

Salvador Optimizing Chop Saw SuperPush 250 5M Accurate / 9M 4K



Machine Overview

Salvador is an Italian company located in Northern Italy in the heart of solid wood manufacturing. The family-owned company has only a passion for chopsaws and has been producing since 1982.

The Salvador SuperPush 250 is a fast, robust, push feeding optimizing crosscut solution designed for high performance, cut to length accuracy. The SuperPush 250 “Accurate” edition supports a floating pneumatic clamping device for superb positioning accuracy resulting in tolerance level of cut to length tolerance.

The special “Accurate” edition that was designed for the kitchen cabinetry industry, features enhancements to provide a higher level of cut to length tolerances. The clamping device provides full control of the work piece throughout acceleration and deceleration. Infeed and outfeed horizontal aligners keep the product firmly to the fence. Anti scratch material keeps delicate materials protected. The high quality KANEFUSA blade provides superior cutting accuracy, finish, and long-term performance.

The “Accurate” package includes a pre-determined outfeed table. Featuring a 9M (30’ foot) outfeed belt with four (4) pneumatic ejectors, one (2) virtual ejector, four (4) air jet ejectors.

Infeed Table

The infeed table is comprised of heavy-duty steel frame for maximum stability and longevity. The working area stands 1000mm (39" inches) from the ground for a very ergonomic working position.

Safety is enhanced with a standard light curtain which prevents operation if broken by a worker in the cutting/working area. This creates a very safe machine as the operator cannot reach inside the saw box while in operation.

The 5.1M (16') infeed table is standard with a zero-degree leveled lateral chain loading system. With the 5.1M infeed, six chains are standard. The chains are of heavy duty 5/8" width featuring a consumable guide system. The available loading width is 1.5M (59" inches).

The infeed chain loader is with the cell charger option. This provides a three-pin stop system for each chain. The pin stops are managed by NC up and down to meter the work pieces individually to the feeding table fence. Minimum length for loading is 700mm (27") between chains.

Pushing Device

The carriage supporting the pusher is of heavy-duty design. The pusher carriage slides on a double hardened rail solution which allows operation free of dust and with minimum maintenance.

The pusher supports automatic rising during the reading operation. The reading operation supports two sensors. One which detects the product overall length. The second sensor detects crayon marks which identifies defects and/or grade quality changes.

The brushless servo motor moves the carriage to and from the saw box with power and precision. The motor is uniquely mounted in front for maximum pulling effect even on heavy work pieces.

The transmission of power from the motor to the carriage is accomplished by a steel reinforced toothed belt of 50mm (2" inch) width.

The pushing devices pivots automatically up as it travels over the work piece. Once past, the pusher positions down to the table to manage the work piece into the cutting box.

Aligners

The SuperPush series features two electro/pneumactical aligners before and after the blade. They work together to provide a square cut.

Cutting Group

The cutting saw box area is completely enclosed by an interlocking steel cover. The front window provides a clear and safe view of the cutting operation.

Work piece alignment is accomplished by pneumatically loaded pressure elements. The pressure beam is pneumatic in its operation to hold the work piece during the cut.

The saw travels through an aluminum table insert which can be change easily as needed.

The heavy-duty motor is of premium efficiency IE3 rating for cost savings in day to day operation. On average, premium efficiency motors reduce your operation cost by 8-20% over standard motors.

Professional Technologies Onboard

Microsoft Windows Embedded software running proprietary TROPTIM graphic software. Multiple cutting solutions from fixed length cutting on the mark cutting, as well as full value and yield optimized priorities. Up to five (5) grade qualities are also included. Defect and grade changes are managed by florescent crayon markings.

The large 19" LED colored screen is easy to use for reading and programming. Dust proof keyboard and mouse for reliable and fast access. Remote cut list uploads are possible via USB memory stick or network folder connectivity. Innovative simulation software, diagnostics, cutting statistics real time updating, and video messaging capability are just a few of the professional tools onboard. USB connectivity for import/export as well as ability to import data via Macro Excel interface. Network and internet connectivity not included.

