

NUTRITIONAL AND WATER ANALYSIS APPARATUS

EXTRACTION

Organic nitrogen determination by Kjeldahl "BLOC-DIGEST"
Steam distillation of protein, PRO-NITRO "M"
Steam distillation of protein semiautomatic, PRO-NITRO "S"
Kjeldahl distillation automatic PRO-NITRO "A"
Extractor for the determination of cellulose and fibre, "DOSI-FIBER"
Cold extraction unit, "EF-1425"
Solvent extractor unit for the determination of residues, oils and fats in nutritional and other materials DET-GRAS "N"

Sample Hydrolysis unit, "HI-1427" Wine (Alcohol), distillation unit "DE 1626"

WATER ANALYSIS

Chemical Oxygen Demand in residual water "C.O.D."

Constant temperature refrigerated incubator cabinets, B.O.D. "MEDILOW S, M, L, LG"

Pro-Nitro M S and A Dosi-Fiber FF-1425 Det-Gras N Rloc-Dinest

Flocculator for water analysis, laboratory "FLOCUMATIC" Flocculator for water analysis, portable "JARTEST" De-mineraliser "LAB-ION" Water Distillation unit , "AQUASEL", "L-3" and "AC-L8"

RECOMMENDED METHODS AND EQUIPMENT: PRO-NITRO M, S and A, DOSI-FIBER, EF-1425, HI-1427, DET-GRAS N, BLOC-DIGEST, DE-1626 and C.O.D.*

Reference

ANALYSIS OF CEREAL AND DERIVATIVES	Reference	Pro-Nitro M,S and A	Dosi-Fiber	EF-1425	Det-Gras N	Bloc-Digest
Determination index for cellulose	Method Wladesco		YES	YES		
Insoluble fibre in food	Method Van Soest		YES	YES		
Crude Fibre	Method Weende & Wijkströn		YES	YES		
Proteins	Method Kjeldahl	YES				YES
Soxhlet extraction for fat identification	Soxhlet Extraction				YES	
Crude Fat	Soxhlet Extraction				YES	
Arsenic	Determination A. A.					YES
Mercury	Determination A. A.					YES
ANALYSIS OF MILK AND DERIVATIVES	Reference	Pro-Nitro M,S and A	Dosi-Fiber	EF-1425	Det-Gras N	Bloc-Digest
Crude Fat	Soxhlet Extraction				YES	
Crude Protein	Method Kjeldahl	YES				YES
Casein M	ethod Kjeldahl through precipitation of c	asein YES				YES
ANALYSIS OF ALCOHOLIC BEVERAGES	Reference	DE-1626	Dosi-Fiber	EF-1425	Det-Gras N	Bloc-Digest
Degree of alcohol	Method Volumetric	YES				
Volatile Acid	Method Volumetric	YES				
Iron	Method Volumetric					YES
ANALYSIS OF FODDER AND RAW MATERIAS	Reference	Pro-Nitro M,S and A	Dosi-Fiber	EF-1425	Det-Gras N	Bloc-Diges
Raw Cellulose	Method Weende & Wijkströn		YES	YES		
Raw Protein	Method Kjeldahl	YES				YES
Raw Fat	Soxhlet estraction				YES	
Volatile base nitrates	Distillation Kjeldahl	YES				
Soluble Raw Fat en hydrochloric acid and Pipsin	Method Kjeldahl	YES				YES
Casein total	Method Kjeldahl in casein precipitate	e YES				
Phosphorus	Method Photometric					YES
Hydrocyanic Acid	Distillation in Silver Nitrate	YES				
Pure zolidine	Soxhlet Extraction				YES	
ANALYSIS OF FRUIT BEVERAGES AND DERIVA	TIVES Reference	Pro-Nitro M,S and A	Dosi-Fi	ber D	IE-1626	Bloc-Digest
Total Nitrogen	Method Kjeldahl	YES				YES
Volatile Acids	Distillation measurement				YES	
Arsenic	Dichromate Determination					YES
ANALYSIS OF WATERS	Reference	Pro-Nitro M,S and A	Dosi-Fiber	r D.Q.O. /	ECO-8/ECO16	Bloc-Diges
Total Nitrogen	Method Kjeldahl	YES				YES
Total Phosphorus	Method Photometric					YES
C.O.D.	Determination by Dichromate				YES	

^{*} Reference: Methods are official publications issued by the MAPA (Ministry of Agriculture, Fisheries and Nutrition) 1993.



