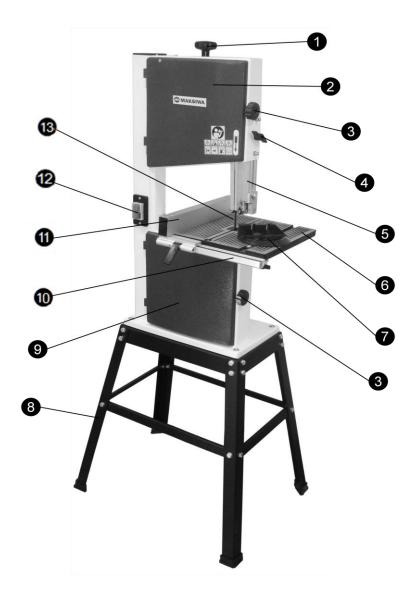


# BAND SAW - 250 mm -

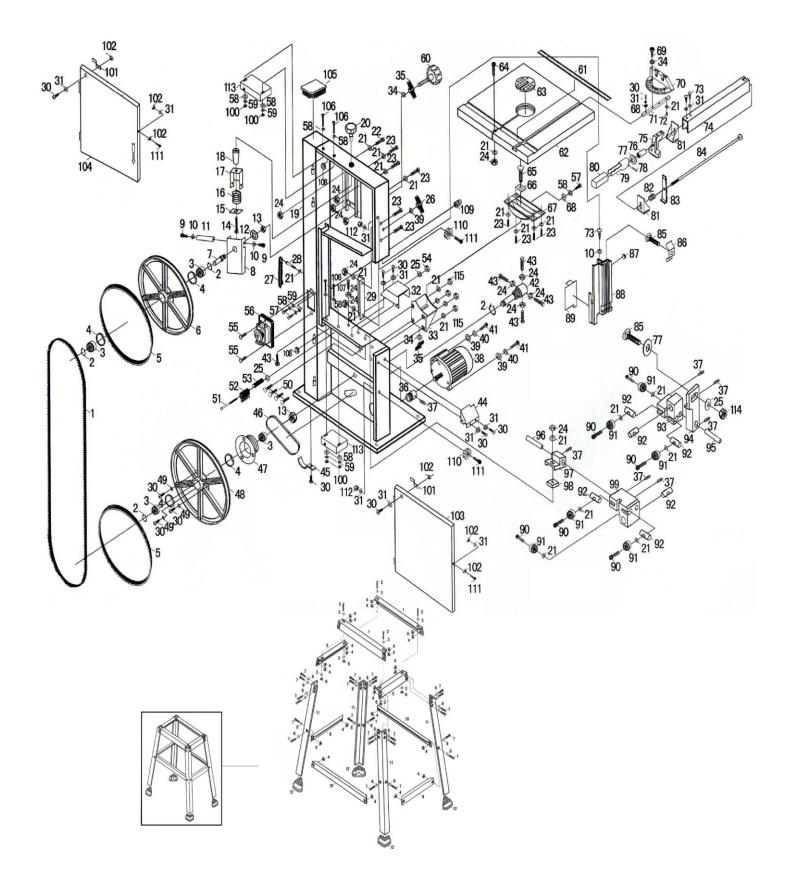
# **INSTRUCTION MANUAL**



ATTENTION: READ THIS MANUAL BEFORE USING THE PRODUCT.



- 1. Tape tension adjustment knob
- 2. Upper Door
- 3. Door opening handle
- 4. Column Adjustment Knob
- 5. Column
- 6. Support Table
- 7. Half Moon Guide
- 8. Base
- 9. Lower Door
- 10. Graduated Scale
- 11. Side Guide
- 12. ON / OFF
- 13. Cutting Tape



#### **INSTRUCTION MANUAL**

#### Important information you should know:

•Only work with sharp tools. Tools that are not sharp do not cut properly and overload the engine.



