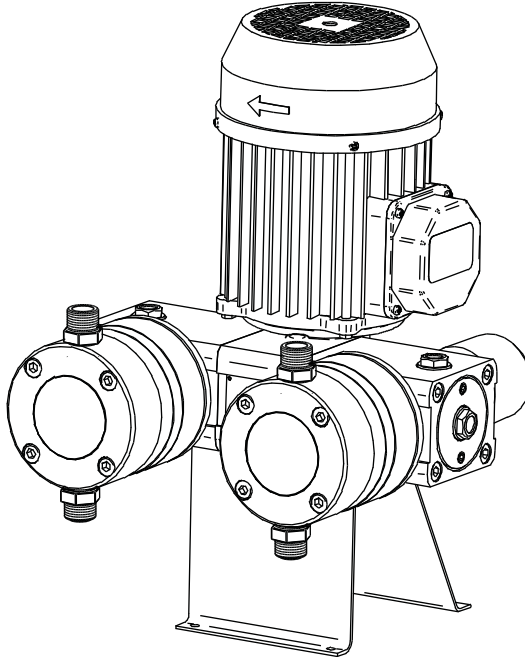




Management  
System  
ISO 9001:2008



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# MULTIFERTIC

ENGLISH



## **SAFETY RULES**

To avoid personal or environmental damages and to guarantee a proper operation of the equipment, the staff in charge of the installation, set up and maintenance of the equipment must follow the instructions of this manual, specially recommendations and warnings explicitly detailed. In addition, specific instructions for the chemical products to be dosed should be followed.

# INDEX

1.-GENERAL DESCRIPTION	4
2.-CARRIAGE AND MAINTENANCE	6
3.-TECHNICAL FEATURES	6
4.-OPERATION	9
5.- INSTALLATION	10
Generalities	10
Electric connection	10
Hydraulic connection	11
General installation scheme	13
Additional module installation	14
6.- START UP	16
7.- MAINTENANCE	18
List of parts MF piston	18
List of parts MF diaphragm	22
Periodical maintenance	27
Problems: Causes and solution	28
EC APPROVAL DECLARATION	29
WARRANTY	30



## 1.- GENERAL DESCRIPTION

**MULTIFERTIC** dosing pumps are heavy duty, high precision electric piston or diaphragm pumps for dosing liquid products.

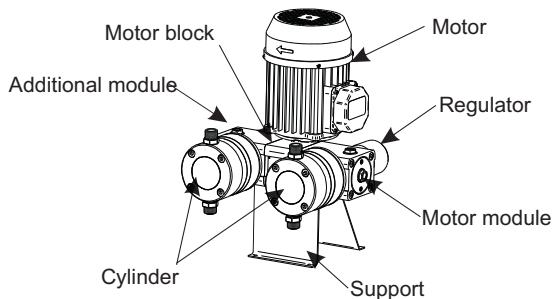
They are made up of one driving module and 1 to 4 injection modules. The available heads are from 25 to 500 l/h for the piston series, and from 18 to 300 l/h for the diaphragm series, independently regulated by means of a system of **POSITIVE RETURN**, exclusive to **I.T.C.**

In the same injector can be connected several injection modules to apportion different products (**INDEPENDENT INJECTION**) or to increase the injection flow. The design of this dosing pump allows the combination of piston modules with diaphragm modules in the same pump. By increasing the number of modules in the same injector, a higher flow regularity is obtained, whereby in the 4 module model an actually continuous flow is obtained. Injection modules may be connected in the factory or added later when the injector is in place.

MULTIFERTIC dosing pumps are manufactured with materials that can resist the existing agrochemical products, even acids. It is designed for all sorts of processes where it is necessary to dose a product into a hydraulic network, such as: food, textile, chemical industry, water treatments, etc. (See materials in Technical Features). In case there is any doubt about compatibility of materials with the products to be used please contact with ITC S.L. Technical Service.

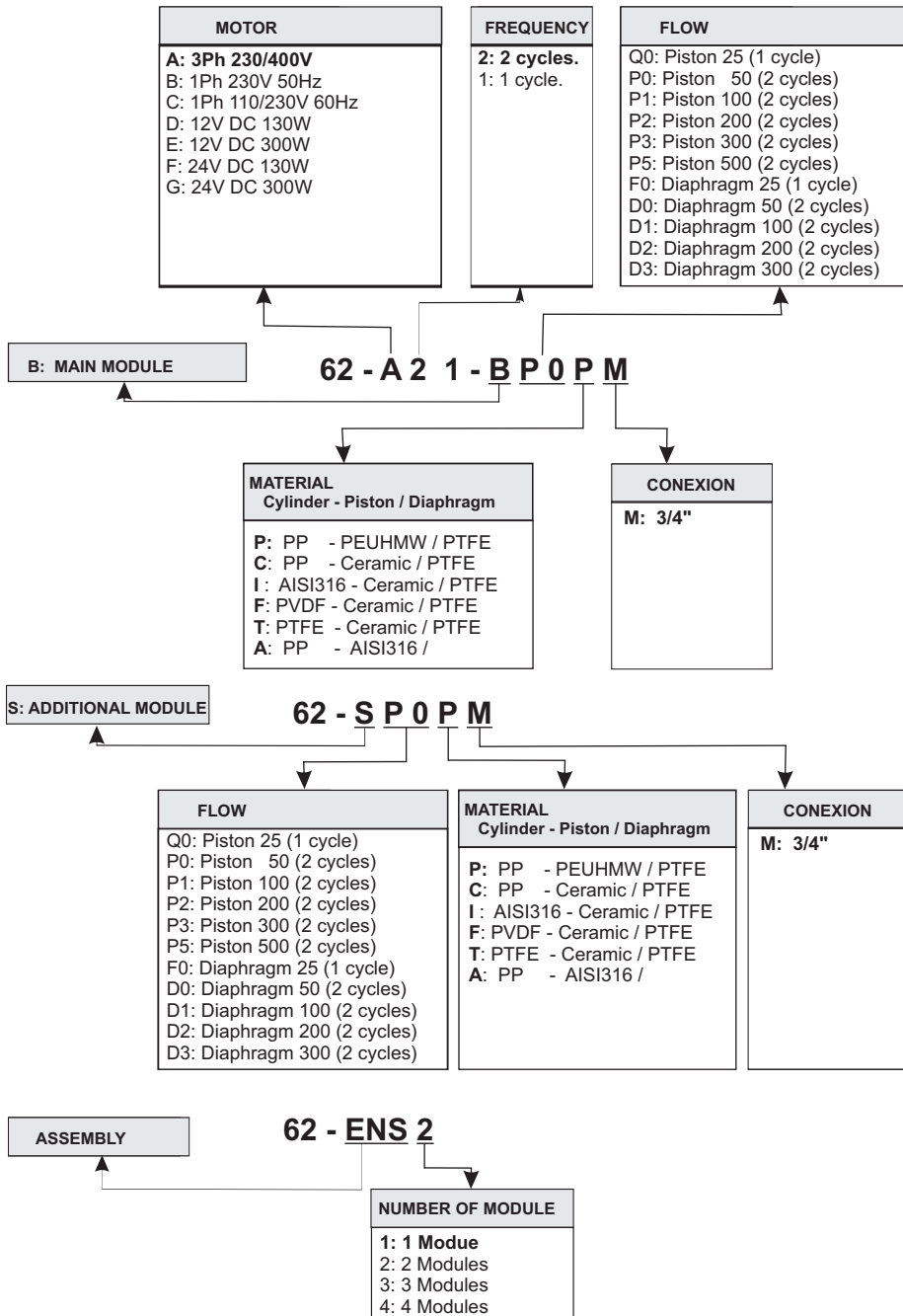
Dosing flow of each module is adjustable independently with no need to stop the pump from 0% to 100% of its capacity.

