



# simasa

- ⓔ MANUAL DE INSTRUCCIONES ORIGINAL
- ⓖ ORIGINAL USER GUIDE
- ⓕ MANUEL ORIGINAL D'UTILISATION
- Ⓟ MANUAL DE INSTRUÇÕES ORIGINAL
- ⓓ URSPRÜNGLICHES GEBRAUCHSANWEISUNG
- Ⓟ ORIGINALNA INSTRUKCJA OBSŁUGI
- ⓔ دليل المستعمل الأصلي
- ⓓ MANUALE D'ISTRUZIONI ORIGINALI
- ⓓ Инструкция по эксплуатации (завода изготовителя)

## BALI 700 MKNO

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## 1. GENERAL INFORMATION

**WARNING: Please read and understand perfectly the present instruction before using the machine.**

SIMA S.A. thanks you for your trust in our products and for purchasing the TABLE SAW model BALI.

This manual provides you with the necessary instructions to start, use, maintain and in your case, repair of the present machine. All aspects as far as the safety and health of the users is concerned have been stated. Respecting all instructions and recommendations assures safety and low maintenance. As such, reading this manual carefully is compulsory for any person responsible for the use, maintenance or repair of this machine.

As such, reading this manual carefully is compulsory for any person responsible for the use, maintenance or repair of this machine.

**It is recommended to have always this manual in an easily accessible place where the machine is being used.**

## 2. GENERAL DESCRIPTION OF THE MACHINE

SIMA Cutting Table Saws, Bali models, are designed and manufactured to be used at masonry building sites, in particular to cut until 20 cm high concrete blocks and other construction materials, mineral and compounds with at least one bearing side (tile, terrazzo, brick, marble, granite, concrete or ceramics shingle, stoneware... The cutting tool is a diamond blade powered by an electric motor and water cooled by a closed-circuit pump. The progress of the blade is done manually by moving the cutting head in the direction of the material to be cut. The Bali models are manufactured of high quality materials.

**Any use other than the machine has been designed for is considered inappropriate and can be dangerous; therefore, it is expressly prohibited.**

- Bali models are designed to solve the problem of cutting materials 20 cm high with the appropriate diamond blade.
- Enable to move the head up and down directions easily and manually way, through turning and blocking the head using the handle proportionate for the purpose
- The head of the motor keep the right balance even when the block is cancel due a spring.
- Its steel chassis avoid vibrations during cutting. Therefore we get a better efficiency of the diamond blade.
- The carry in sliding cart is build with V wheels tread design.
- A rubber protection is dispose on the sliding cart in its upper side to avoid the sliding of the material being cut.
- The machine has four demountable legs to facilitate its transport and handles for its displacement.
- The machine is protected with an anti-splatter screen to avoid the water splashing towards the back part of the machine where the cutting is being performed.
- Bali models have detachable legs to facilitate their transport.
- The action of the diamond blade is made through belts, getting a total silence.
- The frame of the machine is painted with a highly resistant anti-corrosion epoxy polyester paint.
- This machine has been designed and manufactured to cut with a water cooled diamond blade. The cooling is carried out by a closed-circuit electric pump with a constant water flow.
- The electric pump with a high impedance winding avoids its burning in normal conditions of use and certainly that it is always covered with water.

## 2.1 PICTOGRAMS

The pictograms on the machine have the following meaning:



- USE SAFETY BOOTS
- USE HELMET AND EYE AND AUDITIVE PROTECTION
- READ INSTRUCTIONS MANUAL
- USE SAFETY GLOVES.
- SOUND POWER LEVEL ISSUED BY THE MACHINE.
- SOUND POWER LEVEL ISSUED BY THE MACHINE.



Machine connected a 110V.



Machine connected a 230V.



Machine connected a 400V.



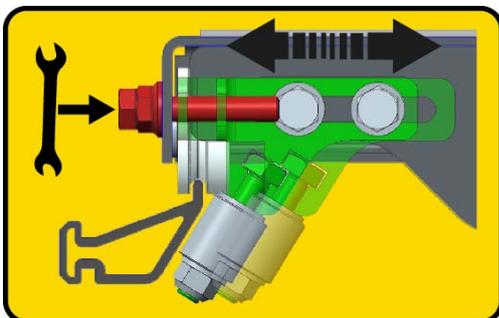
Hot surfaces.



Entry not allowed to persons outside the labor. Warning cutting tool..



Cutting depth adjust.



Anti tip mechanism for sliding tray.

### 3. TRANSPORTATION

After unpacking the machine, it can be move it into the work place manually by two people.

It is recommended to empty the water from the tray before moving the machine to avoid splashing or spillage. It is also necessary to block the car to avoid unexpected slip during transport. Check also that they are fully tightened the screws holding the legs to the tray to avoid dislodging the raising machine.



### 4. ELECTRICAL PLUGGING AND ADJUSTING THE BLADE ROTATION SENSE

Upon receipt of the machine, make sure the network electrical tension is adequate before plugging the machine. The electrical tension is to be found on the voltage indication next to the switch of the machine.



