



Hydraulic piston fillers STAR

SC-13 / SC-20 / SC-25 / SC-30 / SC-40 / SC-50

**TECHNICAL MANUAL OF
INSTALLATION, USE AND MAINTENANCE**



CE

Talleres Ramon SL
Rafael Riera Prats 49 · 08339 Vilassar de Dalt (Barcelona) ESPAÑA
TEL +34 93 753 13 11 // FAX +34 93 753 35 06
info@akbyramon.com // www.akbyramon.com





All set ups, transformations and maintenance mentioned in this manual, must be executed by qualified staff for the use of handling this type of machines.

Rules for using the machine safely

- ✓ Read, understand, and follow all instructions in the technical installation, use and maintenance manual. It is useful to keep this manual for future reference and to request spare parts.
- ✓ Authorize to use the machine exclusively to staff who have previously acquired knowledge of this manual. Staff must know how to stop the machine quickly.
- ✓ You should not put your hands near moving parts of the machine.
- ✓ Remove all objects that may block the correct operation of the machine.
- ✓ Make sure to turn off the machine when you finish your work. Never leave the machine running without supervision.
- ✓ Always turn off, disconnect and wait for the machine to be cool before doing any maintenance.
- ✓ Please, safety shoes are needed to avoid any accident or incident due to the fall objects from the machine or during transport.
- ✓ You should never tilt the machine at an angle of more than 30 degrees to prevent it from falling and being damaged



CONTENT

1. Introduction.....	4
2. Machine specifications.....	5
3. Warnings	6
4. Cautions.....	7
4.1. Machines assignment.....	7
4.2. General safety regulations	7
4.3. Before start working.....	8
5. Guarantee.....	8
5.1. Restrictions.....	8
6. Responsibilities.....	9
7. Installation.....	10
7.1. Connection to electrical circuit	12
8. Start up.....	13
8.1. Cautions before start.....	13
9. Maintenance	15
9.1. Cleaning.....	16
10. Troubleshootings.....	17
11. Specifications plate	18
12. Spare Parts list.....	19
13. Wiring schema.....	23

1. Introduction

In this manual you will find the information and instructions needed for this technical installation, use and maintenance.



This machine must be used only by staff that can read, understand and respect the warnings and all the instructions that appears on it.

Read carefully the manual before turn on the machine. In case that you have any doubt about the operation of the machine, please, read the manual again. If after that the problem our doubt persist, please, ask to your supplier.

Piston fillers **SC STAR**, are machines designed to fill natural and/or artificial guts with different types of meat in order to obtain sausage

SC-40 STAR and SC-50 STAR are totally constructed in AISI 304 stainless steel; all the other models are totally constructed in AISI 304 stainless steel too except the lid and the piston, that are constructed in anticorrosive aluminium. If you want, you could ask to manufacture all kind of models in AISI 304 stainless steel.

They have been specially designed to be very easy to clean and are equipped with wheels for easy displacement if necessary (with the exception of the SC-40 STAR and SC-50 STAR models).

All of Hydraulic Piston Fillers manufactured by AK by Ramon comply with the stipulated safety regulations of the **CE**, guaranteeing safety and quality. These regulations are summarized in the following two points:



Hydraulic piston fillers **SC-STAR**

- ✓ Impossibility of unexpected start-up of the machine after an unexpected power cut.
If the machine loses the electrical fluid and subsequently resets, the machine will never turn on by itself.
- ✓ The hydraulic oil tank necessary for the operation of the machine is completely closed. In this way we will avoid a possible inflammation or explosion if at any time it comes into contact with an electric spark, guaranteeing the total safety of the machine user.