**It is made up as follows:**





# Codes formulation






## 2.- CARRIAGE AND MAINTENANCE


The original packing is prepared so that carriage and storing of the product do not cause any damage to the product, as long as this is done far from heat sources and in dry, ventilated spaces.

Inside packing we include:

- MULTIFERTIC dosing pump
- Support
- Accessories bag
- Instructions manual

## 3.- TECHNICAL FEATURES

	CODE	FLOW				PRESSURE	
		50Hz		60Hz		bar	PSI
		l/h	GPH	l/h	GPH		
<b>Piston</b> 	<b>62-A11-BQ0_M</b>	25	6,6	30	7.5	15	217
	<b>62-A21-BP0_M</b>	50	13	60	15	15	217
	<b>62-A21-BP1_M</b>	100	26	120	30	15	217
	<b>62-A21-BP2_M</b>	200	53	240	60	8	116
	<b>62-A21-BP3_M</b>	300	79	360	90	5	73
	<b>62-A21-BP5_M</b>	500	132	600	150	3	43

	CODE	FLOW				PRESSURE	
		50Hz		60Hz		bar	PSI
		l/h	GPH	l/h	GPH		
<b>Diafragm</b> 	<b>62-A11-BF0_M</b>	25-18,5	6.6-4.9	30-22.2	7.5 - 5,7	10	145
	<b>62-A21-BD0_M</b>	50-37	13,2-9,8	60-44,4	15 - 11	10	145
	<b>62-A21-BD1_M</b>	100-86	26,4-22,7	120-103	30 - 27	10	145
	<b>62-A21-BD2_M</b>	200-165	52.8-43,5	240-198	60 - 50	6	87
	<b>62-A21-BD3_M</b>	300-245	79 - 65	360-294	90 - 78	4	58



**ELECTRIC CURRENT:** As indicated in the motor plate

**POWER:** 0.37 KW (0.5 Hp)

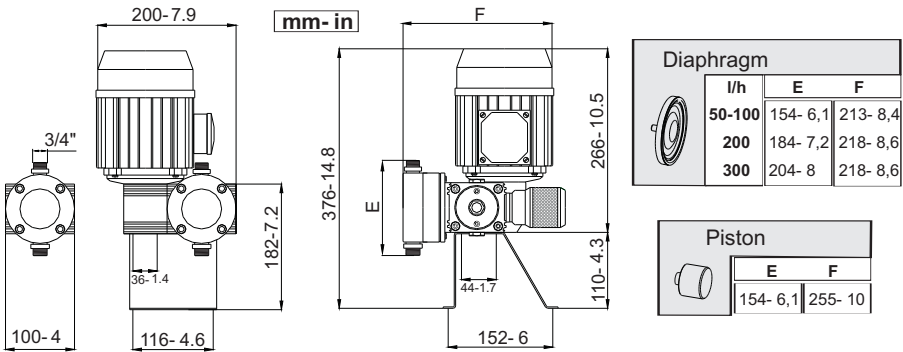
**PROTECTION :** IP-55

**MATERIALS:**

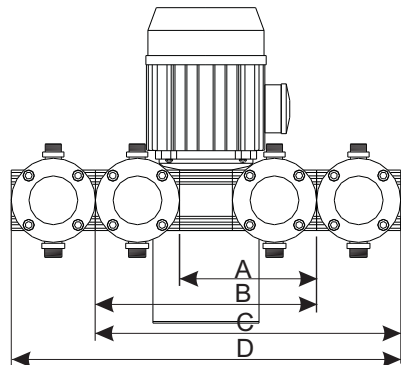
- Piston: P.E.U.A.P.M. / Ceramic
- Diaphragm: Elastomer base reinforced with fiber and P.T.F.E clothing
- Cylinder: P.P. / PVDF / AISI 316
- Valves(body): P.P/ PVDF / AISI 316
- Valves(ball) : glass / glass borosilicato / Ceramic
- Retention: FPM/ EPDM

**NOISE LEVEL dB(A):** minor than 70

**DIMENSIONS**

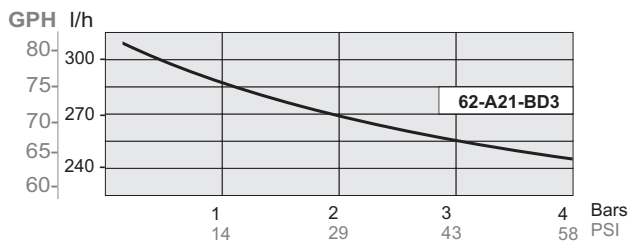
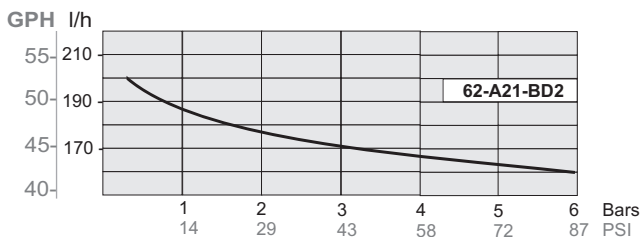
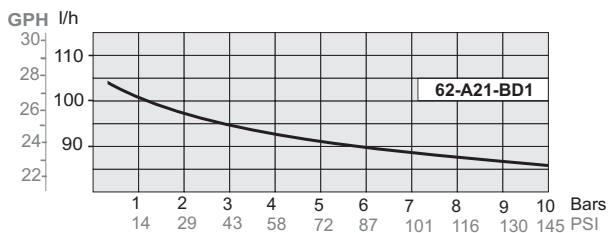
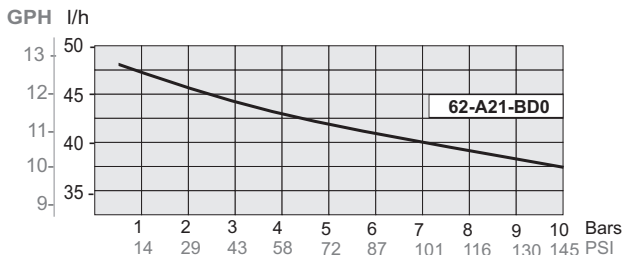
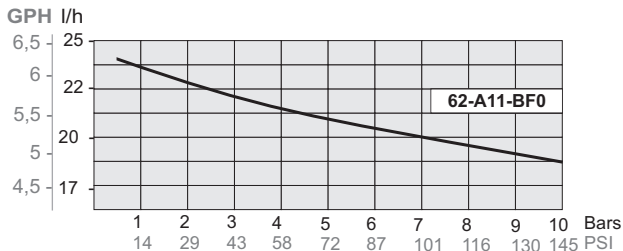


INJECTION MODULES					
		DIMENSIONS		WEIGHT	
		mm	in	Kg	lb
1	A	200	7.9	12	26.5
2	B	265	10.5	14.5	32
3	C	365	15	17	37.6
4	D	465	18.3	19.5	43





## FLOW - PRESSURE GRAPHICS







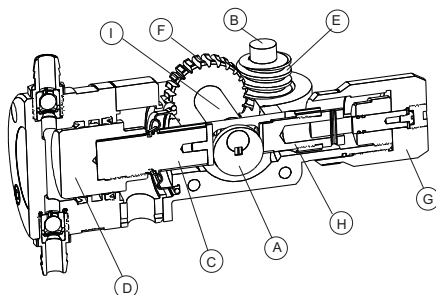
## 4.- OPERATION

The electric motor (**B**) transmits its power by means of a reducer, made up of a pinion (**E**) and a ring gear (**F**) solidary to an axis (**I**) and an eccentric (**A**) that alternatively pushes and draws a shaft (**C**) threaded to a piston (**D**).

As a spring is not necessary for the return of the piston (**POSITIVE RETURN**), the motor transmits all its power both to the injection and to the suction, saving energy, avoiding breakdowns, and ensuring a perfect and high precision dosing.

The micrometric regulator (**G**) increases or diminishes the stroke of the shaft and the piston by means of a threaded pipe coupling (**H**), modifying the injection flow. The dosing flow is adjustable from a 0% to a 100%.

