

# MACROZA

# SC100

"PORTABLE ELECTRICAL CHASER MACHINE"



# INSTRUCTIONS

## FOR USE AND MAINTENANCE



MADE IN SPAIN

## GENERAL SAFETY RULES

**WARNING!** Read and understand all instructions before using the MACROZA SC-100. Failure to follow all basic safety measures listed below may result in electric shock, fire and/or serious personal injury.



The term “power tool”, “machine”, and “chaser machine” in all warnings below refers to mains-operated MACROZA SC-100 wall chaser.

- 1.** Keep your work area clean, tidy and well lit. Dirty, untidy and dark work areas increase the risk of accidents.
- 2.** Do not operate MACROZA SC-100 in explosive atmospheres such as in the presence of flammable liquids or gasses. Power tools create sparks which may ignite fumes.
- 3.** Do not expose MACROZA SC-100 to rain or wet conditions. Contact with water when using a power tool will increase the risk of electric shock.
- 4.** Keep bystanders, children and visitors away while operating MACROZA SC-100.
- 5.** Tools with an earth or ground connection to the exposed metal parts must be connected to a power outlet that has an earth or ground connection in accordance with all codes and regulations. Check with a qualified electrician if you are in doubt as to whether the outlet is properly earthed or grounded.
- 6.** Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- 7.** Do not abuse the cord. Never use the cord to carry the MACROZA SC-100 or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cord immediately. Damaged cords increase the risk of electric shock.
- 8.** When operating MACROZA SC-100 use only outdoor extensions cord marked “W-A” or “W”. These cords are rated for outdoor use and reduce the risk of electric shock.
- 9.** Stay alert; watch what you are doing when operating MACROZA SC-100. Use common sense. Do not use the power tool when tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury. To reduce the risk of fatigue it is recommended to have a break of no less than 10 minutes after every hour of work
- 10.** Use safety equipment. Always wear eye and ear protection and rubber gloves. Safety equipment such as dust mask, non-slip footwear or hard hat used for appropriate conditions will reduce personal injuries.
- 11.** Dress properly. Do not wear loose-fitting clothing or jewellery. Long hair should be tied back. Keep your hair, clothing and gloves away from moving parts as they can be caught in the power tool.

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- 12.** Do not overreach. Keep a proper footing balance at all times. Proper footing and balance enables better control of the tool in unexpected situations. Follow instructions in this book of proper chasing positions.
- 13.** Store idle MACROZA SC-100 in a dry safe place under lock and key and out of reach of children. Do not allow persons unfamiliar with the chaser machine or these instructions to operate the power tool. Tools are dangerous in the hands of untrained users.
- 14.** Avoid accidental starting. Make sure the switch is off before plugging in. Do not carry MACROZA SC-100 with your finger on the switch. In case an unexpected jam occurs, switch the power tool off and unplug it from the mains socket.
- 15.** Remove adjusting tools and attachments before turning MACROZA SC-100 on. A wrench or a key that is left attached to a rotating part of the machine may result in personal injury.
- 16.** Disconnect the plug from the power source before making any adjustments, changing accessories or storing the MACROZA SC-100. Such preventive safety procedures will reduce the risk of starting the machine accidentally.
- 17.** Do not overload the MACROZA SC-100 as it will work more safely and efficiently within the indicated power range. Do not use this wall chaser on extremely hard materials such as concrete or stone.
- 18.** Do not force the tool. Use the correct tool for your application. The correct tool will do the job better and safer for which it is designed.
- 19.** Do not use MACROZA SC-100 if the switch does not turn on and off. It must be repaired immediately.
- 20.** Maintain MACROZA SC-100 with care. Keep power tool clean and milling cutter sharp to ensure perfect working condition.
- 21.** All moving parts should be periodically inspected together with the cord and cutter protective cover.
- 22.** Keep handles clean and free from grease and oil. Properly maintained tools reduce risk of personal injury.
- 23.** Warning! Use only MACROZA original parts. Failure to do so may lead to personal injuries.
- 24.** Before starting the job, check for damages or breakages and any other condition that may affect the operation of the wall chaser or moving parts. If damaged, service the MACROZA SC-100 before using it. Many accidents can be caused by poorly maintained tools.
- 25.** Always use approved MACROZA service centres for maintenance. Have power tool service by a qualified repair person. This will ensure safety of the machine is maintained.
- 26.** MACROZA SC-100 is designed in accordance with these instructions and in the manner intended for the particular type of job. All maintenance should carry out by a specialist and using only MACROZA original spare parts.
- 27.** The MACROZA SC100 chaser machine should not be used to perform work for which it has not been designed (for example, to cut wood). Use of chaser machine for operations different from those intended could result in a hazardous situation.