2. Machine specifications

	SC-13 STAR	SC-20 STAR	SC-25 STAR	SC-30 STAR	SC-40 STAR	SC-50 STAR
Tension (V)	230/400	g230/400	230/400	230/400	230/400	230/400
Power (kW)	0,73	0,73	0,73	0,73	1,47	1,47
Capacity (l)	13	20	25	30	40	50
Oil tank (l)	10	10	10	10	14	14
Net weight(kg)	107	119	137	157	187	340
Gross weight(kg)	120	132	150	170	231	390
Dimensions (m)	330x765x1195	360x790x1195	360x815x1197	360x815x1275	416x845x1347	500x1200x1233
Packaging (mm)	600x800x1500	600x800x1500	600x800x1500	600x800x1500	560x660x1590	810x650x1560
Volume (m3)	0,714	0,714	0,714	0,714	0,585	0,82

3. Warnings

Guaranty and legal limitations will remain void in case of damage caused by repairs and modifications without acceptance from machine manufacturer or any authorized distributors. In case of malfunctions, please, contact your supplier.



Machine cleaning should always must be done with solvent-free products, as they may damage it.



In case of maintenance, there should never be any main power in the machine.



ALWAYS REMOVE THE SWICH FROM POWER OUTLET VOLTAGE

Do not introduce any products inside the machine that can damage it.



4. Cautions

4.1. Machines assignment

In case of machine assignment", it's mandatory to communicate to TALLERES RAMON, S.L. the address of the new owner in order to provide the possibility of sending information or new manual to the new owner if necessary. It's your responsibility provide this information to TALLERES RAMON by email to info@akbyramon.com

4.2. General safety regulations

You must always follow the safety regulations contained in this manual to ensure the correct use of the machine.

The manufacturer declines responsibilities resulting from improper use of the machine.

The supply voltage must match the voltage at which the machine is plugged.

The electrical power supply must be carried out according to actual regulations forced by the CEI 64-8/1-7 (1992), and it's mandatory to periodically check that the connection cable is in perfect conditions.



¡WARNING!

When the machine is not working, it must be protected from possible manipulations caused involuntary. Disconnect the connection cable from electrical power.

Control the machine, before start working, form possible presence of visible defects on safety devices.

One the machine starts working, it must not emit any strange noise. In that case, stop it immediately and find out the possible cause. If not notify technical assistance.

4.3. Before start working

- ✓ Never use or regulate in any case the machine, control or maintenance if you are not authorized person or if the operation is not known.
- ✓ Before start working, the staff must verify all the possible visible defects in the controls and the machine's safety devices.
- ✓ Do not let people outsider approach to the machine.
- ✓ In case of a problem that may affect the machine's safety, it must be disconnected immediately.

If due to installation, maintenance and repair requirements, it is inevitable to disassemble any element of the safety devices, this can only carry out by an authorized person, who must carry out such work without causing any damage to people or the machine.

5. Guarantee

Machine's guarantee is valid for a period of 1 year (365 days), from machine's delivery day.

5.1. Restrictions

This guarantee is not valid for:

- a) Repairs of necessary parts or repairs that are not due to a defect in material or manufacturing and that are caused by:
 - Repair of damage followed by an accident.
 - Defects due to bad use and/or lack of care.
 - Repairs made by third party who is not official representant, as well as damage due to repairs made by the owner and includes the parts assembled from the moment of those repairs.
- b) Guarantee is not valid for lid, resistances, gaskets and other pieces subject to wear.
- c) Electric components.

- d) The manufacturer is not responsible for modifications outside the origin of the device and which are set out in this manual.
- e) The manufacture is not responsible from the breakdowns caused by customer wrong use of the machine.
- f) The manufacture is not responsible from operation and quality of the machine if this involves the non-observance of these INSTRUCTIONS OF USE.

Restrictions of liability and resources: The manufacturer and supplier are not responsible for the consequences and damages caused directly or indirectly by a defect.

6. Responsibilities

- a) Any liability that is not established by law will be rejected.
- b) The responsibility of the manufacturer/supplier never will excess the total value of the machine.
- c) With the exception of the applicable general legal norms of public order, no responsibility will be assumed to pay damages of any kind (including commercial losses, movable or immovable property or damage to persons, whether related to the counterparty or to third parties).
- d) The manufacturer/supplier never will be responsible for damages caused by the use of the product because it is not appropriate for the purpose for which it was purchased.
- e) Any claim for loss of benefits in the operation of the machine will be rejected.

