J.P. SELECTA

Laboratory equipment factory

SERVING THE 76 YEARS LABORATORY

CATALOGUE 2026 / 2029

Central production hall for manufacturing, assembly, and fitting.

Numerically controlled punching and stamping unit, and laser cutting.

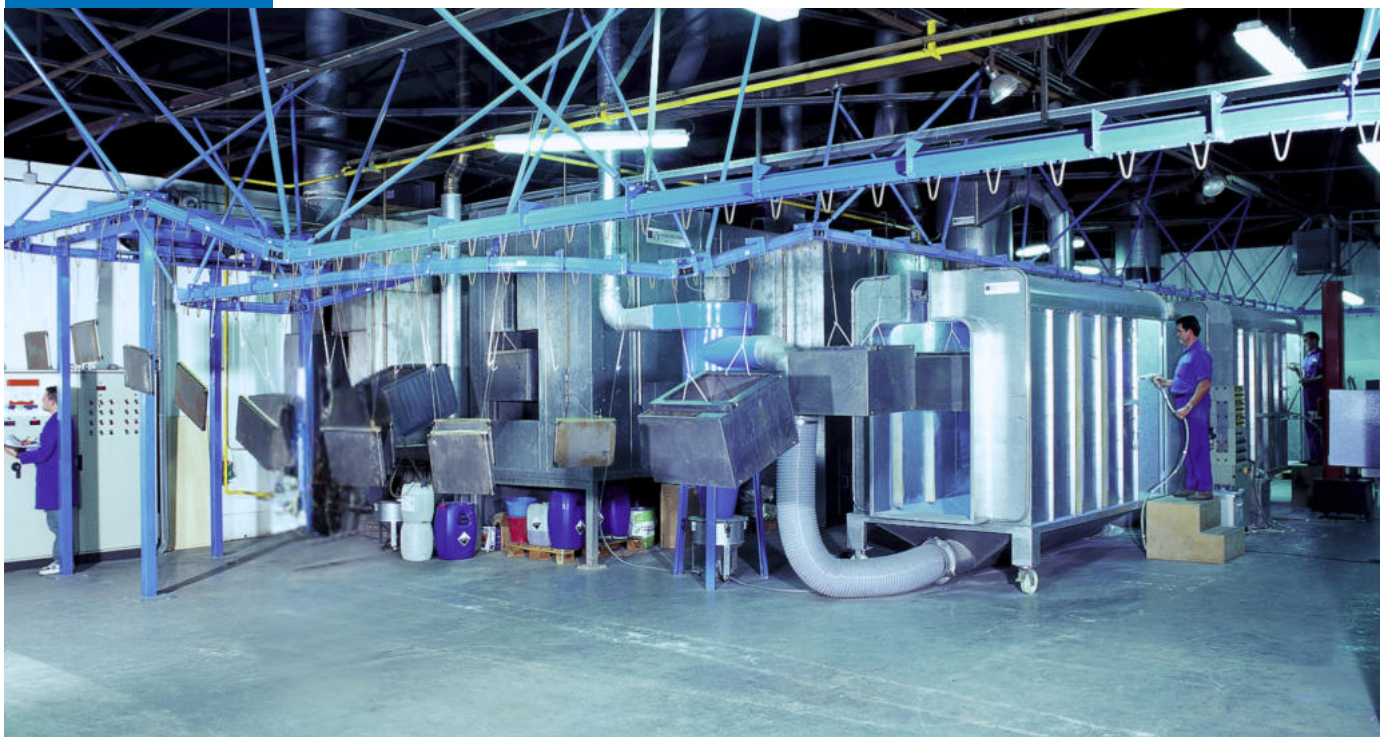
Rotary welding systems for pressure and vacuum devices.

Assembly and installation of electronic, regulation, and control components.

"Build today, then strong and sure, With a firm and ample base;
And ascending and secure. Shall tomorrow find its place."
Longfellow, Henry W. (1807-1882)

Final finish treatment line.
Environmentally friendly.

ENVIRONMENTALLY FRIENDLY



Selecta Group Factory

Where there is a successful business, it is because someone has taken a courageous decision.
Peter Drucker

Located at Km. 585.1 of the A-2 highway, at the exit Abrera (Barcelona), covering an area of 21000 m², and factory build 14,800m².
Situated 28 Km from the city of Barcelona, with excellent links by motorway AP-7, exit 25 (Martorell) or by the A-2 highway, Km 585.1 Barcelona-Madrid, industrial estate "Can Amat" next to the production centre of SEAT.

aparells per
a laboratori
J.P. SELECTA, s.a.

AUTOVIA
A-2
Exit 25
AP-7
Exit
585
Igualada
Lleida
SHOPPING
CENTER
SELECTA
SEAT
FACTORY

SELECTA GROUP

A-2 highway, Km. 585,1 - 08630 ABRERA (Barcelona-SPAIN) - P. +34 93 770 08 77* (6 lines) - F. +34 93 770 23 62 - www.jpselecta.es - selecta@jpselecta.es

J.P. SELECTA S.A.

Scientific Laboratory Equipment Manufacturer

COMECTA S.A.

Exclusive Representations

AQUISEL S.L.

manufacturer of Disposable Clinical Test Kits

J.P. Selecta World wide

MARKETING ACTIVITIES.

The completing of catalogues and brochures completed in differing languages and the participation in world wide exhibitions such as Achema, Analytica, Pittcon, AchemAsia, Medica, Analytica Shanghai, Moscow, Mumbai Arab lab and Expoquimia are a clear indication of our exposure to new and developing markets.

HOME AND INTERNATIONAL DISTRIBUTOR NETWORK.

The implementation of the Selecta group of companies in diverse markets has consolidated the penetration of our brand in more than 100 countries, confirming customer belief in our product quality.

"Every language is a world vision."
Keyserling Hermann. (1880-1946)

Greeting

I am pleased to present this new 2026-2029 catalog, coinciding with the celebration of the 77th anniversary of our company's foundation.
In 1949, my father, Joaquín Puig, founded the company, and by following his example of entrepreneurial and innovative character, we have kept his spirit alive to continue his business development project.

Since its inception, our organizational structure has been focused on the design, development, and manufacturing of equipment for chemical, clinical, pharmaceutical, and biotechnological laboratories, as well as for the food industry.

We remain committed to consolidating our presence in the Spanish market and expanding our international reach.T
he Group's commercial strategy has been centered on the continuous update of our website www.grupo-selecta.com and the publication of this catalog, which includes numerous improvements and significant updates to our products.
Additionally, we introduce new equipment featuring advancements in communication and data acquisition.

We are at your disposal to assist in the interpretation of this General Catalog 2025-2028, in line with our commitment to the strategic communication plan.

Your faithfully,

Jordi Puig Herrera
Managing Director of Selecta Group

General information

INFORMATION

1. The apparatus presented in this catalogue is designed specifically for the application intended. Contact us for confirmation of suitable use in any other distinct application.
2. In accordance with existing standards. All tests on our equipment are completed at an ambient temperature of 20 °C.
3. For correct, installation, use and maintenance of our equipment read all the instructions before use.
4. J. P. Selecta SA reserves the right to modify some of the parameters or characteristics of the equipments described in this catalog, in order to improve their benefits or adapt them to changing current regulations at all times.

VOLTAGES AND FREQUENCY

5. Unless stated otherwise in the catalogue, our equipment is manufactured to be connected to the mains as:
   - Single phase 230-V ±10% 50 Hz.
   - Three phase 230/400V ± 10% 50 Hz.
6. If required other voltages and frequencies can be supplied. In some application the power can be modified.
7. Heating equipment without motors can operate on both 50 and 60 Hz.
8. In all cases where different voltages, frequencies and plugs type are requested. Written confirmation will be required before order acceptance, otherwise standard power and Schuko plug will be supplied.

CALIBRATION

9. If required certificates of calibration can be supplied that are traceable to known certified standards.

ACCESSORIES AND SPARES

To maintain the equipment to the original specification and design, it is important that genuine J.P. Selecta spares be used. In the case that original spares are not used, J.P. Selecta are not responsible for any damage or anomaly caused.

OUR WEBSITE

Discover all our new developments by connecting to our Web site:

https://grupo-selecta.com/en/

You can see and match to your requirements all of our equipment and products.

OUR GUARANTEE

We guarantee the supply of spare parts for the life time of the production of the model manufactured.

Image showing our technical services department still repairing equipment manufactured in the 1970's

Quality Control Systems

J.P. Selecta complies with the obligatory controls and regulations related to the safety of electrical equipment, the measurement and control within the laboratory, and the completion of the standards and CE directives that affect the manufacturer of our equipment.

ELECTRICAL SAFETY DIRECTIVE 2014/35/EU.
ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/EU.
PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU.

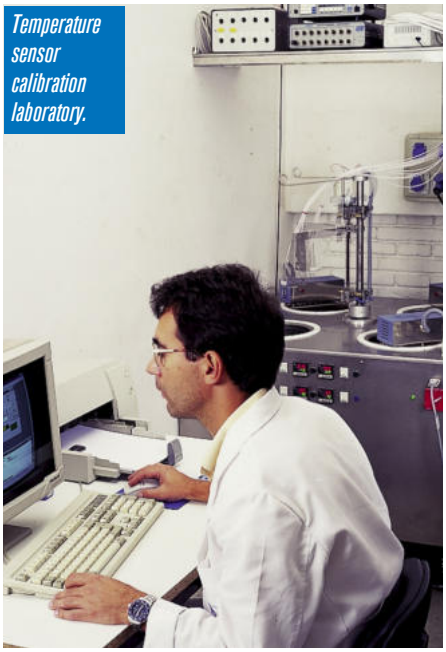
Details of Standards and directives:

UNE-EN 61010-1	General requirements.
UNE-EN 61010-2-010	Required for the particular use of heated laboratory equipment and materials.
UNE-EN 61010-2-020	Particular requirement for laboratory centrifuges.
UNE-EN 61010-2-041	Requirement for Autoclaves that use steam vapour for the treatment of materials used within medicine and laboratory processes.
UNE-EN 61010-2-051	Particular requirement for shaking and mixing equipment.
UNE-EN 61010-2-081	Particular requirement for automatic or semiautomatic laboratory equipment for analy sis and other purposes.
UNE-EN 61010-2-040	Particular requirements for used sterilizers and washing and disinfection equipment.
UNE-EN 61326	Requires electromagnetic compatibility.

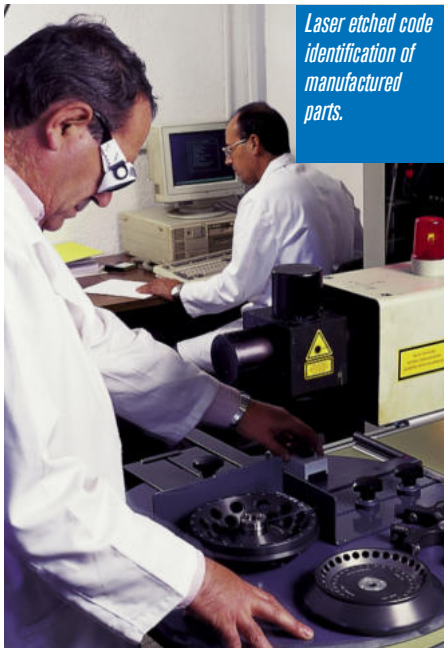
TÜVNORD
TÜV NORD CERT GmbH
ISO 9001
tuev-nord.de

Certificate of registration TÜV for the design, production, commercialisation and post sales service of :ovens, centrifuges, stirrers, thermostatic immersion baths, ultrasonic baths, hotplates and blocks, digesters, Kjeldahl steam distillations, fat, fibre and alcohol extractors, refrigerators, freezers and environmental cabinets.

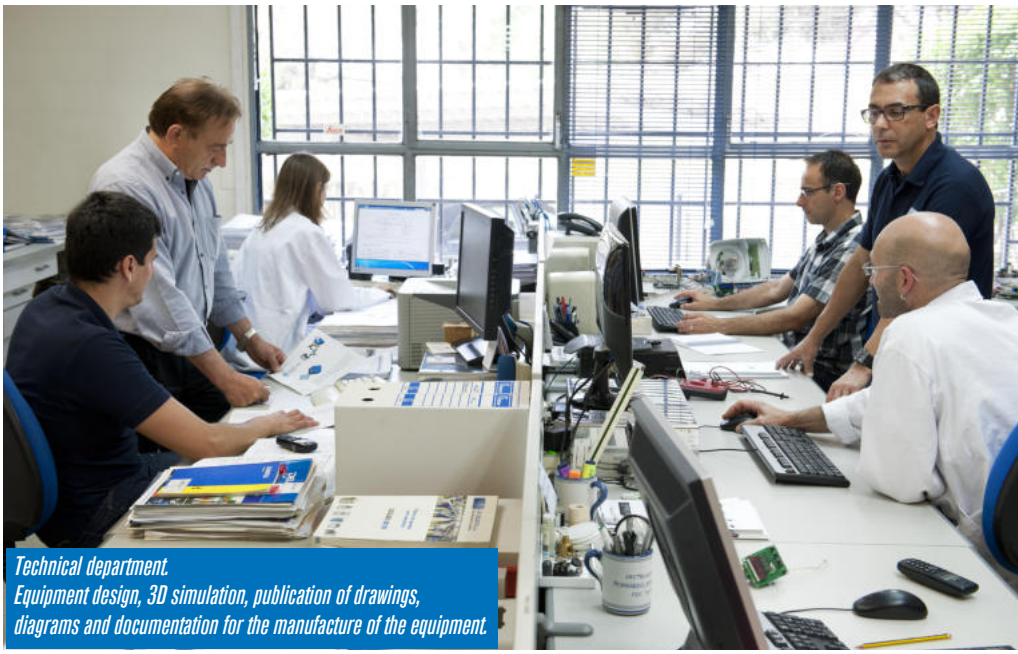
Quality control is completed on 100% of instruments manufactured.



Temperature sensor calibration laboratory.



Laser etched code identification of manufactured parts.



Technical department.
Equipment design, 3D simulation, publication of drawings, diagrams and documentation for the manufacture of the equipment.

TÜVNORD

Certificate

TÜVNORD
TÜV NORD CERT GmbH
ISO 9001
tuev-nord.de

Management system as per
ISO 9001:2015

The Certification Body TÜV NORD CERT GmbH hereby confirms as a result of the audit, assessment and certification decision according to ISO/IEC 17021-1:2015, that the organization

J.P. SELECTA, S.A.U.
Crta N-II, km 585,1
08630 / Abrera (Barcelona)
Spain

operates a management system in accordance with the requirements of ISO 9001:2015 and will be assessed for conformity within the 3 year term of validity of the certificate.

Scope

The design, production, marketing and after-sales service of ovens, centrifuges, autoclaves, stirrers, immersion thermostats, thermostatic baths, distillers, ultrasonic baths, heating plates, heating blankets, digester blocks, kjeldahl distillers, fat extractors, fiber extractors, oenological distillers, refrigerated cabinets for blood bags, refrigerated ovens, freezer cabinets. Marketing of medical devices for in vitro diagnostics.

Certificate Registration No. 44 100 23510054
Audit Report No. 240212

Valid from 09.10.2024
Valid until 08.10.2027

Madrid, 26.09.2024

Certification Body at TÜV NORD CERT GmbH

TÜV NORD CERT GmbH
Am TÜV 1, 45307 Essen
www.tuev-nord-cert.com

DAkkS Deutsche Akkreditierungsstelle D-ZM-12007-01-00

TÜV®

Calibration certificate

TRACEABLE STANDARDS TO ENAC.

On request, we can supply calibration certificates of the working conditions of the instruments before they leave the factory. These certificates can be used for OQ, IQ validations and for equipment that needs to comply to a ISO9000 quality system.

These certificates can be produced for Ovens, Incubators, Refrigerated products, Autoclaves, Baths ,Inmersion thermostats, furnaces, etc. instrument that require a temperature measurement by realising several temperature sensors and readings to obtain the probable temporal and spatial uncertainty.

Note: Consult for other types of equipment.

Part No. 1001738 **Calibration certificate, 2 points.**

The calibration certificate has been completed based on two measuring points. This means to the user that the requested certificate should indicate two temperatures at which the effective calibration should be completed. For more than two measuring point please consult J.P. Selecta.

When requesting the certificate full details of the company and address can be included in the certificate information.

Note: When asking for a certificate, please indicate data (company name and address) for its validity.

EXAMPLE OF CALIBRATION CERTIFICATE OF BACTERIOLOGICAL AND CULTURES OVEN:

Nº de certificado
Nº de certificado

CERTIFICADO DE CALIBRACIÓN
Certificate of calibration
IM-144

CT - 1944

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Ctra. NII Km. 585,1
08630 Abrera (Barcelona)
SPAIN
Tel.: 34 93 770 08 77
Fax.: 34 93 770 23 62

J.P. SELECTA, s.a.
Laboratorio de calibración
Calibration laboratories

INSTRUMENTO: *Instrument:* Estufa de Cultivos

FABRICANTE: *Manufacturer:* J.P. SELECTA, s.a.

MODELO: *Type:* INCUBIG

CODIGO: *Code:* 2000237

NUMERO DE SERIE: *Serial number:* 123456

PETICIONARIO: *Customer:* Xxxxxx Xxxxxx
Xxxxxxxx

OBSERVACIONES: *Notes:* Xxxxxxxx Xxxxxxxx Xxxxxxxxx

FECHA DE CALIBRACIÓN: *Calibration date:* 26-sep-06

Firma autorizada: *Autorized signatory:*

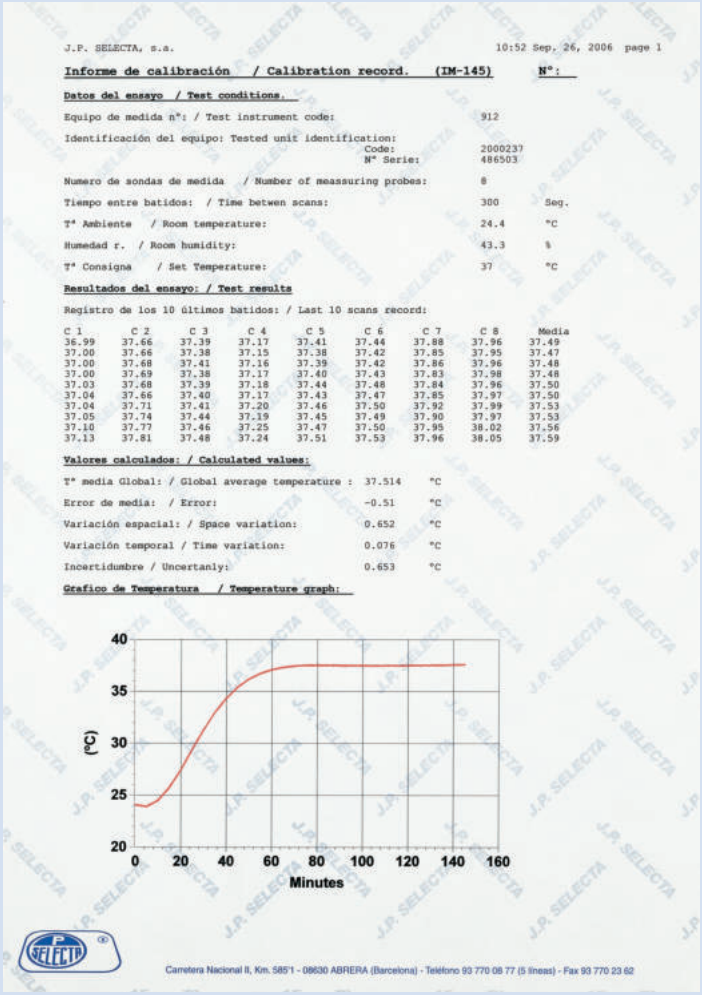
Fecha de emisión: *Date of issue:* 26-sep-06

D. Pecanins
Rble. Técnico del laboratorio

El laboratorio de calibración de J.P. SELECTA, s.a. ha utilizado exclusivamente equipo trazables a patrones internacionalmente reconocidos para elaborar este certificado.

The calibration laboratory of J.P. SELECTA, s.a. certifies that all instruments used to do this certificate are trazable to international standards

Carretera Nacional II, Km. 585'1 - 08630 ABRERA (Barcelona) - Teléfono 93 770 08 77 (5 líneas) - Fax 93 770 23 62



J.P. SELECTA, s.a. 10:52 Sep, 26, 2006 page 1

Informe de calibración / Calibration record. (IM-145) **Nº:**

Datos del ensayo / Test conditions.

Equipo de medida nº: / Test instrument code: 912

Identificación del equipo: Tested unit identification:
Code: 2000237
Nº Serie: 486503

Numero de sondas de medida / Number of measuring probes: 8

Tiempo entre batidos: / Time betwen scans: 300 Seg.

Tª Ambiente / Room temperature: 24.4 ºC

Humedad r. / Room humidity: 43.3 %

Tª Consigna / Set Temperature: 37 ºC

Resultados del ensayo: / Test results

Registro de los 10 últimos batidos: / Last 10 scans record:

C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	Media
36.99	37.66	37.39	37.17	37.41	37.44	37.88	37.96	37.49
37.00	37.66	37.38	37.15	37.38	37.42	37.85	37.95	37.47
37.00	37.68	37.41	37.16	37.39	37.42	37.86	37.96	37.48
37.00	37.69	37.38	37.17	37.40	37.43	37.83	37.98	37.48
37.03	37.68	37.39	37.18	37.44	37.48	37.84	37.96	37.50
37.04	37.66	37.40	37.17	37.43	37.47	37.85	37.97	37.50
37.04	37.71	37.41	37.20	37.46	37.50	37.92	37.99	37.53
37.05	37.74	37.44	37.19	37.45	37.49	37.90	37.97	37.53
37.10	37.77	37.46	37.25	37.47	37.50	37.95	38.02	37.56
37.13	37.81	37.48	37.24	37.51	37.53	37.96	38.05	37.59

Valores calculados: / Calculated values:

Tª media Global: / Global average temperature : 37.514 ºC

Error de media: / Error: -0.51 ºC

Variación espacial: / Space variation: 0.652 ºC

Variación temporal / Time variation: 0.076 ºC

Incertidumbre / Uncertanly: 0.653 ºC

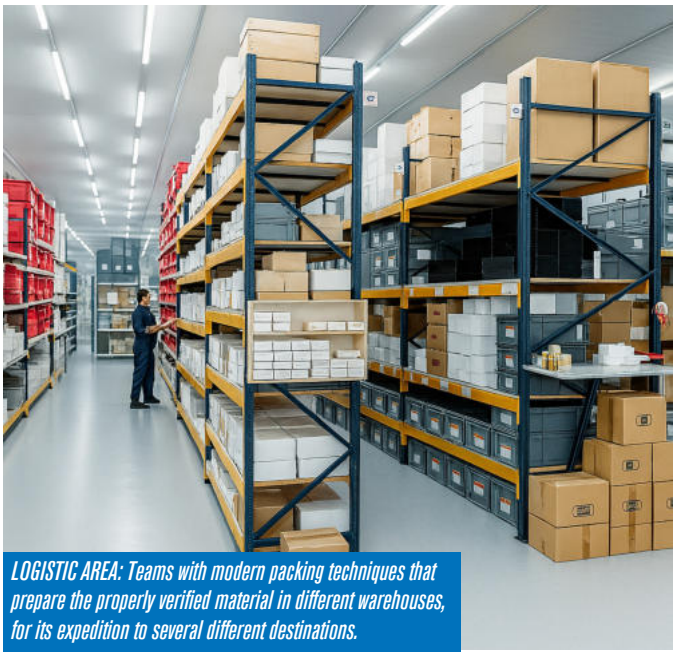
Grafico de Temperatura / Temperature graph:

Carretera Nacional II, Km. 585'1 - 08630 ABRERA (Barcelona) - Teléfono 93 770 08 77 (5 líneas) - Fax 93 770 23 62

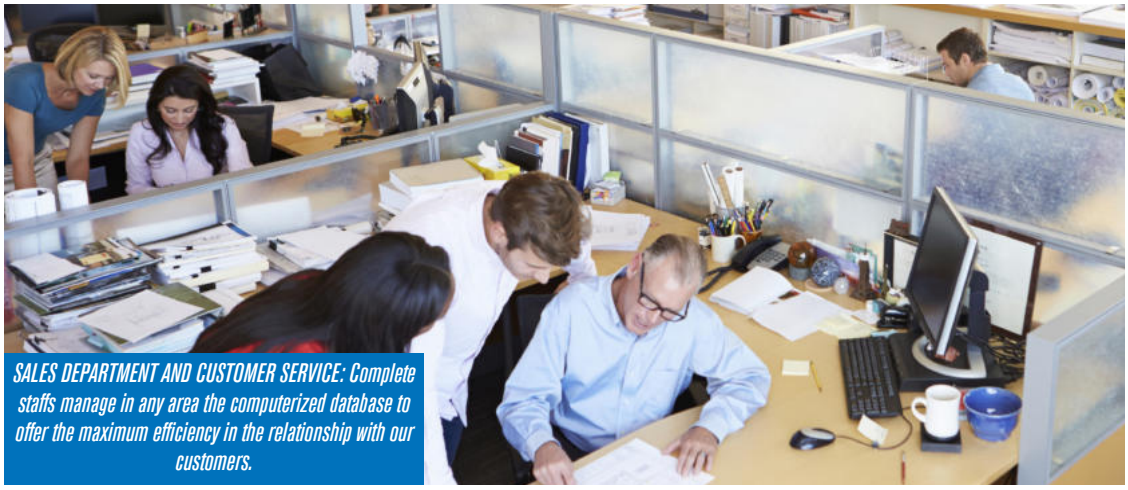
Activity Areas

Process and quality control laboratories.

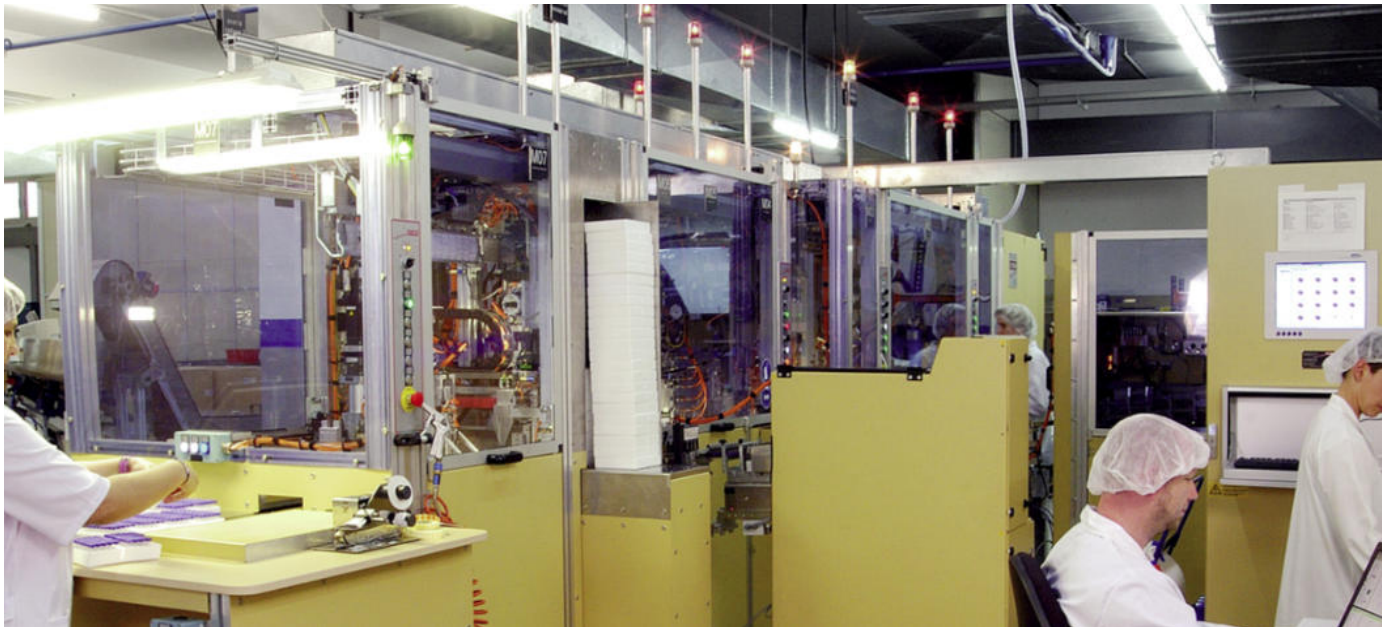
WAREHOUSE: Large computerized plants that allow stock knowledge at any time and immediate distribution of components and finished products.



LOGISTIC AREA: Teams with modern packing techniques that prepare the properly verified material in different warehouses, for its expedition to several different destinations.



SALES DEPARTMENT AND CUSTOMER SERVICE: Complete staffs manage in any area the computerized database to offer the maximum efficiency in the relationship with our customers.



Pressurized and acclimatized room with sophisticated serial production automatisms.

Most important news

AUTOCLAVE ST DRY-S
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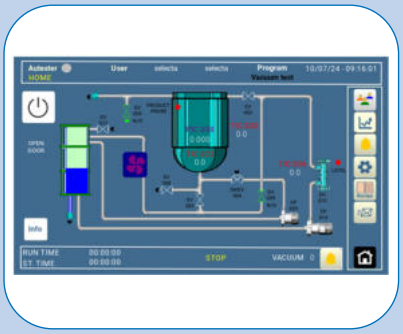
PERISTALTIC METERING PUMP
Page. 47

VACUUM DEWATERING OVENS
Page.154



NEW TOUCHSCREENS
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CONDUCTIMETERS AND PH-METERS
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PLASMA DE-ICER
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ULTRASONIC HOMOGENIZER
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TABLETOP AUTOCLAVE
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FRIGITERM-TFT-S CIRCULATION CRYOCOO-LER-THERMOSTATS
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ULTRA-FREEZER GR -86
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REFRIGERATED CABINETS
Page. 74 and 75

CIRCULATION CHILLERS
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FIXATION AND CONCENTRATION OF FECAL PARASITES
Page. 324

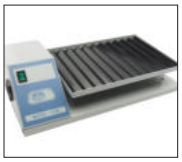
MIXING SCALE
Page. 87

TUBES FOR PEDIATRICS
Page. 320

GENERAL INDEX BY INSTRUMENT TYPE

COLOUR IDENTIFICATION

STIRRERS



Magnetic, Orbital, Tilting, Shaker, Roller, Rocking, Orbital Incubator, Homogeneizers, Grinding Mills,...

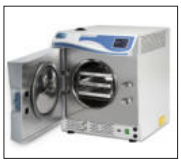
Pages 23 to 44

EVAPORATORS AND PUMPS

Rotary Evaporator, Vacuum, Peristaltic, Membrane, Centrifugal,...

Pages 45 to 52

AUTOCLAVES



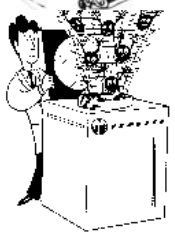


Table Top, Vertical, Class B, Bag Sealer,...

Pages 53 to 70

LOW TEMPERATURE

Refrigerated Cabinets, Freezers,...

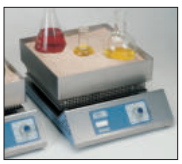
Pages 71 to 82

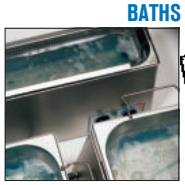
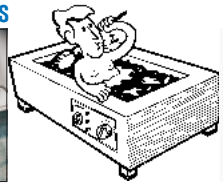
HAEMATOLOGY

Blood banks, shakers, Incubators, refrigerators, plasma bags defrosters,...

Pages 83 to 88

BATHS

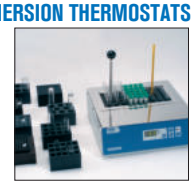
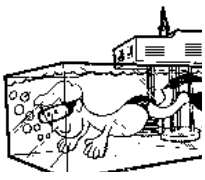


Water, Oil, Reciprocal Shaking, Dry-Blocks, Ultrasonic Cleaners,...

Pages 89 to 100

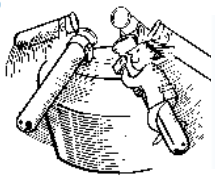
IMMERSION THERMOSTATS

Recirculation, Refrigerated, Cooling Coils,...

Pages 101 to 114

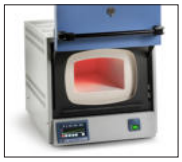
CENTRIFUGES



Digital Control, Brushless, Microprocessor Control, Refrigerated, Blood Bags,...

Pages 115 to 139

OVENS - INCUBATORS - FURNACES



Drying, Bacteriological, Vacuum, CO2, Low Temperature,...

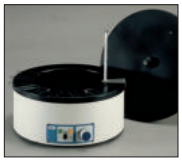
Pages 140 to 166

INSTRUMENTAL

Clamps, Stands, Spatulas, Racks, Burners, Stirrer Bars, Porcelain,...

Pages 167 to 211

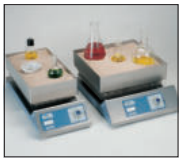
BIOLOGICAL ACCESSORIES



Biotechnology, Pipettes, Histology...

Pages 212 to 225

HEATING MANTLES AND HOTPLATES



For Flask, Tapes, Banks, Ceramic, Bath Sand,...

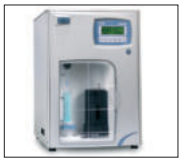
Pages 226 to 236

ANALYTICAL TECHNIQUES

Thermocyclers, Spectrophotometers, Colorimeters, pHmeters, Coductivitymeters,...

Pages 237 to 250

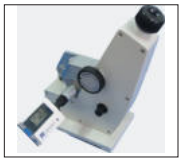
NUTRITIONAL AND WATER ANALYSIS



Digestors, Distillators, Extractors, Alcohol Distillation Unit, Flocculators, Water Distillers,...

Pages 251 to 271

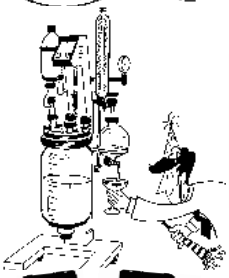
BALANCES - OPTICAL - MELTING POINT



Microscopes, Refractometers, Melting Point, Polarimeter,...

Pages 272 to 290

VARIOUS INSTRUMENTS - MONITOR AND CONTROL - VISCOMETERS - FILTERS



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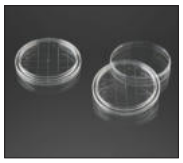
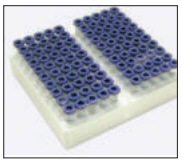

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STIRRERS, SHAKERS AND HOMOGENEIZERS

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I never did anything worth doing by accident, nor did any of my inventions come by accident; they came by work.
Thomas Edison

STIRRERS Stirrer and shaker summary table

QUICK OVERVIEW

MAGNETICS

Single Direction Stirring	Part No.	Controller	Volume max. litres	Heater	Controller Type	Range temperature °C	Range r.p.m.	Rapid Overview	Plate Ø cm
AGIMICRO	7001638	Analogue	2	No	-	-	40 / 1700	ABS	12
AGIMATIC-S	7000270	Analogue	10	No	-	-	60 / 1600	INOX	14.5
AGIMATIC-E	7000273	Analogue	10	Yes	Electronic/Temperature	...350	60 / 1600	INOX	14.5
AGIMAN	7000272	Analogue	2	Yes	Electronic/Energy	...350	60 / 1600	For Heating	Mantle
AGIMATIC-ED	7000280	Digital	10	Yes	Electronic/Temperature	...350	60 / 1600	INOX	14.5
KIT AGIMATIC-ED	7001512	Digital	10	Yes	Electronic/Temperature	...350	60 / 1600	INOX	14.5
AGIMATIC-ED-C	7000281	Digital	10	Yes	Electronic/Temperature	...350	60 / 1600	CERAMIC	14,5
Reversible stirring action									
AGIMATIC REV-TFT	7000837	TFT touch screen	10	Yes	Electronic/Temperature	...350	100 / 1600	INOX	14.5
AGIMATIC REV-TFT-C	7000838	TFT touch screen	10	Yes	Electronic/Temperature	...350	100 / 1600	CERAMIC	14,5
Multi- positions									
MULTIMATIC 5-S	7000951	Analogue	5 x 0.6	No	-	-	...1600	INOX	28 x 33
MULTIMATIC 9-S	7000952	Analogue	9 x 0.3	No	-	-	...1600	INOX	28 x 33
MULTIMATIC 5-N	7000953	Analogue	5 x 0.6	Yes	Electronic/Energy	...300	...1600	INOX	25 x 25
MULTIMATIC 9-N	7000954	Analogue	9 x 0.3	Yes	Electronic/Energy	...300	...1600	INOX	25 x 25

ROTARY & TILTING MIXERS

Tube Mixers	Part No.	Vol. max. litres	Heaters	Range r.p.m.	Capacity
ORBIT	3000445	5 x 0.25	No	12	See Tube Selection
MOVIL ROD	7001723	-	No	10 / 80	35 mm Ø max.
MOVIL TUB	7000913	-	No	15	12 Tubes
VORTEX-VIB	7001725	-	No	2800	See Tube Selection

VIBRATING SHAKER

Oscillating	Part No.	Max. Load	Heater	Capacity	Oscil. min.
VIBROMATIC	7000384	4 Kg	No	8 flasks of 50 mm Ø max. (optional + Erlenmeyer 250 ml)	100 / 950

ORBITAL TO - FRO SHAKERS

To & Fro & orbital movement	Part No.	Heater	Heater Type	Range temperature °C	Range r.p.m.	Platforms cm
ROTATERM	3000435	Yes	Electronic/Digital	...250	20/230	41x31
ROTABIT	3000974	No	-	-	20/230	According to accessories

MAGNETIC STIRRERS “AGIMATIC” AND “AGIMAN”

Cutting-edge technology
MAINTENANCE-FREE BRUSH LESS - DC MOTOR

COMMON FEATURES

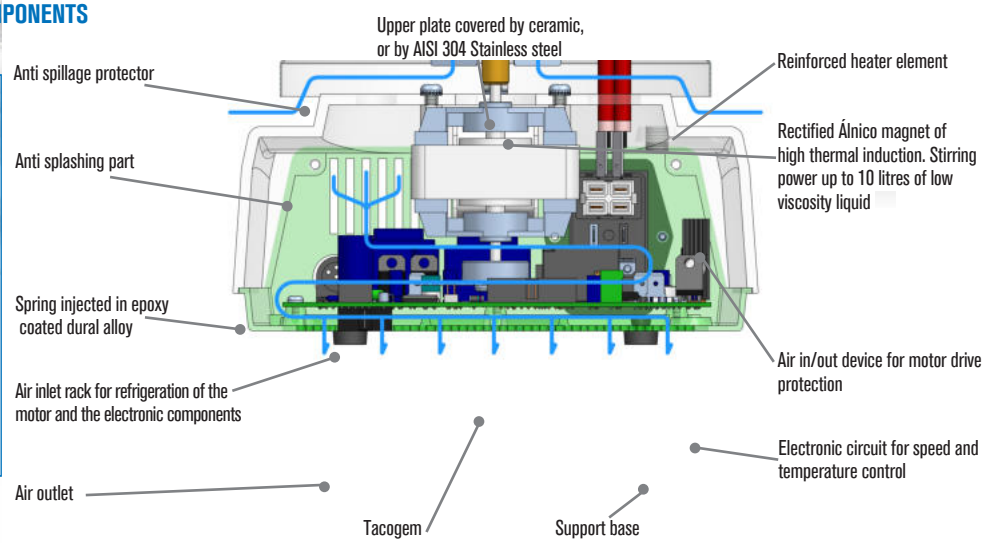
Unique functional design, with epoxy covered alloy case. Choice of stainless steel or ceramic top plate (model dependent). An internal case acts as a spill guard and insulator, made from AISI304 stainless steel. Tilted control panel for easy viewing with splash protection. Location hole at the back for a retort support rod, supplied as an accessory. Electronic speed control from 60 to 1500 r.p.m. and from 50 to 1500 r.p.m. for models “Agimatic Rev” with constant speed irrespective of liquid viscosity. Easy to service and to replace modular electronics. All heated models have a connection at the back to connect an electronic contact thermometer “Sensoterm II”, electronic controller “Electemp-TFT” or Pt100 temperature probe, model dependent. **Agimatic and Agiman exterior measures: Height 14.5, Width 19 and Depth 26 cm. Weight: 3,2 Kg.**
All hotplates have a safety over temperature cut out, set to the maximum working temperature.

TECHNICAL SCHEMATICS OF DIFFERENT COMPONENTS

ICONS OF THE DIFFERENT TEMPERATURE REGULATION SYSTEMS AND OPTIMUM STIR CONDITIONS.

Electronic contact thermometer “Sensoterm II”

Temperature sensor Pt100



Magnetic Stirrers “Agimatic” and “Agiman” analogue control

FOR SPEEDS FROM 60 TO 1500 rpm..
MAXIMUM STIR VOLUME: 10 LITRES.
PLATE MADE FROM AISI 304 STAINLESS STEEL WITH REMOVABLE SAFETY RING. PLATE Ø 14.5 cm.

“Agimatic-S” without heating

CONTROL PANEL

1. Mains switch illuminated.
2. Electronic stir speed control.

MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Power W	Weight Kg
AGIMATIC-S	7000270	**up to 10**	**14,5 19 26**	**90**	**3,5**

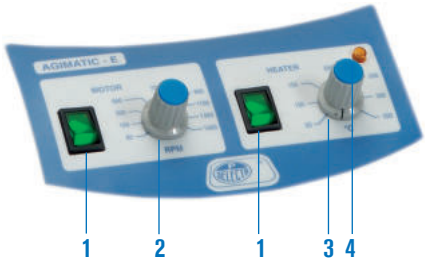
Supplied with a PTFE coated stir bar of Ø 8 x 40 mm long.

“Agimatic-E” with heating

ELECTRONIC TEMPERATURE CONTROL OF SPEED AND POWER TO THE HEATER.
FROM 50 °C TO 350 °C PRECISION ±2 °C.

CONTROL PANEL

1. Switch on button with indicator lamp for heating and for stirring speed.
2. Electronic stir speed control.
3. Electronic temperature control of the heater plate from 50 °C to 350 °C synchronised with an indicator lamp that functions when the plate is hot.
4. Illuminated heater indicator when the heater is “on”. Precision ±2 °C.



MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Power W	Weight Kg
AGIMATIC-E	7000273	**up to 10**	**14,5 19 26**	**550**	**3,2**

Supplied with a PTFE coated stir bar of Ø 8 x 40 mm long.

Complements for Agimatic-S-N-E and Agiman.
See accessories on page 31 and 32.

Magnetic stirrer “Agiman”

ELECTRONIC CONTROL OF SPEED AND POWER TO THE HEATER.
WITH A MECHANISM FOR ATTACHING HEATING MANTLES.

CONTROL PANEL

1.Switch on button with indicator lamp for heating and for stirring speed.
2.Electronic stir speed control.
3.Electronic heater energy control from 0-100%, synchronised with an indicator lamp that goes on when the mantle is hot.
4.Illuminated heater indicator when the mantle is “on”.

MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Weight Kg
AGIMAN	7000272	**up to 2**	**14,5 19 26**	**3,5**

Supplied with a PTFE coated stir bar of Ø 10 x 32 mm long.

ACCESSORIES

Attachable heating mantle for the “Agiman” magnetic stirrer.

Part No.	Capacity flask ml	Power W
3000457	250	130
3000458	500	270
3000459	1000	410
3000460	2000	530

Complements for Agimatic-S-N-E and Agiman.
See accessories on page 31 and 32.

Magnetic Stirrers “Agimatic-ED” and “Agimatic-ED-C” digital control

FOR SPEEDS FROM 60 TO 1500 RPM.
FOR ADJUSTABLE TEMPERATURES FROM 50 °C TO 350 °C (200 °C WITH EXTERNAL PROBE). PRECISION ±2 °C.
MAXIMUM STIR VOLUME: 10 LITRES.
PLATE Ø IS 14,5 cm.
WITH RENOVABLE SAFETY RING AGAINST SPILLAGE.

“Agimatic-ED” with heating

ELECTRONIC TEMPERATURE CONTROL OF SPEED AND POWER TO THE HEATER.

SILUMIN UPPER PLATE COVERED BY AISI 304 STAINLESS STEEL.

CONTROL PANEL

1. Digital display indicating stir speed or temperature.
2. Push button, parameter selector, Stir speed or Temperature.
3. Push button, increase parameter value.
4. Push button, decrease parameter value.
5. Indicator lamp, safety thermostat “on”
6. Push button Stop-Start

Precision ±2 °C.

MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Power W	Weight Kg
AGIMATIC-ED	7000280	**up to 10**	**14,5 19 26**	**550**	**3,5**

Supplied with a PTFE coated stir bar of Ø 8 x 40 mm long.

Complements for Agimatic-ED and Agimatic ED-C.
See accessories on pages 31 and 32.

“Agimatic-ED-C” with heating

ELECTRONIC TEMPERATURE CONTROL OF SPEED AND POWER TO THE HEATER.

SILUMIN UPPER PLATE WITH CERAMIC SURFACE.

CONTROL PANEL

1. Digital display indicating stir speed or temperature.
2. Push button, parameter selector, Stir speed or Temperature.
3. Push button, increase parameter value.
4. Push button, decrease parameter value.
5. Indicator lamp, safety thermostat “on”
6. Push button Stop-Start

Precision ±2 °C.

MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Power W	Weight Kg
AGIMATIC-ED-C	7000281	**up to 10**	**14,5 19 26**	**550**	**3,5**

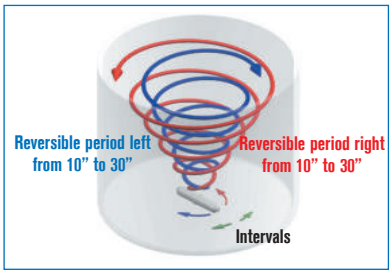
Supplied with a PTFE coated stir bar of Ø 8 x 40 mm long.

Ceramic surface:
Excelent conducitity and heat distribution.
Unalterable surface.
Higher acceleration to reach temperature.
Extreme resistance against chemical agents and scratches.

Complements for Agimatic-ED and Agimatic ED-C.
See accessories on pages 31 and 32.

Reversible magnetic Stirrers “Agimatic-Rev-TFT” and “Agimatic-Rev-TFT-C”

Forefront technology with TFT touch screen
MAINTENANCE-FREE BRUSH LESS - DC MOTOR



FOR SPEEDS FROM 100 TO 1500 rpm.
FOR ADJUSTABLE TEMPERATURES FROM 30 °C TO 350 °C. PRECISION ±2 °C.
MAXIMUM STIR VOLUME: 10 LITRES. PLATE Ø IS 14,5 cm.
MAGNETIC REVERSIBLE ACTION STIRRERS, WITH ADJUSTABLE TIME STIRRING PERIODS AND PRECISE SPEED CONTROL, PROVIDES THE FOLLOWING ADVANTAGES FOR REPEAT PROCESSES:
A.- FASTER MIXING, REDUCED STIRRING TIME. B.- CONTROLLABLE VORTEX EFFECT. C.- QUICKLY ELIMINATES AIR FROM WITHIN THE SAMPLE MIXTURE, DEGASSING. D.- MINIMUM SPLASHING, NO LOSS OF SAMPLE.
SELECT MOVEMENT FOR ONE DIRECTION OR REVERSE.
ELECTRONIC CONTROL OF THE FREQUENCY INVERTING PERIOD, FROM 10-30 SECONDS.
MEMORY UP TO 10 WORKING PROGRAMS. AUTOMATIC CYCLES UP TO 6 SEGMENSTS WITH TEMPERATURE PROGRAMMING, RPM AND TIME.

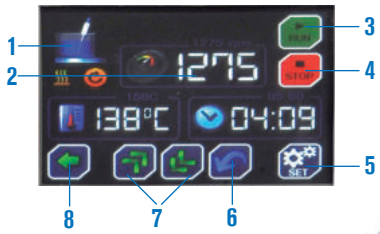
“Agimatic-Rev-TFT” with heating

ELECTRONIC DIGITAL CONTROL OF STIR SPEED AND HEATER TEMPERATURE.
WITH REMOVABLE SAFETY RING AGAINST SPILLAGE.

SILUMIN UPPER PLATE COVERED BY AISI 304 STAINLESS STEEL.

CONTROL PANEL

1. Probe position indicator.
2. rpm, temperature and time reading.
3. Start up.
4. Stop.
5. Settings.
6. Backward.
7. Increase/decrease parameters value.
8. Cursor.



MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Power W	Weight Kg
Agimatic-Rev-TFT	7000837	**up to 10**	**14,5 19 26**	**550**	**3,5**

Supplied with a PTFE coated stir bar of Ø 8 x 40 mm long.

Complements for Agimatic-Rev-TFT and Rev-ED-C
see accesories on pages 31 and 32.

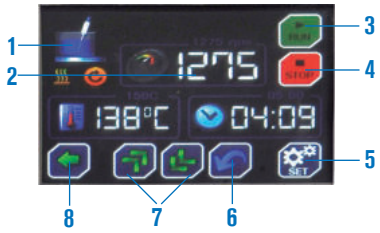
“Agimatic-Rev-TFT-C” with heating

ELECTRONIC DIGITAL CONTROL OF STIR SPEED AND HEATER TEMPERATURE.
WITH REMOVABLE SAFETY RING AGAINST SPILLAGE.

SILUMIN UPPER PLATE WITH CERAMIC SURFACE.

CONTROL PANEL

1. Probe position indicator.
2. rpm, temperature and time reading.
3. Start up.
4. Stop.
5. Settings.
6. Backward.
7. Increase/decrease parameters value.
8. Cursor



MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Power W	Weight Kg
Agimatic-Rev-TFT-C	7000838	**up to 10**	**14,5 19 26**	**550**	**3,5**

Supplied with a PTFE coated stir bar of Ø 8 x 40 mm long.

Ceramic surface:
Excelent conducitity and heat distribution.
Unalterable surface.
Higher acceleration to reach temperature.
Extreme resistance against chemical agents and scratches.

Complements for Agimatic-Rev-TFT and Rev-ED-C
see accesories on pages 31 and 32.

Complete KIT stirrer Agimatic-ED with support rod and temperature sensor PT100. With heating

SUPPLIED COMPLETE WITH SUPPORT ROD, TEMPERATURE SENSOR PT100, CLAMP AND STIR BAR.
ELECTRONIC TEMPERATURE CONTROL OF SPEED AND POWER TO THE HEATER.
SILUMIN UPPER PLATE COVERED BY AISI 304 STAINLESS STEEL.

CONTROL PANEL

1. Digital display indicating stir speed or temperature.
2. Push button, parameter selector, Stir speed or Temperature.
3. Push button, increase parameter value.
4. Push button, decrease parameter value.
5. Indicator lamp, safety thermostat "on"
6. Push button Stop-Start

Precision ±2 °C.

INCLUDED

Support rod with thread of 12 mm Ø x 500 mm high, stirrer dependent, attaches to the main body of the stirrer.
Temperature sensor Pt100. Controls the sample temperature in the digital hotplate stirrers.
Immersion Probe: 4mm Ø x 130 mm long.
Cable connector 150 cm long.
Clamp with bosshead , "AUTOMATIC" Chrome coated alloy with screw closure.
For Ø from 0 to 25mm.

MODEL

	Part No.	Maximum stir volume litres	Height/width/Depth (exterior) cm	Power W	Weight Kg
KIT	7001512	**up to 10**	**14,5 19 26**	**550**	**3,2**

Supplied with a PTFE coated stir bar of Ø 8 x 40 mm long.

Magnetic stirrer "Agimicro" without heating

FEATURES

Maximum stir volume: 2 Litres.
Adjustable stir speed from 40 to 1700 r.p.m.
Durable moulded ABS plastic body.
Excellent chemical resistance.

CONTROL PANEL

Mains switch with luminous "on" indicator.
Analogue control of speed in r.p.m.

MODEL

Part No.	Height cm	Ø Plate cm	Power W	Weight Kg
7001638	**5**	**12**	**3**	**0.5**

Comes complete with a 8 Ø x 32 mm P.T.F.E. coated stir bar.

ACCESSORIES

Support bar and electrode clamp (1 of 13 and 2 of 16 mm Ø).
Used with pH and conductivity meters.
Part No. 7001639

Multiple position magnetic stirrers “Multimatic”

COMMON FEATURES

External plate made from AISI 304 stainless steel with engraved stirrer positions.
Independent stirring speed control for each position.
Front panel protected against splashes.
Models 5-S and 5-N: Suitable for 5 flasks, 600 ml max. (max. Ø 90 mm).
9-S and 9-N: Suitable for 9 flasks, 300 ml max. (max. Ø 75 mm).
Epoxy coated external case.

APPLICATIONS

Specially recommended for bio-pharmaceutical diagnostic assays.

Stirrers “Multimatic” 5-S and 9-S without heating

FOR 5 AND 9 POSITIONS.

CONTROL PANEL

Illuminated mains switch.
Individual position stir speed control.

MODELS

	Part No.	Height / Width / Depth (exterior) cm	Width / Depth (plate) cm	Speed control r.p.m.	Maximum stir volume ml	Power W	Weight Kg
MULTIMATIC 5-S	7000951	11 28 35	28 33	Up to 1600	5 x 600	16	7
MULTIMATIC 9-S	7000952	11 28 35	28 33	Up to 1600	9 x 300	27	9

Comes complete with a 5 or 9 mm stir bar, model dependent covered in PTFE of 8 Ø x 32 mm long.

ACCESSORIES

Transparent methacrylate bath.
Fits onto the non heating stir plate of the “Multimatic” 5-S y 9-S
The bath can withstand temperatures up to 60 °C.
See section immersion Thermostats .

Part No.	Capacity litres	Height / Width / Depth (exterior) cm	Weight Kg
1001007	14	16 30 55	4

Hotplate stirrers “Multimatic” 5-N y 9-N with heating

FOR 5 AND 9 POSITIONS, OVER TEMPERATURE SAFETY THERMOSTAT FITTED.

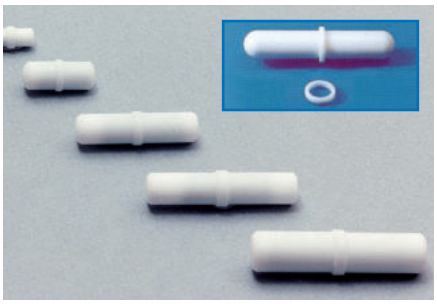
CONTROL PANEL

Mains illuminated power switch.
Individual speed control for each position.
Electronic heater energy control from 0-100% synchronised with an indicator lamp when the heater is on.

MODELS

	Part No.	Height / Width/ Depth (exterior) cm	Width / Depth (plate) cm	Maximum temperature °C	Speed control r.p.m.	Maximum stir volume ml	Heater Power W	Total Power W	Weight Kg
MULTIMATIC 5-N	7000953	16 28 35	25 25	200	Up to 1600	5 x 600	680	700	12
MULTIMATIC 9-N	7000954	16 28 35	25 25	200	Up to 1600	9 x 300	680	700	14

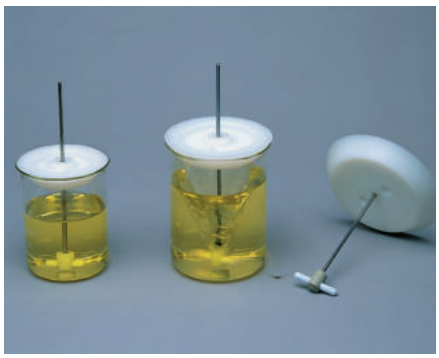
Comes complete with a 5 or 9 mm stir bar, model dependent covered in PTFE of 8 Ø x 32 mm long.



Stir-bars followers for magnetic stirrers.
Encased in PTFE with pivot ring, temperature resistant to +275 °C.
Part No.

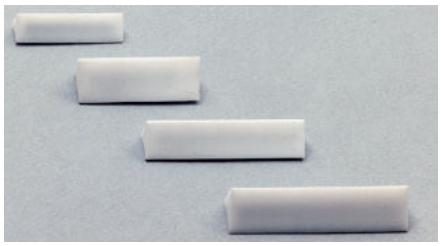
1000009	6 Ø x 10 mm long.	without pivot ring.
1000012	4 Ø x 12 mm long.	without pivot ring.
1000019	7 Ø x 20 mm long.	with pivot ring.
1000032	8 Ø x 32 mm long.	with pivot ring.
1000039	8 Ø x 40 mm long.	with pivot ring.
1000045	10 Ø x 45 mm long.	with pivot ring.
1001061*	12 Ø x 75 mm long.	with pivot ring.
1001062*	16 Ø x 102 mm long.	with pivot ring.
1001063*	16 Ø x 127 mm long.	with pivot ring.
1001064*	19 Ø x 150 mm long.	with pivot ring.

* With pivot ring for large volumes.



Concentric stir-bar with beaker cover "CENTRIMAN".
Encased in P.T.F.E. with an adjustable axis bar made of AISI 304 stainless steel. Suitable for applications with volumes of 100 to 2000 ml.
Soft start stirring and adjustable height prevents the stir-bar jumping inside the vessel.
Conical fitting lid of polypropylene with excellent chemical and thermal properties that resists temperatures up to 160 °C. The lid has an auto-lubricating central axis hole with two lateral air displacement holes.
Part No.

1000900	Concentric stir-bar with conical fitting lid for beakers volumes of 100 ml. to 500 ml. Length 32 mm.
1000901	Concentric stir-bar with conical fitting lid for beakers volumes of 500 ml. to 1000 ml. Length 50 mm.
1000902	Concentric stir-bar with conical fitting lid for beakers volumes of 1000 ml. to 2000 ml. Length 55 mm.



Triangular stir-bar "TRIMAG".
Encased in heat resistant PTFE of temperatures up to 275 °C. useful for "dissolving solids" and stirring silts. Liquids flow upwards as well as sideways. Quiet with excellent stability. Suitable for flat bottomed vessels.
Part No.

1000536	9 side x 35 mm long.
1000537	14 side x 40 mm long.
1000538	12 side x 50 mm long.
1000539	14 side x 55 mm long.

Starhead stir bar.
Circular, encased in heat resistant PTFE for temperatures up to 275 °C. Useful for tubes, flasks and round bottom vessels.
Part No.

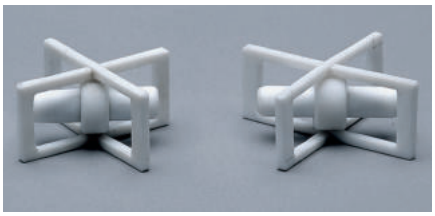
1000790	25 Ø x 15 mm height.
1000791	40 Ø x 17 mm height.

Box of 17 assorted stir bars.
Encased in temperature resistant PTFE for temperatures up to 275 °C.
Contents:
1 stir-bar with pivot ring 6x10 mm.
1 stir-bar with pivot ring 4 x12 mm.
1 stir-bar with pivot ring 7x20 mm.
2 stir-bars with pivot ring 8x32 mm.
2 stir-bars with pivot ring 8x40 mm.
2 stir-bars with pivot ring 10x45 mm.
1 triangular stir-bar of 9x35 mm.
1 triangular stir-bar of 14x40 mm.
1 triangular stir-bar of 12x50 mm.
1 triangular stir-bar of 14x55 mm.
1 stir-bar Rotor-Pat of 11x35 mm.
1 oval stir-bar of 16x30 mm.
1 oval stir-bar of 20x40 mm.
1 star head stir-bar of 20x15 mm.
1 star head stir-bar of 40x17 mm.
Part No. 1000487

Stir Bar "ROTOR-PAT".
Encased in PTFE useable up to temperatures of 275 °C.
Excellent stability with strong vortexing turbulence, useful for round bottom or convex bottom flasks.
Part No.
1000001 10 Ø max. x 32 mm long.

Oval stir bar, coated with PTFE, resistant to high temperatures of up to +275 °C. Can be used for all types, including round bottom vessels.

Part No.
1000788 16 Ø x 30 mm long.
1000789 20 Ø x 40 mm long.



Floating magnetic stir-bar "IMANFLOTER".
Encased completely in PTFE Dismountable structure, autoclavable. Designed specifically for low constant speed stirring. Recommended for tissue culture applications. The floating conception of the Imamfloter minimises the grinding effect of cell damage as there is no friction on the bottom of the flask.
Medium speed levels prevent the IMANFLOTER from jumping within the vessel.

Part No.	Total length	Stir bar length
1000897	50 mm	39 mm
1000898	60 mm	45 mm

Stir-bar retriever.
Flexible, encased in PTFE.
Part No.
1000020 Length: 280 mm.

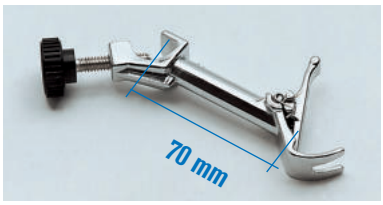
Electronic contact thermometer with digital readout "Sensoterm II".
Complete with AISI 304 stainless steel sheathed Pt1000 temperature sensor
FEATURES:
Conceived and designed as external sensor probe, where the controller is away from the measuring temperature zone of heat and vapour. The advantages over a contact thermometer means additional safety, no broken glassware or mercury spills.
SPECIFICATION
Temperature range from: -50 °C to +300 °C.
Temperature sensor : 3.5 Ø x 250 mm immersion.
Stability: 1 °C ±1 digit
Resolution: 1 °C.
Temperature display: LCD 8 mm.
Working environment: 0 to 60 °C and relative humidity up to 80 %.
Dimensions: 130 high x 71 wide x 24 mm deep (without probe)

Identification ICON

Part No. 1001009

Support rod with thread of 12 mm Ø x 500 mm high, stirrer dependent, attaches to the main body of the stirrer.
Part No. 1000725

Temperature controller Electemp-TFT.
FEATURES:
P.I.D. digital temperature controller. User configurable microprocessor of function parameters.
Temperature measurement range: -150 °C to 1300 °C.
Temperature regulation: from ambient +5 °C to 1300 °C.
Sensor options: Pt100 or Thermo resistor K type probe.
See page 303.
SPECIFICATION:
Stability: ±0.1 °C.
Resolution: ±0.1 °C Pt 100 /±1 °C K Type probe.
Operation: P.I.D.
AUTOTUNING. Adapts automatically to the working medium (Solid, liquid or gas.)
Dimensions: 10.5 high x 13.5 wide x 21cm deep.
Maximum power (at 230 V): 3100 W.
Weight: 1.250 Kg
Part No. 3000897
ACCESSORIES:
Probe Pt100 Part No. 1000893
Probe K Type. Part No. 1000895



Clamp with bosshead , "AUTOMATIC"
Chrome coated alloy with screw closure.
For Ø from 0 to 25mm.
Part No. 7000251

Temperature sensor Pt100. Controls the sample temperature in the digital hotplate stirrers.
Immersion Probe: 4mm Ø x 130 mm long.
Cable connector 150 cm long.

Identification ICON

Part No. 1001610 for 7000280 and 7000281.
Part No. 1000893 for 7000837 and 7000838.

Adapters for round flasks of 250, 500, 1000 and 2000 ml.
Made of Aluminium alloy. Suitable for the stirrers with a Ø greater than 14.5 cm.
Maximum adapter temperature 250 °C.
Part No.
1001712 250 ml flasks.
1001718 500 ml flasks.
1001719 1000 and 2000ml flasks.

Mixer shaker for tubes "Vortex-Vib"

SHAKE BY MIXER HEAD.

Strong and economic.

FEATURES
With stirring selector by pressure, or fixed in continuous. Starting switch, 4 interchangeable platforms for multiple tubes and 50 ml flasks. Base with 4 suction cups for full adherence.

MODEL

Part No.	Frequency r.p.m.	Height /Width /Depth (exterior) cm	Power W	Weight Kg
7001725	2800	18 12,5 18	50	4

Rotator "Orbit-II"

NEW

FEATURES
Adjustable speed from 10 to 80 r.p.m.
Adjustable device for the inclination of the rotation axis.
9 configurable programmes.
IP 21 protection.
Brushless induction motor.
Quick operation button of 30 seconds.
Programmable time from 1 to 99 minutes.
Recommended for cell and haematology extractions and cultures.
Epoxy coated outer casing.

MODEL

Code	Speed	Height	Width	Depth	Consumption	Weight
3000446	10 a 80	38	32	32	4.5	4.5

Supplied without plate or adapters.

ACCESSORIES

Adapters for Erlenmeyers, with stainless steel clamps

Code	Capacity
3000850	8 Erlenmeyers of 50 ml.
3006100	6 Erlenmeyers of 100 ml.
3005250	5 Erlenmeyers of 250 ml.

Tube adapters, aluminium, with P.V.C. coated clamps for different tube diameters.

Code	Capacity
3000356	35 tubes of 6 to 9 mm Ø.
3003011	30 tubes of 10 to 13 mm Ø.
3002512	25 tubes of 14 to 16 mm Ø.
3002215	22 tubes of 17 to 20 mm Ø.
3001820	18 tubes of 21 to 24 mm Ø.
3001723	17 tubes of 23 to 28 mm Ø.

Tilting Mixer Shaker "Movil-Tub"

FIXED SPEED AT 15 RPM.

FEATURES
Fixed speed tilting shaker mixer with removable silicon, anti slide tray. Recommended especially for haematology,chemistry and microbiology applications.

MODEL

Part No.	Tube capacity	Tube Ø	Tube length mm	Speed r.p.m.	Height (exterior) cm	Width (exterior) cm	Depth (exterior) cm	Tilt angle	Power W	Weight Kg
7000913	12	20	160	15	12	34	20	25°	6	2,5

Roller and tilt mixer "Movil-Rod"

WITH VARIABLE SPEED CONTROL FROM 10 TO 80 r.p.m.

FEATURES
Roll and tilt mixer with 7 rollers, double action,gently rolls the tubes while rocking, produces a sinusoidal movement, providing excellent sample homogenisation. Recommended for suspensions of biological and haematological fluids.

MODEL

Part No.	For tube Ø up to mm	Speed r.p.m.	Length (rollers) cm	Height (exterior) cm	Width (exterior) cm	Depth (exterior) cm	Power W	Weight Kg
7001723	35	10 - 80	24	9.8	34.9	26.5	12	3.6

Roller and tilt mixer “Movil-Rod II”

FIXED SPEED 36 RPM.

FEATURES

Roll and tilt mixer with 5 rollers, double action,gently rolls the tubes while rocking, produces a sinusoidal movement, providing excellent sample homogenisation. Recommended for suspensions of biological and haematological fluids.

MODEL

Part No.	For tube Ø up to mm	Speed r.p.m.	Length (rollers) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7001726	35	36	23	14 26 15,5	6	3

Rocking Mixer “Vibromatic”

DIGITAL ELECTRONIC CONTROL OF SPEED AND TIME.

Optimum shaking frequency: 950 oscillations per minute

APPLICATIONS

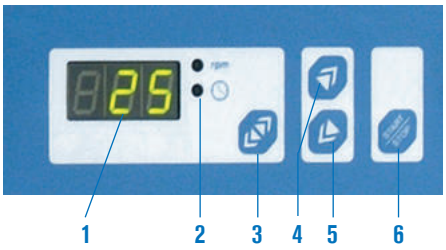
Dissolution, extractions and homogenisation.

FEATURES

Electronic control from 100 to 950 oscillations per minute. (1900 vibrations)and timer from 1 to 999 minutes or continuous operation.
Oscillation amplitude: 8 mm.
Easily detachable arms equipped with 8 clamps that allow all types of tubes and flask with diameters of between 5 to 50 mm can be held in position.
Maximum load: 4 kg.

CONTROL PANEL

1. Digital display indicator of osc./min. and time.
2. Parameter display selector.
3. Parameter selector, speed or time.
4. Push button increase value.
5. Push button decrease value.
6. Push button start-stop.



MODEL

Part No.	Oscillations p.m.	Maximum capacity Kg	Height / Width /Depth (exterior) cm	Power W	Weight Kg
7000384	100 - 950	2	23 77 27	34	11
7000384	100 - 600	4	23 77 27	34	11

ACCESSORIES

Platform support for Erlenmeyer flasks, made from AISI 304 stainless steel with clip adapter position holes for 50 ml to 1000 ml flasks. Platform dimensions: 38 cm long x 19 cm wide.
Weight: 2 Kg.
Platform capacity:
- 18 Erlenmeyer flasks of 50 ml.
- 12 Erlenmeyer flasks of 100 ml.
- 8 Erlenmeyer flasks of 250 ml.
- 6 Erlenmeyer flasks of 500 ml.
- 3 Erlenmeyer flasks of 1000 ml.

Part No. 3001221

Model Vibromatic with adapter platform.

Adapters for Erlenmeyer flasks.
Made from tempered stainless steel.
Part No.

1001003	Adapter for	50 ml.
1000978	Adapter for	100 ml.
1000979	Adapter for	250 ml.
1000980	Adapter for	500 ml.
1000981	Adapter for	1000 ml.

COMECTA Orbital shaker “AG-200”, “AG-200-A”, “AG-200-B”

ELECTRONIC DIGITAL CONTROL OF SPEED AND RUN-TIME

COMMON FEATURES

External ABS case with adapter platform for the different models.
Innovative single button to select start, shaking speed, time and stop.
Digital display of time and shaking speed.
Maintenance free induction drive motor which produces a uniform movement according to the rotation speed program.
Acoustic notification at the end of the cycle.

CONTROL PANEL

Main switch.
Single button selector for shaking speed and time.
Display indicating the shaking speed.
Display indicating the programmed time.
Measures: Alto 10 x Ancho 28 x fondo 26

TECHNICAL INFORMATION

Rotation frequency: 50-250 r.p.m.
Timer from 1 min to 99h 59 min
Rotation amplitude: 20mm
Power: 50 W.
Power supply: 220V/50Hz
Load capacity: till 2,5Kg
Measures cm: Height 10 x Width 28 x Depth 26

Shaker for Petri plates “AG-200”

With non-slip rubber platform of 24cm width and 20cm depth.
Capacity for 4 Petri plates.
Useful for slides and little flasks shaking.
Weight (Kg): 7.
Part no: 5312010

Shaker for bottles “AG-200-A”

With non-slip rubber platform of 26cm width and 22cm depth, with 3 adjustable rubber retaining bars suitable for any kind of glasses: Erlenmeyer, flasks, bottles, etc.
Weight (Kg): 8
Part no: 5312011

Shaker for Erlenmeyer flasks “AG-200-B”

Tempered aluminium base of 27cm width and 22cm depth, with multi-adapter location holes to support different capacities flasks from 50ml to 2000ml.
Weight (Kg): 8.
Part no: 5312012

Erlenmeyer flasks adapters

Made of stainless steel with upper spring.
Part no. 5312013 Adapter for 50 ml.
Platform capacity: 12 units
Part no. 5312014 Adapter for 100 ml.
Platform capacity: 8 units
Part no. 5312015 Adapter for 250 ml.
Platform capacity: 6 units
Part no. 5312016 Adapter for 500 ml.
Platform capacity: 4 units
Part no. 5312017 Adapter for 1000 ml.
Platform capacity: 2 units

Orbital and linear motion shaker “Rotaterm”

WITH HEATED PLATFORM TOP PLATE.
ELECTRONIC DIGITAL SPEED AND TEMPERATURE DISPLAY.
INCLUDES A SAFETY OVER TEMPERATURE DEVICE.
TEMPERATURE STABILITY ±1 °C.

2 in 1 System suitable for orbital or linear motion

FEATURES

Adjustable temperature range from ambient +5 °C. to 250 °C.
Electronic 3 digit temperature display, monitored by a Pt 100 temperature probe.
Resolution: 1 digit.
Electronic digital speed control from 20 to 230 oscillations per minute and timer from 1 to 999 minutes or continuous operation.
Adjustable oscillation amplitude: 15 or 20 mm.
Choice of: orbital or linear motion.
Epoxy covered external casing.
Aluminium top plate platform with evenly distributed heater elements.
The upper platform is made of AISI 304 stainless steel with adjustable tensile spring clips that allow all kinds of glassware, flasks, Erlenmeyer flasks, racks, etc. to be held in position.
Digital calibration temperature circuit.

Part No 3000435 with platform and tensile spring clips.

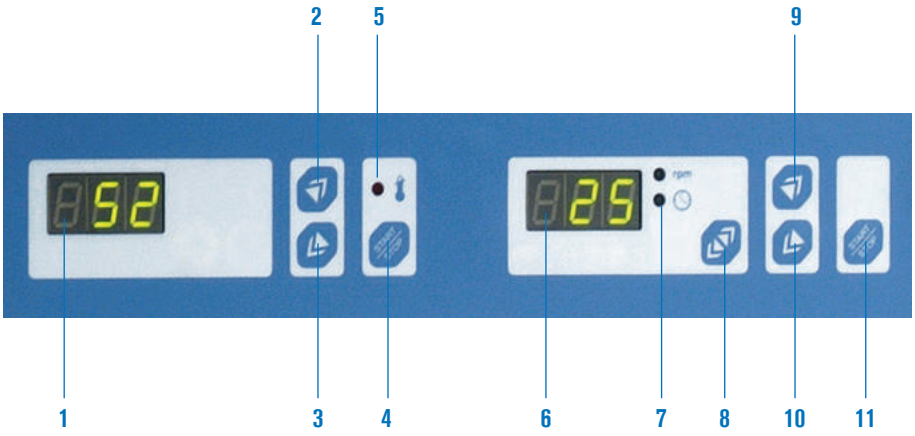
CONTROL PANEL

Temperature control.

1. Digital temperature display.
2. Push button increase temperature.
3. Push button reduce temperature.
4. Push button start-stop heater.
5. Over temperature alarm.

Temperature and speed control.

6. Digital display of oscillation per minute and time (in minutes).
7. Displayed parameter.
8. Push button select displayed parameter, speed or time function.
9. Push button increase parameter value.
10. Push button decrease parameter value.
11. Push button start-stop shaker.



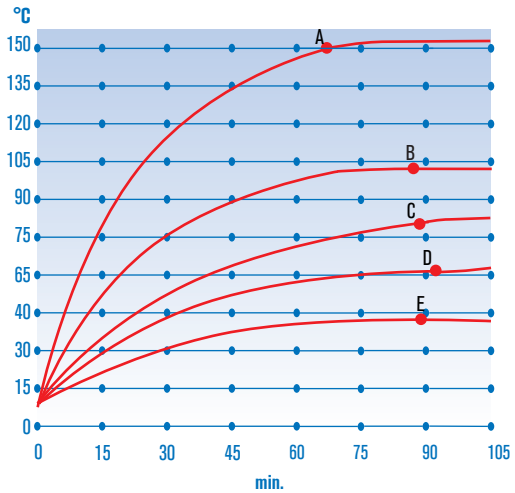


Diagram of Temperature Vs Time.
For 500ml Erlenmeyer flasks.
A. Plate to 250 °C: Silicon 150 °C.
B. Plate to 200 °C: H_2O 97 °C.
C. Plate to 150 °C: H_2O 82 °C.
D. Plate to 100 °C: H_2O 61 °C.
E. Plate to 50 °C: H_2O 37 °C.

