

# ROTATORY EVAPORATOR AND PUMPS



EVAPORATORS



PERISTALTIC DOSING PUMP



MEMBRANE VACUUM AND PRESSURE PUMP  
"VACUM-PRES"



MEMBRANE VACUUM PUMPS



ROTARY VEIN VACUUM PUMPS



WATER RECIRCULATION VACUUM PUMP



LIQUID TRANSFER PUMP, ELECTRIC



LIQUID TRANSFER PUMP, MANUAL



CENTRIFUGAL PUMPS

**Evaporator and peristaltic pump**

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*"La habilidad es lo que permite hacer ciertas cosas. La actitud determina si se hacen bien."*

*Jon Holtz*



## Rotatory evaporator "RS 3001-V Food"

FOR 1000 AND 2000 ML. FLASKS.

**Electronic elevation. Quality and safety. Rotary speed and bath temperature regulation**

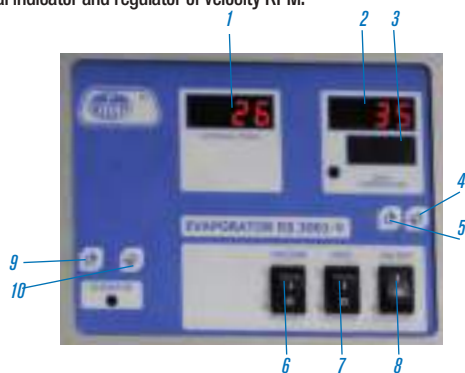
NEW DESIGN

### FEATURES

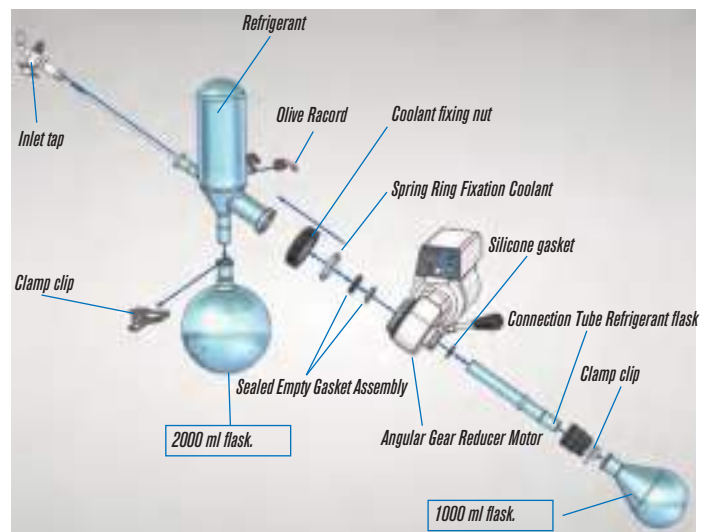
Compact rotatory evaporator composed of stainless steel AISI 304 case. Electronic elevator system and bath made of dur-al alloy chemically treated. Rotary speed: from 20 to 120 rpm. Bath temperature: up to 100 °C. External probe temperature type K: up to 100 °C. maximum volume of the receiving flask and evaporator flask: 2000 ml. Vacuum breaker with air inlet filter.

### CONTROL PANEL

1. Digital reading indicator of external probe temperature.
2. Digital reading indicator of bath temperature.
3. Digital reading indicator of programmed temperature.
- 4 & 5. Bath temperature regulator.
6. Vacuum pump switch.
7. Heater bath switch.
8. ON/OFF switch.
- 9 & 10. Elevator.
11. Digital indicator and regulator of velocity RPM.



### GLASS AND ITS ACCESSORIES DIAGRAM SPARE PARTS



### MODEL

Part no	Speed Regulation t.p.m.	Height / Width / Depth (exterior) cm	Power W	Weight Kg
RS 3001-V	6003001	0 to 120	26 46 45	1010 28

It is completely supplied with a tap for solution, a Type K probe, a coolant, one 2000 ml flask, one 1000 ml. flask and its accessories.

