



MJ255

NC Quick Cross-Cut Saw

Optimizing cross-cutting solution for solid wood preparation, defect removal, length optimization, and finger-joint material production.

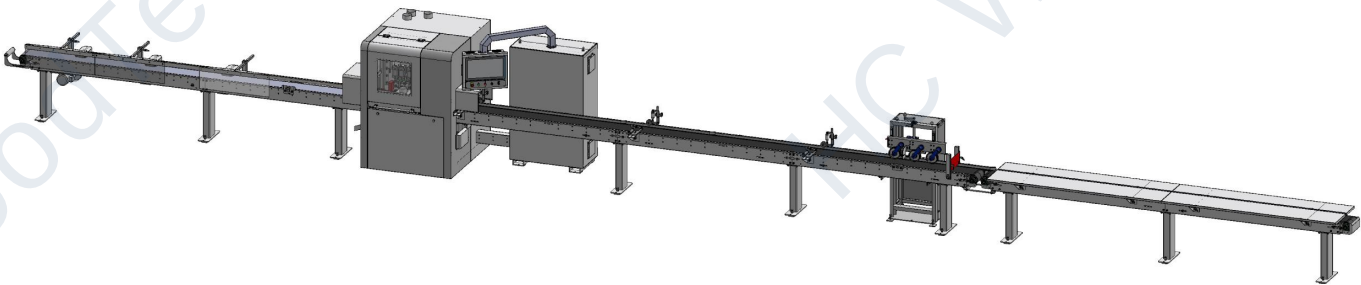
MJ255 NC Quick Cross-Cut Saw

Brand: QCM | Manufacturer: Sichuan Qingcheng Machinery Co., Ltd.
Prepared by HC WoodTech (International Trade Team)

1. Product Summary

180 m/min	0.15-0.3 s	20-220 mm	10-95 mm
Maximum feed speed	Cutting cycle	Feed width range	Feed thickness range

Machine	MJ255 NC Quick Cross-Cut Saw
Brand	QCM
Origin	China
Main application	Fast solid-wood cross-cutting, defect removal, cut-list optimization, length sorting, and preparation before finger-jointing.
Processing material	Softwood and hardwood
Main value	Improves yield, reduces manual workload, supports safer automatic cutting, and saves floor space compared with multiple manual cross-cut saws.



MJ255 complete optimizing cross-cut line layout

2. Machine Overview

The MJ255 is designed for solid-wood preparation in furniture factories, solid-wood processing plants, glulam material preparation, and finger-joint production. Operators mark visible defects such as knots, cracks, end defects, tears, or decay. The measuring and detection system reads the board data, and the optimization software calculates the best cutting combination according to the production cut list and cutting rules.

The saw then automatically executes the cutting plan and can sort cut pieces by length. This helps factories improve wood recovery, reduce manual decision-making, and keep production safer and more consistent.

- Increases yield in the cross-cutting process.
- Saves labor and reduces operator workload.
- Can replace 4-8 traditional manual cross-cut saws, saving floor space.
- Automatic enclosed cutting helps reduce safety risks.
- Can connect with a high-speed four-side moulder for efficient in-line production.



Sichuan Qingcheng Machinery manufacturing facility

3. Technical Specifications

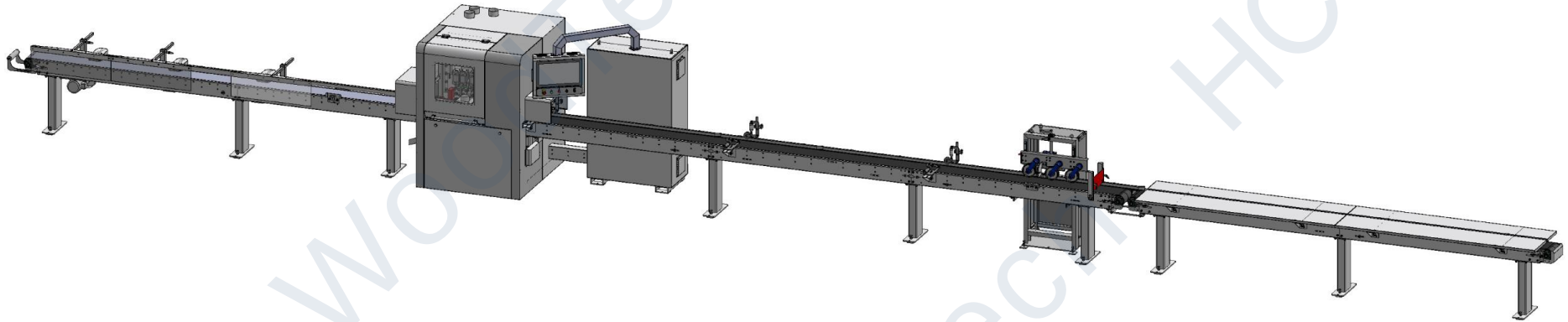
The specifications below are organized as one MJ255 model family. Final values may vary by selected line length, marking table, outfeed system, and sorting configuration.