MODEL

Part No.	Platform	Width /Depth (platform) cm		Height / Width /Depth (exterior) cm			Power W	Weight Kg
3000435	Spring clip	41	31	30	46	38	2300	32

Orbital and horizontal shaker "Rotabit"

ELECTRONIC DIGITAL CONTROL OF SPEED AND RUN TIME.

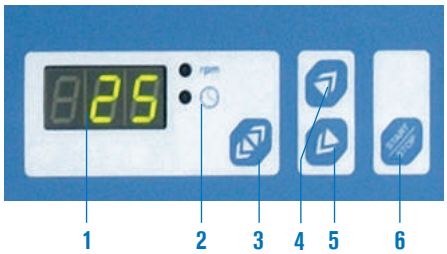
2 in 1 system, versatile orbital and horizontal shaker

FEATURES

Speed control from 20 to 230 oscillations per minute with timer from 1 to 999 minutes or continuous operation.
Shaking amplitude of: 15 and 20 mm.
Choice of orbital movement or a horizontal "To and Fro" motion.
Load capacity: till 30 Kg
Easy to interchange platforms, see accessories for platform selection.
Epoxy covered outer casing.

CONTROL PANEL

1. Digital display showing oscillations and time.
2. Displayed parameter.
3. Push button, select parameter function, speed or time.
4. Push button increase parameter value.
5. Push button reduce parameter value.
6. Push button Start- Stop.



MODEL

Part No.	Control oscillations p.m.	Height / Width / Depth (exterior) cm	Power W	Load capacity Kg	Weight Kg
3000974	20 - 230	20 42 43	80	30	13.5

This shaker can be coupled to the "Boxcult" incubation chamber with platform Part No. 3000975 (see page 38).

NOTE: This shaker has multiple options and accessories, a flow chart for easy selection of the accessories can be found at the end of this section.

ACCESSORIES

Universal platforms with non-slip surface with four adjustable silicon covered retaining bars suitable for all types of glassware, Erlenmeyer flasks, etc. to be held in position.

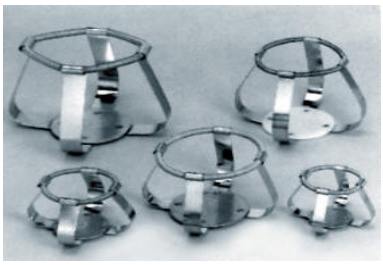
Part No.	Height / Width/ Depth (exterior) cm	Weight Kg
3000975	9 42 35	5
3000976	9 70 35	7

Platform Part No. 3000975

Platform Part No. 3000976

Base for Erlenmeyer flask clips.
Made from AISI 304 stainless steel with multi-adapter location holes to support Erlenmeyer flask clips. Capacities 50, 100, 250, 500 and 1000 ml.

Part No.	For platform number Part No.	Width /Depth (platform) cm	Capacity, No. of positions 50 ml	100 ml	250 ml	500 ml	1000 ml	Weight Kg
3000977	3000975	40 34	36	25	16	9	5	1.5
3001010	3000976	69 34	66	45	21	18	10	2,2



Erlenmeyer flasks spring clips.
Made with tempered stainless steel.

Part No.
1001003 Adapter for 50 ml.
1000978 Adapter for 100 ml.
1000979 Adapter for 250 ml.
1000980 Adapter for 500 ml.
1000981 Adapter for 1000 ml.

ACCESSORIES

Orbital To & Fro shaker "Rotabit" complete with accessory. "Boxcult" incubation chamber.

Incubation chamber "Boxcult"
The "Boxcult" can be fitted onto the "Rotabit", Part No. 3000974, with the universal platform, (SMALL) Part No. 3000975.
Forced air fan circulation.
Adjustable temperature, ambient +5 °C to 57 °C.
Homogeneity ±2.5%
Stability ±0.5%
Built of transparent Perspex, access is throught a wide hinged front door which provides easy access for loading and unloading. Samples can be viewed without opening the incubator maintaining a constant homogeneous temperature.

Part No.	Height / Width / Depth (interior) cm			Height / Width / Depth (exterior) cm			Power W	Weight Kg
3000957	50	47	47	61	51	51	220	11

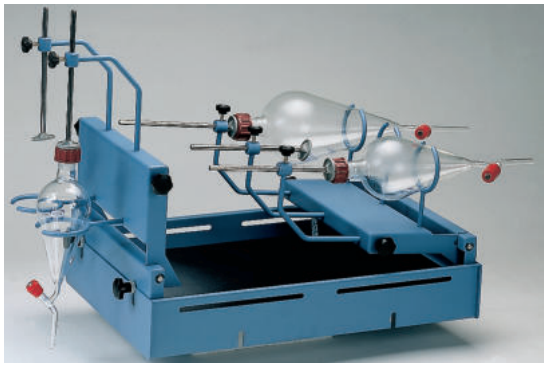
Set of 5 reduction rings adapters for separating flasks of 50 to 100 ml.
Part No. 6000620

Separating funnel device.
Two positions, for mixing Horizontal to Vertical for easy decanting.
Capacity: 5 separating funnels of 250 to 500 ml or 2 funnels of 1000 ml.
Part No. 6000619
This accessory can only be fitted to the platform Part No. 3000976.
The "Rotabit" Part No. 3000974 and platform need to be ordered separately.

Double platform part no 3001011, with shaker Part No. 3000974

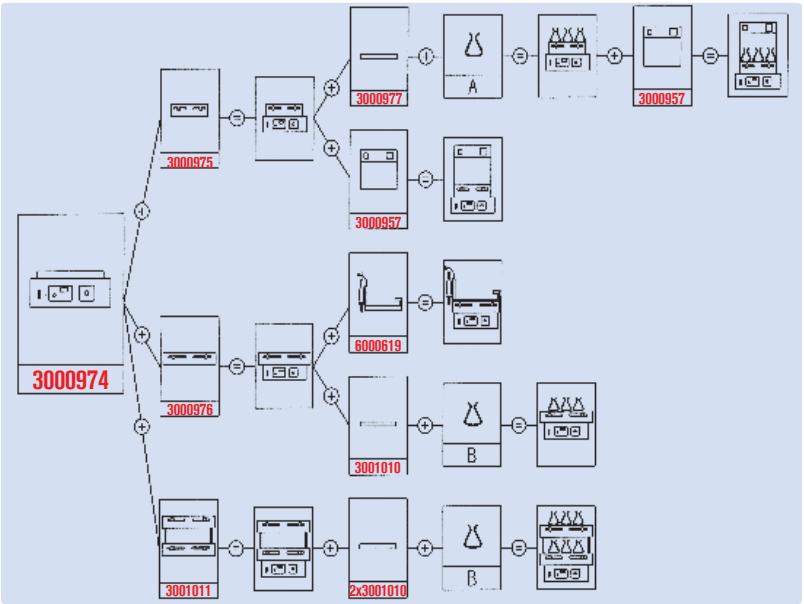
Double platform.
Two levels.
Fits onto the "Rotabit" Part No. 3000974.
Complete with anti slide mats and four support bars that support the upper level.
Each platform has four silicon clamping bars.

Part No.	Width / Depth (platform) cm		Total combined height cm
3001011	55	35	40



Separating funnel decanting accessory Part No. 6000619 Fits onto platform Part No. 3000976.

Flow diagram of the selection of accessories for the "Rotabit" To & Fro Orbital Shaker



SUITABLE FOR ERLENMEYER			
Capacity	Part No.	A	B
50 ml	1001003	36	48
100 ml	1000978	25	30
250 ml	1000979	16	20
500 ml	1000980	9	12
1000 ml	1000981	5	8

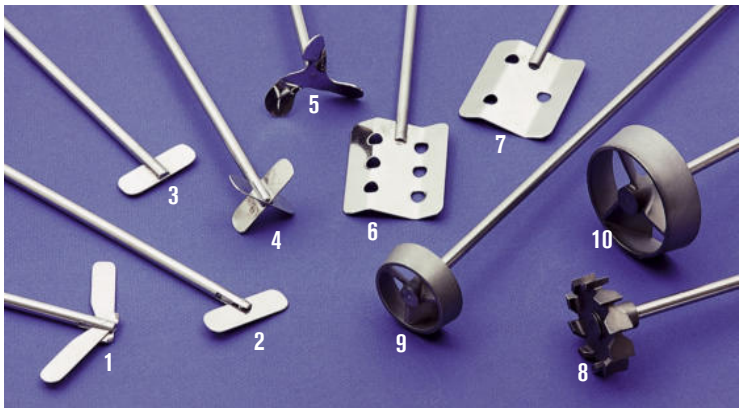
Overhead stirrer “SE-100”

FOR BLENDS, HOMOGENIZATIONS, SUSPENSIONS, SOLUTIONS GASIFICATION AND SUBSTANCES RECIRCULATION. DESIGNED FOR CONTINUOUS WORK.
BRUSHLESS MOTORS FREE OF MAINTENANCE AND SPARKS.
PARTIALLY SEALED ENCAPSULATED CASES AGAINST SUBSTANCES AND AGRESSIVE VAPOURS.
THERMAL PROTECTION FOR OVERHEATING WITH AUTO POWER OFF AND LED INDICATOR.

FEATURES

Excellent blending results in an accurate and repeatable control.
Stirring by electronic control of speed, **from 60 to 2000 rpm.**
Specially designed for those samples in which its viscosity changes during the process.
Max stirring volume: **Up to 40 L** (in H20)
Max stirring viscosity: **Up to 1.000.000 mPas.**
Speed digital reading and pre-selection (rpm).
Adaptable spindle to stirring rods up to 9.5 mmØ.

OVERHEAD STIRRER ACCESSORIES



STIRRING SHAFTS WITH ROTORS

Shaft with AISI 304 stainless steel rotor. Shaft: 7mm Ø.

Part No.	Rotor type	Ø shaft mm	Total length mm	Features
6002891	1	90	400	Double fly vane
6002892	2	60	400	Fly vane
6002893	3	50	400	Fixed blade
6002894	4	50	400	Double cross vane
6002895	5	58	400	Helix
6002896	6	70	450	Six hole paddle
6002897	7	70	450	Three hole paddle
5050921	8	46	400	Radial turbine
5050932	9	45	400	Turbo helix 45 mm Ø
5050933	10	66	400	Turbo helix 66 mm Ø

MODEL

Part No.	Height/Width/Depth (external) cm	Power W	Weight Kg
7000385	17,5 7,5 13,5	100	2,8

Base and shaft not included.

Bosshead “MAXIM”
For large diameters.
Chrome plated with one opening to hold rods up to 30 mm Ø. Second opening up to 20 mm Ø.
Part No. 7000408

Double base support T “MAXI”
Rod of AISI 304 stainless steel of 20 Ø x 800 mm high.
Designed to support weights up to 20 Kg at 300 mm
height from the base. Useful for stirrers.
Weight: 7 Kg.
Part No. 6000410

COMECTA High volume orbital shaker incubators

FAN AIR CIRCULATED, WITH OR WITHOUT REFRIGERATION
DIGITAL ELECTRONIC CONTROL OF SPEED, TEMPERATURE AND TIME. FOR LONG OPERATING PERIODS.

SAFETY:
TRIPLE PROTECTION MOTOR DRIVE:
OVER TEMPERATURE, IRREGULAR MOVEMENTS, AUTOMATIC STOP WHEN THE DOOR IS OPENED, TEMPERATURE ALARM, THERMAL CUTOUT.

Hinged door model with refrigeration

Framework type models with or without refrigeration

GENERAL FEATURES

Metallic external case epoxy-coated.
Current and set digital reading of temperature, time and speed parameters.
Acoustic alarm and illuminated indicator at the end of the cycle and also to indicate temperature and / or time programs errors.
Automatic switch off mechanism when the shaker door is opened.
Motor over load protection, with automatic switch off activation.
Induction drive motor, where the drive mechanism has an anti vibration system.
Refrigerated models have a hermetically sealed compressor unit with a ventilated condenser.
Internal case made of stainless steel AISI 316 with polished finish and glazed door for a handy visibility of the samples process.
Internal platform with multi-adapter positions for differing accessories, such as: conical flask adapters, microtitre plate holders and universal tray with adjustable tension springs for other non standard sized vessels.

HINGED DOOR MODELS "S100D" AND "S200D"

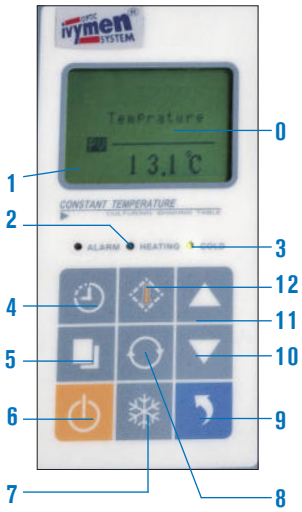
Temperated glass hinged door.
The orbital rotation can be adjusted without disassembly from 50mm.

Orbital rotation adjustment

MODELS FRAMEWORK TYPE "S1102" AND "S2102"

Made with two doors framework type and double glass windows which allow visibility of the material exposed in the inside
Two removable upper trays for high volume Erlenmeyer flasks accommodation in the lower tray.
Adjustable outlet hole for the air in the inside of the chamber.
Amplitude of oscilation: 25mm.
With wheels for movements and adjustable support for a stabled fixing.
Accesories: See pag. 41

CONTROL PANEL



0. LCD Display.
1. Heater "ON" indicator.
2. Alarm indicator.
3. Refrigeration compressor "ON" indicator.(only refrigerated models)
4. Time function push button.
5. Modify and confirm push button.
6. Start / Stop Push button.
7. Adjust temperature push button. (only refrigerated models)
8. Speed push button.
9. Rotation push button.
10. Reduce value push button.
11. Increase value push button.
12. Temperature push button.

Note: In models framework type, the control panel position is horizontal.

S100D serie.

S200D serie.

S1102 and S2102 series.

MODELS	S100D	S200D	S1102	S2102
Part No.	5312130	5312131	5312132	5312133
Rotation amplitude	Continuous adjustment from 0 to 50 mm orbital		25 mm	
Controllable speed range	from 30 to 400 r.p.m.	from 30 to 400 r.p.m.	from 40 to 300 r.p.m.	from 40 to 300 r.p.m.
Controllable speed in steps of	1 r.p.m.	1 r.p.m.	1 r.p.m.	1 r.p.m.
Refrigeration	No	Yes	No	Yes
Heating	Yes	Yes	Yes	Yes
Controllable temperature range	from ambient +5 °C to 60 °C	from 5 °C up to 60 °C	from ambient +5 °C to 60 °C	from 6 °C up to 60 °C
Controllable temperature in steps of	0.1 °C	0.1 °C	0.1 °C	0.1 °C
Chamber temperature uniformity	±1 °C	±1 °C	±1 °C	±1 °C
Timer	from 0 to 500 hours	from 0 to 500 hours	from 0 to 500 hours	from 0 to 500 hours
Usable platform dimensions	370 x 400 mm	420 x 380 mm	734 x 458 mm	734 x 458 mm
Platform number	1	1	2	2
Maximum conical flask capacity (see accessories)	6 x 1000 ml, or 9 x 500 ml 12 x 250 ml, or 16 x 100 ml, 20 x 50ml	6 x 1000 ml, or 9 x 500 ml, or 16 x 250 ml, or 20 x 100 ml, or 25 x 50 ml	*4 x 5000 ml, or *8 x 3000 ml, or *8 x 2000ml, or 24 x 1000 ml, or 44 x 500 ml, or 56 x 250 ml, or 104 x 100 ml, or 104 x 50 ml	
Dimensions Height x Width x Depth	610 x 610 x 510 mm	700 x 740 x 560 mm	1440 x 950 x 700 mm	1440 x 950 x 700 mm
Weight	72 Kg	100 Kg	200 Kg	235 Kg
Power	490 W	580 W	930 W	1200 W

***Note: An upper tray divided into two removable pieces which allow high volume Erlenmeyer flasks accommodation, from 2000 to 5000 ml. in the lower tray or the Universal platform which is supplied as an accessory.**

ACCESSORIES

Erlenmeyer and flask adapters.
Made from hardened sprung stainless steel.

Part No. 5312105 Adapter for 50 ml
Part No. 5312106 Adapter for 100 ml
Part No. 5312107 Adapter for 250 ml
Part No. 5312108 Adapter for 500 ml
Part No. 5312109 Adapter for 1000 ml
Part No. 5312110 Adapter for 2000 ml
Part No. 5312111 Adapter for 3000 ml
Part No. 5312112 Adapter for 5000 ml

Adapter for microtiter holder
From 85 x 130 mm., allows up to 3 plates in models S100D and S200D, and up to 6 plates in models 1102 and 2102.
Part No. 5312113

Universal platform tray with elastic tension clips that hold in position any type of vessel, flasks, beakers, racks, etc.

For model **S100D**
Dimensions 400 x 370 x 80 mm
Part No. 5312134

For model **S200D**
Dimensions 420 x 400 x 80 mm
Part No. 5312135

For models S1102 and S2102
Dimensions 780 x 480 x 80 mm
Part No. 5312136

Stackable high volume orbital shaker incubators

WITH ELASTIC VENTILATION TO PROVIDE OXYGEN TO THE SAMPLES.
PRECISE TEMPERATURE CONTROL.
INTELLIGENT CONTROL SYSTEM.
WITH COOLING.

NEW

GENERAL FEATURES

HUMANIZED DESIGN

Three-layer overlay, each with independent temperature and speed control.
Upward-hinged door and removable tray.
Tempered glass door with elastic ventilation.
Cooling system with dust filter for easy cleaning.

PERFORMANCE

Integrated mirror stainless steel interior, waterproof and with no dead corners.
Cross-air duct structure for uniform temperature and adjustable wind speed.
Frequency control with an intelligent system for precise temperature control.
Operating system with encryption and three levels of authority.
High-quality servo motor, maintenance-free.
16-bit color touchscreen with functions and values on the same interface.
Fixed value and program modes of operation.
Historical data and curve retrieval with storage for up to 1 year.
Data backup or printing via USB.
External ambient temperature probe for more precise control.
Timing function of 0 ~ 999.9 minutes.

SAFETY GUARANTEE FUNCTION

Memory in case of power failure.
Control system with lighting and UV sterilization.
Over-temperature alarm and automatic shutdown.
Self-diagnosis function for faults.
Door control to automatically stop upon opening.

Example of three stacked models

Due to height, stacking is recommended up to a maximum of 2 units.

MODELS	ZQPZ-228A
Part No.	5312140
Shaking frequency (rpm)	10 - 300
Frequency accuracy (rpm)	±1
Orbit (mm)	26 (standard configuration) 50 (optional configuration)
Temperature variation (ºC)	+4 - 65
Temperature resolution (ºC)	0.1
Temperature uniformity (ºC)	±0.5 (to 37 ºC)
Platform size (mm)	930 x 530
Maximum depth capacity (ml/piece)	100x96 o 250x65 o 500x45 o 1000x24 o 2000x15 o 3000x11
Standard capacity (ml/piece)	100x60 o 250x45 o 500x28 o 1000x18 o 2000x15 o 3000x8
Timing range	0-999 hours and 59 minutes
Power (kW)	1.5
Power supply (V)	AC 220 ±10% 50 - 60 Hz
External dimensions (mm)	1500 x 920 x 600
Weight (Kg)	287

ACCESSORIES

Erlenmeyer and flask adapters.
Made from hardened sprung stainless steel.
Part No. 5312105 Adapter for 50 ml
Part No. 5312106 Adapter for 100 ml
Part No. 5312107 Adapter for 250 ml
Part No. 5312108 Adapter for 500 ml
Part No. 5312109 Adapter for 1000 ml
Part No. 5312110 Adapter for 2000 ml
Part No. 5312111 Adapter for 3000 ml
Part No. 5312112 Adapter for 5000 ml

ACCESSORIES

Adhesive platform for Erlenmeyer flasks
Part No. 5100289

COMECTA Ultrasonic Homogenizer "CY - 600"

AGITATION BY INTENSE CAVITATION
FOR VOLUMES FROM 0.5 TO 500ML

NEW

APPLICATIONS

Biology, chemistry, environment, general analysis laboratory.
It allows disintegration of cells and biological tissue, DNA protein extraction, ether hyrolysis RNA, reactions output acceleration and increase, earth and sediments treatment according to EPA SW methods which simplifies the Soxhet method in time, quality control, R&D, samble gas remove, dissolution and homogenization, emulsion, dispersion, liposomes formation, proteins microencapsulation, etc.

OPERATION

The ultrasonic generator transforms the electric current from 220V 50Hz into ultrasonic energy of 25 KHz, to feed the ultrasonic transducers. The transducer produces an elastic distortion by following the alternate voltage, which traduces in a longitudinal mechanical vibration that produces a cavitation effect in the titanium alloy probe submerged in the solution. This generates a multitude of micro bubbles which eleases a considerable energy in the probe end that allow a sample intense shaking and vibration.

With new software, centralized control by central microcomputer.
It adopts a 7-inch TFT touch screen.
Ultrasonic power with 1% to 99% stepless adjustment.
Pulsed and continuous operation and test function.
Ultrasonic time, interval time and total time can be accurate up top 0.1 seconds.
Motorized lift fo ther sample cup

CARACTERÍSTICAS

Frequency: 20-25KHz
Screen: 7" TFT touch screen
Adjustable Power Range: 650W (1%-99%)
Optional Probes: 1/12", 1/8", 1/2", and 5/8"
Processing Volume: 0.5-500ml
Cycle Ratio: 1-99%
Temperature Alarm: Yes Alarms: Time, overload
Power Supply: 220/110V 50Hz/60Hz
Control Chassis Dimensions: 430 X 255 X 300mm
Weight (Main Unit and Transducer): 14Kg
Silencer Dimensions: 345 X 340 X 570mm
Motorized lift for the sample beakerNew software, centrally controlled by a central microcomputer.

INCLUDED ACCESSORIES

Noise cancellation box
Pipe clamp
Key
Fuse
Plug cable
Cross clamp
Ultrasonic Oscillation System
Included: 1/4" probe and temperature probe

Code	Model
5059610	"CY-600"

ACCESSORIES

Compatible sonicator probes for both models

5059611 1/12" Probe Frequency: 20-25KHz, Amplitude: 300um, Power Range: 20-250W, Processing Volume: 0.5-5ml

5059612 1/8" Probe Frequency: 20-25KHz, Amplitude: 250um, Power Range: 30-400W, Processing Volume: 3-10ml

5059615 1/4" Probe Frequency: 20-25KHz, Power Range: 60-650W, Processing Volume: 10-100ml

5059613 Probe 1/2" Frequency: 20-25KHz, Amplitude: 150um, Power Range: 100-650W, Processing Volume: 100-200ml

5059614 Probe 5/8" Frequency: 20-25KHz/19.5-20.5KHz, Amplitude: 145um, Power Range: 200-650W, Processing Volume: 200-500mll

5/8" 1/2" Included 1/4" 1/8" 1/12"

V solid mixer homogeneizer "VS-5", "VS-8" and "VS-50"

CAPACITY: FROM 5 TO 50 KG. (INDUSTRIAL DESIGN)

APPLICATIONS

For the use in pharmaceutical, chemistry and alimentary industry.
For powder, granulated and small concentrated batches that are sent to the production plant after being investigated in laboratory.

FEATURES

Made of stainless steel AISI 304.
It have two loading entrances in V and an unloading hole which is protected with isolated covers with silicon gaskets.
Engine group with shaking device at a constant speed of 18 rpm.

VS-50 Model

CONTROL PANEL

Start button.
Stop button.
Container positioner button.
Timer from 1 to 99,9h.

MODELS

Model	Part no.	Volume Liters	Load capacity (50%) Liters	RPM	Height / Width / Depth (external cm)			Power W	Weight Kg
VS-5	5810100	5	2,5	18	58	72	37	550	47
VS-8	5810101	8	4	18	64	81	37	550	52
VS-50	5810102	50	20	15	130	150	50	750	250

SPARE PART

Silicone gasket for VS-5, VS-8 and VS-50
Part No. 5810110 (Unit).

Multifunctional grinding mill "TR-20"

FOR CRASHING AND SHEARING (INDUSTRIAL DESIGN)

APLICATIONS

For a wide range of products grinding, solid, fragile, soft and semi-hard ones. For the use in pharmaceutical, chemistry and alimentary industry in general.

FEATURES

Designed for small-scale activities and (R&D). Composed with a grinder plate and fixed gear teeth exerting the action of crushing and crushing through impact.
Completely built in stainless steel. AISI 304. Air cooling
Device to accommodate different types of easily interchangeable sieves. From 0.4 mm Ø to 2,4 mm Ø.
Only suitable for grinding samples with a relative humidity lower than 20%.
Supplied with a 0.60 mm Ø sieve.

Model	Part No.	Capacity Kg / h	Db	RPM	Voltage V	Measures (cm) Height./ Width. / Depth.			Power Kw	Weight Kg
TR-20	5810000	10 a 30	85	4200	380-50 Hz phase	70	40	80	2,2	85

ACCESSORIES

Sieves

Part no.	Sieve Ø mm.
5810007	2,40 mm
5810001	2 mm
5810002	1 mm
5810003	0,80 mm
5810004	0,60 mm
5810005	0,40 mm

Device for an easy sieve insertion.

SPARE PARTS Shear Part no. 5810006

ROTATORY EVAPORATOR AND PUMPS

EVAPORATORS

PERISTALTIC DOSING PUMP

LIQUIDS

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	page	46
Peristaltic dosing pumps	page	47
Rotary vein pump	page	48
Membrane vacuum pumps	pages	49 to 50
Vaccum pumps	page	51 and 52
Water recirculation pumps	page	51
Centrifugal pumps and Liquid transfer pumps	page	51
Fluids	page	52

"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.

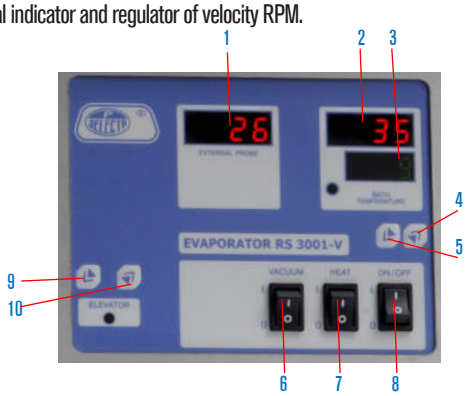
Electronic elevation. Quality and safety. Rotary speed and bath temperature regulation

FEATURES

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

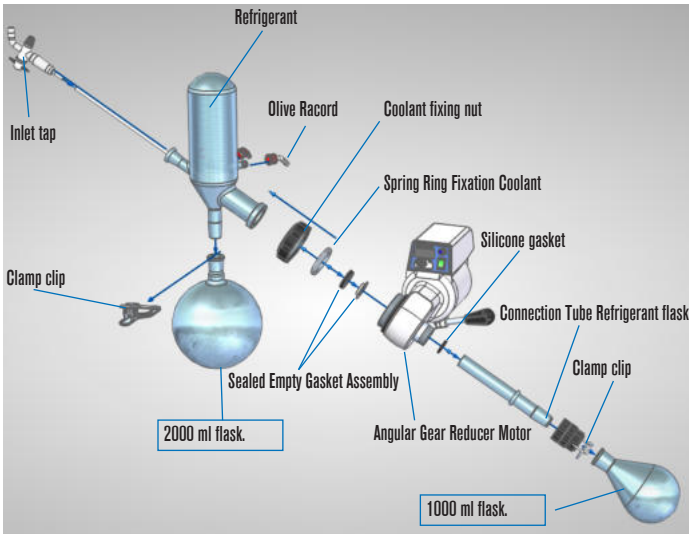
CONTROL PANEL

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 300ºC. Viscosity 50 mm2/s at 25 ºC. Melting point 318 ° C. Part No. 1000027

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/MIN.

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/min	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).

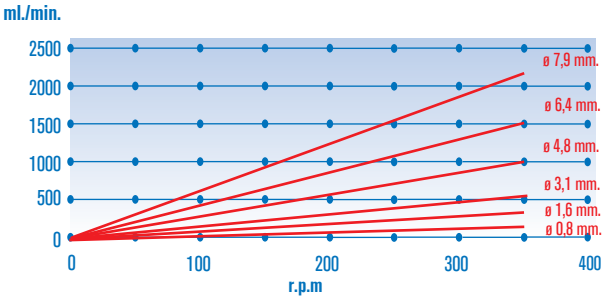
CONTROL PANEL
Push button Stop/Start/switch.
Digital speed display.
Push button increase speed control.
Push button decrease speed control.

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_2O ml/min	Power W	Weight Kg
3001301	19 13 23	0 to 1100	48	4.4

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 10 ML TO 10 LITRES.
MAXIMUM PUMP RATE 1500 ml / MIN .

NEW

RS232

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.

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

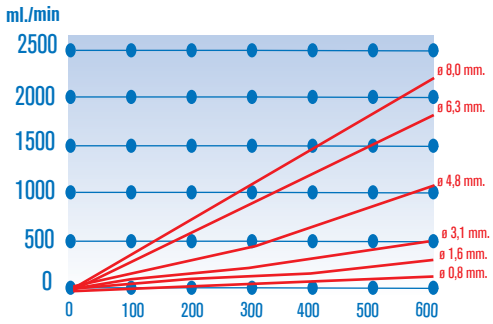
TECHNICAL SPECIFICATIONS
Speed (r.p.m.): 60-400
Resolution (ml): . . . . . 1 or 0.1
Dispensing range (ml): . . . .0 , 7 to 2280ml/min
Repetition interval: . . . . . 1 - 9
Maximum tube wall (mm): 1,6
Maximum external tube diameter (mm): 12
Note: The precision depends on the tube Ø and the speed

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_2O ml/min	Power W	Weight Kg
4129051	25 14 24	0,1 to 2280	50	4,8

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.

Dose rate (ml/minute)		
Ø interior mm	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: 49)
START STOP foot pedal controller. (PERCOM N-M II) Part No. 1001045
START STOP foot pedal controller. (PR-2004) Part No. 1001046

COMECTA Membrane vacuum pump

SUITABLE FOR AIR, GAS AND VAPOURS.

FEATURES

Transfer, evacuation and compression, free from contamination.
The model N-86 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 are made with a patented system of diaphragms manufactured with optimum tension, that results in a smaller more durable pump.
Approximate loss 6 x 10-3 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).

N-86
Part No. 5910106

N-816
Part No. 5910108

N-820 Part No. 5910009
or N-840 Part No. 5910110

NEW

N-96
Part No. 5910105

MODELS / TECHNICAL DATA	N-86	N-816	N-820	N-840	N-96
Code	5910106	5910108	5910009	5910110	5910105
Vacuum flow rate (at 1 Atm. of pressure)	5,5 l/min	16 l/min	20 l/min	34 l/min	7 l/min
	0,33 m^3/h	0,96 m^3/h	1,2 m^3/h	2,04 m^3/h	0,4 m^3/h
Vacuum limit (mbar) absolute	160 mbar	20 mbar	8 mbar	8 mbar	130 mbar
Relative pressure (bar)	2,5 bar	0,5 bar	1 bar	1 bar	2,5 bar
For connection to inner Ø pipe	4 mm	6 mm	10 mm	10 mm	6 mm
Number of heads and phases	1	2	2	2	1
Head material	PPS	PPS	PTFE	PTFE	PPS
Material of membranes (diaphragms)	teflon-coated	teflon-coated	teflon-coated	teflon-coated	PTFE
Valve material	FFPM	FFPM	FFPM	FFPM	FKM
Degree of motor protection	IP-20	IP-20	IP-44	IP-44	IP40
Permissible operating and ambient gas temperatures	5 to 40 °C	5 to 40 °C	5 to 40 °C	5 to 40 °C	5 to 40 °C
Consumption (A) / Power (W)	0,63 / 65	0,6 / 100	0,7 / 120	1,5 / 245	0,9 / 19
Dimensions height x width x depth (cm)	14 x 9 x 17	14 x 9 x 36	21 x 15 x 31	23 x 17 x 34	16 x 12 x 8
Weight (Kg)	1,9	3,95	9,3	12,6	1,3
Vacuum controller	5001787				
APPLICATIONS AND CHEMICAL RESISTANCE	**N-86**	**N-816**	**N-820**	**N-840**	**N-96**
Chemical resistance (depending the material in contact with the pumped medium)	medium-high	medium-high	high	high	medium - high
For highly aggressive or corrosive gases and vapors	-	-	YES	YES	-
For slightly aggressive or corrosive gases and vapors	YES	YES	YES	YES	YES
For transfer and evacuation	YES	YES	YES	YES	YES
For transfer, evacuation and also as a compressor	YES	-	-	-	YES
Ideal for vacuum filtration	YES	YES	YES	YES	YES
Ideal for vacuum filtration, evaporation, drying, gel drying, ...	-	-	YES	YES	YES

SPARE PARTS, FOR MODELS	N-86	N-816	N-820	N-840	N-96
Spare parts kit: 1 diaphragm + 2 valves + 2 sealing gaskets	5910120	-	-	-	
Spare parts kit: 1 diaphragm + 2 valves + 1 sealing gasket	-	-	-	-	-
Spare parts kit: 2 membranes + 4 valves + 4 sealing gaskets	-	5910122	5910123	5910124	-

COMECTA Membrane vacuum pumps “MV 50 and MV 100”

FOR AIR, GASES AND STEAM.

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”

MODEL “MV 100”

CONTROL PANEL

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

CONTROL PANEL

Vacuum indicator. Vacuum regulator. Button On-Off.

MODELS	Part No.	Vaccum Rate m³/h	Vaccum 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.

COMECTA Silicone tubes H-60 platinum

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
	5253900	6.3	11.3

(*) Tubing supplied in 1 meter lengths.
(*) Part Numbers with asterisk* are adaptables to peristaltic pumps “Percom N-M II” and “PR-2004”. 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.

COMECTA 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 m³/hr	Vacuum limit mbar	Height / Width / Depth (exterior) cm	r.p.m.	Power W	Weight Kg
5900620	3,6	0,5	23 27 12	1400	120	6
5900621	3,6	0,05	27 35 14	1400	180	10
5900622	7,2	0,006	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. 1000029
Filter-silencer for vacuum pumps.
Code 5515032 (see page 155)

(See pag 52)

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

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.

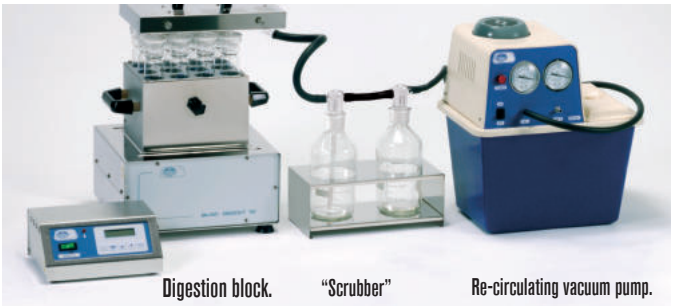
"Scrubber" unit

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

Spare part:
3 Kg. acid vapours neutralizer solution. **Part No.** 4001610

MODEL

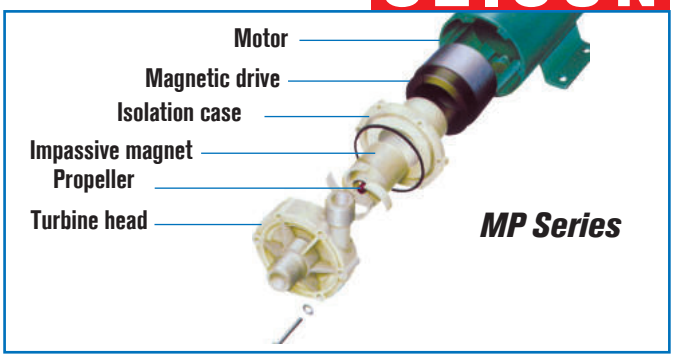
Part No.	Height / Width / Depth (exterior) cm	Vacuum limit mbar	Pump rate litre/minute	Power W	Weight Kg
4001612	44 39 28	betwen 5 and 40	10	280	10



Digestion block. "Scrubber" Re-circulating vacuum pump.

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
MP-15R	180	108	95	68
MP-20R	210	108	116	92
MP-40RX	277	130	122	102
MP-100R	322	175	150	110

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

COMECTA 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
5929041	86	10000	120	6.6

SPARES

1. **Drum faucet:** 2" in diameter. Made of brass.Part No. 5252038

COMECTA 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
5252040	20	1.6

ORGANIC GLYCOL 50%

SPECIAL FOR ULTRATHERMO-STATS AND CHILLERS
TEMPERATURES BETWEEN -35º TO +140º

MANUFACTURED ACCORDING TO REGULATION 1907/2006/EC

Classification of the substance or mixture (EC) No 1272/2008
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

UFI .CGGH - Q 43 n - U0OM-SSWW

MODEL

Code	Capacity
1000028	5 LITER

MAKER OIL

SPECIAL FOR VACUUM PUMPS

FEATURES

High resistance to aging and sludge formation.
Excellent anti-foam properties and air release capability.Great ease of water separation and rust resistance.

APPROVALS
DIN 51515-1, L-DT (ISO 32 TO 100)
DIN 51517-2, CL (ISO 32 TO 220)
ISO 6743-2, FC
ISO 6743-3A, DAB/DVA/DVC/DVE

MODEL

Code	Capacity
1000029	1 LITER

SILICONE FLUID 47 V50

MANUFACTURED ACCORDING TO STANDARD (EC NO 1272/2008)
SAFETY STANDARD 1907/2006 EC

FEATURES

Ideal for working up to 200ºC
Density at 20ºC - 0.96 GR/CM3
Viscosity at 20ºC - 50 mPAS

MODEL

Code	Capacity
1000027	4 LITERS

"BIO-SEL" DETERGENT

SPECIAL FOR STAINLESS STEEL.
BIODEGRADABLE AND PHOSPHATE-FREE.
LOW TOXICITY

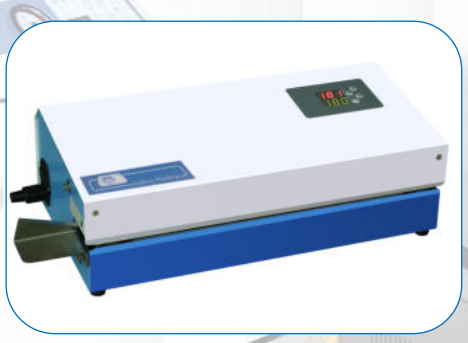
FEATURES

For cleaning and removal of microorganisms on surfaces and laboratory materials.
Replaces chromic acid and removes lipids and proteins.
pH: 9.7 in 2% solution
Prepare a solution of 1 to 2 % of BIO-SEL in water.

MODELO

Code	Capacity
1000025	1 LITER
1000026	4 LITER
1000852	12UNI. of 1LITER
1000853	4UNI. of 4LITER

ELECTRICAL AUTOCLAVES FOR STERILIZATION



Vertical desktop autoclaves Pages 56 to 57

Pressure regulator

Vertical stand autoclaves. Pages 58 to 63

Microprocessor control and atmospheric purge

Culture media autoclave preparer Page 62

Water distiller for autoclaves Page 64

Horizontal stand autoclave Page 65

Microprocessor control

Horizontal stand autoclaves Pages 66 to 68

Microprocessor control and fractional vacuum purge

Polypropylene and polyester bag sealers Pages 69 an 70

"The process of scientific discovery is, in effect, a continual flight from wonder."
Albert Einstein

ELECTRICAL AUTOCLAVES FOR STERILIZATION

Wide range of electrically heated bench top and top loading autoclaves.Pressure range from 0.62 to 2 bar, Capacity: 8, 12, 18, 20, 23, 25, 50, 80 and 150 litres.

Complies with the pressure and autoclave directives

- ***More than 60 years of experience in the in the specialty of Sterilization.***

BLOCKCHAIN SECURITY

CLOUD CONNECTIVITY

CER.21 - APAR.11

PRINCIPAL OF STEAM STERILIZATION:

STERILIZATION IS THE PROCESS OF THE DESTRUCTION AND ELIMINATION OF ALL FORMS OF MICROBIAL LIFE, INCLUDING BACTERIA AND ITS SUB-FORMS.

THE LABORATORY AUTOCLAVE CONSISTS OF A VESSEL IN WHICH STEAM FLOWS AT A HIGH PRESSURE WITH A STERILIZATION PURPOSE. SATURATED STEAM WILL IMMEDIATELY CONDENSE AND THUS RELEASING ITS HIGH EVAPORATION HEAT, WHICH IS IN FACT THE DESTRUCTIVE AGENT. IN ORDER THAT STERILIZATION WOULD BE EFFECTIVE, STEAM MUST BE SATURATED AND, CONSEQUENTLY, ALL THE AIR INSIDE THE VESSEL MUST BE PURGED BEFORE INITIALIZING THE PROCESS.

IN THE FOLLOWING PAGES J.P. SELECTA OFFERS AN EXTENSIVE RANGE OF AUTOCLAVES WITH A CHOICE OF ATMOSPHERIC PURGING OR VACUUM PURGING SYSTEMS. A CHOICE OF MICROPROCESSOR CONTROLLED SYSTEMS ARE OFFERED INCLUDING DRYING CYCLES AT THE END OF THE STERILIZATION CYCLE.

Electrical Autoclaves for sterilization

TWO DIFFERENT CONTROL SYSTEMS:
CONTROL BY PRESSURE WITH ATMOSPHERIC PURGE:
MICRO 8 MED 12 MED 20

MICROPROCESSOR CONTROL OF TEMPERATURE AND STERILIZATION CYCLE, PULSED VACUUM AIR PURGE:

AUTESTER ST DRY PV-B PRINT (mod. horizontal)
AUTESTER ST DRY PV-B 12 (mod. horizontal)

PRESOCLAVE PLUS III 50 (mod. vertical)
PRESOCLAVE PLUS III 80 (mod. vertical)
PRESOCLAVE PLUS II 150 (mod. vertical)
The printer can be built-in the autoclaves together with the control panel

TOUCHSCREEN TFT DISPLAY WITH VIRTUAL BUTTONS. 7" TFT – HMI.

SUMMARY TABLE OF MODEL RANGE

QUICK OVERVIEW

MODELS	Part No.	System DRY	Capacity litres	Temperature °C	Pressure bar	Power W	Control	Purge control	Type
MICRO 8	4001745	NO	8	121 and 134	1 and 2	1000	Pressure thermostat	Manual	Vertical bench top
MED 12	4001756	NO	12	121 and 134	1 and 2	1800	Pressure thermostat	Atmospheric	Vertical bench top
MED 20	4001757	NO	20	121 and 134	1 to 2	2500	Pressure thermostat	Atmospheric	Vertical
PRESOCLAVE PLUS III 50	4001770	NO	50	115 to 134	0.62 to 2	3600	Electronic controller	Atmospheric	Vertical
PRESOCLAVE PLUS III 80	4001771	NO	80	115 to 134	0.62 to 2	3600	Electronic controller	Atmospheric	Vertical
PRESOCLAVE PLUS III 150	4002172	NO	150	115 to 134	0.62 to 2	7500	Electronic controller	Atmospheric	Vertical
AUTESTER ST DRY- S USB 50	4002521	YES	50	105 to 134	0.21 to 2	4850	PLC	Purged vacuum	Vertical
AUTESTER ST DRY- S USB 80	4002522	YES	80	105 to 134	0.21 to 2	4850	PLC	Purged vacuum	Vertical
AUTESTER ST DRY- S USB 150	4002523	YES	150	105 to 134	0.21 to 2	14000	PLC	Purged vacuum	Vertical
AUTESTER ST DRY GMP-S 50	4002524	YES	50	105 to 134	0.21 to 2	4850	PLC	Purged vacuum	Vertical
AUTESTER ST DRY GMP-S 80	4002525	YES	80	105 to 134	0.21 to 2	4850	PLC	Purged vacuum	Vertical
AUTESTER ST DRY GMP-S 150	4002526	YES	150	105 to 134	0.21 to 2	14000	PLC	Purged vacuum	Vertical
STERIL PRES USB - 80	4002442	YES	80	80 to 128	0,21 to 2	4850	PLC	Back pressure	Vertical
STERIL PRES USB - 150	4002443	YES	150	80 to 128	0,21 to 2	7500	PLC	Back pressure	Vertical
STERIL PRES GMP - 80	4002444	YES	80	80 to 128	0,21 to 2	4850	PLC	Back pressure	Vertical
STERIL PRES GMP - 150	4002445	YES	150	80 to 128	0,21 to 2	7500	PLC	Back pressure	Vertical
AUTESTER ST DRY PV 12	4001737	YES	12	121 to 134	1 and 2	1800	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-B PRINT	4001739	YES	23	121 to 134	1 and 2	2300	Microprocessor	Purged vacuum	Horizontal bench top
MED 40 CLT	4002000	NO	40	105 to 125	0 to 2	6000	PLC	Atmospheric	Vertical

Autoclaves for sterilization “MICRO 8”, “MED 12” and “MED 20”

PRESSURE REGULATOR THERMOSTAT OF 1 AND 2 bar. TEMPERATURES 121 ºC AND 134 ºC.
VERTICAL DESKTOP MODELS. “MICRO 8” CAPACITY: 8 LITRES. “MED 12” CAPACITY: 12 LITRES.
VERTICAL STAND MODEL “MED 20” CAPACITY: 20 LITRES.
MAXIMUM PRESSURE: 2.5 BAR

An economic alternative. Semiautomatics.

SAFETY:

SAFETY VALVE: PREVENTS THE PRESSURE WITHIN THE AUTOCLAVE OVERPASSING THE MAXIMUM SET LIMIT.
SAFETY PRESSURE: DISCONNECTS POWER TO THE HEATER IN CASE OF OVERPASSING THE PRESSURE SET LIMIT.
SAFETY THERMOSTAT: DISCONNECTS THE HEATING IN CASE OF OVERTEMPERATURE OR LACK OF WATER IN THE TANK.
THERMALLY INSULATED LID MADE OF MOLDED THERMOPLASTIC.

COMMON FEATURES

AISI 304 stainless steel external case and top.
Stainless steel chamber and lid, with easy opening.
INCOLOY special stainless steel heater element, which provides long life, low corrosion and high temperatures resistance.
Manual air purge when starting **(“MICRO 8” model).**
Automatic atmospheric purge **(“MED 12” and “MED 20” models).**
Safety device to prevent lid opening.
Starting main switch.

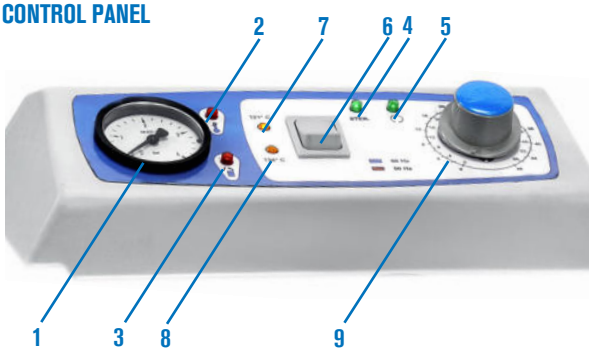
REAR PART

Mains source.
Two fuse carriers.
Safety thermostat.

SIDE PART

Drain outlet.
Steam and drainage selective valve.

CONTROL PANEL



1. Pressure gauge.
2. Over temperature alarm light indicator.
3. Door open light indicator.
4. Sterilization phase light indicator.
5. Sterilization end of cycle light indicator.
6. Temperature selector 121ºC or 134ºC.
7. Light indicator at 121ºC.
8. Light indicator at 134ºC.
9. Timing from 0 to 60’.

Autoclave for sterilization “MICRO 8”

DESKTOP MODEL

MODEL

Part No.	Capacity litres	Ø (usable)	Height cm	Height/Width/Depth (exterior) cm			Power W	Weight Kg
4001745	8	24	15	40	38	38	1000	13

It comes complete with a stainless steel wire basket of Ø 22x14cm high. Part no. 1004771.

Autoclave for sterilization “MED 12”

DESKTOP MODEL

Features: see page 56

MODEL

Part No.	Capacity litres	Ø (usable)	Height cm	Height/Width/Depth (exterior) cm			Power W	Weight Kg
4001756	12	24	26	46	38	38	1800	18

It comes complete with a stainless steel wire basket of Ø 22x24cm high. Part no. 1004772.

Autoclave for sterilization “MED 20”

VERTICAL STAND MODEL.
CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES.

Features: see page 56

MODEL

Part No.	Capacity litres	Ø (usable)	Height cm	Height/Width/Depth (exterior) cm			Power W	Weight Kg
4001757	20	24	41	70	38	38	2500	41

It comes complete with two stainless steel wire baskets of Ø 23x17 cm Part No. 1004773

Autoclaves for sterilization “Presoclave PLUS” 50, 80 and 150 litres.

MICROPROCESSOR TEMPERATURE AND CYCLE CONTROL AND ATMOSPHERIC PURGE.
ELECTRONIC CONTROL OF TIME AND TEMPERATURE RANGE FROM 115 °C TO 134 °C. (0.62 TO 2 bar). MAXIMUM PRESSURE: 2.5 BAR CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES.
PROCESS REGISTRATION AND DOWNLOAD VIA USB. VERTICAL MODEL: 50, 80 AND 150 LITRES.
EXTERNAL PROBE. DISPLAY OF THE PROBE TEMPERATURE AT THE TOP OF THE SCREEN.

SAFETY:

SAFETY OVER PRESSURE VALVE:	PREVENTS OVER PRESSURE ABOVE THE MAXIMUM SET LIMIT.
SAFETY PRESSURE SWITCH:	DISCONNECTS POWER TO THE HEATER IF THE UNIT EXCEEDS THE MAXIMUM PRESSURE LIMIT.
SAFETY THERMOSTAT AND WATER LEVEL:	DISCONNECT POWER TO THE HEATER IF INSUFFICIENT WATER OR OVER TEMPERATURE.
SAFETY LID:	PREVENTS THE LID BEING OPENED IF THE CHAMBER IS UNDER PRESSURE.
SAFETY INSULATION:	THERMALLY INSULATED LID .

An economic semi-automatic alternative

FEATURES

Tank and lid in stainless steel (AISI 316L).
INCOLOY stainless steel heater elements, hard waring, resistant to corrosion and high temperatures.
Process registration and download via usb.
External lateral probe port (only models 50 and 80 litres).
Sterilization chamber and door made from stainless steel.
Automatic purge to atmosphere.
10 programs configurable by the user.

CONTROL PANEL

1. TFT touch screen with virtual push buttons.
2. Pressure gauge.
3. Push button open lid.

MODELS	Part No.	Capacity litres	Ø Height (usables cm)	Height / Width / Depth (exterior cm)	Power W	Weight Kg
PRESOCLAVE III 50	4001770	50	30 70	117 48 62	3600	75
PRESOCLAVE III 80	4001771	80	40 62	119 58 72	3600	100
PRESOCLAVE III 150	*4001772	150	50 70	118 80 95	7500	225

Does not include baskets and drums, order separately. Part No. 4001772 due to its consumption is manufactured for three-phase current at 230 V or 400 V to be specified.

BACK VIEW:

1. Safety valve.
2. Mains power.
3. Safety thermostat
4. Steam empty valve and Drain selector valve.
5. USB connector.

ACCESSORIES: AISI 304 Stainless steel **wire baskets** and **drums.**
For **Presoclave III 50 Plus**, Part. no: 4001770.
Capacity, 3 baskets Ø 25 and 20 cm. height. Part No. 1000495
For **Presoclave III 80 Plus**, Part. no: 4001771.
Capacity, 2 baskets Ø 36 and 28 cm. height. Part No. 1000496
For **Presoclave III 150 Plus**, Part. no: 4001772.
Capacity, 3 baskets Ø 44 and 22 cm height. Part No. 1000780
Sterilization **drum** made from AISI 304 stainless steel.
For **Presoclave III 50 Plus**, Part. no: 4001770.
Capacity, 3 drum Ø 25 and 18 cm. height. Part No. 1002418
For **Presoclave III 80 Plus**, Part. no: 4001771.
Capacity, 2 drum Ø 35 and 27 cm. height. Part No. 1002419
Detergent Bio-Sel.
Water distillation unit especially for autoclaves.
Purge microfilter. Part No. 4001221
Loading and unloading crane. Part No. 1002426 (see page 64).

COMPLEMENTS That needs to be factory installed:
Pt100 second sensor only temperature reader. Part No. 4001219 (see page 64).
Printer: Code 4002417. Must be installed at the factory.

NEW AUTESTER FDA/GMP

REGULATIONS:

EU GMP – ANNEX 1:	STERILE MANUFACTURING, ENVIRONMENTAL CONTROL AND RISK MANAGEMENT.
EU GMP – ANNEX 15:	QUALIFICATION & VALIDATION (IQ/OQ/PQ)
ISO 17665-1 / 17665-2:	STEAM STERILIZATION – PROCESS VALIDATION AND CONTROL
EN 285:	REQUIREMENTS FOR LARGE STEAM STERILIZERS
ISO 13485:	QUALITY MANAGEMENT SYSTEMS FOR MEDICAL DEVICES
21 CFR PART 11:	DATA INTEGRITY AND SECURITY (FOR EQUIPMENT WITH DIGITAL RECORDING)
GAMP 5:	SOFTWARE AND AUTOMATION LIFECYCLE MANAGEMENT

BLOCKCHAIN SECURITY

CLOUD CONNECTIVITY

CER.21 - APAR.11

DESIGNED ACCORDING TO THE MOST DEMANDING INTERNATIONAL STANDARDS

OUR AUTOCLAVES ARE DESIGNED TO MEET THE KEY REGULATORY REQUIREMENTS OF THE PHARMACEUTICAL INDUSTRY, ENSURING FULLY TRACEABLE, REPEATABLE, AND VALIDATABLE PROCESSES IN ACCORDANCE WITH INTERNATIONAL STANDARDS.

Each unit is delivered with complete technical documentation to facilitate audits and IQ/OQ/PQ validations if required, ensuring that the process is fully demonstrable.

SATURATED STEAM TECHNOLOGY FOR A FULLY VALIDATABLE STERILIZATION PROCESS

SELECTA autoclaves use pressurized saturated steam as the sterilizing agent, combining precise control of temperature, pressure, and exposure time to ensure the destruction of resistant microorganisms, with automatic monitoring of the F_0 value.

PRINCIPLES OF PROCESS OPERATION

- Internal or external steam generation
- PID control of temperature and pressure
- Independent probe for cycle verification
- Programmable cycles according to load type, including liquids
- Vacuum systems for optimal steam penetration
- Drying by vacuum, filtered air, and radiation
- Automatic parameter recording

ADVANTAGES FOR PHARMACEUTICAL APPLICATIONS:

- Full alignment with EU GMP, FDA, and quality audits
- Digital recording compliant with 21 CFR Part 11
- Hygienic design in AISI 316L stainless steel
- Process repeatability under audit conditions
- Full support for IQ/OQ/PQ validations
- Load (core) probe for real product temperature control

THE SAME MODELS ARE AVAILABLE WITHOUT GMP CONNECTION

Autoclaves for sterilization “Autester ST DRY GMP-S / USB-S”

PROCESS CONTROL BY PLC.
AUTOMATIC DRYING AND PURGING SYSTEM BY FRACTIONATED VACUUM.
FOR ADJUSTABLE TEMPERATURES FROM 105°C TO 134°C (0.21 TO 2 BAR). MAXIMUM PRESSURE: 2.5 BAR.
COMPLIANT WITH PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU.
VERTICAL MODEL. CAPACITIES: 50, 80, AND 150 LITERS.
GMP-S MODELS WITH GMP CONNECTION AND USB MODELS WITHOUT GMP CONNECTION.

NEW

EU GMP Annex 11

FDA 21 CFR Part 11

Fo

Wi Fi

USB

CONFORMITY	
EN 61010-1	SAFETY REQUIREMENTS FOR LABORATORY EQUIPMENT.
EN 61010-2-040	SAFETY FOR STERILIZER EQUIPMENT FOR LABORATORY USE
EN 61326-1	ELECTROMAGNETIC COMPATIBILITY FOR EQUIPMENT FOR LABORATORY USE.
AD2000	MERKBLATTER PRESSURE EQUIPMENT DESIGN CODE.

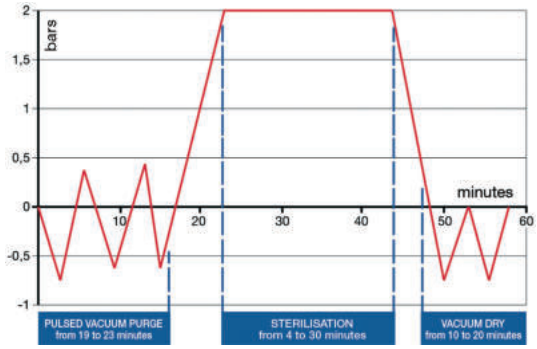
FEATURES

Exterior cabinet and countertop in stainless steel.
Tank and lid in stainless steel (AISI 316L).
Purging by fractionated vacuum and atmospheric pump.
Steam generator.
Water tank to supply the boiler.
Possibility to supply the boiler from an external water source.
6 operating modes.
Connection for a second control probe.
10 fully configurable user programs.
Lateral port for external probe (except for 150-liter autoclave).
Internal memory for storing 200 cycles.

SAFETY

Device that prevents the lid from opening while the chamber is under pressure.
Safety valve. Prevents the pressure from exceeding the maximum limit.
Safety pressure switch. Disconnects the heating in case of overpressure.
Thermal protective cover for the lid.
Closed-door detection sensor.
Atomatic generation of reports in PDF and CSV.

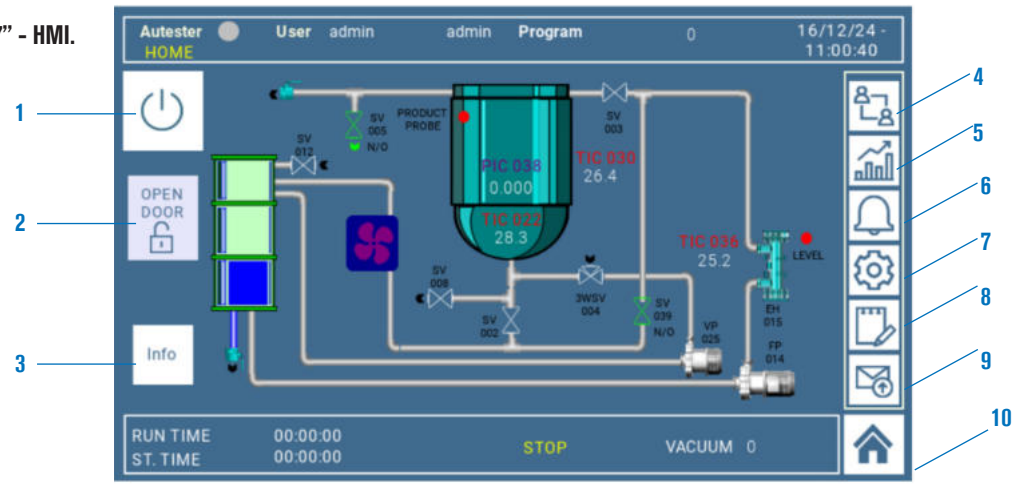
DIAGRAM SHOWING THE FUNCTION CYCLE AUTESTER ST DRY-S



CONTROL PANEL

TFT touch screen with virtual buttons. TFT 7” - HMI.

1. Start button.
2. Manual lid opening.
3. Information.
4. User Change menu.
5. Trend menu.
6. Alarms menu.
7. Configuration menu.
8. Recipes menu.
9. FTP transfer menu.
10. Home.



PLC FUNCTIONS

The microprocessor controls the performing of the air extraction process, sterilizing and drying, executing the selected procedures and commands by the user, adjusting the following parameters:

- Sterilization temperature from 105°C up to 134°C.
- Sterilization time from 3' to 59'.
- Drying time from 20' to 60'.
- Up to 10 user-configurable programs.
- Six operating modes:
- Solid 1 - Solid 2 fractions. - Solid 3 fractions
- Drying - Liquids - Liquids 2 probes
- Verification test
- Vacuum - Bowie Dick.
- Settings:
- Units – languages (Spanish, English, French).
- Printer module On/Off. - Clock: date/time.
- External water: on/off.
- Password for configuration.
- Calibration (adjustment offset)
- Temperature probe 1 - Temperature probe 2
- Water dosing. - Pressure
- Audible and visual alarm for overtemperature and insufficient temperature.
- Network failures detection and memorization
- Safety therrmostat by software
- Sterilization cycles data logging with capacity for over 500 cycles.
- Internal cleaning program
- Graphical representation of real time process

Error messages of functions and program execution are displayed and an acoustic alarm sounds. The vapour generator automatically cuts out.

MODELS	Code	Connection GMP	Drying	Capacity liters	Ø / Height (usable) cm	Height / Width / Depth (external) cm	Temp. ° C	Tank Capacity	Basket Capacity	Consumption W	Weigth Kg
AUTESTER ST DRY USB-S 50	4002521	NO	YES	50	30 63	117 48 62	105 a 134	10	3	4850	108
AUTESTER ST DRY USB-S 80	4002522	NO	YES	80	40 60	119 58 72	105 a 134	10	2	4850	136
AUTESTER ST DRY USB-S 150*	4002523	NO	YES	150	50 76	118 80 95	105 a 134	20	3	14000*	250
AUTESTER ST DRY GMP-S 50	4002524	YES	YES	50	30 63	117 48 62	105 a 134	10	3	4850	108
AUTESTER ST DRY GMP-S 80	4002525	YES	YES	80	40 60	119 58 72	105 to 134	10	2	4850	136
AUTESTER ST DRY GMP-S 150*	4002526	YES	YES	150	50 76	118 80 95	105 to 134	20	3	14000*	250

They are supplied without baskets and without drums. * Code 4002526 and 4002523 due to its power consumption, is manufactured for three-phase current at 230 V or 400 V, to be specified.

SUPPLEMENTS for vertical autoclaves

Pt 100 probe. For temperature reading. In order to ensure that the time and temperature parameters are met under all circumstances, the autoclaves have a connector to install a temperature probe either inside a culture flask, waste packages, etc. and thus ensure that the time spent at a temperature is actually the programmed one.
When the external probe is connected, the controller must be selected in settings and the values detected by the probe appear on the display and in the recorder.
Note: For Presoclave Plus autoclaves, the probe is only used to read the temperature by means of an external thermometer or recorder.
Code 4001219

Loading and unloading crane.
Basket lifter for loading and unloading of 50, 80 and 150L autoclaves.
With adapter for handling baskets without deforming them.
Axial rotation to unload the baskets to a transport trolley.
Total height of the elevator: 2.35 m (mounted on the autoclave).
Epoxy coated steel lower part and stainless steel upper part.
Maximum load of the elevator: 40Kg.
Power supply: 230V 300W
UP/DOWN push button.
Code: 1002426

Ink printer (see page 64)
Code: 4120113

ACCESSORIES:

Wire baskets in stainless steel. AISI 304.
For **St Dry GMP-S / St Dry USB-S,** 50.
Capacity, 3 baskets Ø 25,5 and 20 cm high.
Code: 1000495
For **St Dry GMP-S / St Dry USB-S** 80.
Capacity, 2 baskets Ø 36 and 28 cm high.
Code: 1000496
For **St Dry GMP-S / St Dry USB-S** 150.
Capacity, 3 baskets Ø 44,5 and 22 cm high.
Code: 1000780

Drums sterilization in stainless steel. AISI 304.
For **St Dry GMP-S / St Dry USB-S** 50.
Capacity, 3 drums Ø 25,5 and 20 cm high.
Code: 1002418
For **St Dry GMP-S / St Dry USB-S** 80.
Capacity, 2 drums Ø 35 and 27 cm high.
Code: 1002419

Detergent Bio-Sel. (see page 64)
Water distillation unit especially for autoclaves. (see page 64).
Purge microfilter. Part No. 4001221
Installation and start-up.
(Only in Spain)
Code 1003001

“Steril Pres” autoclaves for liquid sterilization.

PLC CONTROL OF TEMPERATURE AND PRESSURE.
THE AUTOCLAVES ARE DESIGNED FOR A VARIETY OF APPLICATIONS IN THE FIELDS OF INDUSTRIAL PROCESSES, QUALITY CONTROL AND MICRO-BIOLOGY. THESE AUTOCLAVES ALLOW STERILIZATION PROCESSES OF SOLIDS, LIQUIDS AND CULTURE MEDIA.
FOR ADJUSTABLE TEMPERATURES FROM 80 °C TO 128 °C (0.21 TO 2 BAR). MAXIMUM PRESSURE: 2.5 BAR.
CONFORMS TO THE PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU.
VERTICAL MODEL. CAPACITIES: 80 / 150

CONFORMITY

EN 61010-1	SAFETY REQUIREMENTS FOR LABORATORY EQUIPMENT.
EN 61010-2-040	SAFETY FOR STERILIZER EQUIPMENT FOR LABORATORY USE
EN 61326-1	ELECTROMAGNETIC COMPATIBILITY FOR EQUIPMENT FOR LABORATORY USE.
AD2000	MERKBLATTER PRESSURE EQUIPMENT DESIGN CODE.

FEATURES

Exterior cabinet and countertop in stainless steel.
Tank and lid in stainless steel (AISI 316L).
Purging by fractionated vacuum and atmospheric pump.
Steam generator.
Water tank to supply the boiler.
Possibility to supply the boiler from an external water source.
6 operating modes.
Connection for a second control probe.
10 fully configurable user programs.
Lateral port for external probe (except for 150-liter autoclave).
Internal memory for storing 200 cycles.

NEW

EU GMP Annex 11

FDA 21 CFR Part 11

Wi Fi

Fo

USB

SAFETY

Device that prevents the lid from opening while the chamber is under pressure.
Safety valve. Prevents the pressure from exceeding the maximum limit.
Safety pressure switch. Disconnects the heating in case of overpressure.
Thermal protective cover for the lid.
Closed-door detection sensor.
Atomatic generation of reports in PDF and CSV.
Safety thermostat.
Overheating alarm.
Error alarm during cycle.
Level alarm.
Sterilization failure alarm.

INTEGRATED BACK PRESSURE SYSTEM

MODELS	Code	Capacity liters	Ø / High (usable) cm	Height / Width / Depth (external) cm	Temp.° C H_2O dest.	Capacity Tank	Capacity Basket	Consumption W	Weigth Kg
Steril Pres USB-80	4002442	80	40 60	119 58 72	80 a 128	10	2	4850	136
Steril Pres USB-150	4002443	150	50 70	118 80 95	80 a 128	10	3	7500	250
Steril Pres GMP-80	4002444	80	40 60	119 58 72	80 a 128	10	2	4850	136
Steril Pres GMP-150	4002445	150	50 70	118 80 95	80 a 128	10	3	7500	250

They are supplied without basket and without drums.

PLC FUNCTIONS

The PLC controls the air extraction, sterilization and drying process by executing the procedures and commands selected by the operator, regulating the following parameters:

- Sterilization temperature from 105 °C to 128 °C
- Sterilization time from 3' to 59'.
- Up to 60 user-configurable programs.
- Configuration
  - Units -Languages (Spanish, English, French)
  - On/Off printer. - Clock: date/time.
  - External water inlet: on/off.
- Password for user level configuration.
- Calibration (offset adjustment)
  - Probe 1 temperature - Probe 2 temperature
  - Water dosage - Pressure.
- Visual alarm of over-temperature and under-temperature.
- Detection and memorization of mains failures.
- Safety thermostat (TS) by software.
- Sterilization cycle data logging with capacity for more than 500 cycles.
- Graphic representation of the process in real time

Any error in operation or execution results in a message on the control panel and an acoustic warning, automatically shutting down the steam generator.

COMPLEMENTS AND ACCESSORIES

Code	Ø	Height cm	Number of baskets
1000496	36	28	2
1000785	47	28	2

*AISI 304 stainless steel blind baskets.

OPTIONS: for vertical autoclaves, need to be factory fitted.

Pt 100 Sensor. 2nd Probe for reading sample temperature.
To guarantee in all circumstances that the system has completed the cycle to the set time and temperature parameters, the Autester ST DRY PV III autoclave can be installed with a temperature probe that can be placed within the culture flask, residual packets etc.
When the probe is connected to the controller of the autoclave, it must be selected in settings, whereby the real time temperature values detected by the probe, are displayed and printed.
For autoclaves PRESOCLAVE III and PRESOCLAVE PLUS this Pt100 sensor only reads the temperature with an external thermometer.
Part No. 4001219

ACCESSORIES FOR VERTICAL AUTOCLAVES

AISI 304 stainless steel wire baskets.

Part No.	Ø cm	Height cm	Suitable for autoclaves Part No.	Number of baskets
1004771	22	14	4001745	1
1004772	22	24	4001756	1
1004773	23	17	4001757	2
1000495	26	19	4001770 - 4002521 - 4002524	3
1000496	36	28	4002525 - 4001771 - 4002522 -4002442-4002444	2
1000780	47	22	4002526 - 4001772 - 4002523-4002443-4002445	3
1000490*	26	19	4001770 - 4002521 - 4002524	3
1000491*	36	26	4002525 - 4001771 - 4002522-4002442-4002444	2
1000492*	47	20	4002526 - 4001772 - 4002523-4002443-4002445	3

*AISI 304 stainless steel blind baskets.

AISI 316 stainless steel wire dividers for autoclave baskets.
Part No.
1001217 4 divider compartments for basket part no. 1000495.
1001218 6 divider compartments for basket part no. 1000496.
1001222 7 divider compartments for basket part no. 1000780.

Sterilization Drums.

Código	Ø cm	Height cm	Suitable for autoclaves Part No.	Capacity Drums
1002418	25	18	4001770 - 4002521 - 4002524	3
1002419	35	27	4002526-4001771-4002523-4002442-4002444	2
1002420	28	18	Not suitable for our autoclaves.	

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 system if over temperature due to insufficient water.
Comes complete with a 4 litre three way dispenser plastic bottle with filter.
Note: for daily use it is recommended to change the filter every 3 months.

No external additional water required

Part No.	Capacity Distillation litre/Hour	Conductivity µs/cm	Ø cm	Height cm	Power W	Weight Kg
4001729	1.2	5	29	39	750	3.5

Spare: Dispenser spout with filter. Part No. 4001730

Detergent "BIO-SEL"
We recommend the use of BIO-Sel detergent for cleaning, it is also biodegradable and free from Phosphates.
Part No.
1000025 Capacity 1 litre.
1000026 Capacity 4 litres.
1000852 Box of 12 x 1 litre flasks.
1000853 Box of 4 x 4 litre flasks.

Culture media autoclave preparer “Med 40 CLT”

CONTROL OF PROCESSES BY PLC
FOR ADJUSTABLE TEMPERATURES FROM 105°C TO 134°C.

VERTICAL MODEL CAPACITY: 40 LITRES

STANDARD	
EN 61010-1	SAFETY REQUIREMENTS FOR LABORATORY USE EQUIPMENTS.
EN 61010-2-040	SAFETY REQUIREMENTS FOR LABORATORY USE EQUIPMENTS. STERILIZERS.
EN 61326	REQUIREMENTS FOR ELECTROMAGNETIC COMPATIBILITY OF LABORATORY EQUIPMENTS.

NEW

APPLICATIONS

Ideal for the operative workflow in microbiology and in tissue culture laboratories.
Preparation, sterilization and dispensing culture media is integrated in a single autoclave.
High efficiency system in heating, cooling and chamber agitation.

EU GMP Annex 11

FDA 21 CFR Part 11

Wi Fi

Fo

USB

FEATURES

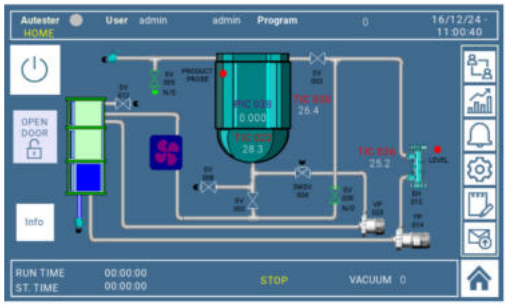
Stainless steel outer casing.
Tank and lid in stainless steel (AISI 316L).
USB output for data recording in PEN-DRIVE.
50 programs totally configurable by the user.
Dosage per peristaltic pump.
Dosage control by a pedal.
Magnetic stirrer for internal stirring with PTFE rod.
Agitation speed adjustment (50-200 rpm).
Filler for dosage additive.
Temperature control by water probe and by product probe.

SAFETY

Safety: The lid cannot be opened if the chamber is under pressure.
Safety valve: Prevents over pressure over the maximum limit.
Safety pressure switch: switches the heater power off to if over pressure.
Safety Lid: insulated lid protection.

CONTROL PANEL

TFT touch screen with virtual buttons. TFT 7” - HMI.



MODEL

Part No.	Capacity litres	Ø (useful)	Height cm	Height	Width	Depth (exterior) cm	Power W	Weight Kg
4002000	40	20	45	117	50	65	6000 III phase	95

COMPLEMENTS that must be installed at the factory:
Printer on continuous paper with indication of temperature, time and mode. Part number 4002417

Autoclave for liquids and solids sterilization “Autester ST DRY-S” 25

CAPACITY: 25 LITRES. SPACE FOR 12 BOTTLES OF 250 ML, 9 OF 500 ML, 3 OF 1000 ML AND 2 OF 2000 ML.
CONFORMS TO THE REGULATION - 2014/68/UE EQUIPMENT UNDER PRESSURE.

Complete selection of programs. Displays in English - Spanish - French.

FEATURES

Sterilization chamber and lid made from AISI 304 stainless steel.
External case epoxy coated.
Digital control of all autoclave operations.
TFT 3,5” touch screen.
Dry by vacuum
Air filter, purifies air before entering in the sterilization chamber.
Separate clean water reservoir and waste water.
RS-232 Interface output of parameters to a computer or for printer.
USB output for PEN-DRIVE data logging.

SAFETY

Safety valve.
Prevents the door being opened if under pressure or high temperature is produced.
Temperature safety thermostat.
Door closed correctly detector
Thermally protected lid.

MICROPROCESSOR FUNCTIONS

Controlled parameters are:

- Sterilization temperature from 105°C up to 134°C.
- Sterilization time from 3’ to 59’.
- Drying time from 20’ to 60’.
- Up to 10 user-configurable programs.
- Six operating modes:

- Solid 1 - Solid 2 fractions. - Solid 3 fractions - Drying - Liquids - Liquids 2 probes

- Verification test

- Vacuum - Bowie Dick.

- Settings:

- Units – languages (Spanish, English, French). - Printer module On/Off. - Clock: date/time.