To regulate flow by means of an inverter is possible varying proportionally the dosed flow by the frequency supplied by an electric motor. The dosing flow is



### INJECTION MODULES

In the same injector can be connected several injection modules to apportion different products as long as they are of the same serial number.

The maximum pressure of an **MF** dosing pump when combined with one or more additional modules can be limited. It will be the result of dividing **K** by the total sum of the flows of the different installed modules, as long as this is not superior to the one specified for each module. For this calculation we must use the flow of the diaphragm modules multiplied by 2.

**K (l/h-bar)**    **4.600 (2.300 for 1 cycle)**

**K (GPH- PSI)**    **17.000 (8.500 for 1 cycle)**

*Example in l/h - bar:*

*Dosing pump of two injections per second, three-phase motor, with two additional modules of 300l/h piston, one of 200l/h piston and one diaphragm module of 100l/h.*

$$300 + 300 + 200 + (2 \times 100) = 1000 \text{ l/h}$$

*The maximum resulting pressure will be:  $4.600/1000 = 4,6 \text{ bars}$*

*Example in GPH - PSI:*

$$79 + 79 + 53 + (2 \times 26) = 263 \text{ GPH}$$

*The maximum resulting pressure will be:  $17.000 / 263 = 64,6 \text{ PSI}$*

Note: For 60Hz used the corresponding flow.



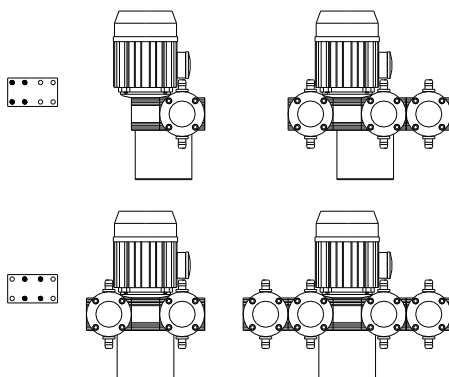
## 5.- INSTALLATION

### GENERALITIES

To install this pump it is advisable to choose places protected from water, away from heat sources and with renovation of air.

Place the pump vertically over a totally horizontal rigid surface to achieve a proper lubrication of all inner elements. Anticipate which will be the room you will need to comfortably do the basic maintenance and install/desinstall the pump.

Tack the pump to the provided stand, and the stand to the choseN even surface. The special stainless steel stand has eight holes in its upper part for fastening the dosing pump, of which four will be used. In the one and three module pumps the four side holes are used, and in the two and four module middle holes are used. (See drawing).



### ELECTRIC CONECTION



The electric protection of the motor must be installed and adjusted following its nominal intensity (overloaded switch disjuntor). (See wiring)

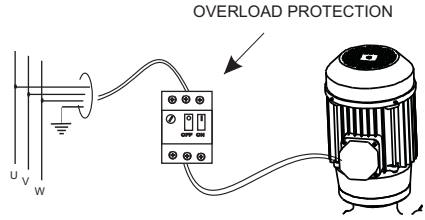
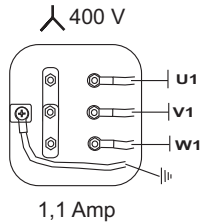
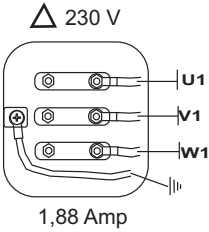
A disconnection dispositive must be installed in case of emergency.

The equipment must be protected to avoid untimely sudden starts.



## THREE-PHASE CONNECTION (50/60 Hz)

To work at 230 V we will plug the motor in triangle. Installing a protection.  
 To work at 400 V it will be a star connection. Installing a protection.

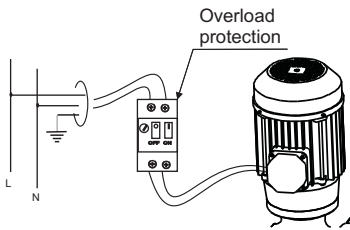


## SINGLE PHASE CONNECTION

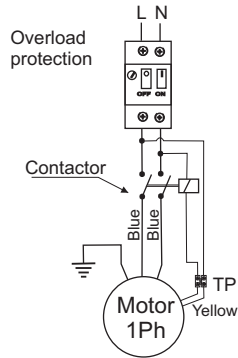
Install the correct motor protection (Overload protection).

Motor 230V 50Hz **2.9 Amp.**

Motor 110V 60Hz **8.1 Amp.**



### Wiring with Thermal Protection



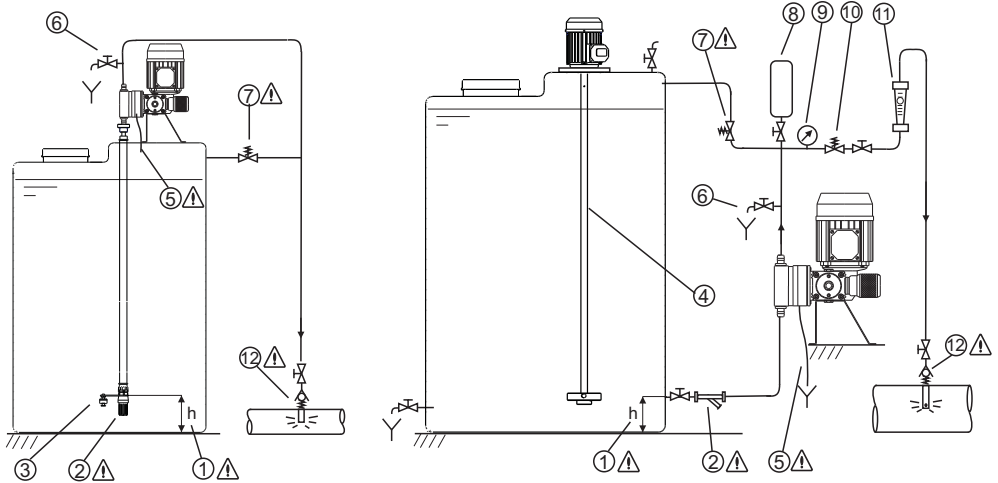
## HYDRAULIC CONNECTION



To evacuate leaks by the hole of the diaphragm breakage detector in the inferior part of the cylinder, we will take off the security bolt disassembling the cylinder and connecting a hose or a pipe of a material compatible with the product to be dosed, and collect the liquid in a safe place.

# HYDRAULIC INSTALLATION

## Installation examples

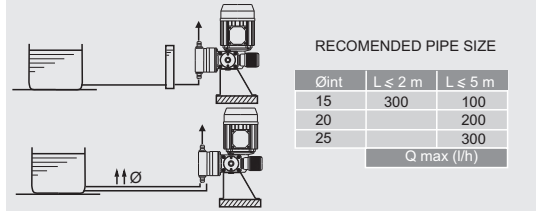
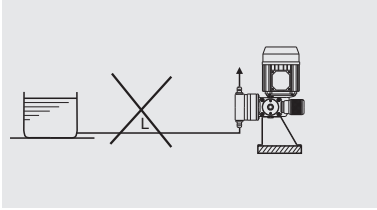


- ⚠ ① Avoid suctioning the undiluted particles from the bottom of the tank.
- ⚠ ② Filter. It is important to install a filter (150 micron) in the suction pipe.
- ③ Level sensor
- ④ Agitator
- ⚠ ⑤ Make sure to collect any liquid leakage from the cylinder's vent/drain hole in a proper container.
- ⑥ Prime valve / drain valve
- ⚠ ⑦ Safety relief valve. Install a safety valve in a derivation as near as possible from the pump, in order to protect it and the whole installation from possible over-pressures. This derivation must derive liquid to a safe place.
- ⑧ Pulsation dampener
- ⑨ Pressure gauge
- ⑩ Pressure regulating valve
- ⑪ Flowmeter
- ⚠ ⑫ Injection check valve