Once you have realised the previous steps and before placing the blade and manipulate the motor, it is necessary to check and adjust the rotation of the motor axis correctly, you have to plug the machine to the electricity and start it up, watching the rotation direction that must be clockwise.

If necessary and with three-phase motors, you can change the rotation direction swapping the two phase wires in the aerial or in the peg of the feeding extension cord.



**WARNING:** Never manipulate power supply cables or any other electrical equipment on the machine before you unplug the machine from electricity.



**WARNING:** Unplug the machine from the network before proceeding to change the position of the bridge plates on the engines. You should also proceed to change the stickers indicating the supply voltage, so there will always be indicated on the machine rated voltage.



### 5. ELECTRICAL EQUIPMENT

The electrical equipment of the BALI MKNO cutting tables manufactured by SIMA, S.A. has an IP54 protection degree. The power supply on this machine has a low minimal tension coil to avoid any unexpected starting-up of the machine. When there is a power cut or a fall of tension that causes the machine to stop, and once the normal power conditions have been re-established, the motor does not start until the green button is pressed.

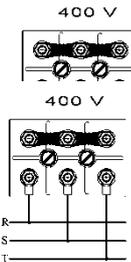
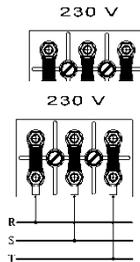


**WARNING:** The three-phase BALI MKNO models leave the factory prepared to work at 400V.



**WARNING:** When necessary to use a tension at 230V, we need to swap the plates in the motor terminals box, as

figure:



three-phase power positions of the bridge indicated in the following

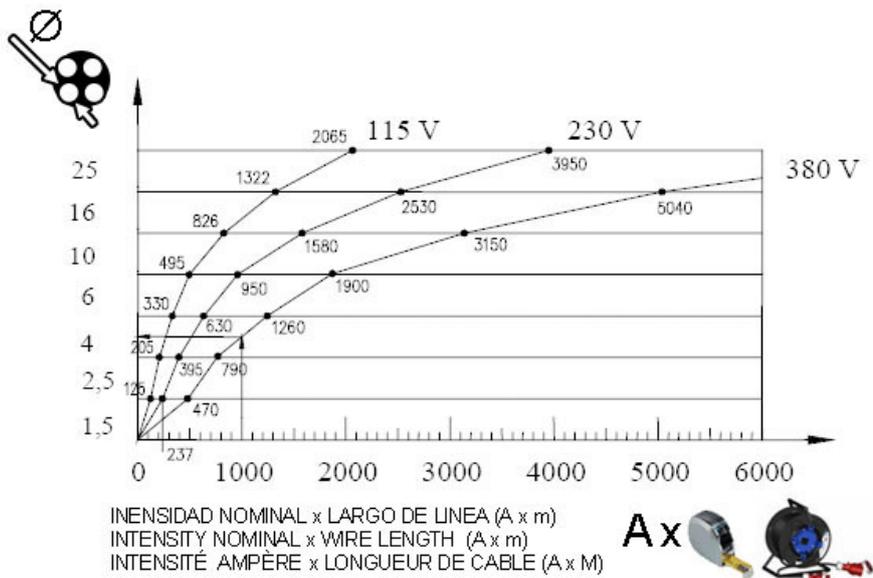


**WARNING:** The minimum section on the table as shown

extension cable used to feed the machine needs to have a



**WARNING:** The extension cable for the machine should have a minimum thickness as stated on the below table.



## 6. SAFETY RECOMMENDATIONS



The machines with electric motor should always be connected to a standard electrical box that has a circuit breaker and a Residual-current device in accordance with the characteristics of the engine ( see table).

	
2.2kw/3 CV -230V	20A/300mA
3kw/4 CV - 230V	20A/300mA
3kw/4 CV - 400V	15A/300mA

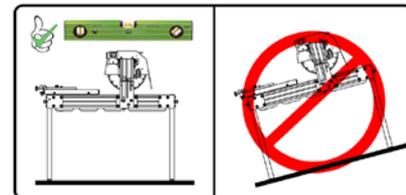


**WARNING:** Always use earth plug before starting-up the machine.

- Use normalised cables
- Make sure the feeding voltage is in accordance with the voltage indicated in the adhesive label on the machine.
- Make sure that the extension cords are not in contact with points of high temperature, oil, water, sharp edges.
- Do not use high pressure water to clean circuits or electrical elements.



- The damaged electrical cables should be urgently replaced.
- Mantengan en su posición los elementos y protecciones de seguridad.
- Always use approved protective items (gloves, helmet, goggles, boots ... ..)
- Turn the machine on the network and do not handle or operate on the mechanical and electrical machine with the engine running.
- Cutting table machines should be used by people who are familiar with its operation.
- It´s not allow to access and manipulation of the machine to people who are not familiar with the machine before.
- Work clothes should not include loose clothing that could get caught in moving parts of the machine.
- Before starting the machine, read the instructions carefully and observe compliance with safety standards. Learn well how to stop the machine quickly and safely.
- Place the machine on a flat and well lit and you do not switch the machine on until it´s got a balance position.



