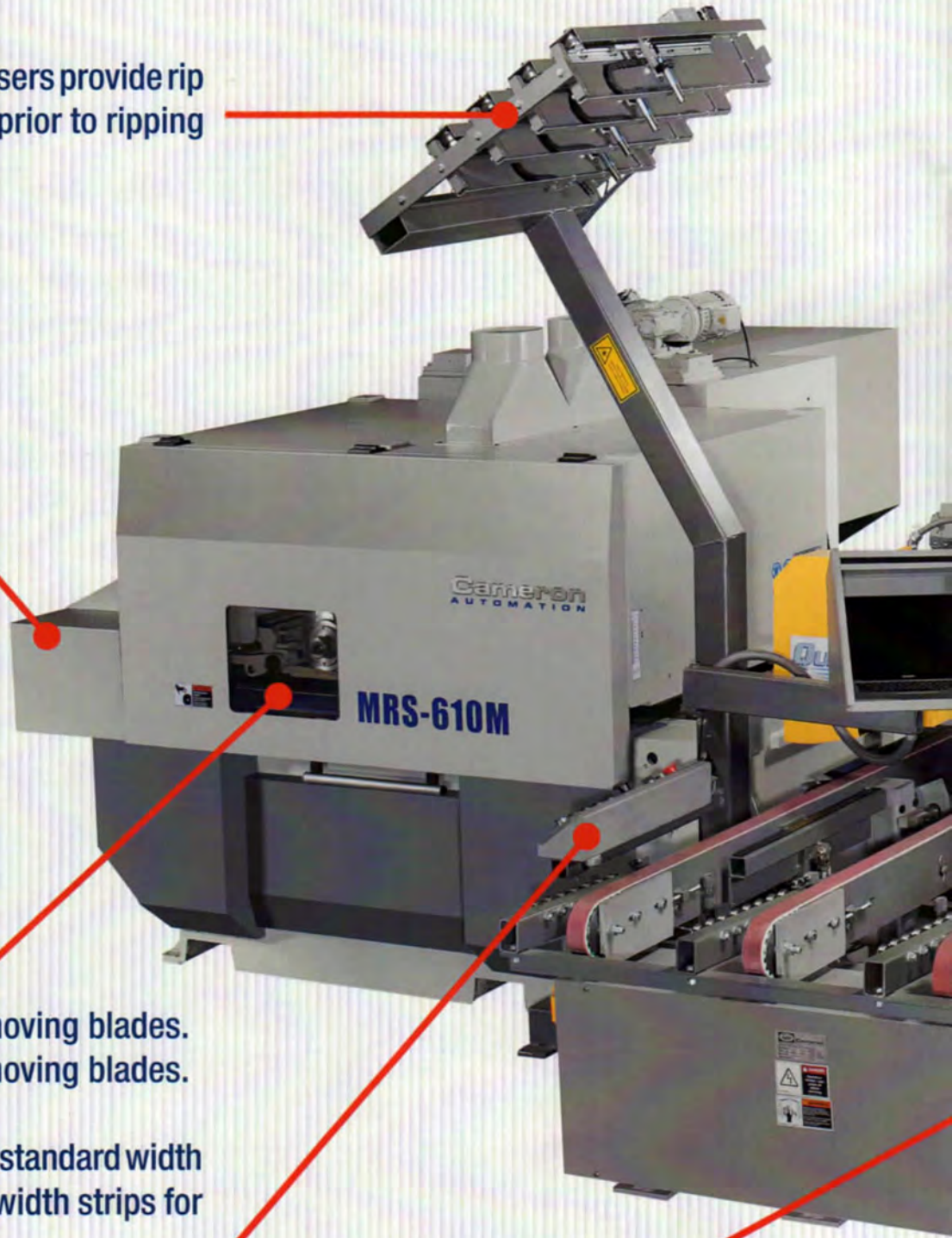
Driven outfeed roller.

24" (610 mm) Arbor, 4 moving blades.
18" (450 mm) Arbor, 3 moving blades.

Highest possible yield for standard width components or random width strips for gluing.

Operator's station with simple and intuitive controls.

Servo drives and polyurethane belts accurately position boards under the lasers and into the saw.