# ALWAYS USE PROPER PROTECTIVE EQUIPMENT WHEN OPERATING THIS EQUIPMENT.

### Important Safety Instructions

ATTENTION: When using power tools,

always follow safety precautions to reduce the risk of fire, electric shock and personal injury, including the following:

#### **READ ALL INSTRUCTIONS**

CAUTION: WHEN MAKING MAINTENANCE, REPLACE ONLY WITH INDENTICAL PARTS. Repair or replace damaged wires.

# SECURITY INSTRUCTIONS FOR ALL TOOLS

• Keep the work surface clean. Disorganized areas and work surfaces invite accidents.

• Do not use the band saw in hazardous

**environments.** Do not use power tools in damp or wet locations or exposed to rain. Keep the work area well lit.

• **Keep children away.** Visitors must be kept at a safe distance from the work area.

• Make the workplace childproof by using padlocks, master keys or by removing the ignition key.

• **Do not force the tool.** It will do the job better and safer for the intended use. Use the correct tool.

• Do not force the tool when doing work for which it was not designed.

• Use suitable equipment. Do not wear loose clothing, gloves, chains, rings, bracelets or other accessories that could get caught in moving parts.

• Shoes with non-slip soles are recommended. Wear hair protection to secure it.

• Always wear safety glasses. Also wear a face mask.

• Secure the part to be worked. Ensure that the workpiece is held firmly against the side guides. This ensures better quality of work and prevents accidents.

• **Do not overreach.** Keep your balance and your feet in a comfortable position at all times.

• Keep tools in order. Keep tools sharp and clean for better and safer performance. Follow instructions on lubricating and changing accessories.

• **Unplug the machine** from the outlet before servicing or changing accessories, such as blades, tips, cutters, etc.

• Reduce the risk of unintentional starting. Make sure the switch is in the "OFF" position before connecting the wire to the plug.

• Use recommended accessories. Refer to the instruction manual to check the recommended accessories. Improper use of accessories can cause a risk of accident for people.

• Never step on the tool. A serious accident can occur if the tool is tilted or if the tool is touched accidentally.

• Check for damaged parts. Before continuing to use the tool, a guard or other part that is damaged must be carefully examined to determine its proper functioning and perform its function properly. Check the alignment of moving parts, breakage of parts, assembly and any other condition that may affect its operation. Any part that is damaged must be repaired or replaced immediately. Do not use the tool if the switch does not turn it on or off.

• Never leave a tool running unattended. Turn off the ignition key. The engines of these tools can emit sparks and explode flammable gases.

• Extension cables. Make sure your extension is in good condition. When to use

4

extension, ensure your ability to transmit the electrical current used by your product. An undersized cable will cause a voltage drop resulting in loss of power and overheating. The following table shows the correct size to be used depending on the cable diameter and the amperage rating. If in doubt, use a cable with a higher power level. IMPORTANT: Do no use extension cords longer than 20 meters.

2-Way wire		3-Way wire	
Ø (mm²)	Amperage	Ø (mm²)	Amperage
0,5	9	0,5	8
1,0	13	1,0	12
1,5	16,5	1,5	15
2,5	23	2,5	20

#### Additional Safety Rules for Band Saws:

CAUTION: FAILURE TO MEET THESE WARNINGS MAY RESULT IN PERSONAL ACCIDENT AND SERIOUS DAMAGE TO THE

- MACHINE. Protect the power supply line with at least a 15 amp fuse or a circuit breaker.
- Make sure the ribbon is spinning in the correct direction (clockwise when viewed from the front).
- Make sure that the handles and screws are properly tightened and secured before starting any operation.
- Use sharp tapes and no signs of oxidation.
- Keep the engine vents free of chips or dirt.
- Always use chip protection.
- Keep your hands out of the tool path.
- Turn the machine off, disconnect the cable from the power outlet and wait until the tape has come to a complete stop before performing maintenance or
- adjustments to the tool. Support long pieces with a wood fixing device.
- Do not attempt to operate the machine at a voltage other than the rated voltage.
- Do not use tapes larger or smaller than recommended.