**ACCESSORY** Silicone oil 4 liters. Temperature up to 300°C. Viscosity 50 mm<sup>2</sup>/s at 25 °C. Melting point 318 ° C. Part No. **1000027**

## COMECTA Peristaltic Pump "Percom S-Z BIG"

**SPEED VARIABLE.**  
**WITH MULTI-ADAPTER HEAD FOR 16 TO 20 MM Ø (EXT.) TUBES.**  
**MAXIMUM WALL THICKNESS: 3,3 MM.**  
**ADJUSTABLE FLOW FROM 220 TO 10000 ML/H.**

NEW

### FEATURES

High flow desktop model.  
Easy-handling aluminum head.  
Conveyor handle  
Silent and vibration-free.  
Selectable speed between 20 and 460 r.p.m.

### CONTROL PANEL

Start-stop button.  
Speed variator.

### MODEL

Part No.	High/ Width /Depth (exterior) cm	Flow in H2O ml/hour	Power W	Weight Kg
5910155	23 21 40	220 to 10000	60	15,5

**ACCESSORY** Standard silicone tube. Ø Inside: 13.1 mm. Ø outside: 19.5 mm. Part No. **5910156**





## Peristaltic pump "Percom N-M II"

ELECTRONIC SPEED CONTROL WITH DIGITAL DISPLAY,  
WITH MULTI HEAD ADAPTER FOR TUBES FROM 4 TO 12 mm Ø (ext.). MAXIMUM WALL THICKNESS 1,6 mm.  
ADJUSTABLE FLOW RATES FROM 0 TO 1100 ml/min.

### FEATURES

Small footprint bench top model  
Quiet with minimal vibrations.  
Speed control 0,5 to 350 r.p.m (reversible).

### CONTROL PANEL

Push button Stop/Start/switch.  
Digital speed display.  
Push button increase speed control.  
Push button decrease speed control.

### BACK

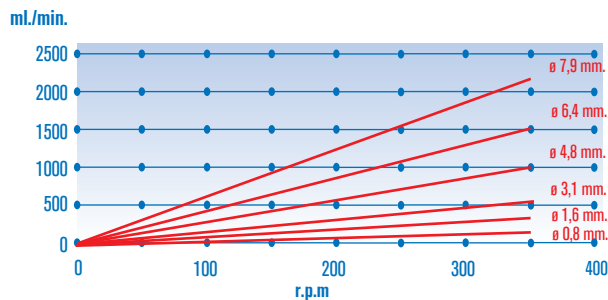
External control connection using a foot switch for Start / Stop, supplied as an accessory.

### MODEL

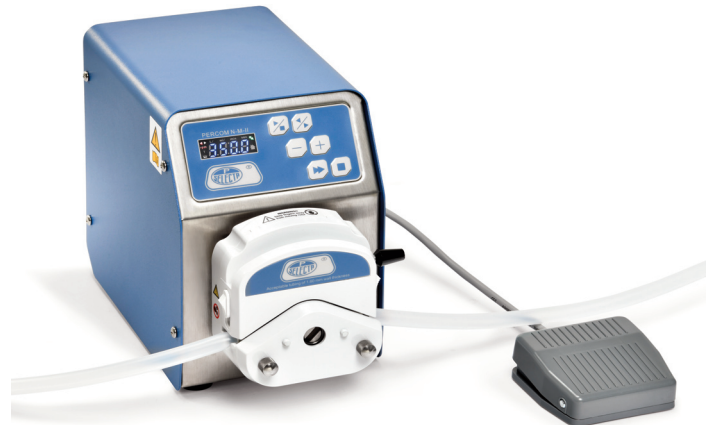
Part No.	Height / Width / Depth (exterior) cm	Pump rate of H <sub>2</sub> O ml/min	Power W	Weight Kg
<b>3001301</b>	<b>19 13 23</b>	<b>0 to 1100</b>	<b>48</b>	<b>4.4</b>

NEW DESIGN

Graph of pump rate/r.p.m. dependent on the internal tube Ø.



Graph showing with liquids: Distilled water. These characteristics vary according to the density of the liquid.