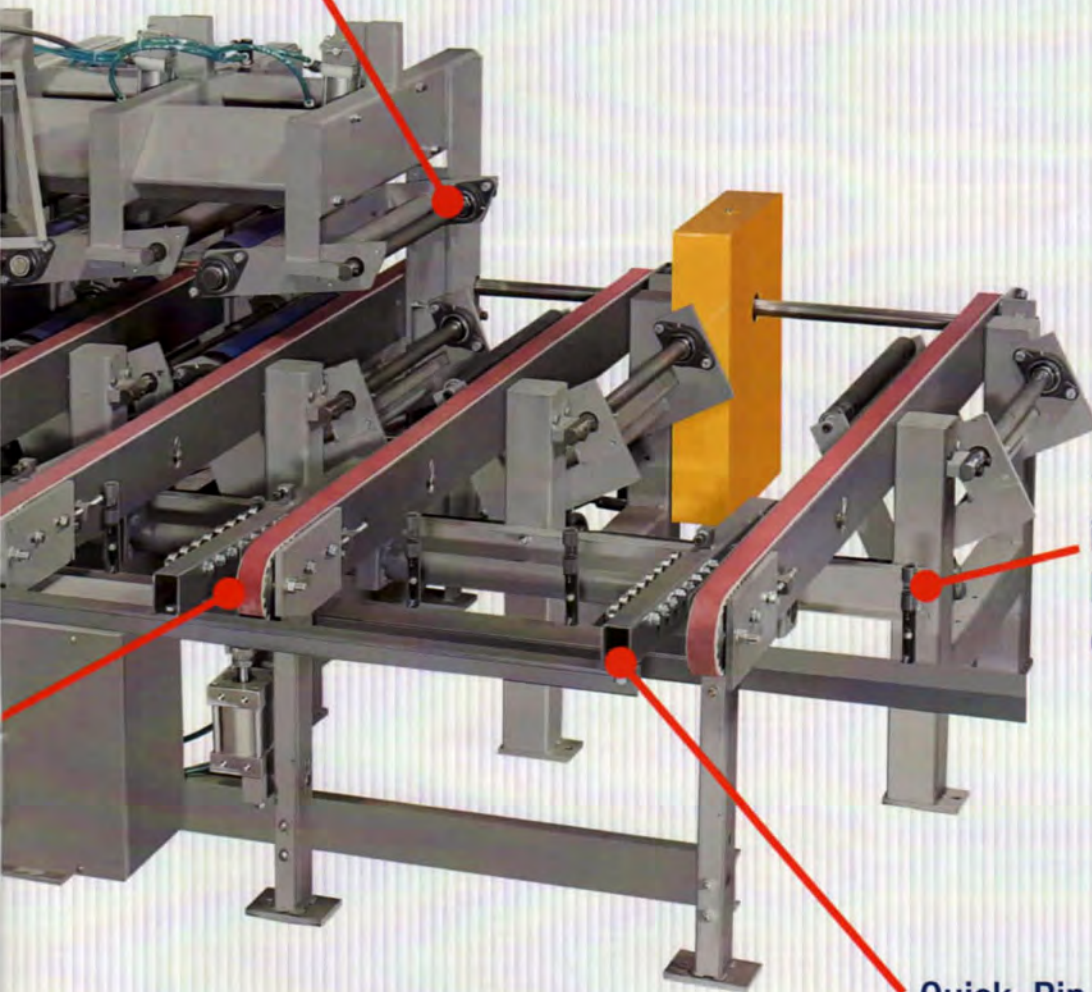


with **KY-MRS Moving Blade Multi Rip Saw**

Pinch Roll Assembly is used to lift boards from the belts and deliver to the saw without changing the rip solution.

Auto Skew feature is standard on all machines. This equates to 3% additional yield above and beyond the competition.

The Quick Rip is fenceless. Boards are skewed (if necessary) prior to the Pinch Roll section. They are then picked up and fed into the saw.



16 laser sensors at 300 mm increments measure the length, width and shape of every board.

Quick Rip is easily converted to an Automated Opti-Rip for higher production and automated lumber handling.



The Quick Rip System is a mid-range Optimization System for shops ripping 16,000 - 18,000 linear meters per day.

Unlike other systems, the Quick Rip is fenceless and has Auto Skewing for non-straight boards. Our sensors read the width, the length, and the shape of the boards. If a board has side bend or taper, our software can determine if the board should be skewed for higher yield. If so, it happens automatically. This adds up to an additional 2-3% yield over systems with a fence.