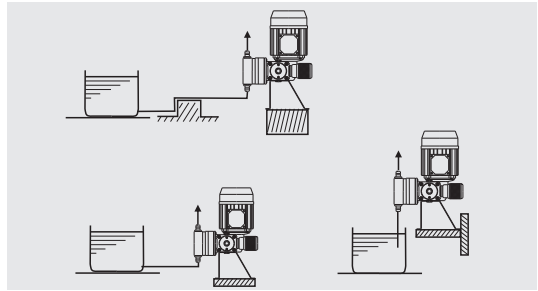
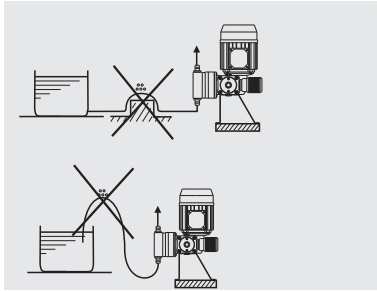
# Recommendations for correct installation

## SUCTION PIPE

⚠ Long suction pipe:  $L > 2\text{m}$  (6.5ft)

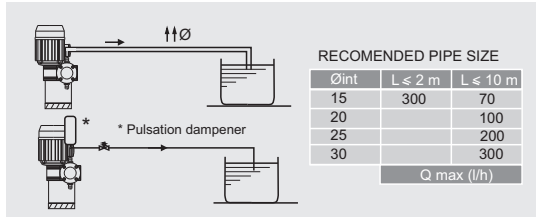
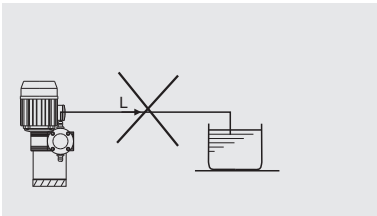


⚠ Air in suction pipe

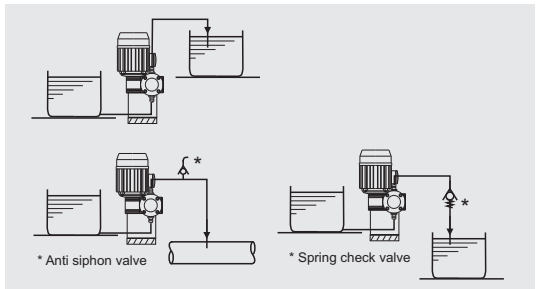
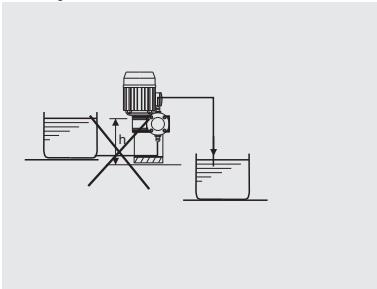


## DISCHARGE PIPE

⚠ Long discharge pipe:  $L > 5\text{m}$  (16 ft)



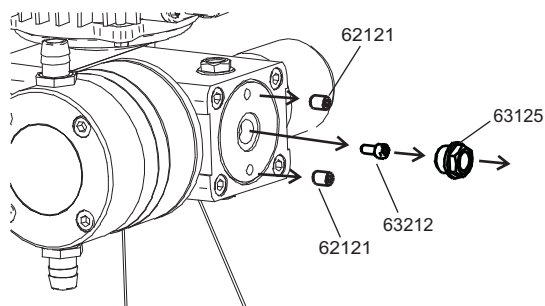
⚠ Siphon



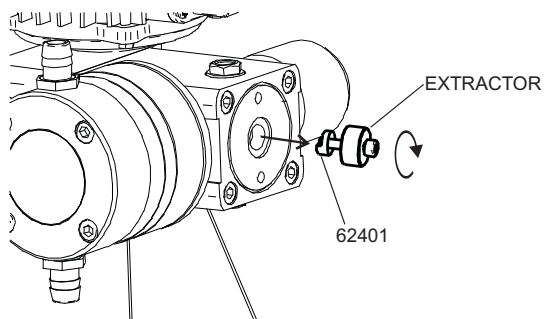
# INSTALLATION ADDITIONAL MODULE



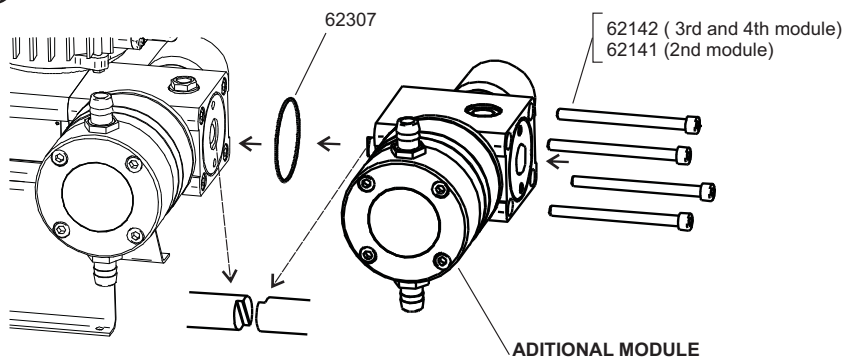
①

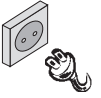


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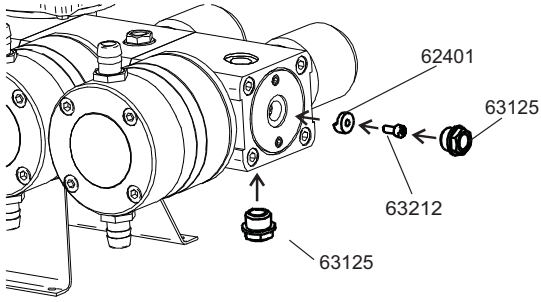


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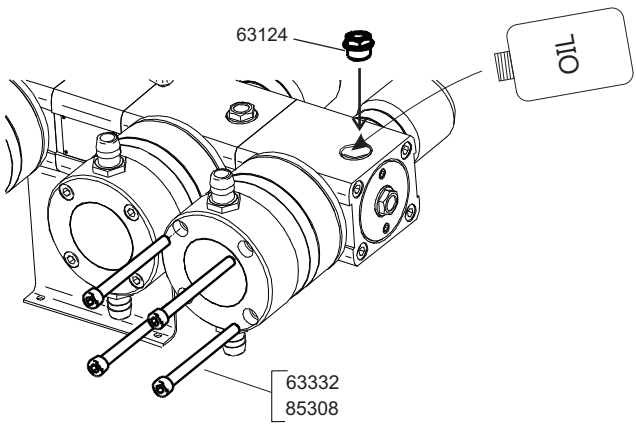




4



5





## 6.- START UP AND REGULATION



**STAND:** Check that the pump is properly installed in its stand.



**OIL:** Take off re-filling lid and fill the pump with the provided oil: SAE 80 W 90 or equivalent. If the pump has several modules oil must be spread to all filling holes.

Lubricants list:

CEPSA SAE 80W 90

REPSOL EP 80W/90

SHELL SPIRLAX HD OIL 80W/90

ESSO GEAR OIL 80W/90

AGIP ROTRA MP 80W-90

MOBILUDE HD 80W-90

BP ENERGEGEAR HT 80W-90

CASTROL HYPOYC

GULF GEAR MP SAE 80W 90

ELF TRANSGEAR HD 80W-90

Check the oil level with the provided dipstick.  
Aproximate oil capacity: 100 cm<sup>3</sup> per module.  
When carrying change filling lid for working lid.



**CHECKING OF HYDRAULIC CIRCUIT:** Check that all valves are opened and that escapes from priming valves derive the liquid to a proper receptacle.



**ROTARY DIRECTION:** Start up the pump to check that the rotary direction coincides with the one shown by the arrow. To change rotary direction invert two phases in the motor terminals box.