• Do not force anything against the fan to hold the motor shaft.

• Do not force the cut. Partial or total forced shutdown of the engine can cause serious damage. Allow the engine to reach full speed before starting to cut.

- Do not cut ferrous metals or any masonry material.
- Do not use abrasive cuts. Excessive heat and abrasive particles generated by these will damage the machine.
- Do not allow anyone to remain behind the machine.
- Do not apply lubricant to the tool when in operation.
- Do not put any hand on the tape area when the machine is connected to the power outlet.
- Do not work with small pieces without the aid of fasteners. Keep your hands away from the tool.
- Do not perform any hands-free operation.
- Do not stretch around or behind the machine.
- Do not put your hands within 15 centimeters of the tool.
- Do not put your hands under the table unless it is turned off and unplugged.
- Do not perform any operation with the doors open.

• Do not move your hands on the machine or workpiece or raise your arms until the tool has stopped.

• Do not use the machine without the side table.

• Do not use lubricants or cleaning products (particularly sprays and aerosols) in the vicinity of plastic components. The polycarbonate material used is sensitive to certain



chemicals.

ATTENTION: Some dust created by sanding, cutting, grinding, drilling and other constructionrelated activities contains chemicals that can cause cancer, birth defects and other reproductive harm. Some examples of these products are: lead-based inks; brick silica crystal, cement and other masonry products; and arsenic and chromium from chemically treated wood.

**CAUTION:** Do not connect the unit to an electrical outlet until all instructions have been read and understood.

Always tighten the adjustment clips before using the machine. Keep your hands 15 cm away from the tape. Never perform hands-free operations. Never cross your arms in front of the tool. Think: "I can avoid accidents"

Do not operate the machine without the guards in place. Always wear safety glasses. Turn off the machine and wait for the tool to stop before restarting service, making adjustments or moving your hands.

# **Electrical Connection**

The Ribbon Saw SF.250.C MAKSIWA has a singlephase motor with connection option 110 and 220V. To avoid burning risks, the motor leaves the factory connected to 220V. Check the electrical voltage of your outlet before starting the machine. If necessary, change the electrical connection of the motor with the help of a specialized technician.

Make sure your power supply matches the designation on the plate. A 10% decrease in voltage or more will cause loss of power and overheating. All MAKSIWA equipment is tested at the factory. If this tool does not work, check the power supply.

Check the compatibility between your outlet and the machine's plug. Avoid making patches and adaptations.

#### Familiarize yourself with the machine

Place the machine on a smooth, flat surface. Check the figures and pay attention to the description of the parts to familiarize yourself with its different components. The next section will deal with the necessary adjustments for a good functioning of the machine, and will refer to the termination that accompanies the illustrations.

To do this, you must know these parts and you must know where they are. The name of each component is followed by a corresponding number in the illustration.

#### Specifications

Wattage	½ HP (370 W)	
Motor Speed	1.720 RPM	
Tape Speed	780 m/min	
Tape Dimension	1.750 x 6 a 13 mm	
Max Cutting Widht	245 mm	
Max Cutting Height	100 mm	
Table Dimension	350 x 330 mm	
Table Tilt	0° a 45°	
Net Weight	22,5 mm	
H		

### **Transport and Installation**

For packaging reasons, the machine is not completely assembled.

If you notice any damage caused by transportation while opening the package, notify your supplier immediately. Do not operate the machine.



**Dispose the packaging in a sustainable environmental way.**The MAKSIWA Band Saw SF.250.C is designed to operate indoors and must be placed on a firm, stable and level surface. CAUTION: To prevent the machine from moving and causing a lack of precision, make sure that the base on which it is supported is not uneven. If the machine moves on the surface, place a support under the base until it settles firmly on the surface.