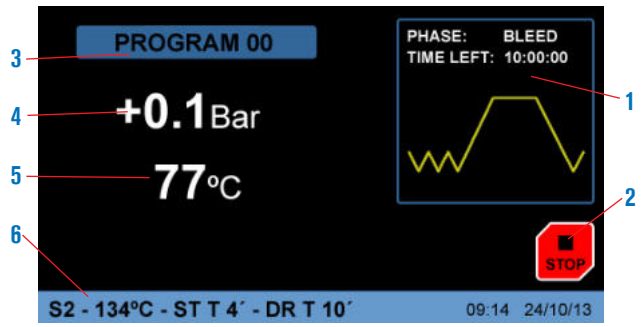
- Password for adjustment.
- Calibration.

- Temperature probe 1 - Temperature probe 2 - Water dosing - Presion.

- Audible and visual alarm for overtemperature and insufficient temperature.
- Network failures detection and memorization.
- Safety therrmostat by software.
- Sterilization cycles data logging with capacity for over 500 cycles.
- Internal cleaning program.
- Graphical representation of real time process.

CONTROL PANEL

TFT touch screen with virtual pushbuttons.



1. Graphical representation of real time process
2. Start/Stop pushbutton.
3. Running program.
4. Press indicator.
5. Temperature indicator.
6. Running program parameters.

MODEL	Part No.	Capacity litres	Ø/Depth (usables) cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
AUTESTER ST DRY-S	4002420	25	30 35	58 46 59	2510	52

Comes complete with three trays, extractor forceps, and additional support for instruments and sterile wrapping bags.

PARAMETERS AND PROGRAMS PRE INSTALLED IN THE AUTOCLAVE MICROPROCESSOR

(Note: All these parameters are adjustable by the user)

Nº Programme	Description	Temperature Sterilization	Time Sterilization	Time Dry	Purge
0	Free	-	-	-	-
1	Unwrapped instruments	134 °C	4 min	15 min	2 (1)
2	Wrapped instruments	134 °C	12 min	30 min	3 (2)
3	CJD	134 °C	20 min	20 min	3 (2)
4	Delicate unwrapped	121 °C	15 min	15 min	2 (1)
5	Delicate wrapped	121 °C	30 min	30 min	3 (2)
6	Disinfecting	105 °C	25 min	15 min	1 (3)
7	Liquids	121 °C	30 min	-	1 (3)
8	Solids	121 °C	15 min	30 min	1 (3)
9	Solids	134 °C	4 min	30 min	1 (3)

(1) Double Vacuum purge.
(2) Triple Vacuum purge.
(3) Atmospheric purge (No vacuum).

MESSAGES:

1. E 2PROM
2. RTC FAULT
3. SENSOR PRECISION
4. HEATER PROBE
5. CHAMBER PROBE
6. OVER PRESSURE
7. VACUUM
8. PRESSURE
9. BOILER TEMPERATURE
10. TEMPERATURE LOW FAULT
11. INPUT ERROR
12. STERILIZATION
13. LEVEL 1
14. LEVEL 2
15. DOOR
16. PRINTER NO PAPER
17 PAPER JAM
18. ELECTRICAL FAULT

ACCESSORIES

Ink Printer (no thermal).
Paper size 2 1/4” (56 mm) wide.
Includes communications and power cable.
Model

Part No.	Height/Width/Depth cm	Power	Weight Kg
4120113	4 16 10	DC 5V 3A	1

Water distiller especially for Autoclaves. (See page 64).
Bag sealers (See page 69 and 70).
Special tray for bottles of 0.25, 0.5, 1 or 2 litres. Part No. 4002416

Autoclave for sterilization “Autester ST DRY PV” Class B

AUTOMATIC VACUUM DRY AND PURGE.
PROGRAMS TO 121 °C AND 134 °C (1 AND 2 bar).
MODEL HORIZONTAL. CAPACITY: 12 AND 23 LITRES.

APPLICATIONS

"Class B" autoclaves are used within the field of general medicine, dentistry, veterinary, tattoo parlours and sterilization applications in general, to sterilize any material that could have been in contact with body fluids including blood.
The general capabilities of the instrument are regulated by EN 13060 that guarantees the differing sterilization applications.
The normal processes include: Solids with and without wrapping, porous material with and without wrapping and utensils that have cavities and holes (e.g. dentistry materials.)

To guarantee sterilization of these materials the “AUTESTER ST DRY PV” Class B, autoclaves, have an efficient staged vacuum, that performs a complete extraction of air that allows penetration of the steam vapour.
The same vacuum system is used to obtain the dry phase, which is required for perfect storage of sterilized materials.
The “AUTOCLAVES ST DRY PV” Class B includes verification and validation programs.

CONFORMITY:

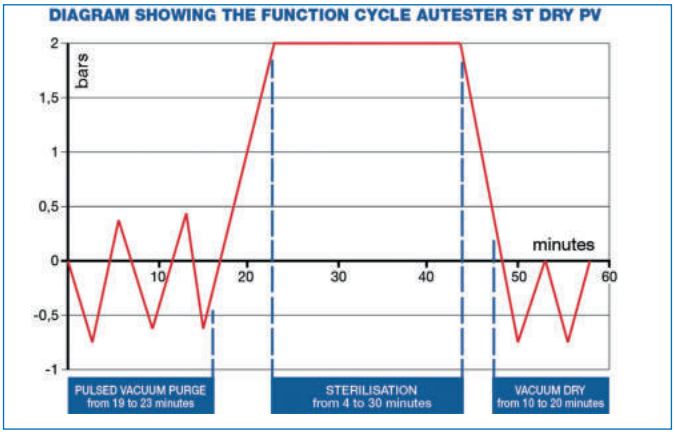
EN 13060	SMALL GENERAL PURPOSE STEAM STERILIZERS.
EN 61010-1	EQUIPMENT SAFE FOR LABORATORY USE.
EN 61010-2-040	SAFETY FOR STERILIZER EQUIPMENT FOR LABORATORY USE
EN 61326	ELECTROMAGNETIC COMPATIBILITY FOR EQUIPMENT USED IN THE LABORATORY.

SAFETY:

SAFETY VALVE: PREVENTS THE PRESSURE EXCEEDING THE MAXIMUM SET LIMIT.
SAFETY THERMOSTAT: DISCONNECTS THE HEATER AGAINST OVER TEMPERATURE OR LOW WATER IN THE RESERVOIR.
THERMALLY INSULATED LID.

12 litres

23 litres



Staged fractional vacuum: Extracts air from the load that permits absolute steam vapour penetration.

Sterilization stage: Sterilization within the time and temperature selected.

Dry cycle: Extracts the humidity from the load leaving it suitable for storage.

Autoclave for sterilization Autester “ST DRY PV” 12 Class B

CAPACITY: “ST DRY PV”: 12 LITRES.

According to directive: 2014/68/UE equipment under presure,3.3.

FEATURES

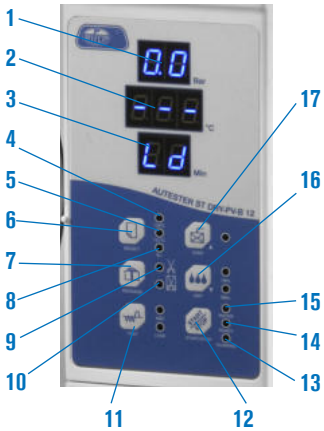
Stainless steel internal chamber.
Staged vacuum purge.
Dry by vacuum
Incorporated steam generator.
Water reservoir to supply the chamber
High vapour penetration of porous material
Used in digestive studies, ophthalmology, operating theatres etc .

SAFETY

Safety valve. Prevents over pressure over the maximum working limit.
Safety thermostat. Disconnects power to the heater if over temperature or low water in the reservoir.
Thermally protected lid.

TEMPERATURE CONTROL AND AUTOMATIC MICROPROCESSOR CYCLE.

CONTROL PANEL



1. Pressure indicator (bar).
2. Temperature indicator (°C).
3. Time Indicator (min.).
4. 121 °C.
5. 134 °C.
6. Program selection.
7. Select wrapped or non wrapped.
8. Textile materials.
9. Solids (Not wrapped).
10. Solids (Wrapped).
11. Test.
12. Preheating.
13. Sterilization cycle in process.
14. Autoclave ready for operation.
15. Low level water indicator.
16. Fast dry (1 or 5 minutes).
17. “Maintain hot” the chamber.

CYCLES	134 °C Wrapped	134 °C Not Wrapped	121 °C Wrapped	121 °C Not Wrapped	Textiles	Test Bowie Dick	Test Vacuum
Sterilization Temperature	134 °C	134 °C	121 °C	121 °C	134 °C	134 °C	-
Sterilization pressure	2.1 bar	2.1 bar	1.1 bar	1.1 bar	2.1 bar	-	2.1 bar
Vacuum purge time	8 min.	4 min.	8 min.	4 min.	8 min.	-	-
Sterilization time	12 min.	4 min.	30 min.	20 min.	12 min.	3.5 min.	10 min.
Dry time	10 min.	10 min.	10 min.	10 min.	15 min.	1 min.	-

MODEL	Part No.	Capacity litres	Ø / Depth cm		External dimensions cm			Trays dimensions cm			Power W	Weight kg
					Height	Width	Depth	Height	Width	Depth		
AUTESTER ST DRY PV B 12	4001737	12	20	35	39,2	48,7	60	1,8	14	29,5	1800	42,2

Comes complete with: spare joint, door adjustment key, support with three trays, extractor forceps, empty water filter and waste water out.

ACCESSORIES

Thermal Printer.
Paper size 2 1/4” (56 mm) wide.
Includes communications and power cable.
Power: DC 5V 3A
Part No: 4120123
Paper roll for thermal printer
Code: 4405730
Water distiller especially for Autoclaves. (See page 64).
Bag sealers (See page 69 and 70).

Autoclave for sterilization “Autester ST DRY PV-B Print

CAPACITY: 23 LITRES.

According to directive: 2014/68/UE equipment under presure,3.3.

FEATURES

Digital electronic control.
Stainless steel internal chamber.
Staged vacuum purge.
Dry by vacuum
Incorporated steam generator.
Water reservoir to supply the chamber
High vapour penetration of porous material
Used in digestive studies, ophthalmology, operating theatres etc.
Automatic or manual filling of the water tank.
USB connection for parameters memorization (software included).
Built-in printer.

BUILT-IN PRINTER.

TEMPERATURE CONTROL AND AUTOMATIC MICROPROCESSOR CYCLE.

SAFETY

Mechanism door lock, prevents the door being opened accidentally.
Safety valve. Prevents over pressure over the maximum working limit.
Safety thermostat. Disconnect power to the heaters if over temperature or low water in the reservoir are produced.
Thermally insulated lid.
Dirty water tank full alarm.

CONTROL PANEL

1. LCD screen.
2. Push button increase parameters.
3. Push button decrease parameters.
4. Push button menu.
5. Push button Start-Stop.

CYCLES	134 °C Emergency	134 °C Solid	134 °C Hollow	134 °C Sanguinary	121 °C Solid	121 °C Hollow	134 °C Glass	121 °C Tampon	134 °C Bowie Dick	134 °C Helix	134 °C User-defined	Test Vacuum
Sterilization Temperature	134 °C	134 °C	134 °C	134 °C	121 °C	121 °C	134 °C	121 °C	134 °C	134 °C	134 °C	-
Sterilization pressure	2,1 bar	2,1 bar	2,1 bar	2,1 bar	1,1 bar	1,1 bar	1,1 bar	1,1 bar	2,1 bar	2,1 bar	-	-
Vacuum purge number	1	1	4	3	1	3	1	3	3	3	3	-
Sterilization time	4 min.	4 min.	4 min.	18 min.	20 min.	20 min.	4 min.	30 min.	3,5 min.	3,5 min.	4 min.	-
Dry time	8 min.	4 min.	10 min.	10 min.	8 min.	10 min.	4 min.	18 min.	3min.	3 min.	3 min.	-

MODEL	Part No.	Capacity litres	Ø / depth cm		External dimensions cm			Trays dimensions cm			Power W	Weight kg
					Height	Width	Depth	Height	Width	Depth		
AUTESTER ST DRY PV-B 23	4001739	23	24,5	48	40	47	67	2	20,5	38	1700	48

Comes complete with: spare joint, door adjustment key, support with three trays, extractor forceps, empty water filter and waste water out.

ACCESSORIES

Water distiller especially for Autoclaves. (See page 64).
Bag sealers (See page 69 and 70).

Bag sealer “S-400-B”

SUITABLE FOR POLYPROPYLENE-POLYESTER STERILISING BAGS WITH A PAPER BASE.

FEATURES

Front part made of metal epoxy covered case.
Pressure sealer. Manual cut.

CONTROL PANEL

Illuminated mains switch.

MODEL

Part No.	Seal Width mm	Maximum seal length mm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4100047	12	300	17,5 47 35	100	4.8

Bag sealer “Seal-1000”

FOR POLYPROPYLENE AND POLYESTER BAGS WITH A STERILE PAPER BASE.

FEATURES

Metal construction with stainless steel tray.
Pressure sealer unit with lateral leaver with two bilateral cutting edges.
Constant sealing temperature (from 180 °C and 200 °C).

External support for rolls of up to 240mm wide, with adjustable separator sides to accommodate different roll sizes.

CONTROL PANEL

Illuminated start switch.
Indicator, optimum seal temperature.

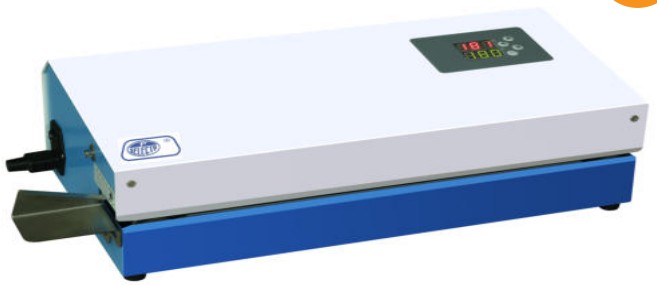
Part No.	Seal width mm	Maximum seal length mm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4101712	10	260	30 36 43	400	6.5

Automatic bag sealer “Seal-Com 2”

ACCORDING TO DIN 58953 SECTION 7 STANDARD. FOR POLYPROPYLENE-POLYESTER BAGS WITH PAPER BASE TO STERILIZE. CONTINUOUS SEALING. MANUAL OR AUTOMATIC ADVANCE.

Continuous Thermosealer

NEW DESIGN



FEATURES

Exterior in enamel protected steel.
Heating time: 4’.
Sealing width: 10 mm.
Sealing speed: 6 m / min.
Acoustic signal of cycle starting.
Electronic regulation and digital reading of temperature.

CONTROL PANEL

Start-up light switch.
Manual or automatic start switch.

MODEL

Part No.	Height / Width / Depth (sealer) cm	Power W	Weight Kg
4100044	14,8 44 23,2	500	15

ACCESORIES

Roller table
Measures cm: 74,5 width x 28,6 depth x 5,2 height.
Part No. 4100053

Automatic bag sealer with printer “Seal-Com 3”

ACCORDING DIN 58953 SECTION 7 STANDARD. FOR SEALING STERILE PAPER, POLYPROPYLENE-POLYESTER BAGS. SPECIAL FOR A LARGE AMOUNT OF BAGS SEALING.

FEATURES

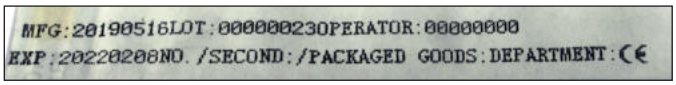
Exterior made from AISI 304 stainless steel, ideal for sealing plastic paper bags, solid plastic paper and only paper bags.
Heating time: 4 minutes.
Seal width: 12 mm.
Sealing speed: 10 m/min.
Acoustic sign of cycle starting.
Temperature touch control from 60 to 220ºC.

CONTROL PANEL

LCD touch screen 7” indicating:
- Setpoint temperature and actual temperature.
- Date and time (automatic date change).
- Print size.

PRINTING

Print sterilization date, expiration date, sterilization lot, name of the operator, name of the item and department.



MODEL

Part No.	Height / Width / Depth (sealer) cm	Power W	Weight Kg
4100049	22 56 26	500	20

ACCESSORIES

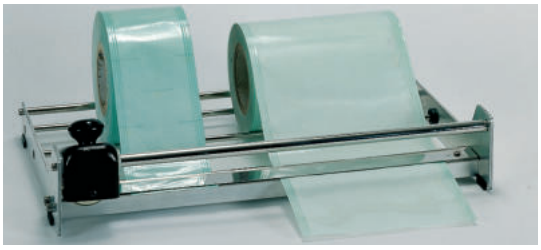
Roller table
Measures cm: 74.5 width x 28.6 depth x 5.2 height.
Part No. 4100053

SEALING MACHINE ACCESSORIES

Rolls of paper for sterilization “Polisteril”
Paper base polypropylene and polyester bags showing differing ink prints of sterilized items.

Part No.	Bag width cm	Bag length m
4100075	7,5	100
4100100	10	100
4100200	20	100

Sterile paper “Policort” trimmer
Completely made of metal with back and reel support, for a capacity of 2 x 200mm or 4 x 100 mm wide reels.
Circular cutting knife edge.
Measurements: 13 high x 51 wide x 32 cm deep.
Weight: 2.8 Kg.
Part No. 4100045



OPTIONS: **Ultrasonic cleaning** baths for dentistry, “Ultrasons-Digit”. **Dry sterilizer** “DRYTIME” poupinel oven (see page 143).

LOW TEMPERATURE

Cooled Incubators, Refrigerators and freezers...

Refrigerated cabinets “Medilow” XS, S, L & LG	page 73
Refrigerated cabinets“Pharmalow” L, M and B	page 74
Upright freezers “Templow” YL, FL and YC	page 75 to 77
Storage refrigerators “Stocklow” LS, GS and LSC	page 76
Ultra-low Temperature Freezers	page 77
Crushed ice machines	page 77
Chest freezers	pages 79 to 81
Circulating Chillers	page 81 and 82

“Luck is not chance, it is toil. Fortune is expensive, smile is earned.”
Emily Dickingson

LOW TEMPERATURE
Model selection table

QUICK OVERVIEW

Equipment	Model	Forced air	Regulation	Capacity				
Refrigerated oven				105 liters				
+2 ... +8 °C	Medilow-XS	Yes	Analog	2101286				
Oven				180 liters	610 liters	544 liters		
+1 ... +40 °C	Medilow-S-L-LG	Yes	Digital	2101270	2101301	2101302		
Refrigerated cabinets				130 liters	300 liters	395 liters		
+0 ... +15 °C	Pharmalow-L	Yes	Analog	-	2101300	-		
+2 ... +8 °C	Pharmalow-M	Yes	Digital	-	-	2101320		
+2 ... +8 °C	Pharmalow-B	Yes	Digital	2101331	-	-		
Freezer cabinets				90 liters				
-10 ... -25 °C	Templow-YL90	Yes	Digital	2100054				
				270 liters				
-10 ... -25 °C	Templow-S-YL	Yes	Digital	2100055				
				450 liters				
-10 ... -25 °C	Templow-YL	Yes	Digital	2100056				
				450 liters				
-20 ... -40 °C	Templow FL-450	-	Digital	2100058				
				528 liters				
-20 ... -40 °C	Templow FL-528	-	Digital	2100059				
				186/100 liters				
-10 ... -40°C	Templow YC-289	-	Digital	2101288				
				200/100 liters				
-10 ... -26 °C	Templow YC-300	-	Digital	2100057				
Refrigerated cabinets				670 liters	670 with glass			
+1 ... +8 °C	Stocklow LS	Yes	Digital	2101283				
+1 ... +8 °C	Stocklow GS	Yes	Digital	-	2101284			
-17 ... -22 °C	Stocklow LSC	Yes	Digital	2101289				
Chest freezers				130 liters	206 liters	300 liters	343 liters	360 liters
-14 ... -28 °C	Combatemp	No	Digital	-	2101040	-	2101041	-
-10 ... -45 °C	UNI-41	-	Digital	-	-	-	-	5020254
-10 ... -45 °C	UNI-31	-	Digital	-	-	-	-	5020255
-50 ... -85 °C	LAB-11	-	Digital	5020202	-	-	-	-
-50 ... -85 °C	LAB-51	-	Digital	-	-	5020249	-	-
Ultra-low temperature freezers				402 liters	525 liters	754 liters	836 liters	
-40 ... -86 °C	GR -86	-	Digital	2101297	2101318	2101290	2101325	
Chillers				6,7 liters	26 liters	46 liters		
+35 ... +5 °C	CH 1400	-	Digital	6001493	-	-		
+35 ... +5 °C	CH 4200	-	Digital	-	6001494	-		
+35 ... +5 °C	CH 8200	-	Digital	-	-	6001496		

Refrigerated cabinet “Medilow-XS”

FOR TEMPERATURES FROM 2°C TO 8°C.
IDEAL FOR SMALL SPACES.

FEATURES
Epoxy covered external case.
Interior ABS molded, resistant to chemicals with LED light built-in.
Internal fan for temperature homogenization.
Supports for adjustable in height shelves.

CONTROL PANEL
Analog temperature controller.
On/Off switch internal light.
On/Off switch external light.

MODELO

Código	Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior)cm	Power W	Power HP	Nº Shelves	Weight Kg
2101286	105	146,5 28 27	182,5 36 38,5	110	1/8	8	65

Supplied with 8 steel trays, PVC laminated. For additional tray. Part No. 1001861

Refrigerated cabinets “Medilow” S, L & LG

WITH FORCED AIR FAN CIRCULATION.
WITH DIGITAL ELECTRONIC TEMPERATURE CONTROL.
TEMPERATURE RANGE CONTROLLABLE FROM +2 °C TO +40 °C. WITH A STABILITY OF ±1.5 °C. RESOLUTION 1 °C.
CAPACITY: 180, 236 AND 544 LITRES.

SAFETY: CONFORMS TO EN61010.1. OVER TEMPERATURE SAFETY THERMOSTAT INSTALLED.

APPLICATIONS
Determination of BOD at 20°C, Measurement of enzyme activity at 25°C. Storage and Preservation of samples, Incubation, Cosmetics, Botany, Food Products, etc.

FEATURES
Electronic temperature control with digital display.
Pt 100 temperature probe.
Probe failure alarm.
Epoxy covered external case.
Easy to clean, strong, molded ABS Interior.
Vibration and CFC free hermetically sealed compressor.
Turbine fan air circulation, enclosed within the unit.
External hole for connecting inside probes, etc.
Internal power connection to a maximum of 500 W.
Adjustable level front supports.
Door can be hung to open left or right.
Door lock.

CONTROL PANEL
Temperature control.
Live-time temperature display.
Pre-selected temperature display.
Increase value, push button.
Decrease value, push button.
Program parameter selection, push button.
Configure push button.

NEW DESIGN

Model Medilow S. Capacity: DBO 2 blocks

Model Medilow LG, double glass door.

Models Medilow L.

MODELS	Part No.	Capacity litres	Door glass	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior) cm	Number of shelves	Internal power points	Power W	Weight Kg
MEDILOW-S	2101270	180	-	70 51 44	85 60 85	3	2	250	36
MEDILOW-L	2101301	610	-	152,5 56,5 54	211,2 68,5 80,5	3	2	330	73
MEDILOW-LG*	2101302*	544	YES	145 60 56	164 75 95	4	2	330	82

Comes complete with steel shelves, PVC laminated.
*Anti mist double glazed insulated door, with LED interior light

SPARE PARTS Shelves

For Medilow S/L/LG Part No.	2101270	2101301	2101302
Shelves	1001813	1001986	1001987

Refrigerated cabinet "Pharmalow" L

WITH FAN ASSISTED CIRCULATION.
TEMPERATURES RANGE FROM +1 °C UP TO +15 °C.

COMMON FEATURES

Exterior cabinet and door in light gray lacquered metal and interior enclosure in white sheet metal with non-toxic finish.
Metallic door and interior led light.
Hermetic compressor unit.
Air circulation turbine throughout the interior enclosure for greater homogeneity
Automatic defrosting with water evaporation.
Level adjustable foot supports.
Door direction change.
Door with lock.

CONTROL PANEL

Temperature regulator thermostat inside.
Digital thermometer temperature reader.
Digital electronic temperature controller.

ACCESSORIES

Rack with 5 drawers and 60 dividers
Code 1001307

SPARE PARTS

Shelves
Code 1001985

OPTIONAL

Drawer with 3 compartments and 12 partitions.
Maximum quantity 8 drawers
Code 1001315

MODEL

	Part N	Capacity liters	Height / Width / Depht (interior) cm	Height / Width / Depht exterior (cm)	Power W	Number of shelves	Weight KG
PharmalowL	2101300	300	145 47 44	169 60 65	180	4	58

Comes complete with steel shelves, PVC laminated.

Storage refrigerator with double glazed anti mist door "Pharmalow" M

WITH A DIGITAL ELECTRONIC TEMPERATURE CONTROLLER. FOR ADJUSTABLE TEMPERATURES FROM +2 °C TO +8°C.
SUPPLIED WITH PRINTER. ANTI-FOG HEATED DOOR. MANUFACTURED ACCORDING TO DIN-13277 STANDARD.

NEW

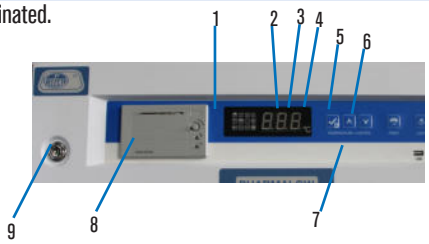
MODEL

Part No.	Capacity litres	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior)cm	Tem. °c	Number of shelves	Weight Kg
2101320	395	135,5 58 53,3	199,2 65 67,3	2/8	6+1	95

Comes complete with 6 steel shelves, PVC laminated.

CONTROL PANEL

1 Temperature display
2 SET key / Mute key
3 Up key. Increase value.
4 Down key. Decrease value.
5 Impress
6 Light. Press to turn lights on and off.
7 USB port. For data export
8 Impresora
9 Lock with key



SPARE PARTS

Part No.
1001860
Set 2 additional guides + shelf

Code 1001877
Drawer + Guides
(Only for Pharmalow M)

Model Pharmalow M with 6 shelves.
Anti-fogging heating in the door.

Refrigerated Cabinet "Pharmalow" B

NEW

FOR ADJUSTABLE TEMPERATURES FROM 2°C TO 8°C.
AIR CIRCULATION WITH BUILT-IN EVAPORATOR.
INDUSTRIAL COMPRESSOR WITH HYDROCARBON REFRIGERANT.
MANUFACTURED ACCORDING TO DIN-13277 STANDARD.

FEATURES

Double glass door with heating to prevent condensation and automatic closing to protect samples.
Aluminum or stainless steel interior, easy to clean.
Removable shelves with label holders, flexible storage, and stable temperature.
Air circulation cooling with evaporator, ensuring uniform temperature.
Compressor with HC refrigerant, energy-efficient and environmentally friendly.

CONTROL PANEL

The microprocessor controller displays temperature with 0.1°C precision.
A 25 mm access port allows connection of monitoring, testing, or backup devices.
Multiple audible and visual alarms ensure operational safety.
.

Pharmalow B

MODELS	Code	Capacity liters	Range °C	Height / Width / Depth (inside) cm	Height / Width / Depth (external) cm	Weight Kg	Number of trays
Pharmalow B	2101331	130	2 to 8	58 55 51	81 65 63	51	2 + 1

YL-90, S-YL and YL "Templow" cabinets

FOR ADJUSTABLE TEMPERATURES FROM -10 ºC TO -25 ºC

APPLICATIONS

Preservation and storage of products requiring low temperature preservation.

NEW

"Templow" freezer cabinet YL-90

FOR TEMPERATURES FROM -10 TO -25ºC.
HIGH PRECISION COMPUTERIZED TEMPERATURE CONTROL.
EQUIPPED WITH 3 DRAWERS.

FEATURES

Polyurethane foam door.
Outer cabinet made of PCM.
Inner cabinet made of sprayed aluminum plate.
Manual defrosting.
Invisible door handle.
Low noise design.

CONTROL PANEL

High definition digital temperature display
Multiple audible and visible alarm systems.
High/low temperature alarm.
Door ajar alarm.
Temperature sensor failure alarm.

NEW

"Templow" freezer cabinet S-YL

FOR TEMPERATURES FROM -10 °C TO -25 °C.
HIGH PRECISION COMPUTERIZED TEMPERATURE CONTROL.
EQUIPPED WITH 7 DRAWERS.

FEATURES

Exterior cabinet made of PCM.
Two-layer thermal insulating foam door.
Inner cabinet made of aluminum plate.
Cabinet made of CFC-free polyurethane material.
Manual defrosting.
Door with lock and key.
Low noise design.

CONTROL PANEL

Intuitive Digital Interface
Precise Controls
Audible and visual alarm system
Keypad lock function

NEW

"Templow" freezer cabinet YL

FOR TEMPERATURES FROM -10 °C TO -25 °C.
HIGH PRECISION MICROCOMPUTER TEMPERATURE CONTROL.
EQUIPPED WITH 12 DRAWERS.

FEATURES

Exterior cabinet made of PCM.
Two-layer thermal insulation foam door.
Cabinet made of CFC-free polyurethane material.
Manual defrosting.
Door with lock and key.
Two independent cabinets, each equipped with 6 drawers, totaling 12 drawers.
Low noise design.

CONTROL PANEL

Intuitive Digital Interface
Precise Controls
Audible and visual alarm system

MODELS	Code	Capacity liters	Range °C	Height / Width / Depth (inside) cm	Height / Width / Depth (outside) cm	Weight Kg	
TEMPLOW YL-90	2100054	90	-10 to -25	53 53 48	85 70 66	54	Supplied with 3 drawers
TEMPLOW S-YL	2100055	270	-10 to -25	123 50 46	179 70 64	96	Supplied with 7 drawers
TEMPLOW YL	2100056	450	-10 to -25	(62 65 57)*2	193 81 73	136	Supplied with 12 drawers

FL-450 and FL-528 "Templow" storage cabinets

FOR TEMPERATURES FROM -20 °C TO -40 °C.
MODEL FL-450 WITH 12 DRAWERS.
MODEL FL-528 WITH 3 SHELVES.

NEW

COMMON FEATURES

Ecological refrigeration: Freon-free, efficient and environmentally friendly.
Precise temperature control: Microprocessor for accurate setting.
Safety alarms: Visual and audible alarms for temperature failure and door open.
Thermal insulation: Polyurethane foam.
Data logging: USB, recording every 10 minutes for 2 years.
Model FL-450:
Double compressor: Independent control of two chambers.
Storage: 12 drawers for organization.
Model FL-528:
Large surface area condenser: Improves heat dissipation.
Two-layer thermal insulation door: Prevents cooling loss.
Heavy-duty material: Galvanized steel (stainless steel option).

CONTROL PANEL

Digital display: Displays temperature, voltage and ambient temperature.
Precise control: Microprocessor for accurate temperature.
Safety alarms: High/low temperature, door open, power and sensor failure.
Protection: Keypad lock and parameter protection.

Model FL-450 Model FL-528

MODELS	Code	Capacity Liters	Range °C	Height/Width/Depth Exterior (cm)	Height/Width/Depth Interior(cm)	Weight (Kg)	
FL-450	2100058	450	-20 to -40	196 81 73	(63 65 57)x2	162	*Supplied with 12 drawers
FL-528	2100059	528	-20 to -40	195 93 104	127 59 70	234	*Supplied with 3 shelves

Storage refrigerators "Stocklow" LS, GS and LSC

WITH FAN ASSISTED CIRCULATION.
MODEL LS, WITH METAL DOOR. TEMPERATURE CONTROLLABLE FROM +1 °C TO +8 °C.
MODEL GS, WITH DOUBLE GLAZED ANTI MIST DOOR.TEMPERATURE CONTROLLABLE FROM +1 °C TO +8 °C.
MODEL LSC, WITH METAL DOOR. TEMPERATURE CONTROLLABLE FROM -17 °C TO -22 °C.

APPLICATIONS

Preservation and storage of products that require below ambient temperatures.

FEATURES

Chemically resistant.
Tropical hermetic compressor.
Automatic defrost with electrical water evaporation system.
Support rack and shelves.
Adjustable front level supports (Models LS and GS).
Supplied with wheels (Model LSC).
The door can be hung to open left or right.
Door lock.

There are two versions:
Stocklow LS and LSC which is completely made of metal, both interior and exterior, AISI 304 stainless steel door.
Stocklow GS inside made of AISI 304 stainless steel and epoxy white external case with glazed door that enables internal view.

CONTROL PANEL

Mains power, ON/OFF switch.
Electronic temperature regulator.
Digital temperature display.
Interior light only(Double glazed door model).

SPARE PARTS
Código 1001858
Set 2 guides + additional tray

Model Stocklow LS and LSC, with metallic door.

Model Stocklow GS, with metallic door.

MODELS	Part No.	Capacity litres	Door	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior) cm	Number of shelves	Power W	Weight Kg
STOCKLOW LS	2101283	670	Metallic	154 61 63	213 73 84	3	338	120
STOCKLOW GS	2101284	670	Glass	154 61 63	213 73 84	3	338	125
STOCKLOW LSC	2101289	670	Metallic	154 61 63	213 73 84	3	338	125

Comes complete with steel shelves, PVC laminated.

Refrigerated cabinet with double compressor "Templow" YC-289 Y YC-300

IN UPPER COMPARTMENT: YC-289 FROM 2 °C TO 8°C; YC-300 FROM 2 °C TO 8°C
IN LOWER COMPARTMENT: YC-289 FROM -10°C TO -40°C; YC-300 FROM -10°C TO -26°C.
3 SHELVES AND ONE DRAWER IN UPPER COMPARTMENT. 3 DRAWERS IN LOWER COMPARTMENT.

NEW

FEATURES

Epoxy coated metal outer cabinet for model YC-289 and PCM for model YC-300.
Inner enclosure in stainless steel for the YC-289 model and made of aluminum plate with spraying.
Double compressor for maximum stability and temperature constancy.
Gradual regulation of the trays for variable utilization of the interior.
Lockable door with key.
USB output for data recording.
Digital electronic control.
Low and high temperature alarms, door open alarm, sensor error alarm and power failure alarm.
Battery backup for alarms.

CONTROL PANEL

Parameter settings.
Upper enclosure temperature indicator display.
Lower enclosure temperature indicator display.
Parameter value increase/decrease.

Model YC-300

Model YC-289

MODELO	Part No.	Capacity litres	Range °C	Height/Width/Depth (exterior) cm	Power W	Weight Kg
Templow YC 289	2101288	Superior 189 Inferior 100	Superior 2 to 8 Inferior -10 to -40	183 70 64	360	136
Templow YC 300	2100057	Superioir 200 Inferior 100	Superior 2 to 8 Inferior -10 to -26	187 70 64	360	87

Comes complete with 3 shelves and 4 drawers.

Crushed ice machines "COM-50", "COM-85" and "COM-150".

MODEL "COM-50" 50: PRODUCTION 58 KG-24 HOURS.
MODEL "COM-85" 90: PRODUCTION 89 KG-24 HOURS.
MODEL "COM-150" 150: PRODUCTION 142 KG-24 HOURS.

APPLICATIONS

Preservation and storage of analytical samples, biological tissues, cell cultures and other applications that require keeping the temperature below ambient.

FEATURES

Outdoor cabinet in stainless steel. AISI 304
Thermally insulated interior.
High capacity of ice production from mains or purified water0.Tropicalized (Class T).
It is advisable to install an anti-scale filter and periodical cleaning in case of water with medium or high lime content (hard water).

CONTROL PANEL

Interruptor general de puesta en marcha.

COM-85 code 5020105

COM-150 code 5020106

COM-50 code 5020104

MODELS	Code	Production Kg (24h.)	Capacity Kg (Deposit)	Height / Width / Depth cm	Voltage of power supply	Consumption W	Weight Kg
COM-50	5020104	58	20	79 47 60	220V 50Hz	470	58
COM-85	5020105	89	20	79 47 60	220V 50Hz	550	58
COM-150	5020106	142	60	136 51 55	220V 50Hz	900	75

ACCESSORIES

AC-3 Descaler (See page: 271) Code: 0703053
*Mandatory use in unfiltered or untreated water intakes for the correct functioning of the equipment.

Ultra-low Temperature Freezers GR -86

FOR TEMPERATURES ADJUSTABLE FROM -40°C TO -86°C.
CAPACITY: 125 / 402 / 570 / 754 / 836 LITERS; SILENT > 48 DB
ECO-FRIENDLY REFRIGERANT.

NEW

FEATURES

Operating temperature: -40°C to -86°C.
DIGITAL CONTROL. Highly precise temperature control. Easy adjustment of your desired temperature range.
TOUCHSCREEN DISPLAY. A clear, visible touchscreen display for user-friendly operation.
COMPRESSORS. Dual compressor system with low noise levels (<48 dB) for all capacities. In case of failure of one compressor, the other can maintain the internal temperature at -70°C.
100% TESTED. All condensing units are 100% tested in a helium chamber to detect and eliminate any potential leaks.
TEMPERATURE. Temperature range from -40°C to -86°C, with graphical representation and USB port for easy data collection.
ALARMS. Maximum protection with visual and audible alarms for power failure, temperature rise or fall, probe failure, open door, filter saturation, and low battery.
HEATED SILICONE GASKET.

CONTROL PANEL

3.5" touchscreen display with graphical temperature representation and safety alerts.
Product temperature stability: ±1°C. Temperature uniformity: < ±2°C.
PT100 temperature probe with 0.1°C accuracy.
Various visual and audible alarms: temperature rise/fall, power failure, probe failure, door open, filter saturation, low battery.
Remote alarm signal (potential-free contact). RS485 Modbus communication port.
USB output. Ethernet adapter support (MySirius, etc.).
Datalogger - records alarms, door openings, and temperatures.
Battery. Password-protected control system.
Ethernet and internet connection with + (Syrius)

TECHNICAL SPECIFICATIONS

EXTERIOR

Galvanized steel body with white/grey plastic coating.
4 wheels with adjustable height feet.

INTERIOR

Stainless steel interior.
4 stainless steel inner doors. 3 feedthroughs.

DOOR

Solid door with lock – thermal door gasket.
Handle with integrated lock, comfortable for one-handed operation. Easily replaceable double gasket. (Rear exterior in stainless steel)
Door sensor.
Hinged.
Front document holder.
Solid door with lock and 4 inner doors to prevent cold loss.

INSULATION

VIP (vacuum insulated panels) for improved side and door insulation.
120mm water-based polyurethane insulation, high-pressure injected CFC-free with a density of 40 kg/m³.

ELECTRICITY

Electrical connection: 230V / 50Hz
2.5m connection cable with Schuko plug.

SHELVES

3 stainless steel shelves and 4 available levels for storage.
Capacity for 6 racks for the 125 L model, 12 racks for the 402 L model, 16 racks for the 525 L model, and 24 racks for the 754 L model.

Size Box	Model 125L	Model 402L	Model 525 L	Model 754L	Model 836 L
	Box Capacity				
50 mm	72	252	336	504	588
75 mm	54	180	240	360	420
100mm	36	120	160	240	280

REFRIGERATION

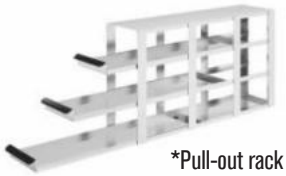
Dual refrigeration circuit system with independent compressors. In case of failure of one system, the other maintains a temperature below -70°C. Hermetically sealed, low-noise compressors. Ventilated condensation system.
Static evaporation system. Climate class 4 (30°C, 55% RH).
Natural HC refrigerant, biodegradable, CFC-free and HCFC-free. Washable air filter for condenser on the lower front, easy to remove.

Code	Temperature Range	Capacity Liters	Power Consumtion(W)	LengthDepth/Height (Internal) mm	LengthDepth/Height (External) mm	Number Shelves	Number Levels	Weight (KG)
2101310	-40°C a -86°C	125	713	490 x 495 x 532	1042 x 780 x 790	1	2	110
2101297	-40°C a -86°C	402	1380	492 x 628 x 1302	846 x 953 x 1987	3	4	244
2101318	-40°C a -86°C	525	1480	642 x 628 x 1302	996 x 953 x 1987	3	4	253
2101290	-40°C a -86°C	754	1564	922 x 628 x 1302	1276 x 953 x 1987	3	4	311
2101325	-40°C a -86°C	836	1679	1022 x 628 x 1302	1376 x 953 x 1987	3	4	322

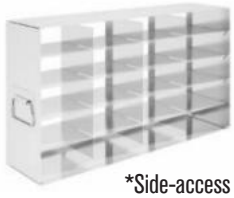
OPTIONAL EQUIPMENT "GR -86"

CO2 backup	Code 2101292
Pen chart recorder	Code 2101293 (*)
Wi-Fi data logger	Code 2101294
Bluetooth data logger	Code 2101295
5-door option / 4 shelves	Request as 5-DOOR variant (*)

(*) Must be installed at the factory



*Pull-out rack



*Side-access rack

ACCESSORIES

Side-access rack for 20 (5x4) boxes of 50	Code: 1001868
Side-access rack for 16 (4x4) boxes of 50	Code: 1001869(**)
Side-access rack for 12 (3x4) boxes of 75	Code: 1001870
Side-access rack for 8 (2x4) boxes of100	Code: 1001871(**)
Side-access rack for 12 (3x4) boxes of 100	Code: 1001872
Pull-out rack 20 (5x4) boxes of 50	Code: 1001873
Pull-out rack 16 (4x4) boxes of 50	Code: 1001874(**)
Cryogenic gloves	Code: 2101296

(**) Racks for the 5-door/4-shelf model

COMECTA Chest Freezers "UNI".

FOR ADJUSTABLE TEMPERATURES FROM -10 °C TO -45 °C

APPLICATIONS

UNI low temperature freezers are used for freezing and long-term storage of food products, medical preparations (such as vaccines and blood plasma), and other biological products. They can also be used in laboratories for low temperature testing.

FEATURES

They use environmentally friendly refrigerants.
Equipped with a digital control for precise temperature adjustment.
Include energy saving functions and manual defrost control.

TECHNICAL CHARACTERISTICS UNI-41

Capacity Gross volume: 360 liters. Net volume: 323 liters.
Power: Voltage: 220V/50Hz (optional 110V/60Hz).
Energy consumption: 1,784 kWh in 24 hours.
Power input: 440W.
Refrigerant: R290, with a quantity of 90g.
Climatic class: B (Ambient temperature between +10°C and +35°C).
Defrost: Manual.

TECHNICAL CHARACTERISTICS UNI-31

Capacity: Gross volume: 300 liters. Net volume: 270 liters.
Power: Voltage: 220V/50Hz (optional 110V/60Hz).
Energy consumption: 1,521 kWh in 24 hours.
Power input: 470W.
Refrigerant: R290, with a quantity of 81g.
Climatic class: B (Ambient temperature between +10°C and +35°C).
Defrost: Manual.

CONTROL PANEL

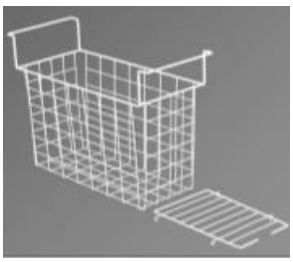
The control panel is located on the front grille of the freezer and includes a DIXELL controller with the following functions:

SET button: To view or adjust the temperature.
Arrow keys: To increase or decrease the temperature or navigate
DEF key: To manually initiate the defrosting process.
Digital display showing the internal temperature of the freezer
To turn off the equipment.
To turn off the light.

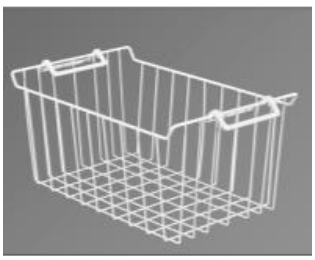
MODELS	Code	Temperature range°C	Capacity (L)	Width/Depth/Height (External) cm	Width/Depth/Height (Internal) cm	Weight (Kg)
UNI - 41	5020254	-10 a -45	360	150 x 65 x 86	130 x 45 x 65	78
UNI - 31	5020255	-10 a -45	300	130 x 65 x 86	110 x 45 x 65	71

ACCESSORIES

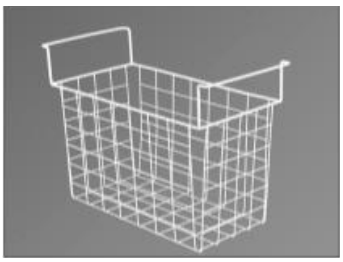
BASKET WXH 205X260MM
Code: 5020290



BASKET WXH 256X260MM
Code: 5020291



BASKET WXH 267X180MM
Code: 5020292



COMECTA Chest Freezers -85 °C "LAB-11" and "LAB-31".

FOR ADJUSTABLE TEMPERATURES FROM -50 °C. TO -85 °C. STABILITY ±0.5 °C.

COMMON FEATURES

Low power consumption and sound level below 50 dB.
Single-stage compressor group refrigeration system.
Inner enclosure and lid in treated and enameled steel.
Counterweighted lid with double gasket to prevent frosting.
Lower drain hole.
Direct rear connection for CO2 inlet.
Key lock to protect valuable samples.

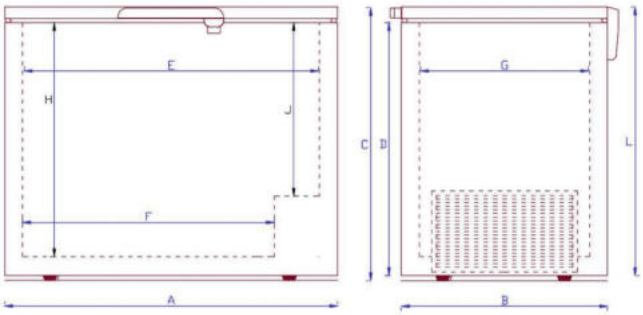
CONTROL SYSTEM

IDigital temperature display and selector adjustable from -50 °C to -85 °C with battery back-up for complete safety. -85 °C with battery back-up for complete safety. An acoustic and visual alarm warns of possible faults and also has an output that allows the cabinet to be connected to an external alarm.

CHEST LAB-31
5020249

Inside dimensions (mm)	LAB-11	LAB-31
A	725	1305
B	655	655
C	865	865
D	780	780
E	520	1500
F	320	1300
G	450	450
H	650	650
J	400	400
L	850	850

USEFUL INTERIOR ENCLOSURE



MODELS	Code	Capacity liters	Height*/**	Width (outside)mm	Depth***	Thickness of insulation mm	Power W	Weight Kg.
LAB 11	5020202	130	920* / 1620**	725	730***	100	480	56
LAB 31	5020249	300	920* / 1620**	1305	730***	100	420	80

Height* = including 50 mm wheels / Height** = with the door open / Depth*** = including handle and hinges

ACCESSORIES

***Box Rack** in stainless steel.

Code	Height / Width / Depth mm			For boxes high mm	*Racks x Chest LAB-11	LAB-31	box x Racks	Box x Chest LAB-11	LAB-31
5020244	335	140	140	50	3	3	6	18	18
5020245	326	140	140	75	3	3	4	12	12
5020246	320	140	140	100	3	3	3	9	9
5020248	610	140	140	50	6	27	11	66	297
5020212	551	140	140	75	6	27	7	42	189
5020213	530	140	140	100	6	27	5	30	135

*For frames codes 5020244, 5020245 and 5020246, the number of frames per chest refers only to the space occupied between the inner dimensions D, E and F, while for the other frames the maximum number of frames per chest between the inner dimensions A, B and G is indicated.

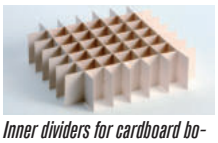
Cardboard boxes with lids

Cardboard boxes with lid, measures mm: 133 width x 133 depth.

Code	Color	high	code	Color	high	code	Color	high
5020215	White	50 mm	5020220	White	75 mm	5020225	White	100 mm
5020216	Blue		5020221	Blue		5020226	Blue	
5020217	Red		5020222	Red		5020227	Red	
5020218	Green		5020223	Green		5020228	Green	
5020219	Yellow		5020224	Yellow		5020229	Yellow	

In addition to these boxes and racks, more accessories are available, please ask for more information.

Cardboard boxes according to measures 50, 75 and 100 mm. high.



Inner dividers for cardboard boxes according to measurements.

Dividers for cardboard boxes.

Code	for Box	Divider	Divisions (cells)	For tubes Ø mm
5020230	50 mm high	30 mm high	10 x 10	12
5020231			9 x 9	13
5020232			8 x 8	14
5020233			7 x 7	16,5
5020234	75 mm high	40 mm high	10 x 10	12
5020235			9 x 9	13
5020236			8 x 8	14
5020237			7 x 7	16,5
5020238	100 mm high	65 mm high	10 x 10	12
5020239			9 x 9	13
5020240			8 x 8	14
5020241			7 x 7	16,5

CO2 input module. Code 5020208
Graphic recorder with digital display. Code 5020209

Chest Freezers "Combatemp"

CONTROLLABLE TEMPERATURE RANGE FROM -14 °C TO -28 °C.
CONTROLLABLE TEMPERATURE RANGE FROM -10 °C TO -40 °C.

APPLICATIONS
Suitable for preservation and freezing of sample.

FEATURES
Epoxy covered external case. Interior of aluminium, with guide supports for baskets or trays.
The interior of the door is made of easy to clean, strong, chemically resistant, moulded ABS.
Drop down lockable door with compensating support hinges. Hermetically sealed compressor, silent and vibration free.
Automatic interior light when the door is opened. (all models except Combatemp S-30.)
Digital electronic temperature control.
N.T.C. Sensor.

CONTROL PANEL
Temperature control.
Digital live and preset temperature display.
Push-button temperature selector.

MODELS	Part No.	Capacity litres	Freezing capacity in 24hrs Kg	Temperature up to °C	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior) cm	Power W	Weight Kg
COMBATEMP S-30	2101040	206	28	-28	74 63 53	92 75 71	160	38
COMBATEMP L-30	2101041	343	38	-28	74 100 53	92 113 71	200	56

Note: Part No. 2101040 is supplied with 1 basket. Part No. 2101041 is supplied with 2 baskets.

SPARE PARTS Baskets	
For Combatemp. Part No.	2101040 / 2101041
Baskets	1001810

Circulating Chillers

FOR ADJUSTABLE TEMPERATURES FROM + 5 °C. UP TO + 35 °C.
AIR COOLED

NEW

COMMON DESCRIPTION
Circulation system Antifreezing fluid coolant GLYCOL ORGANIC 50%
(Use - 35 °C + 145°C)
Titanium alloy or stainless steel evaporator

COMMON CHARACTERISTICS
Temperature accuracy: + / - 1 °C
Cooling capacity: 1450W, 4200W and 8200W
Power supply: AC 220 V, 50Hz (110 / 120 / 230 V, 50 / 60Hz)
Flow rate pump: 19 L/min, 28L/ min and 50L/min
Protection devices: Overheating of comrpesor, high and low pressure, over temperature and antifreeze.

CONTROL PANEL
Interlock control function
The excellent interlock function to control and protect your equipment.
Intelligent PC control system.
Multiple program operation modes with quick function.

CH 4200 AND CH 8200

CH1400

Models	Code	Range of temperature	Height/Width/Depth External (cm)	Power compressor	Capacity of refrigeration	Volume of the tank	Flow rate pump	Weight Kg	Power of entry	Elevator of pump
CH 1400	6001493	+35 °C to + 5 °C	42,2 X 28,6 X 57	480 W	1450 W	6,7 L	19 L / MIN	23,5 KG	610W	12m
CH 4200	6001494	+35°C to + 5 °C	89 x 48 x 55	980 W	4200 W	26 L	28 L / MIN	57 KG	1235W	40m
CH 8200	6001496	+35 °C to + 5 °C	90 X 61 X 75	2600 W	8200 W	46 L	50 L / MIN	120 KG	3570W	26m

ACCESSORIES	
1000028	ORGANIC GLYCOL COOLING FLUID - 35°C + 145 °C 5 L

Circulation chiller "Chiller 1400"

FOR ADJUSTABLE TEMPERATURES FROM + 5 °C. UP TO + 35 °C. AIR COOLED

NEW

DESCRIPTION

Circulation system Antifreeze fluid coolant GLYCOL ORGANIC 50%
(Use - 35 °C + 145°C)
Rust free
Equipment for indoor use
Titanium alloy or stainless steel evaporator.

CHARACTERISTICS

Temperature accuracy: +/- 1 °C
Refrigerant: R134 A
Power supply: AC 220 V, 50 Hz (110 / 120 /230 V , 50 / 60 Hz)
Inlet / Outlet: 8 mm / 11 mm
Protection devices: Comrpesor overheating, high and low pressure, overtemperature and antifreeze.

CONTROL PANEL

Interlock control function
The excellent interlock function to control and protect your equipment.
Intelligent PC control system.
Multiple program operation modes with quick function.

Circulation system

ACCESSORIES

1000028 **ORGANIC GLYCOL COOLING FLUID - 35°C + 145 °C 5 L**

Models	Code	Range of temperature	Height/Width/Depth External (cm)	Power compressor	Capacity of refrigeration	Volume of the tank	Flow rate pump	Weight Kg	Power of entry	Elevator of pump
CH 1400	6001493	+35 °C to + 5 °C	42,2 X 28,6 X 57	480 W	1450 W	6,7	19 L / MIN	23,5 KG	610W	12m

Circulation chiller "Chiller 4200" and "Chiller 8200"

FOR ADJUSTABLE TEMPERATURES FROM + 5 °C. UP TO + 35 °C. AIR COOLED

NEW

DESCRIPTION

Circulation system Antifreeze fluid coolant GLYCOL ORGANIC 50%
(Use - 35 °C + 145°C)
Rust free
Equipment for indoor useTitanium alloy or stainless steel evaporator.

COMMON CHARACTERISTICS

Power supply: AC 220 V, 50 Hz(110 / 120 / 230 V, 50/60 Hz)
Refrigerant: R22
Temperature range: + 5 °C + 35 °C
Accuracy: +/-1 °C
Cooling mode: air cooling.
Chiller 4200: Inlet / Outlet: 8 mm / 11 mm
Chiller 8200: Inlet / Outlet: 16 mm / 19 mm

CONTROL PANEL

Interlock control function
The excellent interlock function to control and protect your equipment.
Intelligent PC control system.
Multiple program operation modes with quick function.

Interlock control function
Integrate our chiller to your equipment, the excellent interlock function to control and protect your equipment.

ACCESSORIES

1000028 **ORGANIC GLYCOL COOLING FLUID - 35°C + 145 °C 5 L**

Models	Code	Range of temperature	Height/Width/Depth External (cm)	Power compressor	Capacity of refrigeration	Volume of the tank	Flow rate pump	Weight Kg	ower of entry	Elevator of pump
CH 4200	6001494	+35°C to + 5 °C	89 x 48 x 55	980 W	4200 W	26 L	28 L / MIN	57 KG	1235W	40m
CH 8200	6001496	+35 °C to + 5 °C	90 X 61 X 75	2600 W	8200 W	46 L	50 L / MIN	120 KG	3570W	26m

HAEMATOLOGY. Blood bank instrumentation

Shakers for platelet bags	page	84
Incubation chamber	page	84
Platelet bags incubator cabinets	page	85
Blood bank refrigerated cabinets	pages	86 to 87
Mixing Balance	page	87
Dry air defroster	page	88
Automatic sealer and plasma extractor	page	88

Horizontal shakers for platelet bags "APL-48" and "APL-96"

HORIZONTAL MOVEMENT AT A FIXED SPEED OF 66 R.P.M., LATERAL SHUFFLE OF 40 MM.
MODEL "APL-48": CAPACITY FOR 48 PLATELET BAGS.
MODEL "APL-96": CAPACITY FOR 96 PLATELET BAGS.

Platelet bags constant shaking for long periods of time.

APL-48

APL-96

NEW DESIGN

FEATURES

Epoxy covered case with treated aluminium platform with AISI 304 stainless steel racks for bags.
Programable stirring automatic restart and pause device for bags handling (30 ± 90 seconds).
Acoustic alarm in case of power failure.
LCD display informing of the events log: it counts the number of power failures and their duration.
When power is restored, the device automatically restarts the stirring.

CONTROL PANEL

Single button to adjust:

-Date and time programmation.
-Shaking stop button for 30 seconds.
-Alarms reset.
-Moving to review the number of incidences.
-Shaker stop time programmation.

MODELS	Part No.	Nº of Shelves	Capacity bags	Height / Width / Depth Cm.	Power W	Voltage V	Weight Kg
APL-48	3000980	8	48	40 44 39	50	110 / 230 50/60 Hz	22
APL-96	3000981	8	96	40 84 39	50	110 / 230 50/60 Hz	39

Incubation chamber "PLX-IN"

FOR PLATELET BAGS "APL-48" SHAKING, CAPACITY 48 PLATELET BAGS.
FOR REGULABLE TEMPERATURES FROM 18 ºC UP TO 60 ºC.
RESOLUTION 0,1 ºC. STABILITY ±0,1 ºC. HOMOGENEITY ±0,5 ºC. SET ERROR ±0,3 ºC.

Peltier effect. No compressor group. Quiet, vibrations free, high accuracy and low consumption.

FEATURES

Made of transparent methacrylate with swinging door that allows an easy access to the working area and an inside chamber view during bags shaking.
AISI 304 stainless steel lower base.
Auto shut-off protective device in case of door opening and automatic restart in 30 seconds.

CONTROL PANEL

Start-up main switch with digital temperature regulation.

MODEL

Part No.	Height / Width / Depth (exterior) cm	Height / Width/ Depth (interior) cm	Power w	Weight Kg
3000958	44 69 65	33 52 50	360	38

It can be supplied for 110 V- 60 Hz on demand.

*With graphic recorder.

Note: For a correct bag preservation, it is recommended to keep a temperature between 20 and 24 ºC.

Incubation chamber "PLX-IN" Part No. 3000958 with "APL-48" shaker Part No. 3000980

Platelet bags incubated cabinets “Blood Bank” E and F

EXCLUSIVE DESIGN ADAPTED TO ACCOMODATE PLATELET BAGS STIRRERS “APL”.
FORCED AIR CIRCULATION.
FIXED TEMPERATURE AT +22 °C. STABILITY ±1,5 °C. RESOLUTION 1 °C.
SEVEN DAYS GRAPHIC TEMPERATURE REGISTER.

SAFETY:
LOW TEMPERATURE THERMOSTAT LIMITER.
VISUAL AND ACOUSTIC INDICATORS: EXCESSIVE LOW TEMPERATURE (+18 °C), EXCESSIVE HIGH TEMPERATURE (+24 °C), OPEN DOOR, MAINS FAILURE TEMPERATURE GRAPHIC REGISTER. 7 DAYS RECORDER, AUTONOMY 6 MONTHS.
ACOUSTIC ALARM ON ALL FAIL CONDITIONS. ACOUSTIC INDICATOR.

Model E

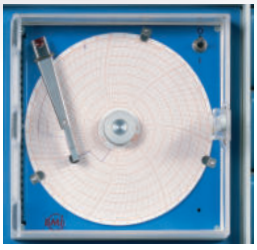
Model F

APPLICATIONS

Storage cabinet specially designed for platelet bags preservation.

COMMON FEATURES

AISI 304 stainless steel external cabinet and internal lining.
Double glazed door, reversible lockable door, easy to change, with automatic feed-back mechanism and manual locking.
Hermetically sealed compressor mounted on antivibration settlement with forced type evaporator and ventilated type condenser.
Shelves and supports in steel PVC laminated.
2 power outlet base for model “Blood-Bank E” max. power 500 W
6 power outlet base for model “Blood-Bank F” max. power 500 W
Inner air circulation for a more temperature homogeneity.
Temperature sensors located in similar conditions to platelet bags.
Circular graphic register built-in.
Microprocessor temperature control that allows configuration and visualization of the following parameters by means of the display:
- SET adjustment.
- Alarm adjustment.
- Calibration.



Graphic recorder

OPTIONAL COMPLEMENTS

ETHERNET thermometer module
Temperature Record, with control of programmable warnings and graphic representation. It must be installed at the factory.
ETHERNET connection is needed at the place of use.
Part No: 2101627

Data logger with digital display
PT100 type probe with two meters of cable. Measuring range of -100 ºC. at +200 ° C. With GSM module for data transmission.
Part No. 2101520

SPARE PARTS

For 2101511. Part No. 1001862 Additional tray.
For 2101513. Part No. 1001863 Set 2 trays + additional central guide

MODELS	Part No.	Capacity litres	Capacity stirrers	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Power W	Power HP	Number of shelves	Weight Kg
Blood Bank E	2101511	560	2 x APL-54	153 54 66	213 80 79	497	3/8	4	165
Blood Bank F	2101513	1240	4xAPL-54 o 2xAPL-108	153 124 68	213 139 79	1034	5/8	8	212

They are supplied with trays and wheels.

Blood bank refrigerated cabinets “Blood Bank”A, C and D

FORCED AIR CIRCULATION.
FIXED TEMPERATURE +4 °C. STABILITY ±1.5 °C. RESOLUTION 1 °C.
SEVEN DAYS GRAPHIC TEMPERATURE REGISTER.
CAPACITIES FROM 80 TO 480 BLOOD BAGS.

SAFETY:
ALARMS SYSTEMS VISUAL AND ACOUSTIC: LOW TEMPERATURE (+2°C), OVER TEMPERATURE (+6°C), DOOR OPEN, MAINS FAILURE. INDEPENDENT BATTERY BACKUP GRAPHIC TEMPERATURE REGISTER. 7 DAY RECORDER, AUTONOMY 6 MONTHS. ACOUSTIC ALARM ON ALL FAIL CONDITIONS. REMOTE ACOUSTIC ALARM.

Model A

Model C

Model D

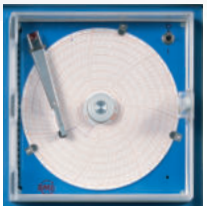
APPLICATIONS

AISI 304 storage cabinets specifically designed and manufactured for blood bag storage.

COMMON FEATURES

Model A: interior furniture in painted aluminum and base in stainless steel AISI 304, exterior in white enameled steel.
Models C and D: Stainless steel. AISI 304. external cabinet and interior lining.
Double glazed antimist, reversible lockable door, easy to change, self close door if left ajar. Hermetically sealed compressor mounted on shock absorbers with evaporator and forced air condenser.
Fan air circulation maintaining homogeneous temperature distribution.
Temperature sensors are located and calibrated to read simulated blood bag conditions.
Independently powered circular graphic register.
Microprocessor controlled temperature control via a display that can configure the following parameters:

- **Adjust SET.**
- **Adjust alarm.**
- **Calibration.**



Graphic recorder

OPTIONAL COMPLEMENTS

ETHERNET thermometer module
Temperature Record, with control of programmable warnings and graphic representation. It must be installed at the factory.
ETHERNET connection is needed at the place of use.
Part No. **2101627**

Data logger with digital display
PT100 type probe with two meters of cable. Measuring range of -100 ºC. at +200 ° C. With GSM module for data transmission.
Part No. **2101520**

SPARE PARTS

For 2101519. Part No. **1001864** Additional tray.
For 2101512. Part No. **1001862** Additional tray.
For 2101514. Part No. **1001863** Set 2 trays + additional central guide

MODELS	Part No.	Capacity litres	Capacity bags	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior) cm	Power W	Power HP	Number of shelves	Weight Kg
Blood Bank A	**2101519**	**235**	**80**	**109 51 55**	**156 61 62**	**300**	**1/7**	**4**	**90**
Blood Bank C	**2101512**	**560**	**200**	**153 54 66**	**213 80 79**	**497**	**3/8**	**4**	**165**
Blood Bank D	**2101514**	**1240**	**480**	**153 124 68**	**213 139 79**	**1034**	**5/8**	**8**	**212**

They are supplied with trays and wheels.

OPTIONAL ACCESSORIES

Model C

Metallic drawers, to be ordered separately.
Modular rack system of drawers, divided into compartments and subdivided by plastic dividers for different bag classification, bags are placed upright longitudina

Blood Bank C,
System of 6 drawers for 40 bags per drawer. Capacity 200 bags.
Part No. 1001507

Blood Bank D,
System of 10 drawers for 40 bags per drawer.
Capacity 400 bags.
Part No. 1001506

Detailed image of the drawers with dividers.

COMECTA Mixing Balance for blood collection "Hemo MIX 3"

TO MONITOR THE BLOOD DONATION IN BAGS

DELCON

FEATURES

The device handles up to 20 fully customizable donation workflows per PC and the target volume can be easily modified during donation.
3.2" high contrast screen; icon user interface; membrane keyboard
Movement: 3D with central axis, with programmable movement, with programmable pauses and clock-wise rotation reversal.
Export memory: MMC/ SD cartridges and USB memory
Power supply: 115/230 VAC / 50÷60 Hz
Battery capacity: Up to 70 donations with a fully charged battery
Internal memory: Up to 999 records

NUEVO

USB

SD

MEDICAL DEVICE CLASS I

MODEL

Part No.	Max weight Capacity g	Precision g	Resolution g	Height / Width / Depth (external) cm	Power VA	Weight Kg
5010010	999	± 2	1	23,5 35,1 27,3	45 max	3,4

ACCESSORIES

Code bar scanner LSR /CCD. Code: 5010012
Batery Ni-Mh BAT-PK.12V *(Included as standard with the balance) Code: 5010011

COMECTA Manual plasma extractor "PR-B"

EASY TO USE
MANUAL SYSTEM THAT ACCEPTS ALL KINDS OF PLASMA BAGS.
TRANSPARENT PLATFORM FOR VISUAL CONTROL OF THE PLASMA.
STAINLESS STEEL AISI 304 CABINET.

MODEL

Part No.	Height / Width / Depth (exterior) cm	Weight Kg
5800061	25 17 30	2,6

Plasma and HPC “PL-3” dry air defroster

EASY CLEANING WITH INCORPORATED STERILIZATION SYSTEM.
3 BAGS CAPACITY.
CONSTANT TEMPERATURE OF 37ºC. STABILITY ±1.

SAFETY:
SAFETY THERMOSTAT THAT DISCONNECTS THE BATH IN CASE OF OVERTEMPERATURE. PROTECTION DEVICE WITH AUTO DISCONNECTION IN CASE OF DOOR OPENING. VISUAL ALARM OF ELECTRICAL SUPPLY CUTTING.

Soft swing agitation

FEATURES

ABS external case and AISI 304 stainless steel interior.
Swing agitation.
Temperature motorization with direct reading of the bags by infrared.
Temperature reading dual system.
No additional measuring equipment is required.
USB output for data logging.
Fast tempering function button.

NEW DESIGN
15% + FAST
USB

CONTROL PANEL

3.5 inch TFT touch screen:
Start-up switch.
Quick temper button.
Time and temperature reading screen. Sterilization button.

MODEL	Part No.	Capacity bags	Height/Width/Depth (exterior) cm	Power W	Weight Kg
PL-3	3001252	3	30 41 54	5000	20

Automatic blood bag tube sealing machine “HEMOWELD”

FOR TUBES UNTIL 6 MM
WITH A SEALING TIME OF 1,2 SECONDS

DELCON

NEW

MEDICAL DEVICE CLASS I

FEATURES

Automatic closing of the clamp, the sealing starts automatically when the tube is inserted, guaranteeing speed and efficiency.
High quality sealing. Self-adjusting RF technology optimizes power and ensures strong joints with a center notch line for easy separation.
Fast sealing time: 0.8 to 3 seconds (typically **1.2 seconds**), no preheating required.
Universal compatibility, designed to seal most standard PVC pipes **up to 6.0 mm** outside diameter.
Advanced protection: Equipped with **anti-spark and overheating protection systems.**
Safe and **easy-to-clean construction**: Removable and detachable clamp guard with transparent splash guard.
Optimized consumption: Efficient power management with 80W output power and **420W maximum consumption.**

MEDICAL DEVICE DIRECTIVE: 2017/745 UE

CONTROL PANEL

Automatically regulates the sealing power according to the type of tube and its characteristics.Visual and acoustic indicators: A dynamic LED and a beep notify of sparks, dirty electrodes or overheating.
Removable and easy-to-clean head protection.
Error prevention system: Correct positioning of the tube and protection of the sealing area.
Optimization of energy consumption: RF electronics automatically adjusts the power for a high number of seals without risk of overheating.
Main switch.
Voltage selector: Located on the rear panel, it allows to choose between 115V and 230V according to the electrical network used.

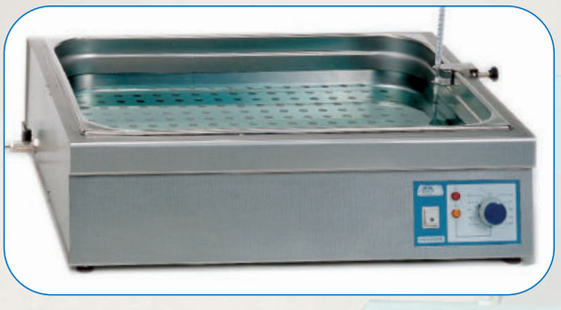
MODEL

Code	Width of sealing mm Ø	Height/Width/Depth cm	Consumption sealingW
5010015	until 6	12 22 20	420

ACCESSORY

Manual sealing accessory
This accessory provides additional versatility and facilitates sealing in environments where tube placement and accuracy are critical.
Ergonomic design with 2m of standard cable
Code: 5010016

BATHS: WATER AND OIL, DRY BLOCKS AND ULTRASONIC



Water and oil baths with analogue control	**pages**	**91 to 93**
Sand baths	**page**	**92**
Water and oil baths with digital control	**pages**	**93 to 96**
Histology paraffin bath	**page**	**97**
Precise shaking baths Microprocessor control	**page**	**98 and 99**
Viscometer bath	**page**	**99**
Ultrasonic cleaning baths	**page**	**100**

"The entrepreneur always searches for change, responds to it, and exploits it as an opportunity."
Peter Drucker

BATHS; WATER AND OIL, SAND, AND ULTRASONIC

Summary table of the different models

QUICK OVERVIEW

RS232

BATHS WATER / OIL Range	Model	Control	Safety thermostat	CAPACITY / PART No. 1,5 litres					Stability	RS-232
+40 ... 80 °C	Termofin	Thermostat	No	3000459 (Paraffin)					±1 °C	No
				2.5 litres						
+5 ... 110 °C	Univeba	Thermostat	Yes	3000400					±1 °C	No
				2.5 litres						
+5 ... 200 °C	Univeba	Thermostat	Yes	3000401					±2 °C	No
				2 litres	5 litres	12 litres	20 litres	45 litres		
+5 ... 110 °C	Precisterm	Thermostat	Yes	6000137	6000138	6000140	6000141	6000142	±1 °C	No
+5 ... 200 °C	Precisterm	Thermostat	Yes	6000385	6000386	6000387	6000388	6000389	±2 °C	No
+5 ... 99.9 °C	Precisdig	Digital µ	Yes	-	6001120	6001121	6001122	6001123	±0.1 °C	No
+5 ... 200 °C	Precisdig	Digital µ	Yes	-	6001220	6001221	6001222	6001223	±0.5 °C	No
+5 ... 80 °C	Agibat-20	Digital µ	Yes	-	-	-	6032015	-	±0.5 °C	No
				160 litres	220 litres					
+5 ... 99.9 °C	Precisbig	Digital µ	Yes	6001240	6001241				±2 °C	No
Baths with stirring or shaking				27 litres						
+5 ... 99.9 °C	Unitronic Reciprocating	Digital µ	Yes	6032011 (Shaker bath)		-	-	-	±0.05 °C	Yes
0 ... 99.9 °C	Unitronic Reciprocating C	Digital µ	Yes	6001173 (Shaker bath)		-	-	-	±0.05 °C	Yes
Baths for viscometers										
+5 ... 100 °C	VB-1423	Digital	Yes	-	-	-	3001423	-	±0.05 °C	No

µ: with microprocessor. +5 indicates ambient temperature +5 °c.

Sand baths	Model	Control	Height / Widht / Depth (usable) cm			Height / Widht / Depth (usable) cm		
... +400 °C	Combi-Sand	Electronic	5	18	38	5	30	30
Part No.			6000708			6000709		

Ultrasonic cleaning baths with heating and with digital electronic regulation.			
Part No.	Capacity litres	Height / Widht / Depth (usable) cm	Power heater W
3000865	5	15 24 14	75
3000866	6	15 30 15	75
3000867	10	15 30 24	225
3000868	22	15 50 30	375
3000864	30	20 50 30	900

NEW

Water bath "UNIVEBA mini 1.3L"

FOR ADJUSTABLE TEMPERATURES FROM 30ºC TO 96ºC, STABILITY ±2ºC

EASY EMPTYING WITH REMOVABLE TANK

FEATURES

- Body made of ABS
- Glass jar with built-in heating element
- Heating element in stainless steel
- Supplied with a lid

CONTROL PANEL

- ON-OFF push button
- Display for actual temperature
- Display for selected temperature
- Rotary temperature selection button
- Light push button
- Boil push button
- Temperature hold push button

Code	Capacity liters	Ø (useful)	Height (cm)	Ø external	External height (cm)	Consumption W	Weight Kg
3000403	1,3	17	15	18	24	850	3

Water bath "UNIVEBA II 3L"

NEW

FOR ADJUSTABLE TEMPERATURES FROM 30ºC TO 96ºC, STABILITY ±2ºC

EASY EMPTYING WITH REMOVABLE TANK

FEATURES

- Body made of ABS
- Jar made of 304 stainless steel with element
- Inverted heating element inside
- Heating element in 304 stainless steel

CONTROL PANEL

- ON-OFF push button
- Display for actual temperature
- Display for selected temperature
- Rotary temperature selection button
- Light push button
- Boil push button
- Temperature hold push button

Code	Capacity liters	Ø (useful)	Height (cm)	Ø external	External height (cm)	Consumption W	Weight Kg
3000404	3	17	15	18	24	850	3

ACCESSORIES

1) Lid with reducing discs 110, 80, 60, and 37 mm Ø with hole for thermometer **Código** 7004001
2) Rack for 24 hemolysis tubes up to 13 mm Ø **Código** 7004002
3) Rack for 24 tubes up to 18 mm Ø **Código** 7000541

Water and oil baths “Univeba”

WATER BATH: ADJUSTABLE TEMPERATURE FROM AMBIENT +5 °C TO 110 °C STABILITY ±1 °C.
OIL BATH: ADJUSTABLE TEMPERATURE FROM AMBIENT +5 °C TO 200 °C STABILITY ±2 °C.

SAFETY:
CONFORMS TO THE DIN STANDARD 12877 BY INCORPORATING A MANUALLY RESET OVER TEMPERATURE SAFETY CUT-OUT.

APPLICATIONS

To be used with a rotary evaporator or as a stand alone Bains Marie bath.

FEATURES

Tank interior and exterior case made of AISI 304 stainless steel. The heater element is embedded in a protective INCOLOY stainless steel shield.