**CHECKING OF PUMP:** Check visually/auditorilly the proper working of the pump.





**PRIMING:** To prime the pump easily, especially for not very important flows and we if do not have priming valve, we suggest to lower pressure up to the minimum injection point. If that is not possible, fill up the cylinder and the suction pipe with liquid..



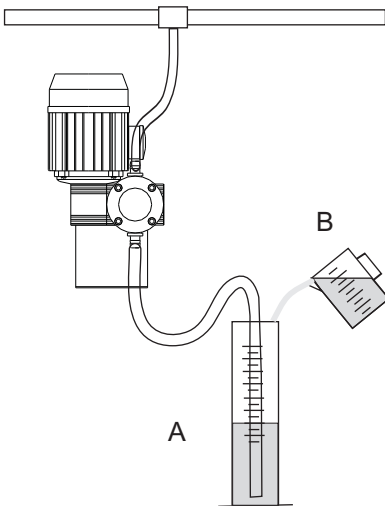
**OVER-PRESSURE PROTECTION:** Adjust the safety valve over-pressure or relief to the wished pressure to protect the installation without exceeding the pump nominal pressure.



**ELECTRIC PROTECTION:** Adjust the electric dispositive of electric protection to the motor nominal current.

## DOSING FLOW

Through the micrometric regulator ,we will adjust the dosing flow from 0 to 100% depending on the wished value. It is not advisable a regulation under 10%.

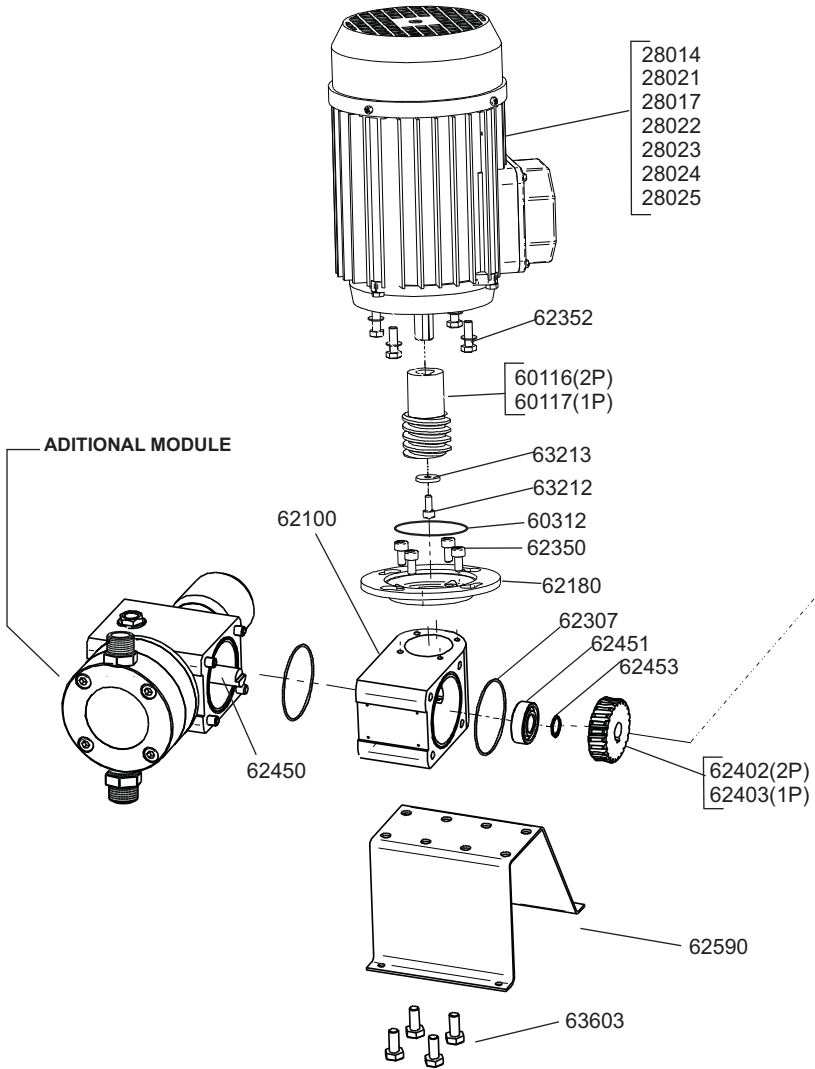


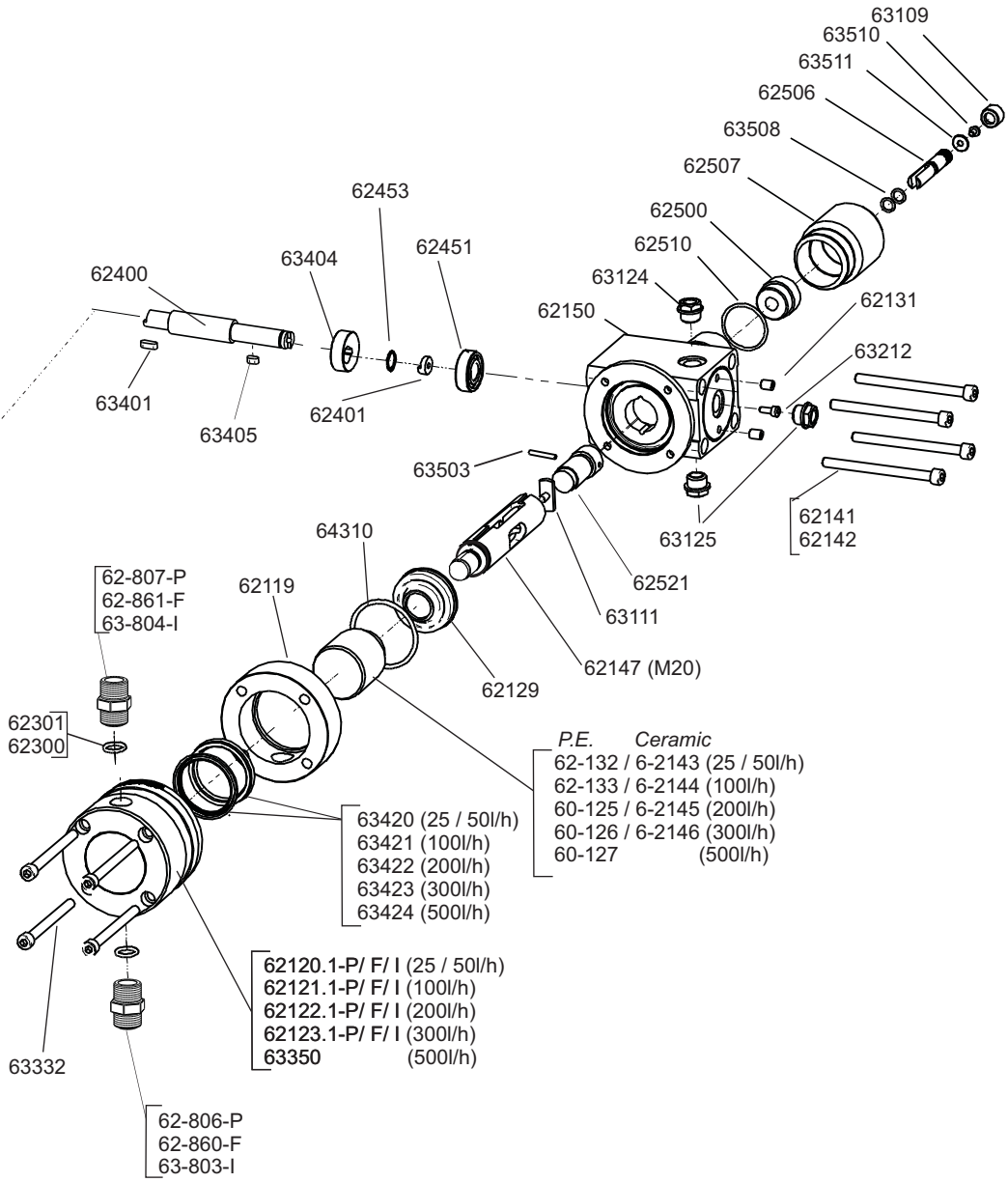
- 1.- Prime the pump immersing the suction pipe in a graduated receptacle (A).
- 2.- Mark in the receptacle the liquid level.
- 3.- Start up the pump and pour a known volume (V) of measured liquid in a second receptacle (B).
- 4.- Measure the time (t) that goes between the start up of the pump and the precise instant in which the liquid reaches the level of the mark of receptacle A.
- 5.- The dosed flows corresponds to:

