



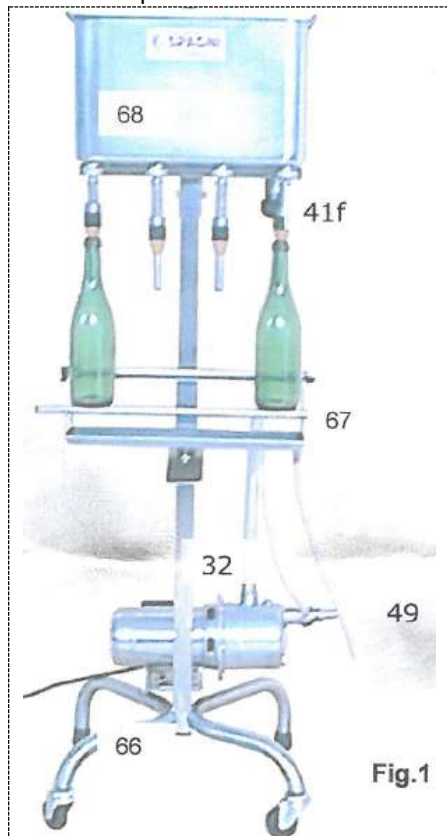
**CONSTANT LEVEL LINEAR DISPENSING FILLER**

**R12-3-4-6-8MEA**

**OPERATING AND MAINTENANCE MANUAL**

**IMPORTANT: PLEASE READ CAREFULLY BEFORE UNPACKING THIS PRODUCT  
ALWAYS KEEP CLOSE TO THE MACHINE FOR REFERENCE**

R14MEA + optional stainless steel valves

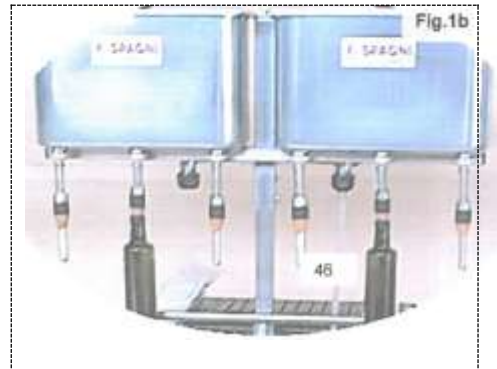


R13MEA STANDARD  
(Rear view)  
Chrome-plated valves



No.	Table 4a Name
66	Motor bracket foot assembly
67	Drip tray unit
68	Storage tank
68a	Dust cover

R16MEA – two tanks with 6 standard nozzles



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## STANDARD SYMBOLS



GENERAL HAZARD: personal injury



DANGER OF ELECTRIC VOLTAGE:  
personal injury



DANGER OF MOVING PARTS:  
personal injury

NOTE

RISK OF SERIOUS DAMAGE TO THE  
MACHINE

THE MANUFACTURER HAS THE RIGHT TO MAKE ANY CHANGES TO THE PRODUCTION AND THE MANUAL WITHOUT ENTAILING ANY OBLIGATION TO UPDATE THE PRECEDING MANUALS.

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TECHNICAL TABLE (EEC 89/392 p. 1.1.2 and 1.7.2; EN292 2p. 5)											
Art.	Name	ELECTRO PUMP		FILLER		Weight and measurements in cm					
		220 V 50 Hz RPM 2800 Decanting capac. l/h 2400 Protection IP54 cI F Thermal protection Automatic reset		Nozzle diam. 14 mm	Hourly Output*	OVERALL MACHINE SIZE				BOTTLE	
						KW	AMP	No.	L/H	kg	Length
Max diam.	Max height										
10306-2	RI2MEA	0.37	2.1	2	260	25	50	45	155	15.5	40
10306-3	RI3MEA			3	390	26	50	45	155	15.5	
10306-4	RI4MEA			4	520	28	50	45	155	10.5	
10306-6	RI6MEA			6	780	35	55	97	160	15.5	
10306-8	RI8MEA			8	520	39	55	97	160	10.5	
SEPARATE LIST OF EQUIPMENT (SMALL BAG INSIDE STORAGE TANK 68)											
		Description								Notes	
80212		Adjustment kit for width increase to 25 mm				Pos. 61-62-63-64-65 installed				1 x nozzle	
80220		Gasket kits for sealing rings				Pos. 59 (2 pcs.) + 57 + 55 + 52				1 x nozzle	

\* APPROXIMATE HOURLY OUTPUT OF FILLER, RELATING TO WINE OR WATER, IS DETERMINED BY THE OPERATOR

### SURCHARGES FOR FILLING OF LIQUID FOOD PRODUCTS

90313	Stainless steel valves for R12-3-4MEA
90314	Stainless steel valves for R16-8 MEA
90330	Stainless steel replacement float ball in mopen supplied as: (N. 1pc for 2-3-4) (N. 2pc for 6-8)



### SURCHARGES

35506	Three-phase switch with shutdown
90340	2-spout transfer for filling demijohn bot. 5 l (diam. 200 mm) for RI 2-3-4 nozzles
90341	4-spout transfer for filling demijohn bot. 5 l (diam. 200 mm) for RI 6-8 nozzles
90326	Special dispenser for long and narrow necks (central air vent) diam. 12
90335	24 V electronic high-level shutoff valve
90343	Adjustable swing support for PET bottles & plastic canisters (send sample) no. 1 pc
90345	Filling equipment for hot liquids filling 1 pc
90352	Three-phase motor 400 V / 50 Hz (for the switch see also 35506)

On request: accessories for the filler

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80208	12 diam. filling valve for bottle mouths of 14.5 mm (80 l/h, water)
80200	16 diam. filling valve for bottle mouths of 21 mm (400 l/h, water)
33818	40 mm diam. cone head for containers with a mouth wider than 29-38 mm
80151	SILICON cone to specification (fig. 2c)
56232	Valve opening clip 1 pc

Other customisations available on request

## SECTION 1: DESCRIPTION OF MACHINE

Thank you for choosing our RIMEA series linear gravity FILLER. BY CAREFULLY FOLLOWING THESE INSTRUCTIONS, AND COMPLYING STRICTLY WITH THE REGULATIONS GIVEN, this multifunctional machine will allow you to continuously transfer liquids by using the built-in electro pump, to transfer the liquid to a filling tank, and from here, to bottle all non-gas, or “flat”, liquids, at a **CONSTANT LEVEL** with a density equivalent to a sweet liquor. By simply using the electro pump, this machine has an excellent level of performance for dispensing all liquids specified below.