- Make sure the machine is in perfect technical condition and fully operational.
- Do not operate the machine if all the protections and safeguards are assembled which have been designed for that purpose.
- When moving the machine, always verify that engine and moving parts are blocked.
- Use only diamond blades specified in this manual.

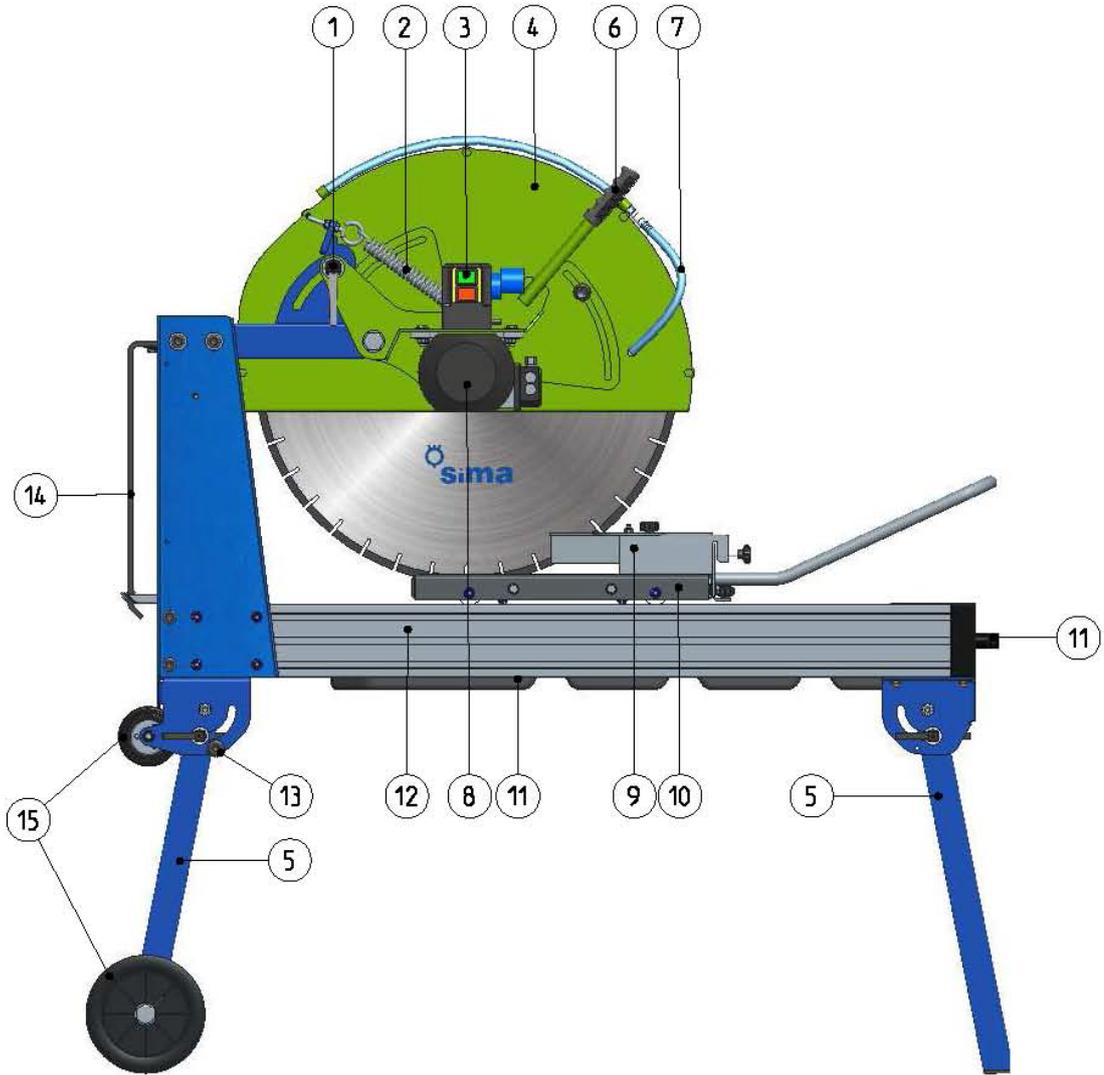


This machine **MUST NOT BE USED IN THE RAIN**. Cover with waterproof materials. If the machine has been exposed in the rain check before connecting the electrical parts are not wet. **Always work with good lighting conditions.**



**WARNING:** You must follow all safety recommendations outlined in this manual and comply with regulations for the prevention of occupational hazards of each place

7. PARTS OF THE MACHINE



- |     |                       |
|-----|-----------------------|
| 1.  | Quick release handle. |
| 2.  | Spring.               |
| 3.  | Switch.               |
| 4.  | Blade protection.     |
| 5.  | Legs                  |
| 6.  | Handle.               |
| 7.  | Cooling sistem.       |
| 8.  | Motor.                |
| 9.  | Block stopper.        |
| 10. | Trolley               |
| 11. | Water tray.           |
| 12. | Chasis.               |
| 13. | Leg stopper.          |
| 14. | Anti splash curtain.  |
| 15. | Transport wheels      |

## 8. MOUNTING AND DISMOUNTING THE CUTTING BLADE

BALI MKNO models are designed to use 600, 650 and 700 mm segmented diamond blades and continuous rim blades of diameter

The cutting blades have different properties depending on the material to cut. Hence, an adequate selection of the blade increases the performance and guarantees a better result.