$$Q(l/h) = V \text{ (liters)} / t \text{ (seconds)} \times 3600$$

# 7.- MAINTENANCE

## MULTIFERTIC Piston







## LIST OF PARTS MULTIFERTIC Piston

CODE	DESCRIPTION	QUANTITY
60116	2 STROKES PINION D40	1
60117	1 STROKE PINION D40	1
60312	O'RING 68x1,5 FPM	1
62100	MOTOR BLOCK	1
62119	CYLINDER SEPARATOR	1
62120.1-P/F/I	CYLINDER 50/L-S 3/4	1
62121.1-P/F/I	CYLINDER 100/L-S 3/4	1
62122.1-P/F/I	CYLINDER 200/L-S 3/4	1
62123.1-P/F/I	CYLINDER 300/L-S 3/4	1
63350	CYLINDER 500L/H	1
62129	FPM BELLOWS MF	1
62131	ALLEN SCREW M8x10 DIN913	4
62-132	PISTON 50 L/H D24 -S LOCK	1
62-133	PISTON 100 L/H D24 -S LOCK	1
60-125	PISTON 200 L/H -S M20 LOCK	1
60-126	PISTON 300 L/H -S M20 LOCK	1
60-127	PISTON 500 L/H -S M20 LOCK	1
62141	ALLEN SCREW M8x102,5 DIN 912	4
62-143	PISTON 50 L/H D24 LOCK CERAMIC	1
62-144	PISTON 100 L/H D34 LOCK CERAMIC	1
62-145	PISTON 200 L/H D49 LOCK CERAMIC	1
62-146	PISTON 300 L/H D61 LOCK CERAMIC	1
62147	BELLOWS SHAFT M20	1
62150	MULTIFERTIC MODULE	1
62180	FLANGE MOTOR B14	1
62300	O'RING 19x3 FPM	2
62301	O'RING 19x3 NBR	2
62307	O'RING 61x2	1
62352	SCREW M6x12 DIN 912 8,8	4
62352	SCREW M6x12 DIN 933 I	4
62400	AXIS MF	1
62401	AXIS EXTENSION	2
62402	RING GEAR 2 STROKES, MULTIFERTIC , BRONZE	1
62403	RING GEAR 1 STROKE, MULTIFERTIC, BRONZE	1
62450	MODULE AXIS MF	1
62451	BEARING 6202 2Z	2
62453	RETAINING RING DIN 471 15	2
62500	REGULATOR ROD GUIDE	1
62506	MULTIFERTIC ROD	1
62507	MULTIFERTIC REGULATOR	1
62510	O'RING 37x2,5	1
62521	MULTIFERTIC REGULATOR BUMPER	1
62590	MULTIFERTIC SUPPORT	1
63109	REGULATOR PLUG 3/8	1
63111	BRAKE	1
63115	ALLEN SCREW M6X12 DIN 912 8,8	4
63124	FILLER PLUG 3/8"	1
63125	DRAIN PLUG 3/8"	3
63212	SCREW M5x12 Din 912 A2	2



CODE	DESCRIPTION	QUANTITY
63213	WASHER 18x5x25	1
63331	ALLEN SCREW M8x20 DIN 912 I	4
63332	ALLEN SCREW M8x90DIN 912 I	4
63351	ELECTRO FLANGE 500L	1
63401	WEDGING PIECE 5x5x15	1
63404	ECCENTRIC	1
63405	WEDGING PIECE DIN 6885 5x5x10	1
63420	SEAL 25X34X6 FPM 50 L/H	2
63421	SEAL 35X45X6 FPM 100 L/H	2
63422	SEAL 50X60X6 FPM 200 L/H	2
63423	SEAL 60X68X6 FPM 300 L/H	2
63424	SEAL 78X87X6 FPM 500 L/H	2
63503	BOLT 4x24	1
63508	O'RING 8,73x1,78	1
63510	SCREW M5x6 DIN912 I	1
63511	WASHER M5 DIN9021 A2	1
63603	SCREW M8X12 DIN 933 A2	4
64310	O'RING 55,5x3,5	1

#### MOTORS

28014	MOTOR 1/2HP THREE-PHASE T71 B14	1
28017	MOTOR 1/2HP BITENSION110/220V 60HZ	1
28021	MOTOR 1/2HP MONO 50HZ	1
28022	MOTOR 130W 12V DC B14	1
28023	MOTOR 130W 24V DC B14	1
28024	MOTOR 300W 12V DC B14	1
28025	MOTOR 300W 24V DC B14	1

#### VALVES

62-806-P	SUCTION CHECK VALVE 3/4	1
62-807-P	INJECTION CHECK VALVE 3/4	1
62-860-F	SUCTION CHECK VALVE 3/4	1
62-861-F	INJECTION CHECK VALVE 3/4	1
63-803-I	SUCTION CHECK VALVE 3/4 AISI316	1
63-804-I	INJECTION CHECK VALVE 3/4 AISI316	1