**WARNING!**

To reduce risk of injury, user must read instruction manual.



**ELECTRICAL SAFETY**

The installation voltage must be as stated on the MACROZA SC-100 specifications plate

**EQUIPMENT**

- 1 MACROZA SC-100 chaser machine
- 1 Special fixed wrench for loosening the milling cutter
- 1 Fixed spanner for tightening the shaft
- 1 Box and case
- 1 Instructions manual

**TECHNICAL INFORMATION**

Acoustic power level: 110 dBA (± 3 dB)  
 Vibration level: 10 m/sec<sup>2</sup>.

Model	SC100	Model	SC100
Class II		Class II	
Motor	Single-phase	Motor	Single-phase
Voltage	220V AC	Voltage	110V AC
Frequency	50 / 60 Hz	Frequency	50 / 60 Hz
Power	2,800 W (at full load)	Power	2,800 W (at full load)
Off-load rotating speed	1,900 r.p.m.	Off-load rotating speed	1,900 r.p.m.

**DESCRIPTION**

- 1. On/Off switch
- 2. Rear handle
- 3. Motor body
- 4. Front handle/cutter attachment housing
- 5. Brush holder
- 6. Front skid
- 7. Ventilation slits
- 8. Mains power cord book



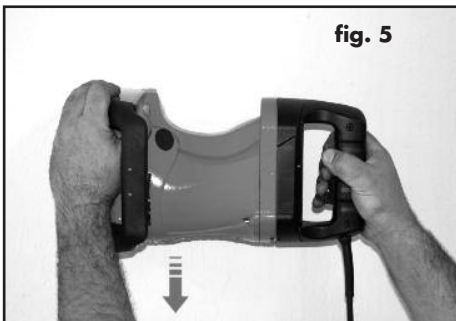
## STARTING JOB WITH MACROZA SC100

- Plug MACROZA SC-100 in the mains socket.
- Switch on MACROZA SC-100 before contact with the surface to verify its rotating direction. Teeth must rotate forward as shown in Figure 1.
- Lean MACROZA SC-100 lateral to the wall. Slowly insert the milling cutter into the wall (Figure 4).
- Hold the machine firmly to avoid initial vibrations.



## VERTICAL CHASES

- Vertical chases are done from top to bottom.
- Right hand should hold on to handle and switch while the left hand firmly grips on the milling cutter cover (Figure 5).
- Left hand guides the chaser machine bearing most of the force.
- Once the cutter has entered the wall, pull down MACROZA SC-100 with both hands producing a straight vertical cut.
- A difference in movement from one hand to the other will produce a curved cut.



**HORIZONTAL CHASES**

- Horizontal chases are done from right to left.
- The right hand holds the wall chaser by the right side of the milling cutter cover and pushes leftwards (Figure 6).
- Right arm will lean on to the machine and push also leftward from the left hand side (Figure 7).
- The left hand holds the rear handle and operates the switch (Figure 6).



**Figure 6** "Correct"



**Figure 7** "Correct"



"Right hand incorrect"

**HORIZONTAL CHASES CLOSE TO THE FLOOR**

- Horizontal chases close to the floor are done from left to right. (Figure 8)
- Right hand holds the machine by the rear handle and operates the switch. Left hand holds the milling cutter cover from the left hand side and pushes to the right (Figure 8)



**Figure 8** "Correct"



"Both hands and the machine incorrect"

**MILLING CUTTERS**

The MACROZA SC100 chaser machine's cutting attachment is a widia-tipped (Carbide Tungsten) milling cutter.