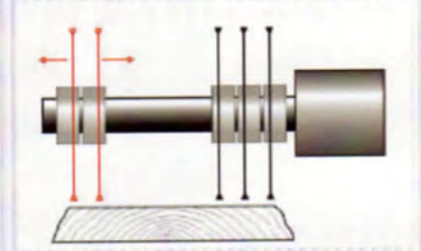
How it works:

1. The Quick Rip is unique in several ways:
Like the Skew, it measures boards at 300 mm increments so the system knows the width and shape of the board.
2. Three things that set the Quick Rip apart from all other systems:
 - a. It is fenceless so the servo driven belts automatically skew the board for the highest possible yield.
 - b. The software/hardware system is set up to process two boards at a time. While one board is being fed, the second is being evaluated at the operator station.
 - c. As soon as board #1 is picked up and fed into the saw, board #2 is delivered to the pinch rolls and board #3 is positioned for evaluation.

Advantages of the Quick Rip

- 7-10% Increase in yield.
- Extremely accurate positioning of boards. (No yield loss due to misalignment).
- High Throughput (10-12 or more boards/minute). 17 for flooring (Fixed arbor saw).
- Increased operator safety.
- Tallies material automatically.
- Catalogues each and every board.
- Rip system fully integrated.
- Up & Running in 1 day.
- Moving laser lights for **ZERO** setup.
- Expandable to our fully Automated Opti-Rip.
- Over 120 successful installations.
- Can be linked to existing multi rip saws.

Cameron KY-MRS Series Heavy Duty Multi Rip Saws

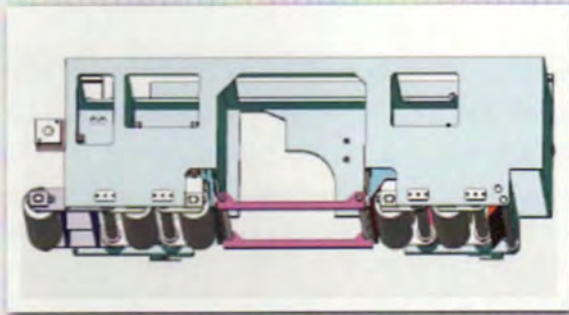


Two Movable and Fixed Blades Configuration (MRS-340M2)

Standard Features

- Heavy duty frames.
- 3 rows of anti-kickback fingers.
- Precision screws and servo motors for maximum repeat positioning accuracy of the moving saws.
- Heavy duty chain track.
- Fixed saw blade on outside of arbor for quick change.
- Power rise/fall of top pressure unit and sawblade.
- Digital lubrication system.
- Powered outfeed roller.
- 1 or 2 moving saws on MRS340M.
- 3 moving saws on MRS450M.
- 4 moving saws on MRS610M.





Specially Designed Pressure Mechanism

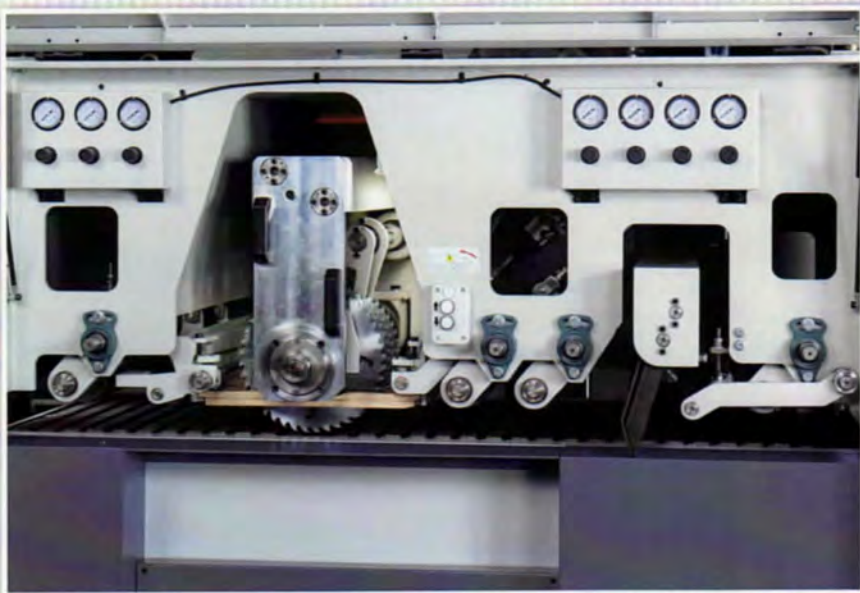
- To ensure outstanding stability during cutting and smooth feeding effect, each infeed and outfeed roller is loaded with two springs.

Four Pressure Rollers

- The four heavy duty pressure rollers, combined with additional pressure plates, assure maximum stability during cutting.