CONTROL PANEL

Illuminated main power switch indicator lamp. Hydraulic temperature thermostat regulator synchronised with an indicator lamp. Safety thermostat cut out indicator lamp.

MODELS

Part No.	Maximum Temperature °C	Capacity litres	Ø (usable)	Height cm	Height / Widht / Depth (exterior) cm			Power W	Weight Kg
3000400	110	2.5	18	13	19	22	27	390	4
3000401	200	2.5	18	13	19	22	27	640	4

ACCESSORIES MADE OF STAINLESS STEEL

1- **Heating element cover shelf.**
Part No. 6000033

2- **Reduction ring** cover lid of 110, 80, 60 and 37 mm Ø. With a thermometer location hole in the lid. Part No. 7004001

3- **Tube rack** for 24 haemolysis tubes up to 13 mm Ø.
Part No. 7004002

4- **Tube support** rack for 24 tubes up to 18 mm Ø.
Part No. 7000541

5- **Thermometer.**
Part No.
1000100 up to 100 °C.
1095250 up to 250 °C.

Sand baths “Combiplac-Sand”

ADJUSTABLE PLATE TEMPERATURE UP TO 400 °C.

FEATURES

Electronic energy heater controller. The steel hotplate surface has an evenly distributed heater element providing homogeneous heat distribution.
The non warping AISI 304 stainless steel sand bath can be easily removed for cleaning.
The Hotplate can be used independently without the sand bath. The hotplate casing is made of AISI 304 stainless steel.

CONTROL PANEL

Mains power switch with luminous “On” indicator lamp.
Electronic heater power control between 0 to 100 %.
Heater operation indicator lamp.
The back of the unit is fitted for an electronic thermometer “Sensotherm” or digital electronic controller “Electemp-TFT” described under regulators and controllers (see page 293).XXX

MODELS

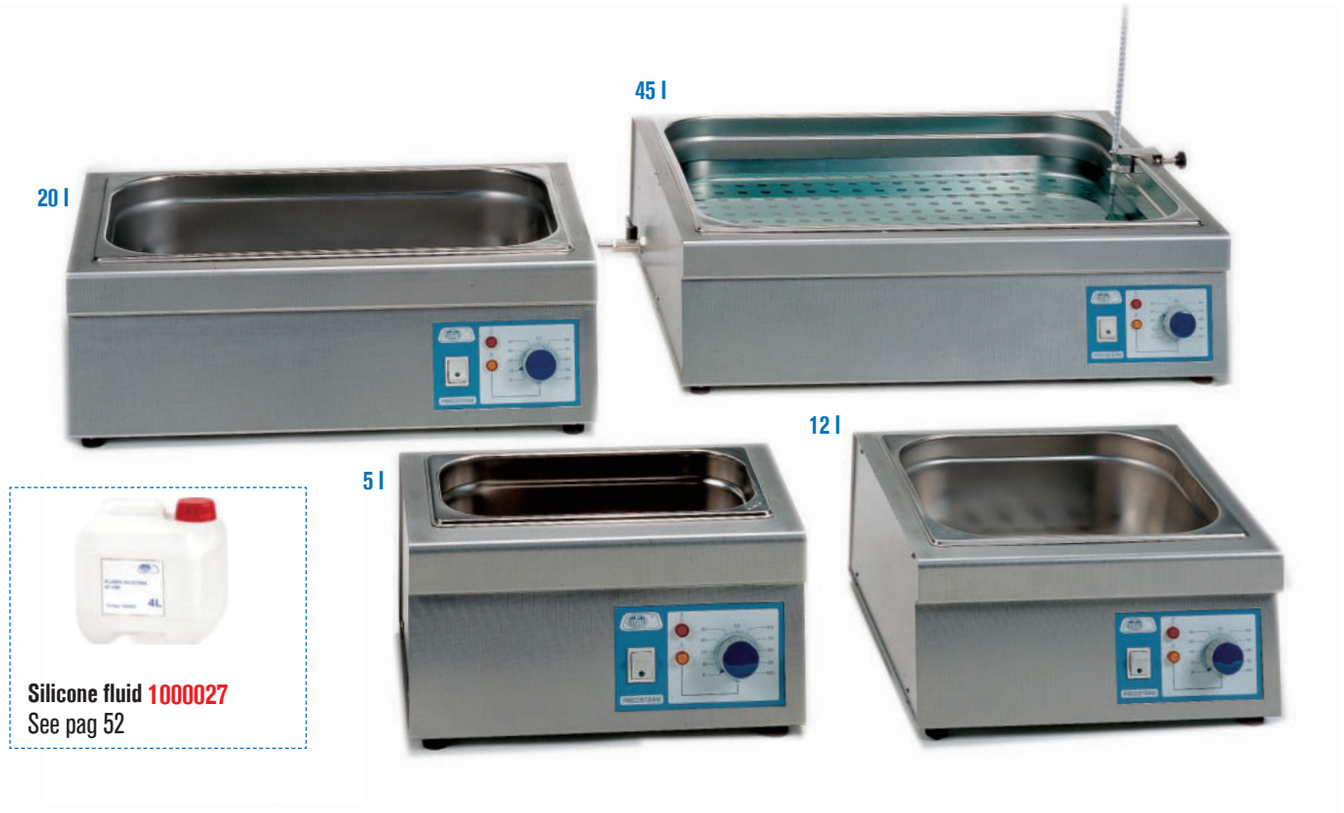
Part No.	Height / Widht/ Depth (usable) cm			Height / Widht / Depth (exterior) cm			Power W	Weight Kg
6000708	5	18	38	18	22	41	2300	13
6000709	5	30	30	21	32	35	2800	15

Water and oil baths “Precisterm”

ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT +5 °C UP TO 110 °C, STABILITY ±1 °C.
ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT +5 °C UP TO 200 °C, STABILITY ±2 °C.

Extensive range of sizes and accessories

Stainless steel interior and external case



Silicone fluid 1000027
See pag 52

FEATURES

Capacity; from 5 litres up to 45 litres.
Double skinned tank of AISI 304 stainless steel with an exterior case of AISI 304 stainless steel.
Heating elements embedded in INCOLOY heat and corrosion resistant stainless steel.

CONTROL PANEL

Illuminated mains power switch.
Hydraulic thermostat temperature control, synchronised with the “ON” indicator lamp.
Safety thermostat cut out indicator lamp.

MODELS

Part No.	Maximum Temperature °C	Capacity litres	Height / Widht / Fondo (usable) cm			Height / Widht / Depth (exterior) cm			Power W	Weight Kg
6000138	110	5	15	30	14	20	37	27	600	6
6000386	200	5	15	30	14	20	37	27	1110	6
6000140	110	12	15	30	30	20	40	42	1100	8
6000387	200	12	15	30	30	20	40	42	1400	8
6000141	110	20	15	48	30	20	58	42	1500	10
6000388	200	20	15	48	30	20	58	42	2100	10
6000142*	110	45	15	62	50	22	69	62	2400	18
6000389*	200	45	15	62	50	22	69	62	3800	18

All water baths are supplied with heating elements protection shelf.
* With built in drain tap.

SAFETY:

DIN 12877 STANDARD.
THE UNIT WILL CUT OUT IF THERE IS INSUFFICIENT LIQUID OR IF THE BATH TEMPERATURE EXCEEDS THE SET TEMPERATURE.
A MANUAL RESET ADJUSTABLE TEMPERATURE SAFETY THERMOSTAT IS PLACED AT THE BACK OF THE UNIT.

ACCESSORIES. See page 96.

Water and oil baths “Precisdig” with or without anti-evaporation folding lid

DIGITAL CONTROL AND DISPLAY OF TEMPERATURE AND TIME.
ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT+5 °C TO 99.9 °C, STABILITY ±0.1 °C, HOMOGENEITY ±1 °C.
ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT+5 °C TO 200 °C, STABILITY±0.5 °C, HOMOGENEITY ±2.5 °C.

SAFETY: DIN 12877 STANDARD. THE UNIT WILL CUT OUT IF THERE IS INSUFFICIENT LIQUID OR IF THE BATH TEMPERATURE EXCEEDS THE SET TEMPERATURE. A MANUAL RESET ADJUSTABLE TEMPERATURE SAFETY THERMOSTAT IS PLACED AT THE BACK OF THE UNIT.

Programmable temperature and time. Interior and exterior made from Stainless steel

MODELS

Part No.	Temperature maximum °C	Capacity litres	Height / Widht / Depth (usable) cm	Height / Widht / Depth (exterior) cm	Power W	Weight Kg
6001120	99,9	5	15 30 14	20 37 27	600	6
6001220	200	5	15 30 14	20 37 27	1100	6
6001121	99,9	12	15 30 30	20 40 42	1100	8
6001221	200	12	15 30 30	20 40 42	1400	8
6001122	99,9	20	15 48 30	20 58 42	1500	10
6001222	200	20	15 48 30	20 58 42	2100	10
6001123	99,9	45	15 62 50	20 69 62	2400	18
6001223	200	45	15 62 50	20 69 62	3800	18

All baths with heating shelf and drainage. Faucet included.

MODELS WITH MAKROLON® FOLDING LID

Part No.	Temperature maximum °C	Capacity litres	Height / Widht / Depth (usable) cm	Height / Widht / Depth (exterior+lid) cm	Power W	Weight Kg
6001131	99,9	12	15 30 30	40 40 42	1100	8
6001132	99,9	20	15 48 30	40 58 42	1500	10
6001133	99,9	45	15 62 50	40 69 62	2400	18

All baths with heating shelf and drainage. Faucet included.

FEATURES

Double skinned tank of AISI 304 stainless steel with an external case of AISI 304 stainless steel.
Heating elements embedded in INCOLOY heat and corrosion resistant stainless steel.
Comes complete with drain tap.

CONTROL PANEL

General switch with signal lamp.
1. Heating indicators; open thermostat; failure.
2. Reading display (temperature or time).
3. Setpoint value display (temperature or time).
4. Visualization mode change.
5. Increase value.
6. Decrease value.
7. Start / stop button.

MAKROLON® FOLDING LID PROPERTIES

Due to its transparency, you can visualize the bath’s inside. It improves temperature stability, and restricts evaporation and pollution

ACCESSORIES. See page 96.

Silicone fluid 1000027
See pag 52

Water bath with inner stirring “Agibat-20” with digital control and display of temperature and time

ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT +5ºC UP TO 80ºC. STABILITY ±0.1°C.
SET TEMPERATURE ACCURACY ±1 °C, WORKING TEMPERATURE PRECISION 0.1 °C.

SAFETY: DIN 12877 STANDARD. THE UNIT WILL CUT OUT IF THERE IS INSUFFICIENT LIQUID OR IF THE BATH TEMPERATURE EXCEEDS THE SET TEMPERATURE. A MANUAL RESET ADJUSTABLE TEMPERATURE SAFETY THERMOSTAT IS PLACED AT THE BACK OF THE UNIT.

J.P.Selecta original model. More space. More accuracy. Economical.

FEATURES
Double skinned tank, inner case made of AISI 304 stainless steel.
External case of AISI 304 steel.
Submerged heating elements in INCOLOY special alloy.
It comes complete with drain tap.

STIRRING SYSTEM
These baths have an aspiration and outflow internal circulation pump which allow a constant flow stirring.
Flow: 8 litres per minute.

CONTROL PANEL
See page 87.
Three positions switch: only heater, heater + stirring and start/stop.

MODEL WITH MAKROLON® FOLDING LID
Due to its transparency, you can visualize the bath’s inside.
It improves temperature stability, and restricts evaporation and pollution.

Model with Makrolon® lid

Stirring detail by internal circulation pump.

MODELS

Part No.	Lid Makrolon®	Maximum Temp °C	Litres Capacity	Height/Width/Depth (usable) cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
6032015	Yes	80	20	15 48 30	40 58 52	2100	11
6032016	No	80	20	15 48 30	40 58 42	2100	12

ACCESSORIES.
See page 96.

All baths with heating shelf and drainage. Faucet included.

Big capacity water baths “Precisbig”

DIGITAL CONTROL AND DISPLAY OF TEMPERATURE AND TIME.
ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT +5 °C TO 99,9 °C. STABILITY: ±0,2 °C. HOMOGENEITY ±2 °C.

SAFETY: DIN 12877 STANDARD. THE UNIT WILL CUT OUT IF THERE IS INSUFFICIENT LIQUID OR IF THE BATH TEMPERATURE EXCEEDS THE SET TEMPERATURE. A MANUAL RESET ADJUSTABLE TEMPERATURE SAFETY THERMOSTAT IS PLACED AT THE BACK OF THE UNIT.

Programmable temperature and time. Interior and exterior made from Stainless steel

FEATURES
Double skinned tank of AISI 304 stainless steel with an external case of AISI 304 stainless steel.
Heating elements embedded in INCOLOY heat and corrosion resistant stainless steel.

CONTROL PANEL
See page 94.

MODELS

Part No.	Temperature maximum °C	Capacity litres	Height / Widht / Depth (usable) cm	Height / Widht / Depth (exterior) cm	Power W	Weight Kg
6001240**	99,9	160	40 80 50	96 100 70	9000	130
6001241**	99,9	220	40 110 50	96 140 70	9000	160

All baths with heating shelf and drainage. Faucet included.
Due to their power consumption are manufactured for three phase 380 V. 4 wheels and gable lids included.

ACCESORIES
Gable lid for bath 6001240. Part No. 6000715 **Gable lid** for bath 6001241. Part No. 6000716
Silicone oil 4 liters. Temperature up to 300 °C. Viscosity 50 mm2/s at 25 ºC. Melting point 318 °C. Part No. 1000027

ACCESSORIES FOR"PRECISTERM", "PRECIDSDIG" AND "AGIBAT-20"

Suitable for all "PRECISTERM", "PECISDIG" and "AGIBAT-20" models.

Removable constant liquid level.
Part No. 6001400
Note: Not compatible with gale and Makrolon® lid.

Fixed, constant liquid level.
Part No. 6000123

Only for baths model "PRECISTERM"

Thermometer support with locking screw (up to 40 mm).
Part No. 6000896

Thermometer.
Part No.
1000120 up to 100 °C.
1000872 up to 120 °C, extra long, suitable for Gable lid.
1095250 up to 200 °C, extra long, suitable for Gable lid.

1. **Gable lid** with thermometer location position hole.
2. **Flat lid with concentric reduction rings** of 105, 80, 60 and 37 mm Ø. With thermometer location position hole.
   Note: The perforated lid avoids the lock of the Makrolon® folding lid.
3. **Support frame** for tube racks.
4. **Tube Racks** various tube diameters available.

Capacity litres	Model code AGIBAT-20	Model code PRECISTERM	Model code PRECISDIG	1 Gable lid	2 Lid with concentric reduction rings	3 Support frame
2		6000137 - 6000385		-	6003231 1 place	-
5		6000138 - 6000386 - 6001120*- 6001220*		6000710	6003232 2 places	1001199
12		6000140 - 6000387 - 6001121*- 6001221*		6000711	6003234 4 places	1001200
20	6032012*6032013*	6000141 - 6000388 - 6001122*- 6001222*		6000712*	6003236 6 places	1001201
45		6000142*- 6000389*- 6001123*- 6001223*		6000714	6001603 12 places	1001205

* Comes complete with drain tap. * For all baths except those carrying Makrolon® lid.

Capacity litres	for PRECISDIG baths with Makrolon® lid	2 Lid with concentric reduction rings	3 Support frame
12	6001131	6003234 4 places	1001200
20	6001132	6003236 6 places	1001201
45	6001133	6001603 12 places	1001205

4 Tube racks (requires support frame)								
Part No.	Tube Ø mm	Number of tubes per rack	Rack Dimensions Height / Widht / Depth (usable) cm			Number of racks by bath capacity litres 5	12	20	45
1001202	13	36	8	8.2	23.6	1	3	5	10
1001203	16	24	8	8.2	23.6	1	3	5	10
1001204	20	24	8	8.2	23.6	1	3	5	10

Stabilising rings "circum" prevents flasks from floating when placed in a water bath. Suitable for all types of flasks,erlenmeyers, etc. See page. 179.

Silicone oil 4 liters. Temperature up to 300ºC. Viscosity 50 mm^2/s at 25 ºC. Melting point 318 ° C. Part No. 1000027

Histology paraffin section mounting bath “Termofin”

ADJUSTABLE TEMPERATURE FROM 40 °C TO 80 °C.
STABILITY ±1 °C.

P.T.F.E. coated

APPLICATIONS

Suitable for the fusion and preservation of paraffin wax in a liquid state that enables the user to see the floated sections.

FEATURES

Aluminium inner tank and lid with a P.T.F.E. matt black coating. Thermometer location hole in the lid to read temperature.

CONTROL PANEL

Mains power ON/OFF switch. Hydraulic temperature thermostat regulator synchronised with an indicator lamp.

MODEL

Part No.	Capacity litres	Ø (usable)	Height cm	Ø (exterior)	Height cm	Power W	Weight Kg
3000459	4	25	10	34	14	430	2.3

Comes complete with lid and thermometer.

ACCESSORY

Thermometer support (can only be used without the lid).
Part No. 6004591
NOTE: Wax dispenser (see page 217).

Precise reciprocal shaking baths controled by microprocessor “Unitronic Reciprocating Shaking Bath” and with refrigeration “Unitronic Reciprocating Shaking Bath C”

UNITRONIC RECIPROCATING SHAKING BATH LINEAR: TEMPERATURE RANGE FROM AMBIENT +5 °C TO 99.9 °C.
UNITRONIC RECIPROCATING SHAKING BATH C LINEAR: TEMPERATURE RANGE FROM 0 °C TO 99.9 °C.
STABILITY ±0.05 °C HOMOGENEITY ±0.1 °C, SET TEMP. ERROR ±1 °C, RESOLUTION 0.1 °C.

SAFETY:
DIN 12877 STANDARD. THE UNIT WILL CUT OUT IF THERE IS INSUFFICIENT LIQUID OR IF THE BATH TEMPERATURE EXCEEDS THE SET TEMPERATURE. A MANUAL RESET ADJUSTABLE TEMPERATURE SAFETY THERMOSTAT IS PLACED AT THE BACK OF THE UNIT.

Reciprocal linear agitation, controllable from 10 to 100 oscillations per minute

Controllable time from 1 minute to 99 hours 59 minutes

MICROPROCESSOR CONTROL WITH DIGITAL DISPLAY AND PUSH BUTTON TEMPERATURE, SPEED AND TIME SELECTION. RS-232 INTERFACE FOR PRINTER OR COMPUTER OUTPUT.

RS232

APPLICATIONS

Cell culture and biological samples, yeasts and general applications that require stable and reproducible temperatures.

COMMON FEATURES

Linear motion sliding tray from 10 to 100 oscillations per minute, with a variable stroke length of 32 or 46 mm.
Digital display and selection of temperature, oscillations and time.
Temperature sensor: thermo-resistant Pt100.
Rack frame support made of AISI 304 stainless steel incorporated in the tank that can accommodate a selection of flasks and racks.
Internal tank made of AISI 304 stainless steel with an external case of AISI 304 stainless steel.
Built in drain tap.
Ventilated hermetically sealed compressor for refrigeration in the “Unitronic - C”.

CONTROL PANEL

1. Mains power switch.
2. LCD screen that shows:
   - Temperature, oscillations per minute and time.
   - Alarms: set temperature and probe failure.
   - Configuration: °C or °F, temperature calibration and set working temperature limits.
3. Push button Start/ Stop.
4. Push button to decrease value.
5. Push button to increase value.
6. Push button for parameter selection: temperature, strokes per min. and time.
7. Push button for configuration.

"Unitronic Reciprocating Shaking Bath"

"Unitronic Reciprocating Shaking Bath C"
Refrigerated Bath

MODELS	Part No.	Capacity litres	Height / Width /Depth (bath) cm	Height / Width /Depth (support carriage) cm	Height / Width /Depth (exterior) cm	Power W	Weight Kg
UNITRONIC RECIPROCATING	6032011	27	18 48 29	17 35 24	30 74 40.5	1500	25
UNITRONIC RECIPROCATING-C	6001173	27	18 48 29	17 35 24	30 74 63.5	1750	43

ACCESSORIES FOR UNITRONIC RECIPROCATING SERIES

Support Platform for Erlenmeyer flasks.
Made of AISI 304 stainless steel with location holes for various configurations of Erlenmeyer flask clip supports.
Sizes: 50, 100, 250, 500 and 1000 ml.

Part No.	Width /Depth (platform) cm		No. of flasks and capacity per platform 50 ml	100 ml	250 ml	500 ml	1000 ml	Weight Kg
3001004	23.5	34.5	20	12	6	6	3	1

Racks: made of AISI 304 stainless steel.
Capacity: 2 racks.

Part No.	Tube Ø mm	No tubes per rack	Height / Width /Depth (rack) cm
1001233	13	70	8.5 11 34
1001234	16	48	8.5 11 34
1001235	20	48	8.5 11 34

Adapter clips for Erlenmeyer flasks.
Made of tempered stainless steel.
Part No.

1001003	Adapter for 50 ml.
1000978	Adapter for 100 ml
1000979	Adapter for 250 ml.
1000980	Adapter for 500 ml.
1000981	Adapter for 1000 ml.

Gable Lid: made of AISI 304 stainless steel.
Part No. 6000713

COMECTA "Ultrasons-Digit" cleaning bath.

DIGITAL ELECTRONIC TIME CONTROL IN 5 CYCLES. CAPACITY: 1.4 LITERS.

FEATURES

Stamped stainless steel inner tank with minimum and maximum level indicator.
External housing, basket with mesh and PVC lid.
Maximum cleaning power, 42 kHz frequen

CONTROL PANEL

Start/stop push button.
5 selectable time programs in seconds:
90" – 180" – 280" – 380" and 480".
Highly useful for jewelry stores, watchmaking, optics, beauty centers, dental clinics and laboratories in general.

MODEL

Code	Capacity liters	height / width / depth (Useful) cm	height / width / depth (External) cm	consumption W	weight Kg
5900650	1,4	6 13 16	15 17 22	70	1,75

Supplied complete with basket and PVC lid with high-visibility transparent viewing window.

Model "Elegant"

Precision Viscometer Bath "VB-1423"

DIGITAL TEMPERATURE CONTROL FROM AMBIENT +5 °C TO 100 °C.
STABILITY ±0.1 °C. HOMOGENEITY ±0.1 °C. RESOLUTION 0.1 °C.

SAFETY:
SAFETY THERMOSTAT CONFORMS TO THE DIN 12876. MANUAL RESET.

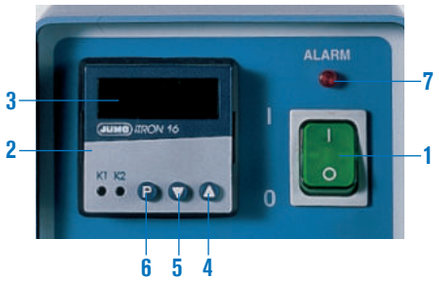
FEATURES

Temperature sensor; Pt100 thermo-resistor, stainless steel AISI 304 lid with three viscometer locations ports, three independent lids and an additional location port for the control thermometer. The main body of the bath is made of a 20 litre borosilicate glass tank. A white plate is located at the back to help optimize and read the viscometers.

CONTROL PANEL

1. Main power switch with luminous ON.
2. Temperature regulator:
   3. Real time temperature display.
   4. Push button increase value.
   5. Push button decrease value.
   6. Push button configure operation.
7. Safety thermostat safety lamp.

MODEL



Precise constant temperature Kinematic Viscometer Bath

Manufactured for the calibration of viscometers, conforms to UNE 400313, ISO3105, ASTM 445 & 2515 specifications

Part No.	Temperature control range °C	Capacity litres	Height / Ø (tank) cm	Height / Ø (total) cm	Power W	Weight Kg
3001423	amb.+5 up to 100	20	32 30	47 30	1000	8

ACCESSORIES

Universal viscometer support. made from PTFE with stainless steel AISI 304 support. Suitable for the following viscometers :

- Cannon-Fenske for transparent liquids.
- Cannon-Fenske for opaque liquids.
- Ubbelohde.
- Ostwald.
- BS U Tube.
-Cannon-Manning semi-micro.
- Ubbelohde type BS/IP/SL, BS/IP/SL(S) & type BS/IP/MSL.
- DIN Ubbelohde.

Part No. 1001453

Calibration Chronometers (see page 305).

Thermometers for viscometer baths.

Part No.

1001454 Thermometer ASTM 120C at 38.6 to 41.4 °C divisions of 0.05 °C.
1001455 Thermometer ASTM 121C at 98.6 to 101.4 °C divisions of 0.05 °C.
1001456 Thermometer ASTM 91C at 20.0 to 50.0 °C divisions of 0.1 °C.
1001457 Thermometer ASTM 92C at 40.0 to 70.0 °C divisions of 0.1 °C.
1001458 Thermometer ASTM 93C at 60.0 to 90.0 °C divisions of 0.1 °C.
1001459 Thermometer ASTM 94C at 80.0 to 110.0 °C divisions of 0.1 °C.

Heating cleaning bath “Ultrasons-HD”

DIGITAL ELECTRONIC REGULATION OF TEMPERATURE AND TIME.
FOR TEMPERATURES FROM AMBIENT +5°C TO 80°C.

Optimal cleaning efficiency

APPLICATIONS

In general laboratory use: acceleration of chemical reactions, degassing of liquids, etc.
Dentistry: cleaning of prostheses, instruments, etc.
Optics: cleaning of frames, lenses, contact lenses, etc.

FEATURES

Double-walled container, fully constructed in stainless steel, with a drainage device.

CONTROL PANEL

Illuminated power switch.
Start/Stop button.
Digital display indicating time, with buttons to increase/decrease time in minutes from 1’ to 99’.
Digital display indicating temperature, with buttons to increase/decrease temperature

They are supplied complete with a universal basket, lid with handle, and drainage device.

MODEL

Code	Capacity litres	Height/Width/Depth (usable) cm			Height/Widt /Depth (external) cm			Power Generator W	Power Heater W	Weight Kg
3000866	6	15	30	15	27	35	18	180	75	5,8
3000867	10	15	30	24	35	38	28	240	225	8,2
3000868	22	15	50	30	27	58	35	600	375	15
3000864	30	20	50	30	40	58	34	800	900	18

ACCESSORIES.

“BIO-SEL” detergent.
See page 52.

Ultrasonic pipette cleaner “Ultrasons-P”

FEATURES

For automatic cleaning and rinsing of pipettes using ultrasonic action while they are housed in the basket.
Minimum rinsing time due to the siphon system, with water flowing smoothly through the pipettes.
Exterior cabinet in stainless steel AISI 304, and components in contact with liquid in stainless steel AISI 316.
Cylindrical container in transparent acrylic resin with a splash-proof top cover.
1” connection fitting for water inlet and siphon-drain tube.
Basket with a polypropylene handle for easy handling and transport of pipettes.

CONTROL PANEL

Timer switch with the option to set between 0-15 minutes.
Indicator lamp for the operation of the cleaning bath.

MODEL

Code	Capacity liters	Ø / Heigth (usables) cm		Heigth / Width / Depth (exterior) cm			Consumption W	Weigth Kg
3000910	10	15	64	84	34	40	250	15

ACCESSORIES.

“BIO-SEL” detergent. See page 52.

IMMERSION THERMOSTATS AND DRY-BLOCKS

Immersion thermostats.		
Digital & Touch screen control	**pages**	**103 to 109**
Circulating ultrathermostat	**page**	**106**
Circulating criothermostat	**page**	**106**
Bath circulators with thermostatic equipment	**pages**	**107 to 108**
Digital & Touch screen control		
Immersion thermostat for baths	**pages**	**109 to 110**
Refrigerated units for baths	**page**	**111**
Water recirculators	**page**	**111**
Thermostat dry-blocks	**page**	**112 to 113**
Thermo shakers	**page**	**113 to 114**

"It is characteristic of science that the full explanations are often seized in their essence by the percipient scientist long in advance of any possible proof."
John Desmond

THERMOSTAT BATHS AND IMMERSION THERMOSTATS

Summary table of the different models

EQUIPMENT FOR STABLE AND PRECISE TEMPERATURE CONTROL.

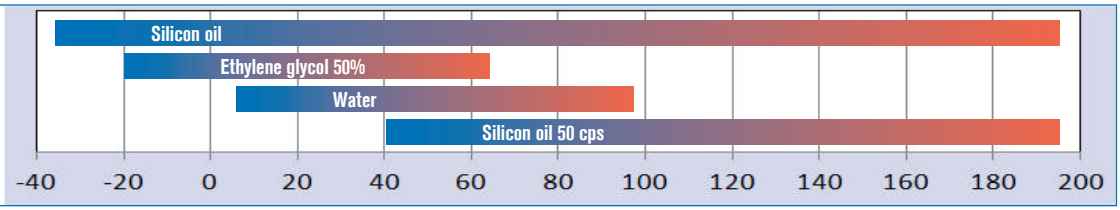
QUICK OVERVIEW

Range	Model	Part No.	Control	Volume máx. litres	Stability °C	Set error °C	RS-232/USB
+5 ... 100 °C	Termotronic 100	3000540	Digital µ	20	±0,2	-	No
+5 ... 150 °C	Digiterm-S-150	3000543	Digital µ	20	±0,1	±1	No
+5 ... 200 °C	Digiterm-TFT-200	3000544	TFT Touch screen µ	20	±0,1 ±0,1	±2	Yes
0 ... 100 °C	Digit-Cool	3001373	Digital µ	20	±0,1 ±0,1	±1	RS-232
+5 ... 150 °C	Digiterm-S-150-20	3000548	Digital µ	20	±0,1	-	No
+5 ... 150 °C	Digiterm-S-150-27	3000549	Digital µ	27	±0,1	-	No
+5 ... 200 °C	Digiterm-TFT-200 20	3000550	TFT Touch screen µ	20	±0,1	±2	Yes
+5 ... 200 °C	Digiterm-TFT-200 27	3000551	TFT Touch screen µ	27	±0,1	±2	Yes
+5 ... 200 °C	Ultraterm-TFT-200	3000545	TFT Touch screenµ	8	to 100 °C ±0,1 to 200 °C ±0,1	±1 ±2	Yes
-10 ... 100 °C	Frigiterm-TFT-10	3000546	TFT Touch screenµ	8	to 100 °C ±0,1 to 0 °C ±0,1 to -10 °C ±0,1	±1	Yes
-30 ... 100 °C	Frigiterm-TFT-30	3000547	TFT Touch screen µ	8	to 100 °C ±0,1 to 0 °C ±0,1 to -10 °C ±0,2	±1	Yes
+5 ... up to 90 °C	Interheater	6001491	Digital	20 l/min.	-	±1	No
Refrigerated coils							
-20 ... 20 °C	Frigedor	3000778	No controller	20	-	-	No
-20 ... 20 °C	Frigedor-Reg	3001214	Digital	20	±1,5	±1,5	No

THERMOSTATS DRY-BLOCKS Range	Model	Control	Blocks-1	Blocks-3	Blocks-4	Stability	
30 ... 200 °C	Tembloc	Digital µ	7462200	-	-	±0,75 °C	With multiple adapters.
30 ... 200 °C	Multiplaces	Digital µ	-	7471200	-	±0,75 °C	With multiple adapters.
FIXED 37 °C	Clinic-bloc	-	7001569	-	-	±0,5 °C	Capacity 20 tubes of 75 x 13mm. VAC.
+5 ... 100 °C	Bio-bath 2	-	7001562	-	-	±0,5 °C	Capacity 15 cuvettes of 10 x 10mm.
+5 ... 60 °C	TRM-4	Digital µ	-	-	5109200	±0,5 °C	For 4 microtiter plates.
+5 ... 100 °C	TR100-6	Digital µ	5109100	-	-	±0,5 °C	WITH SHAKING. With multiple adapters.

µ: with microprocessor.
+5: ambient +5 °C.

BATH TEMPERATURE LIQUIDS GUIDE.



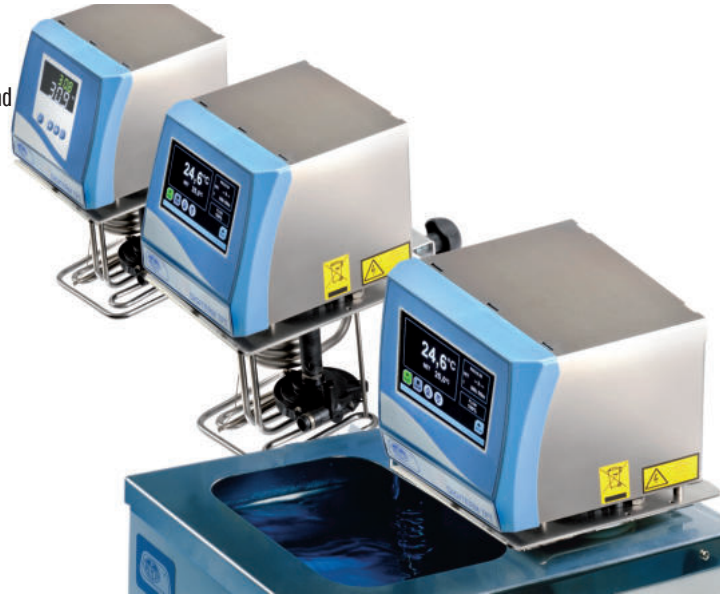
IMMERSION THERMOSTATS WITH DIGITAL AND TOUCH SCREEN CONTROL

The most precise solution for maintaining constant liquid temperatures

SAFETY:
STANDARD DIN 12876.
ADJUSTABLE OVER TEMPERATURE SAFETY THERMOSTAT WITH MANUAL RESET AND LOW LIQUID LEVEL FLOAT SENSOR. (EXCEPT TERMOTRONIC 100)

COMMON FEATURES

Temperature probe Pt 100.
Heating element made of stainless steel INCOLOY resistant to high temperatures and corrosive environments.
Circulation Pump for internal or external temperature control for:
(Polarimeters, refractometers and viscometers, etc).
Cooling coil to maintain ambient temperatures using tap water.
External metal case in AISI 304 stainless steel.



PARTS THAT ARE IN CONTACT WITH LIQUID

-Safety over temperature thermostat.
-Liquid level float.
-Cooling coil.
-Heating element made of stainless steel INCOLOY that can withstand high temperatures and is corrosion resistant.
-Circulation pump.
-Pump outlet for external circulation.
-Circulating pump outlet.

Outlet nut of the fluid flow fixed in A or B interchangeable:
A. Internal stirring within the tank.
B. External circulation.

H_2O FLOW OUTPUT

	Flow l/m
Cuvette inner circulation level	**Up to 7,05**
External circulation level raised to a meter.	**Up to 5,16**

Tests made with silicone tubes of 8 mm internal Ø.

TWO DIFERENT CONTROL SYSTEMS: DIGITERM-S-150, TERMOTRONIC-100

Digital display and **TFT touch screen.**

Specific functions of models with digital screen:
- Real time temperature reading.
- Display resolution 0.1 °.
- Permanent view of set temperature.
- Timer from 1 min to 99 h 59 min. (only model DIGITERM S-150)
- Heating indicator.
- Monitoring temperature: high limit / low limit.
- Automatic calibration of a point.
- Connection for external probe PT-100 (only DIGITERM S-150 model)

Silicone fluid 1000027
See pag 52

DIGITERM TFT-200, ULTRATERM-TFT-200, FRIGITERM-TFT-10, FRIGITERM-TFT-30

Specific functions of models with touch screen:
- Acoustic and visual alarm.
- Clock and calendar.
- Single or cyclic On / Off programming.
- Up to 10 work programs.
- Up to 6 segments per program.
- Stability time in each segment (from 1 min to 99h).
- Alarms and events storage.
- Probe error detection.
- Self Diagnostics.
- Network failure detection and saving.
- Over temperature and low temperature alarms and memorization (date, start time, end time and temperature).
- Connection device for external temperature Pt100 probe (see page 104).
- Safety thermostat (TS) by software.
- Mechanic safety thermostat (TS).
- USB and RS -232 output.
- Configurable parameters: Date / time, temperature correction , data collection interval, language (English, Spanish and French) , °C / °F selection , over temperature and low temperature limit.
- Circulation pump speed control (between 0% and 100%).

Immersion thermostat with digital control “Termotronic-100”

ADJUSTABLE TEMPERATURE FROM AMBIENT +5°C TO 100°C.

High precision temperature control

SAFETY:
STANDARD DIN 12876. 1. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET

FEATURES

Maximum working volume to maintain maximum temperature: 20 litres.
Fastening to the tank by means of a rear nut included in the equipment.
Minimum fixing depth to the tank: 14 cm.

CONTROL PANEL

1. Set temperature display indicator.
2. Bath temperature/time display indicator.
3. “SET” button.
4. Set value decrease/increase button.
5. Start/Stop button.

MODELS	Part No.	Control range °C	Stability °C	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H_2O	Power W	Weight Kg
TERMOTRONIC 100	3000540	**Amb +5 to 100**	**±0,1**	**28 18 19**	**150 mbar-12 l/min.**	**2000**	**3,9**

Accessories (See page. 110).

ACCESSORIES

Methacrylate tank “Clinic-Term”

Part No.	Capacity litres	Temp. max. °C	Height / Width / Depth (usable) cm	Capacity Rack	Weight Kg
1000544	8	60	14 16 39	4	2

Racks for the “Clinic-Term” made of AISI 304 stainless steel.
Racks for 50 micro-tubes of 11mm Ø. Part No. 1000546
Racks for 50 haemolysis tubes and coagulation tests with a diameter of 13 mm. Part No. 1000545
Racks for 14 tubes with a diameter of 18mm. Part No. 1000547
Racks for 8 cuvettes for spectrophotometers, 10 mm square, standard for monotest flask of different sizes. Part No. 1000548
Note: The methacrylate tank should not be used over 60 °C.

Metal baths. Manufactured with a double external AISI 304 stainless steel skin and an AISI 304 stainless steel pressed bath interior.

Part No.	Capacity litres	Height / Width / Depth (usable) cm	Height / Width / Depth (exterior) cm	Weight Kg
6000390	9	15 29 22	20 34 28	3.5
6000391	12	15 30 31	20 37 35	4.3
6000392*	20	15 48 30	20 55 35	6.6
6000393*	27	20 48 30	25 55 35	7.6
6001093*	45	15 62 50	23 70 56	11

* With drain tap and lifting handles.

Immersion thermostat with digital control “Digiterm S-150”

ADJUSTABLE TEMPERATURE FROM AMBIENT +5°C TO 150°C.

High precision temperature control

SAFETY:
STANDARD DIN 12876. 1. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET 2. LOW LIQUID LEVEL FLOAT

FEATURES

Maximum working volume to maintain maximum temperature: 20 litres.
A clamp and finger screw attach the unit to the tank, alternatively the extendible support bridge accessory can be used.
Minimum fixing depth to the tank: 14 cm.
Rear connection for additional OT100 probe. Automatic selection.
Cooling coil.

CONTROL PANEL

1. Set temperature display indicator.
2. Bath temperature/time display indicator.
3. “SET” button.
4. Set value decrease/increase button.
5. Start/Stop button.

MODELS	Part No.	Control range °C	Stability °C	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H2O	Power W	Weight Kg
DIGITERM S-150	3000543	Amb +5 to 150	±0,1	28 18 19	150 mbar-12 l/min.	2000	3,9

Accessories (See page. 110).

Immersion thermostat with TFT touch screen “Digiterm TFT-200”

ADJUSTABLE TEMPERATURE FROM AMBIENT +5°C TO 200°C.
With external refrigeration from -20 to 200.

High precision temperature control

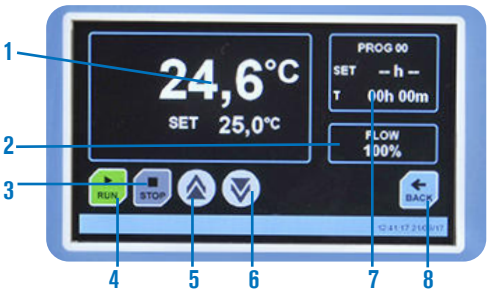
SAFETY:
STANDARD DIN 12876. 1. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET
2. OVER TEMPERATURE ALARM - 3. LOW LIQUID LEVEL FLOAT

FEATURES

Maximum working volume to maintain maximum temperature: 20 litres.
A clamp and finger screw attach the unit to the tank, alternatively the extendible support bridge accessory can be used.
Minimum fixing depth to the tank: 14 cm.
RS-232, USB and Ethernet output.
Cooling coil.

CONTROL PANEL

1. Set/ current temperature indicator.
2. Pump flow indicator (%).
3. Stop button.
4. Start button.
5. Push up parameter.
6. Push down parameter.
7. Set / current time indicator in hours / minuts.
8. Return button.



MODELS	Part No.	Control range °C	Stability °C	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H2O	Power W	Weight Kg
DIGITERM TFT-200	3000544	amb.+5 to 200	200 °C ±0,1	28 18 19	150 mbar-12 l/min.	2060	4,5

Accessories (See page. 110).

Recirculation thermostat “Ultraterm-TFT-200”

ADJUSTABLE TEMPERATURES
FROM AMBIENT+5 °C TO 200 °C.

SAFETY:
STANDARD DIN 12876. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET LOW LIQUID LEVEL SENSOR PROTECTION.

FEATURES

Maximum working volume to maintain maximum temperature: 8 litres.
AISI 304 stainless steel top and lid with an inner tank of AISI 304 stainless steel.
Complete with a pump for internal and external liquid circulation with inlet and outlet connectors. A cooling coil to maintain ambient temperatures using tap water is also provided.
RS-232, USB and Ethernet output.
A drain tap is also fitted.

MODEL

Part No.	Capacity litres	Control range °C	Stability °C	Height / Width / Depth (usable) cm	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H2O	Power W	Weight Kg
3000545	8	From amb. +5 to 200 °C	to 100 °C ±0.1	15 20 14	36 28 36	150 mbar-12 l/min	2060	9.5

Circulation cryothermostats “Frigiterm-TFT-10-S” and “Frigiterm-TFT-30-S”.

FOR ADJUSTABLE TEMPERATURES FROM -10 °C TO 100 °C. STABILITY AT 100 °C, ±0.1 / AT 0 °C, ±0.1 / AT 10 °C, ±0.1.
FOR ADJUSTABLE TEMPERATURES FROM -30 °C TO 100 °C. STABILITY AT 100 °C, ±0.1 / AT 0 °C, ±0.1 / AT 30 °C, ±0.2.
SET POINT ERROR: ±1 °C. RESOLUTION: 0.1 °C

SAFETY:
STANDARD DIN 12876. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET LOW LIQUID LEVEL SENSOR PROTECTION.

FEATURES

Maximum volume at limit temperature: 8 liters.
Worktop and removable cover in stainless steel. AISI 304 and stamped inner tank in stainless steel. AISI 304 STAINLESS STEEL.
Circulation pump for external agitation and tempering with liquid inlet and outlet on the side with connection nipples.
Hermetic compressor unit mounted on anti-vibration coupling and condensing unit.
RS-232, USB and Ethernet output.
Built-in drainage tap.

ORGANIC GLYCOL 50% 1000028
See pag 52

MODELS	Code	Capacity liters	Regulatory range °C	Height / Width / Depth (useful) cm	Height / Width / Depth (outside) cm	Pump Pressure / Flow H20	Consumption W	Compressor power H.P.	Weight Kg
TFT-10-S	3000552	8	-10 + 100	12 20 14	66 36 46	150 mbar-12 l/min	1150	1/8	28
TFT-30-S	3000553	8	-30 + 100	12 20 14	66 36 46	150 mbar-12 l/min	1460	3/8	30

Refrigerated recirculation baths “Frigiterm-TFT-10” and “Frigiterm-TFT-30”

ADJUSTABLE TEMPERATURE FROM -10 °C TO 100 °C. STABILITY: 0 °C TO 100 °C, ±0.1 °C / -10 °C, ±0.1 °C.
ADJUSTABLE TEMPERATURE FROM -30 °C TO 100 °C. STABILITY: 0 °C TO 100 °C, ±0.1 °C / -30 °C, ±0.2 °C.
SET ERROR : ±1 °C. RESOLUTION: 0.1 °C.

SAFETY:
STANDARD DIN 12876. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET. LOW LIQUID LEVEL SENSOR PROTECTION.

FEATURES

Maximum working volume to maintain maximum temperature: 8 litres.
AISI 304 stainless steel top and lid with an inner tank of AISI 304 stainless steel.
Complete with a pump for internal and external liquid circulation with inlet and outlet connectors. A drain tap is placed at the side of the unit.
A hermetically sealed compressor is mounted on anti-vibration mounts.
A RS-232 interface for connection to a printer or computer.

MODELS

	Part No.	Capacity litres	Control range °C	Height / Width / Depth (usable) cm	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H2O	Power W	Compresser power H.P.	Weight Kg
FRIGITERM-10	3000546	8	-10 + 100	12 20 14	36 66 44	150 mbar-12 l/min	1150	1/8	28
FRIGITERM-30	3000547	8	-30 + 100	12 20 14	36 66 44	150 mbar-12 l/min	1460	3/8	30

PRECISE CIRCULATING BATHS
Choice of baths and immersion circulators “Digiterm-S-150” and “Digiterm-TFT-200”

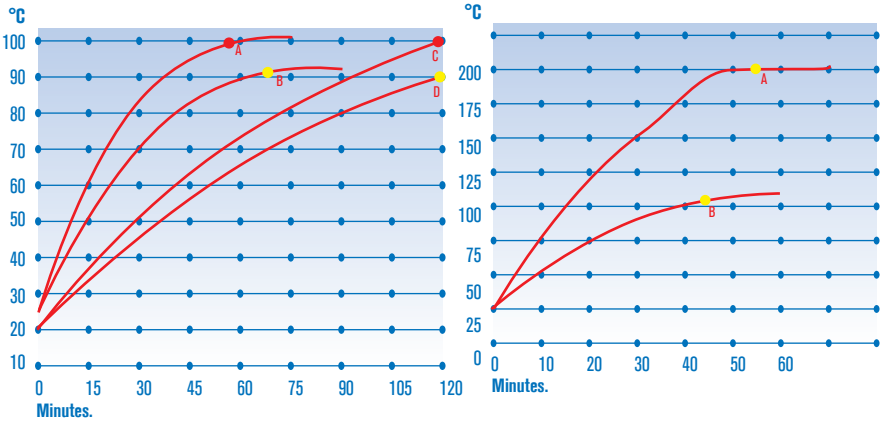
CONTROLLABLE TEMPERATURES FROM AMBIENT +5 °C TO 150 OR 200 °C.
CAPACITY FROM 20 TO 27 LITRES.

APPLICATIONS

Incubation processes, Enzymatic reactions, Fermentation, laboratory cultures in general.

COMMON FEATURES

Double skinned baths with an AISI 304 stainless steel internal tank with an AISI 304 stainless steel external, for convenience, handles at the side and drain tap are provided as standard. A detachable immersion thermostat for controlling stirring and temperature is fitted. A cooling coil with the use of tap water or cooled re-circulator can be used to maintain ambient temperatures. Internal or external circulation pump (Polarimeters, refractometers and viscometers, etc)



Graph of temperature and time for the Tectron Bio 100 and Digiterm-S-100 and Digiterm-TFT-200, units with capacity of 20 litres.
Tests completed with water up to 100°C:
A. Digiterm-TFT-200 with lid at 100 °C.
B. Digiterm-TFT-200 no lid at 90 °C.
C. Digiterm-S-100 with lid at 100 °C.
D. Digiterm-S-100 with no lid at 90 °C.

Graph of temperature and time for the Digiterm 100 and 200, units with capacity of 20 litres.
Tests completed with Silicon oil up to 200°C:
A. Digiterm-TFT-200 with lid at 200 °C.
B. Digiterm-TFT-200 with lid at 100 °C.
27 litres capacity baths take 20% more time to reach the same temperature.

Bath circulators “Digiterm-S-150”

CUVETTES SET OF 20 AND 27 L. CAPACITY, WITH THERMOSTATIC EQUIPMENT INCLUDED.
FORT TEMPERATURES FROM AMB+5 TO 150 °C.
STABILITY: ±0,1 °C. RESOLUTION: 0.1 °C.

SAFETY:
SAFETY STANDARD DIN 12876.
SAFETY ADJUSTABLE OVER TEMPERATURE CUT OFF WITH MANUAL RESET.
LOW LIQUID LEVEL CUT OFF.

CONTROL PANEL

Display temperature indicator of the bath.
Set temperature indicator display.
Heater function light indicator.
Start/Stop button.
“SET” button (temperature/time).
Push button to decrease set value.
Push button to increase set value.
PT 100 external probe connection.

MODELS	Part No.	Temperature Range °C	Cuvettes Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Pump Pressure mbar	Pump Pump rate l/min	Power W	Weight Kg
DIGITERM-S-150-20	3000548	150	20	15 30 29	36 55 35	150	12	2000	9.2
DIGITERM-S-150-27	3000549	150	27	20 30 29	41 55 35	150	12	2000	10.8

ACCESSORIES see page 110.

Bath circulators “Digiterm-TFT-200”

WITH IMMERSION THERMOSTAT DIGITERM-TFT-200.
CUVETTES SET OF 20 AND 27 L.
FROM AMBIENT +5 °C TO 200 °C. STABILITY ±0.1 °C. SET ERROR ±2 °C. RESOLUTION 0.1 °C.

SAFETY: CONFORMS TO THE DIN 12876. STANDARD. ADJUSTABLE OVER TEMPERATURE SAFETY CUT OFF WITH ADJUSTABLE MANUAL RESET.
LOW LIQUID LEVEL CUT OFF. ELECTRICAL FAULT ALARM.

FEATURES

Temperature sensor probe Pt 100.
Heating element made of stainless steel INCOLOY, resistant to high temperatures and corrosive environments.
Circulation pump with flow rate, suitable for external temperature control for: (Polarimeters, refractometers, viscometers, etc).
Cooling coil to maintain ambient temperatures, using tap water.
External temperature control connection using a Pt 100 probe (see page110).
External metal case made of AISI 304 stainless steel.
Handles at the side and drain tap.

ACCESSORIES see page 110.

MODELS	Part No.	Temperatura Range °C	Cuvettes Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Pump Pressure mbar	Pump Pump rate l/min	Power W	Weight Kg
TFT-200 20	3000550	200	20	15 30 29	36 55 35	150	12	2060	10
TFT-200 27	3000551	200	27	20 30 29	41 55 35	150	12	2060	12

ACCESSORIES for the DIGITERM-S-150 and DIGITERM-TFT-200. Made of AISI 304 stainless steel.

1. **Gable lid.** Part No. 3001295
2. **Lifting rack support. Capacity 3 tube racks.** Part No. 1001296
3. **Tube racks for lifting rack support.**

Part No.	For Ø tubes mm	Capacity Rack tubes	Height/Width/Depth (exterior) cm
1001202	13	36	8 8.2 23.6
1001203	16	24	8 8.2 23.6
1001204	20	24	8 8.2 23.6

Immersion thermostat for baths "Digit-Cool"

DIGITAL SELECTOR AND TEMPERATURE CONTROL ADJUSTABLE FROM 0 °C TO 100 °C.
STABILITY: 100 °C ±0.1 °C, AND AT 0 °C ±0,1 °C. SET ERROR: ±0.1 °C. RESOLUTION: 0.1 °C.

SAFETY: STANDARD DIN 12876. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET. LOW LIQUID LEVEL SENSOR PROTECTION.

Autonomous unit with cooling system

Compressor unit built-in

FEATURES

Maximum volume to achieve the working temperature: 20 litres.
Minimum depth of the elements with contact with the liquid: 15 cm.
Hermetically sealed compressor.
RS-232 out put to a computer control or printer.
Portable control and stirring unit with lifting handle.

CONTROL PANEL

Main power switch.
LCD Display showing working parameters.
Push button configuration selector.
Push button parameter selection.
Push button increase/decrease set value.
Start / Stop, push button.

Digitcool thermostat with bath and 4 place ring set lid.

MODEL

Part No.	Control Range °C	Height / Width / Depth (exterior) cm	Pump Pressure / Flow H_2O	Power W	Power H.P.	Weight Kg
3001373	0 +100	45 21 51	150 mbar / 12 l/min	1460	1 / 5	22

ACCESSORIES for thermostatic unit digit-cool.

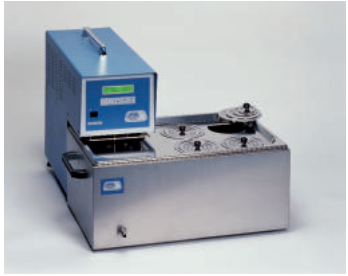
Stainless steel baths.
Double skinned with an AISI 304 stainless steel exterior with a bath of AISI 304 stainless steel interior.
Supplied with a drain tap and lifting handles.

1. Lifting rack support. .
Capacity 3 tube racks. Part No. 1001296
2. Tube racks for lifting rack support.

Part No.	For Ø tubes mm	Capacity Rack tubes	Height / Width / Depth (exterior) cm
1001202	13	36	8 8.2 23.6
1001203	16	24	8 8.2 23.6
1001204	20	24	8 8.2 23.6

MODELS

Part No.	Capacity litres	Height / Width / Depth (usable) cm	Height / Width / Depth (exterior) cm	Weight Kg
6000392	20	15 48 30	20 55 35	6.6
6000393	27	20 48 30	25 55 35	7.6



Ring set lid 105, 80, 60 and 37 mm Ø reduction rings and a check thermometer location hole in the lid.
Capacity 4 places.
Part No. 1001374

Digitcool thermostat with bath and 4 place ring set lid.

ACCESSORIES FOR IMMERSION THERMOSTATS

Pt100 temperature sensor with handle
4 mm Ø x 135 mm long submersion.
Supplied with a 150cm cable and connector .
Part No. 1000893

Silicone oil 4 liters. Temperature up to 300ºC. Viscosity 50 mm^2/s at 25 ºC. Melting point 318 ° C. Part No. 1000027

Extension support bridge.
Made of AISI 304 stainless steel, adjustable, to fit the immersion thermostat models "Tectron and "Digiterm".
Support for apertures from 22 to 44 cm across.
Part No. 6001094

Example showing the support bridge. Part No. 6001094.

Stainless steel baths.
Double skinned with an AISI 304 stainless steel exterior and internal bath of AISI 304 stainless steel.

MODELS

Part No.	Capacity litres	Height / Width / Depth (usable) cm			Height / Width / Depth (exterior) cm			Weight Kg
6000390	9	15	29	22	20	34	28	3.5
6000391	12	15	30	31	20	37	35	4.3
6000392*	20	15	48	30	20	55	35	6.6
6000393*	27	20	48	30	25	55	35	7.6
6001093*	45	15	62	50	23	70	56	11

* With drain tap and lifting handle.

Stainless steel baths, thermally insulated. Ideal for low temperatures. Suitable for J.P. Selecta refrigerated units. Similar to our other bath but with additional internal expanded foam insulation that prevents external condensation or heat loss, working temperature range from –40°C to +90°C.

MODELS

Part No.	Capacity litres	Height / Width / Depth (usable) cm			Height / Width / Depth (exterior) cm			Weight Kg
6003901	9	15	29	22	24	40	34	6
6003921*	20	15	48	30	24	61	41	9
6003931*	27	20	48	30	29	61	41	11

* With drain tap and lifting handles.

Methacrylate baths. Maximum temperature 60 °C.

MODELS

Part No.	Capacity litres	Height / Width / Depth (usable) cm			Thickness mm
1000394	8	15	18	31	6
1000544	9,5	14,5	16,5	39	6
1000395	13	15	23	40	8
1000396	30	20	30	50	8

Removable constant liquid level.
Suitable for any type of bath.
Adjustable height to obtain the required liquid level.

Part No.
6001400 Bath depth up to 15 cm.
6001800 Bath depth up to 20 cm.

Thermometer support. Stainless steel, suitable for thermometer. Fixation aperture up to 40 mm.
Part No. 6000896

Thermometer.

Suitable for "Tectron-Bio" immersion thermostat. Scale -10 to 100 °C. See page 296
Part No. 1001257

Refrigerated cooling coils for baths “Frigedor-Reg”

TEMPERATURES FROM -20 °C TO +20 °C.

APPLICATIONS

Designed for bath and tank applications that require below ambient temperatures.

FEATURES

The unit is bench mountable and contains within the epoxy coated case a CFC free hermetically sealed compressor with condenser and evaporator, the cooling coil is made of AISI 304 stainless steel.

COIL DIMENSIONS

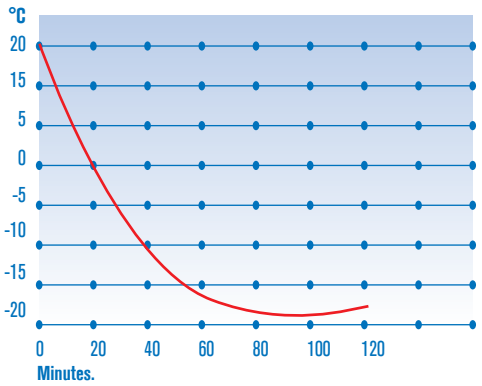
Refrigerated immersion length: 900 mm.
Cooling coil Ø: 45 mm.
Coil length: 150 mm..

MODEL FRIGEDOR REG 3001214

Equipped with a temperature controller with digital control and display. Includes a Pt 100 temperature probe.
Resolution: 1 digit.

CONTROL PANEL

Mains switch with indicator “ON” lamp. Digital temperature controller with push buttons, connector for the Pt 100 temperature probe.



Graph showing the cooling performance of the 8 litre “Frigedor” With insulated stirring tank.

MODELS	Part No.	Temperature range °C	Stability °C	Height / Width / Depth (exterior) cm	Cooling potential	Power W	Weight Kg
FRIGEDOR-REG	3001214	-20 to +20	±1.5	41 21 34	to -20 °C = 50 W	285	14

We recommend our thermally insulated baths (see page 110).

"GD-30" Circulating Cryothermostats

NEW

FOR ADJUSTABLE TEMPERATURES FROM -30 °C TO +200 °C.
230 V 50/60 Hz. GAS 448-A

Economical and environmentally friendly cooling.

DESCRIPTION

Water recirculation unit designed to supply condensation circuits, distillation columns, reactor jackets, viscometers, electrophoresis baths, etc., providing:
- Pre-selectable temperature.
- Constant fluid flow.
- Prevents lime scale build-up in condensers, boilers, etc., as it is a closed circuit.

FEATURES

Metal cabinet made of steel.
Inner chamber in AISI 304 stainless steel.
7L capacity.
Digital electronic temperature control with 7-inch TFT touchscreen display.
Recirculation pump: 20 liters per minute.
RS-485 output.
Single-phase power supply: 230 V.
Temperature stability: ±0.5 °C.
PT-100 temperature probe.

CONTROL PANEL

Main switch with indicator light.
Digital electronic temperature control with 7-inch TFT touchscreen display.
Liquid tank level indicator.

MODEL

	Code	Working temperature range °C	Height/Width/Depth (external) cm	Cooling Capacity kW 15 °C / 0 °C / -10 °C	Pump Maximum Pressure (l/min) (bar)	Weight Kg
GD-30	6001520	-30...+200	88 53 64	0,7 1,8 3	20 2	105

*Supplied with wheels.

THERMOSTAT DRY-BLOCKS

WITH DIGITAL ELECTRONIC CONTROL OF TEMPERATURE AND TIME

SAFETY: CONFORMS TO EN 61010 DIRECTIVE, OVER TEMPERATURE CUT OUT SYSTEM.

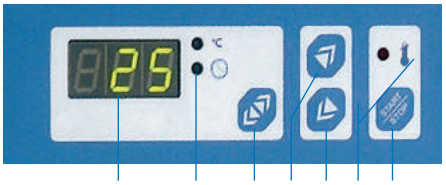
High precision. Free from contamination.

APPLICATIONS

Clinical, biochemical and chemical laboratories.
Incubation of DNA, enzyme assays, residual testing in dairy, incubation and fusion of AGAR, cell culture.
Thermo control to dry, boiling, evaporation, concentration, hydrolysis, digestion etc.

COMMON FEATURES

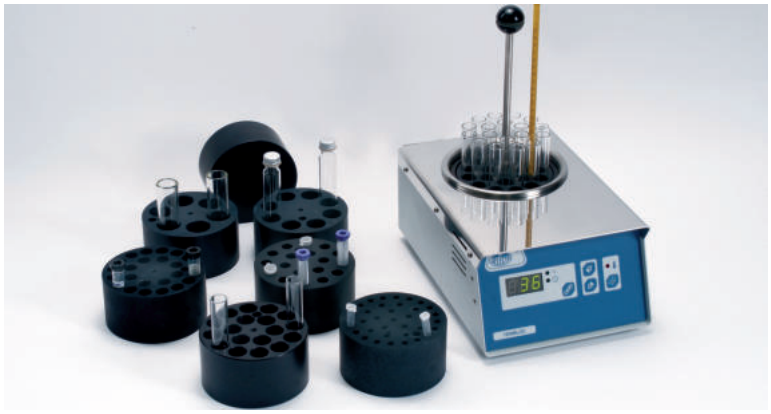
Dry block systems have several advantages over wet contact methods such as: no risk of evaporation of heating liquid, higher working temperatures, better long term temperature stability and no sample cross contamination or germination of bacteria in the bath.
Digital temperature calibration. Timer from 1 to 999 minutes or continuous operation. Over temperature alarm.
Heating elements are distributed evenly across the contact surface maintaining an even distribution of heat.
Easy to use digital temperature and time control with a digital display (3 Digits).
Built in temperature sensor Pt 100.
Interchangeable blocks made of anodised DURAL alloy to accommodate a variety of tube diameters.
(Customer specific sizes also available.)
External case made of epoxy covered steel with an AISI 304 stainless steel top.



CONTROL PANEL

1. Digital display showing temperature and time in minutes.
2. Indicator show displayed parameter (Time or temperature.).
3. Push button selector to show time or temperature.
4. Push button increase displayed value.
5. Push button decrease displayed value.
6. Push button Start / Stop.
7. Over temperature alarm indicator.

Dry block heater for tubes “Tembloc”



ACCESSORIES

Metal blocks, size: 105 Ø x 55 mm high.
Part No.
7000346 for 34 x 6 mm Ø tubes
7000714 for 18 x 1.5 ml. Eppendorf tubes
7001224 for 24 x 12 mm Ø tubes.
7001618 for 18 x 16 mm Ø tubes.
7000208 for 8 x 20 mm Ø tubes.
7000256 for 6 x 25 mm Ø tubes.
7000715 Blank block with no holes for customized demand.

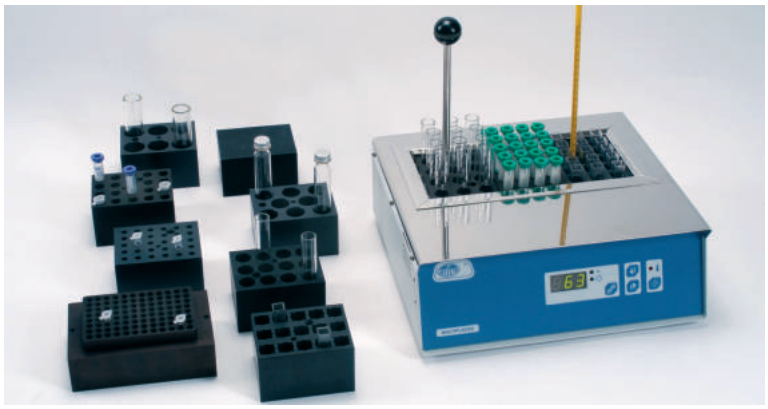
MODEL

Part No.	Temperature °C	Stability °C	Homogeneity %	Set error %	Resolution °C	Height / Width /Depth (exterior) cm	Power W	Weight Kg
7462200	30 - 200	±0.75	±1.5	±2	1	11 19 29	350	3.7

Supplied complete with thermometer 0-200 °C and extraction tool for blocks.

Dry Block heater for tubes “Multiplaces”

CAPACITY: THREE BLOCKS.



ACCESSORIES

Metal Blocks: 55 high x 95 wide x 75 mm deep.
Part No.
7000306 For 30 x 6 mm Ø tubes (total 3 blocks = 90 tubes).
7000716 For 20 x 1.5ml, Eppendorf tubes. (total 3 blocks = 60 tubes.)
7031220 For 20 x 12 mm Ø tubes (total 3 blocks = 60 tubes).
7031612 For 12 x 16 mm Ø tubes (total 3 blocks = 36 tubes).
7003208 For 8 x 20 mm Ø tubes (total 3 blocks = 24 tubes).
7001256 For 6 x 25 mm Ø tubes (total 3 blocks = 18 tubes).
7000717 Blank block without holes, can be customised to customer requirements.
7001474 Block for 15 cuvettes 10 x 10. Capacity: 3 blocks.
7001475 Block for 96 well microplates of 1.2 ml. Capacity: 1 block.

MODEL

Part No.	Temperature °C	Stability °C	Homogeneity %	Set error %	Resolution °C	Height / Width /Depth (exterior) cm	Power W	Weight Kg
7471200	30 - 200	±0.75	±1.5	±2	1	11 31 31	700	7.4

Supplied complete with thermometer 0-200 °C and extraction tool for blocks.

Metallic thermostat dry block “Bio-Bath 2”

BIO-BATH 2: TEMPERATURE RANGE: FROM AMBIENT +5 TO 100 ° C.

SAFETY: NORM EN 61010. OVER TEMPERTURE CUT-OUT FITTED.

“BIO-BATH 2”
Capacity 8 tubes (5x4) of 75x13 mm VAC.
Adjustable temperature and time.

MODEL

Part No.	Height / Width /Depth (exterior) cm	Stability °C	Power W	Weight Kg
7001562	11 11,3 14,5	±0,3	5	0,5

COMECTA Thermo shaker “TRM-4” for Microtiter plates

WITH ELECTRONIC CONTROL AND DIGITAL DISPLAY OF TEMPERATURE, SHAKING SPEED AND TIME.
FOR TEMPERATURES FROM AMBIENT +5 °C. TO 60 °C. STABILITY ± 0,5 °C.

APPLICATIONS

For clinical analysis, immunology and nutritious quality control use.

FEATURES

External ABS case with a platform for heating and shaking 2-4 96-well Microtiter plates.
Upper lid with aluminium plate coated inside, and simultaneous heating system to the main platform.
Digital display of current and set point temperature, time and shaking speed parameters.
Acoustic and luminous indications at the end of the cycle and due to malfunction in temperature or time programmed.
A built-in motor generates a uniform movement depending on the speed programmed, protected to over temperature with auto switch off and switch on activation.
Temperature calibration to meet the user’s needs.
Protection device for over temperature that provides safety and reliability.

Cover inner plate with heating system.

CONTROL PANEL

LCD display indicating temperature, speed in r.p.m. and time.
Push button SET to program temperature, speed in r.p.m. and time.
Push button ▲ increase value.
Push button ▼ decrease value.
Push button START / STOP for starting and stopping the shaking system.
Push button OFF for any function.

SPECIFICATIONS

Temperature: Ambient +5ºC to 60ºC.
Heating time: ≤23 min (to 60ºC).
Shaking range: 100-1200rpm.
Orbital rotation: 2mm.
Timer: From 1 min. to 99h. 59 min.

MODEL

Part No.	Temperature ºC	Stability ºC	Block homogeneity ºC	Height / Width (platform) cm	Height / Width / Depth (exterior) cm	Power W	Weight5 Kg
5109200	ambient +5 to 60	±0,5	±0,5	21,5 30	18 40 39	132	9.5

COMECTA Metallic dry block thermo shaker "TR100-G"

WITH ELECTRONIC CONTROL AND DIGITAL DISPLAY OF TEMPERATURE, SHAKING SPEED AND TIME. FOR ADJUSTABLE TEMPERATURE FROM AMBIENT +5 ºC. UP TO 100 ºC.

APPLICATIONS

Wide applications of TR100-G for DNA analysis, lipids and other cellular components extraction, DNA libraries creation, DNA amplification, electrophoresis pre-denaturalization, serum solidification, etc.

FEATURES

External ABS case with multiadapter device for different blocks depending on the analysis to be made.
Digital display of current and set point temperature, time and shaking speed parameters.
Acoustic and luminous notification at the end of the cycle and due to malfunction in temperature or time programmed.
A built-in motor generates a uniform movement depending on the speed programmed, protected to over temperature with auto switch off and switch on activation.
Temperature calibration to meet the user's needs.
The thermostat includes a heater platform to adapt multiple blocks, depending on the analysis to be made.
Protection device for over temperature that provides safety and reliability.

CONTROL PANEL

LCD display indicating temperature, speed in r.p.m. and time.
Push button SET to program temperature, speed in r.p.m. and time.
Push button ▲ increase value.
Push button ▼ decrease value.
Push button START / STOP for starting and stopping the shaking system.
Push button OFF for any function.

SPECIFICATIONS

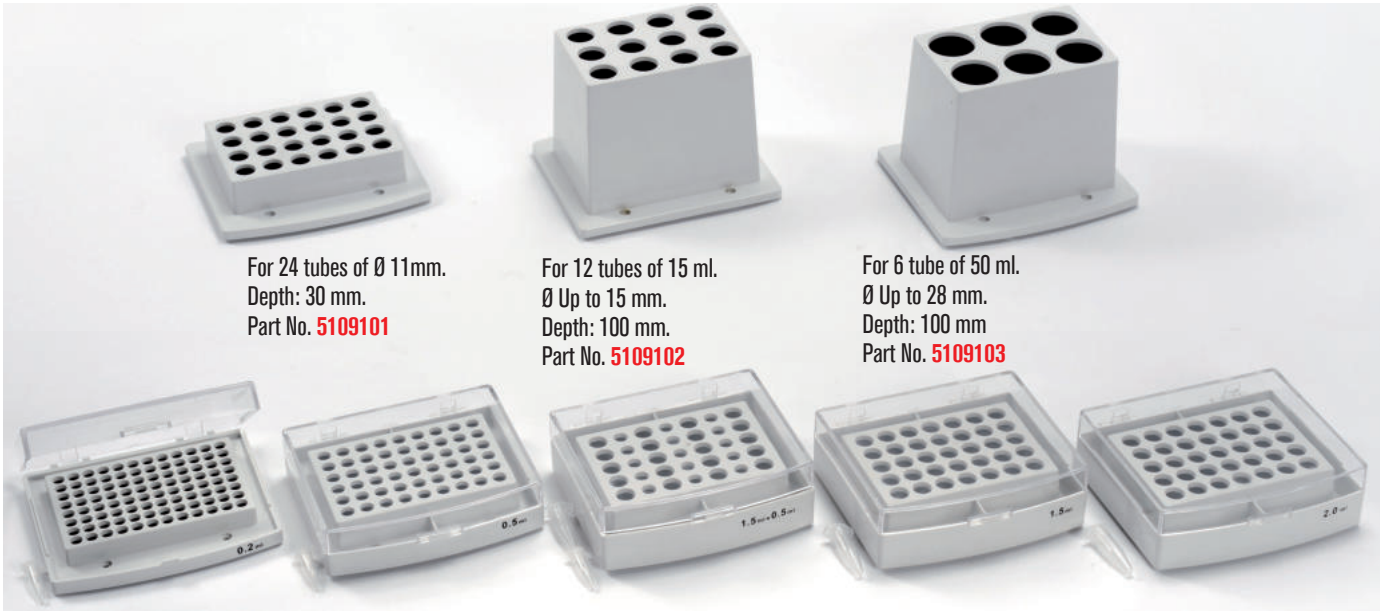
Temperature: Ambient +5ºC to 100ºC.
Heating time: ≤23 min (to 100ºC).
Shaking range: 200-1500rpm.
Orbital rotation: 2mm.
Timer: From 1 min. to 99h. 59 min.

MODEL

Part No.	Temperature ºC	Stability ºC	Block homogeneity ºC	Height / Width / Depth (exterior) cm	Power W	Weight Kg
5109100	ambient +5 to 100	±0,5	±0,5	18 21 30	88	9.5

ACCESSORIES

ABS coated **metallic blocks** adapted to TR100-G thermostat by means of fixing screws to the block. Easy to clean and autoclavable.



For 24 tubes of Ø 11mm.
Depth: 30 mm.
Part No. 5109101

For 12 tubes of 15 ml.
Ø Up to 15 mm.
Depth: 100 mm.
Part No. 5109102

For 6 tube of 50 ml.
Ø Up to 28 mm.
Depth: 100 mm
Part No. 5109103

For 96 microtubes of 0,2 ml. with polypropylene lid.
Part No. 5109104

For 54 microtubes of 0,2 ml. with polypropylene lid.
Part No. 5109105

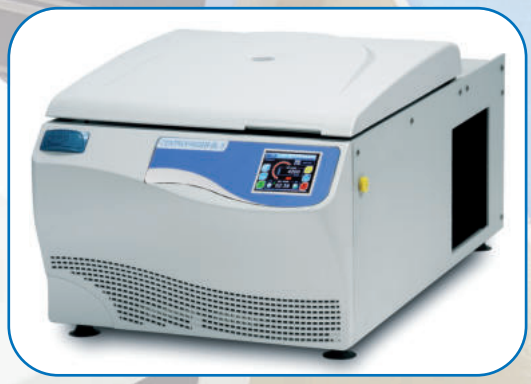
For 15 microtubes of 0,5 ml. and 20 microtubes of 1,5 ml. with polypropylene lid.
Part No. 5109106

For 35 microtubes of 1,5 ml. with polypropylene lid.
Part No. 5109107

For 35 microtubes of 2 ml. with polypropylene lid.
Part No. 5109108

Thermocycler for thermal cycles "B960" See page 238.

CENTRIFUGES



Digital electronic control centrifuges	**pages**	**118 to 120**
High speed centrifuges and refrigerated TFT Touch screen control	**pages**	**121 to 137**
Centrifuges for flasks and blood bags	**page**	**135 to 136**
Tubes of glass and plastic and buckets	**page**	**137**
Hand operated centrifuges	**page**	**138**
Microtubes and vials centrifuge	**page**	**138**
Centrifuge angle rotor for 15 ml.	**page**	**138**
Mini and Microcentrifuge	**page**	**139**

"Inspiration exists, but you can only find it by working for it"
Pablo Picasso

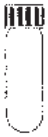
Centrifuge comparison by model and tube capacity

SUMMARY TABLE OF CENTRIFUGES BY MODEL IN RELATION TO VOLUME, CAPACITY SPEED AND MAXIMUM RCF (G).