It is used with seven different types of milling cutters depending on the measure of chase required (depth x width):

**RZ-10:** 25mm x 25mm



**RZ-105:** 30mm x 30mm



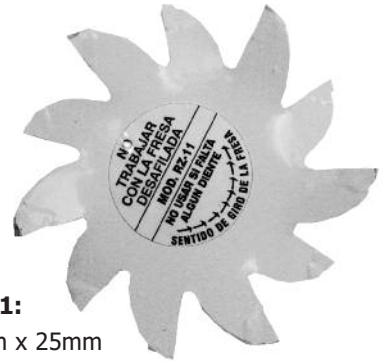
**RZ-125:** 40mm x 40mm



**RZ-115:**  
35mm x 35mm



**RZ-11:**  
35mm x 25mm



**RZ-12:** 45mm x 15mm



**RZ-150:**  
50mm x 50mm

**NOTES:**

Cut width and depth might vary depending on milling cutter's level of wear.

- For cuts wider than 50 mm, make two parallel cuts side by side
- For gear or switch boxes, make two additional parallel cuts on each side of the existing cut.

**AFILADO DE LA FRESA**

Antes de afilar la fresa, emplearemos el comprobador de afilado para verificar si sus dientes necesitan ser afilados.

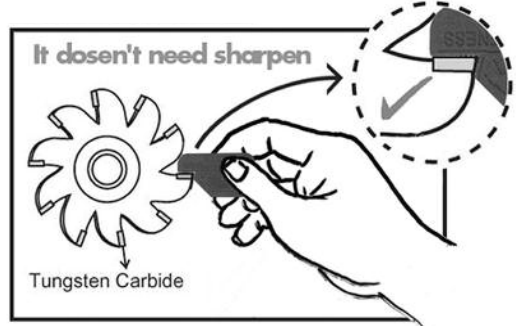
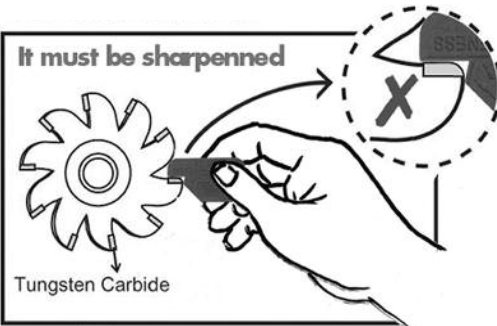


Carbide Sharpness tester

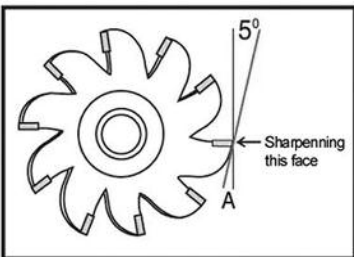


Do NOT use this kind of machine for sharpening.

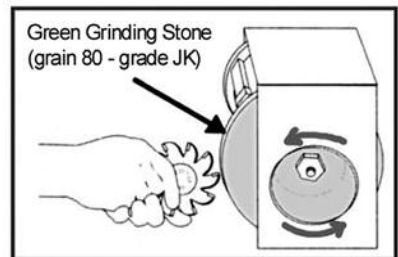
Sharpening must be done with this grinding stone.



**NOTE** Gap means need sharpening



Sharpening angle must be 5° (cutting angle A) on hard-metal plate.

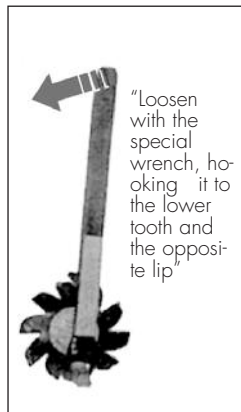


Method and position to sharpen the milling cutter



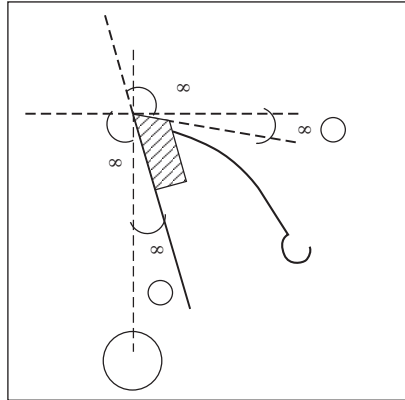
## INSTALLING THE MILLING CUTTER

- There are several sizes of MACROZA milling cutter depending on the width and depth of the chase.
- Only original MACROZA milling cutters should be used as they are designed specifically for the MACROZA SC-100.
- Make sure that the MACROZA SC-100 is switched off and unplugged from mains power before handling the milling cutter.
- Install milling cutter as shown in Figure 1, with teeth facing downwards in cutting position.
- Milling cutter shaft rotates to the left as indicated on arrow engraved on the milling cutter cover (Figure1).
- Before installing the milling cutter it is very important to place a washer (supplied with the machine and cutters) between the shaft and milling cutter. This will make it easier to remove the milling cutter after use.
- To remove milling cutter, use the special wrench as shown on Figure 2.
- Fix the spanner between the shaft and milling cutter cover. Once the spanner is attached hit the special wrench as shown in Figure 3. Do not hit the special wrench if the spanner it is not fixed between the shaft and milling cutter cover.