## SECTION 2: GENERAL SAFETY WARNINGS

**NOTE**



Failure to observe these warnings will exclude the undersigned from any liability in the case of personal injury or damage to goods, including the machine (this will also lead to termination of the warranty).

Before operating this machine, the user must be able to carry out competently and safely all the operations described in this manual.

### 2.1 Safety measures for the user



The user must strictly observe the accident prevention regulations applicable in the country where the machine is being operated. Particularly, unplug the cord each time you have to handle the engine for repair or maintenance jobs. Do not move the machine while the electrical system is powered. Do not drag the machine by pulling the power cord. Do not place the power cord on the floor, which can be wet due to bottles falling accidentally. The full integrity of the cable, plug and light switch must be checked frequently. Damaged parts must be replaced immediately with original components. Do not wet the motor of the pump directly with a jet stream (insulation class IP54). The electrical connection must be carried out by qualified personnel, who must make sure that the mains voltage corresponds to that of the motor (see technical table and the nameplate on the motor) and that the electrical system has been constructed in full compliance with the security regulations in force. Make sure that the electrical installation is equipped with an efficient earthing circuit.

Do not intervene on your own initiative by means that are not suggested in this manual. When in doubt, please contact our technical service.

### 2.2 Important protections and safeguards

The filling machine, and particularly the electro pump, have been built in a way to make the moving parts harmless, with safety housing in pos. 15.



Tampering with the protective devices while the machine is powered, or during operation, is prohibited.

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## SECTION 3: INTENDED/NON INTENDED USAGE OF MATERIALS



USE OF THIS MACHINE IS LIMITED TO PROFESSIONAL OPERATORS. PLEASE KEEP THE MACHINE OUT OF REACH OF CHILDREN.

**3.1** The machine is designed to fill bottles and flagons (subsequently referred to as BT and FL) by gravity at a CONSTANT LEVEL to a ROUND BOTTLE MOUTH. Other materials are PET and plastics in general, but only after having reviewed and tested samples sent by the client.

**3.2** FILLABLE LIQUIDS IN THE STANDARD TYPE: All fluids compatible with AISI Type 304 Stainless Steel (18/10) can be filled from the storage tank and the nozzles, the chrome-plated brass valves and fittings, the moplén mechanical float ball with brass insert (68b) and the noryl of inner parts of the electro pump. Using standard fittings, you can fill with:

WATER, PERFUMES, HAIR LOTIONS, FUNGICIDES, products MADE FROM PETROLEUM.

**3.3** FILLABLE LIQUIDS IN THE TYPE FOR FOODS (see the TECHNICAL TABLE):

WINES, DRY VINEGARS, BEER, SWEET AND DRY LIQUORS, SEED OILS, FRUIT AND GRAPE JUICES.

**3.4** On request, and following our written consent, other LIQUIDS THAT ARE NOT MENTIONED.



EXTREME WORKING TEMPERATURES: -10°C, +60°C.

DO NOT USE THE MACHINE TO FILL OR TRANSFER FLAMMABLE LIQUIDS.

DO NOT USE THE MACHINE IN EXPLOSIVE ATMOSPHERES.

DO NOT USE THE MACHINE TO FILL OR TRANSFER LIQUIDS DANGEROUS ON CONTACT OR INHALATION.

## SECTION 4: HANDLING / UNPACKING

The standard type machine is delivered in a protective plastic bag and packaged in corrugated cardboard, which is all sealed with a plastic safety strap.

DURING THE UNLOADING PROCEDURE PLEASE CHECK THAT THE PACKAGE IS UNDAMAGED. IF DAMAGE HAS OCCURRED, ANY DISPUTES MUST BE TAKEN UP WITH THE TRANSPORTER, WITH A RECORD BEING MADE ON THE ACCOMPANYING DELIVERY DOCUMENT. THE MANUFACTURER SHALL NOT BE LIABLE FOR DAMAGES INCURRED DURING TRANSIT. Check packaging (see TABLE 1) for SEPARATE EQUIPMENT.

The light weight of the machine allows it to be moved to the area designated for use on a simple two-wheeled trolley.

### NOTE

KEEP AN EYE ON THE "FRAGILE: THIS END UP" SIGNS AND DO NOT OVERTURN.

MAKE SURE THAT ALL SEPARATE PARTS ITEMISED IN THE TECHNICAL TABLE MATCH THE CONTENTS OF THE SMALL BAG NORMALLY PLACED INSIDE STORAGE TANK, NO. 68.

WASTE PACKAGING MATERIALS CAN BE QUICKLY DISPOSED OF IN A NORMAL WASTE DISPOSAL SITE.

## SECTION 5: Selecting the BOTTLING AREA & the BOTTLING APPAREL

**5.1** The machine working area must comply with the legal requirements applicable to the product being placed. In particular, make sure that the surface supporting the two legs and two wheels of the machine is level. The surrounding environment must be well lit, and the working area around the front and sides of the machine must be left completely clear for a radius of at least 1.5 meters. Highlight the instruction that, when the machine is in operation, there must be a constant supply of empty bottles available (the production rate is of approximately 130 litres per hour/per nozzle). In order to work comfortably and safely, it is favourable to prepare a suitable amount of empty BT/FL at the top of the machine and that the supporting surface at the base is positioned in such a way as to avoid any long and/or continuous shifting. Also, set up a conveyor belt to transfer the BT/FL to the area intended for the capping of the bottles.