Make sure the maximal supported revolutions by the blade are equal or superior to those of the machine's engine.

The blade is one of the most important elements in a table saw. A blade in good condition is essential to achieve optimal performance of the machine, replace worn or when it is twisted or cracked. Do not use any other blade other than that specified in this manual and see which has the characteristics required maximum diameter central hole diameter and the maximum speed supported.

Note that within the group of diamond blades are different types depending on the material being cut, always choose the most appropriate for you.

For all the above, we recommend always using SIMA Original blades that meet the technical requirements and safety requirements and are offered in a range that covers all the needs and facilitates the correct choice.

### 8.1 MOUNTING/REPLACING THE CUTTING BLADE

The blade can be mounted or replaced as follows:

- Make sure the power supply cable of the machine is disconnected.
- Remove the blade safeguard of the cutting bridge of the machine loosening the screws that fix it.
- Introduce the hexagonal key in the nut Block the rotation of the axis inserting the pricker key in the bore placed outside , untighten the axis nut and remove the outer bridle .

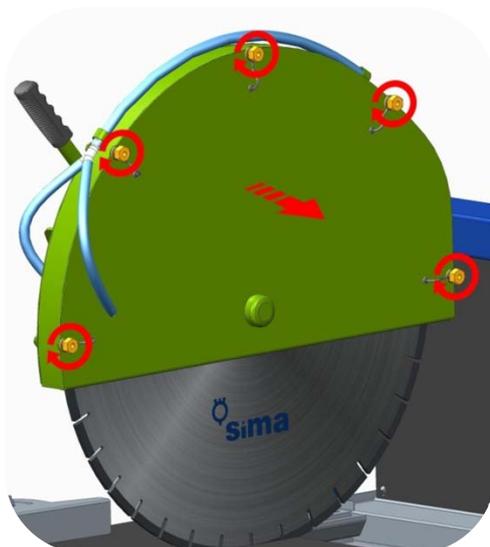
**WARNING:** The nut is left-threaded

- Place the blade on its axis ensuring it is well centered and perfectly located.
- Place the exterior bridle back and tighten the axis nut using the set of keys used before.
- Check the coupling between the blade and the bridles before tightening the nut.
- Place the safeguard back in its position and tighten well the screws fixing the cutting head.
- To dismount the blade, proceed in the inverse sense.



**WARNING** remove all tools used to mount the blade form the machine before starting.

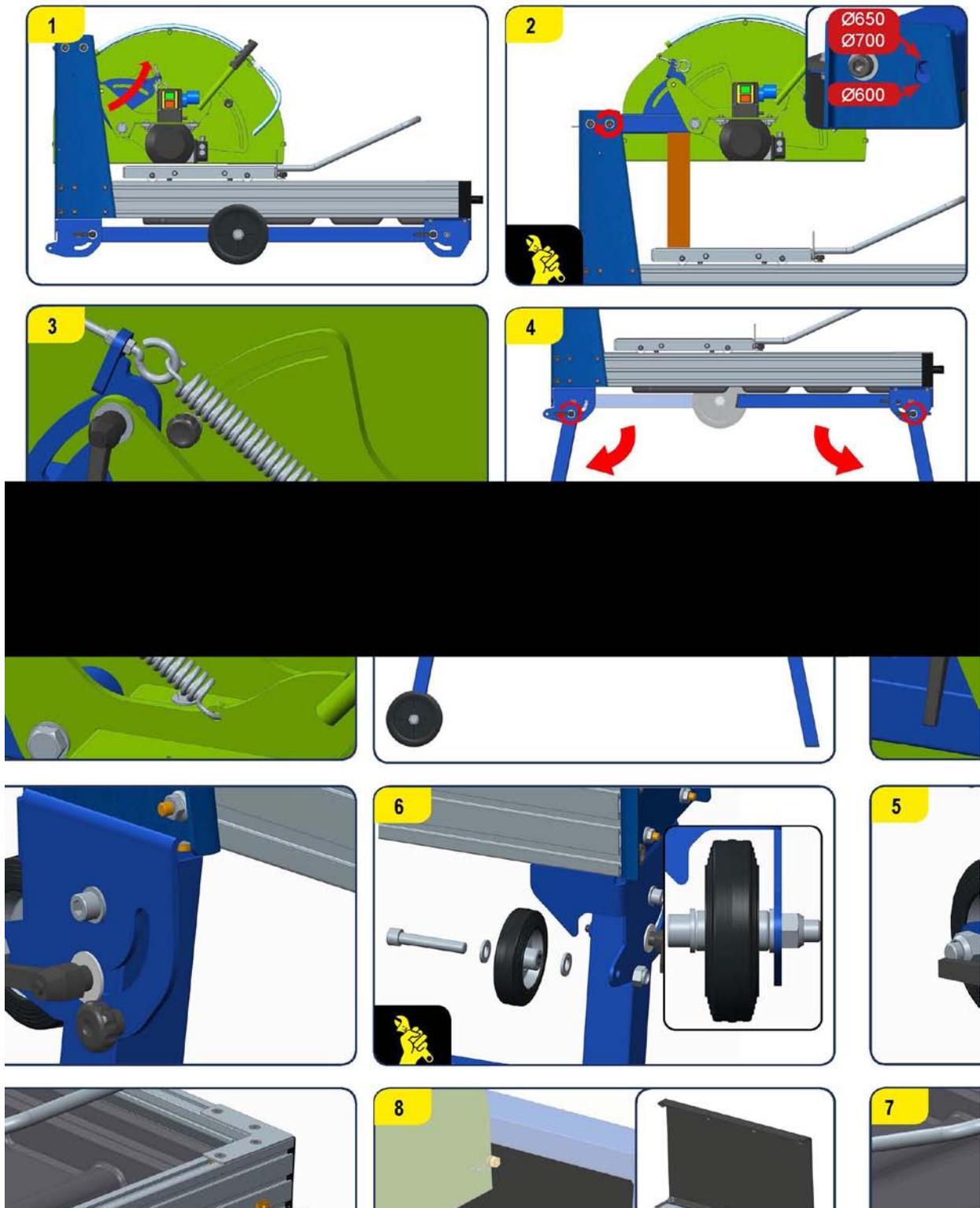
- Now you can connect the machine to the supply.