Item	Specification
Feed length	400 mm to unlimited length / extended line layout available
Feed width	20-220 mm
Feed thickness	10-95 mm
Feed thickness tolerance	Within ± 3 mm
Maximum board bend / curvature	10 mm
Minimum cutting length	80 mm
Cutting tolerance	± 1.5 mm
Maximum feed speed	180 m/min
Cutting cycle	0.15-0.3 s
Processing material	Softwood and hardwood

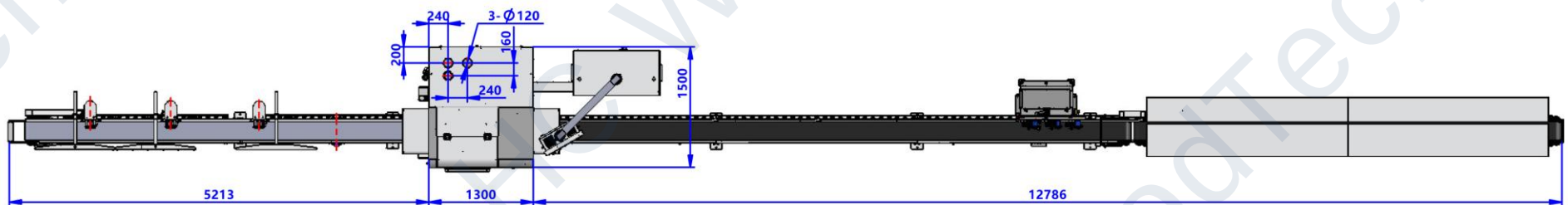
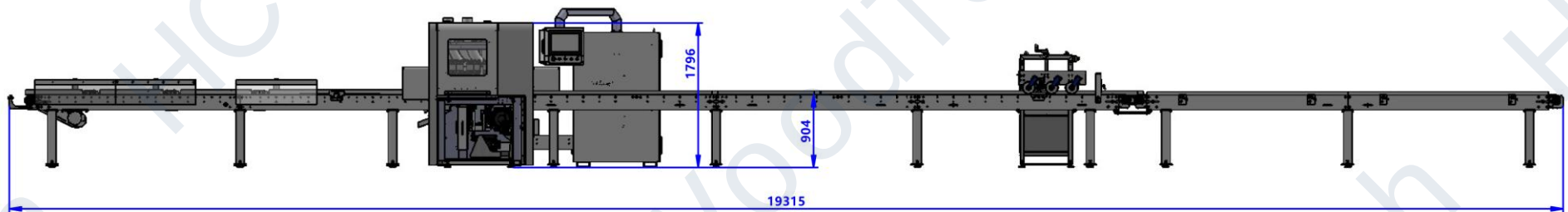
Electrical / Sawing Item	Specification
Operating voltage	3~AC380V 50Hz
Voltage variation	Max. 5%
Total motor power	19 kW standard configuration / 20 kW extended optimizing line configuration
Feed motor	5.5 kW
Saw lifting motor	4.5 kW
Sawing motor	7.5 kW on extended optimizing configuration
Outfeed motor	0.75 kW
Pressure wheel lifting motor	0.37 kW
Saw blade diameter	500 mm
Saw spindle speed	3500 r/min

Other Item	Specification
Working air pressure	0.4-0.8 MPa standard / 0.3-0.6 MPa extended line
Compressed air pipe outer diameter	12 mm
Dust exhaust ducts	2 x $\phi 120$ mm standard / 3 x $\phi 120$ mm extended line
Dust air speed	30 m/s
Dust air volume	3600 m ³ /h on extended line
Working height	900 mm
Machine size	6.4 x 1.5 x 1.78 m standard; extended line drawing shows approximately 19.3 m total length
Machine weight	1.8 t standard / 2450 kg extended line
Optimization size quantity	1-199 sizes