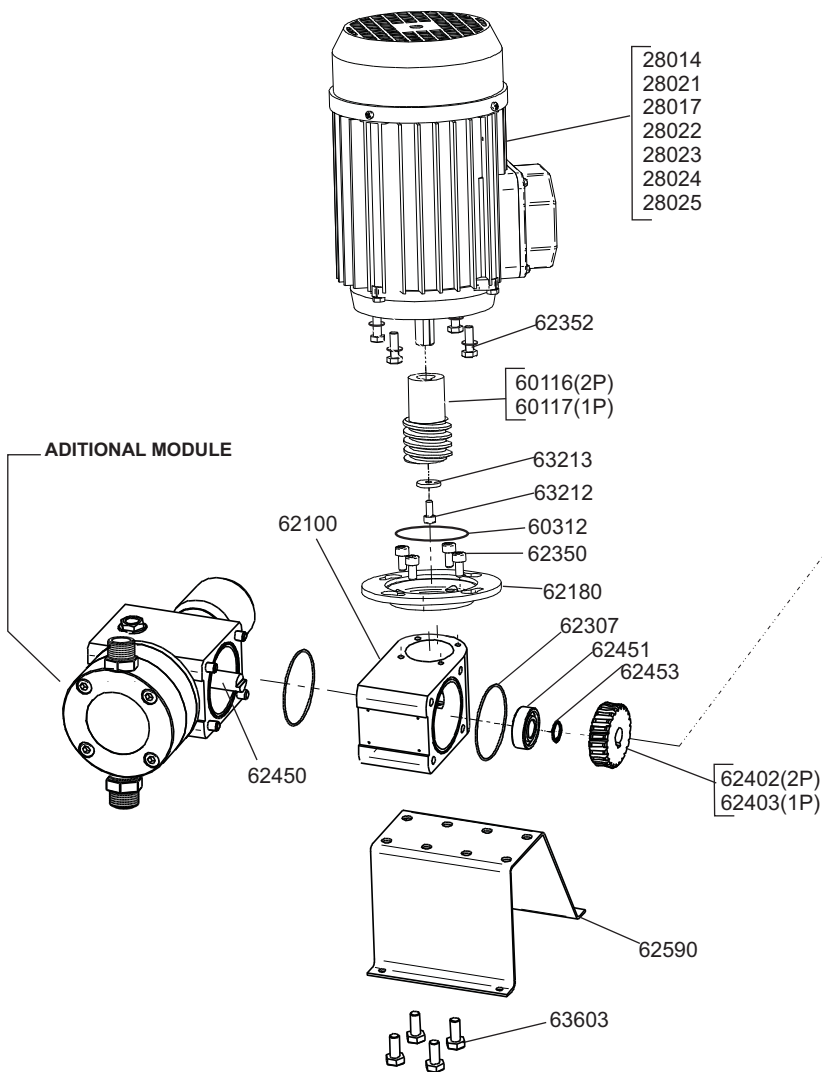
#### ACCESSORIES

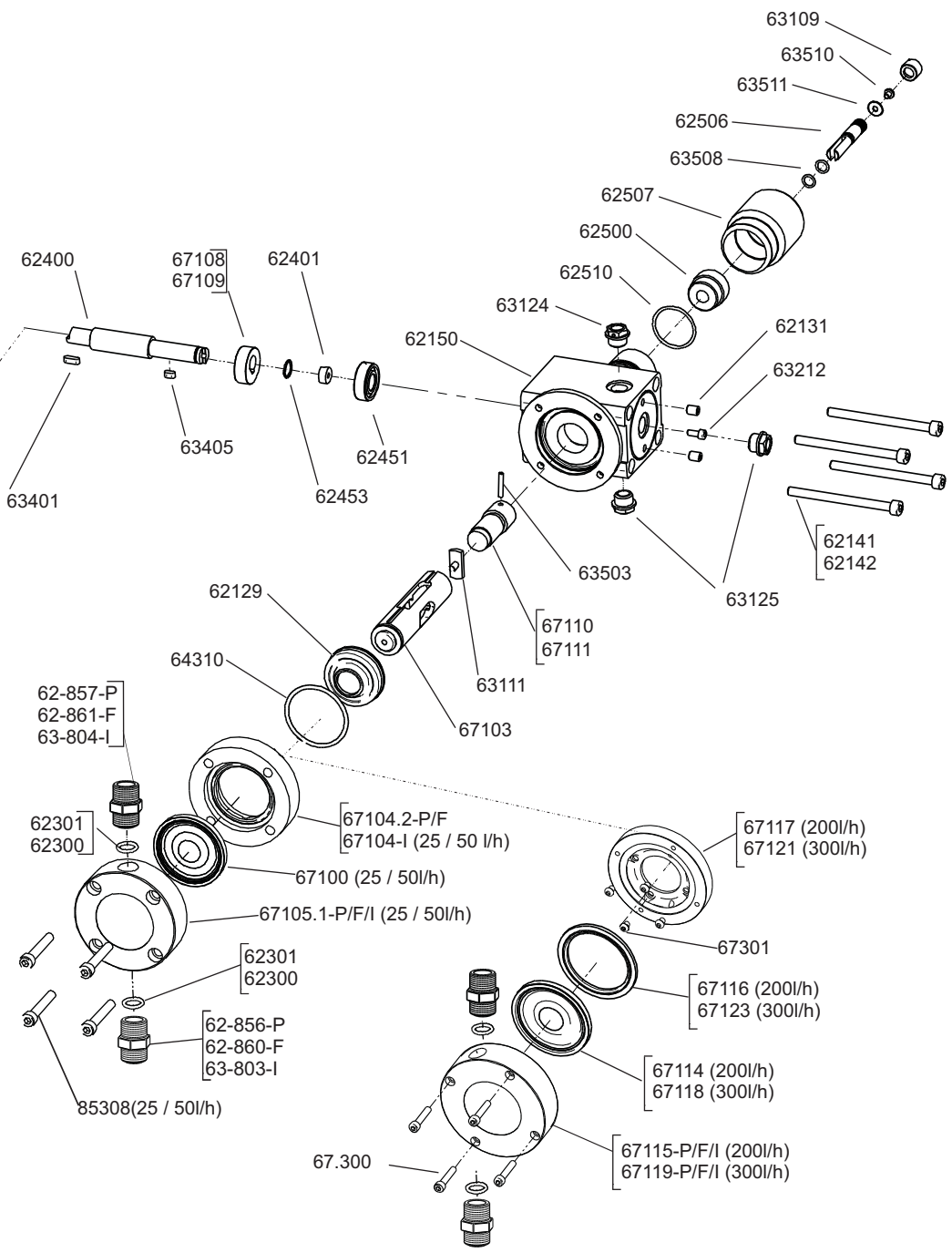
66402	CLAMP 16 X 25 STAINLESS STEEL	6
66110	FILTER 1/2"	1
62999	HANDBOOK	1
62590	MULTIFERTIC STAND	1
62591	MULTIFERTIC WALL STAND	1
66586	SCREW 6X40	4
63603	SCREW 8 X 12 DIN933A2	4
62019	STOPPER	4

..-P= Polypropilen / ..-F= PVDF / ..-I= AISI 316



# MULTIFERTIC Diaphragm







## LIST OF PARTS MULTIFERTIC Diaphragm

CODE	DESCRIPTION	UNITS
60116	2 STROKE PINION STAND D40	1
60117	1 STROKE PINION STAND D40	1
60312	O'RING 68X1,5 NBR	1
62100	MOTOR BLOCK	1
62129	FPM BELLOS OIL	1
62131	ALLEN SCREW 8X10	4
62141	ALLEN SCREW 8.8 8X103 D.91	4
62142	ALLEN SCREW 8X110	4
62150	MODULE BLOCK	1
62300	O'RING 19X3 FPM	2
62301	O'RING 19X3 NBR	2
62307	O'RING 62X2	1
62350	SCREW M6X12 DIN 912 8,8	4
62352	SCREW M6x12 DIN933 I	4
62400	AXIS MF	1
62401	AXIS EXTENSION	2
62402	RING GEAR 2 STROKE MULTIFERTIC BRONZE	1
62403	RING GEAR 1 STROKE MULTIFERTIC BRONZE	1
62450	AXIS MOTOR	1
62451	BEARING 6202 2Z	2
62453	RETAINING RING DIN 471 15	2
62500	REGULATOR ROD GUIDE	1
62506	MULTIFERTIC ROD	1
62507	MULTIFERTIC REGULATOR	1
62510	O'RING 37X2.5	1
62590	MULTIFERTIC SUPPORT	1
63405	WEDGING PIECE 5X5X10	1
63109	REGULATOR PLUG 3/8	1
63111	BRAKE	1
63124	FILLER PLUG 3/8"	1
63125	DRAIN PLUG 3/8"	1
63212	ALLEN SCREW 5X12 DIN 912	1
63213	WASHER 18x5x25	1
63401	WEDGING PIECE 5x5x15	1
63503	BOLT 4X24	1
63508	O'RING 8,73x1,78	1
63510	SCREW 85 A2 5X6 I	1
63603	SCREW M8X12 DIN 933 A2	4
64310	O'RING 55.5X3.5	1
67100	DIAPHRAGM D69	1
67103	SHAFT	1
67104.2-P/F	DIAPHRAGM BASE D69 PP / PVDF	1
67104-I	DIAPHRAGM BASE D69 INOX	1
67105.1-P/F/I	CYLINDRE DIAPHRAGM D69 3/4	1
67108	ECCENTRIC 10	1
67109	ECCENTRIC 5	1
67110	MULTIFERTIC REGULATOR BUMPER 5	1





CODE	DESCRIPTION	UNITS
67111	MULTIFERTIC REGULATOR BUMPER 5	1
67114	DIAPHRAGM D95	1
67115-P/F/I	CYLINDRE DIAPHRAGM D95	1
67116	BASE DIAPHRAGM D95	1
67117	DIAPHRAGM FLANGE D95	1
67117-I	DIAPHRAGM FLANGE D95 AISI316	1
67118	DIAPHRAGM D115	1
67119-P/F/I	CYLINDRE DIAPHRAGM D115	1
67121	DIAPHRAGM FLANGE D115	1
67121-I	DIAPHRAGM FLANGE D115 AISI316	1
67123	BASE DIAPHRAGM D115	1
67300	ALLEN SCREW M8x40 DIN 912 I	4
67301	SCREW M8x10 ISO 7380 I	4
85308	SCREW M8X55 DIN 912	4