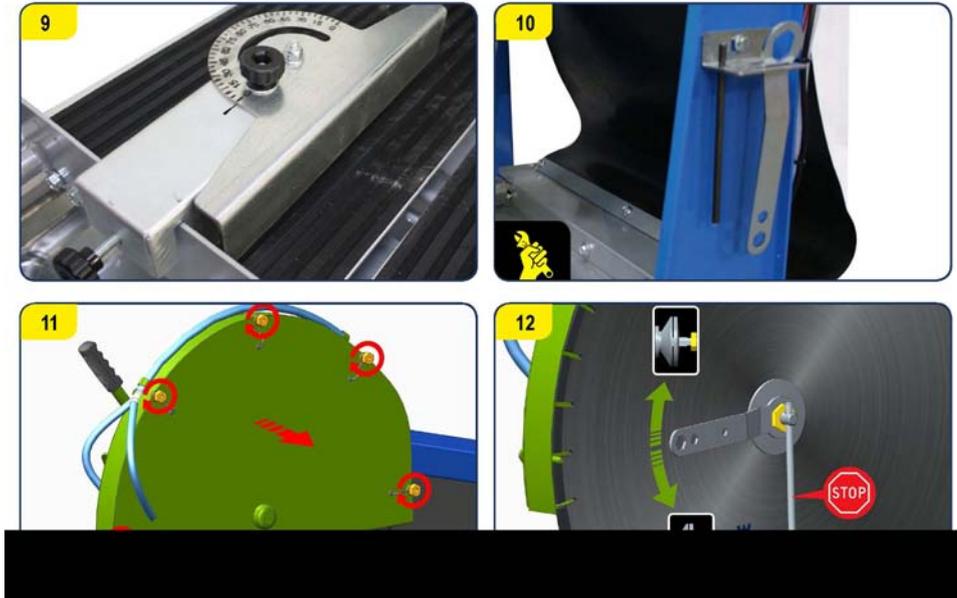
## 9. STARTING AND USING THE MACHINE

### 9.1 BUILDING THE MACHINE

1. Use the cardboard accessory to support the head while you fix it in place
2. Depending on the size of blade you will use, fix the head in one position or another.
3. Install the spring.
4. Unfold the legs and fix them in place
5. Install the blocking Wheel so that the legs cannot collapse in transport.
6. Install the upper wheels.
7. Install the transport handle.
8. Install the antisplash carpet.



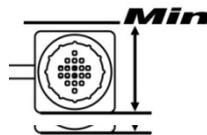
9. Install the ruler on the cutting surface.
10. Install the tool holder.
11. Mount the blade.



**9.2 FILLING THE TRAY WITH WATER**

BALI MKNO cutters are designed to work with water-cooled diamond chains, so that a significant part of its structure is a tray designed to serve as a reservoir of cooling water which is pumped in closed circuit to the blade.

**WARNING:** Before connecting the machine to the network to begin any cutting operation should proceed to fill the tray to the level sufficient to cover the pump completely



During cutting operations accumulate lots of dirt on the tray so the water should be changed as often as necessary to ensure the smooth operation of the pump and the perfect cooling of the blade, the tray features a drain plug that facilitates this operation.

**WARNING:** Do not forget to wash the pump at the end of each day. To do this, unscrew the circular battery, immerse the pump in a bucket of clean water, plug the machine and circulate the water until fork clean water for cooling, disconnect the machine and screw back the cap to the pump.



