JANGJA

Optimizing Cross Cut Saw

Model: AM8424

OPERATION MANUAL

Ex-works No: 195040

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2. MACHINE SPECIFICATION

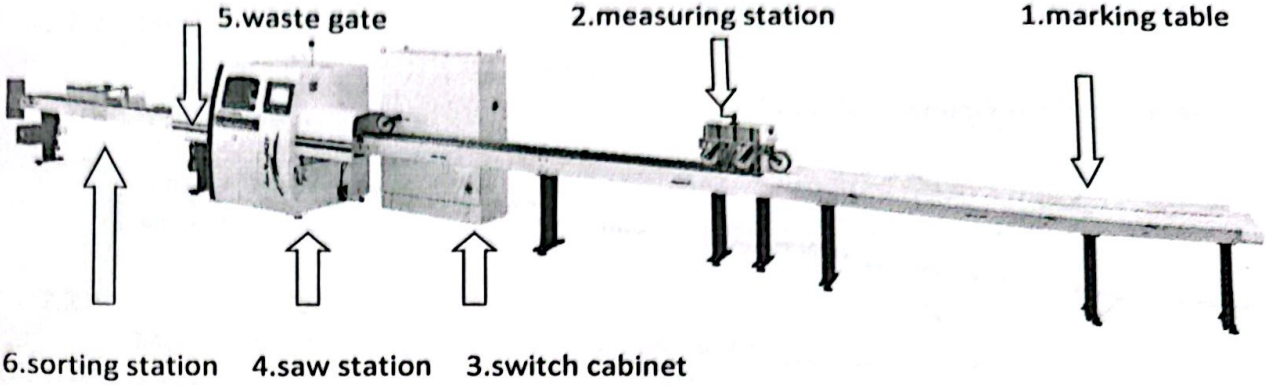
2.1 Technical data

Machine model	AM8424/ AM8424L
Standard saw blade dia	Φ405mm
Min cutting section size	12×30mm
Max cutting thickness	70mm
Max cutting section size	150×60mm，100×70mm
Min cutting length	125mm
Min in-going length	500mm
Max in-going length	6300mm
Max feeding speed	240m/min
Saw spindle speed	4500r/min
Saw spindle motor power	7.5kW
Servo feeding motor	7kW
Max total power	23kW
Saw spindle motion frequency	3-5 times/ sec
Qty of pressure roller	3
Qty of down feeding roller	7
Dust exit dia	ϕ125×2
Compressed air consumption	1000L/min
Feeding conveyor width	200mm
Quantity of ejection kicker	5（sealed）
Saw blade clamp splint size	Φ158
Measuring wheel size	Φ159*50
scanning wheel size	Φ159*50
Machine size	22220×1650×1890
Machine weight	3000kg
Saw spindle movement being controlled by cylinder	●
Saw spindle movement being controlled by servo	◎
Automatic material tracking system	●
Tailings blowdown system	●
Waste gate being controlled by cylinder	●
Waste gate being controlled by servo	◎
Heavy duty sealed pusher	●
Auxiliary pressure roller of in-feed table	●
Pressure beam in saw station and measuring station synchronous elevation	●

Standard: ● optional: ◎

2.2 Machine construction

2.2.1 Machine illustration



1 Marking station:

Consist of marking table and timber channel. The marking person(s) will mark the timber grades and defects with luminescent crayon on the marking table, then the boards are placed in the timber channel and transported towards the measuring station. (no marking needed when the machine is with the automatic identification system)

2. Measuring station:

Consist of pressure roller, measuring wheel, photo-eye (start light barrier) & upper luminescent sensor. After the timber being transported into the measuring station, it will be guided into the function area for accurate detecting & measuring.

3 Switch cabinet

Control the whole electrical system of the optimizing cross cut saw. According to the length data and the marking data being measured, the program will calculate the optimized cutting list taking into account custom product settings.

4 Saw station

Consist of working table, pressure roller, feed roller, measuring wheel and saw spindle. The boards are conveyed from the marking station to the measuring station and then to the saw station. And will be cut according to the parameters of the cutting list.

5 Waste gate

The waste gate will close when the material length after being cut is longer than the set waste length. The waste gate will open when the material length after being cut is equal to or less than the set waste length, then the material will fall into the waste pin.

6. Sorting station

After the board being transported on the sorting conveyor, the control unit will activate or or several kickers depending on the timber length. The corresponding number of cylinders extend and push the boards off the sorting conveyor (e.g. into a box or shelf).

2.2.2 Machine weight

Net weight	3200kgs
Gross weight	3500kgs

2.2.3 Installation circumstance

voltage variation	480V ±5% (3-phase voltage stabilized device needed when > 5%)
environment temperature	10-50C° (air cooling equipment required when > 50C°)
air relative humidity	10-70% no condensation droplets

2.2.4 Connected load

Motor power: refer to the machine nameplate.

max motor power	18.5kW
operation voltage	AC 480V
control voltage	24V

compressed air:

air connection	G1/2
diameter of supply pipe	> 16mm
air consumption	1200L/min
air pressure	6—8bar

2.2.5 Timber dimensions

Bending of workpiece : horizontal length direction 20mm
vertical length direction 10mm
thickness tolerance +/-3mm

in-feed timber length	500-6300mm
distance between in-feed table and saw station	8000mm
timber width	30-150mm
timber thickness	12-75mm
max cutting size	150*50mm, 100*75mm

2.2.6 Machine noise

Noise level on working site:

idle run	Less than 85dB（A）
on-load	Less than 94dB（A）

when the machines operates at normal conditions, it will produce a noise in compliance with national standard ≯85dB（A）. Noise level also lies on:

... maintenance conditions of the machine and saw blade

... processing of wood material

Put on ear protector during machine operation.

2.2.7 technical data of saw station

in-feed speed	240m/min
time required for each cutting, including braking, cutting and accelerating delivery	3-5times/sec
saw blade size	¢405*4.5*3.5*30*(T110-125)
inner bore of saw blade	30mm
saw spindle speed	4500rpm
saw spindle motor power	7.5kW
servo feeding motor power	7-15kW
min out-feed length	125mm

2.2.8 technical data of in-feed table & out-feed table

in-feed belt driving motor	1.5kW
out-feed belt driving motor	2.2kW
in-feed belt length	23500mm
out-feed belt length	18600mm
Qty of pusher	5 (optional to 15)

2.2.9 Requirements on dust collecting system

air speed	30m/S
dust exit dia	Φ125*1, Φ100*1
air volume	2500m^3/h

2.3 Machine features

The optimizing cross cut saw has been designed for the sole purpose of cutting wood and materials with similar properties according to the technical specifications provided, including fixed-length cutting, defect removal and optimization cutting. It is widely applied in the solid flooring, furniture, laminated wood, door & window processing lines.

The machine features are as follows.

- Top/ down action feed rollers guarantee a smooth transportation. Even bent or twisted wood can be ensured an accurate positioning and smooth feeding.
- Fast transportation, location, cutting, automatic sorting during the whole process, full optimization is realized. High yield and production efficiency.