## Peristaltic dosing pump "Peristaltic PR-2004"

ELECTRONIC SPEED CONTROL AND TOUCH SCREEN DISPLAY.  
MULTI TUBE ADAPTER FROM 4 TO 12 mm Ø (ext.). MAXIMUM WALL THICKNESS 1,6mm.  
ADJUSTABLE DOSING RATE PROGRAMMABLE FROM 0,1 ML TO 9999 LITRES.  
MAXIMUM PUMP RATE 2280 ml / minute.

### FEATURES

Small tabletop model.  
Silent and free from vibrations.  
Clamp for holding the dosing tube.  
Stainless steel nozzle. for precise dosing.  
Dispense rate: The pump can dispense set volumes over a set time period.  
Flow rate: The pump dispenses at a constant rate over a set time or continuous operation.

### BACK

Main On/Off switch.  
RS 232 and RS-485 connection.  
Foot switch connection Start - Stop, for operation from a distance, supplied as an accessory.

### MODEL

Part No.	Height/Width/Depth (exterior) cm	Pump rate of H <sub>2</sub> O ml/min	Power W	Weight Kg
<b>4129051</b>	<b>25 19 23</b>	<b>0,1 to 2280</b>	<b>50</b>	<b>4,8</b>

NEW DESIGN

RS232

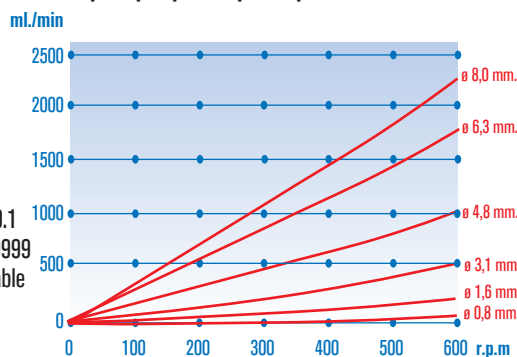
### CONTROL PANEL

Touch screen.  
Calibration memory.  
Change pump direction, control from the panel.  
Rotation direction indicator.  
Foot switch connection for Start/Stop.

### TECHNICAL SPECIFICATIONS

Speed (r.p.m.): ..... 1600  
Resolution (ml): ..... 1 or 0.1  
Dispensing range (ml): ..... 0,1 - 9999  
Pump rate ..... See table  
N° of repeat doses: ..... 9999  
Repetition interval: ..... 1 - 9  
Maximum tube wall (mm): ..... 1,6  
Maximum external tube diameter (mm): ..... 12  
Note: The precision depends on the tube Ø and the speed

Graph of pump rate/r.p.m. dependent on the internal tube Ø.



Graph showing with liquids: Distilled water. These characteristics vary according to the density of the liquid.



interior Ø mm	Dose rate (ml/minute)	
	Min	Max
0,8	0,7	42
1,6	0,7	162
3,2	1	492
4,8	2	1020
6,3	3	1740
8	4	2280

### ACCESSORIES FOR PERISTALTIC PUMPS "PERCOM N-M II" AND "PR-2004"

Standard silicon tubing. (see page: 50)  
START STOP foot pedal controller. (PERCOM N-M II) Part No. 1001045  
START STOP foot pedal controller. (PR-2004) Part No. 1001046

**Free of lubrication • Free of maintenance • Quiet**

**APPLICATIONS**

Vacuum filtration.  
 Vacuum distillation.  
 Rotating evaporators.  
 Gas extraction and transport.  
 Vacuum drying.

**COMUN FEATURES**

Constructed in aluminium.  
 Membrane of polifluoropreno, resistant to the corrosion and long-life.  
 Refrigeration system that allows a continuous operation of 24 hours.

**MODEL "MV 50"**



**CONTROL PANEL**

Vacuum and pressure gauges.  
 Adjustable pressure and vacuum.  
 Tensile handle for easy transport.  
 Button On-Off.

**MODEL "MV 100"**



**CONTROL PANEL**

Vacuum indicator.  
 Vacuum regulator.  
 Button On-Off.