Laboratory flocculator "Flocumatic"

FOR THE DETERMINATION OF THE NECESSARY AGENTS REQUIRED FOR SEDIMENTATION. DIGITAL ELECTRONIC CONTROL OF SPEED AND TIME FUNCTIONS. NEW LIGHTING SYSTEM.



Maximum torque per stirring unit is 40 Ncm. Maximum viscosity 30.000 mPas.

APPLICATIONS

Optimization of coagulant additives and poly-electrolytes for surface and residual water treatment.

Evaluation of the efficiency of an absorbent in toxic agents.

Polyvalent. Without transmissions by belt. Due to its powerful torque it allows stirring and mixing high viscosity substances.

FEATURES

Stirring equipment for 4 or 6 places that accommodates beakers up to 1000 ml tall shape or 2000 ml short shape.

Stirring speed from 15 to 200 r.p.m.

Silent running.

Adjustable timer from 1 to 999 minutes or continuous operation.

Easily adjusted height over head stir, bars made of AISI 304 stainless steel are easily fixed in position.

Two vertical and horizontal adjustable illumination units can be placed in the unit. This adjustable accessory allows the light angle to be varied according to the samples being run. An original Selecta design. See accessories part numbers 3000821 and 3000823, 4 and 6 place models that obtain simultaneous front and back lighting.

The main case of the unit is made of epoxy coated steel, with AISI 304 stainless steel supports with anti slip rubber feet.

CONTROL PANEL

- 1. Alphanumeric display. Indicates rpm and time.
- 2. Parameter invalidate button.
- 3. Parameter value decrease button.
- 4. Parameter value increase button.
- 5. Parameter validation button.





Flocculator "Flocumatic" with horizontal and vertical illumination (6 places).



Flocculator "Flocumatic" with horizontal illumination (4 places).

MODELS

Part No.	No. of places	Speed r.p.m.	Height / (ex	Width terior)		Illumination power W	Power W	Weight Kg
3000820	4	15 - 200	52	70	23	40	160	24
3000822	6	15 - 200	52	99	23	50	170	36

ACCESSORIES

Illumination units, simultaneous lighting horizontal and vertical.

Part No. Model part No. 3000821 3000820 4 places. 3000823 3000822 6 places.





FEATURES

Mains voltage or portable connection to a cigarette lighter within a car (12 V DC), for achieving analysis for a site chemical dose measurements of waste water treatment plants.

Head stirrers made of AISI 304 stainless steel with variable height.

Suitable for vessels up to 1 litre capacity.

CONTROL PANEL

- 1. Alphanumeric display. Indicates rpm and time.
- 2. Parameter invalidate button.
- 3. Parameter value decrease button.
- 4. Parameter value increase button.
- 5. Parameter validation button.



Part No.	Height / Width / Depth (exterior) cm	Power W	Power supply	Weight Kg
3000835	37 25 27	20	12 volts	ĥ



ACCESSORY.
Carrying case.
Part No. 3000836





Made from stainless steel and glass, easy disassembly for cleaning and storage.

COMMON FEATURES

Easy to use, suitable for continuous distilled water requirements.

Boiler unit and heater element made of AISI 304 stainless steel, with lid and condenser made of orosilicate glass. The glassware pressure seal connection is an original Selecta design.

Safety system cuts off power to the heater element if there is not enough water. Distilled water produced is pyrogen free.

MODELS	Part No.	Distillation capacity I/h	Water consumption I/min	Conductivity at 20 °C	Ø / Height (ext.) cm	Power W	Weight Kg
Aquasel 4	4903004	3	1	3 µs/cm	18 43	2400	5
Aquasel 6	4903006	6	2	3 µs/cm	23 68	4800	8

Supplied complete with silicon seals.





Distillation still "L-3"

DISTILLATION CAPACITY: 3 LITRE PER HOUR.

FEATURES

Made entirely of borosilicate glass.

