

MJ31100BX900 High speed heavy duty gantry saw



1. Technical parameters:

MJ41100X1300X60 heavy-duty mobile gantry band saw technical parameters (Specification)		
Maximum processing size	Max.working size(L×W×H)	4000×900×900mm
working desk size	Table size(L×W)	3500×700mm
Number of fixed wood fixtures	Clamp fittings	4
Table feed speed	Worktable infeed speed	0.3-35m/min
Table feed motor power	Worktable infeed motor	1.5KW
Saw wheel diameter	Diameter of saw wheel	1000mm (environmentally friendly)
Saw Belt Speed	Saw blade speed	31m/s
Saw blade size	Size of saw blade(L×W×H)	6800×80×1.1mm
saw road	Saw kerf	1.4-2.0mm
Saw wheel motor power	Saw wheel motor	30kw
Saw wheel lift motor power	Saw wheel elevation motor	1kw servo motor with brake
Saw blade to table distance	Distance from saw blade to worktable	20-900mm
Saw blade tensioning pressure	Blade tension pressure	70kg/cm ²
Dimensions	Overall dimensions(L×W×H)	9000×3200×3200mm
net weight	Net weight	6500kg

2. Function : It is professionally used for square wood or log open plank, especially for the processing of mahogany which is more expensive.

3. Performance advantages

1. High speed: The speed improvement of the upgraded version is 8 times that of the old version of the gantry saw.

boost project	old version	New upgraded version	Remark
Saw blade lift speed	0.5/ min	2.0 m/min	The new one is 8 times the old one
Table retraction speed	8.7 m/min	35 m/min	The new one is 8 times the old one
Effective sawing speed	0.5-1 m/min	5-8 m/min	(Refer to 400mm wide mahogany)

2. High-precision lifting system:

(1) Precise positioning of lifting: high-precision and high-torque Delta servo motors, with positioning accuracy up to 0.01mm, which is more than 10 times the accuracy of traditional gantry saw asynchronous motors (0.1~0.2mm);

(2) Precision ball screw: φ32 Taiwanese brand ABBA precision screw is used, with a lifting speed of 2 m/min;

(3) Precision guide rail: Rexroth heavy-duty 45# precision guide rail of international first-line brand, the slider clearance is less than 5C, and the sawing is stable and will not vibrate. (Other brands use φ25 diameter lead screw and 30# Taiwan or domestic guide rail).

3. Environmental protection: the outer circle of the saw wheel is designed with a belt, water-free (spray) dry sawing, just vacuuming is in line with the concept of environmental protection:

(1) Reduce pollution: solve the pollution problem of waste water discharged from traditional gantry saws and water saws, and pass environmental protection acceptance.

(2) Increase the value of waste products: water sawdust is treated as waste, and dry sawdust can be sold as raw materials.

(3) Ultra-quiet design: more in line with environmental protection noise requirements.

4. Intelligence: Taiwan Weiluntong touch screen, mobile version of intelligent man-machine interface, more user-friendly operation experience, easy to adjust the feeding speed or lifting thickness, sawing length and other operations.

- (1) 16 groups of plate thickness preset quick selection.
- (2) 4 groups of high memory.
- (3) 8 groups of height presets.
- (4) Intelligent fixed length.
- (5) Intelligent fault detection.

5. Low consumption

- (1) Reduce maintenance costs and extend the life of the machine tool: water-free dry sawing reduces the corrosion of the machine tool by waste water, and the expected service life of the super heavy-duty sawing machine can reach more than 10 years. (The life expectancy of other brands of equipment is only 1-3 years)
- (2) Provincial labor space: The production efficiency is increased by 6 times, and one person can operate it and six people can work.
- (3) Save the saw blade: the saw blade uses the same 6 times faster speed, and the 6 times output relative to the saw blade cost is 1/6 of the classic version.
- (4) Saving water and sewage treatment fees: dry sawing does not require water or spray cooling.
- (5) Material saving: accurate positioning, less error, and more material saving.

4. Heavy-duty design:

The weight of the whole machine is 5800kg for the 650 model and 6500kg for the 900 model; (other brands generally only have more than 3 tons, and the weight difference is 1000-2000kg)

(1) Heavy-duty frame design Body: the frame is made of 100*100*5mm thick square tube, high-density skeleton reinforcement design, and welded with 10mm thick plate stiffeners, the whole machine has good rigidity, and is heat-treated to prevent deformation, to ensure accurate sawing and prolong use time.