MODELS	Part No.	Vacuum Rate m <sup>3</sup> /h	Vacuum Limit mbar	Pressure bar	Heigh / Width / Depth (exterior) cm	Power W	Power supply	Weight Kg
MV 50	5910100	1,8	200	2	23,5 16 21	160	220V/50Hz	8
MV 100	5910101	3,6	200	2,75	23,5 16 30	160	220V/50Hz	9

They are supplied with a 1 meter of silicone tube Ø 8 x 12mm.

**Vacuum pump**

ROTARY VANE PUMP WITH ANTI RETURN VALVE PREVENTS OIL FLOW BACK, SUITABLE FOR GENERAL LABORATORY APPLICATIONS. OVER TEMPERATURE MOTOR PROTECTION CUT-OUT AND MAIN ON/OFF SWITCH.

**FEATURES**

Asbestos veins and internal joints.  
 Aspiration connection 16 mm Ø in model 5900620 and 5900621, 25 mm in model 5900622.  
 Analogue vacuum gauge.  
 High oil volume and forced lubrication.  
 Oil reservoir charge capacity: 250 ml in model 5900620, 550 ml in model 5900621 and 1150 ml in model 5900622.  
 Exhaust filter and ballast.  
 Shock absorber mounted.  
 Low noise level (62db)  
 Maximum working temperature 60 °C.  
 Portable with lifting handle.



Part No. 5900620



Part No. 5900621



Part No. 5900622

**MODELS**

Part No.	Pump rate m <sup>3</sup> /hr	Vacuum limit mbar	Height / Width / Depth (exterior) cm	r.p.m.	Power W	Weight Kg
5900620	3,6	0,1	23 27 12	1400	120	7,6
5900621	3,6	0,00	27 35 14	1400	180	11
5900622	7,2	0,0006	34 49 15	1400	370	21

**ACCESSORY**

High pressure rubber tubes of 18 x 26 mm Ø. Part No **5900624**  
 High pressure rubber tubes of 8 x 15 mm Ø. For Vacuum oven connection "VACIOTEM". Part No **5900625**  
 Pump oil for vacuum pumps, 1 litre bottle. Part No. **5515030**

**SPARE Vacuum gauge** (Fits both models). Part No. **5515031**

**FEATURES**

Transfer, evacuation and compression, free from contamination. The models N-86 and N-022 of 2.5 and 4 bar of relative pressure, can be used also as a compressor.

Can be operated dry.

No lubrication required.

Maintenance free.

Silent.

The double head models are made with linear two phase membranes.

All Models (except model N-022), are made with a patented system of diaphragms manufactured with optimum tension, that results in a smaller more durable pump.

Approximate loss 6 x 10<sup>-3</sup> mbar x L/s

Complete with thermal breaker and fuse.

Medium to high resistance to chemicals, (model dependant).

We advise that you check the compatibility of the pump performance with the materials that will be in contact with the pump parts (see table).



MODELS / SPECIFICATIONS	N-86	N-022	N-816	N-820	N-840
Part No.	<b>5910106</b>	<b>5910107</b>	<b>5910108</b>	<b>5910009</b>	<b>5910110</b>
Vacuum pump rate (to 1 Atm, of pressure)	5.5 l/min	13 l/min	16 l/min	20 l/min	34 l/min
	0.33 m <sup>3</sup> /h	0.78 m <sup>3</sup> /h	0.96 m <sup>3</sup> /h	1.2 m <sup>3</sup> /h	2.04 m <sup>3</sup> /h
Vacuum limit (mbar) absolute	160 mbar	100 mbar	20 mbar	8 mbar	8 mbar
Pressure (bar) relative	2.5 bar	4 bar	0.5 bar	1 bar	1 bar
Tube connection, Ø interior	4 mm	6 mm	6 mm	10 mm	10 mm
Number of heads and phases	1	1	2	2	2
Head material	PPS	Aluminium	PPS	PTFE	PTFE
Membrane material (diaphragms)	PTFE	PTFE	PTFE	PTFE	PTFE
Valve material	FFPM	Stainless steel	FFPM	FFPM	FFPM
Motor protection level	IP-20	IP-20	IP-20	IP-44	IP-44
Gas operating temperature and permissible ambient	5 to 40 °C				
Current (A) / Power (W)	0.63 / 65	0.7 / 100	0.6 / 100	0.7 / 120	1.5 / 245
Dimensions height x width x depth (cm)	14 x 9 x 17	19 x 15 x 20	14 x 9 x 36	21 x 15 x 31	23 x 17 x 34
Weight (Kg)	1.9	4	3.95	9.3	12.6