Functions: automatic with continuous water production. Produces distilled water of a high purity, free of pyrogens and metal ions.

Equipped with quartz heater elements and protection device using a safety thermostat that is activated in the case of low water pressure to the condenser or boiler unit. The unit automatically reactivates when the water pressure is restored.

Suitable for wall mounting.



MODEL

Part No.	Distillation capacity I/h	Water consumption I/min	Conductivity at 20 °C	Height / Width / Depth (exterior) cm		Power W	Weight Kg	
4903000	3	1	3 µs/cm	34.5	56	19	2200	4.5



Water distiller "D-4 Large" and "D-10 Large"

DISTILLATION CAPACITY: 4 AND 10 LITRES/HOUR.

FEATURES

Equipment entirely made of borosilicate glass.

Automatic operation.

Continuous production of high purity distilled water, free of dissolved gases, metals, salts and pyrogens.

Spiral heating system.

Double safety system:

1. By a presostat that turns the heater off in case of lack of water supply. 2. Water level device that avoids the computer to function until the heating element is covered with water.

CONTROL PANEL

Power switch.

Lack of water flow indicator lamp.

MODEL

Part No.	Distillation capacity I/h	Water consumption I/min	Conductivity at 20° C		/ Widt	h / Depth) cm	Power W	Weight Kg
4903001	4	1	2 µs/cm	69	28	30	3000	6,3
4903015	10	2	1,5 µS/cm	96	36	40	6600	23





Water distillers, "AC-L4" and "AC-L8"

DISTILLATION CAPACITY: 3.5 AND 8 LITRES/HOUR.

FEATURES

Tank and heating element made from stainless steel.

External case made from epoxy covered steel.

Easily dismantled for cleaning and service. All seals made from silicon.

In the case of over temperature or low water supply, a safety thermostat cuts power to the heater.

Water supply tube 3/4" mm.

Distilled water tube connection Ø 12 mm.

Voltage: 230 V / 50/60 Hz

CONTROL PANEL

Illuminated power switch.

Safety switch thermostat with rearm system.

MODELS	Part No.	Distillation capacity I/h	Water consumption I/min	Conductivity at 20 °C	Height	/ Width cm	/ Depth	Power W	Weight Kg
AC-L4	4903007	4	1	2 μs/cm	44	25	23	3000	8
AC-L8	4903008	8	1.4	2 us/cm	61	26	26	6000	14



Water distillers "L-4 Cabinet" and "L-8 Cabinet"

DISTILLATION CAPACITY: 4 AND 8 LITRES/HOUR.

FEATURES

Equipment entirely made of borosilicate glass, with protective case with transparent plastic door that allows an easy access to the glass and heating elements.

The water distiller incorporates a boiler, a large surface cooling and two heating elements with protective quartz. Desktop model with device to hang it on the wall.

Continuous production of high purity distilled water free of dissolved gases, metals, salts and pyrogens.

Easy to dismantle for a complete cleaning.

Automatic operation.

Totally automatic operation:

- The equipment disconnects when the distilled water tank is full.
- The equipment reconnects when emptied.
- Automatic operation of the distiller.

Double safety system: 1. By a thermostat that turns the heater off in case of lack of water supply. 2. Water level device that avoids the computer to function until the heating element is covered with water.

CONTROL PANEL

Start up main switch.

Light indicators of heating, cleaning, of lack of water and tank full.

MODEL

Part No.	Distillation capacity I/h	Water consumption I/min	Conductivity at 20° C	•	/ Widt xterior	h / Depth) cm	Power W	Weight Kg
4903002	4	1	1.5 µs/cm	40	69	26	1x3000	12
4903016	8	2	1,5 µS/cm	48	69	40	2x3000	22



Water distillers "R-4 Reser" and "R-8 Reser"

DISTILLATION CAPACITY: 4 AND 8 LITRES/HOUR. STORAGE TANK: 8 LITRES.

FEATURES

External case epoxy covered.

Cooling and heating elements made of stainless steel.

Easy to dismantle for cleaning.

Thermostat that disconnects the heater when there's lack of water supply.

Monitoring function that disconnects the distiller when the storage tank is complete

full, and resumes as it empties.