### 9.3 POSITION OF THE MACHINE AND THE OPERATOR, CONNECTION AND DISCONNECTION

The machine needs to be installed in well illuminated, stable and plane surface, free from any obstacles.

Before starting-up the machine, we should have gone through all necessary safety measures (electrical connection, stability, protections, etc....) as mentioned in the previous chapters.

When installing the machine, make sure the table on which it will be placed should be a horizontal, non bland surface.

This machine is not to be used under rain and always work in good illumination conditions.

To start cutting, the operator should stand in from of the machine. In this position, the operator can easily manage the cutting head and the piece to be cut. He/she will also have easy access to the electrical plug.

Once the power supply cable is connected, the motor and the water puma start-up only by pressing the green switch button.

The machine can be stopped, simply by pressing the red switch button.



The cut should be made by pushing the lever, if the material is small or unstable then it can be held in place by hand



Start the cut slowly and then progress according to the power of the blade, do not force the blade.

The water pump will start automatically, make sure the water is flowing before starting the cut.

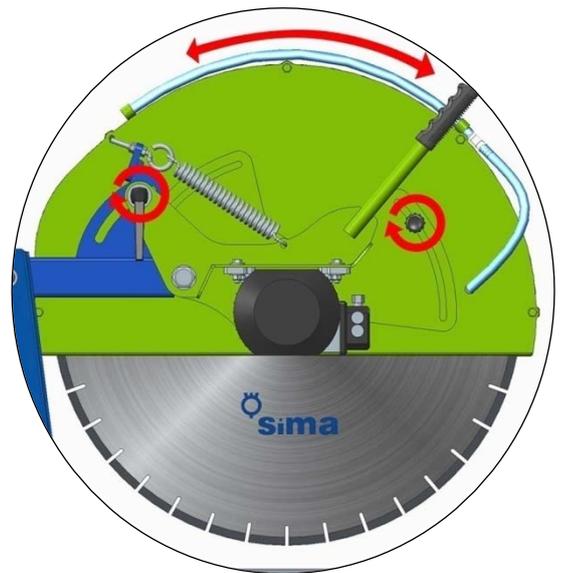
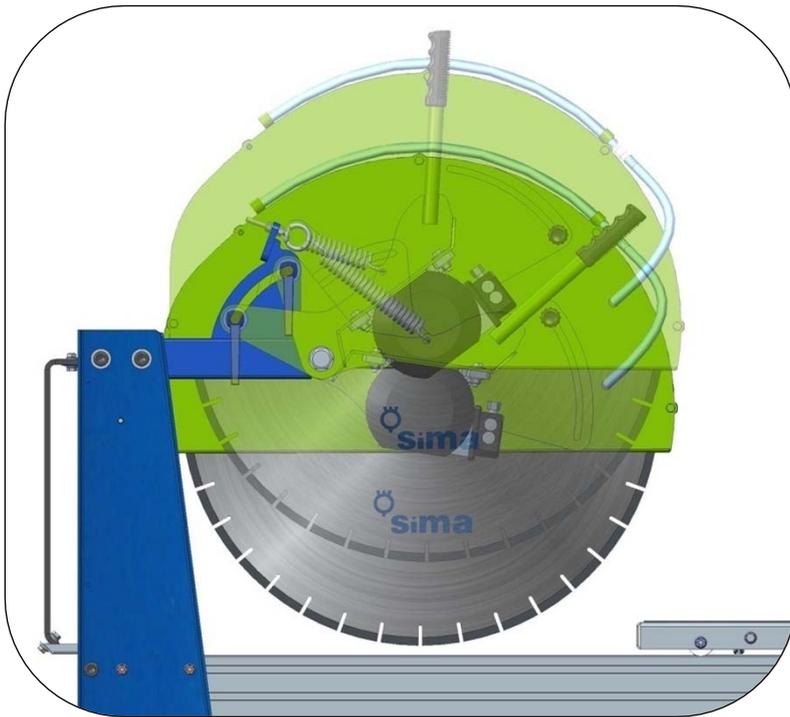
#### 9.4 CHANGING THE CUTTING HEIGHT.

To change the cutting height use the handle.

1. Loosen easy lock handle.
2. Raise or lower cutting head.
3. Tighten easy lock handle.
4. Make sure blade protection is horizontal.



**Warning, make sure the blade is never touching the cutting platform**



## 10. MAINTENANCE

BALI MKNO table saws require a simple maintenance as per the following operations:

- Change the tray water and clean the machine as much as needed. The tray has a tap for this use. It is necessary to fill the tray with water until the pump is covered with water.
- Although the cooling pump has a filter cap, it may get in dirt and debris inside of the cut material to block the propeller. To prevent this, periodically run the pump in a container with clean water for several minutes. If necessary, unscrew the filter cap and clean the propeller until it turns freely.
- Remove all possible residuals of cut materials that can cling into the rolling tracks of the cutting bridge.
- Replace as soon as possible electrical cables that cause power cuts, breaking or any other disrepair.
- If the machine is not covered, wrap it with an impermeable cloth.
- At the end of each day, unplug the machine.
- Maintenance operations should be performed by people who the machine and its functioning.