# UNPACKING AND ASSEMBLY

#### UNPACKING

Due to modern mass production techniques, the SF.250.C MAKSIWA Band Saw is unlikely to be defective or a part is missing. If you find something wrong, do not use the tool until the parts are replaced, or the fault is corrected.

By doing this you are avoiding serious bodily injury.

- 1. Remove all loose parts from the packaging.
- 2. Remove the packaging materials around the

parts.

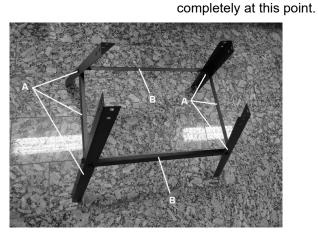
To assemble the base, start by attaching two legs
640 mm long (A) to a crossbar

335 mm (B), as shown in the figure below. To the mounting the base use the 24 screws 5/16 " x 16 mm,24 5/16 " nuts and 24 8.5 mm washers. Do not tighten the nuts and bolts completely at this point.



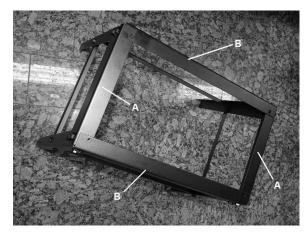
4. Repeat the operation described above, in order to obtain two sets with two legs and a 335 mm lower crossbar.

5. Join the two assemblies already assembled (A) through the lower cross bars of 495 mm (B), as shown in the figure below. Do not tighten the nuts and bolts



Note: At this point, the assembly will be a little oscillating. Have an assistant to hold the assembly in place while you fasten the nuts and bolts.

6. Attach the 245 mm top crossbars (A) to the assembly. Then attach the 410 mm upper crossbars (B) to the assembly in order to obtain the result on top of the page.



7. Check that there is enough space for the screws that secure the machine to the base to pass through the holes located in the upper crossbars.

NOTE: Steel materials occasionally "work"

after manufacture, making it difficult to align parts without a

little effort. Don't be surprised if the base

requires a little "effort" to fit in.

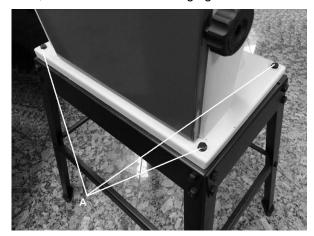
8. Tighten all screws and nuts on the base.

9. Insert the rubber feet (A) into the bottom of the

legs (B), as shown in the following figure.

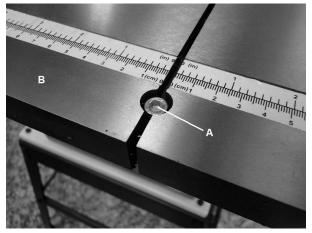


10. Place the Main Unit on the base. Connect them using the 4 3/16 " x 33 mm screws, 4 3/16 " nuts and 4 5.5 mm washers, as shown in the following figure.

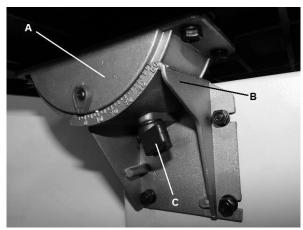


11. Assemble the side table according to the following steps:

- Remove the Allen screw 1/4 "x 28 mm (A) to insert the table (B) in the correct position;

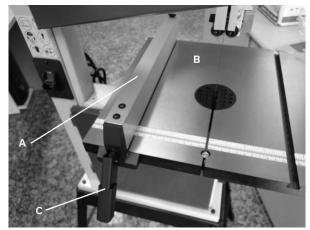


- At the rear of the machine, insert the screw located on the part (A) in the hole of the support part (B) and lock with the butterfly nut (C).



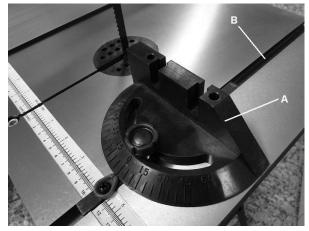
- Retighten the Allen screw, which was previously removed, on the side table.