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## 5.2 BOTTLES AND CONTAINERS FOR FILLING

### NOTE

The containers must be attached to a round mouth and be free of any defects and/or cracks that could permit the entry of a small amount of air. For diameter measurements, please see the technical table.

The BT/FL intend for filling must be separated in accordance with their height.

It is not possible to fill BT/FL of different heights simultaneously.

## 5.3 BOTTLING APPAREL



The operator must wear clothing with protection against the accidental breakage of bottles, including gloves, heavy-duty long apron and footwear with an anti-slip sole.

## SECTION 6: GENERAL RULES FOR SETTING UP

### NOTE

**6.1 Hydraulic connection:** Connect input E of the electro pump (subsequently, referred to as e.p.) with a tube, which can also be provided by us on request, measuring diam. 15-16 mm for a standard machine or diam. 19 mm for machines with stainless steel valves. Secure by attaching the clamps to the tube fittings supplied and screw the thread into the e.p. Use flexible spiral tubes in either plastic and/or metal. If you are using a non-reinforced tube, take all necessary precautions to avoid any restrictions. The tubing and any joints must be airtight. Tubing that is either too long or has a diameter smaller in size than that recommended could adversely affect the performance of the pump. We recommend that the suction tube should be a maximum of 5 meters.

### NOTE

**6.2 Electrical connection of ELECTRO PUMP:** This procedure must be dealt with by qualified person in accordance with the regulations in force in the country of use. The standard e.p. is already equipped with a cable of approximately 4 meters in length and a schuko socket CE IP65. We recommend that you use the pump in the operating range of the power cord supplied by us.

**6.2b Change in direction of rotation** (for the three-phase type only). Where the three-phase type of standard e.p. is ordered (see addition 90352), it is normally provided without a cable. In this case, a cable must be fitted, the electrical switch must be appropriate for the motor and the direction of rotation must be checked. This is indicated by the arrow on the body of the pump at pos. 1. It is essential that the abovementioned procedures are carried out by a qualified professional (see addition 35506).



### NOTE

## 6.3 Priming the pump

NOTE It is very important to always carry out this procedure BEFORE STARTING THE PUMP. A few seconds of running the pump motor "DRY" can cause the impeller 7 with the Venturi tube 9 in fig. 7 to seize up.

### THE WARRANTY DOES NOT COVER DAMAGES

6.3a The filling procedure must be done with the engine off.

6.3b The filling process is carried out by decanting the liquid to be bottled directly into the suction tube, pos. 48, by using either the funnel or gravity. Fill the pump body completely, until you see the liquid escaping from the flow adjustment valve 32. Try to keep the suction tube E full. If the filling procedure above is done as we have instructed, it should allow a very important secondary function to take place. This involves eliminating any downstream foam from the e.p. and into the first filled BT/FL.

**6.4 Adjusting the filling level in the BT/FL** (see figs. 3a, b, c, d, e, f)

6.4a Loosen the two thumbscrews, pos. 67c, to release the back support. Move this away from the drip tray of the storage tank, pos. 63, by pushing it downwards, away from the BT/FL. Position one of the nozzles into a vertical position.

- 6.4b Take a BT/FL to be filled and place it inside the sealing cone (fig. 3a), do not push towards the top. The measurement of L, fig. 3a A, or L1, fig. 3a B, will correspond to the filling level of the BT/FL.
- 6.4f Pull the cone (60) downwards, if you want to increase the quantity being filled.
- 6.4g Push the cone (60) upwards, if you want to reduce the quantity being filled.
- 6.4h To prevent upward flow in the cone 60, fit the cut rubber shims, measuring 3, 5, 12 & 5, 20, 25 mm (as supplied), in the grey area of the filling unit, pos. 61, 62, 63, 64, 65, respectively.
- 6.4i Push the B/F upwards by approximately 20 mm from the B/F, which is being filled, until the two mouths, the liquid inlet and the air outlet are all completely uncovered.
- 6.4l Stop at this position and simultaneously pull the drip tray upwards, fig. 3b CD, until the lower supporting tube 67b touches the bottle.
- 6.4m Allow the drip tray to automatically block any outflow at the bottom by means of the lock lever 67d.
- 6.4n Place the bottle and nozzle in a vertical position, rest the back support bar, pos. 67a, on the bottle and check it is parallel to the fixed bar. Tighten the screws to lock the wings, 67c.
- 6.4o Check the set-up of the remaining nozzles match the thickness of the first nozzle prepared.