Distilled water dispenser located in the front part.

Distilled water and water supply racords of 3/4 inch.

Desktop model with device to hang it on the wall.

CONTROL PANEL

Illuminated power switch.

Lack of water flow indicator lamp.



Part No.	Distillation capacity I/h	Water storage tank l	Water consumption I/min	Conductivity at 20° C	Height (e	/ Width a	/ Depth cm	Power W	Weight Kg
4903005	4	8	1	1,5 µs/cm	50	63	32	1x3000	24
4903017	8	16	1,4	1,5 µS/cm	60	71	34	2x3000	34







Note on the outlet water: Depending on the inlet water quality, it can be of type II or III (according to ASTM). All parameters have been tested under standard laboratory conditions.







Water double distillation "L-4B"

DISTILLATION CAPACITY: 4 LITRES/HOUR.



FEATURES

Made completely from borosilicate glass with protective case that has easy access to the heater elements and glass parts.

Automatic function and continuous production.

Produces high quality double distilled water free from pyrogen and metallic ions. It functions through a dual distillation process:

The distilled water from the first stage is collected by the heater reservoir of the second stage, that starts the double distiller function when when the water's level is optimum, thus providing double distilled process.

Protection with a safety thermostat is activated if there is insufficient cooling water. Reactivated automatically when the water supply is re-established.

Water flow stop if there is an electrical fault.

If it is required to store the distilled water and to prevent over filling, the system stops, switches off power and disconnects the water flow when is full.

Voltage: 230 V / I, 50/60 Hz



Part No.	Distillation capacity I/h	Water consumption I/min	Conductivity at 20 °C	Height/Width/Depth cm	Power W	Weight Kg
4903010	4	2	0.5 us/cm	48 69 40	2x3000	22



SPARES

Heater element made of guartz. Part No 4903011

Glass still, borosilicate glass (the equipment comes with 2 condensers, Price provided is for 1 spare condenser). Part No. 4903012

Condenser, borosilicate glass (the equipment comes with 2 condensers. Price provided is for 1 spare condenser). Part No. 4903014



Water distiller, specially for autoclaves "Dest-4"

DISTILLATION CAPACITY: 1.2 LITRES/HOUR. INTERNAL CAPACITY 4 LITRES.

Case made from thermo resistant plastic. Internal stainless steel. Cooling by forced air though a condenser. Without glass heater elements, Easy to use. Safety cut out if over temperature due to insufficient water.

Supplied complete with a 4 litres plastic bottle and three dispenser tap with filter. Note: for daily use it is recommended to change the filter every 3 months.

No external additional water required.



SPARE. Dispensing filter tip. Part No. 4001730

MODEL

Part No.	Distillation capacity I/h	Conductivity µs/cm	Ø Height cm	Power W	Weight Kg
4001729	1.2	5	29 39	750	3.5

COMECTA Descaler "C-3"

APPLICATIONS

Pre-treated water that contains large quantities of CaCO3 (lime). For general laboratory use.

Recommended for use with distillation units where water hardness is above 25° french.

TECHNICAL SPECIFICATIONS

Metal container of AISI 304 stainless steel with regeneration of salt by using a two way reverse valve system. Resin capacity: 12 litres. Regeneration salt: 2 Kg. Regeneration cycle: 1200 litres to 60° french / 4800 litres to 35° french.

Regeneration cycle for distillation of: 300 to 800 litres. Maximum mains water pressure: 4.5 Kg/cm². Maximum supplied admissible hardness: 60° french. Out put hardness: 1° french.

External measurement: 62 cm high x 19 cm Ø.

Weight: 20 Kg. Part No. 0703052



Comes complete with in and out 3/4" tubing.

COMECTA 50 Litre distilled water reservoir

Recommended for the storage of distilled water. Made of high density polyethylene. 50 litre capacity, with handles and dispenser tap. 15cm Ø top lid with stopper.

Dimensions: 68 cm high x 35 cm Ø.

Part No. 0106006

ACCESSORY

Water reservoir trolley.

Robust steel trolley with epoxy coating. Lockable wheels, Inner section for holding iars and carbovs etc.

Fits containers 38 cm Ø. Height 48 cm.

Part No 5903049