QUICK OVERVIEW

Model	Part No.	Max. Volume ml	Max. Volume of tube ml	R.p.m. max.	R.c.f. max. (xg)	Micro-haematocrit	Reaction vial	Reaction vial	Hemolisis	Glass
Description						Micro-haematocrit	Reaction vial	Reaction vial	Hemolisis	Glass
Capacity							0.25/0.5 ml	1.5/2.2 ml	5 ml	7 ml
Dimensions						Ø 1.4 x 75 mm	Ø 6,3/7 x 47/49 mm	Ø 10.7/13 x 42 mm	Ø 12.5 x 75 mm	Ø 12 x 100 mm
Description								Tube RIA	Tapval or VAC tube	
Capacity								5 ml	5 ml	
Dimensions								Ø 12 x 55/75 mm	Ø 13 x 75/80 mm	
Manual	7000014	30	15	1500	360					
Manual	7000015	60	15	1500	360					
Manual	7000016	2 x butyrometer	–	1500	370					
Cencom II	7002240	90	15	4000	1760					
Centro 4-BL	7002560	20	5	5000	2907				4	
Centro 8-BL	7002356	120	15	4500	2515				8	8
Centrolit II-BL	7002357	40,5	2,2	12000	14103	24	18	18		
Centromix-BLT	7002556	150	25	12000	14200				10	4
Mixtasel-BLT	7002576	400	100	4200	2901				24 16	24
Centronic-BLT	7001768	400	100	13500	19048	24	40	30	24 16	24
Centrofriger-BLT	7001769	400	100	15300	23550	24	40	30	24 16	24
Meditronic-BLT	7001476	800	200	11000	12619			30 48	48 28	48
Medifriger-BLT	7001477			15000	23470					
Macrotronic-BLT	7001485	2000	500	10000	12296			80	80 48	96
Macrofriger-BLT	7001486			12000	17706					
Megafriger-BLT-Blood	7001495	4000	1000	4600	5370					96
Macrofriger-BLT-Blood	7001490	9600	1600	4070	5430					144

See page 137 for tubes and accessories. Tubes supplied as an accessory unless stated.

Plastic with cap	Glass	Glass	Plastic with cap	Glass	Falcon	Glass	Bottle	Glass	Bottle	Bottle	Butyrometer	ASTM
10 ml	15 ml	25 ml	30 ml	50 ml	50 ml	100 ml	200 ml	250 ml	500 ml	1000 ml		
Ø 16.1 x 81.1 mm	Ø 16 x 100 mm	Ø 24 x 100 mm	Ø 25.3 x 92 mm	Ø 34 x 100 mm	Ø 29.5/35 x 117 mm	Ø 44/45 x 100 mm	Ø 56.5 x 104 mm	Ø 56 x 147 mm	Ø 69 x 159 mm	Ø 98/100 x 160-175 mm		Ø 58 x 158 mm
												
Tapval or VAC tube	Falcon				Plastic with cap				Blood bag	Microtiter		ASTM
10 ml	15 ml				80/85 ml				500/600 ml	6x96		100 ml
Ø 16 x 100 mm	Ø 16/23 x 120 mm				Ø 38 x 112 mm					Ø 85 x 130 mm		Ø 37 x 200 mm
	2											
	4											
											2	
	6 6											
	8											
4	8	4										
16	18 16	8	8	8	4	4						
10 16	18 16	8	8	8	4	4						
10 16	18 16	8	8	8	4	4						
20 28	28 12	8	6	8	4 6	6	4			6x96		
20 68	68 16	36	20	16	8 6	4	4	4	4	12x96		4 4
	68	36		16		8	4		4	4		4
	102	54		24		12	6		6 12	6		

ALL THE ROTORS, BUCKETS AND ADAPTERS COME WITH LASER ETCHED IDENTIFICATION.

Digital microprocessor controlled Centrifuges, Series BL and BLT

INDUCTION DRIVE, MAINTENANCE FREE (NO CARBON BRUSHES).
-SPEED CONTROL BY VARIATOR FREQUENCY SYSTEM.
-RELIABLE FUNCTIONS AND REPEATABILITY.
-LOGICAL EASY TO USE CONTROL PANEL.
-SUSPENDED, DAMPENED VIBRATION FREE MOTOR DRIVE, GUARANTEES SMOOTH OPERATION.
-QUIET OPERATION, INTERNAL INSULATION WHICH ABSORBS NOISE AND VIBRATIONS.
-SUCTION SUPPORT FEET THAT PREVENTS BENCH CREEP.

SAFETY:

AUTOMATICALLY STOPS IF OUT OF BALANCE.
LID CANNOT BE OPENED IF THE MOTOR IS RUNNING.
SYSTEM CANNOT BE STARTED IF THE LID IS OPEN.
SPEED LIMITED BY EACH ROTOR.

TWO DIFERENT CONTROL SYSTEMS: REGULATION SYSTEM A **Digital display and** REGULATION SYSTEM B **TFT touch screen**

CENTROLIT II-BL - CENTRO 4-BL - CENTRO 8-BL

REGULATION SYSTEM A

Specific functions of models with digital screen:
-Electronic control of speed.
-Electronic control of time.

CENTROMIX BLT - MIXTASEL BLT - CENTRONIC BLT - CENTROFRIGER BLT - MEDITRONIC BLT - MEDIFRIGER BLT - MACROTRONIC BLT - MACROFRIGER BLT - MACROFRIGER BLT-BLOOD

REGULATION SYSTEM B

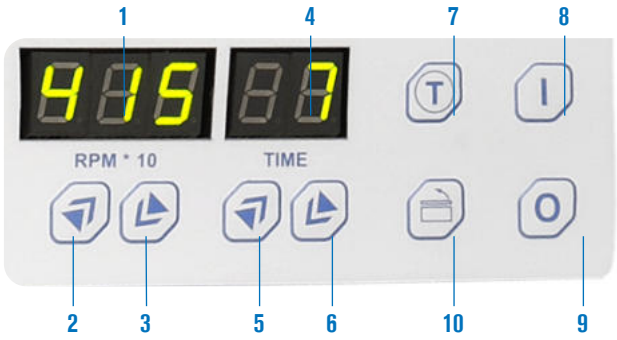
Specific functions of models with touch screen:
- Acoustic and visual alarm
- 10 working programs with 4 parameters for each program: acceleration, braking, rpm, time.
- Network failure detection and storage.
- Safety thermostat (refrigerated models only).
- Temperature correction (refrigerated models only).
- Languages: Spanish, English and French.
- Overtemperature and Low temperature alarm.
- Rotors list available on screen.
- Door open alarm.
- Rotor and motor running hours log.

CENTRIFUGES ELECTRONIC DIGITAL CONTROL "Centrolit II-BL", "Centro-4-BL", "Centro-8-BL", With induction drive maintenance free motor.

SAFETY:
UNE-EN 61010.2.020. ELECTROMAGNETIC LID LOCK, PREVENTS THE OPENING OF THE CENTRIFUGE IF THE ROTOR IS IN MOTION. PREVENTS THE STARTING OF THE MOTOR IF THE LID IS OPEN. ROTOR AND BUCKETS ARE IDENTIFIED BY LASER SIGNAL. AUTOCLAVABLE.

COMMON FEATURES

Electronic control with digital display of speed and time, with acceleration and brake ramp.
Timer controllable from 1' to 60' or continuous operation.
Rubber suspended motor that guarantees a smooth operation.
Digital speed display.
Pulse button, that drives the motor while pressed.
Automatic stop if out of balance, with indicator light.
Suction base supports that adhere to the work bench surface.
Quiet operation, insulated interior that absorbs noise and vibrations.
In the case of mains failure, manual open override aperture.
Noise level 50-60dBA.
Rotors and buckets with laser identification.
Autoclavable.



CONTROL PANEL

1. Speed display.
2. Push button increase speed.
3. Push button reduce speed.
4. Run Time display.
5. Push button increase run time.
6. Push Button decrease run time.
7. Push button pulse start (RUN/STOP).
8. Push button start.
9. Push button stop.
10. Push button open lid.

Centrifuge "Centrolit II-BL"

SUITABLE FOR HAEMATOCRIT AND SMALL VIALS OF 0.25/0.5 ml AND TUBES OF 1.5/2.2 ml.
FREE MAINTENANCE INDUCTION DRIVE MOTOR.

7001704

7001703

7001702

ABS plastic moulded external case.

MODEL

Part No.	Max. Volume ml	Max. Number of tubes	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7002357	66.6	18 x 1.5 / 2.2 ml	20 28 34	200	6.5

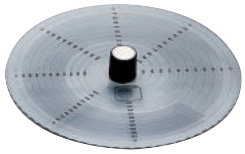
SPARES. Tubes (see page 137).

ACCESSORIES

Interchangeable rotors made of hardened anodised aluminium. Autoclavable.

Part No. head	Rotor type	Volume rotor	Tube capacity maximum	Max. R.p.m.	Max. R.c.f. (xg)
7001704	Angle+lid	Micro-haematocrit	24 x 1.4 mm Ø	12000	13143
7001703	Angle+lid	40.5 ml	18 x 0.25/0.5 ml	12000	14103
			+ 18 x 1.5/2.2 ml	12000	11515
7001702	Angle PCR	6,4 ml	32 x 0.2 mm Ø	12000	9395

Angle rotors supplied without tubes.
Micro-haematocrit rotor supplied with one box of 100 tubes.
Extra box of 100 microhematocrit tubes. Code 7000910



Micro-haematocrit reader.
Suitable for micro-haematocrit rotor 7001704.
Part No. 7000929

Centrifuge “Centro-4-BL”

WITH SWINGOUT HEAD FOR 4 TUBES OF 75 X 13 mm VAC.
FREE MAINTENANCE INDUCTION DRIVE MOTOR.

Control panel features (see page 118).
Centrifuge kit for separating plasma rich platelets from whole blood.

MODEL

Part No.	Height / Width / Depht (exterior) cm			Power W	Max. R.p.m.	Max. R.c.f. (xg)	Weight Kg
7002560	20	28	34	170	5000	2600	6

Rotor comes without tubes.

ABS plastic moulded external case.

Centrifuge “Centro-8-BL”

WITH ANGLE ROTOR FOR 7-15 ml TUBES AND 75 X 13 mm VAC (WITH ADAPTERS).
FREE MAINTENANCE INDUCTION DRIVE MOTOR.

Control panel features (see page 118).

ABS plastic moulded external case

MODEL

Part No.	Max. Volume ml.	Tube capacity	Height / Width / Depth (exterior) cm			Power W	Max. R.p.m.	Max. R.c.f. (xg)	Weight Kg
7002356	120	8 x 15 ml	20	28	34	170	4500	2015	6.5

Supplied complete with 8 x 15 ml glass tubes.

ACCESSORIES

Bucket adapter for 7 ml tubes.
Rotor capacity: 8 adapters.
Part No. 7000700
NOT AUTOCLAVABLE

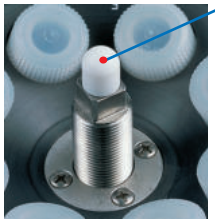
Bucket adapter for 75 x 13 mm VAC. tubes.
Rotor capacity: 8 adapters.
Part No. 1001557

SPARES. Tubes (see page 137).

MICROPROCESSOR CONTROLLED CENTRIFUGES
"Centromix BLT", "Mixtasel BLT", "Centronic BLT" and "Centrofriger BLT"

COMMON FEATURES

Robust all metal construction:
-External case made from DUR-Al alloy.
-Internal bowl and top plate all stainless steel
-Internal steel safety chamber within the case.



Rotor identification head (only models "Centronic BLT" and "Centrofriger BLT") when the centrifuge lid is closed the rotor communicates all the data of the functions of it. This prevents, before use, any risk of failure of using the wrong rotor in a program or exceeding the rotors running parameters. The advantage of this system is that we can add additional rotors to the range without changing the centrifuge model.

Electronic circuits, microprocessor digital control of all parameters and functions: speed, acceleration, brake, RCF, temperature, timer, 10 program storage, automatic rotor recognition and alarm system.

Induction drive maintenance free motor.

Low noise level 50-60 dBa.

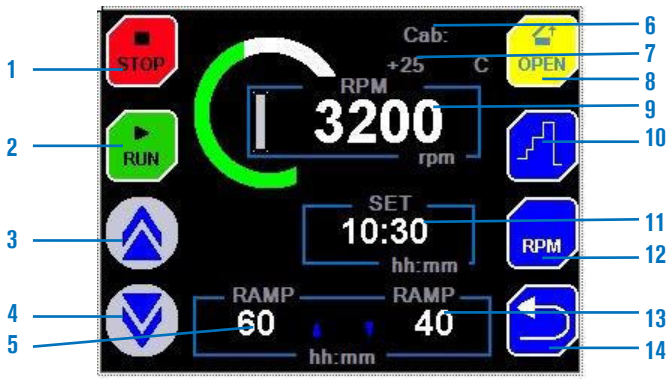
Rotors, buckets and adapters are identified with an inalterable engraved laser code.

Air circulation system, to limit any excessive rise in temperature within the centrifuge, all air circulated within the chamber is channelled out of the back and is not re-circulated, this means that the centrifuges internal temperature will remain low and constant.

Hermetically sealed compressor, mounted on anti-vibration mounts with re-circulating evaporator around the centrifuge chamber. (only applies to refrigerated centrifuges).

CONTROL PANEL

TFT Touch screen



1. Stop process key.
2. Start process key.
3. Increase value key.
4. Decrease value key.
5. Scheduled acceleration ramp.
6. Rotor model in use.
7. Reading the real time temperature. (refrigerated models only).
8. Door opening key.
9. RPM or RCF real-time reading.
10. Sequential operation.
11. Time set-up in process.
12. Key to change RPM / RCF.
13. Braking ramp programmed.
14. Return key..

Centrifuge "Centromix BLT"

WITH A CHOICE OF ROTORS AND INTERCHANGEABLE ADAPTERS.
FREE MAINTENANCE INDUCTION DRIVE MOTOR.

HEAD AND BUCKET REDUCERS

Reducers for bucket. Part No. 7001066:
7001813 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001814 For 1 tube 10 ml (16 Ø x 80 mm).
7001815 For 1 tube 7 ml (12 Ø x 100 mm).
7001816 For 1 tube 5 ml (12,5 Ø x 75 mm).
Reducers for bucket. Part No. 7001067:
1001557 For 1 tube 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7000555:
7000700 For 1 tube 7 ml (12 Ø x 100 mm) Sheath NOT AUTOCLAVABLE.
1001557 For 1 tube 5 ml (12,5 Ø x 75 mm).

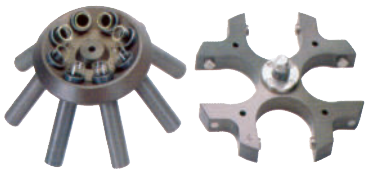
MODEL

Part No.	Max. Volume ml	Max. Number of tubes	Height / Width / Depht (exterior) cm	Power W	Weight Kg
7002556	120	4 x 25 ml	23 30 35	180	12

External DUR-AL case, with AISI 304 stainless steel bowl.

ACCESSORIES Rotors and interchangeable buckets and adapters.

Part No. head	Rotor type	Part No. bucket	Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
7000555	Angle	–	150 ml	10 x 15 ml	16.5 x 100	4400	1850
	Swing out	7001066	100 ml	1 x 25 ml	24 x 100	4400	2705
	Swing out	7001067	60 ml	1 x 15 ml	16.5 x 100	4400	2705
7001065	Swing out	7001068	28 ml	1 x 7 ml	12 x 100	4400	2705
	Swing out	7001573	40 ml	2 x 5 ml VAC	13 x 75	4400	2335
	Swing out	7001070	60 ml	VAC	16 x 100	4400	2790
	Swing out	7001072	–	undrilled	–	4400	2705



7000555 7001065

7001066 7001067 7001068 7001573 7001070 7001072

Note: All buckets and adapters come without tubes unless stated, see page 132 for tubes and accessories.

Centrifuge “Mixtasel-BLT”

MAINTENANCE FREE INDUCTION DRIVE MOTOR.

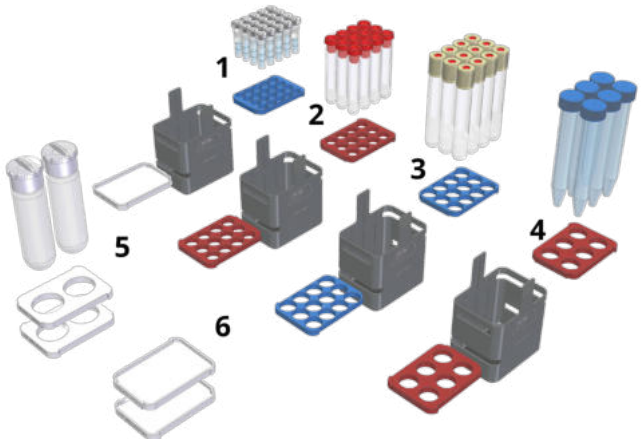
Polyvalent with rotors and interchangeable adapters

Control panel features (see page 121).

MODEL

Part No.	Max. Volume ml	Max. Number of tubes	Height / Width / Depht (exterior) cm	Power W	Weight Kg
7002576	400	4 x 100 ml	34 41 54	210	22

External case of DUR-AL alloy with ABS plastic coated front AISI 304 stainless steel bowl.



Code 1500020
Complete set of 4 ABS jars + complete set of adapters

- 1 - 4 units of double adapters from 10 to 12 mm Ø
- 2 - 4 units of double adapters from 12 to 13.5 mm Ø
- 3 - 4 units of double adapters from 15 to 16.5 mm Ø
- 4 - 4 units of double adapters from 17 to 18 mm Ø
- 5 - 4 units of double adapters from 26 to 30 mm Ø
- 6 - 4 units of double blind-cap adapters

ACCESORIOS

Cabezal oscilante, vasos, adaptadores intercambiables y set completo de adapatadores. Autoclavables.

Swing out rotor

7009079

Vaso normal

7000746

Sealed bucket with sealed lid

7000756

Adapters

7000747 7001658 7000748 7001660 7000749

Part No. head	Rotor type	Bucket open	Sealed bucket	Part No. adapter		Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	swing out	7000746	7000756	7000747		400 ml	1 x 100 ml	44 x 104	5000	4615
	swing out	7000746	7000756	7001658		320 ml	1 x 80 / 85 ml	38 x 105	5000	4615
	swing out	7000746	7000756	7000748		400 ml	2 x 50 ml	34 x 100	5000	4615
	swing out	7000746	7000756	7001660		600 ml	5 x 30 ml	25 x 92	5000	4615
	swing out	7000746	7000756	7000749		500 ml	5 dx 25 ml	24 x 100	5000	4615
	swing out	7000746	7000756	Grey		400 ml	2 x 50 ml Falcon	30 x 117	5000	4615
	swing out	7000746	7000756	Grey		400 ml	2 x 50 ml	29 x 103	5000	4615
7000745	swing out	7000746	7000756	Red		720 ml	12 x 15 ml	16,5 x 100	5000	4615
	swing out	7000746	7000756	Red	ADAPTERS	720 ml	12 VAC*	16,5 x 100	5000	4615
	swing out	7000746	7000756	Red		240 ml	4 x 15 ml Falcon	16,5 x 120	5000	4615
	swing out	7000746	7000756	Red		480 ml	12 x10 ml plástico	16,8 x 85	5000	4615
	swing out	7000746	7000756	Blue	1500020	-	12 VAC*	13 x 75	5000	46155
	swing out	7000746	7000756	Blue		560 ml	20 x 7 ml	12 x 100	5000	4615
	swing out	7000746	7000756	Blue	SET	400 ml	20 x 5 ml	12,5 x 75	5000	4615
	swing out	7000746	7000756	Blue		240 ml	20 x 3 ml	11 x 100	5000	4615
	swing out	7000746	7000756	Blue		120 ml	20 x 1,5 / 2,2 ml	-	5000	4615
	swing out	7000746	7000756	Grey		Undrilled	-	-	5000	4615

ACCESSORIES

Interchangeable angle rotors with lids, made of hardened anodised aluminium. Rotors come with identification system. Autoclavable rotors and buckets.

Part No. head	Rotor type	Max. volume	Tube capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
7001705	Angle+lid	270 ml	18 x 15 ml	16.5 x 100	4200	1893
7001711	Angle+lid	400 ml	8 x 50 ml	34 x 100	4200	1921
7001342	Angle+lid	360 ml	24 x 15 ml	16,5 x 100	4200	1893

Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

7001705

7001711

7001342

Swing out rotor, interchangeable buckets and adapters each with identification code. Autoclavable.

BUCKETS

Swing out rotor

7001326

7001700 7000793 7000794 7000795 7000796 7000797 7000930 7000931 7001073 7001074 7000798

ADAPTERS

7001315

Sealed bucket with hermetically sealed lid.

7001316 7001317 7001318 7001319 7001320 7001321 7001322

Part No. Rotor	Rotor type	Part No. bucket	Sealed bucket	Part No. adapter	Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	Swing out	7001700	–	–	400 ml	1 x 100 ml	44 x 104	4200	3030
	Swing out	7000793	–	–	200 ml	1 x 50 ml	34 x 100	4200	3030
	Swing out	7000794	–	–	100 ml	1 x 25 ml	24 x 100	4200	3030
	Swing out	7000795	–	–	240 ml	4 x 15 ml	16.5 x 100	4200	3030
	Swing out	7000796	–	–	140 ml	5 x 7 ml	12 x 100	4200	3030
	Swing out	7000797	–	–	100 ml	5 x 5 ml	12.5 x 75	4200	2441
	Swing out	7000930	–	–	240 ml	4 x 15 ml Falcon	16.5 x 120	4200	3030
	Swing out	7000931	–	–	200 ml	1 x 50 ml Falcon	30 x 117	4200	3030
	Swing out	7001073	–	–	16 VAC	4 VAC*	16 x 100	4200	3030
7001326	Swing out	7001074	–	–	16 VAC	4 VAC*	13 x 75	4200	2441
	Swing out	7000798	–	–	undrilled	–	–	4200	3030
	Swing out	–	7001315	100 ml glass tube**	400 ml	1 x 100 ml	44 x 104	4200	2901
	Swing out	–	7001315	7001316	200 ml	1 x 50 ml	34 x 100	4200	2901
	Swing out	–	7001315	7001317	100 ml	1 x 25 ml	24 x 100	4200	2901
	Swing out	–	7001315	7001318	240 ml	4 x 15 ml	16.5 x 100	4200	2901
	Swing out	–	7001315	7001319	140 ml	5 x 7 ml	12 x 100	4200	2901
	Swing out	–	7001315	7001320	100 ml	5 x 5 ml	12.5 x 75	4200	2901
	Swing out	–	7001315	7001321	64 ml	4 VAC*	13 x 75	4200	2901
	Swing out	–	7001315	7001322	undrilled	-	-	4200	2901

*VAC(r): Blood tube with cap (bung). **Sealed bucket Part No. 7001315 accommodates a 100 ml glass tube without the need of an adapter.
Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

HEAD AND BUCKET REDUCERS

Reducers for head. Part No. 7001711:
7001707 For 1 tube 50 ml (29 Ø x 103 mm).
7001708 For 1 tube 25 ml (24 Ø x 100 mm).
7001709 For 1 tube 30 ml (25 Ø x 92 mm).
7001710 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001780 For 1 tube 10 ml (16 Ø x 80 mm).
7001781 For 4 tubes 7 ml (12 Ø x 100 mm).
7001782 For 4 tubes 5 ml (12,5 Ø x 75 mm).

Reducers for bucket. Part No. 7001700:
7001779 for 1 tube 85 ml (38 Ø x 112 mm).

High speed centrifuges with microprocessor control “Centronic BLT” and “Centrofriger BLT”

Versatile. Large range of rotors and adapters. Maintenance free induction motor drive.

Model “Centronic BLT”

Control panel features (see page 121).
External case of DUR-AL alloy with ABS plastic coated front AISI 304 stainless steel bowl.

Model “Centrofriger BLT” refrigerated, temperature range -12 °C to 40 °C.

MODEL

Part No.	Max. Volume ml	Max. number of tubes	Height / Width / Depht (exterior) cm	Power W	Weight Kg
7001768	400	4 x 100 ml	34 41 54	440	22

MODEL

Part No.	Max. Volume ml	Max. number of tubes	Height / Width / Depht (exterior) cm	Power W	Weight Kg
7001769	400	4 x 100 ml	34 41 71	960	39

Note: The rotor being used limits the actual temperature in the chamber due to the speed and ambient temperature. Internal temperature indicated on the LCD display.

ACCESSORIES

Angle rotors with lid, made of anodised hardened aluminium with identification system. All rotors are autoclavable.

7001670

7001324

7001706

7001325

7001323

7001671

7001672

7001673

7001408 With calculator reader

Part No. head	Rotor type	Max. volume	Tubes capacity	Ø x Length mm	CENTRONIC BLT Max. R.p.m	CENTRONIC BLT Max. R.c.f. (xg)	CENTROFRIGER BLT Max. R.p.m	CENTROFRIGER BLT Max. R.c.f. (xg)
7001670	Angle+lid	270 ml	18 x 15 ml	16.5 x 100	11000	14492	11000	14492
7001706	Angle+lid	400 ml	8 x 50 ml	34 x 100	12000	16913	12000	16913
7001325	Angle+lid	300 ml	6 x 50 ml	29 x 103	12000	16913	12000	16913
7001324	Angle+lid	180 ml	6 x 30 ml	25 x 92	13500	16900	15300	21713
7001323	Angle+lid	100 ml	10 x 10 ml	16 x 80	13500	18335	15300	23550
7001671	Angle+lid	40.5 ml	18x0.25/0.5 ml + 18x1.5/2.2 ml	-	13500	15992	15300	20541
7001672	Angle+lid	60 ml	40 x 0.25/0.5 ml	-	13500	16250	15000	20100
7001673	Angle+lid	45 ml	30 x 1.5/2.2 ml	-	13500	19048	15000	23716
7001408	Angle+lid	Microhaematocrit	24	1.4 x 75	12000	15935	12000	15935

Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

ACCESSORIES

Swing out rotor with interchangeable sealed buckets and adapters, each with identification code. Autoclavable.

Swing out rotor

7001407

BUCKETS

7001700 7000793 7000794 7000795 7000796 7000797 7000930 7000931 7001073 7001074 7000798

Sealed bucket with hermetically sealed lid.

7001315

ADAPTERS

7001316 7001317 7001318 7001319 7001320 7001321 7001322

Part No. head	Rotor Type	Part No. bucket	Sealed bucket	Part No. adapter	Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	Swing out	7001700	-	-	400 ml	1 x 100 ml	44 x 104	5000	4137
	Swing out	7000793	-	-	200 ml	1 x 50 ml	34 x 100	5000	4137
	Swing out	7000794	-	-	100 ml	1 x 25 ml	24 x 100	5000	4137
	Swing out	7000795	-	-	240 ml	4 x 15 ml	16.5 x 100	5000	4137
	Swing out	7000796	-	-	140 ml	5 x 7 ml	12 x 100	5000	4137
	Swing out	7000797	-	-	100 ml	5 x 5 ml	12.5 x 75	5000	3318
	Swing out	7000930	-	-	240 ml	4 x 15 ml Falcon	16.5 x 120	5000	4109
	Swing out	7000931	-	-	200 ml	1 x 50 ml Falcon	30 x 117	5000	4109
	Swing out	7001073	-	-	16 VAC	4 VAC*	16 x 100	5000	4137
7001407	Swing out	7001074	-	-	16 VAC	4 VAC*	13 x 75	5000	3318
	Swing out	7000798	-	-	undrilled	-	-	5000	4137
	Swing out	-	7001315	100 ml glass tube**	400 ml	1 x 100 ml	44 x 104	5000	4137
	Swing out	-	7001315	7001316	200 ml	1 x 50 ml	34 x 100	5000	4137
	Swing out	-	7001315	7001317	100 ml	1 x 25 ml	24 x 100	5000	4137
	Swing out	-	7001315	7001318	240 ml	4 x 15 ml	16.5 x 100	5000	4137
	Swing out	-	7001315	7001319	140 ml	5 x 7 ml	12 x 100	5000	4137
	Swing out	-	7001315	7001320	100 ml	5 x 5 ml	12.5 x 75	5000	4137
	Swing out	-	7001315	7001321	64 ml	4 VAC*	13 x 75	5000	4137
	Swing out	-	7001315	7001322	undrilled	-	-	5000	4137

*VAC(r): Blood tube with cap.
**Sealed bucket Part No. 7001315 accommodates a 100 ml glass tube without the need of an adapter.
Micro-haematocrit rotor comes with a box of 100 tubes and calculus graph.
Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

HEAD AND BUCKET REDUCERS

Reducers for head. Part No. 7001706:
7001707 For 1 tube 50 ml (29 Ø x 103 mm).
7001708 For 1 tube 25 ml (24 Ø x 100 mm).
7001709 For 1 tube 30 ml (25 Ø x 92 mm).
7001710 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001780 For 1 tube 10 ml (16 Ø x 80 mm).
7001781 For 4 tube 7 ml (12 Ø x 100 mm).
7001782 For 4 tube 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7001325:
7001791 For 1 tube 25 ml (24 Ø x 100 mm).
7001792 For 1 tube 30 ml (25 Ø x 92 mm).
7001793 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001794 For 1 tube 10 ml (16 Ø x 80 mm).
7001795 For 2 tubes 7 ml (12 Ø x 100 mm).
7001796 For 2 tubes 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7001324:
7001797 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001798 For 1 tube 10 ml (16 Ø x 80 mm).
7001799 For 1 tube 7 ml (12 Ø x 100 mm).
7001800 For 1 tube 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7001670:
For 1 tube 7 ml (12 Ø x 100 mm).
1001557 For 1 tube 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7001323:
7001801 For 1 tube 5 ml (12,5 Ø x 75 mm).
Reducers for bucket. Part No. 7001700:
7001779 For 1 tube 85 ml (38 Ø x 112 mm).

ACCESSORIES

Swing out rotor with interchangeable sealed buckets and adapters, each with identification code. Autoclavable.

Swing out rotor | Open bucket | Adapters

7009079 | 7000731 | 7000734 | 7000735 | 7000736 | 7001647 | 7000737 | 7000738 | 7001648 | 7000739 | 7000740 | 7000613

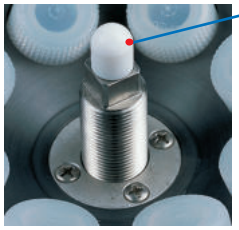
Part No. head	Rotor type	Bucket open	Sealed bucket	Part No. adapter	Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	Swing out	7000731	7000732	7000734	200 ml	1 x 50 ml	34 x 100	5000	4200
	Swing out	7000731	7000732	7000735	200 ml	2 x 25 ml	24 x 100	5000	4200
	Swing out	7000731	7000732	7000736	420 ml	7 x 15 ml and VAC*	16.5 x 100	5000	4200
7009079	Swing out	7000731	7000732	7001647	240 ml	6 x 10 ml	17 x 110	5000	4200
	Swing out	7000731	7000732	7000737	336 ml	12 x 7 ml	12 x 100	5000	4200
	Swing out	7000731	7000732	7000738	240 ml	12 x 5 ml	12.5 x 75	5000	4200
	Swing out	7000731	7000732	7001648	140 ml	7 x 5 ml and VAC*	13 x 75	5000	4200
	Swing out	7000731	7000732	7000739	144 ml	12 x 3 ml	11 x 100	5000	4200
	Swing out	7000731	7000732	7000740	-	undrilled	-	5000	4200
7000613	Swing out	-	-	-	-	4 x 96 microtiter	-	4200	1719

*VAC: Blood tube with stopper.
** Bucket part nos. 7000731 and 7000732 accommodate 1 x 200 ml polypropylene bottle with cap without the need of an adapter.
Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

Microprocessor controlled centrifuges “Meditronic BLT”, “Medifriger BLT”, “Macrotronic BLT” and “Macrofriger BLT”

COMMON FEATURES

Induction drive maintenance free motor.
Low noise level 50-60dBa.
Robust all metal construction:
-External case made from DUR-Al alloy.
-Internal bowl and top plate all stainless steel
-Internal steel safety chamber within the case.
Electronic circuits, microprocessor digital control of all parameters and functions: speed, acceleration, brake, RCF, temperature, timer, 10 program storage, automatic rotor recognition and alarm system.



Rotor identification head, when the centrifuge lid is closed the rotor communicates all the data of the functions of it. This prevents, before use, any risk of failure of using the wrong rotor in a program or exceeding the rotors running parameters. The advantage of this system is that we can add additional rotors to the range without changing the centrifuge model.

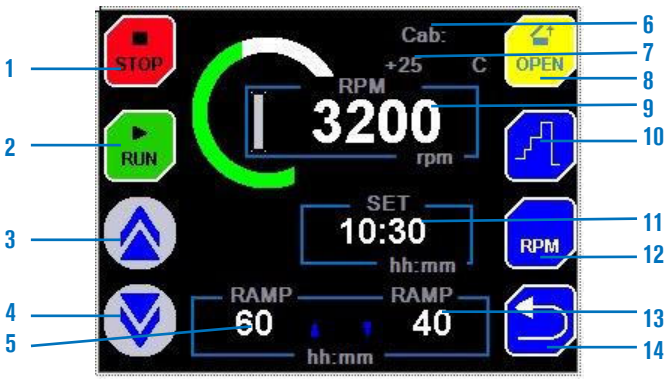
All Rotors, buckets and adapters are identified with an inalterable engraved laser code.

Air circulation system, for centrifuges without refrigeration to limit any excessive rise in temperature within the centrifuge, all air circulated within the chamber is channelled out of the back and is not re-circulated, this means that the centrifuges internal temperature will remain low and constant.

Hermetically sealed compressor, mounted on anti-vibration mounts with re-circulating evaporator around the centrifuge chamber. (only applies to refrigerated centrifuges).

CONTROL PANEL

Touch screen



1. Stop process key.
2. Start process key.
3. Increase value key.
4. Decrease value key.
5. Scheduled acceleration ramp.
6. Rotor model in use.
7. Reading the real time temperature. (refrigerated models only).
8. Door opening key.
9. RPM or RCF real-time reading.
10. Sequential operation.
11. Time set-up in process.
12. Key to change RPM / RCF.
13. Braking ramp programmed.
14. Return key..

High speed centrifuges with microprocessor control “Meditronic-BLT” and “Medifriger-BLT”

Capacity up to 800 ml. Maintenance free induction motor drive.

Control panel features (see page 126).
External case made of DUR-AL alloy with an AISI 304 stainless steel bowl.

Model “Meditronic-BLT”

Model “Medifriger-BLT” refrigerated, temperature range -12 °C to 40 °C.

MODEL

Part No.	Max. Volume ml	Max. Number of tubes	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7001476	800	4 x 200 ml	38 46 52	520	44

MODEL

Part No.	Max. Volume ml	Max. Number of tubes	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7001477	800	4 x 200 ml	38 68 52	1230	70

Note: The rotor being used limits the actual temperature in the chamber due to the speed and ambient temperature. Internal temperature indicated on the LCD display.

ACCESSORIES

Angle rotors with lid, made of anodised hardened aluminium with identification system. All rotors are autoclavable.

7000741 7000742 7000743

7001449 7001448 7001447 7001446 7001445 7001444

Part No. head	Rotor type	Max. volume	Tube capacity	Ø x Length mm	MEDITRONIC BLT Max. R.p.m	MEDITRONIC BLT Max. R.c.f. (xg)	MEDIFRIGER BLT Max. R.p.m	MEDIFRIGER BLT Max. R.c.f. (xg)
7000741	Angle+lid	600 ml	6 x 100 ml	44 x 104	4500	3170	4500	3170
7000742	Angle+lid	400 ml	8 x 50 ml	34 x 100	4600	3075	4600	3075
7000743	Angle+lid	360 ml	24 x 15 ml	16.5 x 100	4800	3761	4800	3761
7001449	Angle+lid	510 ml	6 x 85 ml	38 x 105	8000	6868	12000	15455
7001448	Angle+lid	400 ml	8 x 50 ml	29 x 103	8000	7802	12000	15938
7001447	Angle+lid	180 ml	6 x 30 ml	25 x 92	9000	7424	14000	17965
7001446	Angle+lid	200 ml	20 x 10 ml	16 x 80	9000	8964	12000	15997
7001445	Angle+lid	100 ml	10 x 10 ml	16 x 80	9000	7293	15000	20124
7001444	Angle+lid	45 ml	30 x 1.5/2.2 ml	-	11000	12619	15000	23470

Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

ACCESSORIES

Swing out rotor with interchangeable sealed buckets and adapters, each with identification code. Autoclavable.

Swing out rotor

7000745

Vaso normal

7000746

Sealed bucket with sealed lid

7000756

Adaptadores.

7001387

7001657

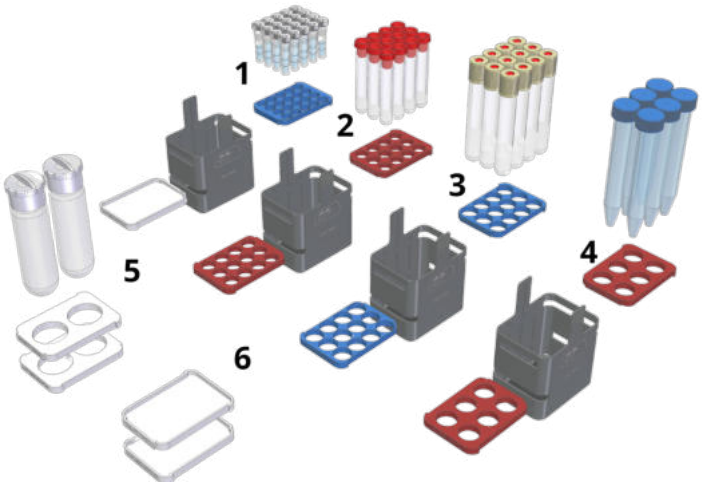
7000747

7001658

7000748

7001660

7000749



Code **1500020**
Complete set of 4 ABS jars + complete set of adapters

- **1** - 4 units of double adapters from 10 to 12 mm Ø
- **2** - 4 units of double adapters from 12 to 13.5 mm Ø
- **3** - 4 units of double adapters from 15 to 16.5 mm Ø
- **4** - 4 units of double adapters from 17 to 18 mm Ø
- **5** - 4 units of double adapters from 26 to 30 mm Ø
- **6** - 4 units of double blind-cap adapters

Part No. head	Rotor type	Bucket open	Sealed bucket	Part No. adapter		Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	swing out	7000746	7000756	7001387		800 ml	1 x 200 ml	56,6 x 104	5000	4615
	swing out	7000746	7000756	7001657		500 ml	1 x 125 ml	51 x 115	5000	4615
	swing out	7000746	7000756	7000747		400 ml	1 x 100 ml	44 x 104	5000	4615
	swing out	7000746	7000756	7001658		320 ml	1 x 80 / 85 ml	38 x 105	5000	4615
	swing out	7000746	7000756	7000748		400 ml	2 x 50 ml	34 x 100	5000	4615
	swing out	7000746	7000756	7001660		600 ml	5 x 30 ml	25 x 92	5000	4615
	swing out	7000746	7000756	7000749		500 ml	5 dx 25 ml	24 x 100	5000	4615
	swing out	7000746	7000756	Grey		400 ml	2 x 50 ml Falcon	30 x 117	5000	4615
	swing out	7000746	7000756	Grey		400 ml	2 x 50 ml	29 x 103	5000	4615
7000745	swing out	7000746	7000756	Red		720 ml	12 x 15 ml	16,5 x 100	5000	4615
	swing out	7000746	7000756	Red	ADAPTERS	720 ml	12 VAC*	16,5 x 100	5000	4615
	swing out	7000746	7000756	Red		240 ml	4 x 15 ml Falcon	16,5 x 120	5000	4615
	swing out	7000746	7000756	Red		480 ml	12 x10 ml plástico	16,8 x 85	5000	4615
	swing out	7000746	7000756	Blue	1500020	-	12 VAC*	13 x 75	5000	46155
	swing out	7000746	7000756	Blue		560 ml	20 x 7 ml	12 x 100	5000	4615
	swing out	7000746	7000756	Blue	SET	400 ml	20 x 5 ml	12,5 x 75	5000	4615
	swing out	7000746	7000756	Blue		240 ml	20 x 3 ml	11 x 100	5000	4615
	swing out	7000746	7000756	Blue		120 ml	20 x 1,5 / 2,2 ml	-	5000	4615
	swing out	7000746	7000756	Grey		Undrilled	-	-	5000	4615

*VAC: Blood tube with stopper.

Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

HEAD REDUCERS

Reducers for head. Part No. 7000741:
7001770 For 1 tube 85 ml (38 Ø x 105 mm).
7001771 For 1 tube 50 ml (34 Ø x 100 mm).
7001772 For 1 tube 50 ml (29 Ø x 103 mm).
7001773 For 1 tube 25 ml (24 Ø x 100 mm).
7001774 For 1 tube 30 ml (25 Ø x 100 mm).
7001775 For 3 tubes 15 ml (16,5 Ø x 100 mm).
7001776 For 3 tubes 10 ml (16 Ø x 80 mm).
7001777 For 7 tubes 7 ml (12 Ø x 100 mm).
7001778 For 7 tubes 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7000742:
7001707 For 1 tube 50 ml (29 Ø x 103 mm).
7001708 For 1 tube 25 ml (24 Ø x 100 mm).
7001709 For 1 tube 30 ml (25 Ø x 92 mm).
7001710 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001780 For 1 tube 10 ml (16 Ø x 80 mm).
7001781 For 4 tubes 7 ml (12 Ø x 100 mm).
7001782 For 4 tubes 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7001448:
7001791 For 1 tube 25 ml (24 Ø x 100 mm).
7001792 For 1 tube 30 ml (25 Ø x 100 mm).
7001793 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001794 For 1 tube 10 ml (16 Ø x 80 mm).
7001795 For 2 tubes 7 ml (12 Ø x 100 mm).
7001796 For 2 tubes 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7001447:
7001797 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001798 For 1 tube 10 ml (16 Ø x 80 mm).
7001799 For 1 tube 7 ml (12 Ø x 100 mm).
7001800 For 1 tube 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7001445/7001446:
7001801 For 1 tube 5 ml (12,5 Ø x 75 mm).
Reducers for head. Part No. 7000743:
For 1 tube 7 ml (12 Ø x 100 mm).
1001557 For 1 tube 5 ml (12,5 Ø x 75 mm).

Microprocessor controlled Centrifuge “Macrotronic-BLT” and “Macrofriger-BLT”

Multi-capability. Capacity from 1.5/2.2 ml vials up to tubes of 500 ml and 500ml blood bags.

Maintenance free induction motor drive.

Control panel features (see page 126).
External case made of DUR-AL alloy with an AISI 304 stainless steel bowl.

Model “Macrotronic-BLT”

Model “Macrofriger-BLT” refrigerated, temperature range -12 °C to 40 °C.

MODEL

Part No.	Max. volume ml	Max. No. of bags	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7001485	2000	4 x 500 ml	45 60 66	720	76

MODEL

Part No.	Max. volume ml	Max. No. of bags	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7001486	2000	4 x 500 ml	97 60 66	1230	156

Note: The rotor being used limits the actual temperature in the chamber due to the speed and ambient temperature. Internal temperature Indicated on the LCD display.

ACCESSORIES

Angle rotors with lid, made of anodised hardened aluminium with identification system. All rotors are autoclavable.

7000561 7000560

7001650 7001651 7001652 7001653 7001654

Part No. head	Rotor type	Max. volume	Tube capacity	Ø x Length mm	MACROTRONIC BLT Max. R.p.m	MACROTRONIC BLT Max. R.c.f. (xg)	MACROFRIGER BLT Max. R.p.m	MACROFRIGER BLT Max. R.c.f. (xg)
7000561	Angle+lid	600 ml	12 x 50 ml	34 x 100	4530	3785	4530	3785
7000560	Angle+lid	840 ml	56 x 15 ml	16.5 x 100	4030	3268	4030	3268
7001650	Angle+lid	1500 ml	6 x 250 ml	62 x 122	8000	10373	9000	13129
7001651	Angle+lid	510 ml	6 x 85 ml	38 x 105	10000	10731	12000	15452
7001652	Angle+lid	400 ml	8 x 50 ml	29 x 103	10000	11066	12000	15935
7001653	Angle+lid	360 ml	12 x 30 ml	25 x 92	10000	12296	12000	17706
7001654	Angle+lid	200 ml	20 x 10 ml	16 x 80	10000	11066	12000	15935

Swing out rotor with interchangeable sealed buckets and adapters, each with identification code. Autoclavable.

Swing out rotor

7000745

Vaso normal

7000746

Sealed bucket with sealed lid

7000756

Adaptadores.

7001387

7001657

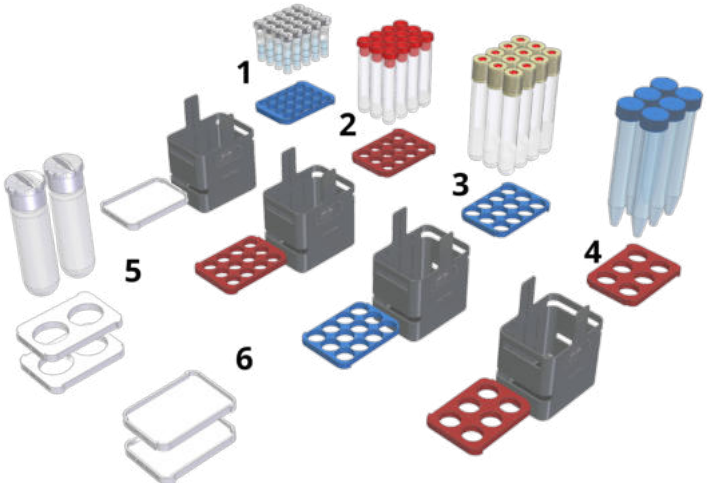
7000747

7001658

7000748

7001660

7000749



Code 1500020
Complete set of 4 ABS jars + complete set of adapters

- 1 - 4 units of double adapters from 10 to 12 mm Ø
- 2 - 4 units of double adapters from 12 to 13.5 mm Ø
- 3 - 4 units of double adapters from 15 to 16.5 mm Ø
- 4 - 4 units of double adapters from 17 to 18 mm Ø
- 5 - 4 units of double adapters from 26 to 30 mm Ø
- 6 - 4 units of double blind-cap adapters

Part No. head	Rotor type	Bucket open	Sealed bucket	Part No. adapter		Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
7000745	swing out	7000746	7000756	7001387		800 ml	1 x 200 ml	56,6 x 104	5000	4615
	swing out	7000746	7000756	7001657		500 ml	1 x 125 ml	51 x 115	5000	4615
	swing out	7000746	7000756	7000747		400 ml	1 x 100 ml	44 x 104	5000	4615
	swing out	7000746	7000756	7001658		320 ml	1 x 80 / 85 ml	38 x 105	5000	4615
	swing out	7000746	7000756	7000748		400 ml	2 x 50 ml	34 x 100	5000	4615
	swing out	7000746	7000756	7001660		600 ml	5 x 30 ml	25 x 92	5000	4615
	swing out	7000746	7000756	7000749		500 ml	5 dx 25 ml	24 x 100	5000	4615
	swing out	7000746	7000756	Grey		400 ml	2 x 50 ml Falcon	30 x 117	5000	4615
	swing out	7000746	7000756	Grey		400 ml	2 x 50 ml	29 x 103	5000	4615
	swing out	7000746	7000756	Red		720 ml	12 x 15 ml	16,5 x 100	5000	4615
	swing out	7000746	7000756	Red	ADAPTERS	720 ml	12 VAC*	16,5 x 100	5000	4615
	swing out	7000746	7000756	Red		240 ml	4 x 15 ml Falcon	16,5 x 120	5000	4615
	swing out	7000746	7000756	Red		480 ml	12 x10 ml plástico	16,8 x 85	5000	4615
	swing out	7000746	7000756	Blue	1500020	-	12 VAC*	13 x 75	5000	46155
	swing out	7000746	7000756	Blue		560 ml	20 x 7 ml	12 x 100	5000	4615
	swing out	7000746	7000756	Blue	SET	400 ml	20 x 5 ml	12,5 x 75	5000	4615
	swing out	7000746	7000756	Blue		240 ml	20 x 3 ml	11 x 100	5000	4615
	swing out	7000746	7000756	Blue		120 ml	20 x 1,5 / 2,2 ml	-	5000	4615
	swing out	7000746	7000756	Grey		Undrilled	-	-	5000	4615

*VAC: Blood tube with stopper.

Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

ACCESSORIES

Swing out rotor

7001450

Open bucket
1 blood bag

7001451

7001395

Adapters

7001655

7001396

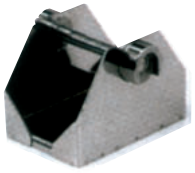
7001397

7001398

7001399

7001400

7001401



7001656

Bucket for
3 x 96 well plates

Part No. head	Rotor type	Bucket open	Part No. adapter	Total max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
7001450	swing out	7001451	7001395	2000 ml	1 x 500 ml	70 x 165	3200	2358
	swing out	7001451	7001655	1000 ml	1 x 250 ml	62 x 122	3200	2358
	swing out	7001451	7001396	800 ml	1 x 200 ml	56.6 x 104	3200	2358
	swing out	7001451	7001397	800 ml	2 x 100 ml	44 x 104	3200	2358
	swing out	7001451	7001398	800 ml	4 x 50 ml	34 x 100	3200	2358
	swing out	7001451	7001399	900 ml	9 x 25 ml	24 x 100	3200	2358
	swing out	7001451	7001400	1020 ml	17 x 15 ml	16.5 x 100	3200	2358
	swing out	7001451	7001401	672 ml	24 x 7 ml	12 x 100	3200	2358
	swing out	7001656	-	-	3 plates x 96 microtiter	-	3200	2117

Swing out rotor

7000552

Buckets

7000763

7001075

7000764

200 Height x36 mm Ø
for buckets Part No. 7001075

7001088

ASTM buckets
for testing
sediments in oil and
petroleum

158 Height x 58 mm Ø max.
for buckets Part No. 7000764

7000767

Part No. head	Rotor type	Open Bucket	Total max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	swing out	7000763	1000 ml	1 x 250 ml	56 x 147	3720	3567
7000552	swing out	7001075	4 x 1 ASTM	1 x ASTM cylindrical	36 x 200	3720	3567
	swing out	7000764	4 x 1 ASTM	1 x ASTM pear shaped	58 x 158	3720	3567

Note: All buckets and adapters come without tubes unless stated, see page 137 for tubes and accessories.

HEAD REDUCERS

Reducers for head. Part No. 7001650:
7001803 For 1 tube 100 ml (44 Ø x 104 mm).
7001804 For 1 tube 85 ml (38 Ø x 105 mm).
7001805 For 1 tube 50 ml (34 Ø x 100 mm).
7001806 For 2 tubes 50 ml (29 Ø x 103 mm).
7001807 For 1 tube 50 ml (30 Ø x 117 mm).
7001808 For 3 tubes 30 ml (25 Ø x 92 mm).
7001809 For 7 tubes 15 ml (16,5 Ø x 100 mm).
7001810 For 7 tubes 10 ml (16 Ø x 100 mm).
7001811 For 12 tubes 7 ml (12 Ø x 100 mm).
7001812 For 12 tubes 5 ml (12,5 Ø x 75 mm).

Reducers for head. Part No. 7001651:
7001783 For 1 tube 50 ml (34 Ø x 100 mm).
7001784 For 1 tube 50 ml (29 Ø x 103 mm).
7001785 For 1 tube 25 ml (24 Ø x 100 mm).
7001786 For 1 tube 30 ml (25 Ø x 92 mm).
7001787 For 2 tubes 15 ml (16,5 Ø x 100 mm).
7001788 For 2 tubes 10 ml (16 Ø x 100 mm).
7001789 For 5 tubes 7 ml (12 Ø x 100 mm).
7001790 For 5 tubes 5 ml (12,5 Ø x 75 mm).

Reducers for head. Part No. 7001652:
7001791 For 1 tube 25 ml (24 Ø x 100 mm).
7001792 For 1 tube 30 ml (25 Ø x 100 mm).
7001793 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001794 For 1 tube 10 ml (16 Ø x 80 mm).
7001795 For 2 tubes 7 ml (12 Ø x 100 mm).
7001796 For 2 tubes 5 ml (12,5 Ø x 75 mm).

Reducers for head. Part No. 7001653:
7001797 For 1 tube 15 ml (16,5 Ø x 100 mm).
7001798 For 1 tube 10 ml (16 Ø x 80 mm).
7001799 For 1 tube 7 ml (12 Ø x 100 mm).
7001800 For 1 tube 5 ml (12,5 Ø x 75 mm).

Reducers for head. Part No. 7000560:
7000700 For 1 tube 7 ml (12 Ø x 100 mm).
NOT AUTOCLAVABLE
1001557 For 1 tube 5 ml (12,5 Ø x 75 mm).

Refrigerated high capacity microprocessor controlled centrifuge suitable for tubes, flasks and blood bags “Megafriger-BLT-Blood” and “Macrofriger-BLT-Blood”

USB

Original J.P. Selecta design. With maintenance free induction drive motor

SAFETY:
SAFETY, CONFORMS TO UNE-EN 61010-2-020.
PROTECTIVE INTERNAL CYLINDER BETWEEN THE CASE AND BOWL.
THE LID CANNOT BE OPENED WHILE THE ROTOR IS SPINNING.
THE MOTOR CANNOT SPIN WHILE THE LID IS OPEN.
IMBALANCE DETECTOR, AUTOMATICALLY STOPS IF THERE IS ANY IMBALANCE.
DOUBLE ELECTROMAGNETIC LID LOCK.
IF THERE IS A POWER FAILURE, A FAIL SAFE SYSTEM CAN BE USED TO OPEN THE LID.
EMERGENCY STOP BUTTON.

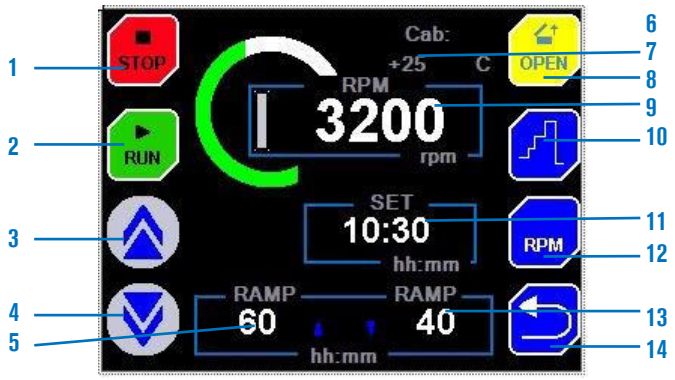
COMMON FEATURES

7” TFT touch screen.
Furniture: aluminum structure in Megafriger model and in steel tube with Dur-Al sides in Macrofriger model.
Internal Stainless steel bowl .
Aluminium windbreak cover.
Safety shield: 8 mm thick steel.
Swing-out rotor, buckets and adapters made of high-density material, engraved identification unalterable.
Suspended motor with silent-block and shock absorbers that guarantee smooth, quiet operation without vibrations.
Drive force: equipped with an induction drive maintenance free and highly efficient pollution free motor.
Semi-hermetically sealed, compressor pollution free with no hydrocarbons or fluorocarbons.
Mounted on an anti vibration adjustable rubber feet.
Microprocessor digital control of all functions: speed, acceleration, brake, R.C.F., temperature, time, 10 program memory, rotor identification, operation fault alarm.
Digital indicator of the rotor and blood bag buckets operating hours.
NEW SELF-CLOSING LID WITH AUTOMATIC LOCKING SYSTEM

CONTROL PANEL

Touch screen

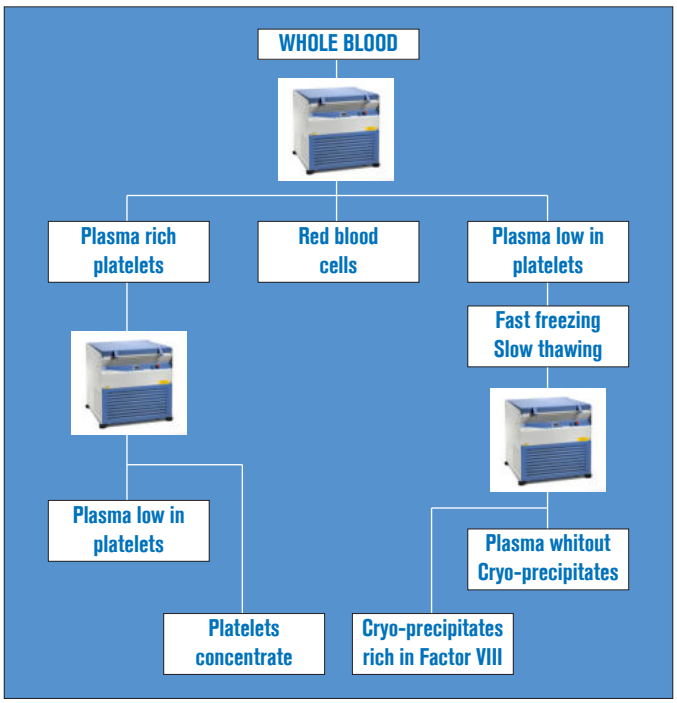
REGULATION B SYSTEM

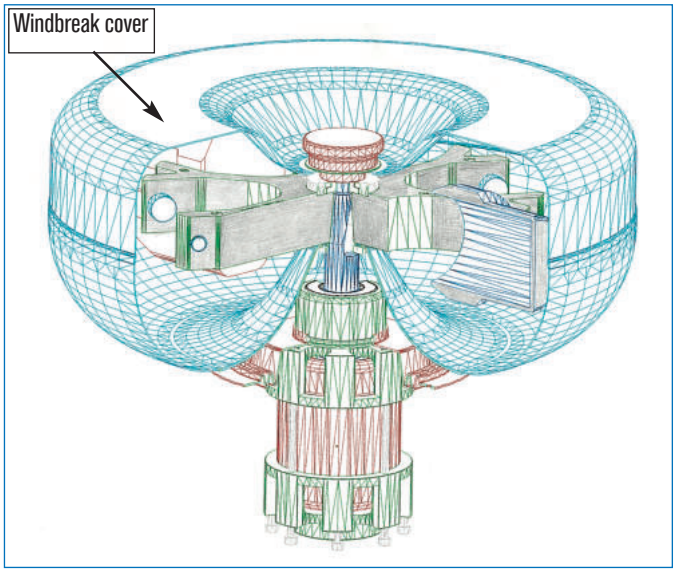


1. Stop process key.
2. Start process key.
3. Increase value key.
4. Decrease value key.
5. Scheduled acceleration ramp.
6. Rotor model in use.
7. Reading the real time temperature. (refrigerated models only).
8. Door opening key.
9. RPM or RCF real-time reading.
10. Sequential operation.
11. Time set-up in process.
12. Key to change RPM / RCF.
13. Braking ramp programmed.
14. Return key..

APPLICATIONS

Specially designed for blood bank applications, where repeatability, precision and reliability of: speed, time, temperature, acceleration and deceleration are significant factors in obtaining perfect separations of the distinct blood fractions.
Serology investigatios.
Molecular biology.
Serum separation, pharmaceutical applications.





Cross-section of the motor, rotor drive mechanism, showing the windbreak protector with lid that reduces the air resistance and maintains a regulated temperature.

Refrigerated high capacity microprocessor controlled centrifuge suitable for tubes, flasks and blood bags “Megafriger-BLT-Blood”

ADJUSTABLE WORKING TEMPERATURES FROM -10 TO 40 ° C. (TEMPERATURE AT STANDSTILL -20 ° C).
CAPACITY UP TO 1000 ML BOTTLES AND SPECIAL FOR BLOOD BAGS OF 500 TO 800 ML.
MAXIMUM CAPACITY 4 BAGS.
NEW SELF-CLOSING LID WITH AUTOMATIC LOCKING SYSTEM

Swing out rotor 4 places detail

Features and control panel (see page 129).

TECHNICAL SPECIFICATION

Maximum volume: .....4000 ml
Maximum bucket volume: .....1000 ml
Speed.: .....from 300 to 4600 r.p.m.
Accuracy: .....± 5 r.p.m.
Resolution r.p.m: .....10 r.p.m.
R.C.F.: .....from 24 to 4078
Imbalance: .....± 5 g
Accuracy: .....4 g
Temperature range: .....from -10 °C to 40 °C
Temperature stability: .....±4 °C
Resolution: .....1 °C
Temperature range: .....99 min. 59 sec.
Centrifuge radius: .....241 mm
Acceleration profile: 5
Brake profile: .....9 linear 6 quadratic
Voltage: .....230.
Power: .....1700 VA

MODEL

Part No.	Max. Volume ml	Max. Capacity	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7001495	4000	4 bags x 1000 ml	97 70 72	1700	190

ACCESSORIES FOR PART NO. 7001490

Swing out rotor 4 places, treated steel.

Part No. 7001343

Interchangeable buckets and reducers with identification sign. Autoclavable.

Single bucket.
Bags of 500 to 800 ml.
Part No.7001344

Single bucket.
Capacity: 1 blood bag of 500 to 800 ml or 1 flask of 1 litre or with tube adapters.
Part No. 7001393

Adapters for single bucket Part No. 7001393.

Bottle

1001394 | 7001395 | 7001396 | 7001397 | 7001398 | 7001399 | 7001400 | 7001401

Single Bucket	Part No. adapter	Total max. Volume (4 adapters)	Capacity: bags, tubes by adapter	Ø x Length mm	R.p.m. Min./Max.	R.c.f. (xg) Min./Max.
7001344	–	3200 ml	2 bag 500 or 800 ml	-	300/4600	24/4078
7001393 Capacity without adapter: 1 bag of 500 to 800 ml or 1x bottle 1000 ml	Bottle 1000 ml 1001394	4000 ml	1 bottle 1000 ml or 1 bag	98 x 175	300/4600	24/4078
	7001395	2000 ml	1 bottle 500 ml	70 x 165	300/4600	24/4078
	7001396	800 ml	1 bottle 200 ml	56.6 x 104	300/4600	24/4078
	7001397	800 ml	2 tubes 100 ml	44 x 104	300/4600	24/4078
	7001398	800 ml	4 tubes 50 ml	34 x 100	300/4600	24/4078
	7001399	900 ml	9 tubes 25 ml	24 x 100	300/4600	24/4078
	7001400	1020 ml	17 tubes 15 ml	16.5 x 100	300/4600	24/4078
	7001401	672 ml	24 tubes 7 ml	12 x 100	300/4600	24/4078

Note: All buckets and adapters come without tubes, see page 137 for tubes and accessories.
Other adapters can be manufactured as per customers specification.

COMPLEMENTS

Blood bank refrigerated cabinets "Blood Bank" C and D

FORCED AIR CIRCULATION.
FIXED TEMPERATURE +4 °C. STABILITY ±1.5 °C. RESOLUTION 1 °C.
SEVEN DAYS GRAPHIC TEMPERATURE REGISTER.
CAPACITIES FROM 80 TO 480 BLOOD BAGS.

FEATURES
See pag. 86

MODELS	Part No.	Capacity litres	Capacity bags	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior) cm	Power W	Power HP	Number of shelves	Weight Kg
Blood Bank C	2101512	560	200	153 54 66	213 80 79	497	3/8	4	165
Blood Bank D	2101514	1240	480	153 124 68	213 139 79	1034	5/8	8	212

They are supplied with trays.

Refrigerated high capacity microprocessor controlled centrifuge suitable for tubes, flasks and blood bags “Macrofriger-BLT-Blood”

ADJUSTABLE WORKING TEMPERATURES FROM 0 TO 40 ° C. (TEMPERATURE AT STANDSTILL -20 ° C).
CAPACITY UP TO 1000 ML BOTTLES AND SPECIAL FOR TRIPLE AND QUADRUPLE BLOOD BAGS OF 500 TO 800 ML.
MAXIMUM CAPACITY 12 BAGS.
NEW SELF-CLOSING LID WITH AUTOMATIC LOCKING SYSTEM

Image showing the rotor and double buckets for quad and triple blood bags of 500 and 800 ml.

Features and control panel (see page 132).

ACCESSORIES FOR PART NO. 7001490

Swing out rotor 6 places, treated steel.

Part No. 7001391

Single bucket. Capacity: 1 blood bag of 500 to 800 ml or 1 flask of 1 litre or with tube adapters.
Part No. 7001393

Interchangeable buckets and reducers with identification sign. Autoclavable.

Buckets with two compartments for blood bags of 500 to 800 ml. For triple and quad bags
Part No.7001392

Bags holder set for double cup 7001392
Part No. 0928292

TECHNICAL SPECIFICATION

Maximum volume:	9600 ml
Maximum bucket volume:	1600 ml
Speed 7001490.:	from 300 to 4070 r.p.m.
Accuracy:	± 5 r.p.m.
Resolution r.p.m:	10 r.p.m.
R.C.F.:	from 29 to 5430
Imbalance:	± 5 g
Accuracy:	4 g
Temperature range:	from -20 °C to 40 °C
Temperature stability:	±4 °C
Resolution:	1 °C
Timer range:	99 min. 59 sec.
Centrifuge radius:	290 mm
Acceleration profile:	5
Brake profile:	9 linear 6 quadratic
Voltage:	230/400 three phase.
Power:	4500 VA

MODEL

Part No.	Max. Volume ml	Max. Capacity	Height / Width / Depth (exterior) cm			Power W	Weight Kg
7001490	9600	12 bags x 800 ml	105	96	96	5500	420

Adapters for single bucket Part No. 7001393.

Bottle

1001394 7001395 7001396 7001397 7001398 7001399 7001400 7001401

Double Bucket	Single Bucket	Part No. adapter	Total max. Volume (6 adapters)	Capacity: bags, tubes by adapter	Ø x Length mm	R.p.m. Min./Max.	R.c.f. (xg) Min./Max.
7001392	–	–	9600 ml	2 bags 500 or 800 ml	-	300/4070	29/5450
–	7001393 Capacity without adapter: 1 bag of 500 to 800 ml or 1x bottle 1000 ml	Bottle 1000 ml 1001394	6000 ml	1 bottle 1000 ml or 1 bag	98 x 175	300/4070	29/5430
–		7001395	3000 ml	1 bottle 500 ml	70 x 165	300/4070	29/5430
–		7001396	1200 ml	1 bottle 200 ml	56.6 x 104	300/4070	29/5430
–		7001397	1200 ml	2 tubes 100 ml	44 x 104	300/4070	29/5430
–		7001398	1200 ml	4 tubes 50 ml	34 x 100	300/4070	29/5430
–		7001399	1350 ml	9 tubes 25 ml	24 x 100	300/4070	29/5430
–		7001400	1530 ml	17 tubes 15 ml	16.5 x 100	300/4070	29/5430
–		7001401	1008 ml	24 tubes 7 ml	12 x 100	300/4070	29/5430

Note: All buckets and adapters come without tubes, see page 137 for tubes and accessories.
Other adapters can be manufactured as per customers specification.

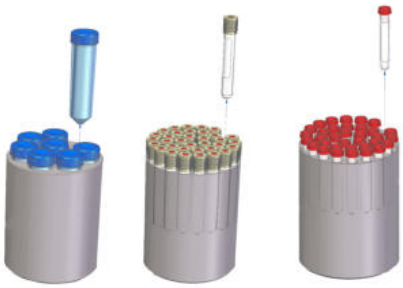
ACCESSORIES FOR PART NO. 7001490

Swing out rotor 4 places,
treated steel.

Part No. 7001394

Biological single bucket safety with screw cap
for 2 bags of 450 ml blood or 1 bag of 1200 ml.

Part No. 7001330



7001331 7001332 7001333

Double Bucket	Single Bucket	Part No. adapter	Total max. Volume (4 adapters)	Capacity: bags, tubes by adapter	Ø x Length mm	R.p.m. Min./Max.	R.c.f. (xg) Min./Max.
–	7001330	–	4800 ml	2 bags of 450 or 1 of 1200 ml	–	300/4070	32/5944
–	Capacity	7001331	1600 ml	8 x 50 ml falcon tubes	34 x 120	300/4070	27/4944
–	without adapter: 2 bags	7001332	2100 ml	35 x 15 ml VAC tubes	15,5 x 100	300/4070	25/4722
–	of 450 ml or 1 of 1200 ml	7001333	700 ml	35 x 5 ml VAC tubes	12,5 x 75	300/4070	24/4444

CASINGS FOR HOUSING TUBES	For centrifuge model						
	Cencom II 7002240	Centro-8 7002356	Centromix BLT 7002556	Meditronic BLT 7001476	Medifriger BLT 7001477	Macrotronic BLT 7001485	Macrofriger BLT 7000486
7001403 15ml plastic NO AUTOCLAVABLE	YES	-	-	-	-	-	-
7001500 15ml plastic NO AUTOCLAVABLE	-	YES	Head 700550	Head 7000743	Head 7000743	Head 7000560	Head 7000560
7005000 50ml metalic	-	-	-	Head 7000742	Head 7000742	Head 7000561	Head 7000561
7001000 100ml metalic	-	-	-	Head 7000741	Head 7000741	-	-

ALL THE ROTORS, BUCKETS AND ADAPTERS COME WITH LASER ETCHED IDENTIFICATION.

Refrigerated centrifuge for blood banks "MACROFRIGER-BLT GR-50T"

ADJUSTABLE WORKING TEMPERATURES FROM 0 TO 40 °C. LID WITH AUTOMATIC DOUBLE SAFETY LOCKING SYSTEM.

MAXIMUM CAPACITY: 200 VACUTAINER-TYPE TUBES.

TECHNICAL SPECIFICATIONS

Maximum volume: .....2200 ml.
Speed: .....from 300 to 3000 r.p.m.
Stability: .....±5 r.p.m.
R.p.m. resolution: .....1 r.p.m.
R.C.F.: .....from 29 to 2930.
R.C.F. stability: .....±5 g.
Resolution: .....4 g.
Temperature: .....from 0 °C to 40 °C.
Stability: .....±2 °C.
Resolution: .....1 °C.
Time range: .....99 min. 59 sec.
Centrifugation radius: .....290 mm.
Acceleration ramps: .....5.
Braking ramps: .....7 linear and 15 quadratic.
Power supply: .....230/400 V. three-phase + neutral.
Power: .....4500 VA.

STANDAR PACK

CODE 7001412

Cups with a capacity per unit for 50 blood tubes of 5, 9, or 11 ml.

Code 7001406

Swinging bucket rotor with 4 slots, constructed from treated steel.

Code 7001394

Extraction rack.
Code 7001409

MODEL

Code	Volume max. ml	Capacity max. tubes	Height/Width/Depth (external) cm			Consumption W	Weight Kg
7001491	2200	200 x 11 ml	105	96	96	4500	429

COMMON ACCESSORIES. Tubes of glass and plastic.

Plastic tubes and flasks with screw cap lids.

Volume ml	Dimensions mm	Type	Part No.	Material	Max. (xg) range	Temperature °C
10	16 Ø x 80	Comecta	5752399	Polypropylene	50000	4 ... 121
		Herolab	5752421	Polypropylene	57000	-180 ... 145
		Herolab	5752401	Polycarbonate	57000	-150 ... 121
30	25 Ø x 92	Comecta	5752398	Polypropylene	50000	4 ... 121
		Herolab	5752955	Polypropylene	64000	-180 ... 145
		Herolab	5752951	Polycarbonate	64000	-150 ... 121
50	29 Ø x 103	Comecta	5752397	Polypropylene	50000	4 ... 121
		Herolab	5753205	Polypropylene	69000	-180 ... 145
		Herolab	5753201	Polycarbonate	69000	-150 ... 121
80	38 Ø x 105	Comecta	5752396	Polypropylene	40000	4 ... 121
		Herolab	5753243	Polypropylene	50000	-180 ... 145
		Herolab	5753241	Polycarbonate	50000	-150 ... 121
200	56.6 Ø x 104	Herolab	5715202	Polypropylene	10000	-180 ... 145
		Herolab	5715203	Polycarbonate	10000	-150 ... 121
250	62 Ø x 122	Comecta	5752395	Polypropylene	13200	4 ... 121
		Herolab	5753411	Polypropylene	33000	-180 ... 145
		Herolab	5753401	Polycarbonate	33000	-150 ... 121
500	70 Ø x 165	Herolab	5753512	Polypropylene	14000	-180 ... 145
		Herolab	5753501	Polycarbonate	14000	-150 ... 121
1000	98 Ø x 175	Herolab	5752571	Polypropylene	4936	-180 ... 145
		Herolab	5752561	Polycarbonate	4936	-150 ... 121

Type HEROLAB polycarbonate tubes transparent Polypropylene tubes translucent. Autoclavable.

Type COMECTA polypropylene translucent. Autoclavable.

Glass Tubes.

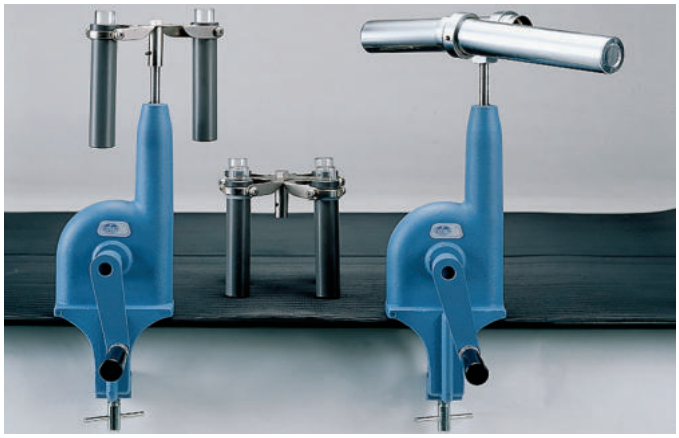
Volume	Dimensions mm	Part No.
Micro-haematocrit*	1.4 Ø x 75	7000910
7 ml	12 Ø x 100	7000773
15 ml	16.5 Ø x 100	7000772
25 ml	24 Ø x 100	7000771
50 ml	34 Ø x 100	7000770
100 ml	44 Ø x 104	7000769
250 ml	56 Ø x 147	7000768
ASTM	Conical	7001088
ASTM	Pear shape	7000767

*Box of 100 tubes.

Hand operated centrifuges

FEATURES

For 15 ml and butyrometer tubes.
Comes with a table holding clamp.
Adaptable heads for 2 or 4 x 15 ml tubes or for 2 butyrometer tubes.



MODELS

Part No.	Comes with head for	Max. speed r.p.m.	Max. R.c.f.	Weight Kg
7000014	2 tubes	1500	360	1.1
7000015	4 tubes	1500	360	1.2
7000016	2 butyrometers	1500	370	1.2

Comes with head and metal buckets.

ADDITIONAL ACCESSORIES

Head for two tubes.
Part No. 7000017
Head for four tubes.
Part No. 7001388
Bucket for 15 ml tubes.
Part No. 7001500
Head for two butyrometers.
Part No. 7000018

Centrifuge Angle rotor "Cencom II"

WITH ANGLE ROTOR FOR 6 X 15 ml TUBES AND 6 ADDITIONAL ADAPTERS FOR 15 ML FALCON TUBES.
DIGITAL ELECTRONIC CONTROL OF SPEED AND TIME. ADJUSTABLE SPEED UP TO 4000 r.p.m. (1790 R.c.f.)