## Regulation diagram of the filling level

Fig. 3a Preparation level

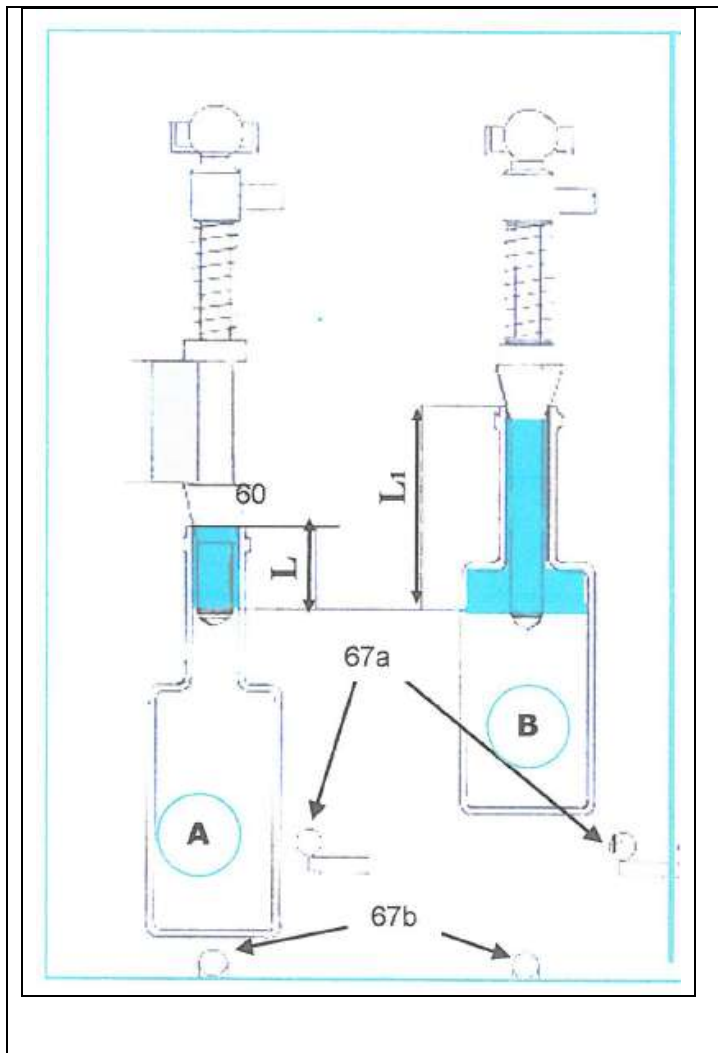
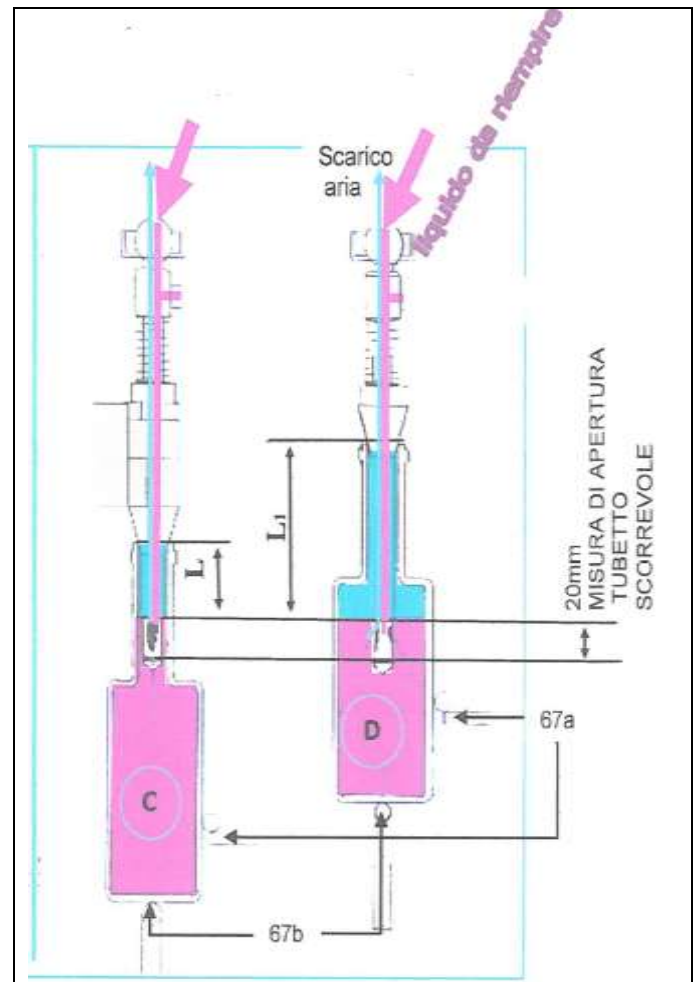