12. Install the Side Guide (A) on the table (B) and fix it through the quick-release handle (C), turning it down. Look the following picture



13. Install the Half Moon Guide (A) in the channel (B) located

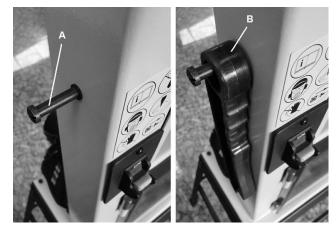
at the top of the table, to make straight cuts or angled, as shown in the following figure.



14. Install the tape tension adjustment handle (A) placing it in such a way as to involve the screw that is located on the top of the machine. See figure as follow.



15 Install the special Slotted screw and washer (A) on the left side of the machine, so that it serves support for the push stick (B) that comes with this equipment. This stick is indispensable for the cutting small parts. Look the following picture.



#### TEST CONNECTION

Complete this process only after you are familiar with all instructions in this manual. To test, follow these steps: 1. Read the entire instruction manual first, so that you are familiar with all the controls and functions of the band saw SF.250.C.

 Connect the machine to the power source.
Turn the switch to the ON position. The band saw must run smoothly with little or no vibration.

Right after turning the machine off, if you suspect any problem, correct these problems before turning it on again.

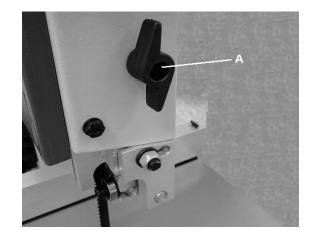
## **OPERATIONS AND ADJUSTMENTS**

This machine can perform many types of operations that are outside the scope of this manual. Many of these operations can be dangerous or lethal if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the knowledge and the skills needed to operate this machine. If at any time you experience difficulties in perform any operation, stop using the machine. If you are an inexperienced operator, we recommend that you read books, articles of commerce, or that you seek training an experienced operator before perform any unknown operation. Above all, your safety comes first.

#### **CUTTING HEIGHT**

Correcting the height of the cut guide is crucial for most band saw applications. Never leave the cutting tape exposed, except the part that will make the cut. Your MAKSIWA band saw SF.250.C is composed of an easy and safe adjustment system. To adjust it, simply release the handle (A) located on the right side of the machine, adjust to the desired height according to the part to be cut, and tighten the handle (A) again. Look the following picture.

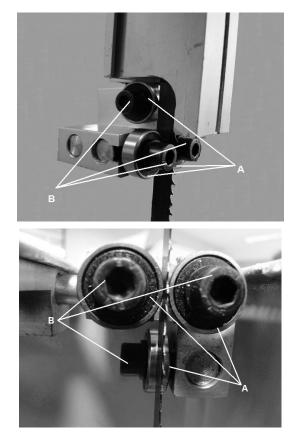


# ADJUSTING TAPE GUIDES

Before carrying out any operation, check that the cutting tape guides, that is, the bearings are correctly positioned. They should be lightly in contact with the tape, without pressing it or causing any deflection anywhere.

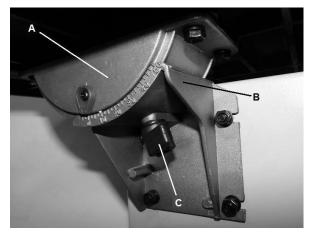
The MAKSIWA SF.250.C band saw has two side bearings and one rear at the top (next to the height adjustment guide) and two more side bearings and a rear at the bottom of the machine (inside the bottom door). To adjust the bearings (A) just loosen the Allen screws (B) slightly

that hold and move the bearings crosswise. Secure the screws (B) again.