Pneumatic Holddown System

- The pneumatic holddown system allows the operator to fine-tune downward pressure on the rolls and the pressure plate.
- Individual pressure can be dialed-in to increase saw cut quality.



MRS-450/610 M

Digitally Controlled Lubricator

- The machine is equipped with a high performance, digitally controlled lubricator, providing a proper film of oil between the chain and the rails. Oil flow varies with cutting conditions of various woods.
- In case the amount of oil in the oil tank is insufficient, the warning lamp lights up to alert the operator and the feed chain stops automatically. This safety design ensures the service life of the feed chain and the rails.

Variable Feed Speed

- The variable feed speed range from 5 - 40 meters per minute (20 - 135 FPM) is controlled by a high performance frequency inverter control.
- Feed speed can be easily adjusted on the control panel.

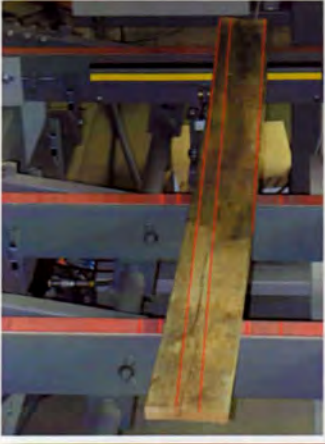
Three Rows of Anti-Kickback Fingers

- The machine infeed end is equipped with three rows of anti-kickback fingers which prevents kickback during cutting.

Auxiliary Powered Outfeed Roller

- The additional powered outfeed roller, equipped at the outfeed end, ensures smooth workpiece outfeed even for thick, heavy and moist wood.

Auto Skew – No other system has it



Board Not Skewed

Cameron Automation writes 100% of its machine software. Since 1996, we have been talking to customers like you and using their suggestions to develop a product that outperforms the competition.

Good software controls costs and saves money. Our premier product is AUTO SKEW which is unique to Cameron machines.

Auto skew is standard on all machines. Laser scanners are positioned at 300 mm increments getting the full profile of the board as it is scanned. This enables the machine to see side bend and/or taper. Cameron infeed systems come equipped with standard hardware and software to skew the board to increase yield. **ONLY CAMERON HAS THIS FEATURE.**

Because so few boards have a straight edge before the rip, yield gains for skewing can be as much as 3%. We keep the advantages of manual feeding and enhance them with automation.

In addition to Auto Skew, we have many software features that increase the value of your investment.

Three Ways to Rip

Rip for yield - The software allows you to maximize yield on each and every board while producing the rip widths in your cut list.

Rip for value - The software allows you to put different values on different widths. You can “emphasize” certain rips for greater volume or because they have greater value in your operation.

Rip for required - The software allows you to start and complete jobs that have both required rip widths and required amounts.



Board Skewed for High Yield

Software Advantages

- ***Factual Statistics***

Since Cameron measures the width of each board in multiple locations, the true usable yield of the board can be calculated. The sum of rips produced is compared to the board width you bought, giving you factual yield values you can depend on.

- ***Pack Report***

Incoming material can be measured pack by pack. This allows you to check supplier totals and determine which supplier and/or grades are best for which jobs.

- ***Most Profitable Choice***

Cameron uses actual values expressed in dollars per thousand board feet for each different net rip width in choosing the most profitable rip combination for each board. The system automatically gives priority to the rip width that is worth the most to you.

- ***Computes Product Value***

Cameron also calculates, in dollars per thousand board feet, the board value after ripping by relating the value of rips produced to the cost of the original boards. When a run is completed, these values can be used to instantly determine how much value was gained in the ripping operation. Suppliers and loads of lumber can easily be evaluated by comparing these output values.

- ***Production Tracking***

The length measurement feature enables the system to record the lineal footage of each rip width and the actual board foot volume of lumber processed.

- ***“What If?” Simulation***

Cameron can simulate a production run to test different arbor setups. Board data measured by the machine from an entire production run is saved for each set up. This data or a random sampling generated by the computer itself, can be used to calculate yield and production results without actually ripping boards. With this tool, you can quickly and easily fine tune your arbor configurations.

- ***Arbor Optimization***

One of the most important factors in maximizing yield (or value) when running a gang rip saw is properly configuring the saw spacing on the arbor. Because there can be as many as 39 million ways to arrange a particular arbor, this can be a daunting task for a human. A computer, however, can quickly evaluate and optimize these arbors. Built into Cameron software is a powerful arbor optimization program that can result in dramatic yield increases. This arbor optimizer can be run either on the machine itself or on a desktop computer using the simulation software provided.