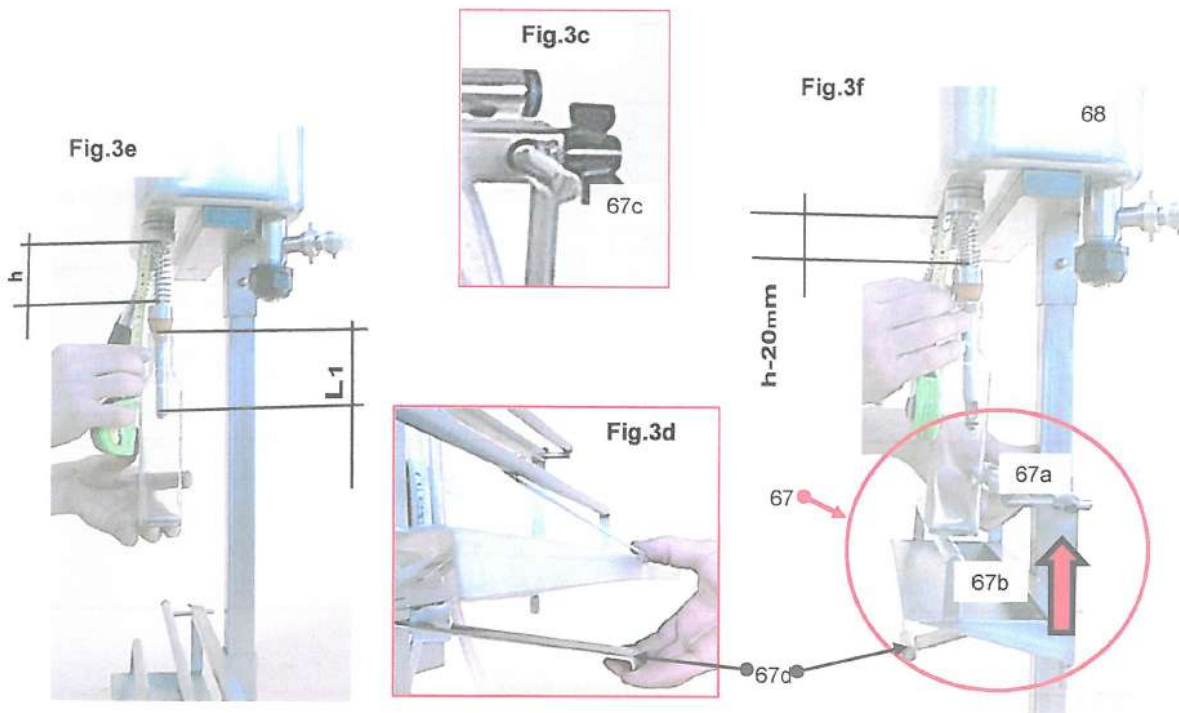
Fig. 3b Filling level



Air outlet; Measurement of opening of overflow tube 20 mm

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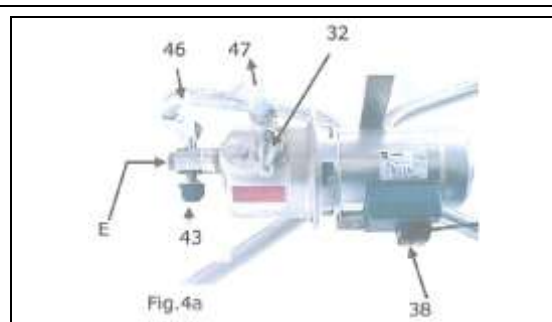
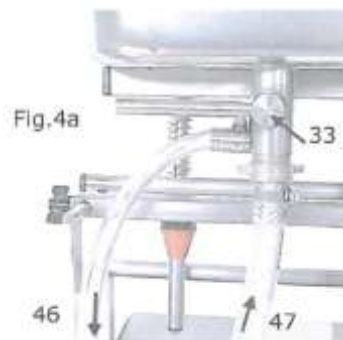
#### 6.4 Arrangement of the tubes according to the installed pump type

**Fig. 4 JEM5 ELECTRO PUMP with a standard RIMEA**

No.	Art.	Table 4 Name
E		Liquid SUCTION for decanting, filtering & filling
42a		Bypass opening control cock
46		Bypass tube of storage tank

Fig. 4a OPTIONAL CENTRIFUGAL ELECTRO PUMP, stainless steel cock

Art. 90313, Art. 90314



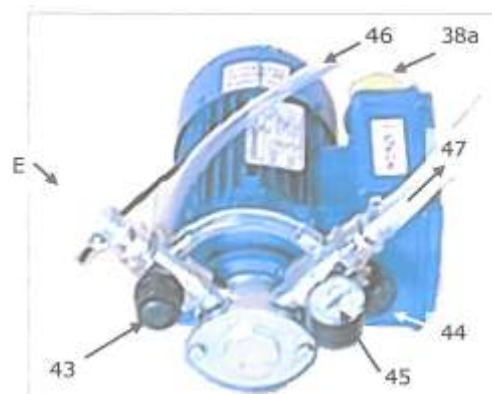
No.	Table 4a Name
E	Liquid inlet tube to decant, filter and fill
43	Needle valve with automatic spring bypass
46	Bypass tube of storage unit
47	Pump outflow tube from storage tank
32	Flow adjustment valve
33	Inlet valve to stainless steel tank with drain valve
38	Pump motor lighting ignition switch

Fig. 4b OPTIONAL Art. 90344-90350 RUBBER IMPELLER VOLUMETRIC ELECTRO PUMP with bypass and stainless steel fittings

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Pos.	Table 4b Name
E	Liquid inlet tube to decant, filter and fill
43	Needle valve with automatic spring bypass from TANK
45	Manometer
44	Fixed pump bypass needle valve
46	Bypass tube of storage tank
38a	Flow reverser controller
47	Pump outflow tube from storage tank



## NOTE

**DO NOT PUMP LIQUIDS CONTAINING ABRASIVE PARTICLES**  
**DO NOT PUMP LIQUIDS CONTAINING IMPURITIES GREATER THAN 3 MM DIAMETER**  
**DO NOT PUMP GRAPE MUSTS CONTAINING PEELS AND GRAPE SEEDS**

Should there be any concern that the liquid to be passed through the pump contains impurities greater than 3 mm, it is essential that you pass these through a strainer or mesh with maximum size openings of 3 mm x 3 mm. It is not advisable to place a mesh filter directly onto the suction tube, as blocking this could disrupt the smooth functioning of the pump. As the pump is a centrifugal and self-priming type, it is possible to adjust the outflow without causing damage. This is done by moving the red lever of the valve, pos. 32, from the open, vertical position to the closed, horizontal position.

## SECTION 7.2: OPERATION OF ELECTRO PUMP & FILLER (standard type, see figs. 4, 7, 8b)

For use with liquids which are ready for bottling or previously filtered.

7.2a Completely fill the pump body, see Sec. 6.3.

7.2b Ensure the valves 32-42a-41f are CLOSED.

7.2c Insert the plug, pos. 37, into the wall socket.

7.2d OPEN the flow adjustment valve, pos. 32, and the valve, pos. 41f, at the storage tank inlet.

7.2e Start the pump by turning on the light switch pos. 38. The liquid should begin to rise in the storage tank, pos. 68. Wait a few moments until the level in the storage tank reaches about 100 mm (the ball float should not be closed).

7.2f OPEN the bypass return valve, pos. 42a, and immediately CLOSE the flow adjustment valve, pos. 32. The liquid pumped into the storage tank will cause the ball float to rise to a pre-set level by means of a stainless steel closure, which blocks the inlet. The pressure increase inside the tube, pos. 47, presses the spring, pos. 41b, causing the flow of the liquid to deviate through the tube, pos. 46, and to return to the pump through the valve at pos. 42a. The manometer, pos. 45, usually only provided if we have to supply a filter and it has been requested, should indicate 0.1-0.2 bar. In case of higher pressure, valve 32 has to closed a little.