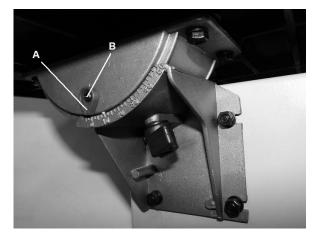


# TILTING THE TABLE

To make slanted cuts the band saw SC.250.C MAKSIWA has a table that can tilt from 0° to 45°. To do this, simply release the handle (C) located at the rear of the machine, below the table, and rotate the table (A) according to the desired degree, checking the scale of the part (B).



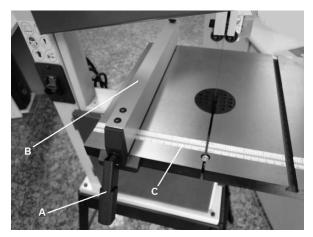
If necessary, use a template or square to check the angle of the band saw table. If necessary, adjust the pointer (A) by loosening the screw (B) and adjust the pointer to the correct mark. Check the angle again and lock the screw.



### SIDE GUIDE ADJUSTMENT

For better support and more accurate straight cuts, make use of the side guide that comes with your band saw SF.250.C MAKSIWA.

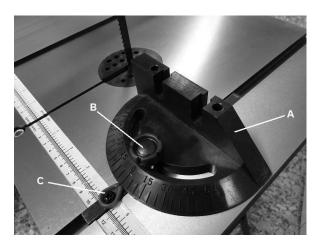
To do this, simply release the handle (A), lifting it upwards, and adjust the side guide (B) according to the desired distance. Make use of the graduated scale (C). After adjusting the guide, lock it once again positioning the handle downwards.



If necessary, the side guide has an adjustment of tightening tension. To increase this tension, simply turn o the knob (A) clockwise. If you want to decrease tension, turn the handle counterclockwise.

# SETTING THE HALF MOON GUIDE

The Half Moon Guide (A) is used to hold and support the workpiece at the desired angle during operation. To adjust the guide angle, simply release the handle (B) and position it at the desired angle. After that, retighten the knob (B) to lock the angle. Make sure the angle is correct by using a template if necessarv. Pointer (C) of the Half Moon scale.



ADJUSTING THE STEERING WHEELS

The steering wheels located inside the doors are adjustable in their alignment. These parts leave the factory already regulated and should only be adjusted if you notice any problem of decentralization of the same or the tape comes loose alone from a reel during the movement. To adjust the upper handwheel, loosen the butterfly nut (A) located at the rear of the machine and turn the handle (B) to find the alignment of this handwheel. After correcting the problem, fix the nut (A) again to lock. Check the figure below.



To adjust the lower hand wheel, loosen the nuts (A) located at the rear of the machine and tighten or loosen the screws (B) in order to find the alignment of this handwheel. After correcting the problem, secure the nuts (A) again to lock. Check the figure below.



# DUST COLLECTOR

When the band saw is used indoors, it is recommended to use a dust collector for a cleaner and healthier working environment for the worker.

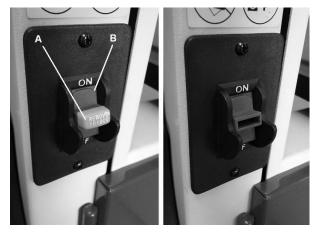
The MAKSIWA SC.250.C band saw has a 60 mm diameter powder outlet located at the bottom rear of the machine. Simply connect a dust collector hose directly to this outlet. Consult the MAKSIWA Catalog to find products that fulfill this function.

#### SECURITY LOCK

The band saw SC.250.C MAKSIWA has in its key starting device a safety device that allows the machine to be turned off and not to be turned on again, thus avoiding unwanted accidents.

To lock the starter, simply remove the locking pin. lock (A) from the center of the starter key (B), according to the figure below.

Take care not to lose this device when taking it off.



### TEMPLATES

The use of templates allows identical parts to be cut with speed and precision. Modeling with a pattern starts by attaching a prefabricated model to the part. Tips for Building a Model:

- Make sure that the screws or clamps are not going to contact the cutting tape.
- Design the assembly for the cut to occur under the piece.
- Make handles for security and control.
- Use materials that will move easily across the

table surface.