SAFETY:
SAFETY ACCORDING TO EN. 61010.2.020 SAFETY MICRO-SWITCH THAT DISCONNECTS THE POWER TO THE MOTOR WHEN THE LID IS OPENED. PROTECTIVE FUSE LOCATED AT THE BACK OF THE INSTRUMENT.

APPLICATIONS

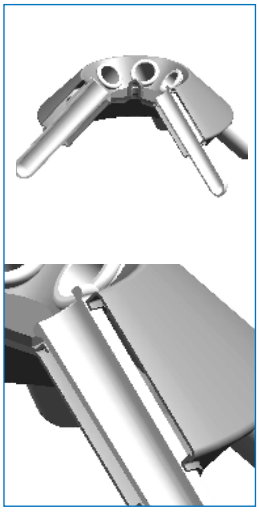
General laboratory use and teaching.

FEATURES

External case made from coated ABS plastic.
Rubber suspended motor, reduces any motor vibrations.
Fixed angle 6 place rotor with identification code.
Transparent polycarbonate lid that allows the user to see inside the centrifuge.
Speed selection from 1000 to 4000 r.p.m. in 500 r.p.m. steps.
Time selection from 1' to 60' in steps of 1'.

CONTROL PANEL

Digital display of speed and time.
Push button Start-Stop.
Push button selector for speed and time.
Push button increase value.
Push button decrease value.



Cross section view of the angle rotor showing bucket and bucket support.

MODEL

Part No.	Tube capacity ml	Height/Ø (exterior) cm	Max. speed r.p.m.	Max. R.c.f.	Power W	Weight Kg
7002240	6 x 15	28 26	4000	1790	80	4.5

Supplied with 6 adapters with 6 glass tubes of 15 ml, 6 adapters for round tubes, and 6 adapters for FALCON tubes.

ACCESSORY

Adapter. Suitable for 13 Ø x 75 mm VAC tubes. Rotor capacity, 6 adapters.
Part No. 1001556

Mini-Centrifuge “METEOR 10K”.

FOR 0.4 AND 0.5 ML VIALS AND 0.2 ML PCR AND 1.5 AND 2 ML MICROTUBES.

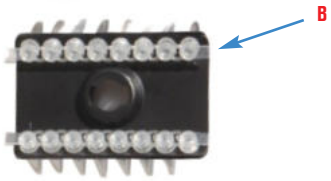
APPLICATIONS

For centrifugation of separation tubes or HPLC samples.

FEATURES

ABS cabinet and transparent cover for its visualization.
Non-slip rubber platform.
Simple operation: insert the tubes in the centrifuge head, close the lid and press the ON/OF button. For repetitive centrifugations, simply open and close the lid to stop or start the centrifuge. Microswitch safety device that disconnects the motor power supply when the lid is opened.

The centrifuge is supplied complete with two interchangeable heads.:
A- 1 Circular for 8 microtubes of 1.5 ml or 2 ml installed in the centrifuge with
8 Adapters for 0.4 to 0.5 ml vials.
B- 1Rectangular for 2 strips of 8 x 0.2 ml PCR microtubes or 16 x 0.2 ml individual PCR microtubes.



MODELO

Code	Height / Width / Depth (outside) cm	Speed r.p.m.	R.C.F. xg máx.	Consumption W	Weight Kg
5022100	10,5 13 15	10000	6652	15	1,5

Supplied with: 1 angled ABS head and 1 rectangular ABS head.

Microcentrifuge “Cencom III”

FOR MICROTUBES OF 2,2/1,5, 0,5 AND 0,2 ML.
DIGITAL ELECTRONIC CONTROL OF SPEED AND TIME. ADJUSTABLE SPEED UP TO 14500 r.p.m.

FEATURES

ABS external case.
Maintenance free induction drive motor.
Rubber suspended motor which reduces the vibrations.
High speed microcentrifuge that minimizes the samples over temperature.
Extremely quiet operation.
For 12 microtubes with identification code.
Polycarbonate upper lid.
Peephole on the lid to visualize the centrifuge inside.

CONTROL PANEL

Start switch.
Push button Start/Stop.
LCD display indicating time and speed.
Time selector push button.
Speed selector push button.
Push button ▲increase different parameters.
Push button ▼decrease different parameters.
Push button motor drive rotation for quick acceleration Short/Spin.
Push button open lid when cycle has ended.

Comes complete with 12 adapters of 0,5 and 0,2ml.

MODEL

Part No.	Tubes capacity	Height/ Width/ Depth (exterior) cm	Max. speed r.p.m.	R.c.f.(xg)	Power W	Time selected	Weight Kg
5022010	12	15 21 25	14500	14000	105	till 99’ 99”	4

STERILIZATION AND BACTERIOLOGICAL OVENS - FURNACES

Poupinel sterilizers	page	143
Drying and sterilization ovens	pages	144 to 155
Universal precision ovens	pages	149 and 150
High temperature ovens	page	153
Vacuum ovens	pages	154
Desiccators	page	155
Bacteriological incubators	pages	156 to 158
Cooled low temperature incubator	pages	159 and 160
Incubator chamber	page	161
CO2 incubator	page	162
Precise cooled incubators	page	163
Electric muffle furnaces	pages	164 to 166

"The key to quality is found in the personal commitment of each and every one within a company and by the management taking the lead."
Eugenio d'Ors

OVENS, INCUBATORS AND FURNACES
Summary table of the different models

QUICK OVERVIEW

MODEL RANGE STERILIZERS POUPINEL	MODELS	CONTROL	CAPACITY					Safety	RS-232	USB
			1.5 litres	19 litres						
50 ... 220 °C	DRYTIME II	ANALOGUE	2000912	-				YES	-	-
60 ... 250 °C	DRYTERM	ANALOGUE	-	2000787				YES	-	-
GLASS DRYING			126 litres							
40 … 170 °C	DRYGLASS	ANALOGUE	2000381					YES	-	-
CONVECTION NATURAL			19 litres	36 litres	52 litres	80 litres	150 litres			
40 … 250 °C	CONTERM	Digital LED µ	2000250	2000251	2000252	2000253	2000254	YES		-
Ambient+5 … 250 °C	DIGITHEAT-TFT	TFT Touch screen µ	2001251	2001252	2001253	2001254	2001255	YES	YES	YES
FORCED AIR, FAN CONVECTION BENCH TOP				33 litres	47 litres	76 litres	145 litres			
Ambient+5 … 250 °C	DIGITRONIC-TFT	TFT Touch screen µ		2005163	2005165	2005167	2005169	YES	YES	YES
Ambient+5 … 250 °C	DIGITRONIC-TFT glass door	TFT Touch screenµ		2005164	2005166	2005168	2005170	YES	YES	YES
FORCED AIR, FAN CONVECTION FLOOR STANDING			216 litres	288 litres	400 litres	720 litres	4200 litres			
Ambient+5 … 250 °C	DRYBIG 230/400V III PHASES	DIGITAL µ	2002961	2002971	2003721	2003741	2003743	YES	YES	-
Ambient+5 … 250 °C	DRYBIG 230V I PHASE	DIGITAL µ	2002962	2002972	-	-		YES	YES	-
HIGH TEMPERATURE			80 litres							
60 … 400 °C	HIGHTEMP 230/400V III PHASES	DIGITAL µ	2001406					YES	-	-
VACUUM OVEN			3 litres	47 litres						
35 … 200 °C	VACIOTEM-GMP	DIGITAL µ	-	4001491				YES	-	YES
Ambient+5 … 170 °C	VACUO-TEMP	DIGITAL	4000474					YES	-	-
DESICCATOR			55 litres							
			1001403					-	-	-
INCUBATION CHAMBER			110 litres							
Ambient+5 … 57 °C	BOXCULT	DIGITAL	3000957					YES	-	-
INCUBATORS BENCH TOP			19 litres	36 litres	52 litres	80 litres	150 litres			
Ambient+5 … 80 °C	INCUBAT	Digital LED µ	2000260	2000261	2000262	2000263	2000264	YES	-	-
Ambient+5 … 80 °C	INCUDIGIT-TFT	TFT Touch screen µ	2001261	2001262	2001263	2001264	2001265	YES	YES	YES
INCUBATORS LARGE AND FLOOR STANDING			288 litres	400 litres	720 litres					
Ambient+5 … 80 °C	INCUBIG-TFT	TFT Touch screen µ	2000238	2000239	2000240			YES	YES	YES
LOW TEMPERATURE CABINETS			36 litres	80 litres	150 litres					
5 … 60 °C	PREBATEM-TFT	TFT Touch screen µ	2000963	2000964	2000965			YES	YES	YES
CO_2 INCUBATOR					150 litres					
Ambient+5 … 50 °C	INCUBATOR CO_2	DIGITAL µ			4002628			YES	YES	YES
WITH REFRIGERATION			160 litres	600 litres	670 litres					
+5 … 65 °C	HOTCOLD S	DIGITAL µ	2101518					YES	-	-
-10 … 60 °C	HOTCOLD UC	TFT Touch screen µ			2101515			YES	-	YES
6 … 20 °C (with humidity)	HOTCOLD F	TFT Touch screen µ		2101517				YES	-	-
6 … 20 °C (with humidity)	HOTCOLD J	TFT Touch screen µ		2101518				YES	-	-
MUFFLE FURNACE			3 litres	3.6 litres	8 litres	9 litres				
Up to … 1150 °C	SELECT-HORN-TFT	TFT Touch screen µ	-	2000376	-	2000377		YES	-	YES
Up to … 1100 °C	R	TFT Touch screen µ	2000368	-	2000369	-		YES	-	YES

µ: with microprocessor.

LABORATORY OVENS AND INCUBATORS

Leading edge technology. Maximum Precision.

Drying and sterilization ovens:

Drying: For all drying processes of diverse laboratory material or glass material in general, printed circuits, granule and powder, etc.

Sterilization: They guarantee microorganisms destruction, either pathogen ones or not, which will be over or inside the material. They allow sterilization of powder and non-volatile viscose substances. For a good sterilization, a temperature between 160 ºC and 180 ºC and 2 hours exposition is usually required.

Vacuum drying ovens:

They are developed for applications of thermal and drying treatments of heat-sensitive products.

Bacteriological culture ovens:

For microorganisms or culture incubation in clinical diagnosis, in sanitary or nutritious industry. The samples are preserved at a determined temperature and period of time.

Cooled low temperature ovens:

For microorganisms or culture incubation, in clinical diagnosis, in sanitary or nutritious industry. The samples are preserved at a determined temperature and period of time.

Anaerobic cell and tissue cultures for CO_2 ovens:

Essential element in laboratories for research, cell biology, molecular biology, different cancer sorts and general pharmaceutical laboratories.

Conforms to the international directives for safety and precision.
MODEL RANGE:

- ***Drying and sterilization.***
- ***Universal: Programmed for cultures and sterilization.***
- ***Vacuum drying.***
- ***Bacteriological cultures.***
- ***Low temperature- High Precision Peltier systems.***
- ***CO_2 Incubators.***
- ***Precise refrigerators and cooled incubators.***
- ***More than 70 models with capacities from 19 to 720 litres.***
- ***Controllable temperatures from −10 to 250 ºC and 400 ºC.***
- ***Analogue or digital control through a microprocessor for temperature and time.***
- ***Wide range of accessories for varying applications.***

Consult ATEX ovens. See page 331.

ATEX

Manufactured O.E.M

Poupinel dry heat sterilizer “Drytime II”

ADJUSTABLE TEMPERATURES FROM 50 °C UP TO 200 °C.
STABILITY: ±6 °C.

APPLICATIONS
For quick surgical sterilization of diverse instruments surgical odontological, etc.

FEATURES
Heating by shielded elements in the base which provide a rapid temperature rise.
Flap door.
Inner chamber in AISI 304 stainless steel.
Removable tank with extraction clamps.
Epoxy-coated outer casing.

SAFETY
Over temperature cut out incorporated. EN.61010 Standard.

CONTROL PANEL
Mains switch.
Mains indicator lamp.
Hydraulic thermostat for temperature control.
Timer 0 to 120 min. with automatic off.

MODEL

Part No.	Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
2000912	1,5	6,5 25 12	15 31 20	300	4

Poupinel dry heat sterilizer “Dryterm”

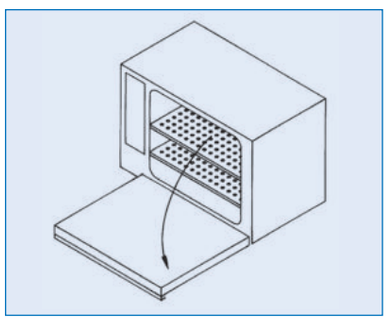
ADJUSTABLE TEMPERATURES FROM 60 °C UP TO 250 °C.
STABILITY: ±10 °C.

APPLICATIONS
For surgical sterilization of diverse instruments surgical odontological,etc.

FEATURES
Heating by shielded elements in the base that provides a rapid rise in temperature.
Flap door.
Inner chamber made of AISI 304 stainless steel, complete with a heater cover, three shelf runners and two perforated shelves 10 mm high.
Epoxy-coated outer casing.

SAFETY
Over temperature cut out incorporated. EN.61010 Standard.

CONTROL PANEL
Hydraulic thermostat temperature control.
Locking device for thermostat knob.
Timer 0 to 120 min. with automatic switch off.
Heater “ON” indicator.
Analogue temperature reading thermometer.



MODEL

Part No.	Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
2000787	19	25 32 23	37 54 34	770	19

Glass drying oven “Dryglass”

FAN ASSISTED AIR CIRCULATION.
ADJUSTABLE TEMPERATURE FROM 40 °C TO 170 °C.

SAFETY:
EN.61012 STANDARD OVER TEMPERATURE SAFETY CUT OUT FITTED.
DIN 12880. STANDARD (CLASS 2 AND 3.1) ADJUSTABLE SAFETY THERMOSTAT FITTED.

FEATURES

Hydraulic thermostat for temperature control.
Air circulation by turbo fan.
Inner chamber made of AISI 304 stainless steel with shelf runners.
Removable tempered glass sliding doors.
Ventilation port for steam.
Epoxy coated external case.

STANDARD EQUIPMENT

2 shelves and 4 shelf guides.

CONTROL PANEL

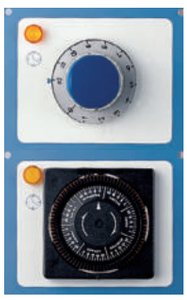
Dual heating power selector switch.
Mains indicator lamp.
Hydraulic thermostat for temperature control.
Locking system of thermostat knop.
Heater “ON” operation indicator lamp.
Analogue thermometer.
Adjustable over temperature safety thermostat, that cuts off the power if the control thermostat fails, manual reset with “on” indicator lamp.

MODEL

Part No.	Capacity litres	Height / Width / Depth (interior) cm			Height / Width / Depth (exterior) cm			Shelf Positions	Power W	Weight Kg
2000381	126	45	70	40	66	94	54	8	3000	65

ACCESSORIES

Accessories must be factory installed.



Part No.

2000002 **Timer switch** 0-120 minutes.

2000009 **24 hour programmer** with continuous on/off cycling up to every 15 minutes.

SPARES

Part No.
2000081 **Shelf guides** x 2.
2000091 **Shelf.**
Each shelf requires 2 guides.

OVENS AND INCUBATORS PREMIER RANGE

PREMIER SERIE

MODELS:
- **NATURAL AIR CONVECTION, DRYING AND STERILIZATION.**
- **FAN ASSISTED CIRCULATION, UNIVERSAL APPLICATIONS.**
- **NATURAL AIR CONVECTION, BACTERIOLOGY AND INCUBATION.**

CONTROL: DIGITAL MICROPROCESSOR CONTROL OF TEMPERATURE AND TIME, MODEL DEPENDENT.
COMPLIES WITH THE STANDARDS: DIN 50011 - DIN 58945. REQUIRED FOR HEATING, STABILITY AND HOMOGENEITY.

SAFETY:
STANDARD EN.61010. INCORPORATED FIXED OVER TEMPERATURE DEVICE .
STANDARD DIN 12880. (CLASS 2 AND 3.1)SAFETY THERMOSTAT CONTROLLER FITTED.

Leading edge technology

Detailed longitudinal cross section.

COMMON FEATURES

Construction.

1. External case treated with a corrosive resistant epoxy coating.
2. Internal part: Easy to clean AISI 304 stainless steel double chamber, self adjusting door seal and adjustable shelves and guides.
3. Control panel: independent insulated control panel to facilitate all types of instruments, controls and regulators.
4. Adjustable air inlet.

Technical Properties.

5. Excellent thermal qualities of the insulation has the optimum performance according to heater capacity and power consumption, with minimal external temperature loss.
6. Independent heating chamber for the heating elements to obtain an even heat distribution and rapid temperature equilibrium and stabilization.

Fan assisted convection models have a turbo fan.
All incubators for bacteriology and cell culture have a second inner door of tempered glass.

Technology from J. P. Selecta:

7. **Adjustable guide and shelf positions.**
8. **Double seal around the chamber to provide a gentle but effective seal.**
9. **Floating spring door that adjusts the pressure and absorbs the thermal expansion.**
10. **Adjustable door pressure system closure.**

Internal tempered glass door.

NOTE:
For all models, the values for stability and homogeneity shown are based on temperature conditions with the ventilation closed.
The optimum homogenization of temperature within the chamber is based on a reasonable load that does not surpass more than 70 % of the volume of the chamber. The graphic results shown for temperature for each model are based on the above criteria.

CONTROL PANELS

Models with digital LED.

1. Main switch.
2. Regulator with digital double temperature display and programmable timer.
3. **Security thermostat.**

Models with 4.3 inches TFT touch screen.

1. Main switch.
2. TFT touch screen:

Visual audible alarm .
Clock calendar.
Single or cyclic On / Off programming.
Up to 10 work programs.
Up to 6 segments per program.
Stability time in each segment (from 1 min to 99h) .
Alarms and events storage.
Probe error detection.
Self Diagnostics.
Ramps between segments.
Network failure detection and saving.
Over temperature and low temperature alarms and memorization (date, start time, end time and temperature).
Safety thermostat (TS) by software.
Mechanic safety thermostat (TS).
Temperature control auto-tuning.
Configurable parameters: Date / time, temperature correction , data collection interval, language (English, Spanish and French) , °C / °F selection , over temperature and low temperature limit.

3. **RS-232 output.**
4. **USB output.**
5. **Security thermostat.**

MODEL SUMMARY TABLE

Models	CONTERM	DIGITHEAT	DIGITRONIC	DRYBIG	INCUBAT	INCUDIGIT	INCUBIG
TYPE	Drying Oven	Drying Oven	Universal	Universal	Bacteriological	Bacteriological	Bacteriological
CONTROL DISPLAY	Digital LED	TFT Touch screen	TFT Touch screen	Digital LCD	Digital LED	TFT Touch screen	TFT Touch screen
AIR CIRCULATION	Convection natural	Convection natural	Fan assisted	Fan assisted	Convection natural	Convection natural	Convection natural

ACCESSORIES

2000009 **24 hour programmer** with continuous on/off cycling up to every 15 minutes.
Suitable for **CONTERM** and **INCUBAT.**

DRYING AND STERILIZATION OVENS

PREMIER SERIE

Drying and sterilization ovens “Conterm”

NATURAL CONVECTION.
TEMPERATURE THERMOSTAT CONTROL WITH DIGITAL THERMOMETER.
FOR ADJUSTABLE TEMPERATURES FROM 40 °C UP TO 300 °C.
STABILITY: ±0.5 °C UP TO 150 °C. HOMOGENEITY: ±1.5 °C UP TO 150 °C.

SAFETY:
STANDARD EN.61010. INCORPORATED FIXED OVER TEMPERATURE DEVICE .
STANDARD DIN 12880. (CLASS 2 AND 3.1) SAFETY THERMOSTAT CONTROLLER FITTED.

300°C

FEATURES, CONTROL PANEL, SAFETY, STANDARD AND ACCESSORIES (see pages 145 and 146).

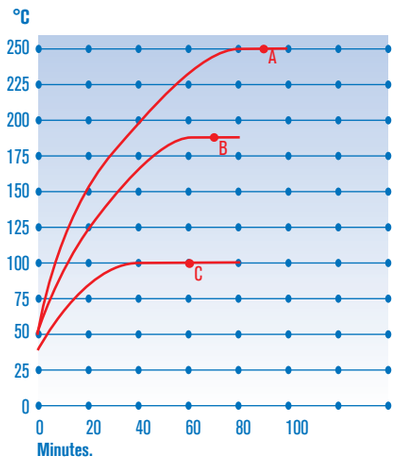
Models Conterm, Part No. 2000250, 2000251 and 2000253.

Model Conterm type Poupinel, Part No. 2000252 and 2000254.

STANDARD EQUIPMENT
2 shelves and 4 shelf guides.

MODELS

Part No.	Capacity litres	Height / Width / Depth (interior) cm			Height / Width / Depth (exterior) cm			Shelf Positions	Power W	Weight Kg
2000250	19	30	25	25	50	60	44	5	580	27
2000251	36	40	30	30	60	65	49	7	870	35
2000252	52	33	47	33	53	82	52	5	980	44
2000253	80	50	40	40	70	74	59	8	1150	54
2000254	150	50	60	50	70	95	68	8	1900	76



Performance graph of temperature and time.
A. Set at 250 °C: 1 h 30’.
B. Set at 180 °C: 1 h 12’.
C. Set at 100 °C: 1 h.

ACCESSORIES
Accessorie must be installed in the factory.

2000009 **24 hour programmer** with continuous on/off cycling up to every 15 minutes.

SPARES
Shelves and guides.

Oven Part No.	2000250	2000251	2000252	2000253	2000254
Guides set (2 units)	2000011	2000012	2000012	2000013	2000015
Shelves	2000021	2000022	2000024	2000023	2000025

Each shelf requires two guides (one set).

Drying and sterilization ovens “Digitheat-TFT”

PREMIER SERIE

NATURAL CONVECTION.
MICROPROCESSOR CONTROL WITH TFT TOUCH SCREEN.
ADJUSTABLE TEMPERATURE FROM AMBIENT +5 °C UP TO 300 °C.
STABILITY: ±0.3 °C, UP TO 150 °C. HOMOGENEITY: ±1 °C, UP TO 150 °C.
SET ERROR: ±2 % OF THE WORKING TEMPERATURE. RESOLUTION: 1 °C.

SAFETY:
STANDARD EN.61010. INCORPORATED FIXED OVER TEMPERATURE DEVICE .
STANDARD DIN 12880. (CLASE 2 AND 3.1)CONTROLLABLE SAFETY THERMOSTAT FITTED.

300°C

Reaches working temperature with minimum delay

USB

RS232

FEATURES, CONTROL PANEL, SAFETY, STANDARD AND ACCESSORIES (see pages 145 and 146).

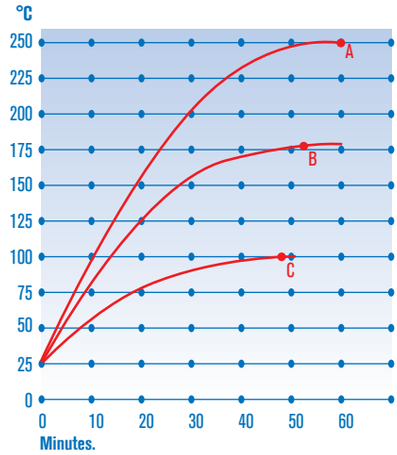
Model Digitheat type Poupinel, Part No. 2001253 and 2001255.

Model Digitheat, Part No. 2001251, 2001252 and 2001254.

STANDARD EQUIPMENT
2 shelves and 4 shelf guides.

MODELS

Part No.	Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Shelf Positions	Power W	Weight Kg
2001251	19	30 25 25	50 60 44	5	600	24
2001252	36	40 30 30	60 65 49	7	900	35
2001253	52	33 47 33	53 82 52	5	1000	44
2001254	80	50 40 40	70 74 59	8	1200	59
2001255	150	50 60 50	70 95 68	8	2100	73



Performance graph of temperature and time.
A. Set at 250 °C: 60’.
B. Set at 180 °C: 54’.
C. Set at 100 °C: 48’.

SPARES
Shelves and guides.

Oven Part No.	2001251	2001252	2001253	2001254	2001255
Guides set (2 units)	2000011	2000012	2000012	2000013	2000015
Shelves	2000021	2000022	2000024	2000023	2000025

Each shelf requires two guides (one set).

Universal precision ovens “Digitronic-TFT”

PREMIER SERIE

FAN ASSISTED CIRCULATION.
BACTERIOLOGICAL ASSAYS, DRYING PROCESSES AND STERILIZATION.
MICROPROCESSOR CONTROL WITH TFT TOUCH SCREEN.
ADJUSTABLE TEMPERATURES FROM AMBIENT +5 °C UP TO 300 °C.
STABILITY: ±0.3 °C, UP TO 100 °C. HOMOGENEITY: ±1 °C, UP TO 100 °C. GLASS DOOR ±2 UP TO 100 °C.
SET ERROR: ±2% OF THE WORKING TEMPERATURE. RESOLUTION: 1 °C.
UP TO 6 PROGRAMMABLE TEMPERATURE STEPS

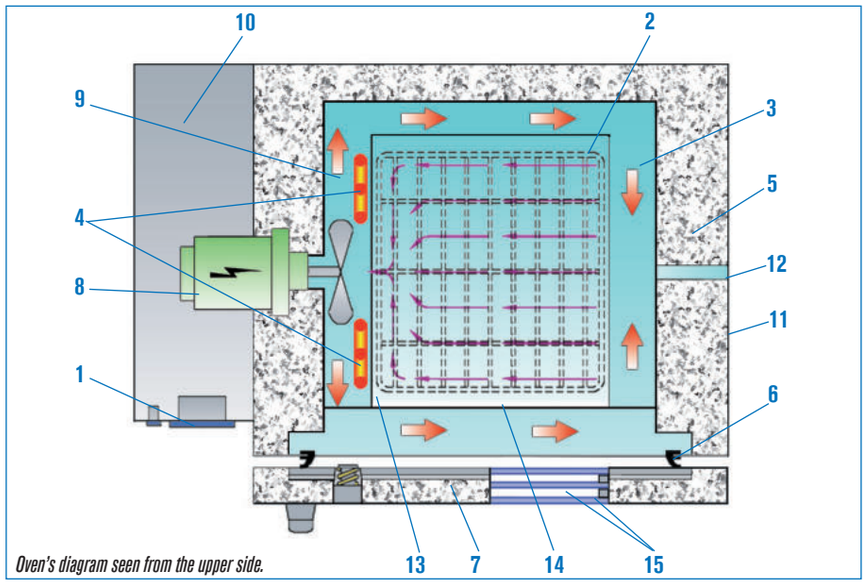
SAFETY:
EN.61012 STANDARD OVER TEMPERATURE SAFETY CUT OUT FITTED.
ADJUSTABLE OVER TEMPERATURE SAFETY THERMOSTAT DIN 12880. (CLASS 2 AND 3.1) FITTED.

Multipurpose oven. Fast response and recuperation of temperature.

FEATURES

1. TFT touch screen.
2. Inner chamber made of AISI 304 stainless steel.
3. Pre-mixing chamber made of AISI 304 stainless steel.
4. Homogeneously distributed shielded heating elements with complete air circulation throughout.
5. Low external temperature due to excellent thermal insulation.
6. Flexible silicon door gasket around the entrance of the chamber.
7. Excellent door seal due to the floating inner door that adjusts and absorbs the thermal expansion.
8. Turbo fan made of AISI 304 stainless steel that makes to circulate the air at the working temperature.
9. Diagram showing the air flow from the pre-mixing chamber around the heating elements prior to entry to the oven’s chamber.
10. Independent insulated control box.
11. Epoxy coated outer case.
12. Ventilator with adjustable outlet (access at the back of the unit).
13. Adjustable height positions for guides and shelves.
14. Shelves made of AISI 304 stainless steel.
15. Toughened double safety glass door for viewing the contents of the oven without having to open the door. (Model dependent).

CONTROL PANEL, SAFETY, STANDARD AND ACCESSORIES (see pages 145 and 146).



Oven’s diagram seen from the upper side.

Temperature steps graphic.

Model Digitronic with solid metal door. Part No. 2005163 and 2005167. (With toughened glass window door. Part No. 2005164 and 2005168).

Model Digitronic type Poupinel, door with toughened double glass window
Part No. 2005166 and 2005170.

Model Digitronic type Poupinel,
Part No. 2005165 and 2005169.

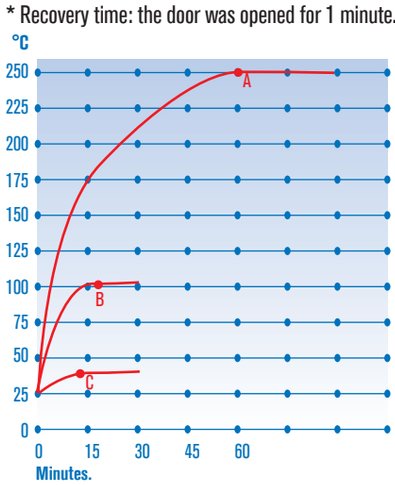
STANDARD EQUIPMENT

2 shelves and 4 shelf guides.

MODELS

Part No.	Capacity litres	Door Type	Heating rate to 100 ºC minutes	Recovery time* minutes	Complete air exchange per hour	Height / Width / Depth (interior) cm			Height / Width / Depth (exterior) cm			Shelf Positions	Power W	Weight Kg
2005163	33	metal	15	7	16	40	28	30	60	65	55	7	1200	38
2005164	33	glass	15	7	16	40	28	30	60	65	55	7	1200	40
2005165	47	metal	16	7	16	33	45	32	53	81	58	5	1200	46
2005166	47	glass	16	7	16	33	45	32	53	81	58	5	1200	50
2005167	80	metal	17	9	14	50	38	40	70	75	65	8	1600	58
2005168	80	glass	17	9	14	50	38	40	70	75	65	8	1600	64
2005169	145	metal	17	10	12	50	58	50	70	95	72	9	2000	74
2005170	145	glass	17	10	12	50	58	50	70	95	72	9	2000	79

* Recovery time: the door was opened for 1 minute. After that, this is the time to recover the set temperature to 100 °C.



Note: The stability and homogeneity curves for time and temperature shown on the graph apply to models that have a metal door.

Performance graph of temperature and time.
A. Set at 250 °C: 60'.
B. Set at 100 °C: 18'.
C. Set at 37 °C: 12'.

SPARES

Shelves and guides.

Oven Part No.	2005163 2005164	2005165 2005166	2005167 2005168	2005169 2005170
Guides (2) (Set)	2000012	2000033	2000013	2000015
Shelves	2000072	2000073	2000074	2000075

Each shelf requires two guides i.e. one set.

ACCESSORIES

Preparation of furnaces for drying moisture saturated samples. (Arids, muds, sands ...)
When adding turbine, the number of renewals of the air inside the furnace per hour multiplies by 10.
Must be factory installed
Part No. 2000095
Optional: Upper aeration device with adjustable outlet of 120 Ø mm in diameter.

Drying and sterilization ovens “Dry-Big”

FAN ASSISTED CIRCULATION.
DIGITAL CONTROL AND DISPLAY OF TEMPERATURE AND TIME
ADJUSTABLE TEMPERATURES FROM 40 °C UP TO 250 °C
STABILITY: ±0.4 °C, UP TO 100 °C. HOMOGENEITY: ±2 °C, UP TO 100 °C
SET ERROR : ±2.5% OF THE WORKING TEMPERATURE. RESOLUTION: 1 °C

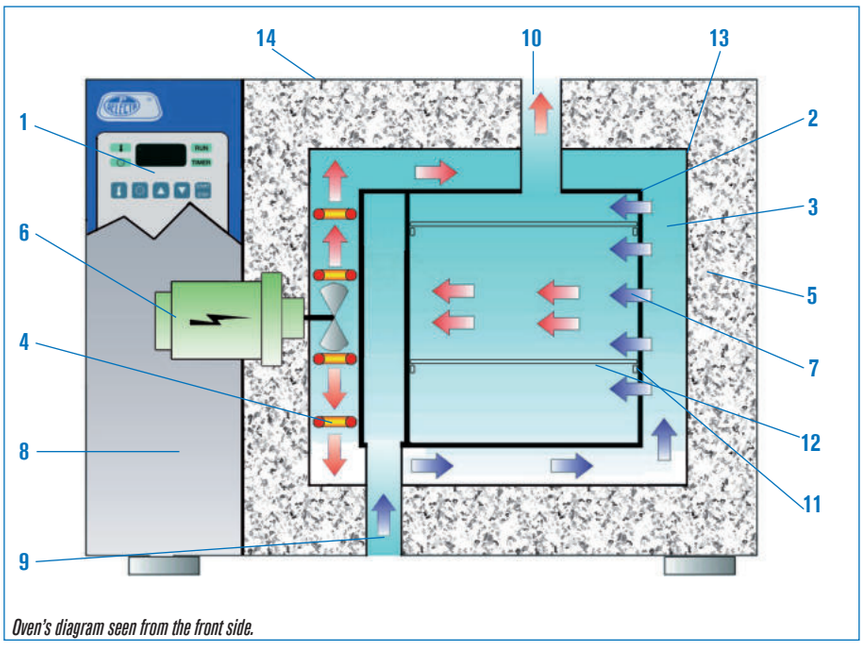
RS232

SAFETY:
STANDARD EN.61010. FIXED OVER TEMPERATURE DEVICE FITTED.
STANDARD DIN 12880. (CLASS 2 AND 3.1)ADJUSTABLE SAFETY THERMOSTAT FITTED.

Fast working and recovery temperature

FEATURES

1. Microprocessor controlled with digital display of temperature and time, pre-programmable time start and run time once the set temperature has been achieved through the Pt100 temperature sensor.
2. Inner chamber made of AISI 304 stainless steel.
3. Pre mixing chamber made of AISI 304 stainless steel.
4. Shielded heating elements with complete air circulation, homogeneously distributed throughout.
5. Low external temperature due to excellent thermal insulation.
6. Ventilation fan to force the air to circulate in the oven.
7. Diagram showing the air flow from the premixing chamber round the heating elements to the oven chamber.
8. Independent insulated control box.
9. Air inlet.
10. Ventilator with adjustable outlet of 120 Ø mm.
11. Shelf guides.
12. Shelves made of AISI304 stainless steel.
13. Flexible silicon door gasket around the entrance of the chamber.
14. Epoxy coated outer case.



Oven’s diagram seen from the front side.

CONTROL PANEL

1. Illuminated mains switch.
2. Temperature mode indicator.
3. Time mode indicator.
4. Display for temperature and time.
5. Operating, Status mode.
6. Delay time state indicator.
7. Push button temperature selector.
8. Push button time selector.
9. Push button “increase” value or parameter.
10. Push button “decrease” value or parameter.
11. Push button Stop/Start.
12. Set temperature.
13. Set run time: time period from 1 minute to 9 hours 59 minutes, or up to 99.9 hours, once the set temperature value has been reached.
14. Set wait time before starting the run, time period from: 1 to 24 hours.
15. RS-232 Interface output to a computer or for printer.
16. Adjustable safety thermostat that overrides the microprocessor in case of failure, with manual reset and indicator lamp.

216 litres model. Part No. 2002961

720 litres model. Part No. 2003741

Part No. 2003743

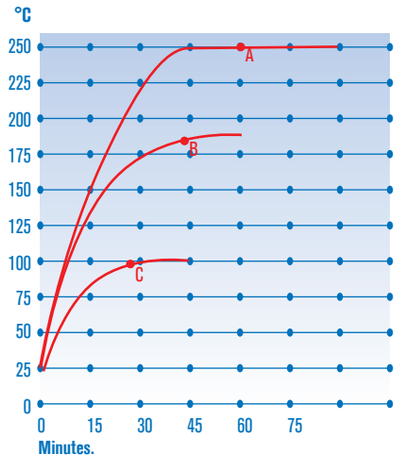
STANDARD EQUIPMENT

2 Shelves.

MODELS

Part No.	Voltage	Capacity litres	Heating rate to reach 100 °C, minutes	Recovery time* minutes	Air exchanges per hour	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Number of shelf positions	Power W	Weight Kg
2002961	230 / 400 three phase	216	16	10	12	60 60 60	87 112 84	6	4000	150
2002962	230 single phase									
2002971	230 / 400 three phase	288	18	10	11	80 60 60	107 112 84	8	5000	161
2002972	230 single phase									
DOUBLE DOOR CABINET										
2003721	230 / 400 three phase	400	18	13	6	100 80 50	128 132 74	10	5250	200
2003741	230 / 400 three phase	720	19	13	6	120 100 60	150 152 80	12	6000	264
2003743	380 / 400 three phase	4200	30	13	6	180 175 135	216 231 178	10	11000	1200

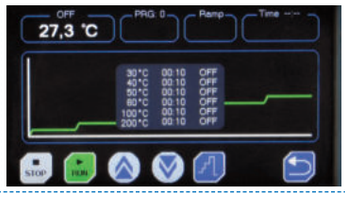
Energy saving, three phase units are recommended.
*Recovery time, the door was opened for 60 seconds, time taken to recover to the set temperature of 100 °C.
Upon request, large capacity equipment can be manufactured.



Performance graph of temperature and time.
A. Set at 250 °C: 1 h 6'.
B. Set at 180 °C: 42'.
C. Set at 100 °C: 24'.

ACCESSORIES

4.3 inches TFT touch screen. Must be installed in the factory.
Information and features. See page 146.
Part No. 2000010



SPARES

Shelves.

Oven Part No.	2002961/62	2002971/72	2003721	2003741
Shelves	2000062	2000062	2000063	2000064

High temperature oven “Hightemp”

FAN CONVECTION.
DIGITAL CONTROL AND DISPLAY OF TEMPERATURE AND TIME.
ADJUSTABLE TEMPERATURES FROM 60 °C UP TO 400 °C.
STABILITY: ±1,5 °C, UP TO 300 °C. HOMOGENEITY: ±3 °C, UP TO 300 °C
SET ERROR : ±2 % OF THE WORKING TEMPERATURE.

SAFETY:
STANDARD DIN 12880. ADJUSTABLE OVER TEMPERATURE THERMOSTAT FITTED.

FEATURE

Digital electronic temperature control. Independent control box chamber thermaly insulated.
Shielded heating elements.
Fan circulation motor with thermal cut out, motor operates independently from the heating elements,the motor can be activated during the cooling cycle.
Inner chamber in AISI 310 heat resistant stainless steel with a high tolerance against corrosion and high temperatures.
Fixed position shelf guides.
Ventilation device with adjustable outlet.
Epoxy-coated outer casing.

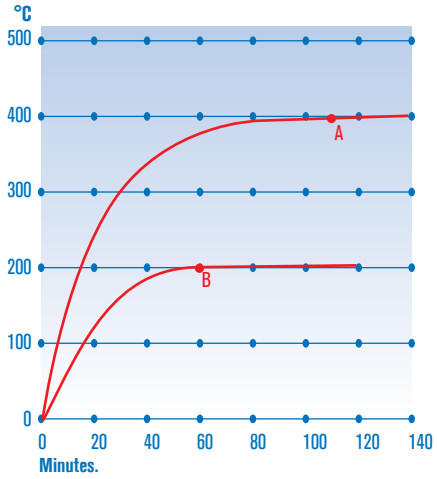
STANDARD EQUIPMENT

2 shelves made of AISI 310 stainless steel.

CONTROL PANEL

Main switch.
Mains indicator lamp.
Heater switch.
Heater operation indicator lamp.
Digital electronic temperature control.

Electronic safety thermostat with a K type probe that cuts off power to the heating elements in case of a controller fault. (standard to DIN 12.880 class 2).



Performance graph of temperature and time.
A. Set at 400 °c: 1h 50’.
B. Set at 200 °c: 1h.

ACCESSORIES. Shelves made of AISI 310 stainless steel. Part No. 2000071

MODEL

Part No.	Voltage	Capacity litres	Height / Width / Depth (interior) cm shelf			Height / Width / Depth (exterior) cm			Nº of shelf positions	Power W	Weight Kg
2001406	230 / 400 three phase	80	50	40	40	80	120	61	4	4000	158

ACCESSORIES

Accessories that must be installed in factory.
Part No.
2000002 **Timer switch** 0-120 minutes.
5784123 **Liquid paint marker** Yellow for high temperatures 1148ºc
2000009 **24 hour programmer** with continuous on/off cycling up to every 15 minutes.

Vacuum drying oven “Vaciotem-GMP”

DIGITAL TEMPERATURE CONTROL, ELECTRONIC VACUUM PRESSURE DISPLAY AND TIMER.
CONTROLLABLE TEMPERATURE FROM 35 °C TO 200 °C
STABILITY ±1 °C, UP TO 100 °C. HOMOGENEITY ±3 °C, UP TO 100 °C. SET ERROR ±2 °C. RESOLUTION 1 °C.
ADJUSTABLE PRESSURE OF 1 BAR

SAFETY:
OVER TEMPERATURE CUT OUT FITTED IN ACORDANCE WITH THE EN.61010 STANDARD.
DIN 12880. STANDARD ADJUSTABLE SAFETY THERMOSTAT FITTED.

NEW

EU GMP Annex 11

FDA 21 CFR Part 11

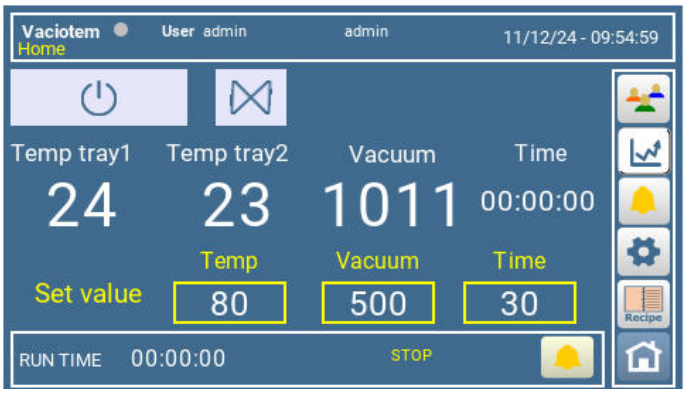
USB

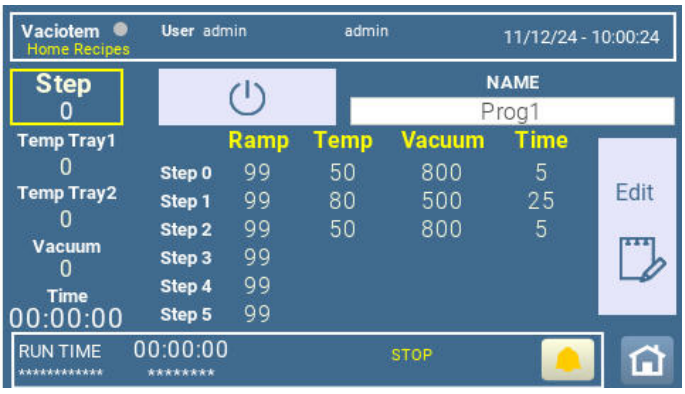
FEATURE

Digital electronic regulator for temperature, vacuum pressure, and timer, allowing the selection of preset time periods.
Temperature sensor: Pt100.
Automatic control of the aeration valve at the end of the process.
Heating elements surrounding the usable chamber.
Cylindrical inner chamber made of AISI 304 stainless steel.
Anodized aluminum trays.Interior counter-door made of tempered glass mounted on an elastic silicone base to absorb any expansions and contractions.
Vacuum port with a shut-off valve.Air intake located on the front panel.
Rear connector for the vacuum pump.
Exterior cabinet coated in epoxy.
USB output for reading and printing parameters via computer.

CONTROL PANEL

Synoptic Display: Shows the status of all active elements.
Parameter Reading: Real-time visualization of current temperature values in different zones of the equipment.
Setpoint Values: Information about the current setpoints.
Alarms: Details of active alarms with icons for activation and acknowledgment.
Operating Time: Displays operating time and established time settings.
Communications: Ethernet LAN/USB interface. Program data is automatically saved in the event of a power outage.
Programming: Ability to save up to 50 user-customizable programs, each with up to 5 configurable steps and temperature control ramps.
User Levels: Allows for up to five different user levels.
Report Generation: Automatic creation of reports in PDF and CSV formats, with storage capacity for up to 200 reports.
Thermo-Trays: Removable and heatable thermo-trays in the working chamber ensure fast and uniform temperature regulation with minimal heat loss, ideal for food, cosmetics, watches, books, and printed circuits. Each thermo-tray can be independently controlled and calibrated.





Available in ATEX version on request. ATEX

MODEL

Part No.	Vacuum Max.	Capacity litres	Ø / Depth (interior) cm	Height / Width / Depth (exterior) cm	Shelves	Power W	Weight Kg
4001491	10^{-2} mm Hg	47	34 52	54 76 70	2	800	73

Note: To obtain the optimum homogeneity at the set temperature, the load should not surpass more than 70 % of the volume of the chamber.

Vacuum pump “2XZ - 2B”

ROTARY VANE PUMPS WITH BUILT-IN OIL CHECK VALVE FOR GENERAL VACUUM APPLICATIONS.
MOTOR WITH THERMAL PROTECTOR AND START SWITCH.

FEATURE

Asbestos-free vanes and gaskets.
Suction port of Ø 25 mm.
Analog vacuum gauge.
Large oil volume and forced lubrication.
Oil tank capacity: 1150 ml
Expulsion filter for oil vapor retention.
Single acting. No vibrations.
Low noise level (62 dB).
Maximum working temperature: 40 °C.
Portable, they have a handle for transport.

Code 5900622

FILTER SILENCER FOR VACUUM PUMP
Code: 5515032

MODEL

Part No.	Pump rate m³/h	Vacuum limit mbar	Height / Width / Depth (exterior) cm	r.p.m.	Power W	Weight Kg
5900622	7,2	0.5	34 35 14	1400	180	11

SPARE PARTS

Pump connection kit: 1500019

Heated vacuum desiccator “Vacuo-Temp”

WITH TEMPERATURE THERMIC LIMITER.
TIME AND TEMPERATURE DIGITAL ELECTRONIC CONTROL.
ADJUSTABLE TEMPERATURE FROM AMBIENT +5 °C TO 170 °C.
STABILITY: ±2 °C. RESOLUTION: 1 °C.
TIME FROM 1’ TO 999’, OR CONTINUOUS.

FEATURES

AISI 304 stainless steel outer casing.
Polished aluminium alloy flat surface plate with an effective vacuum seal.
Tempered glass bell jar with silicon gasket seal.
Shielded heating element.
Pt 100 temperature probe.
Vacuum pump connection at the back of the unit.
Vacuum bleed valve.

CONTROL PANEL

Main switch.
Analogue vacuum gauge.
Digital time & temperature display.
Overheating alarm.
Visualized parameter indicator.
Push button for the visualized parameter.
Push button to increase the parameter.
Push button to decrease the parameter.
Button On-Off.

MODEL

Part No.	Vacuum Max	Usable volume litres	Ø heating plate cm	Heigth / Width /Depth (exterior) cm	Power W	Weight Kg
4000474	10^{-2} mm Hg	3	23.5	17 28 34	540	9

Supplied complete with bell jar and silicon seal.

SPARES

Tempered glass bell 15 cm high and 23 cm Ø.
Part No. 4000475
Silicon seal. Part No. 4000476

Desiccator for materials

WITH HYDROMETER CONTROL.

APPLICATIONS

Cabinet with protection against humidity and dust for anhydrous, biological and chemical preservation of samples.

FEATURE

Made of robust transparent 12mm thick methacrylate.
The door has a silicon seal and magnetic catch.
Volume: 55 Litres.
Dimensions 50 cm high x 38 cm wide x 29 cm deep.
Supplied complete with three perforated shelves and a stainless steel AISI 304 tray to hold desiccating material.
Part No. 1001403

BACTERIOLOGICAL INCUBATORS

PREMIER SERIE

REGULATION A SYSTEM

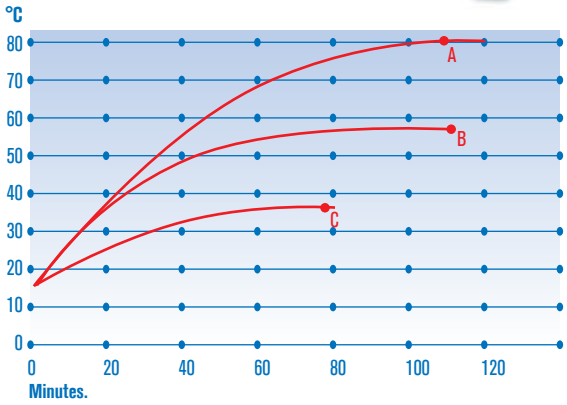
Bacteriological incubators “Incubat”

NATURAL CONVECTION. ADJUSTABLE AIR VENT.
TEMPERATURE THERMOSTAT CONTROL WITH DIGITAL THERMOMETER.
ADJUSTABLE TEMPERATURES FROM AMBIENT +5 °C UP TO 80 °C.
STABILITY: ±0.1 °C, UP TO 37 °C. HOMOGENEITY: ±0.5 °C, UP TO 37 °C
INTERNAL GLASS DOOR.
DOUBLE CHAMBER, EASY TO CLEAN INTERIOR WITHOUT OPENINGS.

FEATURES, CONTROL PANEL, STANDARD AND ACCESSORIES (see pages 145 and 146).

SAFETY:
OVER TEMPERATURE CUT OUT INCORPORATED ACCORDING TO THE EN.61010 STANDARD.
ADJUSTABLE SAFETY THERMOSTAT DIN 12880. FITTED.

Horizontal model. Part No. 2001615



Performance graph of temperature and time.
A. Set at 80 °C: 1 h 54’.
B. Set at 56 °C: 1 h 46’.
C. Set at 37 °C: 1 h 18’.

STANDARD EQUIPMENT

2 shelves and 4 shelf guides.

MODELS

Part No.	Capacity litres	Height / Width / Depth (interior) cm			Height / Width / Depth (exterior) cm			Shelves positions	Power W	Weight Kg
2000261	36	40	30	30	60	62	54	7	245	36
2000262	52	33	47	33	53	79	57	5	275	46
2000263	80	50	40	40	70	72	64	8	325	54
2000264	150	50	60	50	70	92	74	8	545	78

SPARES

Shelves and guides.

Oven Part No.	2000260	2000261	2000262	2000263	2000264
Set guides (2 units)	2000011	2000012	2000012	2000013	2000015
Shelves	2000021	2000022	2000024	2000023	2000025

Each shelve requires two guides (one set).

ACCESSORIES

Accessorie must be factory installed.

Part No.
2000009 **24 hour programmer** with continuous on/off cycling up to every 15 minutes.

5784123 **Liquid paint marker** Yellow for high temperatures 1148ºc

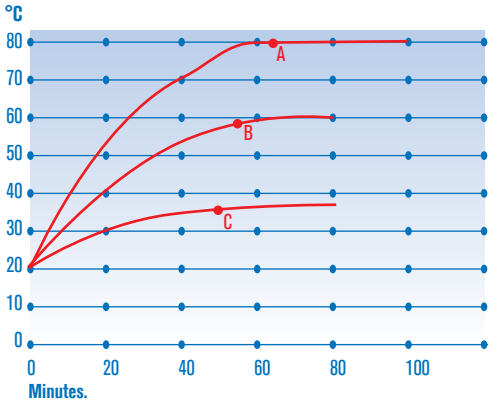
Digital bacteriological incubators “Incudigit-TFT”

NATURAL CONVECTION. ADJUSTABLE AIR VENT.
DIGITAL CONTROL AND DISPLAY OF TEMPERATURE AND TIME.
ADJUSTABLE TEMPERATURE FROM AMBIENT +5 °C UP TO 80 °C.
STABILITY: ±0.1 °C, UP TO 37 °C. HOMOGENEITY: ±0.5 °C, UP TO 37 °C.
SET ERROR: ±2% OF THE WORKING TEMPERATURE, RESOLUTION 0.1 °C
INTERNAL TEMPERED GLASS DOOR.
DOUBLE CHAMBER, MINIMUM RISK OF SAMPLE CONTAMINATION.
INSIDE WITHOUT OPENINGS AND WITH ROUNDED CORNERS. EASY TO CLEAN.

FEATURES, CONTROL PANEL AND STANDARDS (see pages 145 and 146).

SAFETY:
OVER TEMPERATURE CUT OUT INCORPORATED ACCORDING TO THE EN.61010 STANDARD.
ADJUSTABLE SAFETY THERMOSTAT DIN 12880. FITTED.

Horizontal model. Part No. 2001263



Performance graph of temperature and time.
A. Set at 80 °C: 1 h 12’.
B. Set at 56 °C: 54’.
C. Set at 37 °C: 48’.

STANDARD EQUIPMENT

2 shelves and 4 shelf guides.

MODELS

Part No.	Capacity litres	Height / Width / Depth (interior) cm			Height / Width / Depth (exterior) cm			Shelves positions	Power W	Weight Kg
2001261	19	30	25	25	51	57	49	5	170	26
2001262	36	40	30	30	60	62	54	5	225	36
2001263	52	33	47	33	53	79	57	5	275	46
2001264	80	50	40	40	70	72	64	8	300	54
2001265	150	50	60	50	70	92	74	8	525	75

SPARES

Shelves and guides.

Oven Part No.	2001261	2001262	2001263	2001264	2001265
Guides (2) (Set)	2000011	2000012	2000012	2000013	2000015
Shelves	2000021	2000022	2000024	2000023	2000025

Each self requires two guides i.e. one set.

Incubators for bacteriology and cell culture "Incubig-TFT"

NATURAL CONVECTION. ADJUSTABLE AIR VENT.
MICROPROCESSOR CONTROL AND DIGITAL DISPLAY OF TEMPERATURE AND TIME.
ADJUSTABLE TEMPERATURE FROM AMBIENT +5 °C TO 80 °C.
STABILITY: ±0.2 °C, UP TO 37 °C. HOMOGENEITY: ±0.7 °C, UP TO 37 °C.
SET ERROR: ±2% OF THE WORKING TEMPERATURE, RESOLUTION 0.1 °C
INTERNAL TEMPERED GLASS DOOR.

PREMIER SERIE

REGULATION B SYSTEM

USB

RS232

SAFETY:
STANDARD EN.61010 OVER TEMPERATURE CUT OUT FITTED.
STANDARD DIN 12880. ADJUSTABLE SAFETY THERMOSTAT FITTED.

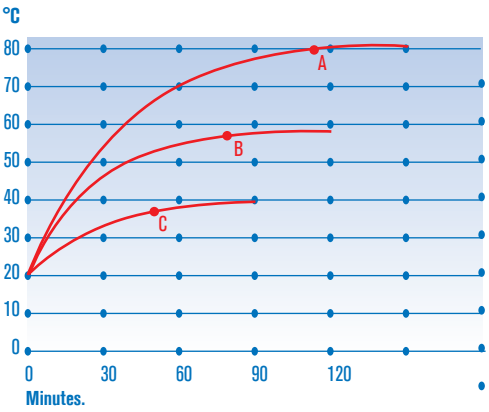
Capacities up to 720 litres

FEATURE

Microprocessor control and 4.3 inches TFT touch screen display.
Large surface area heating elements.
Inner chamber made of AISI 304 stainless steel.
Double door, interior door of tempered glass that allows the user to see the contents of the chamber without opening the door.
Adjustable air vent.
Epoxy covered external case.

STANDARD EQUIPMENT

For Part No. 2000238, 2 shelves and 4 shelf guides.
For Part No. 2000239 and 2000240, 2 shelves.



Performance graph of temperature and time.
A. Set at 80 °C: 1 h 45'.
B. Set at 56 °C: 1 h 10'.
C. Set at 37 °C: 54'.

CONTROL PANEL

4.3 inches TFT touch screen models:
1. Main switch.
2. TFT touch screen:
Visual audible alarm.
Clock calendar.
On / Off programming.
Up to 10 work programs.
Up to 6 segments per program.
Stability time in each segment (from 1 min to 99h) .
Alarms and events storage.
Probe error detection.
Self Diagnostics.
Ramps between segments.
Network failure detection and saving.
Over temperature and low temperature alarms and memorization (date, start time, end time and temperature).
Safety thermostat (TS) by software.
Mechanic safety thermostat (TS).
USB and RS -232 output.
Temperature control auto-tuning.
Configurable parameters: Date / time, temperature correction , data collection interval, language (English, Spanish and French) , °C / °F selection , over temperature and low temperature limit.
3. **RS-232 output.**
4. **USB output.**
5. **Security thermostat.**

MODELS

Part No.	Type	Capacity litres	Height / Width / Depth (interior) cm			Height / Width / Depth (exterior) cm			Nº of shelf guides	Power W	Weight Kg
2000238	1 door	288	80	60	60	97	91	76	8	570	87
2000239	2 door	400	100	80	50	130	114	75	10	1100	160
2000240	2 door	720	120	100	60	152	134	85	12	1600	225

SPARES Shelves and guides.

Oven Part No.	2000238	2000239	2000240
Shelves	2002372	2000063	2000064
Guides (2) (Set)	2002371	-	-

Each self requires two guides i.e. one set.

Cooled low temperature incubator "Prebatem-TFT"

FORCED AIR FAN CIRCULATION.
MICROPROCESSOR CONTROLLED WITH DIGITAL DISPLAY
ADJUSTABLE TEMPERATURES FROM 5 °C UP TO 60 °C. RESOLUTION 0.1 °C
SEMICONDUCTOR HEATING AND COOLING SYSTEM.
QUIET-STABLE - FREE FROM VIBRATIONS - VERY ACCURATE - LOW POWER CONSUMPTION.
INNER TEMPERED GLASS DOOR.
UP TO 10 PROGRAMMABLE TEMPERATURE PROFILES

PREMIER SERIE

REGULATION B SYSTEM

USB

RS232

SAFETY: CONFORMS TO THE DIN 50011 STANDARD FOR TEMPERATURE STABILITY AND HOMOGENEITY.
CONFORMS TO THE DIN 12880.STANDARD ADJUSTABLE SAFETY THERMOSTAT FITTED.

Leading edge technology, Peltier effect. No compressor.

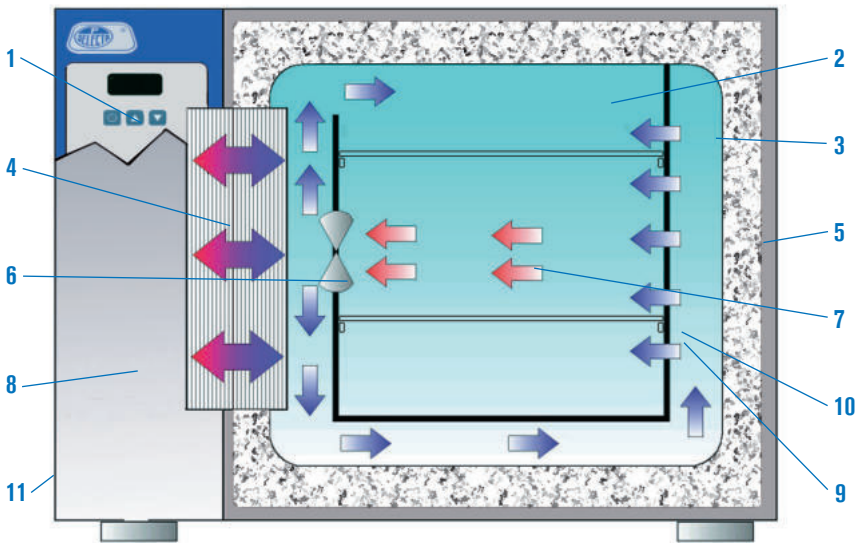
APPLICATIONS

Biotechnology, Bacteriology, Plasma fractionation, Biology, Enzymatic test, Research, Serum studies, metrology, Botany, Phytopharmacy, Cosmetics, Water analysis and Agricultural research, feeding, new techniques for protein crystallization.

FEATURE

1 .4.3 inches TFT touch screen.
2. Inner chamber and elements made of AISI 304 stainless steel.
3. Premixing temperature chamber.
4. Semiconductor- static radiator for heating and cooling.
5. Excellent thermal insulation within the chamber.
6. Turbo fan to make the air circulate.
7. Diagram showing the homogeneous air flow from the premixing chamber of the semiconductor cooling / heating system.
8. Independent insulated control box .
9. Support rack for trays.
10. Shelves of AISI 304 stainless steel.
11. Epoxy coated outer case.

Oven's diagram seen from the front side.

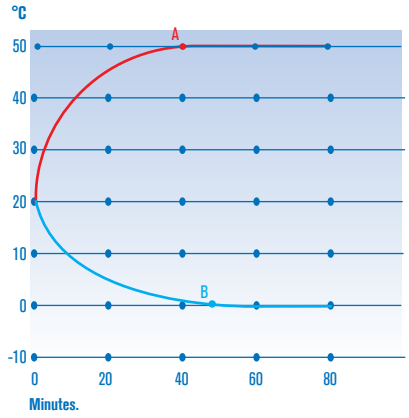


Forced air passes through the heat exchanger chamber prior to entering the main cabinet chamber.

Cross section of the circulation of air maintaining the temperature in the cabinet below ambient by the use of an electronic heat exchanger rather than a compressor.

PERFORMANCE

	Specification	
	at 10 °C	at 37 °C
Stability	±0.1 °C	±0.1 °C
Homogeneity	±0.3 °C	±0.2 °C
Set error	±0.4 °C	±0.2 °C



Performance graph of temperature and time.
A. Set at 50 °C: 40'.
B. Set at 0 °C: 48'.

CONTROL PANEL

1. Main switch.
2. TFT touch screen:
Visual audible alarm.
Clock calendar.
Cycle start planning
Single or cyclic On / Off programming.
Up to 10 work programs.
Up to 6 segments per program.
Stability time in each segment (from 1 min to 99h) .
Alarms and events storage.
Probe error detection.
Self Diagnostics.
Adjustable ramp between segments.
Network failure detection and saving.
Over temperature and low temperature alarms and memorization (date, start time, end time and temperature).
Safety thermostat (TS) by software. Mechanic safetythermostat (TS).
USB and RS -232 output.
Configurable parameters: Date / time, temperature correction , data collection interval, language (English, Spanish and French) , °C / °F selection , over temperature and low temperature limit.
3. **USB output.**
4. **Security thermostat.**
5. **Ethernet output para for LAN connection.**
6. **Serial output for pc connection.**

CONTROL PANEL
Main switch.
Mains indicator lamp.
4.3" Color TFT touch screen.
Adjustable safety thermostat.

Graph of temperature profiles

Note: To obtain the optimum homogeneity at the set temperature, the load should not surpass more than 70 % of the volume of the chamber.

STANDARD EQUIPMENT
2 shelves and 4 shelf guides.

MODELS

Part No.	Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Shelf guides	Power consumption W/hr. at 5 °C	at 40 °C	Power W	Weight Kg
2000963	36	40 30 30	60 65 49	7	70	50	310	54
2000964	80	50 40 40	70 75 59	8	75	55	310	73
2000965	150	50 60 50	70 95 68	8	90	60	310	94

SPARES
Shelves and guides.

Oven Part No.	2000963	2000964	2000965
Guides (2) (Set)	2000012	2000013	2000015
Shelves	2000022	2000023	2000025

Each self requires two guides i.e. one set.

Incubation chamber "Boxcult"

FAN CONVECTION.
ADJUSTABLE TEMPERATURES FROM AMBIENT +5 °C UP TO 57 °C.
STABILITY: ±0.25 °C, UP TO 37 °C HOMOGENEITY: ±1 °C, UP TO 37 °C.
SET ERROR: ±2 % OF THE WORKING TEMPERATURE. RESOLUTION 0.1 °C.

SAFETY:
SAFETY STANDARD EN 61010. OVER TEMPERATURE SAFETY THERMOSTAT FITTED.

FEATURE
Made of transparent methacrylate that allows the user to see inside the incubator during operation. To facilitate the access to the working area the unit has a wide front door, and a removable base made of AISI 304 stainless steel. The fan convection circulation system ensures an even and rapid recovery of temperature.
A 30 mm Ø port at the rear can be used to connect power to apparatus inside the chamber.
Supplied as accessories, the removable base allows the Boxcult to be mounted on the "Rotabit" reciprocal / orbital shaker. (described in the stirrer section.)
The metallic top of the chamber includes the heating elements, air circulation fan and temperature control.

CONTROL PANEL
Main switch.
Digital electronic temperature control.

MODEL

Part No.	Capacity litres	Height / Width / Depth (interior) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
3000957	110	50 47 47	61 51 51	220	18

Supplied without bottom base, or stainless steel rack and shelves.

Incubation chamber "Boxcult" Part No. 3000957 with base Part No.3001172 and support rack with two shelves Part No. 1000973. Supplied as accessories.

Constant Temperature and Humidity Incubator – TH-350

FOR PRECISE CONTROL OF TEMPERATURE 0–60 °C AND HUMIDITY 30–90% RH.
230 V 50/60 Hz.

SAFETY: DIN 12880 STANDARD. BUILT-IN ADJUSTABLE SAFETY THERMOSTAT THAT DISCONNECTS THE HEATING IN THE EVENT OF A FAILURE OF THE OVEN'S MAIN CONTROLLER, WITH MANUAL RESET.

NEW

DESCRIPTION

Temperature and humidity control unit designed to provide stable and precise environmental conditions. Suitable for applications in research, biotechnology, pharmaceutical industry, textile, food, stability testing and shelf-life testing.
- Presettable temperature and humidity.
- Uniform air distribution through vertical circulation.
- Continuous and stable operation.
- Stainless steel inner chamber with rounded corners.
- Inner glass door for test observation..

FEATURES

High-precision PID control for temperature and humidity.
Fluorine-free compressor, efficient and environmentally friendly.
Temperature range: 0…60 °C.
Resolution: 0.1 °C.
Temperature uniformity: ±1 °C.
Humidity: 30–90 %RH.
Humidity deviation: ±3 %RH.
Large LCD display showing parameters simultaneously.
Programming: 1–30 segments, 0–99 cycles.
Parameters automatically saved in the event of power failure.
Independent temperature limit alarm.
Internal lighting and UV sterilization lamp.
Internal power socket.

CONTROL PANEL

LCD display with simultaneous indication of:
- Current and set temperature
- Current and set humidity
- Cycle time
- Program segment

Indicator lights:
- HeatingCooling
- Humidifying
- Water shortage
- Door open
- AlarmLighting / Sterilization

Touch buttons:
- Cycle start/stop (R/S)
- Parameter setting (Set)
- Day/Night mode switch (Shift)
- Increase / DecreaseDefrost activation

MODEL	Code	Humidity Range	Working temperature range °C	Height / Width / Depth (external) cm	Height / Width / Depth (internal) cm	Internal volume (L)	Power (W)
TH-350	5700029	30-90% rh	0...+60	180 82 69	114 55 55	350	2000

CO_2 Incubators for anaerobic cell and tissue cultures "Incubator CO_2"

MICROPROCESSOR CONTROL WITH DIGITAL DISPLAY OF TEMPERATURE AND CO_2.
ADJUSTABLE TEMPERATURES FROM AMBIENT +5 °C TO 50 °C
STABILITY: ±0.2 °C, UP TO 37 °C. HOMOGENEITY: ±0.5 °C, UP TO 37°C. RESOLUTION: 0.1 °C.
ALARM RANGE: FROM AMBIENT+5 °C TO 50 °C. RESOLUTION: 0.1 °C.
CO_2 RANGE: FROM 0 TO 20%. STABILITY: ±0.3%. RESOLUTION: 0.1%

RS232

SAFETY:
STANDARD DIN 12880. DOUBLE INDEPENDENT OVER TEMPERATURE SAFETY THERMOSTAT.
CO_2 DEVIATION FROM SET VALUE. OPEN DOOR INDICATOR, ELECTRICAL FAULT INDICATOR. LOW CO_2 PRESSURE.

Infrared CO_2 sensor

Chamber sterilization function

FEATURE

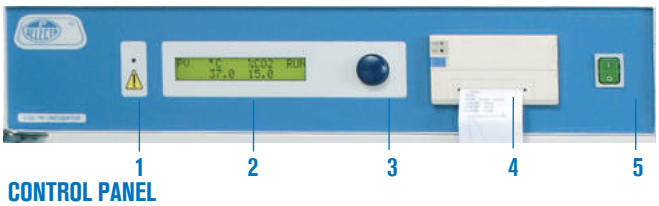
External case of steel coated with epoxy with insulated chamber.
The chamber is made of stainless steel with removable shelf supports and easy clean system.
Two doors; one interior of tempered glass with silicon gasket and a heated external steel door with magnetic seal to prevent condensation on the glass door.
Smooth door action, to prevent jolts or vibrations disturbing the contents of the incubator.
The CO_2 input is by a metal tube of 6 mm Ø x 4 mm at the back of the unit.
RS-232 Interface output for a computer or printer.

CONTROL SYSTEM

Digital electronic control of temperature and CO_2, by a single multilevel control button and LCD screen, that controls all functions within the chamber.

HUMIDITY CONTROL

The humidity level within the chamber is at a constant 98% RH level, that is produced directly by water evaporation previously introduced at the bottom of the chamber.



CONTROL PANEL

1. Visual alarm indicator.
2. LCD display of all parameters.
3. Button single control of multilevel functions.
4. Printer (Optional)
5. Main On switch.

MODEL

Part No.	Capacity litres	Height/Width/Depth (interior) cm	Height/Width/Depth (exterior) cm	Shelf guide positions	Power W	Weight Kg
4002628	150	65 50 46	95 65 73	9	1100*	110

Comes with two shelves.
* 2025 W In sterilization mode.

ACCESSORIES

Printer: temperature, CO_2, time and status.
(Needs to be factory fitted.)
Part No. 4001676

Fyrite CO_2 analyser.
Monitor for checking the CO_2 % concentration. The unit has a graduated scale of 0 to 20 %. Reagent valid for 300 analysis. Should not be used with explosive gasses.
Part No. 4000632

Reagent flask 64 ml. Part No. 4000635

ADDITIONAL Shelves stainless steel. Part No. 1001675

Precise refrigerated cabinet “Hotcold UCS” and “Hotcold UC”

FORCED AIR CIRCULATION.
DIGITAL ELECTRONIC CONTROL OF TEMPERATURE AND TIME.
ADJUSTABLE TEMPERATURE FROM: UCS: -5 ºC TO 65 ºC AND UC: -10 °C TO 65 °C.

SAFETY: DIN STANDARD 12880.2 SAFETY THERMOSTAT FITTED THAT DISCONNECTS POWER TO THE HEATER IF THE CONTROLLER FAILS. MANUAL RESET.

FEATURES

Outer cabinet, door and inner enclosure coated in stainless steel. AISI 304.
Resistant to chemical agents.
Door with lock and easily replaceable gasket, with automatic return mechanism and manual interlock.
Trays in PVC coated steel.
Tropicalized hermetic compressor unit mounted on anti-vibration coupling with forced type finned evaporator and ventilated type finned condenser.
Tray supports adjustable in height.
R600a refrigerant.
Integrated interior light.
Lateral hole for inlet and outlet connections.
Two sockets inside protected by circuit breaker.
Download of records in USB memory.
Automatic defrost function.Internal air circulation for a correct temperature homogenization.
Graphic display of the process.
Supplied with wheels.Translated with DeepL.com (free version)

CONTROL PANEL

General circuit breaker.
4.3 inch TFT touch screen
Visual alarm.
Calendar clock.
Simple or cyclic on/off programming.
Up to 10 working programs.
Up to 6 segments for each program.
Stability time in each segment (from 1 min to 99h).
Memorization of alarms and incidents.
Probe error detection.
Self-diagnosis.
Detection and storage of network failures (date, start and end time).
Alarms of over temperature, low temperature and its memorization (date, start, end time and temperature).
Safety thermostat (TS) by software.
Mechanical safety thermostat (TS).
Autotuning of temperature control.
Configurable parameters: Date/time, temperature correction, data collection interval, language (English, Spanish and French), ºC/ºF selection, over-temperature and under-temperature limit.

NOTE : Les caractéristiques de ce Hotcold permettent l'utilisation d'agitateurs non chauffés et d'équipements d'analyse de la DBO à l'intérieur du Hotcold, qui peuvent être connectés aux prises ou par les trous latéraux de l'équipement. Voir le chapitre Agitateurs.

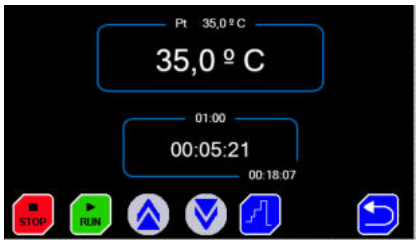
NEW

Hotcold UCS

Hotcold UC

PRECISION TABLE UCS
STABILITY: ±0.5 °C, UP TO 20 °C
HOMOGENEITY: ±2,5 °C, UP TO 20 °C
SET ERROR: ±1 °C
RESOLUTION: 0.1 °C

PRECISION TABLE UC
STABILITY: ±0.5 °C, UP TO 20 °C
HOMOGENEITY: ±1 °C, UP TO 20 °C
SET ERROR: ±1 °C
RESOLUTION: 0.1 °C



MODEL	Code	Capacity liters	Height / Width / Depth (inside) cm	Height / Width / Depth (outside) cm	Consumption W	No. of trays	Weight Kg
HOT COLD UCS	2101619	235	109 51 55	156 61 62	1000	4	90
HOT COLD UC	2101515	670	154 61 63	213 73 84	2030	3	120

UCS: Supplied with casters and steel trays, PVC coated.

UC: Supplied with 3 steel trays, PVC coated.

SPARES
Tray + 2 guides. Part No. 1001858

Muffle Furnaces

REFRACTORY STONE INTERIOR. RECOMMENDED FOR PROLONGED USE.

Electric Muffle Furnaces “Select-Horn-TFT”

TEMPERATURE CONTROLLABLE UP TO 1150 °C.
SET ACCURACY: ±1 °C OF THE SET VALUE. RESOLUTION: 1 DIGIT.
DIGITAL ELECTRONIC CONTROLLER FOR TEMPERATURE AND TIME WITH TFT COLOUR TOUCH SCREEN.
UP TO 10 PROGRAMABLE TEMPERATURE PROFILES.

SAFETY:
PROBE BREAK DISCONNECTS THE POWER TO THE FURNACE AUTOMATICALLY.
MICROSWITCH THAT DISCONNECTS THE POWER OF THE HEATER ELEMENTS WHEN THE DOOR IS OPEN.
FLIP DOOR THAT CAN ALSO BE USED AS A SUPPORT TRAY AND USER PROTECTED FROM THE HOT INTERNAL SURFACE.

APPLICATIONS

Incineration processes, drying, degradation, re-heating, thermal treatments etc.