Before performing any maintenance or cleaning operations, the electricity cable should be unplugged.

In case you observe any anomalies or mal functioning, let a technician check the machine.

Take into account the safety recommendations mentioned in this manual.

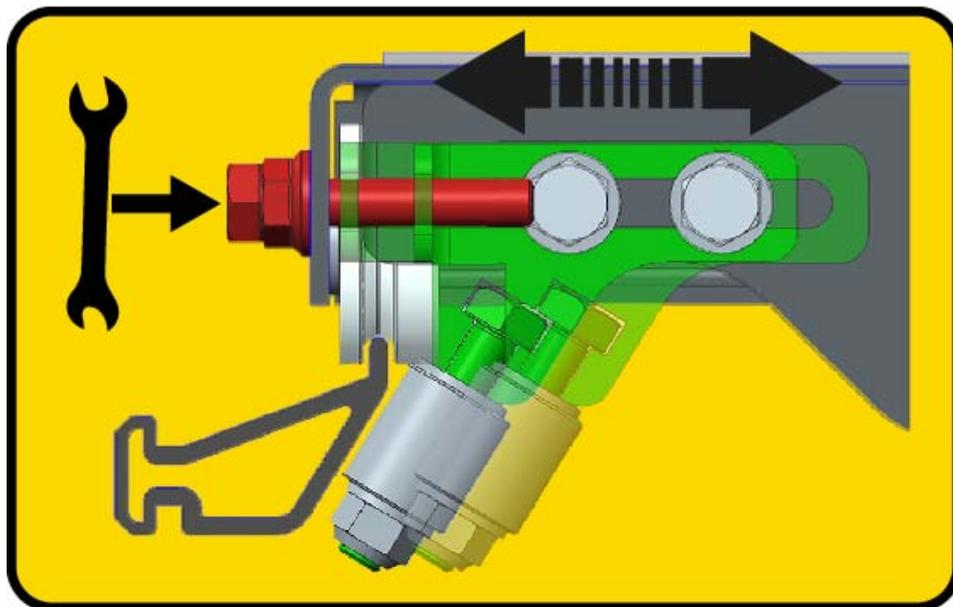


**It is prohibited to independently make any change in some parts, components or characteristics of the machine. SIMA, S. A. shall in no case be responsible for the consequences that may derive from a breach of these recommendations.**

## 11. ANTI TIP CUTTING PLATFORM

The moving cutting platform has an anti tip system so that the cutting platform will not disengage from its trip.

If you want to remove the cutting platform for any maintenance you should loosen the bolt as shown in the image. Then you must slide the tray until it becomes disengaged.



## 12. SOLUTIONS TO MOST FREQUENT ANOMALIES

ANOMALY	POSSIBLE CAUSE	SOLUTION
Motor does not start up	Power supply fault	Check the power supply in the switch board. Check the position of the thermal magnet and the differential in the switch board. Make sure the extension cable is in a good state and well plugged in both ends
	Damaged switch	Substitute it
	Blocked blade	Remove obstacles preventing the blade from turning
Motor starts up very slowly and takes long to reach its revolutions	Damaged condenser. (Single phase motors)	Substitute it
Cutting power insufficient	Bluntness of the blade segments or diamond bands	Effectuate different cuts on an abrasive material (Sandstone, concrete, stone emery)
	Inappropriate blade	Use appropriate blade for material
	Motor low potency	Let the motor be checked by technical service
The cooling water does not reach the blade	Water level low in the tray	Fill in water to level
	Pump blocked	Dismount the tape filter and clean it
	Pump damaged	Substitute the pump
	The pump water tape is closed	Open the water tape
Blade premature damage	Insufficient cooling	Check the cooling
	Excessive advance	Decrease the advance
	Inappropriate blade	Use appropriate blade for material
Defective cutting	The machine is not aligned	Align
	Blade deteriorated or worn-out	Change blade
	Inappropriate blade	Use appropriate blade for material
Vibrations occurrence	Blade oscillation	Check the state of the disc and mount it correctly
	Blade subsection defect	Make sure the bridles and the motor axis are well adjusted. Tighten well the nut.
	Wrap the blade	Change the blade

### 13. TECHNICAL CHARACTERISTICS

Code	0101002200	0101002201	0101002204	0101002205	0101002206
<b>Voltage motor (V) / Phase</b>	230 / Monf	230 / Monf	230-400 / Trif	230-400 / Trif.	230 / Trif
<b>Frequency (Hz) / Plug</b>	50 / 3P	60 / 3P	50 / 4P	50 / 5P	60 / 4P
<b>Kw (Hp)</b>	3 (4)				
<b>Water tray capacity</b>	42				
<b>Blade bore diameter (mm)</b>	25,4				
<b>Blade diameter (mm - Pulg)</b>	600/650/700 - 24 /25/27"				
<b>Blade included (mm - Pulg)</b>	No				
<b>Maximum cutting length (mm)</b>	540*				
<b>Maximum cutting depth (mm) 1 Pass / 2 Passes</b>	Disco Ø700: 270 / 355 - Disco Ø600: 230 / 300				
<b>Net weight (Kg)</b>	128				
<b>Packing dimensions LxAxH</b>	1450 x 850 x 800				
<b>Folding legs</b>	yes				

\* maximum cutting depth

## 14. WARRANTY

SIMA, S.A. the manufacturer of light machinery for construction possesses a net of technical services "SERVI-SIMA".