**VERY IMPORTANT:** Check the following each time before using MACROZA SC-100

- Milling cutter does not have any widia (Carbide Tungsten) tip missing.
- Ensure all milling cutter teeth are sharpened.



Sharpen the milling cutter's upper part.  
Never sharpen the front part.

To sharpen a milling cutter use an emery or grinding stone with the following specifications: Carborundum, Grain 80, and Grade JK.

Milling cutter sharpening angle must be  $5^\circ$  (cutting angle A), as shown in Figure 9.

### **APROXIMATE MILLING CUTTER DURATION**

The MACROZA SC100 chaser machine has been designed to work on the following materials:

- Bricks (both solid and hollow)
- Fireproof bricks
- Ytong blocks
- Cement blocks
- Plaster walls

Do not use the MACROZA SC100 chaser machine on concrete, stone or any other extremely hard material.

The life figures (metres cut) of a milling cutter depends on the material it is used on:

#### **MATERIALS**

#### **LIFESPAN**

Soft materials (plaster, Ytong, etc.)	15,000 m
Hollow brick	9,000 m
Solid brick	4,000 m
Cement block	3,000 m

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## **REPAIRING THE MILLING CUTTER (plate replacement):**

Keep your milling cutter sharpened at all times and without any missing carbide widia tooth. A milling cutter with a missing or broken widia tooth will be useless within a few hours of work and may be a potential hazard. Repair immediately.

### **Widia tooth replacement:**

1. Use a blowtorch to remove all old widia tooth remains.
2. Use a file to make the original gap. The gap should maintain the original position
3. New plate must welded with an autogenously filler weld. It should protrude 0.5 mm above the milling cutter (figure 7).
4. Sharpen the new widia tooth following instructions above.

## **MAINTAINING THE MACROZA CHASER MACHINE:**

All maintenance and repair jobs on the machine must be carried out at a MACROZA Technical Service Centre.

### **MACROZA Wall Chaser Maintenance**

We strongly recommend that all maintenance of Macroza Wall Chasers is done at an official Macroza Technical Service Centre.

Regular maintenance should be done to ensure the best performance of your wall chaser.

### **DAILY MAINTENANCE.**

Check the sharpness of the milling cutter approximately after each hour of use and change the cutter when it becomes blunt.

After each day's use, clean the machine so that there is no dust. If necessary, blow shots of compressed air through the machine to remove the dust.

### **MONTHLY MAINTENANCE.**

All MACROZA Wall Chasers used on daily basis should be checked at least once a month.

It is extremely important to check if there is any play in the bearings located in the milling cutter shaft. At the slightest play we strongly recommend that the bearings are changed. Failure to do so may lead to severe failures in the machine engine.

In normal working conditions and due to the harsh nature of chasing job, it may be necessary to change the bearings each month.

Look through the lateral slots of the chaser to check whether sparks produced by the carbon brushes in the commutator are stronger than normal. If necessary replace both carbon brushes. Always replace the pair of carbon brushes.