7.2g Place the empty bottles into the nozzle dispensers (levels should have been pre-set earlier at Sec. 6.4). We recommend that you continue filling the bottles for about 10 minutes. This will allow for the supply functions to the BT/FL, the filling process, the BT/FL discharge and the possible expulsion of air bubbles from the filling circuit to stabilise and normalise (see Sec. 6.3).

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While the bottling-up process is normally carried out 'at speed', in order to optimise the entire filling operation, it is necessary at this point to oversee or even to introduce a second person to check that the level inside the storage tank, pos. 68, has remained stable at approximately 8/10 cm and that the ball float is floating freely in the liquid. (This can be done by lifting the dust cover, pos. 68a.)

7.2h However, if the ball float remains in a constant closed position at the top, it is necessary to reduce the release of liquid into the storage tank by lightly closing the relief valve, pos. 32.

7.2i On the other hand, if the storage tank has started to empty, it is necessary to lightly open the relief valve, pos. 32.

7.2l Remove the filled bottles.

7.2m Any possible drops of liquid flowing out of the nozzles, while they are closed, are carried away through the tube, pos. 67, which has been set up in advance for this purpose.

## NOTE

7.2n The procedure adopted above enables the user to safely leave the machine unattended whilst it is switched on and still has liquid in the storage tank. This strictly covers the time necessary for resolving minor issues, such as replenishing empty bottles, repositioning the tubes from the empty containers to the full containers or for telephone calls.

DO NOT LEAVE THE MACHINE ON IF YOU ANTICIPATE BEING ABSENT FOR A LONGER PERIOD OR ARE LEAVING THE FILLING ROOM.



## SECTION 8: CLEANING AND MAINTENANCE OF THE MACHINE



**ALWAYS DISCONNECT THE PLUG FROM THE POWER SOCKET.**

**DO NOT CLEAN MACHINE WITH A WATER JET OR WATER PRESSURE CLEANING EQUIPMENT.  
USE A DAMP CLOTH.**

**8.1 PREVENTIVE CLEANING** (for new machine). Prepare approximately 18-20 litres of hot water, at 50-60°C, with a non-foaming dishwashing detergent or other cleaning detergent from the bottling area (such as Detersol or Sanaton). Operate the machine as described in Sec. 9 under electro pump. Fill the storage tank, pos. 68, of the filler with the detergent-water solution and continue placing and removing empty bottles at each nozzle until the storage tank is completely empty. Rinse thoroughly with hot water. Rinse the pump body unscrewing the cap at pos. 25. Leave this open and allow to draw in the open air.

## NOTE

**Options on request:** In order to thoroughly rinse and dry the internal passages of the dispenser, it is advisable to request valve opening clips (see fig. 2b, Art. 56232). The machine, with the mounted valve opening clips, can undergo steam sterilisation with flowing vapour at 120°C.

**8.2 DAILY CLEANING.** After each day of work, it is essential to carefully clean the tubes, the tank and the nozzles (see Sec. 8.1).

**8.3 MAINTENANCE – ADDITIONAL NOZZLE CLEANING**

8.3a Unscrew the ring no. 58, Fig. 9.

8.3b Immerse all the components into the detergent-water solution pushing the overflow tube, 51, upwards and moving it around vigorously (it is advisable to request the valve opening clips Art. 56232).

8.3c Leave to stand to allow the detachment of scales.

8.3d Wash thoroughly in water. Allow to dry. Reassemble all the components.

**8.4 DISASSEMBLING THE NOZZLE DISPENSER TO PREVENT LIQUIDS LEAKING**

Procedure for replacing the parts that are inclined to deteriorate through use, see fig. 9.

8.4a Leave the dispenser unit mounted on the storage tank, see pos. 68.

8.4b Push the overflow tube upwards, see pos. 51.

8.4c With the aid of a small screwdriver remove the O-ring at the tip, see pos. 59.

8.4d Slip out the overflow tube 51, lip seal 52, washer 53 and spring 54.

8.4e REPLACING THE LIP SEAL

## NOTE

Whenever disassembling the overflow tube, 51, and then slipping off the lip seal, it is also necessary to replace the lip seal 52. This is because the inner lip of the seal easily deteriorates beyond repair when it is disassembled. Lubricate the new lip seal 54 with either grease or petroleum jelly. Also lubricate the tube no. 56. The lip seal 52 should have been inserted previously, with the sealing lips facing downwards, and placed into the appropriate seat in the tube, 51, by using a small screwdriver or knife tip to facilitate the insertion process.

TAKE CARE NOT TO DAMAGE the sealing lips of the lip seal. Take hold of the overflow tube, 51, with the lip seal 52 inserted. Slide all of these parts into the tube 56, slowly rotating in one direction only and at the same time pushing forward very slowly, until it crosses the hole of the liquid inlet completely. Continue to push upwards slowly until the groove of the O-ring, 59, is exposed.

8.4f Reassemble the spring, 54, and the washer, 53.

### 8.4g REPLACEMENT of O-ring, 59

Push the overflow tube, pos. 51, upwards. Release the groove of the O-ring. With a small screwdriver or knife, slide out the damaged O-ring. DO NOT allow any flow back down to the bottom of the overflow tube, 51, as this may leak out from the seat of the lip seal with a recurrence of what has been described in Sec. 8.4e. The new O-ring can simply be pushed into place.