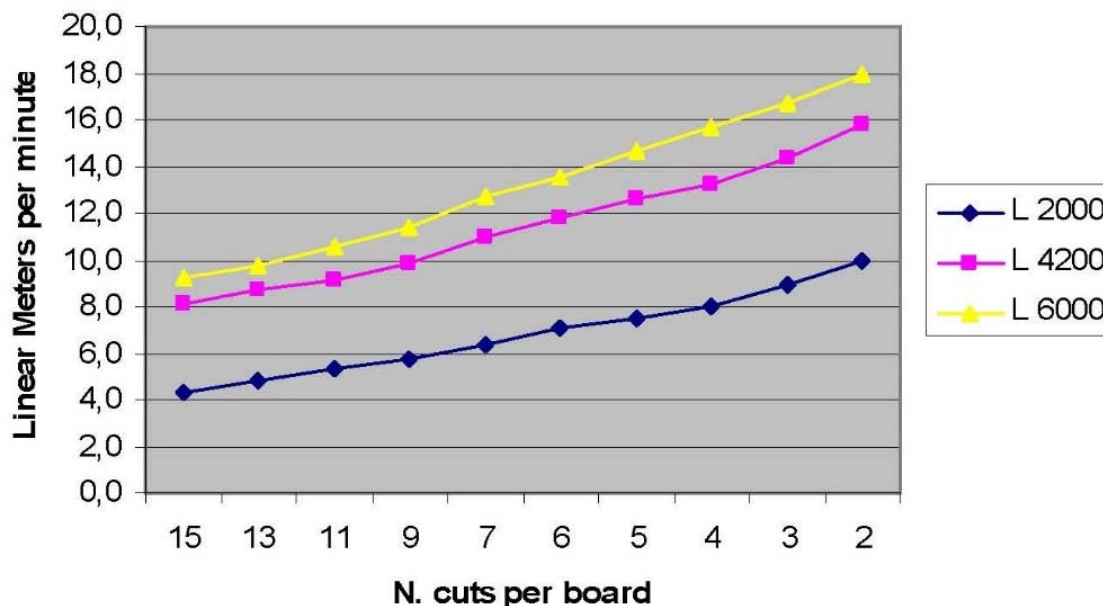
Added security and reliability with included dual hard drive (500GB each). The second SSD is a security copy of the first redundancy backups security. Uninterrupted Power Supply (UPS) is standard to protect the PC's operation in the event of an unexpected power failure.

The power transformer is mounted out of the way under infeed table. The multiple tapped transformer steps down higher voltage (460V-600V) to the machines operating voltage of 220/380/400/420/440/460/480/580/600V. Output voltage 400V @ 19 kVA.

The saw is compliant to CSA and UL standards. All motors are of IE3 performance level per NEC energy saving requirements. These premium efficiency motors have an energy savings from 8-20% as compared to historical motors.

Capacity Estimates

Capacity Estimates (SP200/250) Note SA600 will be similar at zero degree cutting and less at angle cutting:



*The capacity calculations are based on 100% efficiency. For true production calculation, as follows:

1"x4" nominal = 75% of charts value

1"x8" or 2"x4" nominal = 65% of charts value

2"x6" or 2"x8" nominal = 60% of charts value

WORKING CAPACITY

Maximum board length before cutting	5100mm (16')
Minimum board length before cutting	1000mm (39.3")

TECHNICAL SPECIFICATIONS

Main saw motor power	10HP
Saw blade specifications; SP250 Accurate	Max 500mm diameter, bore 35mm
Maximum pusher reading speed	180M/min (200'/min)
Maximum pusher pushing speed	120M/min (200'/min)

CUTTING CROSS SECTION

Cutting section; SP250 Accurate	Height 12-96mm (0.47"-3.77") Width 60-240mm (2.36"-9.44")
Number of cuts within last 40mm of board	One (1)
Maximum work piece weight, SP250 Acc	50kgs (110lbs)

*With some pusher options, the weight value can change.

Utilities

ELECTRICAL REQUIREMENTS	
Primary supply voltage/s	220/380/420/440/460/480/560/580/600V
Machine supply voltage	400V
Cable type	5 poles (3P + N + G)
Fuse type	25A delayed
Maximum installed power	11kW
PNEUMATIC REQUIREMENTS	
Compressed air supply	600-800 kPa (6-8 bar)
Max compressed air consumption	300 NI/min
Compressed air connector	Fast 3/8" connector + hose 10x8mm
TOOL SPECIFICATION	
SUPERPUSH 200/250 ACCURATE	
Diameter/Hole/Blade Thickness (mm)	500 / 30 / 5.4
Blade rotation speed	2700 RPM
DUST EXTRACTION REQUIREMENTS	
SP250: Dust extraction intake diameter	100mm upper / 120mm lower
Extraction system collection speed	28M/s
Extraction system conveyance speed	30M/s
Dust extraction capacity	1800-2000m³/h
ENVIRONMENTAL REQUIREMENTS	
Operating environment/storage temperature	+5° / +40°C
Humidity	25% / 80%
Floor type/Minimum thickness	Concrete / 100mm
Maximum floor unevenness	+/-20mm