- ***Minimum Yield***

Our machines can be configured to rip one edge of the board when other solutions will drop below the "minimum yield." This will allow the board to be used in another set up that may result in higher yields. This feature can be overridden by the operator at any given time. Also, any board can have one edge ripped by hitting a button on the control panel.

- ***Bundle Report***

Our software keeps track of rip widths and rip lengths. You can accumulate exact amounts into bundles for inventory control, downstream production, or customer orders.

- ***Customer Orders***

A recent software upgrade allows the office to download customer orders and our machine will sort by species and thickness to group rips and increase yield.

- ***Software Reports***

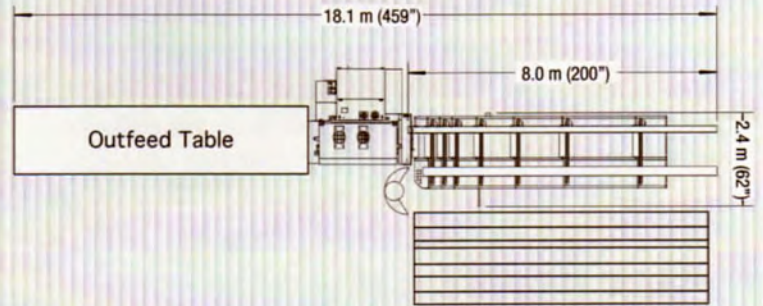
Software reports are the tools for better understanding of lumber usage and yield giving you the security of knowing you got what you paid for.

- ***Bottom Line***

Very simply, Cameron will add ££££ to your bottom line. Increased yield of raw material will increase your profits. The Quick Rip and Skew's design also allows you to value different rips according to your production needs. This reduces inventory and shortens delivery time. Our simple design is a small investment compared to your increased profit.

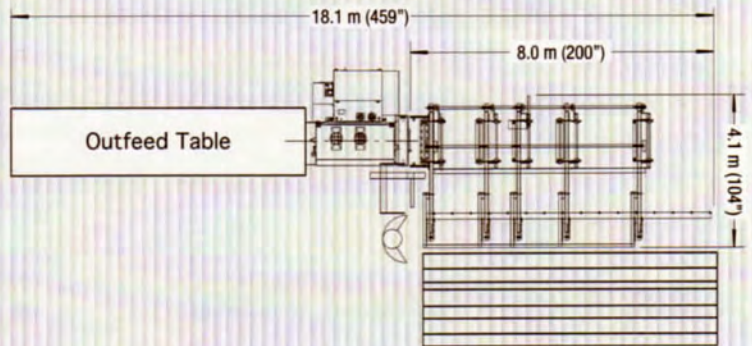
16' Skew / MRS 340 M2 Rip System

- 5 - 7 Boards per minute
- 915 - 4900 mm Length
- 50 mm Maximum Thickness
- 340 mm Maximum Width
- 15 cubic meters per shift



16' Quick Rip / MRS 610 M4 Rip System

- 10 - 12 Boards per minute
- 1220 - 4900 mm Length
- 85 mm Maximum Thickness
- 610 mm Maximum Width
- 30 cubic meters per shift



SAW SPECIFICATIONS	MRS-340M2	MRS-450M3 / 610M4
Max. cutting thickness (with short stock cutting device)	50 mm (2")	85 mm (3.5")
Max. cutting width	340 mm (13.4")	450 mm (18") / 610 mm (24")
Min. material length (standard)	915 / 1220 mm (36")	915 / 1220 mm (36")
Max. sawblade diameter	Ø355 mm (14")	Ø355 mm (14")
Min. sawblade diameter	Ø305 mm (12")	Ø305 mm (12")
Saw arbor diameter	Ø70 mm (2.8")	Ø70 mm (2.8")
Saw arbor speed	3800 rpm	4500 rpm
Pressure roll motor	0.5 HP	
Saw arbor motor	50 HP	75-125 HP
Feed motor	3 HP	5 HP
Variable feed speed	5-40 M/min (16 - 130 ft/min.)	8-60 M/min (26 - 195 ft/min.)
Dust hood diameter	Ø200 mm (8") x 2 / Ø100mm (4") x 1	Ø200 mm (8") x 2 / Ø100mm (4") x 1
Table height from floor (H)	900 mm (35.5")	850 mm (33.4")
Net weight	2200 kgs (4,840 lbs)	5600 kgs (12,320 lbs)

We reserve the right to amend any of the above specifications without prior notice.