7. Installation

When you receive your machine, the packaging will be carefully checked by checking with the shipping label and that it is the required equipment; once discovered will be proceed to consult the Technical Manual of installation, use and maintenance, taking the following precautions:

1. The staff that will install the machine it should be competent for do that.
2. Check that the power outlet voltage matches the voltage indicated in the specifications plate.
3. Check all the elements that form the machine are in a good condition, at the correct position and finally check if it has any damage due to transport.

The machine must always be places on a plat and resistant surface. Make sure that you are always protecting the machine against splashing water and dirty.

When unpacking the machine, you will find the following parts:



1. Piston Lever
2. Lid handle
3. Lid nuts (2 off)
4. Nozzle nut
5. Nozzle (3 off)

Please, proceed to ensemble the pieces following the next four steps as shown below:

Step 1: Fixing Piston Lever:



Position piston lever (part nº1) over spindle and push down as shown in the image.

Tighten grub screws.

Step 2: Fixing Lid Handle



Screw the handle (part nº2) into position on the side of the lid as shown in the image.

Step 3: Fixing Lid Lock Nuts



Put the two lid fixing nuts (part nº3) in the same position as shown in the picture and screw them until the handle is secure.

Step 4: Fixing nozzle and nozzle nut:



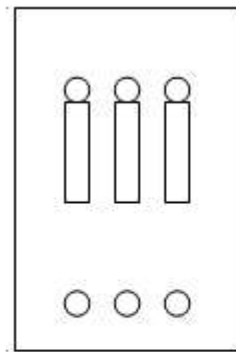
Select the desired size nozzle for working (part nº5) and place it in the same position shown in the image. Next, slip nozzle nut (part nº4) over small end of nozzle and screw to lid until the nozzle is well secured.

7.1. Connection to electrical circuit

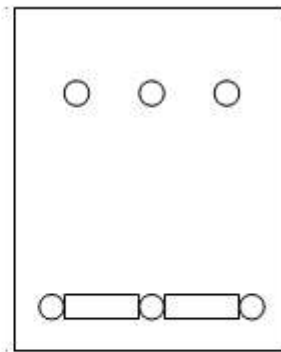
Before connecting the machine to the electrical circuit, check that local voltage matches with the one required on the specifications plate of the machine.

If it not, please, follow the following instructions:

1. Change connections in motor terminal box, as shown in the image.
2. Change the contact as shown in the image.



230V III



400V III

8. Start up

8.1. Cautions before start



BEFORE USE THAT MACHINE READ AND UNDERSTAND ALL THE MANUAL OF TECHNICAL INSTALLATION, USE AND MAINTENANCE.

- ✓ Check correct power outlet voltage.
- ✓ Check that the current is enough.
- ✓ Check that the machine does not show any damage in mechanic or electric elements due to transport and check that they are in its right position.



Starting process¹

Before starting, you must observe that the machine does not present any transport damage.

Once the machine is connected to the current, we will proceed with the following steps:

First of all, we will place the handle **(2)** to facilitate the opening of the cover **(100)** and then the control lever **(58)**.

Before we start any operation, **WE MUST FIRST CLEAN** the machine with biodegradable soap in order to eliminate any bacteria that may exist.

Once the machine is on, we will check that the start and stop buttons **(88)** work correctly, as well as the direction of rotation of the hydraulic pump. To check this correct function, we

¹ The number in bold font are the pieces number, consult section 11 of this manual.

will press the green switch **(88)** and then we will push the pedal **(58)** forward. If the piston that pushes the meat does not move, is because it's turning in the opposite direction. To solve this problem, you only need to change the position of two phases on the connection plug.