4. Line Layout and Main Dimensions



Complete MJ255 optimizing cross-cut line rendering



MJ255 standard extended-line outline drawing and main dimensions

5. Standard Configuration

- Sound-insulated safety enclosure for noise reduction and operator protection.
- Extended infeed and defect marking table for efficient fluorescent marking and board data capture.
- Outfeed conveyor with kicker system for length sorting and downstream connection.
- Independent servo-driven conveyor to the saw, supporting fast and stable feeding.
- Servo saw lifting system for precise and reliable cutting movement.
- Fluorescent detection sensor for cutting at marked defect positions.
- Standard saw blade with built-in scrap blow-off device and electric height adjustment for the upper pressure wheel.
- Schneider electrical components and 10.1-inch TFT touchscreen control panel.
- Airtac pneumatic components, including cylinders and solenoid valves, plus an air tank for more stable air pressure.

6. Key Feature Photos

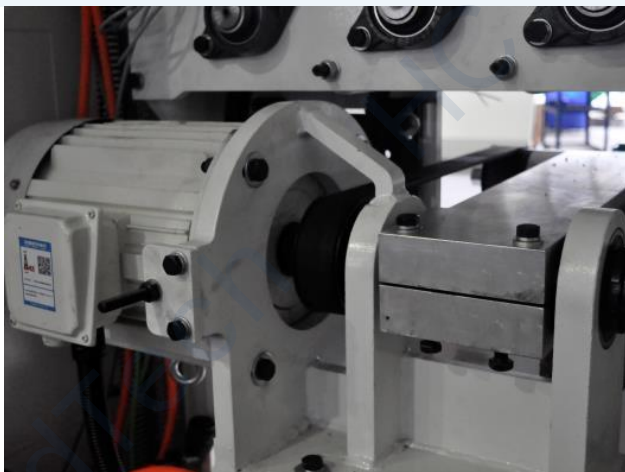
All feature photos from the source materials are retained and captioned in English.



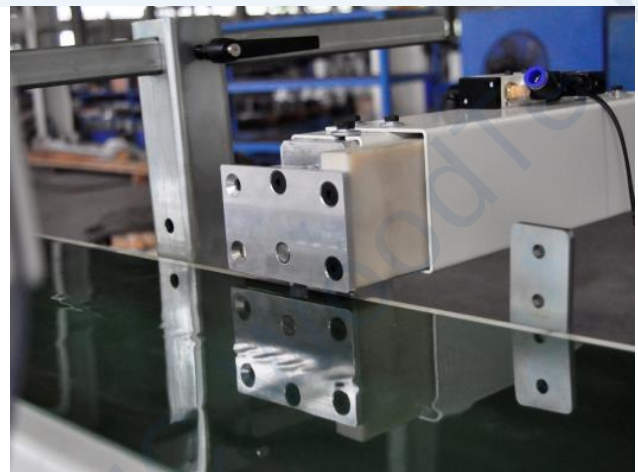
Sound-insulated safety enclosure



Extended infeed and defect marking table



Servo-driven conveyor reaching the saw

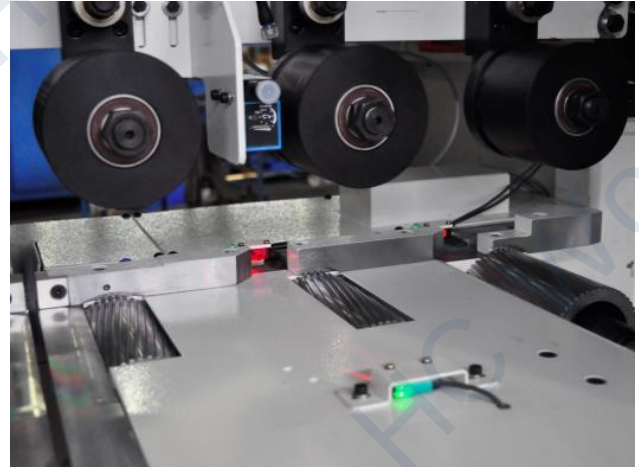


Outfeed conveyor with kicker system

6. Key Feature Photos (Continued)



Schneider electrical components and cabinet



Fluorescent detection sensor for marked cutting



Saw blade area with scrap blow-off and pressure wheels



10.1-inch TFT touchscreen control panel

7. Optimization Software and Cutting Modes

The MJ255 optimization logic calculates cutting combinations using the cut list, board measurements, grade/value settings, and defect marks. This is useful for high-value solid wood, mixed specifications, and finger-joint material preparation.