FEATURES

Interior chamber constructed from high quality lightweight refractory bricks, with a high alumina content with no asbestos or iron oxide.
Evenly distributed exceptional long life heating elements, annealed frequently at a high fusion point.
Excellent thermal insulation made from Ceramic fibre of low density and thermal conductivity.
Low consumption with maximum performance.
Rapid temperature recovery after the door has been opened.
Flap door with easy to change components.
Support tray made from special steel used as a base to support assay material.
USB output.

CONTROL PANEL

General
Main switch.
TFT touch screen 4.3”.
Clock calendar.
Two working modes, normal or programming.
SPA – FRE – ENG menu.
Self-test on starting.
Temperature control auto-tuning.
ºC/ºF selection.
Type K probe.
Normal mode
Set point temperature selection
Up ramp.
Stability time from 1 min to 99h or continuous.
Programming mode
10 profiles capacity.
6 segments per profile.
Stability time in each segment from 1 min to 99h (or continuous in the last segment)
Up ramps between segments.
Daily - weekly On / Off programming.

Temperature ramps graph

Alarms
Network failure detection alarm.
Probe error detection alarm.
Over temperature and low temperature alarms.
Visual audible warning alarms.
Up to 100 alarms storage (date, start time, end time and alarm type).
Datalogging
Datalogging memory up to 15000 data.
Logging interval from 5 seconds to 30 min.
Data download via USB.

Image of the flap door system in operation.

MODELS

Part No.	Capacity litres	Height / Width / Width (interior) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
2000376	3.6	10 15 24	52 54 56	2500	54
2000377	9	15 20 30	58 59 65	3000	70

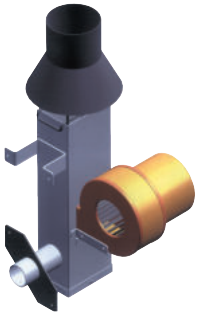
Supplied complete with support tray, made from annealed steel.

SPARES

Support tray made from special steel used as a base to support assay material.
Code 0203681 for furnace Part No. 2000376
Code 0203692 for furnace Part No. 2000377

ACCESSORIES

Adaptable only for "Select-Horn-TFT" furnaces Part No. 2000376 and 2000377
All accessories need to be fitted in the factory prior to delivery.

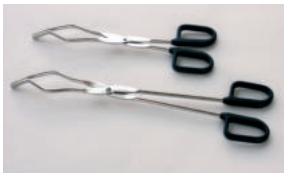


Exterior exhaust tube.
Located at the furnace back with a ventilator motor to extract gases and vapours.
With an 80 mm Ø hat adapter.
Gases and Vapours can be extracted outside through the connecting tube.
Power consumption: 30 W.
Part No. 2001477

Liquid paint marker Yellow for high temperatures 1148ºc
Code: 5784123

COMPLEMENTS

Gloves Thermal "Kevlar 800"
Conforms to EN 388, EN407 and EN420 standards.
For use with temperatures up to 800 °C, Made from seamless terry knit, with double face fibres, high level of protection against heat and flame.
Length 36 cm, universal fit.
Part No. 5000042



Crucible tongs.
With thermally protected plastic coated handles. With bow, curved tips.
Part No. 1001590 Total length 220 mm.
Part No. 1001591 Total length 330 mm.

Crucibles made of zirconium Zr.
Crucibles made of pure nickel Ni.
Crucibles made of glazed porcelain.
Crucibles made of stainless steel.
Crucibles made of quartz.
(See page 184).

Electric muffle furnaces "R-3 L" and "R-8 L" 1100 °C

FOR TEMPERATURES ADJUSTABLE FROM AMBIENT +5°C. UP TO 1100 °C.
MICROPROCESSOR CONTROL WITH TFT TOUCH SCREEN.
PRECISION ±2 °C OF THE SET VALUE.
RESOLUTION: 1 DIGIT.

FEATURES

Metal external case with vent at the back of the unit.
Interior and door made of ceramic fibre, resistant and durable (No asbestos). Heater situated at the side and bottom of the chamber.
USB output.

Temperature ramps graph

CONTROL PANEL

General
Main switch.
TFT touch screen 4.3".
Clock calendar.
Two working modes, normal or programming.
SPA – FRE – ENG menu.
Self-test on starting.
Temperature control auto-tuning.
ºC/ºF selection.
Type K probe.

Normal mode
Set point temperature selection
Up ramp.
Stability time from 1 min to 99h or continuous.

Programming mode
10 profiles capacity.
6 segments per profile.
Stability time in each segment from 1 min to 99h (or continuous in the last segment)
Up ramps between segments.
Daily - weekly On / Off programming.

Alarms
Network failure detection alarm.
Probe error detection alarm.
Over temperature and low temperature alarms.
Visual audible warning alarms.
Up to 100 alarms storage (date, start time, end time and alarm type).

Datalogging
Datalogging memory up to 15000 data.
Logging interval from 5 seconds to 30 min.
Data download via USB.

MODEL	Part No.	Capacity litres	Height / Width / Depht (interior) cm			Height / Width / Depht (exterior) cm			Power W	Weight Kg
R-3 L	2000368	3	11.5	12.5	20	43	34	47	1700	18
R-8 L	2000369	8	13	20	30	51	44	56	1800	28

Supplied complete with a refractory ceramic tray as a base and support for material to be assayed.

ACCESSORIES

Must be factory installed.
Exterior extractor tube.
Located at the furnace back with a ventilator motor to extract gases and vapours.
Gases and Vapours can be extracted outside through the connecting tube.
Power: 20 W.
Part No. 2000370

Electric muffle furnace “N-30 L”, “N-40 L” and “N-80 L” 1100 to 1300 °C

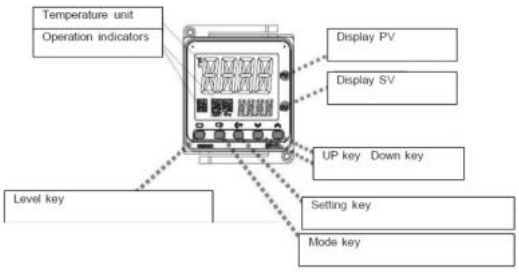
TEMPERATURE ADJUSTABLE UP TO 1300 °C FOR MODEL “N-30 L”, 1200 °C FOR MODEL ”N-40 L” AND 1100 °C FOR MODEL N-80 L.
ELECTRONIC DIGITAL TEMPERATURE CONTROL.
PRECISION ±2 °C OF THE SET VALUE.
RESOLUTION: 1 DIGIT.

FEATURES

Metal external case with vent at the back of the unit. Interior and door made from ceramic fibre, resistant and durable (No asbestos). Heater situated at the side and bottom of the chamber.

CONTROL PANEL

Illuminated mains On/Off switch.
Temperature control with digital display of both the set and actual temperature.
Programmable in steps of 1 °C.
Fitted with a type K probe.



Model N-80 L

MODEL	Part No.	Capacity litres	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior) cm	Power W	Voltage V	Weight Kg
N-30 L	2200853	30	29 20 44	87 64 84	4600	230	120
N-40 L	2200857	40	29 29 42	87,5 65 83,5	3400	230	105
N-80 L	2200855	80	48 40 40	157 94 98	7500	400 / 3 N	170

Supplied complete with a refractory ceramic tray as a base and support for material to be assayed.

Electric muffle furnaces “N-3 L”, “N-8 L”, “N-13 L”, “N-22 L”, “N-39 L’ 1100 °C

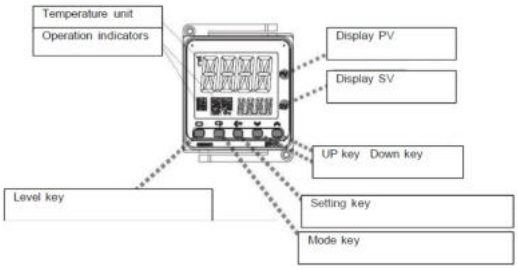
FOR TEMPERATURES ADJUSTABLE UP TO 1100 °C.
ELECTRONIC DIGITAL TEMPERATURE CONTROL.
PRECISION ±2 °C OF THE SET VALUE.
RESOLUTION: 1 DIGIT.

FEATURES

Metal external case. Interior and door made from ceramic fibre, resistant and durable (No asbestos). Heater situated at the side and bottom of the chamber.

CONTROL PANEL

Illuminated mains On/Off switch.
Temperature control with digital display of both the set and actual temperature.
Programmable in steps of 1 °C.
Fitted with a type K probe.



ACCESSORIES

Gloves for temperatures up to 900 °C, made of fiberglass. Length: 40 cm. Code: 2253415
Must be factory installed.

Exterior extractor tube.
Located at the furnace back with a ventilator motor to extract gases and vapours. Gases and Vapours can be extracted outside through the connecting tube. Power: 20 W. Código 2200858

Liquid paint marker Yellow for high temperatures 1148ºc
Code: 5784123

MODELO	Part No.	Capacity litres	Height / Width / Depht (interior) cm	Height / Width / Depht (exterior) cm	Power W	Voltage V	Weight Kg
N-3 L	2200850	3	11,5 12,5 20º	43 34 47	1700	230	18
N-8 L	2200851	8,2	14 20 30	50 44 53	1800	220	33
N-13 L	2200852	13	18 22,5 36	55 50 70	1800	230	38
N-22 L	2200854	22	15,5 27,5 50	61 60 89	3000	230	58
N-39 L	2200856	39	24 31,5 49,5	74 65 90	6000	400 / 3 N	75

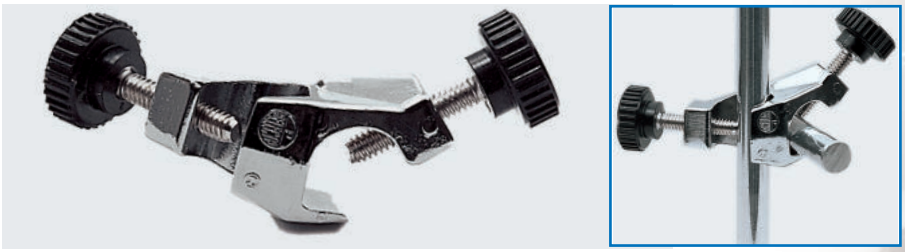
Supplied complete with a refractory ceramic tray as a base and support for material to be assayed.

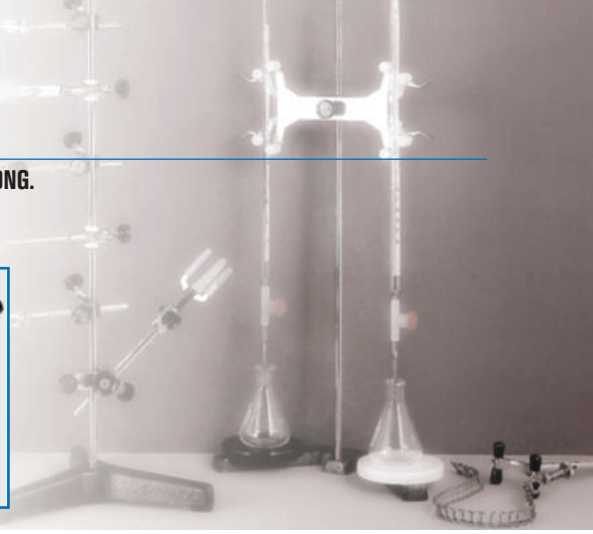
Clamps and Stands	pages	168 to 179
Spatulas, scoops and vessels	pages	180 to 184
Stainless steel. Series Labor-Hospital +	pages	185 to 186
Racks, baskets and storage for tubes, pipettes and flasks	pages	187 to 195
Burners and hot air gun	pages	196 to 199
Diverse laboratory instruments	pages	200 to 211

"A well equipped laboratory is where all types of science can be complete to a high standard."
Patrick Blachett

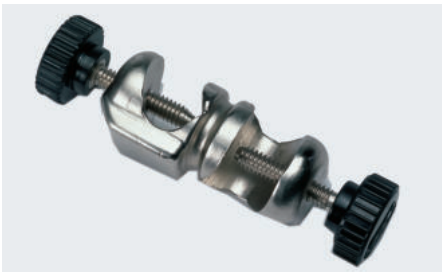
Clamps and Stands

CLAMPS MADE OF LIGHT WEIGHT "DURAL CROM" ALLOY EXTRAORDINARILY STRONG.
TONGS MADE OF AISI 304 STAINLESS STEEL.
RETORT STANDS - LABORATORY JACKS AND SCAFFOLDING.

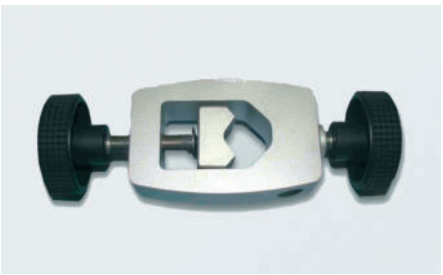




BOSSHEAD
Chrome plated. For Ø from 5 to 17 mm.
Part No. 1000069

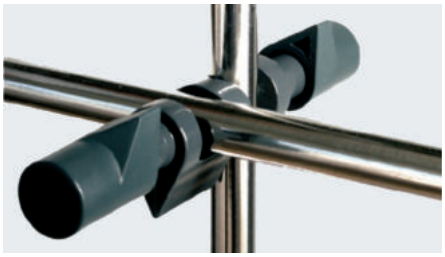


BOSSHEAD "MINI"
Chrome plated. For Ø from 5 to 12 mm.
Part No. 1001460



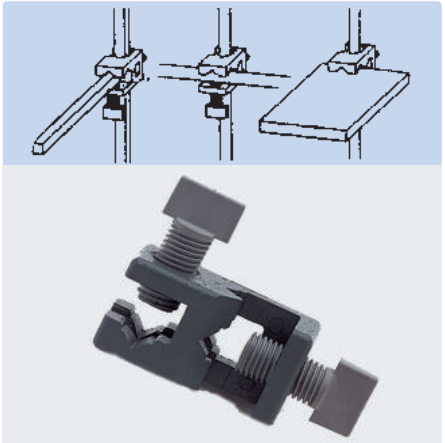
BOSSHEAD XL
Maximum opening. For rods 13 to 32 mm Ø.
Part No. 5057022

BOSSHEAD "MEDI"
For Ø from 5 to 20 mm.
Part No. 1001461 Chrome plated.
Part No. 1001462 Anodised black.

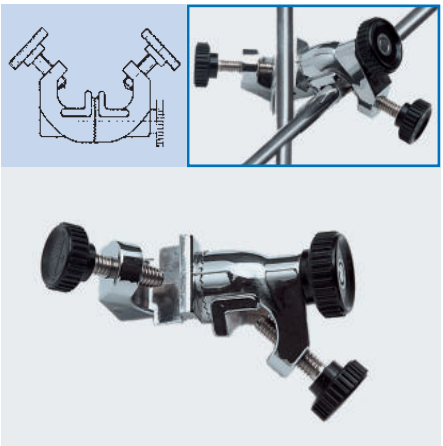


BOSSHEAD "SUNTECH"
For retort bars of 5 to 22 mm Ø.
With screw clamp joints. Ideal for supporting overhead stirrers.
Part No. 5900600

BOSSHEAD "MAXIM"
For large diameters.
Chrome plated with one opening to hold rods up to 30 mm Ø. Second opening up to 20 mm Ø.
Part No. 7000408



BOSSHEAD "PASS"
Original Phywe.
For joining and clamping multipurpose, round or rectangular rods up to 12 mm across.
For cross T and parallel arrangements.
Part No. 7204055

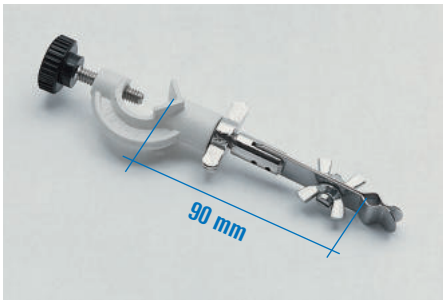


BOSSHEAD "GIROFIX"
Conforms to DIN standard 12895-E16.
Chrome plated with swivel toothed clamp for holding rods at any angle. For rod Ø from 5 to 15mm.
Part No. 7000531

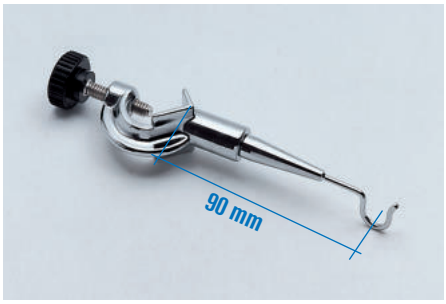
J.P Selecta

OIRIGINAL BOSSHEAD "TREVINGE"
Made of chrome plated "Dural" alloy.
Due to its strength, it is suitable for multilevel and three dimension constructions.
Part No. 7008133 For Ø of 9 to 13 mm.
Part No. 7008253 For Ø of 19 to 25 mm.

BOSSHEAD FOR THERMOMETERS
Thermometer support for water and oil baths with locking screw (up to 40 mm). Thermometer rod diameters up to 7mm Ø.
Part No. **6000896**



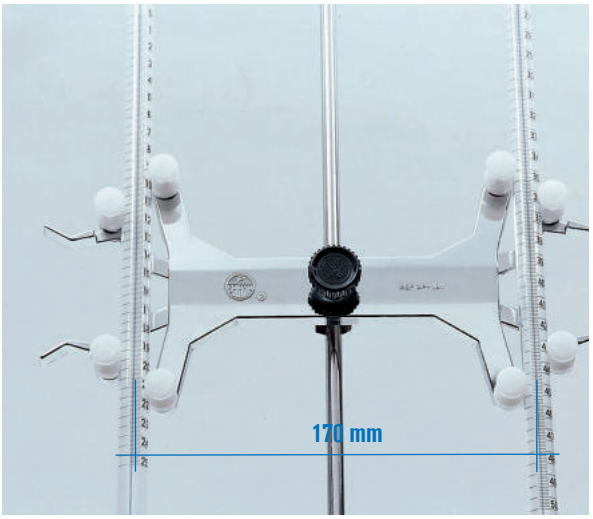
THERMOMETER CLAMP
Swivel bosshead and press lock, made of AISI 304 stainless steel.
For Ø from 6-15 mm.
Part No. **6000036**



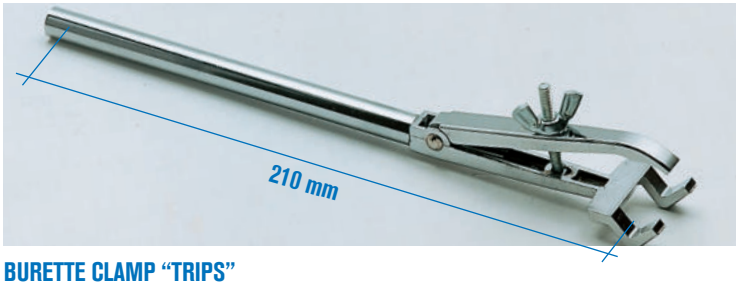
THERMOMETER CLAMP
Hook at one end for a thermometer.
Chrome plated.
Part No. **1000037**

BURETTE STAND
With AISI 304 stainless steel rod of 10 mm Ø x 600 mm high. Weight 2 Kg. Made specifically for the "DUPLEX" burette clamp with two plates at the base, black and white.
Part No. **6000117**

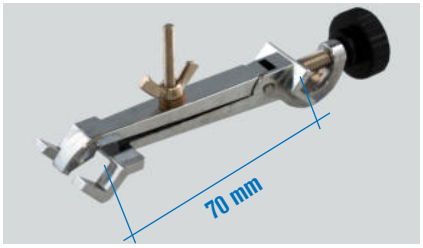
Model burette stand Part no. 6000117 and double burette part no. 7000181



DOUBLE BURETTE CLAMP "DUPLEX"
Self adjusting clamp for 2 burettes, with central bosshead screw. Made of Chrome plated metal with PVC coated jaws. Enables complete visibility of the burette scale while being held. Part No. **7000181**

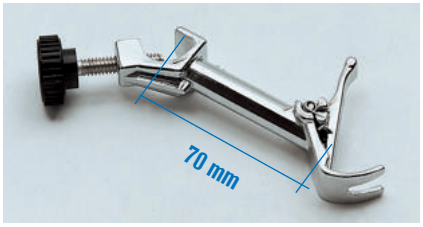


BURETTE CLAMP "TRIPS"
Made of chrome plated metal for Ø from 4 to 20 mm.
Part No. **7000521**

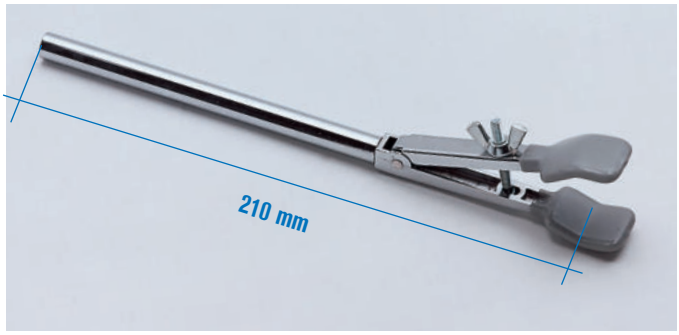


BOSSHEAD BURETTE AND TUBE CLAMP "TRIPS"
Made of chrome plated metal for Ø from 4 to 20 mm.
Part No. **7005211**

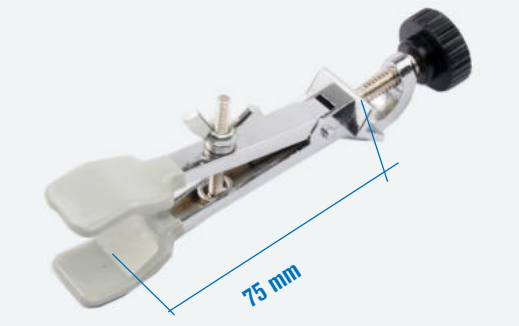
SPRING CLAMP FOR BURETTES AND THERMOMETERS "AUTOMATIC"
Made of chrome plated metal with spring clamp jaw. For Ø from 0 to 25 mm.
Designed for test tubes.
Part No. **7000025**



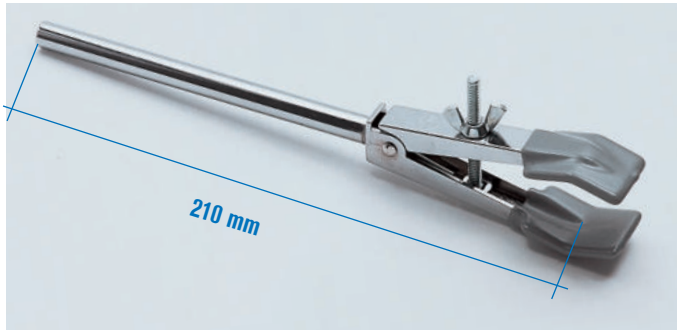
BOSSHEAD WITH "AUTOMATIC" CLAMP FOR BURETTES AND THERMOMETERS
Made of chrome plated metal with spring clamp jaw.
For Ø from 0 to 25 mm.
Part No. **7000251**



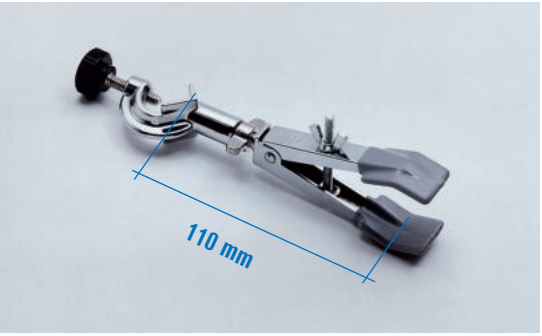
CLAMP FOR BURETTES AND TUBES
Made of chrome plated metal with two prong jaws coated with PVC.
For Ø from 7 to 25 mm.
Part No. 7000130



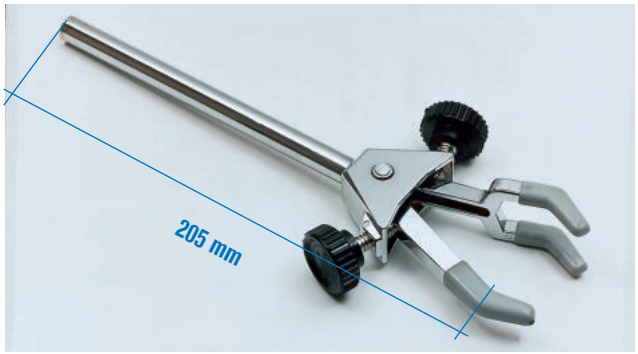
BOSSHEAD WITH BURETTE AND TUBE CLAMP
Made of chrome plated metal with PVC coated double prong jaws.
For Ø from 7 to 25 mm.
Part No. 7000140



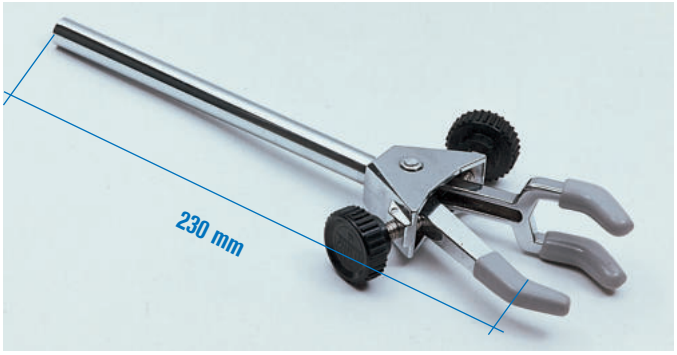
CLAMP FOR BURETTES AND CONDENSERS
Made of chrome plated metal with PVC coated jaws.
For Ø from 12 to 45 mm.
Part No. 7000131



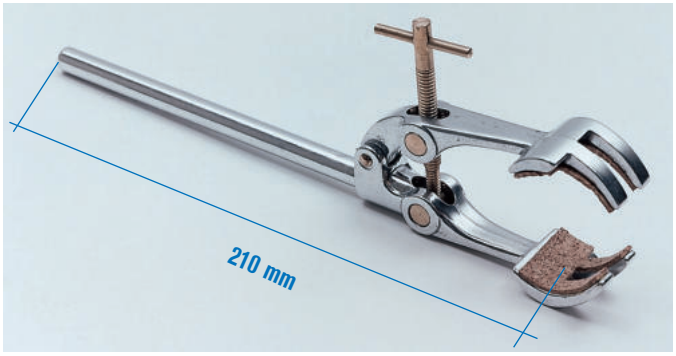
SWIVEL CLAMP BOSSHEAD FOR CONDENSERS
Swivel clamp with double PVC lined jaws For Ø from 12 to 45 mm.
Part No. 7000141



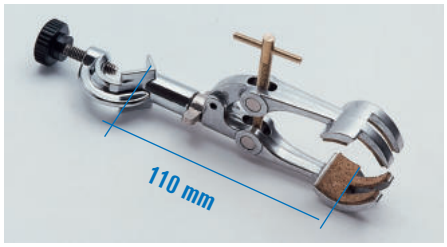
CLAMP "TRIPLEX"
Three pronged PVC coated clamp made of chrome plated metal.
For Ø from 0 to 35 mm.
Part No. 7000160



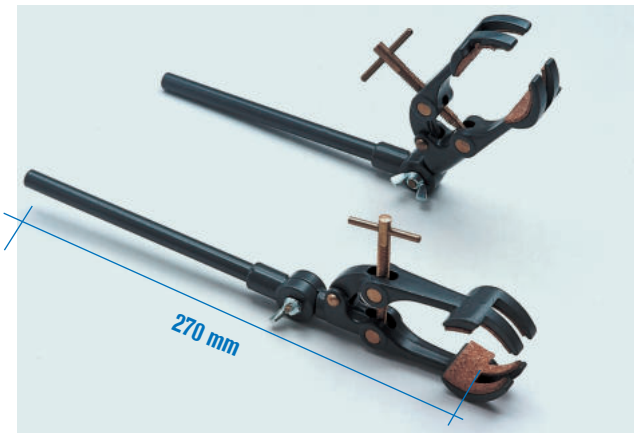
CLAMP "TRIPLEX"
Three pronged PVC coated clamp made of chrome plated metal.
For Ø from 0 to 60 mm.
Part No. 7000161



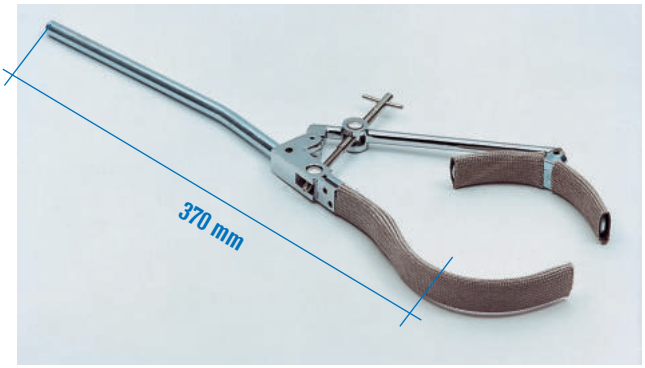
UNIVERSAL CLAMP "MINIMAX"
Made of Dur-aluminium with cork lined jaws.
For Ø from 0 to 80 mm.
Part No. 7000403



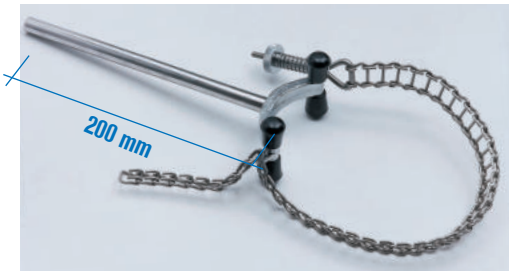
SWIVEL UNIVERSAL CLAMP "MINIMAX"
For Ø from 0 to 80 mm.
Part No. 7000404



UNIVERSAL CLAMPS"GIROMAX" WITH METAL ROTATION
With cork lined jaws. With a hinge joint of 180° rotation angle.
For Ø from 0 to 80 mm.
Part No. 7004031



BEAKER CLAMP "MAXIM"
Made of chrome plated metal with clamp end covered with stabilized glass fibre.
For Ø from 80 to 180 mm.
Part No. 7000406



CLAMP "MEDIMAX"
With chain and spring clamp made of AISI 304 stainless steel.
For Ø from 90 to 145 mm.
Part No. 7000405

CONICAL JOINT CLIPS
Made from AISI 304 stainless steel.
Part No.

1000716	joint	7.5/16
1001019	"	10/19
1001221	"	12/21
1001423	"	14/23
1001926	"	19/26
1002429	"	24/29
1002932	"	29/32
1004540	"	45/40

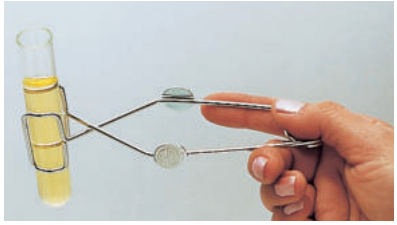
GROUND ROUND JOINT CLIPS
Made of chromed steel.
Part No.

1040913	joint	round	13 mm.
1040919	"	"	19 mm.
1040929	"	"	29 mm.
1040935	"	"	35 mm.

CONICAL JOINT CLIPS
Made of PMP (polymethyl pentane).
Part No.

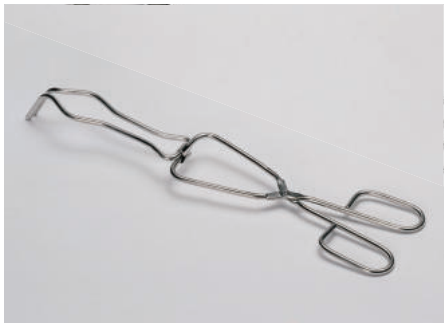
1001095	10/19	black
1001096	14/23	yellow
1001097	19/26	blue
1001098	24/29	green
1001099	29/32	red
1001100	34/35	orange
1001101	45/40	brown

GROUND ROUND JOINT CLIPS
Made of AISI 304 stainless steel
with ratchet fixed pin.
Part No. 1001720 round joint 19 mm.
Part No. 1001464 round joint 29 mm.
Part No. 1001465 round joint 35 mm.

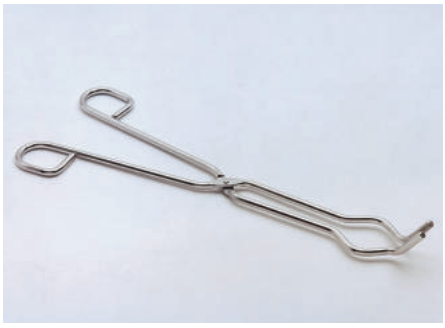


TEST TUBE TONGS
Made of nickel plated steel.
For tubes up to 30 mm Ø. Total length 145 mm.
Part No. 1000285

TEST TUBE TONGS
Made of wood.
For tubes from 12 up to 25 mm Ø.
Total length 180 mm.
Part No. 1001094

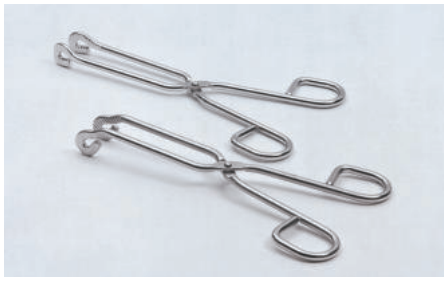


CRUCIBLE TONGS
Original "J.P.Selecta" design with opposite equilibrium.
Made of Electro-bright finished AISI 304 stainless steel.
Part No. **1001330** Total length 400 mm.

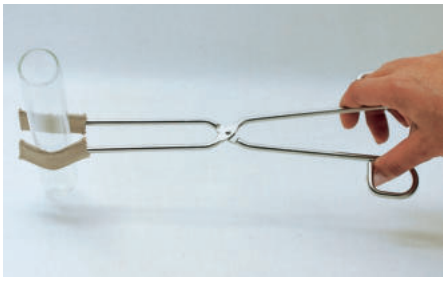


CRUCIBLE TONGS
With bow, curved tips and flat hinge.
Electro-bright AISI 304 stainless steel finish.
Part No. **1010420** Total length 200 mm.
Part No. **1010430** Total length 300 mm.
Part No. **1010440** Total length 400 mm.
Part No. **1010450** Total length 500 mm.

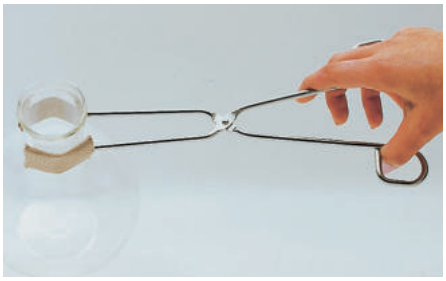
CRUCIBLE TONGS
With bow, curved tips.
With thermally protected plastic coated handles.
Part No. **1001590** Total length 220 mm.
Part No. **1001591** Total length 330 mm.



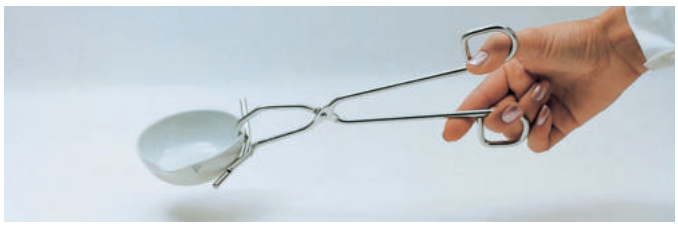
STERILIZATION TONGS
Made of AISI 304 electro-bright finished stainless steel.
Total length 200 mm.
Part No. **1002801** Straight end.
Part No. **1002802** Curved end.
Used for bandages, syringes, instruments, test tubes etc.



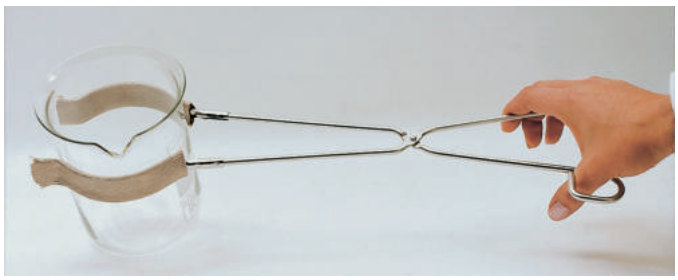
TONGS FOR FLASKS AND TUBES
Electro-bright finished AISI 304 stainless steel.
For diameters from 15 to 60 mm.
Tong tips covered with stabilized glass fibre.
Part No. **1028130** Total length 300 mm.
Part No. **1028140** Total length 400 mm.



TONGS FOR FLASKS AND TEST TUBES
Sterilization Tongs. Made of AISI 304 electro-bright finished stainless steel. For diameters from 25 to 60 mm.
Tong ends covered with stabilized glass fibre.
Part No. **1028230** Total length 300 mm.
Part No. **1028240** Total length 400 mm.

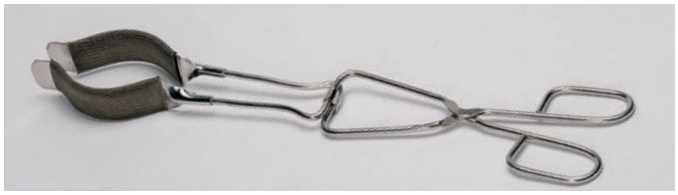


DISH TONGS
Made of eletro-bright finished AISI 304 stainless steel.
Part No. **1000283** Total length 250 mm. Temperature: 150 ºC



BEAKER TONGS
Made of AISI 304 electro-bright finished stainless steel.
Made for beakers from 150 to 1000 ml.
For diameters from 60 to 100 mm.
Tong tips covered with stabilised glass fibre.
Part No. **1000284** Total length 450 mm. Temperature: 150 ºC

BEAKER TONGS "PROTECVAS"
Clamps beakers up to 2000 ml.
With a span from 50 to 120 mm Ø.
Jaws protected with rubber pads.
Total length 300 mm.
Part No. **7000532** Temperature: 100 ºC



BEAKER TONGS
Original "J.P.Selecta" design with opposite equilibrium.
Made of Electrobright finished AISI 304 stainless steel.
For beakers from 150 to 1000 ml.
For diameters from 60 to 100 mm.
Tong ends covered with a glass fibre sleeve.
Part No. **1001331** Total length 450 mm. Temperature: 150 ºC

LABORATORY SCISSORS

AISI 410 stainless steel.

1 **Scissors universal "Multi purpose"** with a serrated/ dented blade. Suitable for cutting hard plastic, cardboard and soft wire etc.
Part No. 1001468 Cut length 50 mm. Total length 180 mm.

2 **Long laboratory scissors**.
Part No. 1001469 Cut length 100 mm. Total length 250 mm.

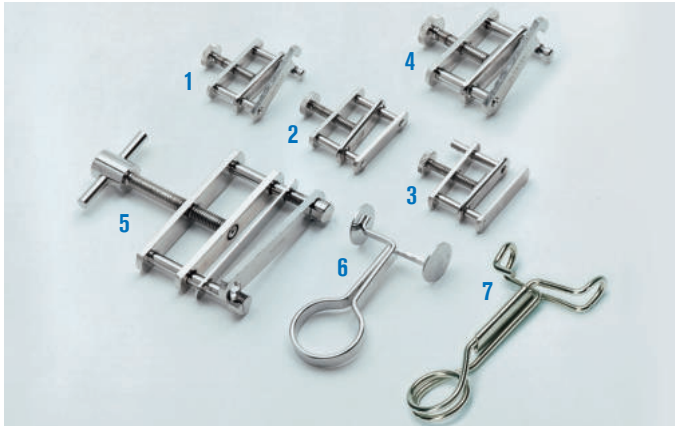
3 **Straight multi purpose scissors.** General use and bandage dressing.
Part No. 1001470 Cut length 50 mm. Total length 140 mm.

4 **Curved multi purpose scissors.** General use and bandage dressing.
Part No. 1000806 Cut length 40 mm. Total length 145 mm.

5 **Dissection scissors**
Part No. 1000807 Cut length 35 mm. Total length 125 mm.

6 **Small dissection scissors**
Part No. 1001471 Cut length 25 mm. Total length 110 mm.

7 **Flat serrated scissors** ideal for laminates, negatives, chromatography, etc.
Part No. 1001472 Flat Length 40 mm. Total length 160 mm.



HOFFMAN CLAMPS / MOHR CLAMPS

1 **Hoffman clip dual**, open-close.
Part No. 1000063 Maximum opening: 15 mm.

2 **Hoffman clip closed**
Part No. 1000662 Maximum opening: 15 mm.

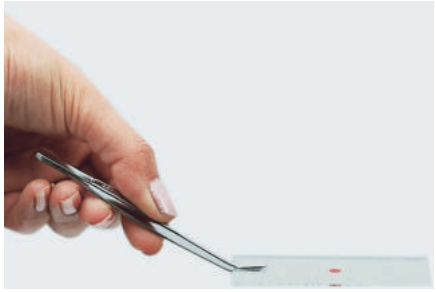
3 **Hoffman clip open**
Part No. 1000661 Maximum opening: 15 mm.

4 **Hoffman clip dual medium**, open-closed.
Part No. 1001467 Maximum opening: 25 mm.

5 **Hoffman clip large**, open and close.
Part No. 1000064 Maximum opening: 30 mm.

6 **Mohr clamp**, stainless steel AISI 304 electro bright finish.
Part No. 1000067 Total length: 70 mm.

7 **Mohr clamp**, nickel wire.
Part No. 1001337 Total length: 70 mm.



FORCEPS FOR LIFTING SLIDES

Made of AISI 304 stainless steel, with flat jaws. Length: 105 mm. Suitable for lifting, slides, watch glass or small flat object.
Part No. 1000105

DISSECTING FORCEPS

1 **Dissecting Straight forceps round tips**, made of AISI304 stainless steel.
Part No. 1000580 Total length 140 mm.

2 **Dissecting Straight forceps fine tips**, made of AISI304 stainless steel.
Part No. 1000801 Total length 140 mm.

3 **Dissecting curved forceps round tips,** made of AISI 304 stainless steel.
Part No. 1000865 Total length 140 mm.

4 **Dissecting curved forceps fine tips**, made of AISI304 stainless steel.
Part No. 1000864 Total length 140 mm.

MAXIMUM OPENING

5 **Sprung straight forceps with curved fine tips**,made of AISI 304 stainless steel.
Part No. 1001190 Total length 160 mm.

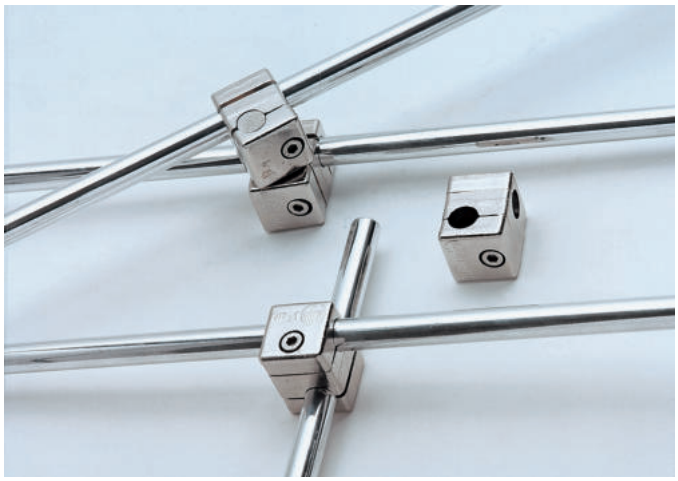
6 **Sprung straight forceps with fine tips**, made of AISI 304 stainless steel.
Part No. 1001189 Total length 160 mm.

7 **Curved point**, AISI 304 stainless steel forceps.
Part No. 6000128 Total length 160 mm.

8 **Fine point**, AISI 304 stainless steel forceps.
Part No. 1001191 Total length 120 mm.

HEAT AND SPILLS PROTECTION PAD GLOVE

Made of flexible silicon that fits all hand sizes.
Part No. 1001255

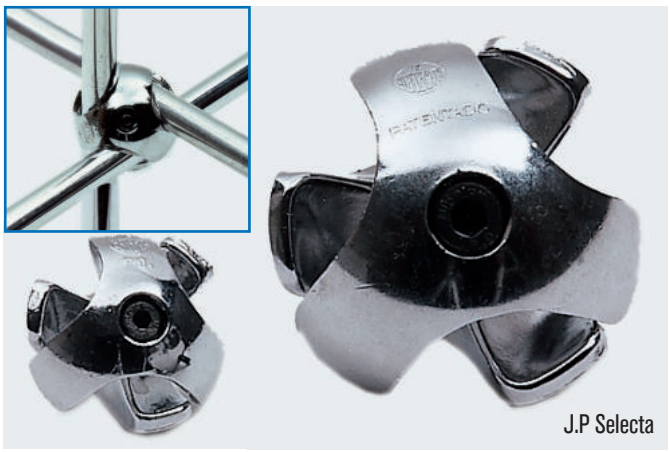


BOSSHEAD "P" TYPE

Nickel alloy bosshead.
For fixing perpendicular structures.
For 12 mm Ø bars.
Part No. 1000011

ACCESSORY

Allen hex key. Suitable for "P" type bosshead.
Part No. 1000111



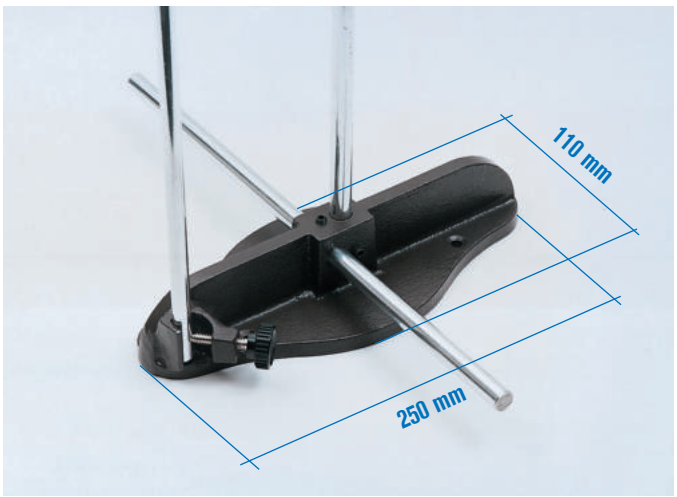
ORIGINAL BOSSHEAD "TREVINGE"

Made of chrome plated "Dural" alloy.
Due to its strength, suitable for multilevel and three dimension constructions.
Part No. 7008133 For Ø of 9 to 13 mm.
Part No. 7008253 For Ø of 19 to 25 mm.

RODS AND TUBES

12 mm Ø bars and rods. To be used with the "TREVIN" and "P" type bossheads.

Dur-aluminium rods.		**AISI 304 stainless steel tube.**	
Part No.	Length	Part No.	Length
6000026	60 mm.	6000016	60 mm.
6000220	200 mm.	6000120	200 mm.
6000235	350 mm.	6000135	350 mm.
6000270	700 mm.	6000170	700 mm.
6002100	1000 mm.	6001100	1000 mm.
6002150	1500 mm.	6001150	1500 mm.
6002200	2000 mm.	6001200	2000 mm.
6002300	3000 mm.	6001300 (rod)	3000 mm.



UNIVERSAL MOUNTING BASE

Bench top multiple rod support.
Suitable for mounting and supporting vertical and horizontal bars.
Part No. 1000050

MOUNTING FOOT SUPPORT FOR RODS

For rod Ø of 12 mm.
Part No. 1000101 Rod position horizontal.
Part No. 1000049 Rod position vertical.

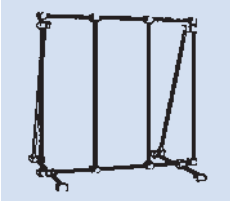
SIMULTANEOUS FOOT SUPPORT

For rod Ø of 12 mm.
Simultaneous positions, horizontal and vertical.
Part No. 1001102

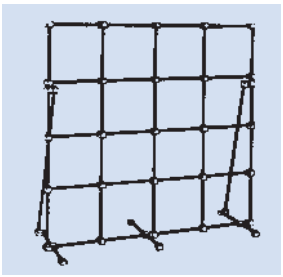
BENCH CLAMP "PASS"

Original Phywe. Clamps to the bench while holding from 4 to 12 mm diameter rod. Bench top width up to 40mm.
Part No. 1394855

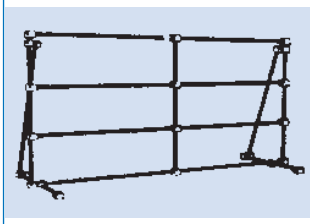
SUPPORT STAND KITS



700 high x 700 mm long.
Made up of:
8 rods 700 mm long.
2 rods 350 mm long.
16 “P” type bossheads.
4 foot supports.
1 Allen key.
Part No. 6000090 **Dur-aluminium**
Part No. 6000190 **AISI 304 stainless steel**

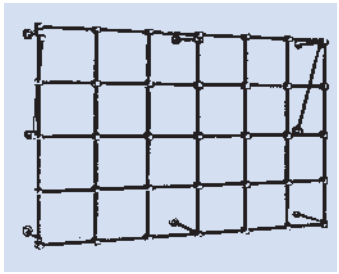


1000 high x 1000 mm long.
Made up of:
10 rods of 1000mm long.
2 rods 700 mm long.
3 rods 350 mm long.
34 “P” type bossheads.
6 foot supports.
1 Allen key.
Part No. 6000902 **Dur-aluminium**
Part No. 6001902 **AISI 304 stainless steel**



700 high x 1000 mm long.
Made up of:
4 rods 1000 mm long.
5 rods 750 mm long.
2 rods 350 mm long.
20 “P” type bossheads.
4 foot supports.
1 Allen key.

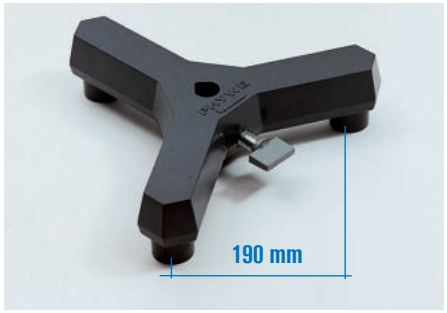
Part No. 6000901 **Dur-aluminium**
Part No. 6001901 **AISI 304 stainless steel**



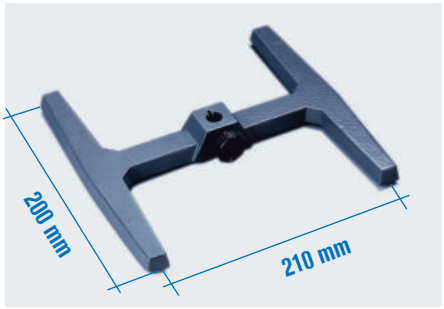
1000 high x 2000 mm long.
Made up of:
5 rods 2000 mm long.
7 rods 1000 mm long.
8 rods 200 mm long.
2 rods 350 mm long.
45 “P” type bossheads.
8 foot supports.
1 Allen key.
Part No. 6000903 **Dur-aluminium**
Part No. 6001903 **AISI 304 stainless steel**

SUPPORT “STAND”
Solid base, three vertical rods of 800 mm in height, two horizontal rods of 500 mm in length, six “P” type bossheads. Made of Dur-aluminium.
Weight: 6.5 Kg.
Part No. 6000482

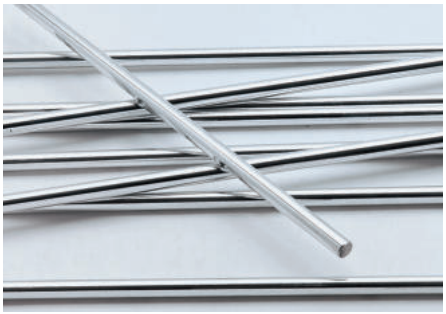
CENTRAL ROD RETORT STAND
Vertical rod of Dur-aluminium of 10 Ø x 600mm high.
Weight: 3 Kg.
Base dimensions 315 x 200 mm.
Part No. 6000046



TRIPOD SUPPORT “PASS”
Original Phywe.
To support square and round rods from 6 to 14 mm dia.
Weight: 2 Kg.
Base with levelling screws.
Part No. 6200255



DOUBLE BASE SUPPORT T “MINI”
Small foot support with screw clamp for removable rods from 8 to 12 mm Ø.
Weight: 1.2 Kg.
Part No. 6001103



STANDARD RODS
Made from AISI 340 stanless steel. Suitable for double "T MINI" and Tripod "PASS"

Part No. 6001160	8 Ø x 500 mm length
Part No. 6000534	10 Ø x 600 mm length
Part No. 6000535	12 Ø x 700 mm length

U SHAPED STAND

AISI 304 stainless steel of
20 Ø x 800 mm high.
Very stable.
Weight: 7 Kg.
Part No. 6000411

DOUBLE BASE SUPPORT T "MAXI"

Rod of AISI 304 stainless steel of 20 Ø x 800 mm high.
Designed to support weights up to 20 Kg at 300 mm height from the base. Useful for stirrers.
Weight: 7 Kg.
Part No. 6000410

DOUBLE BASE SUPPORT T TELESCOPE

Stainless steel base AISI 304 of 32 mm Ø.
Telescopic elevation from 725 to 1025 mm.
Maximum support weight 20 Kg. Actual weight: 7.7 Kg
Compatible with Part No. 5057022 (See page 168).
Part No. 5057011

TRIPOD SUPPORT STAND

AISI 304 stainless steel rod.

Part No.	Ø x Height	Weight Kg
6002278	8 x 500	1.4
6022710	10 x 600	1.8
6022712	12 x 700	2.5

Rods made of Dur-aluminium

Part No.	Ø x Height	Weight Kg
6000798	8 x 500	1.2
6000799	10 x 600	1.5
6007912	12 x 700	2

UNIVERSAL ARM SUPPORT

With holder for up to 4 sensors or electrodes.
Very stable heavy base.
Ideal for working at varying heights.
Part No. 1001552

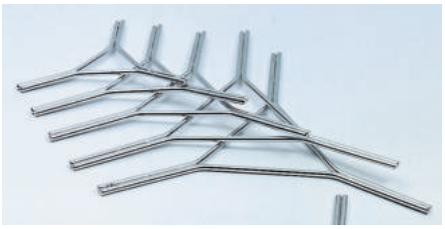
RETORT STAND

Rods made of AISI 304 stainless steel

Part No.	Rod Ø x height	Plate size length x width	Weight Kg
6022614	10 x 600 mm.	215 x 130 mm.	3
6022612	12 x 700 mm.	315 x 200 mm.	3.6
6022613	12 x 800 mm.	315 x 200 mm.	3.8

Rods of Dur-aluminium

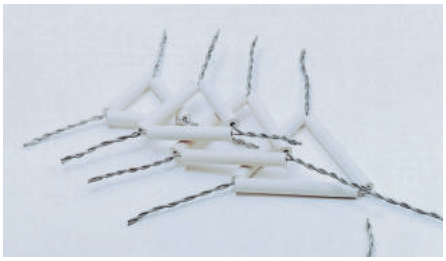
Part No.	Rod Ø x height	Plate size length x width	Weight Kg
6007714	10 x 600 mm.	215 x 130 mm.	2.7
6007712	12 x 700 mm.	315 x 200 mm.	3
6077812	12 x 800 mm.	315 x 200 mm.	3.4



TRIANGLE SUPPORTS

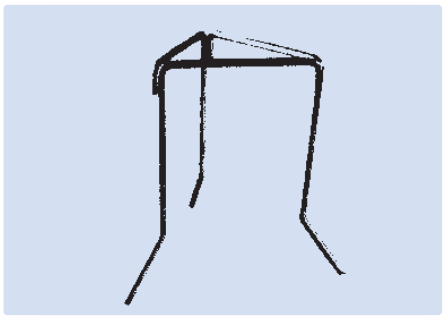
Made of 4 mm Ø AISI 304 stainless steel with electro-bright finish.

Part No.	Side	Part No.	Side
1002874	40 mm.	1002877	70 mm.
1002875	50 mm.	1002878	80 mm.
1002876	60 mm.	1028710	100 mm.



REFRACTORY TUBE AND WIRE TRIANGLE SUPPORTS

Part No.	Side
1000825	50 mm.
1000826	60 mm.
1000827	75 mm.



TRIPOD STAND "TRISOP"

Made of galvanised steel.

Part No.	Side	Total height
1000524	130 mm.	200 mm.

TRIPOD SUPPORTS WITH ROUND TOP

AISI 304 stainless steel

Part No.	Ø ext. ring	Total height
6002868	80 mm.	210 mm.
6028610	100 mm.	210 mm.
6028612	120 mm.	210 mm.
6028614	140 mm.	210 mm.

Nickel plated steel

Part No.	Ø ext. ring	Total height
1000818	80 mm.	210 mm.
1008110	100 mm.	210 mm.
1008112	120 mm.	210 mm.
1008114	140 mm.	210 mm.
1008116	160 mm.	210 mm.

TRIPOD STAND WITH RING TOP.

Galvanised steel.

Part No.	Ø ext. ring	Total height
7000808	80 mm.	210 mm.
7008010	100 mm.	210 mm.
7008012	120 mm.	210 mm.

TRIPOD STAND WITH RING TOP, ADJUSTABLE HEIGHT

Galvanised steel.

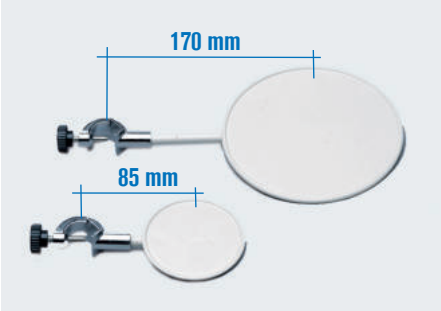
Part No.	Ø ext. ring	Adjustable height
7022810	100 mm.	170 to 250 mm.
7022812	140 mm.	170 to 250 mm.
7022814	180 mm.	170 to 250 mm.

1. DECANTING FLASK SUPPORT

Made of polypropylene. With support flasks up to 12 cm Ø.
Part No. 1001346

2. DECANTING FLASK SUPPORT WITH BOSSHEAD

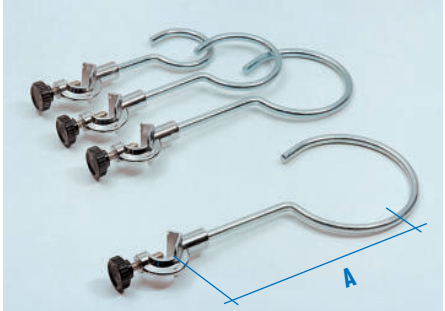
Made of polypropylene. With support flasks from 30 to 150 mm Ø.
Complete with reduction ring.
Part No. 1001347



CIRCULAR SUPPORT PLATFORMS WITH BOSSHEAD

To support flat bottom vessels and instruments.
Chrome plated bosshead.

Part No.	Plate Ø
6000879	80 mm.
6000880	150 mm.



OPEN RING BOSSHEAD SUPPORTS

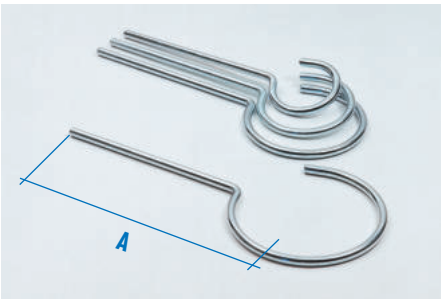
Made of galvanised steel.

Part No.	Ring exterior Ø	Usable length A
7000506	60 mm.	100 mm.
7000508	80 mm.	130 mm.
7005010	100 mm.	160 mm.
7005012	120 mm.	170 mm.
7005014	140 mm.	180 mm.

CLOSED RING BOSSHEAD SUPPORTS

Made of galvanised steel.

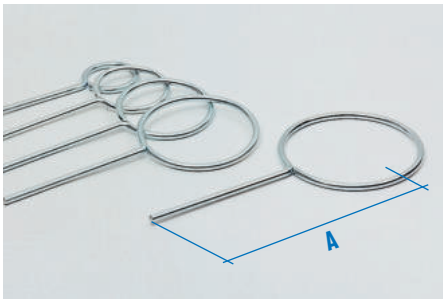
Part No.	Ring exterior Ø	Usable length A
7000536	60 mm.	100 mm.
7000538	80 mm.	130 mm.
7005310	100 mm	160 mm.
7005312	120 mm.	170 mm.
7005314	140 mm.	180 mm.



OPEN RING RETORT SUPPORTS

Made of galvanised steel.

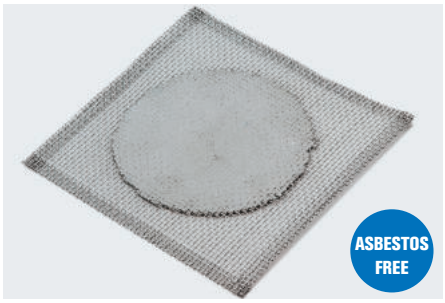
Part No.	Ring exterior Ø	Usable length A
1000206	60 mm.	180 mm.
1000208	80 mm.	195 mm.
1002010	100 mm.	200 mm.
1002012	120 mm.	215 mm.
1002014	140 mm.	225 mm.



CLOSED RING RETORT SUPPORTS

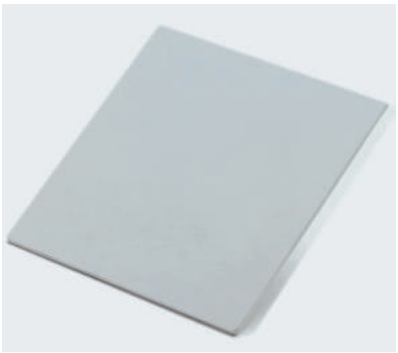
Made from galvanised steel.

Part No.	Ring exterior Ø	Usable length A
1000236	60 mm.	180 mm.
1000238	80 mm.	195 mm.
1002310	100 mm.	200 mm.
1002312	120 mm.	215 mm.
1002314	140 mm.	225 mm.



GAUZE IRON WIRE WITH CERAMIC FIBRE

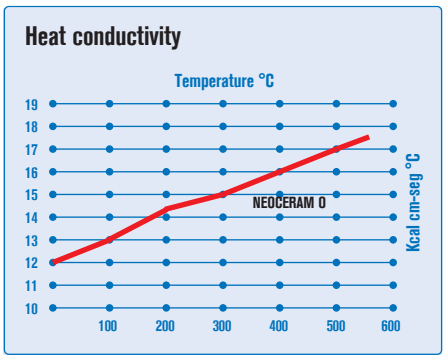
Part No.	
1087102	100 mm Side.
1087122	120 mm Side.
1087142	140 mm Side.
1087162	160 mm Side.
1087182	180 mm Side.
1087202	200 mm Side.



CERAMIC PLATES "NEOCERAM"

Resistant to temperatures
from -200 °C to 700 °C.

Part No.	
1000684	120 x 120 x 5 mm.
1000685	140 x 140 x 5 mm.
1000686	160 x 160 x 5 mm.



Resistant to temperatures from -200 °C to 700 °C.
Excellent heat conductor.
20% better heat transfer compared to a conventional gauze ceramic.
High chemical resistance to aggressive compounds.
Easy to clean and long lasting.

TRIPOD STAND FOR CERAMIC PLATES

With adjustable sides to prevent the plate from moving or tilting.
Total height 210 mm.

Part No.	For plates of
1000687	120 x 120 mm.
1000688	140 x 140 mm.
1000689	160 x 160 mm.

LABORATORY JACK "LAB-ELE"

With anodised aluminium base.

Part No. **1000294** Usable platform: 115 x 140 mm.
Elevated height: 260 mm.
Maximum support weight: 1 kg.

Part No. **7000295** Top plate: 200 x 200 mm.
Maximum elevated height: 260 mm.
Max. support weight: 1.7 kg.
With hole and clamp screw for a support rod of 10 Ø x 600 mm high.

LABORATORY JACKS "LAB-STEEL"

Made completely of AISI 304 stainless steel.

Models:

"LAB-STEEL" MINI
Part No. **1001104** Platform Dims.: 145 x 145 mm. Elevation height 55 to 155 mm. Maximum support weight: 1.3 Kg.

"LAB-STEEL" MEDI
Part No. **1001161** Platform Dims.: 200 x 200 mm. Elevation height 65 to 270 mm. Maximum support weight: 2 Kg.

"LAB-STEEL" MAXI
Part No. **1001105** Platform Dims.: 250 x 250 mm. Elevation height 65 to 270 mm. Maximum support weight: 3 Kg.

TABLE TOP "ALMANDINE"

Made of polyester mineral resin.

Features:
Excellent chemical resistance, with resistance to class 1 and 2 chemicals.
Resists abrasion, boiling water, dry heat, fire and scratches.
Stains easily removed with a detergent or abrasive cleaner.

Applications:
Protects bench top surfaces against aggressive chemicals, burns and scratches.
Suitable for working with: Acids, alkali bases, solvents or dyes.
Preparation of horizontal agar gels.
Preparation of petri dishes, etc.

Part No.	Width	Thickness	Depth	
1001090	48 cm	0.6 cm	45 cm	Without level
1001091	48 cm	0.6 cm	45 cm	With adjustable level supports

STABILISING RINGS "CIRCUM"

P.V.C coated steel.

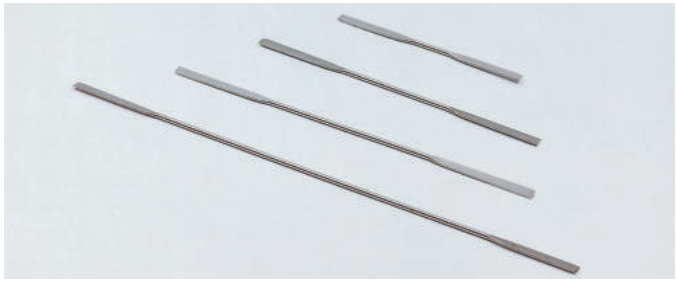
Applications:
The weight of the ring stabilises and prevents flasks from floating when placed in a water bath. Suitable for Conical, volumetric and all types of flasks.

Part No.	Colour	Mode	Ø interior mm.	Weight g.
1001169	red	open	50	207
1001170	red	open	70	340
1001171	red	open	100	470
1001734	blue	closed	48	270
1001735	blue	closed	70	360
1001736	blue	closed	90	440

Ring support holder, made of stainless steel.
Part No. **1001737**

Spatulas, scoops and vessels.

STAINLESS STEEL AND NICKEL EVAPORATING BASINS.
STAINLESS STEEL, NICKEL AND ZIRCONIUM CRUCIBLES.



MICRO SPATULA WITH FLAT ENDS

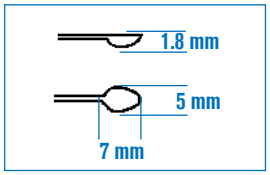
Made od AISI 304 stainless steel.

Part No.	Length	Width
1027680	80 mm.	4 mm.
1276120	120 mm.	4 mm.
1276150	150 mm.	4 mm.
1276210	210 mm.	4 mm.

MICRO SPATULA WITH FLAT AND SPOON ENDS

Made of AISI 304 stainless steel.

Part No.	Length	Width
1277100	100 mm.	4 mm.
1277150	150 mm.	4 mm.
1277210	210 mm.	4 mm.



MICRO-SPATULA CURVED ENDS

Made of stainless steel AISI 304.
Part No. 1001581 Length 150 mm.

SPATULA FLAT AND GROOVED ENDS

Made of Stainless steel AISI 304.
Part No. 1000855 Total length 180 mm. Flat width 9 mm. Grooved width 8 mm.

SPATULA WITH CURVED ENDS

Made of stainless steel AISI 304.

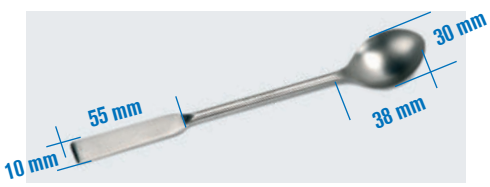
Part No.	Length	Width
1010313	130 mm.	11 mm.
1001518	150 mm.	11 mm.
1010318	180 mm.	11 mm.
1010321	210 mm.	11 mm.

SPATULA WITH SPOON AND FLAT ENDS

Part No.	Length	Width	
1096120	120 mm.	18 mm.	stainless steel AISI 304.
1096150	150 mm.	20 mm.	stainless steel AISI 304.
1196120	120 mm.	18 mm.	Pure nickel.
1196150	150 mm.	20 mm.	Pure nickel.

CHISEL AND GROOVED SPOON END SPATULA

Part No.	Length	Width	
6021312	120 mm.	18 mm.	stainless steel AISI 304.
6021315	150 mm.	20 mm.	stainless steel AISI 304.
6121312	120 mm.	18 mm.	Pure nickel.
6121315	150 mm.	20 mm.	Pure nickel.



FLAT SPATULA WITH SPOON

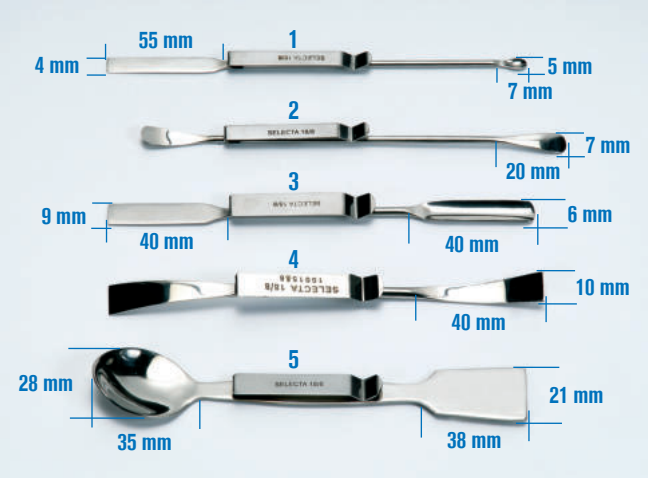
Made of Stainless steel AISI 304.
Part No. 1001583 Length 180 mm.

SPATULA DOUBLE SPOON ENDS

Made of Stainless steel AISI 304.
Part No. 1001582 Length 150 mm.

DOUBLE SPATULA SEMI-MICRO

Made of Stainless steel AISI 304. Total length 140 mm
Rectangular end: 35 long x 7 mm wide.
Oval end: 35 long x 7mm wide.
Part No. 1278140

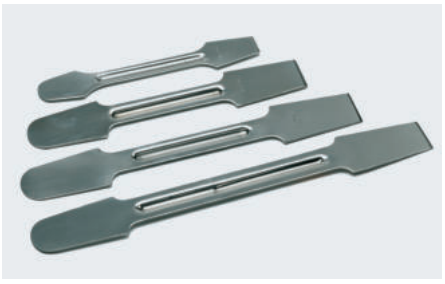


SPATULA WITH POCKET CLIP

Part No.

1. 1001585 Micro-spatula flat spoon end. Length 150 mm.
2. 1001586 Micro-spatula curved end. Length 150 mm.
3. 1001587 Spatula flat with grooved end. Length 150 mm.
4. 1001588 Spatula double end flat. Length 150 mm.
5. 1001589 Spatula flat and spoon ends. Length 150 mm.

Specially designed for lab coats with upper pocket.



FLAT AND CURVED END SPATULA

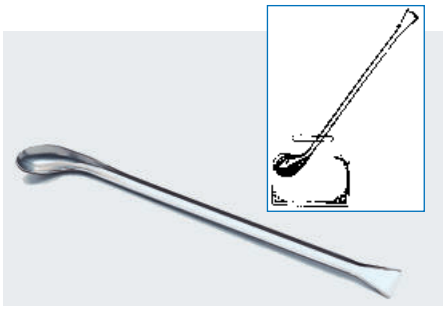
Made of AISI 304. stainless steel.

Part No.	Length	Width
6099120	120 mm.	20 mm.
6099150	150 mm.	24 mm.
6099180	180 mm.	24 mm.
6099210	210 mm.	24 mm.

SPATULA DOUBLE CURVED ENDS

Made of AISI 304. stainless steel.

Part No.	Length	Width
6100120	120 mm.	15 mm.
6100150	150 mm.	25 mm.
6100180	180 mm.	25 mm.
6100210	210 mm.	25 mm.



GROOVED SPATULA

Grooved spoon, made of AISI 304 stainless steel.
Total length: 190 mm.
Designed to remove residues from flasks and bottles due to the flat sharp end and curved spoon.
Part No. 1096190

SPATULA SPOON FLAT-CONCAVE

Made Stainless steel AISI 304.
Part No. 1001584 Length 250 mm.

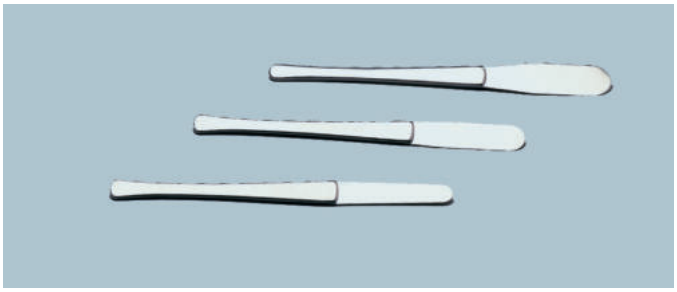
FLAT SPATULA WITH SPOON

Analytical type, made of AISI 304 Stainless steel. Total length: 210 mm.
Rectangular end: 40 long x 9 mm wide.
Spoon end: 30 long x 18 mm wide.
Part No. 1095210

PASTE KNIFE WITH WOODEN HANDLE

Blade made from tempered Stainless steel.

Part No.	Blade length	Blade width	Part No.	Blade length	Blade width
1010280	80 mm.	14 mm.	1102160	160 mm.	24 mm.
1102100	100 mm.	16 mm.	1102200	200 mm.	29 mm.
1102120	120 mm.	18 mm.	1102240	240 mm.	34 mm.
1102140	140 mm.	22 mm.	1102280	280 mm.	34 mm.



FLEXIBLE SPATULA

With stainless steel AISI 304 blade and handle.

Part No.	Total length	Blade length	Blade width
1000856	160 mm.	52 mm.	11 mm.
1000857	160 mm.	52 mm.	15 mm.
1000858	170 mm.	60 mm.	20 mm.

MULTI PURPOSE KNIFE

With a black bakelite® handle. Designed for comfort and safety
Made of tempered stainless steel.
Total length: 230 mm.
Blade length: 95 mm.
Part No. 1000862

SPATULA POCKET POUCH

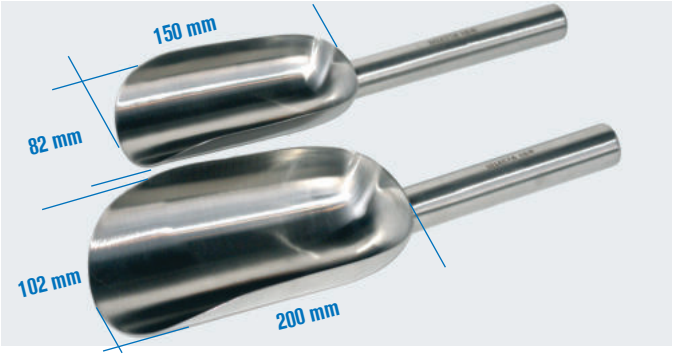
Part No. 1001530
Contents:
1 Flexible spatula. Part No. 1000856 . 1 Semi micro spatula. Part No. 1278140
1 Micro spatula flat spoon. Part No. 1277150. 1 Dissection scissors. Part No. 1000807
1 Forceps blunt end. Part No. 1000580

SODIUM SPOON

With brass basket. Ø 25 mm. Total length: 190 mm.
Part No. 1000805

POWDER SCOOPS

Length: 100 mm. Width: 26 mm.
Part No. 6000278 Stainless steel AISI 304.
Part No. 6001278 Pure nickel.