Once we have all these steps correctly performed, we can start working:

To start the work, we will loosen the nuts **(1)** in order to open the lid **(100)** and fill the cylinder with the meat or with the product you want to work. For this, it's useful to press the product well with your hands in order to avoid as much air as possible inside the cylinder. The next step is to choose the nuzzle size that most adjust to our type of production **(3,6,7)** and we will fasten it to the lid trough the nut **(4)**.

Pressing the lever **(58)** forward we will make the piston **(8)** rise. When you stop pressing the lever, it will return to their neutral point trough a spring. To lower the piston, we must actuate the lever **(58)** backwards, taking in mind that when you stop pressing the lever, this will return to their original position.

To regulate the output speed of the product we must act on the control **(57)**. We will rotate the control clockwise to give more pressure to the machine, that means more speed. In case you want to give less pressure, therefore less speed, we will turn the control counter clockwise.

9. Maintenance

SC Hydraulic Piston Fillers are manufactured with aim of no maintenance required. In the other hand, we recommend that the machine oil should change approximate every two years.

The following oils are the recommended by the manufacturer:

- MAQUIFLUIT 49 (UNIL OPAL)
- TELLUS 33 (SHELL)
- TERESSO 52 (ESSO)
- NUTO 32 (ESSO)
- 343 HYDRAULIC (GULF)

MODEL	OIL TANK CAPACITY
SC-13 STAR	7 LITERS
SC-20 STAR	
SC-25 STAR	
SC-30 STAR	
SC-40 STAR	8 LITERS
SC-50 STAR	



Oil tank

If you have any doubt about maintenance instructions detailed below or if the machine doesn't work properly, please, contact with your supplier or the manufacturer.



Repair and maintenance tasks should be done only by qualified staff and with the express consent of the manufacturer.



9.1. Cleaning²

To dismount and clean the piston, please, proceed as the following instructions:

Raise the piston **(8)** to the top, place part **(15)** inside part **(9)** loosening counter clockwise we will get part **(9)** out, this operation must be done with the pedal **(58)** pressed forward, in order to prevent the shaft **(42)** from rotating.

Next, thread part **(13)**, inside part **(10)** thereby removing the piston. To reassemble the piston, place it horizontally on the cylinder, with the shaft **(42)** above, by threading part **(9)**, we will be able to insert the piston into the cylinder and we will have to press the pedal with the last squeeze.

² The numbers in bold and in parentheses correspond to the part number, see Section 12 of this manual

10. Troubleshootings

Problem	Reason	Solution
The machine does not turn on	Power failure	Power check
Start-up button damaged	Used / wear	You should replace it
The circuit breaker or differential switch trips	Motor suffers overload	Electrician intervention
	Lack of insulation in some conductor	
The motor turns, but the machine does not work	The pump rotates in the opposite direction	We will need to interchange one of the phases in the connection plug.
	Oil is missing	Add oil
Piston doesn't raise in a regular way	There is air in the hydraulic circuit	Raising and lowering the piston few times, the machine will automatically expel the air.
	Oil is missing	Add oil

If after applying the solution to your problem, this problem continues, please contact with your supplier or the manufacturer.

11. Specifications plate

On the machine's base, on the right side in the lower right corner, specifications plate will be placed according to the drawing shown below.

<u>AÑO XXXX</u>					
SERIE		C/ RAFAEL RIERA PRATS 49 08339 VILASSAR DE DALT BARCELONA-ESPAÑA www.akbyramon.com			
MODELO					
Nº FABRICACIÓN					
<u>APARATO PREPARADO PARA</u>					
VOLTAJE	V	AMPERIOS	A		
POTENCIA	KW	FASES			
FRECUENCIA	Hz	MOTOR	r.p.m		



C/ Rafael Riera Prats, 49.
08339 Vilassar de Dalt - Barcelona - Spain



Tel. (+34) 937.531.311
Fax (+34) 937.533.506



info@akbyramon.com
www.akbyramon.com