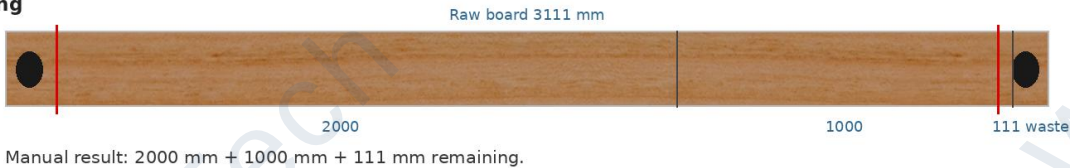
Mode	Purpose
Length Optimization	Combines cut-list sizes to minimize waste from each good board section.
Value Optimization	Uses the value assigned to each size and chooses the highest-value cutting plan.
Quantity Optimization	Prioritizes the specifications with the largest unfinished quantities so the order can be completed evenly.
Long-Length Priority	Cuts the longest required parts first to protect demand for long pieces.
Sequential Cutting	Cuts according to preset sizes and a preset processing sequence.
Defect Cutting	Cuts only at marked defect positions to remove visible defects.
Grade / Downgrade Optimization	Automatically uses remaining high-grade material as a lower grade when it creates higher total value.
Zero-Waste Cutting	Adjusts the previous segment so an unusable remainder becomes usable finger-joint material.

The visual examples below are rebuilt in English from the original optimization-mode diagrams so the document remains fully English while keeping the original technical meaning.

8. Optimization Examples

MJ255 Length Optimization

Manual cutting



Optimized cutting



Length Optimization

MJ255 Value Optimization

Manual cutting



Optimized cutting



Value Optimization

Conventional cutting

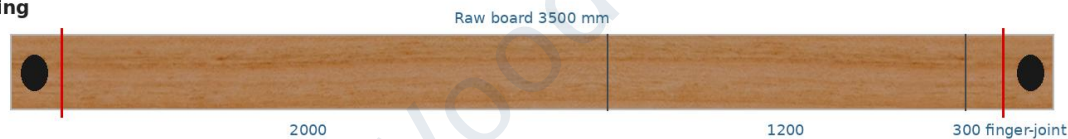


Diagram illustrating the layout of a multi-grade board. The board is divided into two sections: a left section labeled "800 A" and a right section labeled "1750 B". The total length of the board is indicated as "1750 B". The diagram shows the board with a vertical line separating the two sections and a red line indicating the end of the board.

The system can downgrade suitable remaining high-grade material when it creates higher total value.

Grade / Downgrade Optimization

Priority cutting



Longest required parts are cut first to protect long-length order demand.

Long-Length Priority

8. Optimization Examples (Continued)

MJ255 Sequential Cutting

Preset sequence



Tail-to-longest option



Sequential Cutting

MJ255 Defect Cutting

Defect-removal cutting



Defect Cutting

8. Optimization Examples (Continued)

MJ255 Zero-Waste Cutting

Conventional result



Zero-waste optimized result



Zero-Waste Cutting

9. Recommended Applications and Project Notes

The MJ255 is suitable for factories that need faster, safer, and more standardized solid-wood preparation before moulding, planing, jointing, finger-jointing, or downstream machining.

- Solid-wood furniture part preparation.
- Glulam and finger-joint raw material cross-cutting.
- Defect removal before moulding, planing, jointing, or downstream machining.
- Factories replacing several manual cross-cut saws with one automated line.
- Production lines connected with a high-speed four-side moulder for efficient in-line processing.

Project note: final line length, marking table length, outfeed sorting/kicker quantity, and downstream connection should be confirmed according to the customer cut list, wood species, board lengths, operator arrangement, factory layout, and target throughput.

Visual Asset	Where Included
Overall product photo	Included on the cover.
Complete line rendering	Included in Product Summary and Line Layout.
Technical outline drawing	Included in Line Layout and Main Dimensions.
Factory facility photo	Included in Machine Overview.
Eight feature close-up photos	Included in Key Feature Photos.
Optimization-mode diagrams	Rebuilt in English and included in Optimization Examples.