## 8.5 DISASSEMBLING THE ELECTRO PUMP (see fig. 7)

Procedure to be followed for opening and cleaning the pump in the case of:

- 1) OBSTRUCTION (small amount of output and foam on the outflow tube, pos. 47)
- 2) SEIZING UP (caused by running dry)
- 3) LEAKAGE OF LIQUID between the pump body and the motor

8.5a Unscrew the six screws, pos. 2, with a 4 mm Allen key and remove the pump, 1, with all its components.

1) When 'SEIZING UP' occurs, it is important to clean the zones indicated by the ⇨.

Wash well and, if necessary, de-scale the inside of the pump body, being careful not to lose the O-ring seal, 27. Reassemble all the parts.

2) When the pump does not run, it has probably "SEIZED UP", while the impeller, pos. 7, has melted in the ring of the Venturi tube, pos. 9. It is necessary to replace the DIFFUSER and the VENTURI TUBE, pos. 9, order code 22171, and also the IMPELLER, pos. 7, order code 22166. To disassemble the pump body, pos. 1, it is necessary to use a screwdriver to detach it from the impeller 7, in order to remove it from the pump body 1. Wash and de-scale thoroughly the insides of the pump body. Assemble the new Venturi DIFFUSER unit (the parts are sold in pairs, Art. 22171). Normally, when you change the Venturi unit, it is necessary to replace the impeller, pos. 7. To unscrew the impeller from the motor shaft, a second person is required to lock the motor shaft, 6, by inserting a screwdriver into the slot located on the fan side of the shaft itself, pos. 14. Unscrew the impeller, 7, anticlockwise. Fit the new impeller in place. Reassemble all parts and remember to put in the shaft seal spacer, pos. 30, and the O-ring, pos. 26.

3) When there is a leakage of fluid between the pump body and the motor, it is necessary to replace the mechanical seal, 11 (as described in the previous paragraph), and also the port of the pump body, and to disassemble the impeller.

The spacer, 30, must be removed. Take out the mechanical seal of the removable part in graphite with spring. Using two screwdrivers, prise it out using the edge of the flange plate, in order to remove the shaft, along with the fixed part of the mechanical seal in the ceramic. Fit the new seal by moistening the seat with a light coat of grease or Vaseline oil. Fit the flange, pos. 4.

## 8.6 DISASSEMBLY FOR CLEANING THE FLOAT BALL AND THE SEALING BALL

## NOTE

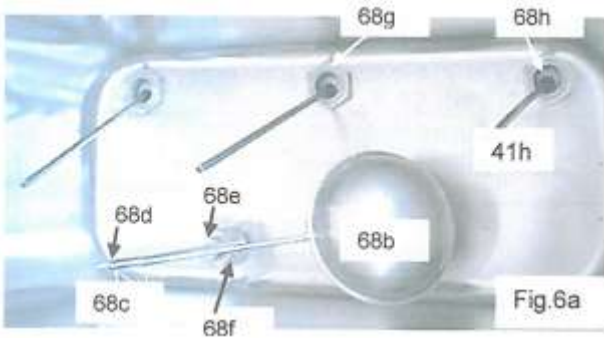
Remove the cover, 68a. Extract the two cotter pins, pos. 68c, and unscrew with a 14 mm wrench, pos. 68e. Pull out 68d. For descaling, use suitable chemicals.

DO NOT USE ABRASIVES OR SHARP METALS to clean the sealing ball and its housing.

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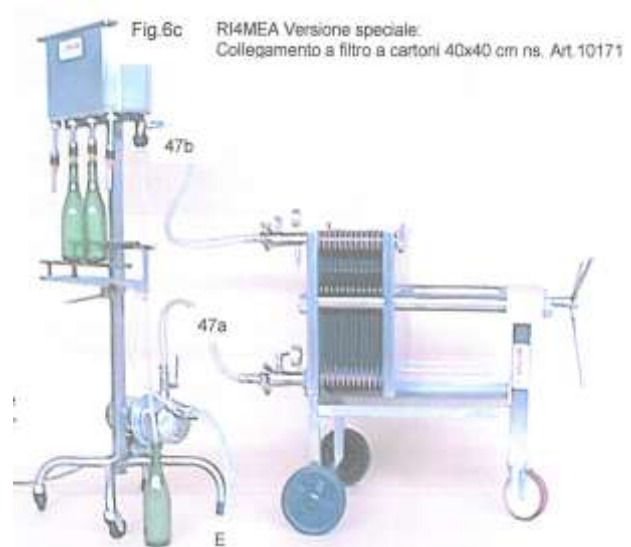
Pos.	Table 6 6b	Name
68b		Stainless steel float ball and shaft
68c		2 cotter pins 2 x 16 mm
68d		Stainless steel shaft and ball
68e		Guide nut to thrust rod hole
68f		Total drainage connector
68g		Ball holder lock nut
47a		Supply tube to the filter (or from the client)
47b		Supply tube to the filler



Fig.6d R16MEA speciale  
appoggio Basculante per  
-bottiglie PET  
-taniche PET  
-dame 5lt vetro  
-magnum 3-5lt vetro

**R16MEA special**

Adjustable swinging support for PET bottles,  
PET cans, 5 l glass demijohns, 3-5 l glass jar



**R14MEA special type**  
Connection to a 40 mm x 40 mm plate filter

**SECTION 9: TROUBLESHOOTING**

FILL THE PUMP BODY WITH LIQUID BEFORE STARTING THE MOTOR

No.	FAULT	REASON FOR PROBLEM	SOLUTION
<b>Electro Pump</b>			
<b>1</b>	When pressing the power switch the light does not appear.	No current present.	Check the upstream power of the switch: main switch, cable and plug.
<b>2</b>	When pressing the power switch the light appears, the motor vibrates, but pump does not start.	The impeller is blocked. The seizing up is probably due to operating the pump dry.	Turn off power switch. Disconnect the power plug. Open body of pump & replace the Venturi unit.
<b>3</b>	The motor is working, the suction tube is connected but the pump is not taking in any liquid.	Loss of tightness of the suction tube.	Check the tightness of the joints. Replace the seals if they are damaged.