# MAINTENANCE

### GENERAL

Periodic maintenance on your SF.250.C band saw will guarantee optimum performance. Make it a habit to inspect your band saw every time you use it. This section covers the most common service adjustments or procedures that may need to be made during the life of your machine. Check whether the following repair or replacement

conditions are necessary:

- Loose or loose screws.
- Switch worn.
- Worn or damaged cables, plugs or sockets.
- Damaged transmission belt.
- Any other condition that could harm the

funcionamento seguro deste equipamento.

# TABLE AND BASE

Cleaning the SF.250.C band saw is relatively easy with a vacuum cleaner to remove excess wood chips and sawdust, and dust with a dry cloth. If there is any resin, use a resin remover and a clean cloth to remove it.

Protect unpainted cast iron surfaces by cleaning after each use, which ensures moisture from wood dust does not remain in contact with untreated metal surfaces.

Make regular applications of anti-rust or a quality metal protector.

# LUBRICATION

Since all bearings are shielded and permanently lubricated, just leave them in this way until they need to be replaced. Do not lubricate them. For the other items on this machine, an occasional application of electric machine oil is all you need.

Before applying the lubricant, clean the sawdust. Its objective is to achieve adequate lubrication. Too much lubrication will attract dirt and sawdust. Various parts of your machine can lose their freedom of movement with excess dirt caused by excessive lubrication.

# MAINTENANCE SCHEDULE

Daily:

- Vacuum all the dust from above and around the machine.
- Clean the table and all unpainted cast iron with a metal protector

# Monthly:

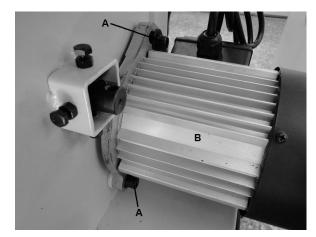
• Check the motor belt tension by checking damage or wear.

• Clean the accumulation of dust inside and outside the engine.

# BELT ADJUSTMENT AND REPLACEMENT

Your band saw uses a belt that can be adjusted as follows

- 1. Disconnect the machine from the power source.
- 2. Loosen the screws (A) that secure the motor (B) to the machine as shown in the figure below.



3. Slide the motor position to increase or decrease the belt tension, so that the belt is tight, with about 1/4 deflection when pressed lightly with your fingers.

Tighten the engine adjustment screws again.
When the belt shows signs of wear or breaks, replace it following the steps described above.

# CUTTING TAPE ADJUSTMENT AND REPLACEMENT

The band saw SC.250.C uses a cutting tape that can be adjusted using the tension regulator handle (A) located on the top of the equipment. To increase the tension of the tape, tighten the knob clockwise (when viewed from above) and if you want to reduce the tension of the tape, release the knob counterclockwise.



When the cutting tape shows any signs of rust, wear or when it loses its sharpness or even breaks, replace it by following these steps described above.

# CUT QUALITY

The smoothness of any cut depends on a number of variables. Factors such as the type of material being cut, type of cutting tape, tool sharpening and cutting rate contribute to the quality of the cut. Make sure that the material does not vibrate when cutting.

# SUPPORT FOR LONG PARTS

ALWAYS USE A SUPPORT FOR LONG PARTS. Support long pieces using any convenient shape such as easels or similar structures to prevent the ends from falling.

CHECK THE MAKSIWA CATALOG AND FIND PRODUCTS FOR THIS FUNCTION.

# **TECHNICAL ASSISTANCE**

For your greater safety, entrust repairs, maintenance and adjustments (including inspection and replacement) to the technical assistance recommended by MAKSIWA, which will always use genuine spare parts and accessories, reassembling your router in the same way as the original. Before using an extension cord, check for loose or exposed wires, damaged insulation and defective

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fittings. Repair or replace the extension if necessary.