APPLICATIONS AND CHEMICAL RESISTANCE	N-86	N-022	N-816	N-820	N-840
Chemical resistance (depends on medium being pumped.)	medium-high	medium-high	medium-high	medium-high	medium-high
For gasses and vapours very aggressive or corrosive	-	-	-	Yes	Yes
For gasses and vapours slightly aggressive or corrosive	Yes	Yes	Yes	Yes	Yes
For liquid transfer and evacuation	Yes	Yes	Yes	Yes	-
For liquid transfer, evacuation and as a compressor	Yes	Yes	-	-	-
Ideal for vacuum filtration	Yes	Yes	Yes	Yes	Yes
Ideal for vacuum filtration, evaporation, drying and gel drying	-	-	-	Yes	Yes

SPARE PARTS	N-86	N-022	N-816	N-820	N-840
Spares Kit: 1 membrane +2 valves + 2 gaskets	<b>5910120</b>	-	-	-	-
Spares Kit: 1 membrane +2 valves + 1 gasket	-	<b>5910121</b>	-	-	-
Spares Kit: 2 membrane +4 valves + 4 gaskets	-	-	<b>5910122</b>	<b>5910123</b>	<b>5910124</b>

## COMECTA Silicon tube for peristaltic and membrane pumps

### MODELS

	Part No.	interior Ø mm	exterior Ø mm
Standard tube*	8991202*	4	7
	8991201*	6	9
	8991200*	8	11



	Part No.	interior Ø mm	exterior Ø mm
Calibrated tubing*	5253300*	0.8	4
	5253400*	1.7	4.9
	0686203	3	7
	5253600*	3.1	6.3
	5253500	4.8	9.8
	0686210	5	9
	5253900	6.3	11.3
	0686216	8	12

(\*) Tubing supplied in 1 meter lengths.

(\*) Part Numbers with asterisk\* are adaptable to peristaltic pumps "Percom N-M II" and "PR-2003". See page 47

## COMECTA Sink weights and glass connections

FOR CENTRIFUGAL AND PERISTALTIC PUMPS.

### FEATURES

Made of glass.

Adapters for centrifugal and peristaltic pumps.

For better aspiration and dispensing.



#### A. Sink weight "ASPIPUMP"

Surface olive that fixes to the tube. The sink weight maintains the tube at the bottom of the vessel being used for the aspirant liquid.

Part No. Tube size

5991204	4 mm Ø interior.
5991206	6 mm Ø interior.
5991208	8 mm Ø interior.

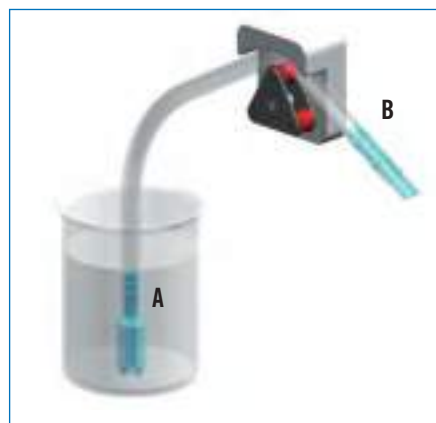


#### B. Spout "PECIPUMP"

Surface olive is pushed onto the inside of the dispensing end of the tube, liquids can then be dispensed easily and accurately.

Part No. Tube size

5991203	4 mm Ø interior.
5991205	6 mm Ø interior.
5991207	8 mm Ø interior.



A. Sink weight "ASPIPUMP" an efficient way to aspirate to the last drop.

B. Spout "PECIPUMP" an exact way to dispense.



## Membrane vacuum pump "Vacum-Sel"

### FEATURES

Small footprint, bench top.