(2) Super large column and thick plate saw frame: the size of the gantry column is 40cm*20cm thickened square tube to reduce the force and vibration of sawing; the saw wheel frame adopts a 16mm thick plate full welding design to increase rigidity and reduce deformation, ensuring sawing The cutting effect is precise and the life of the saw blade is prolonged. (The column of other brands is only 30cm*10cm square tube, the body only uses 3mm small square tube and thin plate, and the saw wheel frame is a 14mm plate)

(3) Thickened workbench: The workbench is fully welded with 10MM thick plates, and then covered with ribs at the bottom. After heat treatment to prevent deformation, the rigidity can withstand the impact force of 1-2 tons when feeding, ensuring accurate sawing. , can resist the strong corrosion of wood acid water.

(4) Heavy-duty guide rail slider: 1. The 45# heavy-duty guide rail of the international first-line German Rexroth is adopted. A single slider can bear a weight of 5 tons, the table moves smoothly, and the sawing effect is good.

(Other brands use Taiwan ABBA30# or Guangdong Jiangmen 35# domestic, and are not heavy-duty guide rails)

5. Automatic tensioning and ultra-high-speed saw wheel configuration:

1. Ultra-large saw wheel: The ultra-high-speed saw wheel with $\phi 1000 \times 70$ mm belt wrap, the national standard steel with high hardness, is precisely processed through ten procedures, with large friction force, ultra-fast speed, good stability, not easy to break, and accurate sawing. Double the efficiency.
2. Heavy-duty bearing device: NSK heavy-duty release bearing 32216 is used inside the saw wheel. The large contact surface of the inclined bead ensures that the saw blade can withstand greater tension when it is tensioned. The 6216 bearing auxiliary force keeps the two saw wheels parallel when they are tensioned. Fully sealed design, smooth and durable.
3. Saw wheel tensioning guide: Adopt international brand German Rexroth 35# guide rail slider guide, the slider gap is small when the saw wheel is tensioned, the saw wheel does not swing, and the saw blade is stable and not easy to break.
4. Fully automatic tensioning system: Using the fully automatic tensioning function, one person can quickly replace the saw blade. The system has an automatic pressure maintaining function. When sawing, the saw blade heats up and automatically boosts the pressure and maintains the pressure. The saw blade is stable and not easy to break or run the saw. .

Six, high-quality electrical configuration:

1. International first-line brand electrical appliances: Delta PLC/Siemens contactor/Schneider contactor for thermal relay, with low failure rate, and the internal safety voltage of the machine adopts European standard safety voltage of 110V. (Other brands are all domestic ordinary brands)
2. Infrared positioning: The infrared height is used as the first trial cutting height positioning, which can be set directly on the screen without measuring with a ruler, which is convenient, fast, efficient and accurate.
3. Taiwan Tiande travel switch: double limit function and double protection to prevent the X-axis slider from rushing out of the guide rail due to too fast advancing and retreating speed, which damages the machine and is difficult to repair.

7. Introduction of high-quality accessories:

1. X-axis transmission: 4-mode heavy-duty precision rack and teeth, properly maintained and used for 8-10 years, stable and wear-resistant, the worktable feeds at a stable speed of 0-35 meters, efficient and accurate.
2. X-axis transmission: 4KW motor + reducer with full heavy-duty high-precision rack to feed smoothly, quickly, efficiently and accurately.
3. Oil filling machine: The oil supply of all the sliders of the whole machine prevents the slides of the guide rails from rusting and keeps them smooth.
4. Water spray device: The saw blade heats up during sawing. The water spray device sprays water on the saw blade in the form of spray to cool and lubricate the saw blade. The saw blade is stable and not easy to run and break.
5. Saw clip guide wheel: The alloy is used as the clip, and the saw blade will not vibrate up and down to affect the work difference. The 10,000-turn high-speed guide wheel prevents the saw blade from retreating and ensures that the sawtooth is exposed on the saw wheel. , Sawing precision.

Eight, the main accessories brand:

Transformer Jiuchuan Electric Push Button Switch Siemens Second Industry

Circuit Breaker Schneider AC Contactor Schneider

Saw Wheel Bearings NSK Inverter Delta

Guide rail slider German Rexroth ball screw TBI/ABBA

Touch screen Weiluntong travel switch Taiwan Tiande

Triplet Fangda PLC host Delta

Servo Motor Delta Main Motor Jiang Tian