<b>4</b>	The motor is working, the suction tube is tight, but there is a leakage of liquid between the motor and the pump is not taking in any liquid.	Damaged mechanical seal pos. 11.	Open the body of the pump. Replace the mechanical seal, see Sec. 8.5.
<b>5</b>	The motor is working, the suction tube is tight and the pump is running at low power. Foam is present on the delivery tube.	Internal tubes of the pump are blocked, fig. 7 red arrow.	Open the body of the pump. Clean the area indicated by the arrow. See Sec. 8.5.
<b>6</b>	The delivery tube from the storage tank, pos. 46, is jumping off the hose connector.	Too much pressure inside the tube.	Open the bypass opening control cock, 42a, immediately. Additionally, working "at speed", close the flow adjustment valve, 32, until you get a constant level of approximately 8-10 cm of liquid in the storage tank.
<b>Filler and Nozzles</b>			
<b>7</b>	The float ball, 68b, is not stopping at the maximum level in the ingoing storage tank.	The liquid is entering from a height greater than 10 meters. There are scales or obstacles at the closure of the float ball, preventing it to close over and stop liquid entry.	Lower the level to 10 meters. Remove the float ball. Fix the obstruction.
<b>8</b>	The float ball, 68b, is not stopping at the correct level in the storage tank 68.	Liquid is flowing from the pump under a pressure which too high. By-pass control failure. Pump inlet by-pass, 45, is closed.	Reduce the flow pump rate by closing the valve located on the outlet side, or otherwise, open the bypass of the pump, see 5.3b.
<b>9</b>	The float ball, 68b, is not stopping at the filling level in the storage tank 68.	Deposits have built up on the ball and/or closure receptacle. Foreign objects are present in the closure area of the ball.	Disassemble the shaft 68d from the ball, Sec.8.6. Clean the ball. Check and clean the stroke area.
<b>10</b>	Too much foam in the filling tank.	The electro pump is blocked. Alternatively, it was not completely filled up before it was switched on.	See Sec. 8.5 See Sec. 6.3
<b>11</b>	The filling level of the bottles is not consistent.	The bottles are different heights.	Select bottles for filling in accordance with their height.
<b>12</b>	The filling process has failed to stop at the correct level, and air and liquid are escaping from between the sealing cone and container being filled.	The mouth of the container is not round, and has sharp edges or small cracks.	The sealing cone, pos. 60, is worn out. The spring, 54, is worn out or broken.
<b>13</b>	Leakage of liquid between the overflow tube, 51, and the washer, 53. Dripping between the tube, 51, and the O-ring, pos. 59.	Leaking from the lip seal, pos.52. Leaking from the O-ring, pos. 59.	Replace the lip seal, pos.52, Sec. 8g. Replace the O-ring, pos.59, Sec 8.4e.

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**FIG. 7 JEM5 ELECTRO PUMP** (standard equipment supplied) DETAILS OF codes and names of parts

No.	Art.	Name of part	No.	Art.	Name of part
1	22173	Body of JEM.5 pump	19	35750	Bearing for impeller
2		No. 6 Allen screws ch4	20	35753	Bearing for fan
3		Motor support holder	21		Compensating ring
4		Seal retaining disc	22		Tie-rod
5			23		Capacitor (Single phase only )
6	22194	Motor shaft - rotor	24	32154	Filling cap
7	22166	Noryl impeller diam. 104 mm	25	32154	Drain plug
			26	34310	O-ring seal
9	22171	Venturi tube - diffuser	27		
10			28	34254	O-ring seal
11	22201	Mechanical seal, in 2 pieces	29		
12		Aluminium motor casing	30	22193	Mechanical seal spacer
13		Motor cover	31		Seal retaining disc spacer
14		Cooling fan	32		
15		Carter fan cover	33		
16		Terminal board	34		
17		Terminal board cover	35		
18		Splashguard washers	36		Motor jacket with fixed flange
			37		Schuko plug and cable
			38		Light switch
			39		
			40		

**41 Automatic bypass unit**  
**External part of storage tank**

**Fig. 8**

	Pos.	Art.	Description
		41a	34952
	41b	57611	Spring opening
	41c	54048	Ball D11.113
	41d	35015	Body G1/2MF
	41e	34910	Hose connector
	41f	35014	Mini valve G 1/2 mf
	41g	39180	T Connector
	41h	39110	NR G1/2M – G3/4M
	42		Body pump bypass
	42a		G 1/4 M 12 mm minivalve
	42b		Nipplo chrome-plated OTT G1 "M-G3/4M"
	42c		Hose connector Dia.15 with G3/4" swivel

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**Fig. 9 PARTICULARS OF codes and names of parts**

**Table 9**

Pos.	Code	STANDARD NOZZLE List of particulars
51		OVERFLOW TUBE
52	34383	LIP SEAL 043
53	54210	STAINLESS STEEL WASHER
54	57605	S1.5 L100 Spring
55	34248	O-ring seal upper ball 2.62 x 20.24
56		Full central tube

57	34265	O-ring seal on low end of ball 3.53 x 20.22
58	35080	Ball lock 1" chromium plated ring
59	34239	O-ring 2.62 – 7.3, standard tip
60	33819	Standard cone-shaped closing 30 f14
61	33823	Rubber shim 3 mm
62	33824	Rubber shim 5 mm
63	33825	Rubber shim 12.5 mm
64	33826	Rubber shim 20 mm
65	33827	Rubber shim 25 mm
52 + 55 + 57 + 59 x 2 pieces		Nozzle lip seal kit Special D12
		Nozzle lip seal kit Special D14
		Nozzle lip seal kit Special D16