Quiet and vibration free.

Maximum working temperature: 40 °C.

### CONTROL PANEL

Mains power switch.

Vacuum gauge, scale 0 to -1 bar.

Vacuum in.

Air out.

### MODEL

Part No.	Pump Rate litres/min.	Vacuum limit	Height / Width / Depth (exterior) cm	Power W	Weight Kg
3001001	1.08	-0.6 bar 440 mm Hg	19 14 19	35	3



## Membrane vacuum and pressure pump "Vacum-Pres"

### FEATURES

Small footprint, bench top.

Quiet and vibration free.

Maximum working temperature: 40 °C.

### CONTROL PANEL

Mains power switch.

Vacuum gauge, scale 0 to -1 bar.

Pressure gauge, scale 0 to 2.5 bar.

Control for pressure/vacuum.

Vacuum in.

Pressure out.

### MODEL

Part No.	VACUUM		Pressure		Height / Width / Depth (exterior) cm	Power W	Weight Kg
	Pump Rate /min.	Vacuum limit	Pressure Rate /min.	Max. Pressure			
3001002	1.08	-0.6 bar=440 mm Hg	1.3	1.2 bar	19 14 19	35	3.2





## Water recirculation vacuum pump

### DESCRIPTION

Made from a centrifugal pump that pulses water at a high velocity through suction aspirators, creating a pump rate of 10 litres/min from each pump connection. The vacuum achieved, 5 to 40mbar is dependent on the water temperature in the reservoir. Aspirated gasses from both inputs mix in the 10 litre reservoir. Although the interior of the pump is made from stainless steel and polypropylene it is a requirement to change the water in the pump to limit any attack of any chemicals or vapours absorbed in the water. For better protection of equipment it is recommended to connect a "Scrubber" to wash and neutralise any corrosive gasses. The pump includes an exit valve that allows the water to be circulated externally. This can be used to empty and change the water in the reservoir to form an external re-circulation of water.

### FEATURES

Reduced water consumption.  
2 independent connections, aspiration pump vacuum rate 10 litres/min.  
Vacuum limit: 5 and 40 mbar (dependent on water temperature).  
Capacity: 10 litres.  
Low noise level (<65dBA).  
Valve connections for entrance and exit of vacuum and external water recirculation.

### CONTROL PANEL

2 vacuum connections.  
2 analogue vacuum gauges.  
Illuminated mains switch.

### ACCESSORY

#### Extraction system and neutralisation of vapours.

Made up of a "Scrubber" unit that blocks the passage of condensed acid vapours and neutralises the gas vapour in NaOH, and a recirculating water pump that provides an adequate pump rate to aspirate vapours.

It is supplied with 3 Kg. acid vapours neutralizer solution.

#### "Scrubber" unit

Part No.	Height / Width / Depth (exterior) cm	Weight Kg
<b>4001611</b>	<b>32 31 16</b>	<b>2</b>

#### Spare part:

3 Kg. acid vapours neutralizer solution. Part No. **4001610**



### MODEL

Part No.	Height / Width / Depth (exterior) cm	Vacuum limit mbar	Pump rate litre/minute	Power W	Weight Kg
<b>4001612</b>	<b>44 39 28</b>	<b>between 5 and 40</b>	<b>10</b>	<b>280</b>	<b>10</b>



Complete unit image for a Kjeldahl distillation block.

## COMECTA Centrifugal pumps "MP"



### FEATURES

Centrifugal pump for re-circulating and transferring of liquids.

A selection of models with pump rates of 8 to 60 litres/min.

The motor power to the turbine is transmitted via a magnetic coupling.

All parts in contact with liquids are chemically resistant materials.

Manual priming.