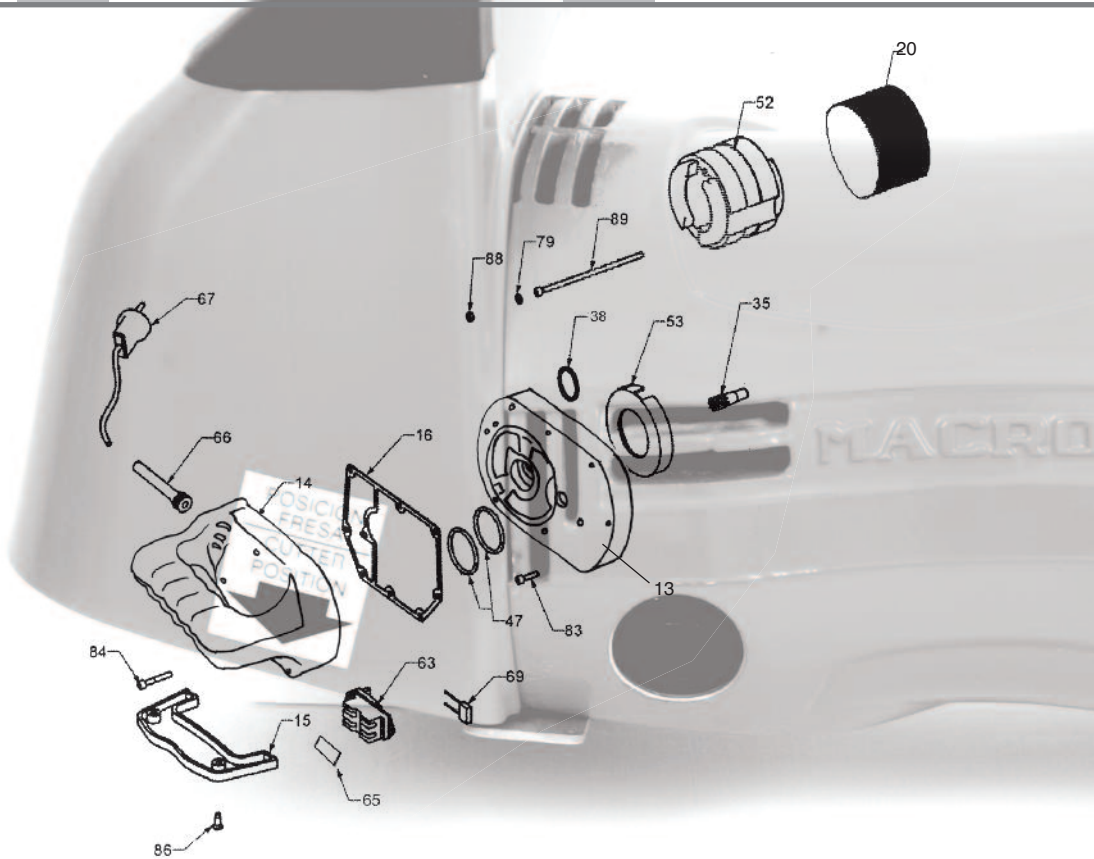
## **AFTER-SALES SERVICE FOR YOUR MACROZA SC100:**

MACROZA has an Official Technical Service Centre network to provide you with excellent service and fast repairs.

The use of non original MACROZA spare parts could lead to machine damage.

## SPARE PARTS

Ref.	Descripción	Ref.	Descripción
S11	Milling cutter cover	28	RZ-12 Milling cutter
S12	Motor casing	29	RZ-105 Milling cutter
X13	Intermediate cover	30	RZ-10 Milling cutter
X14	Complete rear handle	S115	RZ115 Milling cutter
S15	Switch cover (handle)	S125	RZ125 Milling cutter
X16	Intermediate cover seal	S150	RZ150 Milling cutter
X18	Front skid	31	Crown knuckle pin
X20	Coil isolation cap	32	Crown nut
21	Cutter attachment shaft	34	Gear
23	Cutter attachment washer	35	Pinion
24	Shaft dust-guard	41	Motor bearing
25	Shaft grease retainer	43	Motor bearing
X26	Shaft cover seal	45	Shaft bearing
27	RZ-11 Milling cutter	46	Shaft and motor bearing



Ref.	Descripción	Ref.	Descripción
47	O-ring	69	Capacitor
48	Motor bearing cover	S70	Special cutter spanner
49	Casing lower insulator	71	Fixed spanner
50	Interior insulator	78	Flat washer
S51	Complete armature	79	Lock washer
S52	Stator	82	Brush keeper
53-54	Fan spacer & Fan	83	Allen screw
S58	Auto switch-off Brush	84	Allen screw
59	Brush plug	86	Allen screw
S61	Brush tube	87	Bearing cover screw
62	Insulated bushing	88	Nut
M65	Switch	89	Coil rod
66	Cable exit rubber grommet	90	Hard metal plate
67	Cable with mains plug	M98	Overload chip