Accurate Model Package

Includes PRECISION package options

- **SP 16-1 PNEUMATIC CLAMP FOR PUSHES**, the 50mm (1.9" inch) width clamp allows for rapid deceleration of the work piece without forward movement of the work piece. The clamp holds the work piece from the top as well as the bottom. This greatly maintains cut to length accuracy even during high speed operation. Two easily switchable clamping plates allows for wood thickness ranging between 10-50mm (0.39"-1.9" inches) and 50-90mm (1.9"-3.5" inches). Can be deactivate by the PC powerControl if not needed. (Required options: SP15, SP72-1)
- **SP 72 SPECIAL COATING FOR DELICATE MATERIALS**, Special coating for collection plane, fence, and outfeed collection plane if needed. Protects damaged to finished or delicate products from friction. Reduces minimum cross section of 15x30mm.
- **SP 14-4 ROLLER MOUNTED ON INFEED ALIGNER**, for finished products with a delicate surface and/or edges, the aligner before the blade can have a soft roller added to avoid damage to the products surface when making contact with the aligner.
- **SP 51 FAST VERSION**, Increase the maximum processing speed of your chopsaw with the FAST version option. The reading speed of the pusher is increased to 180M/min (600'/min) and the pushing speed is increased to 120M/min (400'/min). Nearly double the standard speeds.

SP 81 - Cell Charger

Cell charger comes with three pneumatic cylinders per chain. Nylon chains to reduces damage to parts and it includes Pin Stop On/Off Switch.

High Speed Outfeed Sort Belt with Multiple Ejectors Package

- SP 30 OUTFEED TAKE AWAY BELT WITH PNEUMATIC EJECTORS, the outfeed take away belt quickly pulls work pieces from saw and utilizes one of three ejectors to sort them per program requirements. Sorting of work pieces are typically managed on a collection plane table or collection bin (not included)
 - A set of telescopic arms are included to support a collection plane table (collection plane surface is optional)
 - Standard steel collection table is not provided with this option.
- SP 33 VIRTUAL EJECTOR, Software feature allows to ejectors to activate same time for ejection of work pieces longer than 1500mm (59" inches). (Required options: SP 30). Packages includes one as standard.
- SP 34 ADDITIONAL 2.75M (9' FEET) LENGTH SECTION FOR SP 30 OUTFEED CONVEYOR, Increase the length of your outfeed table to support more sorting stations and/or longer printable lengths. Maximum outfeed table length: 17M (55' feet). (Required options: SP 30).
- P 38- EJECTOR BY AIR JET for short pieces, from mm. 200 to 400mm without impact on the side surface to minimize damage the pieces. Programming from machine PC.
- SP 37 DOUBLE SPEED ON THE EJECTORS, allows operator to switch speed of each ejector from fast to slow as needed to manage product ejection. Standard includes three ejectors.

SP 30 TECHNICAL SPECIFICATIONS

Belt length (standard)	9000 mm
Number of ejectors (standard)	Four (4)
Number of virtual ejectors	Two (2)
Number of ejectors by air jet	Four (4)
Air Jet Kicker*	200mm-350mm (8"-14")
Ejector, min-max length	200 mm (8") – 1500 mm (59")
Ejector, min-max with virtual ejection	1500 mm+ (59" +)
Motor	1.5HP
Speed	90M/min (300'/min)
Ejector height (standard)	90 mm (3.6")
Conveyor height	900 mm, +/- 20 mm (35", +/- 0.7")

*Air jet ejection can work to minimum length of 150mm (6") with small percentage of mis-matching.

SP 68 Length Selection Collection Table 6M

Side table to catch material ejected from kickers. The table is of steel surface. Otherwise, table, belt, or bin to collect work pieces is supplied by end customer.

REA Jet Printer for Salvador 250

Cartridge style printer with slide plate for printing close to wood. This allows for increased print quality. Improved quality allows for barcode printing capabilities give good quality wood. Moisture content, shape of wood, defects, and grain can effect the readiblity of the barcode. The proposed system allows for printing to lines of data.

REA JET System including

- (1) REA JET HR 2K Controller
- (2) Print Head for HR, 1 Cartridge
- (1) Slide Plate for 2 Print Heads
- (2) Print Head Cable, HR, 3 meters
- (1) Photoelectric Proximity Switch, M8 Connector
- (1) Pantograph (HR), with 300mm support rod, with guide wheel, for max. 4PH

Salvador Integration

- Software integration
- Stand, pole, and wiring