#### MOTORS

28014	MOTOR 1/2HP THREE-PHASE T71 B14	1
28017	MOTOR 1/2HP BITENSION110/220V 60HZ	1
28021	MOTOR 1/2HP MONO 50HZ	1
28022	MOTOR 130W 12V DC B14	1
28023	MOTOR 130W 24V DC B14	1
28024	MOTOR 300W 12V DC B14	1
28025	MOTOR 300W 24V DC B14	1

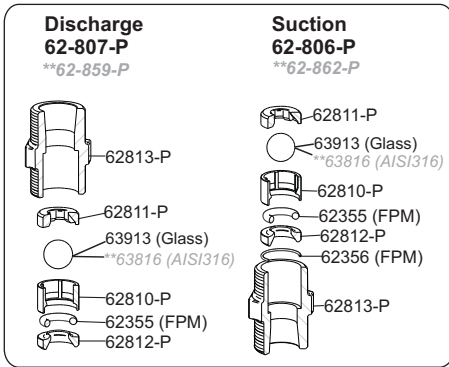
#### VALVES

62-856-P	SUCTION CHECK VALVE 3/4 BOROSILICATE	1
62-857-P	INJECTION CHECK VALVE 3/4 BOROSILICATE	1
62-860-P	SUCTION CHECK VALVE 3/4	1
62-861-P	INJECTION CHECK VALVE 3/4	1
63-803-I	SUCTION CHECK VALVE 3/4 AISI316	1
63-804-I	INJECTION CHECK VALVE 3/4 AISI316	1

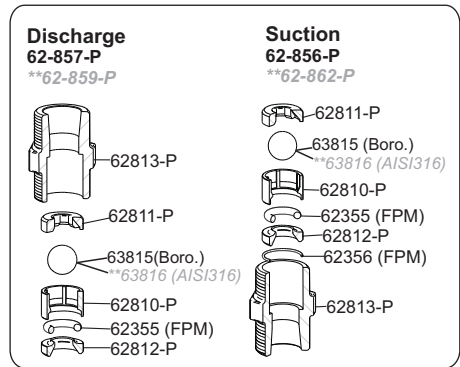
..-P= Polypropilen / ..-F= PVDF / ..-I= AISI 316

# VALVES 3/4"

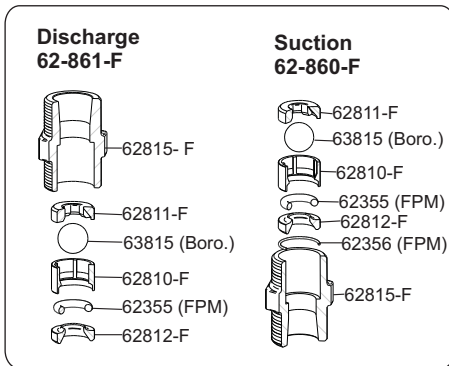
## Piston PP



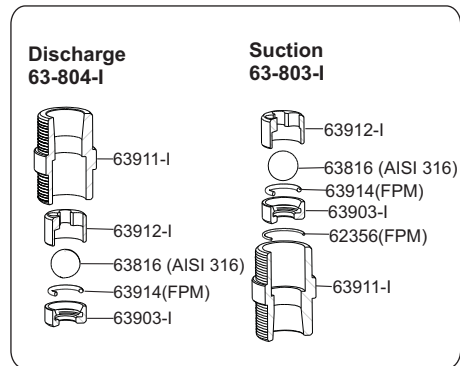
## Diaphragm PP



## Piston / Diaphragm PVDF



## Piston / Diaphragm AISI 316



- Optional: Kit ball Ø14 ceramic.....**62-B14C**  
 Kit EPDM o-rings valve 3/4.....**60-061**  
 Kit PTFE o-rings valve 3/4.....**60-061-T**

## MAINTENANCE



*Before any maintenance operation we will check:*

*That the pump is stopped and disconnected from the electric supply.*

*There is no pressure neither inside the head nor in the impulsion pipe. It is advisable to empty the head before opening it.*

*The staff in charge of the maintenance will use the adequate protection means in order to manipulate the dosed liquid.*

### *PERIODICAL MAINTENANCE:*

Change oil after the first 500 hours. Next changes will be every 2000 hours (minimum once a year).

Check the piston and diaphragm every 3 months or 1000 hours.

Check the bellows every 3 months or 1000 hours.

Check the suction filter once a month.

Check the valves every 3 months or 1000 hours.

It is advisable to clean periodically the injector, letting clean water flow through it (We can make it coincide with the emptying out of the tank), to eliminate precipitated rests that can remain in the inner part of the cylinder or in suction / impulsion pipes.

***If you are using highly corrosive liquids it is advisable to double the frequency of checks.***



<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
MOTOR DOES NOT RUN	THERE IS NO TENSION  MOTOR PROTECTION HAS BLOWN UP	-Check with a voltmeter incoming tension · Check with ammeter that current is not superior than nominal one
MOTOR RUNS HOT	A PHASE IS FAILING (three-phase); WRONG INCOMING TENSION  SUPERIOR CONSUME THAN NOMINAL ONE  LOW WORK FREQUENCY (only with inverter)	· Check with voltmeter tension in motor terminals · Check that incoming tension coincides with motor one (-10% / +10%)  · Check that injection pressure is not superior to the one specified in the module · Check with a voltmeter incoming tension  · Increase working frequency with inverter
MOTOR RUNS BUT PUMP DOES NOT INJECT OR INJECTION IS INFERIOR TO NOMINAL ONE	PUMP HAS NOT BEEN PRIMED  SUCTION / IMPULSION VALVES ARE DIRTY OR DAMAGED  SUCTION FILTER IS DIRTY  AIR COMES INTO SUCTION PIPE  CAVITATION IN SUCTION	· Prime the pump injecting at zero pressure  · Clean or change valves  · Clean filter  - Check sealing in connection points  - Increase pipe diameter. - Reduce suction pipe length. - Reduce speed through an inverter. - Use a less viscous liquid.
PUMP TRICKLES LIQUID THROUGH INFERIOR CYLINDER HOLE	DAMAGED SEALS  DAMAGED PISTON  DAMAGED DIAPHRAGM	-· Change seals  -·Change piston  -·Change diaphragm
PUMP TRICKLES OIL THROUGH INFERIOR CYLINDER HOLE	DAMAGED BELLOWS	- Change bellows
PUMP LEAKS OIL THROUGH REGULATOR	DAMAGED REGULATOR O'RINGS	- Change o'rings

## **EC CONFORMITY DECLARATION**



*I.T.C S.L..  
Mar Adriàtic, 1  
Polígono Torre del Rector  
08130 Santa Perpètua de Mogoda*

*Declares that all models of **MULTIFERTIC** products, identified by a serial number and year of manufacture, strictly fulfill 2006/042/CE and low voltages directives D2006/95/CE, as long as installation, use and maintenance are carried out following the prevailing regulation and following the instructions contained in the handbook.*

*Antón Planas  
Manager*



# WARRANTY

***I.T.C. S.L.*** warrants the product specified in this document for a period of 1 year from the purchase date. This warranty obligation is limited to the free replacement of the damaged parts due to any material or manufacture defect. This warranty does not include periodic maintenance and damage resulting from misuse.

The equipment must be sent to ***I.T.C. S.L.*** Service Center with prepaid transport charges, and will be sent back with transport charges for customer's account.

The warranty document with sales date and shop stamp or an invoice copy must be sent with the equipment.

MODEL

\_\_\_\_\_

SERIAL #

\_\_\_\_\_

Date of sale and shop stamp

\_\_\_\_\_



Original manual

Ed: 09/03/2015 - An

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