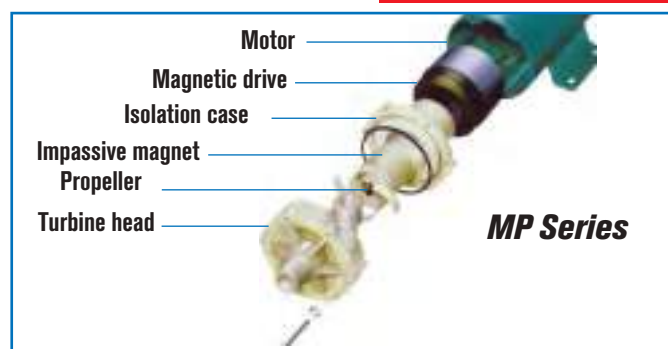
### SERIES MP

Dimensions per model in mm.

MODEL	Depth	Height	Width	Ø
<b>MP-15R</b>	<b>180</b>	<b>108</b>	<b>95</b>	<b>68</b>
<b>MP-20R</b>	<b>210</b>	<b>108</b>	<b>116</b>	<b>92</b>
<b>MP-40RX</b>	<b>277</b>	<b>130</b>	<b>122</b>	<b>102</b>
<b>MP-100R</b>	<b>322</b>	<b>175</b>	<b>150</b>	<b>110</b>

### TECHNICAL DATA

	MP-15R	MP-20R	MP-40Rx	MP-100R
Part No.	<b>5900610</b>	<b>5900611</b>	<b>5900612</b>	<b>5900613</b>
Pump rate (max) P (pressure)=0 (litres/min)	<b>8</b>	<b>17</b>	<b>47</b>	<b>60</b>
Precision (min) Q (pump rate)=0 (bar)	<b>0.21</b>	<b>0.37</b>	<b>0.40</b>	<b>0.50</b>
Tube connection (aspiration)	<b>14 mm Ø</b>	<b>18 mm Ø</b>	<b>26 mm Ø</b>	<b>26 mm Ø</b>
Tube connection (output)	<b>14 mm Ø</b>	<b>18 mm Ø</b>	<b>26 mm Ø</b>	<b>26 mm Ø</b>
Normal working temperature (°C)	<b>0 - 80</b>	<b>0 - 80</b>	<b>0 - 80</b>	<b>0 - 80</b>
Function cycle	<b>continuous</b>	<b>continuous</b>	<b>continuous</b>	<b>continuous</b>
Power consumption (W)	<b>10</b>	<b>20</b>	<b>65</b>	<b>250</b>
Pump material: Body	<b>Polypropylene with a mixture of fibre glass</b>			
Turbine material:	<b>Polypropylene with a mixture of fibre glass</b>			
Pump spindle/axle material:	<b>ceramic aluminium oxide</b>			
Seals and junctions material:	<b>EPDM</b>	<b>EPDM</b>	<b>EPDM</b>	<b>EPDM</b>
Voltage:	<b>220-240V 50-60Hz</b>			



## SEISUN

## Liquid transfer pump, manual “RP-90P”

MADE FROM CHEMICALLY AND CORROSION RESISTANT POLYPROPYLENE.  
ROTARY MOVEMENT.

### FEATURES

Manual rotary suction movement that extracts liquid or sucks up liquid from a drum, composes of a pump handle, dip tube 1.2 M long by 1 inch Ø, with adjustable clamp that fastens to the barrel and an outlet tube of 3/4". Easy to use, light weight and very robust.

### MODEL

Part No.	Pump rate litres/min.	Weight Kg
<b>5252040</b>	<b>20</b>	<b>1.6</b>



## Liquid transfer pump, electric “FA-100”

SUITABLE FOR NON CORROSIVE AND NON FLAMMABLE LIQUIDS.

### FEATURES

All metal with electric air displacement motor drive, with steel suction tube 1 m long and 38 mm Ø. Maximum height 13 m.

### MODEL

Part No.	Pump rate litres/min.	R.p.m.	Power W	Weight Kg
<b>5929041</b>	<b>86</b>	<b>10000</b>	<b>120</b>	<b>6.6</b>



### SPARES

**1. Drum faucet:** 2" in diameter.

Made of brass.

Part No. **5252038**

**2. Drum Plug key** for opening drum, standard model.

Made of brass.

Part No. **5252039**

**3. Air bleed drum cap** 2" in diameter.

Made of brass.

Part No. **5252037**