Repairs under warranty made by SERVÍ-SIMA are subject to some strict condition to guaranty a high quality and service.

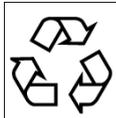
SIMA S. A. guarantees all its products against any manufacturing defect; to take into account the conditions stated in the attached document "WARRANTY CONDITIONS". The latter would cease in case of failure to comply with the established payment terms. SIMA S.A. reserves its right to bring modifications and changes to its products without prior notice.

## 15. SPARE PARTS

The spare parts for the cutting table, SPADA MKNO model , manufactured by SIMA, S.A. are to be found in the spare parts plan and may be download through our website [www.simasa.com](http://www.simasa.com) (B2B).

To order any spare part, please contact our alter-sales service clearly indicating the serial number of the machine, **model, manufacturing number and year of manufacturing that show on the characteristics plate.**

## 16. ENVIROMENT PROTECTION.



Raw materials have to be collected instead of throwing away residuals. Instruments, accessories, fluids and packages have to be sent into specific places for ecological reutilization. Plastic components are marked for selective recycling.



**R.A.E.E. Residuals arising of electrical and electronic instruments have to be stored into specific places for selective collection.**

### 1. DECLARATION OF NOISES.

The acoustic level emitted by the MACHINE:

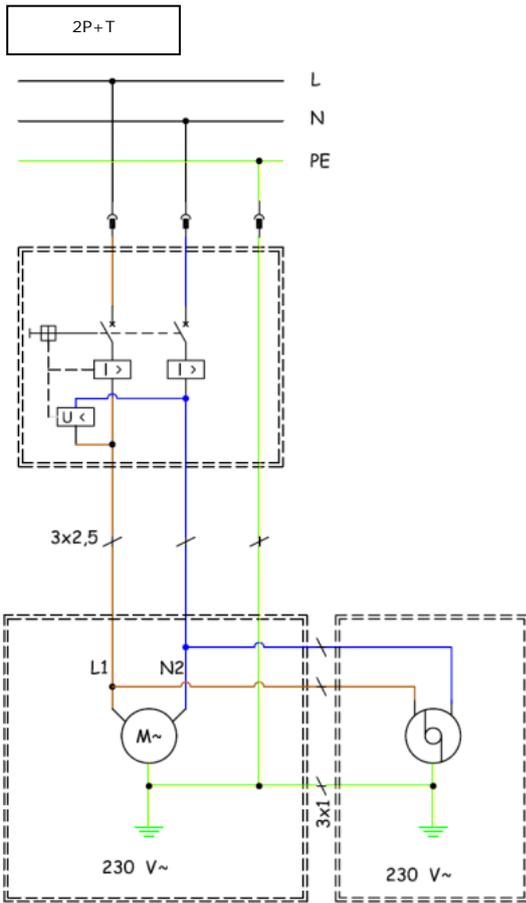
BALI-700 MKNO                      LWA (dBa) 116

### 2. DECLARATIN OF MECHANICAL VIBRATIONS.

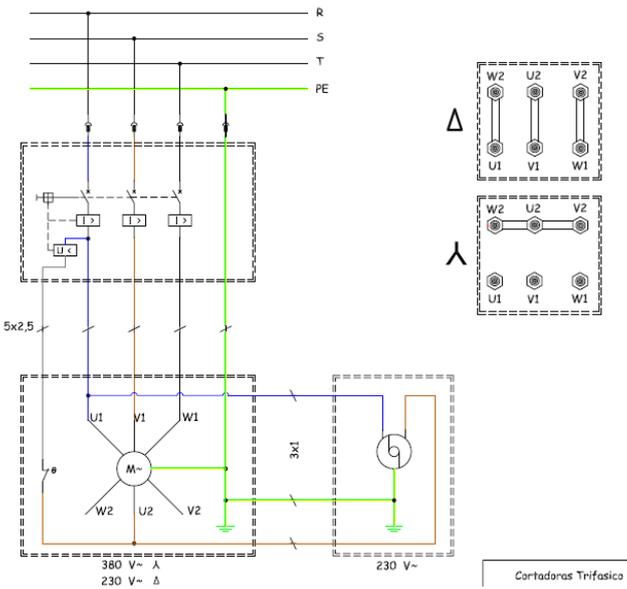
Vibration From machine to hand/arm:

MODEL	LEFT HAND m/ s <sup>2</sup>	RIGHT HAND m/ s <sup>2</sup>
BALI-700 MKNO	1,48071187620	1,97781276584

### 3. CIRCUIT DIAGRAMS



3P+T



3P+N+T