SCOOPS WITH HANDLE

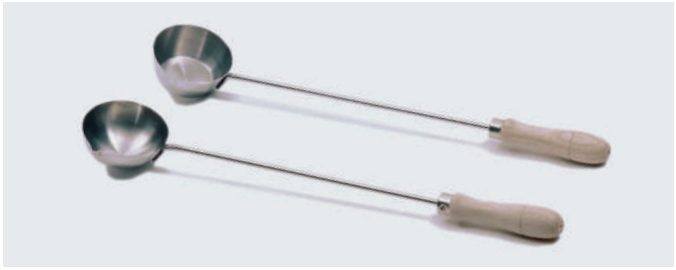
Made of stainless steel AISI 304.
Part No. 1001592 Medium Total length 320 mm.
Part No. 1001593 Big Total length 360 mm.

VIBRATING SPATULA AND BALANCE WEIGHT FORCEPS

Vibrating spatula.
With manual vibrating device. Made of AISI 304 stainless steel.
Part No. 1000413 Curve end. Total length 176 mm. Width 12 mm.
Part No. 1000412 Grooved end. Total length 176 mm. Width 12 mm.

Balance weight forceps.
Made of AISI 304 stainless, electrobright finish. Total length 93 mm.
Part No. 1000217

Forceps for balance weights.
Made of AISI 304 stainless, electrobright finish. Total length 100 mm.
Part No. 1000216

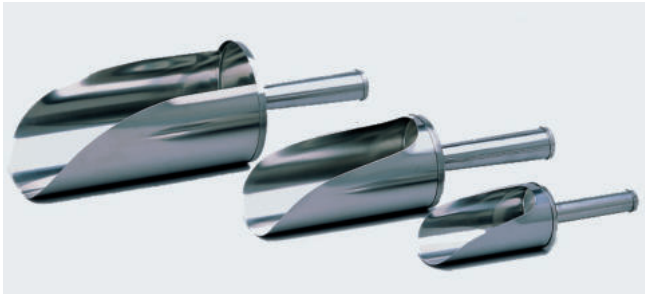


FUSION SPOONS

Made of AISI 304 stainless, wooden handle. Total length: 350 mm.

Flat base. Volume 90 ml.
Part No. 6000093

Round base. Volume 75 ml.
Part No. 6000094



SCOOPS WITH HANDLE

Made of stainless steel AISI 304.

Part No.	Total length	Usable length	Width	Capacity
1000859	180 mm.	100 mm.	50 mm.	120 ml.
1000860	260 mm.	150 mm.	75 mm.	450 ml.
1000861	310 mm.	200 mm.	100 mm.	1500 ml.
1001354	330 mm.	210 mm.	150 mm.	2000 ml.

FUNNEL WITH HANDLE

Made of AISI304 stainless steel.

Part No. 1000906	100 mm Ø	x 100 mm high x 10 mm exit.
Part No. 1000907	120 mm Ø	x 112 mm high x 10 mm exit.
Part No. 1000908	150 mm Ø	x 159 mm high x 20 mm exit.
Part No. 1000909	200 mm Ø	x 183 mm high x 20 mm exit.

SPOON WITH HANDLE

Made of AISI304 stainless steel.

Part No. 1001594	Capacity 100 ml.	Total length 240 mm. Ø 83 mm
Part No. 1001595	Capacity 200 ml.	Total length 280 mm. Ø 92 mm
Part No. 1001596	Capacity 300 ml.	Total length 360 mm. Ø 102 mm

FLAT BOTTOM BASINS

Stainless steel AISI 304 Part No.	Nickel Ni Part No.	Ø	Height	Volume
1009160	1019160	60 mm.	25 mm.	40 ml.
1009170	1019170	70 mm.	25 mm.	60 ml.
1009180	1019180	80 mm.	30 mm.	90 ml.
1091100	1191100	100 mm.	35 mm.	180 ml.

EVAPORATION BASINS, ROUND BOTTOM

Stainless steel AISI 304 Part No.	Nickel Ni Part No.	Ø	Height	Volume
1009260	1019260	60 mm.	25 mm.	35 ml.
1009270	1019270	70 mm.	25 mm.	50 ml.
1009280	–	80 mm.	30 mm.	75 ml.
1092100	–	100 mm.	35 mm.	125 ml.

PETRI DISH WITH LID

Stainless steel AISI 304 Part No.	Nickel Ni Part No.	Ø	Height	Volume
1002126	1012126	60 mm.	20 mm.	50 ml.
1002128	1012128	80 mm.	20 mm.	90 ml.
1021210	–	100 mm.	25 mm.	150 ml.
1021212	–	120 mm.	25 mm.	260 ml.
1021215	–	150 mm.	30 mm.	550 ml.

BUCKETS WITH HANDLES

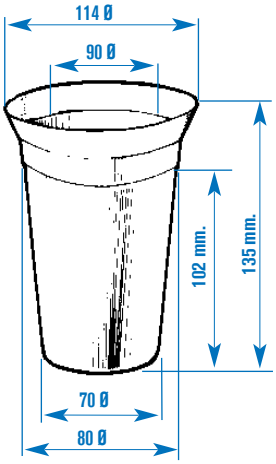
Without graduation. Made of AISI304 stainless steel.

Part No.	Height	Ø	Capacity
1001599	270 mm	270 mm	10 litres
1001600	320 mm	350 mm	19 litres

BUCKET LIDS

Part No. 1001601 Suitable for buckets 10 litres Part No. 1001599
Part No. 1001602 Suitable for buckets 19 Litres Part No. 1001600

DYE BEAKER
Stainless steel AISI 304.
Volume: 500 ml.
Part No. 6000291



Quartz glass

CRUCIBLES

AISI 304 STAINLESS STEEL

Part No.	Ø	Height	Thickness	Volume	Lids Part No.
1098302	30 mm.	32 mm.	2 mm.	20 ml.	6009730
1098402	40 mm.	42 mm.	2 mm.	45 ml.	6009740
1009830	30 mm	32 mm.	0.6 mm.	20 ml.	6009730
1009840	40 mm.	42 mm.	0.6 mm.	45 ml.	6009740
1009850	50 mm.	55 mm.	0.8 mm.	85 ml.	6009750
1009860	60 mm.	65 mm.	0.8 mm.	140 ml.	6009760

PURE NICKEL Ni

Part No.	Ø	Height	Thickness	Volume	Lids Part No.
1198302	30 mm.	32 mm.	2 mm.	20 ml.	6019730
1198402	40 mm.	42 mm.	2 mm.	45 ml.	6019740
1198502	50 mm.	55 mm.	2 mm.	85 ml.	6019750
1198602	60 mm.	65 mm.	2 mm.	140 ml.	6019760
1019830	30 mm.	32 mm.	0.6 mm.	20 ml.	6019730
1019840	40 mm.	42 mm.	0.6 mm.	45 ml.	6019740
1019850	50 mm.	55 mm.	0.6 mm.	85 ml.	6019750
1019860	60 mm.	65 mm.	0.6 mm.	140 ml.	6019760

ZIRCONIUM Zr

Part No.	Ø	Height	Thickness	Volume	Lids Part No.
1000563	33 mm.	30 mm.	1 mm.	20 ml.	6000567
1000564	47 mm.	43 mm.	1 mm.	50 ml.	6000568
1000565	52 mm.	48 mm.	1 mm.	75 ml.	6000569
1000566	59 mm.	51 mm.	1 mm.	100 ml.	6000570

QUARTZ GLASS

Part No.	Ø	Height	Thickness	Volume	Lids Part No.
1000570	45 mm.	36 mm.	1,5 mm.	38 ml.	1000620
1000571	50 mm.	40 mm.	2 mm.	49 ml.	1000621
1000572	60 mm.	48 mm.	2 mm.	90 ml.	1000622
1000573	35 mm.	44 mm.	1,5 mm.	24 ml.	1000623
1000574	40 mm.	50 mm.	1,5 mm.	40 ml.	1000624
1000575	50 mm.	62 mm.	2 mm.	75 ml.	1000625

QUARTZ GLASS FOR INCINERATION

Part No.	Ø	Height	Thickness	Volume	Lids Part No.
1000576	27 mm.	45 mm.	1,5 mm.	15 ml.	Included
1000577	25 mm.	38 mm.	1,5 mm.	10 ml.	Included

STAINLESS STEEL AISI 304- PURE NICKEL - ZIRCONIUM - QUARTZ

STAINLESS STEEL is usable at temperatures from -180 °C to +500 °C. Resistant to nitric acid, nitrate and potassium permanganate. Good resistance to concentrated alkaline solutions. Average resistance to acetic acid, hydrogen sulphide diluted, phosphoric low concentration, and solutions of sulphites, boric acid, organic acids and bromides.

NICKEL unalterable in the air and stainless up to temperatures of 500 °C, good resistance to molten alkali and seawater.
Excellent performance in the presence of wet chlorine or hydrochloric acid gas up to 500 °C. Slowly attacked by organic acids, hydrochloric and sulfuric acids.
Low resistance to diluted nitric acid.

THE ZIRCONIUM unalterable in the air and clean, resistant up to 550 °C in an oxidizing atmosphere at 1500 °C in inert gas (argon or nitrogen), **in many cases to replace platinum crucibles** in all melting and in particular the sodium peroxide and carbonates. **About 100 melting per crucible**, making them very economical with reference to the others, either porcelain crucibles, steel or nickel. Resistant to most alkali solvents (Na, K, Li), carbonates, hydroxides, peroxides, borates, nitrates, chlorides, some fluorides and sulfuric acid up to 75% concentrate.
Hydrofluoric acid attacks it.

QUARTZ GLASS has a high temperature resistant (liquid glass transition 1130°C) as well as a low thermal expansion. It is considered a unique material for several scientific applications due to its purity (can only be attacked by hot phosphoric acid and hydroflouric acid) and thermal characteristics. Furthermore, quartz glass has extraordinary optical properties through its spectral transparency and high irradiation resistance.

COMECTA Stainless steel receptacles.

QUALITY AISI 304.
SUITABLE FOR PHARMACEUTICAL INDUSTRY.
SUITABLE FOR FOOD INDUSTRY.

LABORATORY-HOSPITAL + SERIES

ROUND BASINS

Part No.	Ø exterior	Ø interior	Height	Volume
8081810	133 mm.	118 mm.	45 mm.	400 ml.
8081812	175 mm.	157 mm.	58 mm.	850 ml.
8081814	217 mm.	199 mm.	66 mm.	1650 ml.
8081815	255 mm.	245 mm.	110 mm.	3400 ml.
8081817	318 mm.	297 mm.	117 mm.	7000 ml.

RECTANGULAR TRAYS

Conical shape

Part No.	Exterior Height	Exterior Width	Exterior Depth	Interior Width	Interior Depth
8080801	40 mm.	190 mm.	125 mm.	158 mm.	112 mm.
8080802	45 mm.	244 mm.	161 mm.	211 mm.	147 mm.
8080803	50 mm.	305 mm.	195 mm.	270 mm.	177 mm.
8080804	55 mm.	338 mm.	261 mm.	301 mm.	241 mm.

Long shape

Part No.	Exterior Height	Exterior Width	Exterior Depth	Interior Width	Interior Depth
8080207	28 mm.	380 mm.	160 mm.	351 mm.	145 mm.

LIDS FOR BEAKERS AND JUGS

Part No.	Beaker size	Part No.	Beaker size
8000250	250 ml.	8003000	3000 ml.
8000500	500 ml.	8004000	4000 ml.
8001000	1000 ml.	8005000	5000 ml.
8002000	2000 ml.		

SERILISATION JAR

100 Ø x 155 mm high.
Volume 1000 ml.
Part No. 8080904

BOXES WITH ROUND LIDS

Part No.	
8085514	140 Ø x 65 mm high. Volume 1000 ml.
8085515	180 Ø x 75 mm high. Volume 1500 ml.

KIDNEY DISHES

Part No.	
8085301	32 high x 200 mm long.
8085302	37 high x 250 mm long.
8085303	42 high x 300 mm long.

MEDICINE CUPS

Part No.	
8085530	Graduated. Capacity 30 ml.
8085531	Graduated. Capacity 50 ml.
8085532	With handle, no graduations. Capacity 300 ml.

STERILIZATION BOXES WITH LID

Part No.	Height	Width	Depth
8085504	30 mm.	170 mm.	70 mm.
8085505	50 mm.	200 mm.	100 mm.

TALL BEAKERS AND JUGS

Mirror finish stamped beakers and jugs with a curved lip.
Easily cleaned and resistant to large numbers of chemical agents.

1 Standard Part No.	2 With Spout Part No.	3 With handle and spout Part No.	Ø x Height	Volume
8002902	8012902	8092902	72 x 84 mm.	250 ml.
8002905	8012905	8092905	86 x 129 mm.	500 ml.
8029010	8129010	8929010	102 x 150 mm.	1000 ml.
8029020	8129020	8929020	132 x 184 mm.	2000 ml.
8029030	8129030	8929030	160 x 180 mm.	3000 ml.
8029040	8129040	8929040	180 x 200 mm.	4000 ml.
8029050	8129050	8929050	200 x 220 mm.	5000 ml.

BUCKET WITH HANDLE

Buckets. Graduated from 1 to 12 litres.
320 Ø x 300 mm high. Volume 12 litres.
Part No. 8000252
Bucket lids
Part No. 1002521

ROUND BASIN

370 Ø x 145 mm high. Volume 9000 ml.
Part No. 8000140

SUPPORT FOR ROUND BASIN

Portable with rubber wheels and brake.
Basin Part No. 8000140.
Part No. 6010140

Bottle Defrost and Warmer "CB-1"

INDIVIDUAL MODEL "CB-1". IDEAL FOR WARMING BREAST MILK THANKS TO ITS LATERAL MOVEMENT.

Dry heat, easy to clean and maintenance free. International patent PCT/ES2010/070230.

APPLICATIONS

Agitates and thaws or warms the contents of the bottle even with breast milk.
Establishes sanitary guarantees by eliminating the bain-marie system, prone to the generation of bacteria and germs harmful to the health of the newborn.
It substitutes microwave heating, since it destroys some of the nutrients and antibodies that nourish and immunize the baby.

COMMON CHARACTERISTICS.

Heating and stirring for 60, 120 and 200 ml. bottles, either with plastic or glass enclosure, up to a maximum Ø of 56 mm.
Constant heating system by forced air.
Permanent agitation that guarantees the homogeneity of the content.
Suitable for clinic rooms, nurseries or private homes.
Built in PVC with metallic inner frame and chamber treated with Rilsan.
It has a housing for a single bottle.
Oscillating-pendulum shaker with 135º angle, which allows to keep the teat in place, without causing spills.
Easy to handle.

THERMAL PERFORMANCE:

Starting from a sample with 1 bottle at 4ºC. approx.

Baby bottle ml.	Approx. time to ±30 ºC
60	3'20"
120	4'30"
200	5'40"

CONTROL PANEL

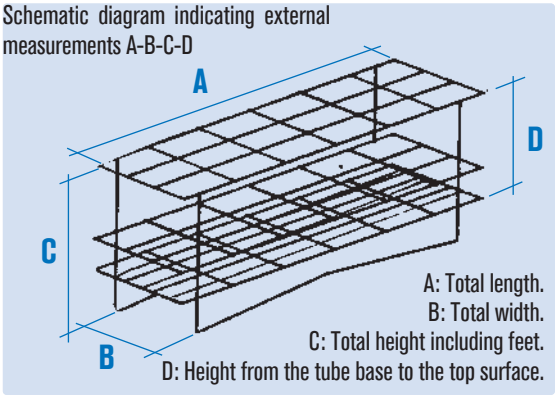
Illuminated start-up switch.
3-position timer, for 60, 120 and 200 ml bottles.

MODEL	Code	Nº Places	External measurements cm Height	Width	Depth	Consumption W	Weight Kg
CB-1	6000151	1	31	30	19	1000	5

Racks, baskets and storage for tubes pipettes and flasks

TUBE RACKS

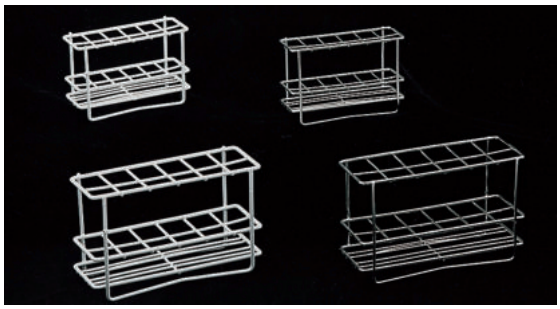
Schematic diagram indicating external measurements A-B-C-D



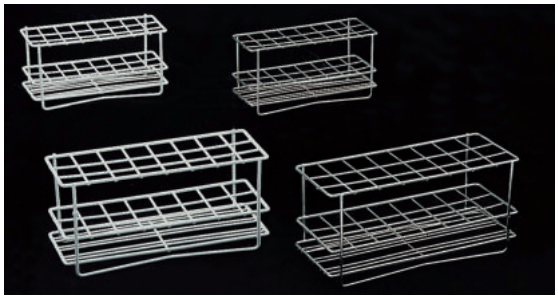
A: Total length.
B: Total width.
C: Total height including feet.
D: Height from the tube base to the top surface.

Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1001563	Stainless steel	24 (6 x 4)	13 mm VAC	95	70	70	60

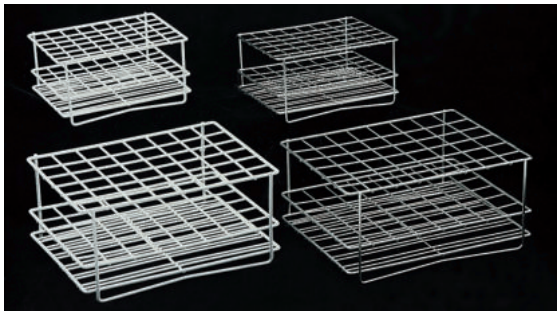
Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1001212	PVC coated wire	12 (4 x 3)	13 mm	65	50	65	50
1025500	Stainless steel wire AISI 304	12 (4 x 3)	13 mm	65	50	65	50



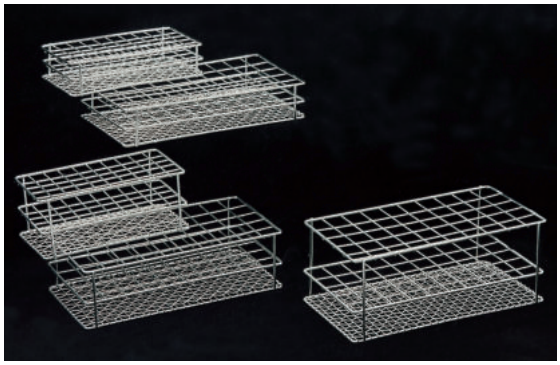
Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1026112	PVC coated wire	12 (6 x 2)	16 mm	120	45	80	65
1026412	PVC coated wire	12 (6 x 2)	25 mm	180	65	110	95
1025512	Stainless steel wire AISI 304	12 (6 x 2)	16 mm	120	45	80	65
1025812	Stainless steel wire AISI 304	12 (6 x 2)	25 mm	180	65	110	95



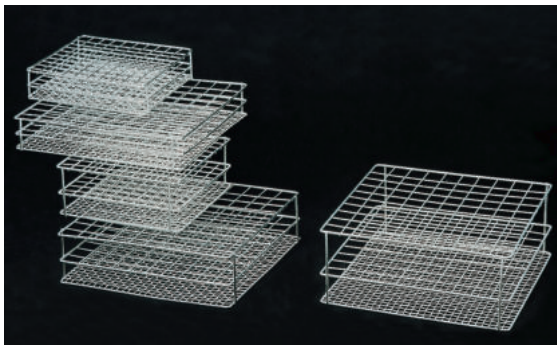
Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1026124	PVC coated wire	24 (8 x 3)	16 mm	160	65	80	65
1026424	PVC coated wire	24 (8 x 3)	25 mm	235	95	110	95
1025524	Stainless steel wire AISI 304	24 (8 x 3)	16 mm	160	65	80	65
1025824	Stainless steel wire AISI 304	24 (8 x 3)	25 mm	235	95	110	95



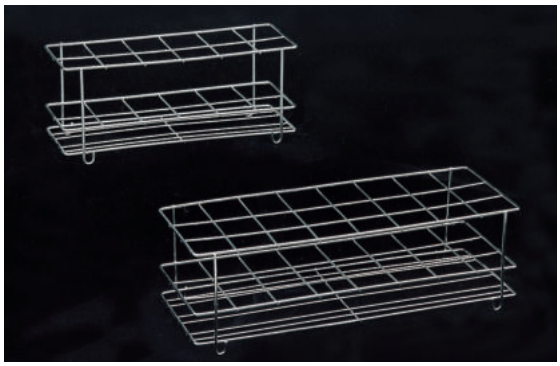
Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1026148	PVC coated wire	48 (8 x 6)	16 mm	160	125	80	65
1026448	PVC coated wire	48 (8 x 6)	25 mm	235	180	110	95
1025548	Stainless steel wire AISI 304	48 (8 x 6)	16 mm	160	125	80	65
1025848	Stainless steel wire AISI 304	48 (8 x 6)	25 mm	235	180	110	95



Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1000603	Stainless steel wire AISI 304	50 (10 x 5)	13 mm	162	84	35	35
1000605	Stainless steel wire AISI 304	50 (10 x 5)	13 mm	162	84	60	60
1000607	Stainless steel wire AISI 304	50 (10 x 5)	18 mm	210	110	40	40
1000609	Stainless steel wire AISI 304	50 (10 x 5)	18 mm	210	110	60	60
1000611	Stainless steel wire AISI 304	50 (10 x 5)	18 mm	210	110	85	85



Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1000604	Stainless steel wire AISI 304	100 (10x10)	13 mm	162	162	35	35
1000606	Stainless steel wire AISI 304	100 (10x10)	13 mm	162	162	60	60
1000608	Stainless steel wire AISI 304	100 (10x10)	18 mm	210	210	40	40
1000610	Stainless steel wire AISI 304	100 (10x10)	18 mm	210	210	60	60
1000612	Stainless steel wire AISI 304	100 (10x10)	18 mm	210	210	85	85

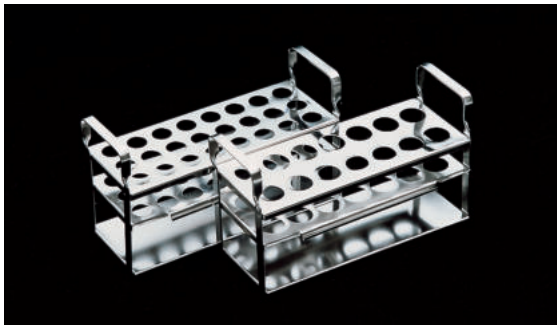


Suitable for Nessler tubes

Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1004012	Stainless steel wire AISI 304	12 (6 x 2)	40 mm	260	90	110	95
1004024	Stainless steel wire AISI 304	24 (8 x 3)	40 mm	345	130	110	95

Suitable for Falcon tubes with lids

Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1001715	Stainless steel wire AISI 304	15 (5 x 3)	16 mm Falcon 15 ml	120	80	90	75
1001716	Stainless steel wire AISI 304	8 (4 x 2)	30 mm Falcon 50 mm	145	80	90	75



With rack linking guides

Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1002532	Stainless steel AISI 304	24 (8 x 3)	12 mm	160	62	65	–
1002531	Stainless steel AISI 304	14 (7 x 2)	16 mm	160	62	65	–

Suitable for butyrometer

Part No.	Made of	Number of tubes	For tube	Dimensions ext. mm A	B	C	D
1025412	Stainless steel AISI 304	12 (6 x 2)	Butyrometer	200	70	165	–
1025424	Stainless steel AISI 304	24 (8 x 3)	Butyrometer	285	95	165	–

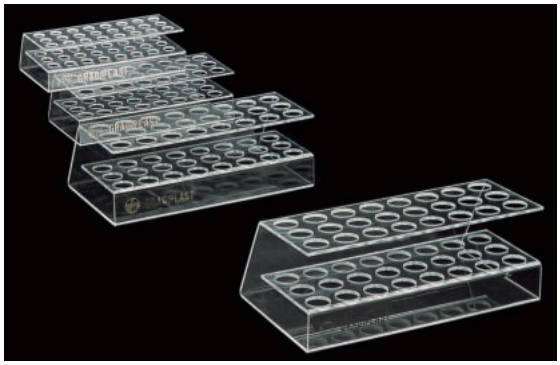
With decanting aid

Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1000433	Anodised aluminium colour silver	120 (15 x 8)	11 mm	300	170	50	–
1000434	Anodised aluminium colour silver	120 (15 x 8)	14 mm	300	170	50	–

Stackable and numeric

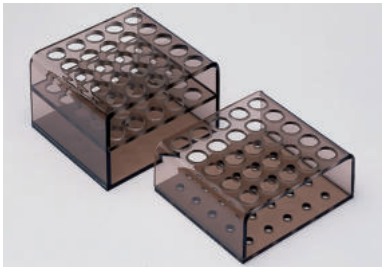
Stackable racks
Made of anodised aluminium with alphanumeric from 1 to 10 and A to E.

Part No.	External dimensions mm. Height	Width	Depth	Tube Capacity	For tubes of Ø up to
1000830	60	165	95	50	11 mm
1000831	60	195	100	50	14 mm
1000832	60	220	110	50	16 mm

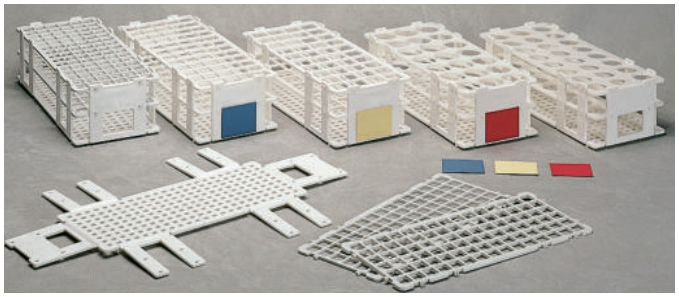


Transparent methacrylate racks

Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1052012	Transparent methacrylate	24 (8 x 3)	12 mm	170	90	50	50
1052016	Transparent methacrylate	24 (8 x 3)	16 mm	190	100	60	60
1052022	Transparent methacrylate	24 (8 x 3)	22 mm	255	150	80	80
1052026	Transparent methacrylate	24 (8 x 3)	26 mm	300	170	110	110



Part No.	Made of	Number of tubes	For tube Ø up to	Dimensions ext. mm A	B	C	D
1001251	Methacrylate	25 (5 x 5)	11 mm	85	80	35	30
1001252	Methacrylate	25 (5 x 5)	12 mm	85	80	55	50



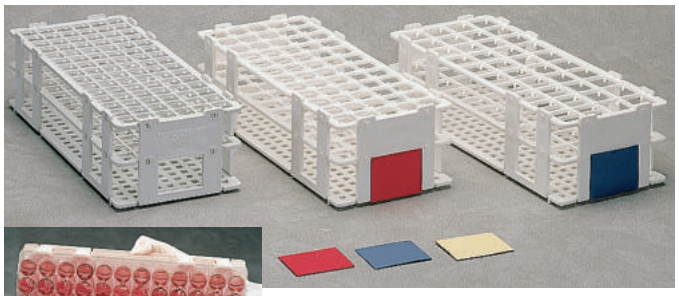
PROPISEL RACKS

Made of high density white polypropylene.
Easy to assemble. Stackable. Autoclavable. These racks do not float and are suitable for water baths for temperatures up to 140 °C.
Each rack has a cross reference numbering systems for easy tube identification. Easily cleaned with a disinfectant. Colour white.
Accessory rack identification cards are available in: yellow, blue and red.

Models

Part No.	Number of tubes	For tubes up toØ mm	External dims. cm Height	Width	Depth
1001115	90	13	7	10.5	25
1001116	60	16	7	10.5	25
1001117	40	20	7	10.5	25
1001118	24	25	7	10.5	25
1001119	21	30	7	10.5	25

ACCESSORY
Indentification cards, autoclavable.
Part No.
1001120 Yellow
1001121 Blue
1001122 Red



PROPISEL-FIX RACKS

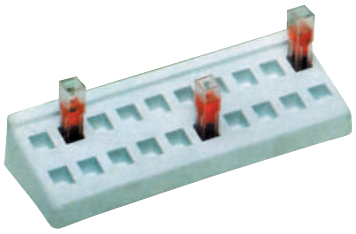
Made of high density polypropylene. Comes with decanting aid that holds the tubes in place in the rack while the complete rack is emptied in one operation. Features: Same feature as the "Propisel".

Image showing the decanting aid in use and tubes still in place.

Models

Part No.	Number tof tubes	For tubes up toØ mm	External dims. cm Height	Width	Depth
1001123	90	11 to 13	7	10.5	25
1001124	60	14 to 16	7	10.5	25
1001125	40	19 to 20	7	10.5	25

ACCESSORY
Indentification cards, autoclavable.
Part No.
1001120 Yellow
1001121 Blue
1001122 Red



RACK FOR 20 10 mm ⧄SQUARE CUVETTES

Made of polypropylene. Positioning cross-reference.
Height 35 mm. Width 70 mm
Depth 210mm
Colour: white
Part No. 1001528

CIRCULAR RACK

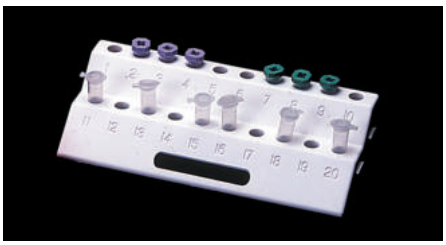
Made in polyethylene for 4 tubes of 25 mm Ø, 8 tubes of up to 19 mm Ø and 16 up side down peg tube supports.
Dimensions: 95 high x 180 mm Ø.
Part No. 1001339

RACK FOR 1.5 AND 2 ml MICROTUBES

Made of Polycarbonate, stackable, numbered positions and autoclavable. Number of tubes: 24 microtubes.
Diameter: up to 11 mm Ø.
Part No. 1001340

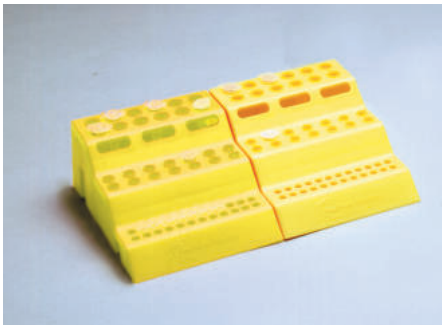
RACK FOR 1.5 AND 2 ml MICROTUBES

Made of solid polypropylene, ideal for refrigerator and freezer storage. Numbered positions and autoclavable.
Capacity: up to 80 micro-tubes.
Part No. 1001341



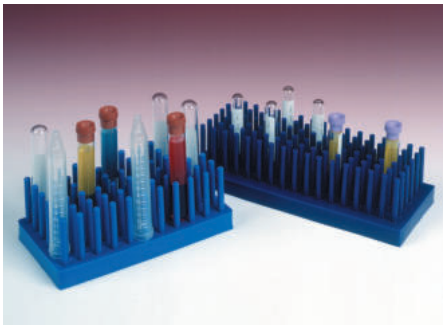
RACK FOR 20 MICROTUBES OF 1.5 TO 2 ml

Made of polypropylene. Racks can be linked and fitted together. Numbered locations. Total length 21 cm.
Part No. 1001523



THREE LEVEL MICROTUBE RACK FOR 0.2 - 0.5 AND 1.5 ml

Made from polypropylene and can be linked at either end to form longer racks. Numbered positions.
Lower level 24 micro tubes of 0.2 ml.
Middle level 14 micro tubes of 0.5 ml.
Upper level 12 micro tubes of 1.5 ml.
Standard colour yellow.
Part No. **1001542**



MULTI SUPPORT TUBE RACK TUBE SIZE Ø 10/13 AND 14/17 mm

Suitable for drying and storing of tubes. Autoclavable.
Suitable for use in a water bath.
Standard colour blue.
Part No. **1001543** Group of 80 spikes for tubes of 10-13 mm Ø.
Part No. **1001544** Group of 50 spikes for tubes of 14-17 mm Ø.

REVERSIBLE TUBE RACK FOR MICROTUBES 0.2/0.5 AND 1.5/2 ml

Made from polypropylene with removable lid that fits on any side.
Alphabetic identification positions.
Face A for 168 micro tubes of 0.2 ml and 12 x 1.5 ml.
Face B for 40 micro tubes of 0.5 ml and 12 x 1.5 ml.
Standard colour yellow.
Part No. **1001545**

REVERSIBLE TUBE RACKS FOR 0.5 - 1.5 AND 2 ml TUBES

Face A for 96 micro tubes of 0.5 ml.
Face B for 96 micro tubes of 1.5 to 2 ml.
Made from polypropylene with removable lid.
Alphabetic tube position identification.
Height 26 mm, with lid 50 mm. Width 115 mm. Length 250 mm.
Standard colour yellow.
Part No. **1001524**

BOX TO STORE 100 CRYO VIALS AND 1.5 TO 2 ml MICROTUBES

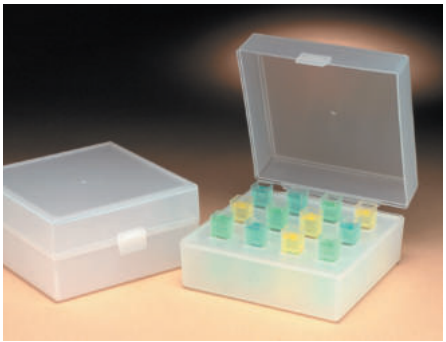
Made from polyethylene, with hinged, lid and pressure latch close.
Height with lid 57 mm. Width 141 mm. Length 151 mm.
Standard neutral colour.
Part No. **1001525**

BOX FOR 50 CRYO VIALS AND 1.5 TO 2 ml MICROTUBES

Made from polyethylene, with hinged, lid and pressure latch close.
Alphabetical grid tube location within the lid.
Height with lid 55 mm. Width 80 mm. Length 140 mm.
Standard neutral colour.
Part No. **1001526**

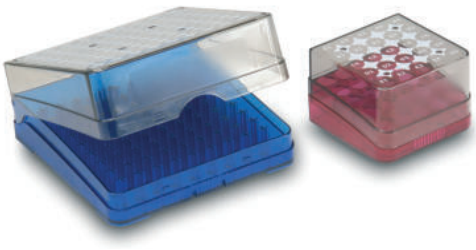
STORAGE BOX FOR 96 TUBES OF 0.2 ml

Made from polypropylene, with hinged lid and pressure latch close.
Alphanumeric identification positions.
Height with lid 30 mm. Width 90 mm. Length 130 mm.
Standard colour yellow.
Part No. **1001527**



BOX FOR STORING 12 X 10 mm ⍁ CUVETTES

Made from Polypropylene, with hinged lid and pressure latch close.
Removable base.
Cuvette heights up to 60 mm high.
Height with lid 60 mm. Width 115 mm. Length 115 mm.
Standard colour neutral.
Part No. **1001529**



FREEZER BOXES FOR VIAL STORAGE

Made from polycarbonate.
Suitable for freezer or liquid nitrogen storage for temperatures between -196 °C to +121 °C.
Alphanumeric identification, with ventilation holes and drain. Pressure lid.
Part No. **1001713** Box of 25 vials.
Height with lid 55mm. Width 75 mm. Length 75 mm.
Part No. **1001714** Box of 100 vials, Lid with hinge.
Height with lid 55mm, Width 130mm. Length 130 mm.

COMMON FEATURES

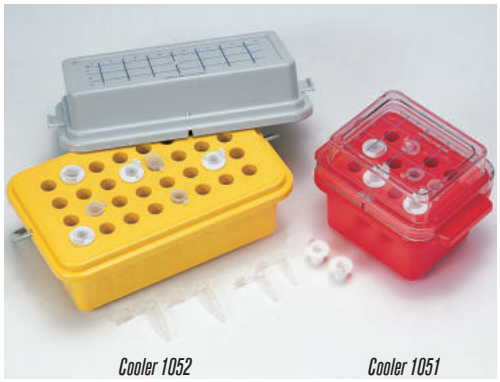
Specially designed for protecting and maintaining PCR* reagents, enzymes, bacteria, viruses and other biological samples cool or frozen during use. Also provides protection from temperature fluctuation, defrost cycles and freezer power failure.

Made from polycarbonate with a pre-filled chamber of non-toxic gel, complete with alphabetical identification grid in the lid.
Freezer temperature resistant down to -135 °C.
Tubes are isolated and have no contact with the cooling solution.

* Note: PCR is a registered name of Hoffman-La Roche.

"QUICK FREEZE" CONTAINER

Quick freeze container with the capacity for 12 tubes 0.5 ml or 2 ml tubes.
Unique reproducible freezer system for biological samples using ethanol samples of DNA and RNA.
It will maintain the interior temperature for up to 45 minutes after removal from a freezer.
Freezing speed:
2 ml solution of alcohol at –20 °C, 3 minutes.
2 ml solution of water 0 °C, 4 minutes.
Size (with lid): 95 high x 100 depth x 140mm width.
Part No. 5601050



Cooler 1052 *Cooler 1051*

MINI FREEZER CONTAINERS "COOLER 1051" AND "COOLER 1052"

Cooler 1051
Freezer container at 0 °C with the capacity for 12 tubes of 0.5 to 2 ml.
Alphanumeric matrix on the lid.
It will maintain temperature for up to 2 to 5 hours
Size (with lid): 95 high x 100 depth x 140mm width.
Part No. 5601051
Cooler 1052
Freezer container at 0 °C to –20 °C with a capacity for 32 tubes of 0.5 to 2 ml.
Alphanumeric matrix on the lid.
Double insulation body and lid that can maintain the internal temperature for a period of up to 2 hours.
Size (with lid): 105 high x 130 depth x 270 mm width.
Part No. 5601052

MINI FREEZER CONTAINERS "COOLER 1053"

Freezer container at 0 °C with the capacity for 12 tubes of 16/17 mm Ø and 15 ml centrifuge tubes.
Alphanumeric matrix on the lid.
It will maintain temperature for up to 2 to 5 hours.
Size (with lid): 150 high x 140 depth x 190 mm width.
Part No. 5601053

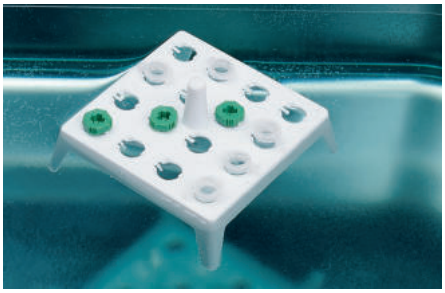
CONTAINER "CRYO 1 °C COOLER"

Freezer container with constant reproducible progressive cooling rate of 1 °C/min with a capacity for 18 cryo tubes of 1.2 to 2 ml
Operation: fill the container with alcohol isopropanol (C_3H_8O) and place tube rack inside replace the lid and put into a freezer.
The container can be placed in a water bath for thawing.
Capacity of C_3H_8O = 250ml
Size (with lid): 86 high x 117 mm Ø.
Part No. 5601055

"ICE BUCKET"

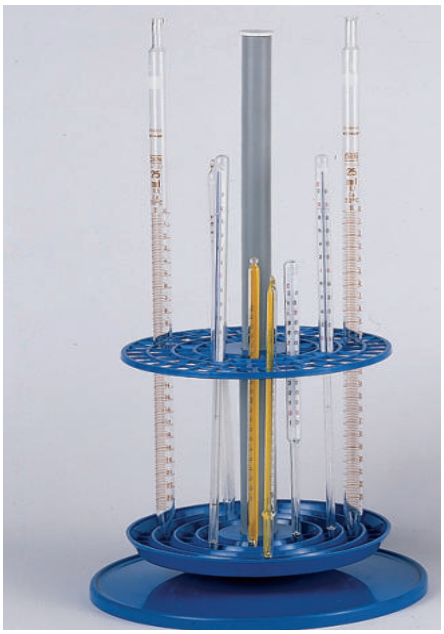
Container with lid, made of double-bodied polystyrene of 2 mm thickness with thermal insulation that is chemically resistant, made from expanded polystyrene.
Ideal for maintaining samples submerged in ice for short time periods. Capacity 3-5 litres.
External dimensions: 19 height x 27 width x 27 cm depth.
Internal dimensions: 17 height x 25 width x 25 cm depth.
Part No. 5601054

FREEZING CONTAINER
For sample freezing with liquefy gas (liquid nitrogen), liquids and solutions.
Spherical inside. Exterior made of AISI 304 stainless steel.
Double body with thermal isolated PRTFE joint.
Hit-resistant.
External measures: 14 high x 24cm wide.
Capacity: 1.5 L. Weight Kg: 2,9.
Part No. 1001640



FLOATING TUBE RACK 1.5 AND 2 ml MICRO-TUBES
Made of polypropylene, with a support to hold microtubes. Ideal for constant temperature application.
Capacity: 16 microtubes.
Dimensions: 4 high x 10 wide x 10 cm deep.
Part No. 1001342

THERMOMETER AND PIPETTE RACK
Made of polypropylene.
No. of positions: 12 positions.
Part No. 1001314



PIPETTE RACK "CIRPIP"
Portable upright rack for pipettes and thermometers, made of PVC. No. of positions: 93 of various sizes.
Stable heavy base with drain
Weight 0.4 Kg.
Part No. 1001254

PIPETTE RACK "STABIL"
Pipette rack made from polyethylene for 28 pipettes or thermometers up to 14 mm Ø. Stable heavy base with drain and two adjustable height supports.
Weight 1.5 Kg.
Part No. 1001466

CIRCULAR RACKS
Made of AISI 304 stainless steel.
138 mm Ø x 120 mm high. Suitable for the "Baher" and "Univeba" baths (see BATHS for more details).
Part No. 7000541 for 24 tubes up to 18 mm in Ø.
Part No. 7004002 for 24 tubes up to 13mm in Ø.

Westergren Supports

For sedimentation, made of AISI 304 stainless steel.Support for pipettes with standard-type rubber stoppers for vials, replaceable and easy to clean.
Front panel with unit divisions for possible annotations.Device allowing an inclined position at a 45° angle.Original design enabling easy and quick fixation of pipettes with one hand.

Code
1000093 For three slots.
1000096 Fors six slots.
1000912 For twelve slots.

SUPPORT AND DRAIN RACK FOR PIPETES "SOP-PIP"

Made AISI 304 stainless steel.
Holds up to 112 pipettes of different sizes.
Part No. 1001223

TILTED SUPPORT RACK "SOP-INC"

Suitable for pipettes, hydrometers and thermometers rack, made of methacrylate. 6 positions.
Part No. 1000015

KJELDAHL FLASK SUPPORT

Made of AISI 304 stainless steel with electrobright finish.
Suitable for flasks up to 500 ml.
Part No. 1000002

PIPETTE RACK

Made of AISI 304 stainless steel.
No. of places: 6 dosing pipettes of various sizes up to 28 cm in length. (See pages 220 - 221).
Part No. 1001215

SUPPORT RACK FOR PIPETTE AID "COM-PIP"

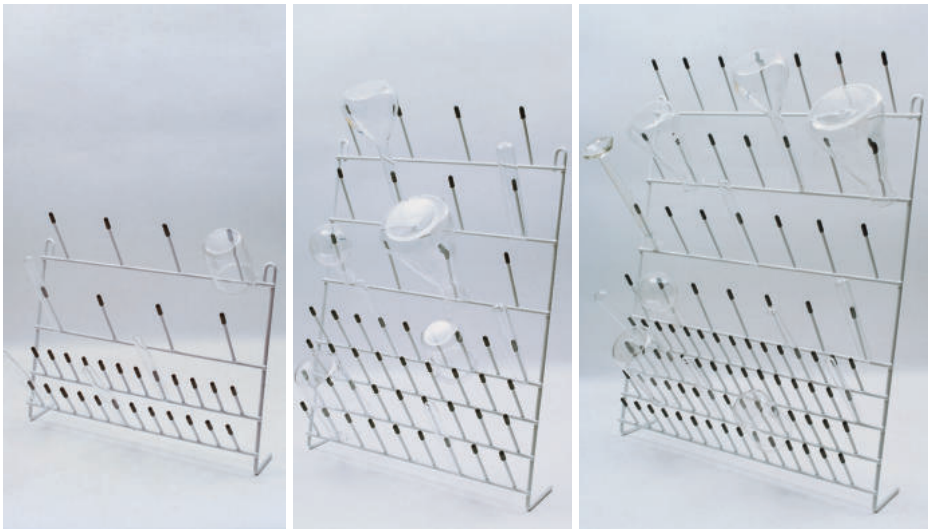
Made of AISI 304 stainless steel.
No. of places: 6 dosing pipettes of various sizes.
(See page 220-221).
Part No. 1001702

ROUND BOTTOM FLASK SUPPORT

Made of moulded rubber (E.P.D.M.). Temperature resistance up to 100 °C. Specially designed with stepped surface to support different flask diameters. From 100 ml up to 10 litre capacity.
Dimensions: 50 mm high x 160 mm Ø.
Part No. 1000863

TABLE TOP OR WALL MOUNTABLE DRAIN RACK

Made of PCV coated wire.
640 high x 500 mm wide.
With 79 positions, complete with drip tray.
Part No. 1000481



DRAIN RACK

Made of PCV coated wire.

32 positions.
300 high x 400 mm wide.
Part No. 1024132

48 positions.
500 high x 400 mm wide.
Part No. 1024148

88 positions.
620 high x 500 mm wide.
Part No. 1024188

WIRE BASKETS

Made of AISI 304 stainless steel sheet with electro-bright finish. Designed to fit the Selecta autoclaves. (See page 53).

Part No.		Part No.	
1004771	220 Ø x 140 mm high.	1000496	365 Ø x 265 mm high.
1004772	220 Ø x 240 mm high.	1000780	435 Ø x 205 mm high.
1000495	265 Ø x 185 mm high.		

ACCESSORY

Basket dividers, stainless steel AISI304 , electrobright finish.

Part No.		For baskets, Part No.
1001217	4 compartment divider	1000495
1001218	6 compartment divider	1000496
1001222	7 compartment divider	1000780

WIRE BASKETS

Electropolished stainless steel AISI 304.

Part No.	Dimensions	With cross dividers. Part No.
1025115	210 Ø x 180 mm high	1125115
1025121	150 Ø x 120 mm high	1125121
1025124	240 Ø x 180 mm high	1125124

STERILIZATION DRUMS

Made from AISI 304 stainless steel. Designed to fit the Selecta autoclaves. (See page 53.)

Part No.	Ø cm	Height cm	
1002418	28	18	
1002419	35	27	
1002420	28	18	**Doesn't match Selecta autoclaves.**

STERLIZER CAN FOR PIPETTES

Made from Stainless steel AISI 304.

Part No.	height mm	Ø mm
1000829	400	72
1001126	400	130

STERILIZATION CONTAINER FOR PETRI DISHES

Made of AISI 304 stainless steel. Complete with Petri dish rack for up to 120 mm Ø.

Models Part No.	height / Ø mm	No. of plates
1001127	260 / 130	10
1001128	400 / 130	18

PETRI DISH RACK

Made of AISI 304 stainless steel, with electro-bright finish.
For 10 dishes of 80 to 100 mm Ø.
Part No. 1000259

PIPETTE BASKET

Made of AISI 304 stainless steel with electro-bright finish. 90 mm Ø x 250 mm high.
Part No. 1000251

STERILIZATION CONTAINER FOR PIPETTES

Made from Stainless steel AISI 304. Lid interior and base lined with silicon to protect pipette end and tip.

Part No.	height mm	⊠ mm
1001597	290	65
1001598	340	65

Burners, alcohol, butane, propane and natural gas

ALCOHOL BURNER
Screwcap jar with wick.
Capacity 120 ml.
Part No. 1001256

ALCOHOL BURNER
Chrome plated top with wick height control.
With lid and chain.
Capacity 85 ml.
Part No. 1001434

SIMPLE BUNSEN BURNER
Air regulator only, nickel plated.
External tube Ø : 11 mm. Total height: 130 mm.
Part No.
7000044 For butane/propane gas.
7000937 For natural gas.

BUNSEN BURNER
With both gas and air regulator.
Tube Ø exterior: 11 mm. Total height: 140 mm.
Part No.
7000134 For butane/propane gas.
7009133 For natural gas.

TECLU BURNER
With air and gas regulator.
External tube Ø: 13 mm. Total height: 180 mm.
Part No.
7094519 For natural gas.

MEKER BURNERS
With gas and air regulator.

Model Small. External tube Ø at its maximum point: 22 mm. Total height: 175 mm.
Part No.
7001108 For butane/propane gas.
7001109 For natural gas.

Model Medium. External tube Ø at its maximum point: 27 mm. Total height: 185 mm.
Part No.
7001110 For butane/propane gas.
7001111 For natural gas.

Model Large. External tube Ø at its widest part: 32 mm. Total height: 190 mm.
Part No.
7001112 For butane/propane gas.
7001113 For natural gas.

NATURAL GAS BURNERS
With air and gas regulator.
With approved gas pressure connection 1/2" nut and olive, supplied as an accessory.
External tube Ø: 11 mm. Total height: 165 mm.

Part No.	For gas	Working pressure	Normal power	Weight Kg
7001551	natural	18 mbar	0.69 kw	1.6

ACCESSORY
Gas tube with connections (see page 195).

BUNSEN BURNER WITH SAFETY GAS CUT OUT

With gas and air regulator
Designed for maximum laboratory safety.
Equipped with a flame detector that will shut off the gas supply within 20 seconds if the flame is extinguished.
With tube connection.
Tube Ø ext.: 11 mm. Total height: 140 mm.

Part No.	Gas type	Pressure	Nominal power
7001546	butane	28/37 mbar	0.69 kw
7001547	natural	18 mbar	0.69 kw

BURNER FOR BUTANE GAS

Suitable for use with bottled gas "International Camping Gas ". Approved following ACTA of the GENERAL LABORATORY ANALYSIS AND SERVICES FOR INDUSTRY. Manufactured in accordance with the "regulation for apparatus used with combustible gasses" decree 1651/1974. External tube Ø: 14mm. Direct regulated pressure. Nominal power 0.72 Kw at 1 bar.
Part No. 7000666

ACCESSORIES

Wide flame burner head made of tin. Suitable for the "Camping Gas" burner.
Part No. 7003612

Tripod support with flat ring, fitted with a burner, suitable for "Camping Gas Internatio-nal" bottle.
Exterior Ring Ø : 140 mm.
Interior Ring Ø: 110 mm.
Part No. 7000489

BUNSEN BURNER WITH SAFETY GAS CUT OUT, NATURAL GAS

With gas and air regulator.
Designed for maximum laboratory safety.
Equipped with a flame detector that will shut off the gas supply within 20 seconds if the flame is extinguished.
Tube connection of 1/2 inch. Supplied as an accessory.
Tube Ø ext.: 11 mm. Total height: 165 mm.

Part No.	Gas type	Pressure	Nominal power	Weight Kg
7001539	natural	18 mbar	0.69 kw	1.6

ACCESSORY

Gas cable with connections, flexible coated stainless steel 100 cm long with 1/2 inch connection with quick fit and safety valve. Conforms to the UNE 60715 & BS669. Safety regulations.
Part No. 1001541

HIGH POWER BURNER

With air and gas regulators. Tube Ø ext. at its maximum diameter 21 mm. Total height 170 mm.
Part No. 7000225 Suitable for butane/propane.
Part No. 7009223 Suitable for Natural gas.

BUNSEN BURNER

With air and gas regulators.
Ø ext. tube: 11 mm. Total height: 140 mm.

Part No.	Gas type	Pressure	Nominal power
7000657	butane	28/37 mbar	0.69 kw
7000658	natural	18 mbar	0.69 kw

Tube Ø ext. : 13 mm. Total Height: 170 mm.
Compliant with Spanish Royal Decree RD 919/2006

Part No.	Gas type	Pressure	Nominal power
7000660	butane	28/37 mbar	1.14 kw
7000661	natural	18 mbar	1.14 kw

BUNSEN WITH PERMANENT PILOT FLAME

Permanent flame. Total height: 150 mm.
Part No.
1000875 For butane/propane gas (45/57 mbar).
1000876 For natura gas (18/25 mbar).

BUNSEN BURNER WITH CONICAL TUBE TECLU

With air and gas regulators.
Total height: 150 mm.

Part No.	Gas type	Pressure	Nominal power
7000663	butane	28/37 mbar	0.69 kw
7000664	natural	18 mbar	0.69 kw

BUNSEN J3000 BLUE UNIVERSAL

For Butane gas. Instant safety flame push button ignition incorporating a LOCK/ON mechanism that prevents accidental fires, Unit switches off when the users hand is removed. Regulation of flame intensity and flame color. Gas fill by a simple lighter gas fuel as used common gas lighters. Long life flint. Power by a 1.5 V battery. Flame temperature: 1300 ºC.

APPLICATIONS

Microbiology, bacteriology, dentistry and for general use where a fine hot flame is required for fast heat and fusion.
Part No. 1001134

BURNER "MICROTORCH"

APPLICATIONS:
Used for soldering, dentistry, general laboratory use. Suitable for plastic moulds, glass and metal tubes. etc. Butane gas.

Portable with a removable bench top base.
Microflame instant piezo electric start.
Flame temperature controllable to 1300 °C.
Refill using common gas lighter cartridge.
Gas capacity: 26 g.
Total time before refill: 2 hours.
Part No. 5000011

BLOW PIPES

Part No.
1000877 Butane gas.
1000878 Natural Gas.

ACCESSORIES

FLAME SPREADER BURNER HEAD

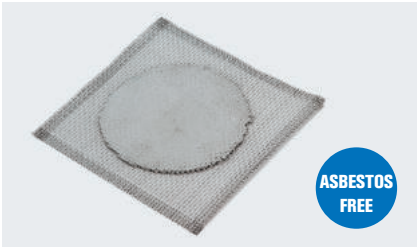
Straight form.
Stainless steel AISI 304.

Part No. 7003611 For tube of Ø 11 mm.
Part No. 7003613 For tube of Ø 13 mm.

FLAME SPREADER BURNER HEAD

Straight form.
Made of tin.

Part No. 7003612 For tube of Ø 11 mm.
Part No. 7003614 For tube of Ø 13 mm.



GAUZE IRON WIRE WITH CERAMIC FIBRE

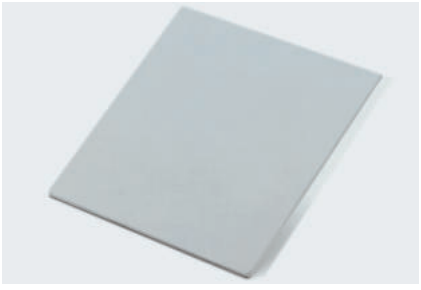
Part No.
1087102 100 mm side.
1087122 120 mm side.
1087142 140 mm side.
1087162 160 mm side.
1087182 180 mm side.
1087202 200 mm side.

TRIPOD STAND WITH RING TOP

Galvanised steel.

Part No.	Ø exterior ring	Total height
7000808	80 mm.	210 mm.
7008010	100 mm.	210 mm.
7008012	120 mm.	210 mm.

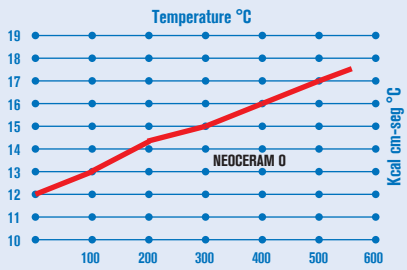
(For variable height tripods see page 174).



CERAMIC PLATES "NEOCERAM"

Resistant to temperatures from -200 °C to 700 °C.
Part No.
1000684 120 x 120 x 3 mm.
1000685 140 x 140 x 3 mm.
1000686 160 x 160 x 3 mm.

Heat transfer



Excellent heat conductor.
20% better heat transfer compared to a conventional gauze ceramic.
High chemical resistance to aggressive compounds.
Easy to clean and long lasting.

Infrared tip sterilizer “Sterilbio”

APPLICATIONS
Sterilization of culture tips, needles and small instruments. Incinerates organic material at 900 °C for 5/8 seconds.

FEATURES
Made from ceramic elements with a quality quartz tube interior.
Does not need purged oxygen and can be used in anaerobic environments.
Eliminates problems of aerosols and bacterial contamination.
Support at the side for 4 Kolle handles, needles, lancet or dissecting forceps etc.

MODEL

Part No.	Height/Width/Depth (exterior) cm			Ø/Length (tube interior) cm		Power W	Weight Kg
3000788	20	13	18	1.4	15	110	1.5

Hot Air gun “Salki 1500”
WORKING TEMPERATURE 400 °C AND 590 °C.

APPLICATIONS
Suitable for heating liquids, solids and gasses:
- Dry
- Soft solder
- Fusions
- Evaporation
- Curing adhesives
- Plastic moulds
- Softening surfaces
- Fast defrost
- Film drying R.X.
- Chromatography applications drying paper and electrophoresis.
- Heating moulds and drying dental moulds etc.

FEATURES
Industrial model with vertical angle support.
Brushless motor.
Three positions:
- Position 0 stop.
- Position I temperature 400 °C.
- Position II temperature 590 °C.

MODEL

Part No.	Temperature °C	Power W	Weight Kg
5000750	**until 590**	**1500**	**0.8**

ACCESSORIES

Shaft Ø 20 mm.
Part No. 5014415

Tube deflector.
Surface 75 mm.
Part No. 5014449

Several Instruments

DIAMOND POINT PENCIL
For glass engraving.
Part No. 1001130

TUNGSTEN SCRIBE
For glass engraving, slides, ceramics, plastic etc. Retractable tip and pocket clip.
Part No. 1001674

GLASS TUBE CUTTER
For tubes with diameters up to 30 mm.
Part No. 1000016

CORK PRESS
Model Crocodile shape.
Part No. 6000070

LABORATORY VIBRO-ENGRAVER SIGNOGRAPH-COM 25 DIAMOND
For engraving all types of glass, metal, plastic material, ceramic etc. Mains voltage 220-230 V. 50Hz. Power consumption: 25 W. Comes complete with a set of 5 engraving tips: Diamond, carbide, tempered steel and two for decorative work.
Part No. 1001129

WATER JET VACUUM PUMPS

Part No.	Material	Pressure	Pump rate	Aspiration
4000633	PVC	2 Kg	8 l/min	2.6 l/min
7000293	Metal	2 Kg	5 l/min	1 l/min
7000292	Metal	2 Kg	5 l/min	0.5 l/min

BLOW PIPE
Student model.
Total length: 250 mm.
Part No. 1000595

MORTARS WITH PESTLE
Made of grey steel. Only suitable for dry products.

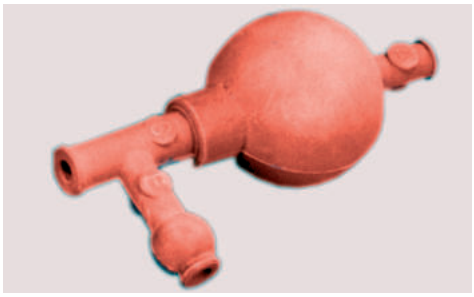
Part No.	Ø Usable	Height
1004713	130 mm	65 mm
1004715	150 mm	75 mm

CORK BORER SHARPENER
With a wooden handle, blade of tempered steel.
Part No. 7000004

CORK BORER

Electrobrite finish. Universal handle. Part No.		Electrobrite finish. Individual handle. Part No.	
7000846	6 bores.	7000856	6 bores.
7000848	8 bores.	7000858	8 bores.
7008412	12 bores.	7008512	12 bores.

MINI CORK BORER
1001332 6 bores: 4, 4.9, 5.5, 6.4, 8 and 9.5 mm Ø.



PIPETTE FILLER, RUBBER BULB.
With three glass ball valves for filling, fine adjustment and empty. Accepts pipettes from 6 to 10 mm Ø.
Part No. 1001733

RICHARDSON RUBBER BULB
With net covered decompression bulb.
For blowing out bench top automatic burettes.
Part No. 1001168

TABLE TOP MAGNIFIERS WITH ILLUMINATION

Magnifiers with high quality lenses and double lateral illumination, plastic body.

Extendable and height adjustable angle poise, 89 cm made from epoxy coated metal.

Lens size cm	Magnification	Power	Weight Kg
15 height x 19 width	3 x	2 x 9 W	3.5

Part No. 5310512 **With led**

With support base, large base with adjustable height and orientation.

Lens size cm	Magnification	Power	Weight Kg
16 height x 19 width	3 x	2 x 7 W	2.3

Part No. 5310507 **With led**

VERNIER CALLIPERS WITH DIGITAL DISPLAY DIN 862

5 digits display.
AISI 304 Stainless steel with double measuring scale.
Reproducibility: 0.01 mm or 0.0005 inches
1.5 V battery power.
Battery life: 1 year of continuous use.
Comes complete with wooden case.
Part No.

5900601	Measuring range: 0 - 150 mm or 0 - 6".
5900603	Measuring range: 0 - 300 mm or 0 - 12".

BIFOCAL AND MONOFOCAL "MAGNIFIER"

Magnifying glass bifocal "Magnifier"
Completely made of high impact plastic.

Part No.	Ø Lens	Magnification	Bifocal
5310511	75 mm	3 x	5 x
5310502	90 mm	3 x	5 x

Magnifying glass monofocal "Magnifier"
Lens made of high quality ground crystal.
Rim made from chromed steel with plastic handle.

Part No.	Ø Lens	Magnification
5310503	50 mm	2 x
5310504	75 mm	2 x
5310505	100 mm	2 x

PALMER MICROMETER WITH DIGITAL DISPLAY DIN 862

5 digits.
Measuring range: 0-25 mm or 0-1 inch. Resolution: 0.001 mm or 0.0001 inches.
Precision: 0.002 mm. 1.5 V battery power.
Battery life: 1 year of continuous use.
Comes complete with wooden case.
Part No. 5900602

AUXILIARY TABLES HEIGHT ADJUSTABLE FOR LABORATORY

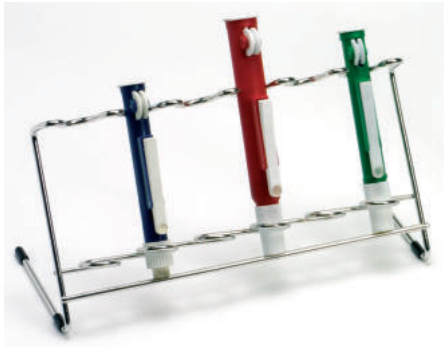
Cabinet in a corrosive resistant epoxy coated.
Supplied with 4 lockable wheels for an easy transportation and 4 suction cups for a static clamping.
Specially designed to support different laboratory instruments (Ovens, furnaces, centrifuges, etc...).
5 adjustable heights: 72, 75, 78, 81 or 84 cm.

Part No.	Measurements cm	Load Capacity Kg	Weight Kg
1001781	**75 width x 60 depth**	**120**	**25**
1001780	**100 width x 70 depth**	**150**	**29**

MEASURING RANGE

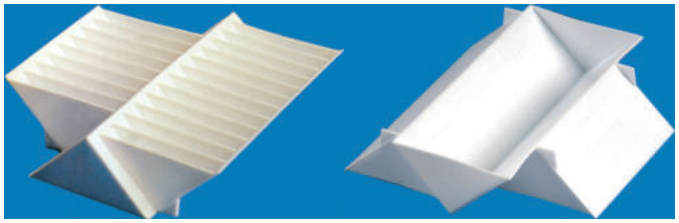
Made of polypropylene with silicon joints, for volumes up to 25 ml. Precise and safe, ergonomic design that allows filling and emptying without having to change the setting. Flexible thermoplastic seal against any type of burette. A button on the side empties the burette automatically. Easily dismantled and cleaned.

Part No.	Capacity	Identification colour
1001131	0 to 2 ml	Blue
1001132	0 to 10 ml	Green
1001133	0 to 25 ml	Red



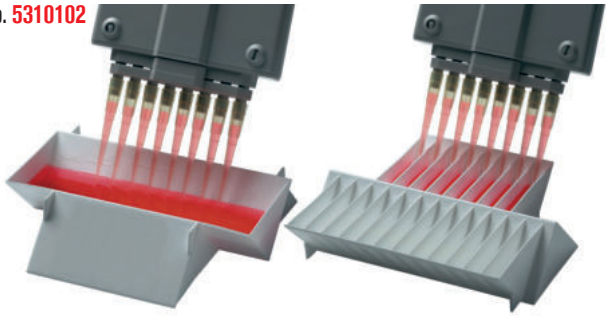
PIPETTE RACK "COM-PIP"

Made from AISI 304 stainless steel.
Capacity 6 pipettes of differing sizes.
Part No. 1001702



REVERSIBLE POLYPROPYLENE UNIVERSAL TRAY

Suitable for 8 and 12 channel micro-pipettes, 5 ml capacity per channel or 1 single capacity of 50 ml, graduated at 10-25-40 and 50 ml.
Part No. 5310102



BRUSHES "COMCEP"

Made with natural bristles. Applications:

1 - Pipettes and capillaries of 3 to 5 mm Ø. (Brush)
2 - Graduated pipettes and tubes from 5 to 10 mm Ø. (Brush)
3 - Haemolysis tubes 8 to 10 mm Ø. (Brush)
4 - Test tubes and graduated flasks of 10 to 16 mm Ø. (Brush)
5 - Burettes of 25 to 50 ml and tubes of 15 to 20 mm Ø. (Brush).
6 - Cylinders, flasks and test tubes etc. from 20 to 32 mm Ø. (Fan Brush).
7 - Erlenmeyer flasks, test tubes, flasks etc. from 25 to 45 mm Ø. (Fan Brush).
8 - Flasks, Erlenmeyer flasks and test tubes etc. 35 to 80 mm Ø. (Fan Brush).
9 - Beakers cylinders and Erlenmeyers etc. from 50 to 100 mm Ø. (Brush).
10 - Test tubes of 16 to 25 mm Ø. (Brush).
11 - Test tubes of 16 to 25 mm Ø. (Fan Brush).
12 - Flasks, round bottom flasks of 0 to 100 mm Ø.
13 - Beakers of 50 to 250 mm Ø. (brush with handle).

Part No.	Style	Bristle mm		Length total	Bristle
		Ø	lenght	mm	type
1001143	1	4	90	400	Goat hair
1001144	2	10	100	700	Goat hair
1001145	3	10	90	240	Pig bristle
1001146	4	15	100	320	Pig bristle
1001147	5	25	100	700	Pig bristle
1001148	6	30	100	300	Pig bristle
1001149	7	35	100	440	Pig bristle
1001150	8	55	100	440	Horse hair
1001151	9	80	130	700	Horse hair
1001333	10	25	130	350	Pig bristle
1001334	11	25	100	320	Pig bristle
1001335	12	110	450	450	Nylon
1001336	13	40	250	400	Nylon

POLYCARBONATE CONICAL FLASKS

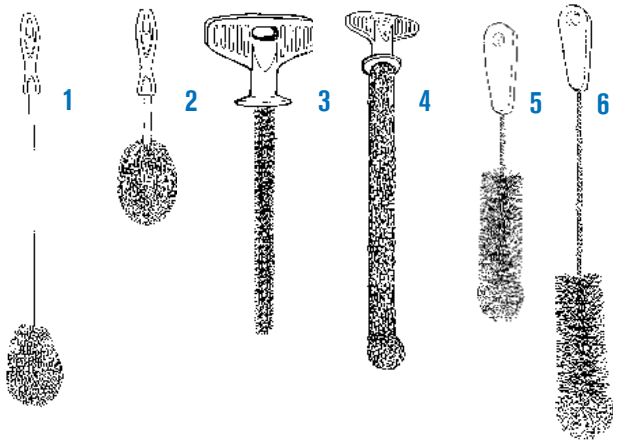
DURABLE,
CAPACITY 250 ml

Rigid, transparent, autoclavable, unbreakable, reusable.
Density: 1.20 g/ml.
Temperature resistance from -135 °C to +135 °C.
Excellent chemical resistance including acids. Exceptions chemical that attack polycarbonate. Two models with or without screw-top, PP caps included.

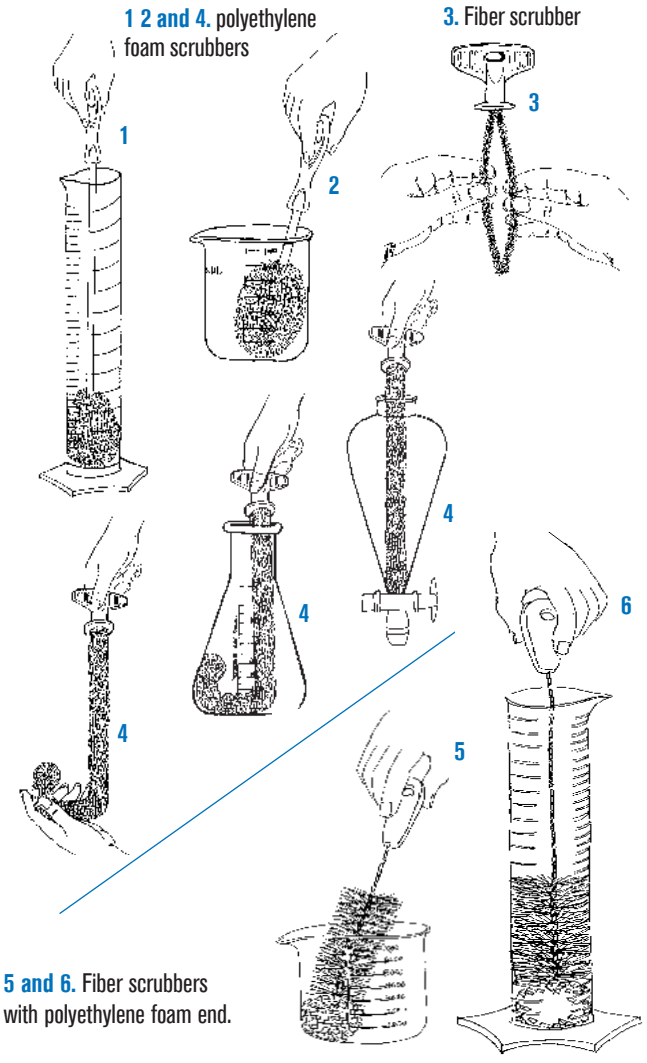
Part No.	Capacity ml	PP cap	Specific weight
5310101	250	Yes	1.2

Laboratory sponges and fiber scrubbers

Features
Designed specially for cleaning plastic and glass items.
Made from polyethylene foam that is durable and long lasting (20 times more than a sponge or brush.) Do not absorb water, easily cleaned with hot or cold water.



Examples of sponge uses



Models

1. Used for all types of tubes and cylinders such as: test tubes distillation tubes, thermal flasks, cryogenic vessels, measuring cylinders etc.

Nº	Part No.	Sponge width mm	Sponge length mm	Total length mm
1	1001435	70	100	480

2. Used for cleaning short vessels such as: jars, beakers, etc.

Nº	Part No.	Sponge width mm	Sponge length mm	Total length mm
2	1001436	70	100	250

3. Scrubber suitable for all types of assay tube up to 25 mm Ø. Adjustable width.

Nº	Part No.	Sponge width mm	Sponge length mm	Total length mm
3	1001437	22	170	220

4. Suitable for all types of tubes and vessels including Conical flasks, etc. Very flexible, can be used in vessels with small necks, such as separating funnels, by simply pressing down the scrubber that is sufficiently flexible to take the internal shape and also be easily extracted.

Nº	Part No.	Sponge width mm	Sponge length mm	Total length mm
4	1001438	20	380	440

5. Fiber scrubber with brush polyethylene at the end, suitable for cleaning flasks, culture jars and vessels in general.

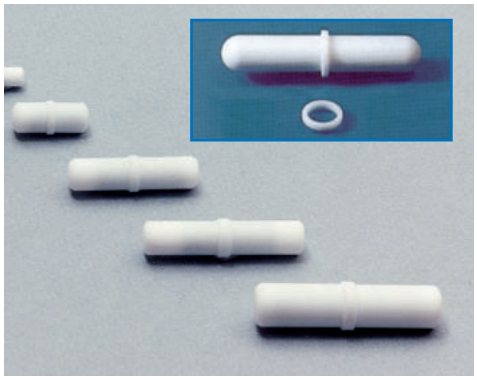
Nº	Part No.	Sponge width mm	Sponge length mm	Total length mm
5	1001439	50	140	300

6. Fiber scrubber with brush polyethylene at the end, suitable for any kind of vessels cleaning, test-tubes, culture jars and flasks in general.

Nº	Part No.	Sponge width mm	Sponge length mm	Total length mm
6	1001440	50	180	500

Stirrer bars and propellers

TO CHOOSE THE CORRECT STIRRER BAR: THE LENGTH SHOULD BE APPROX. 2/3 OF THE DIAMETER OF THE VESSEL BEING USED.



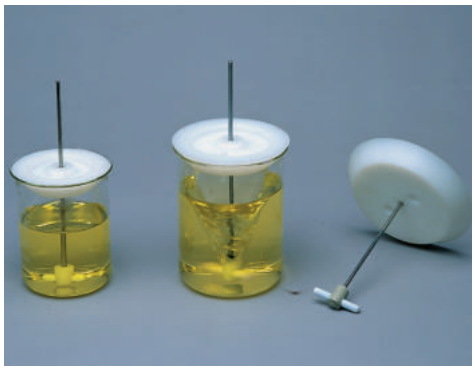
STIR-BARS FOLLOWERS FOR MAGNETIC STIRRERS.

Encased in PTFE with pivot ring, temperature resistant to +275 °C.

Part No.

1000009	6 Ø x 10 mm long	without pivot ring.
1000012	4 Ø x 12 mm long	without pivot ring.
1000019	7 Ø x 20 mm long	with pivot ring.
1000032	8 Ø x 32 mm long	with pivot ring.
1000039	8 Ø x 40 mm long	with pivot ring.
1000045	10 Ø x 45 mm long	with pivot ring.
1001061*	12 Ø x 75 mm long	with pivot ring.
1001062*	16 Ø x102 mm long	with pivot ring.
1001063*	16 Ø x127 mm long	with pivot ring.
1001064*	19 Ø x150 mm long	with pivot ring.

* With pivot ring for large volumes.



CONCENTRIC STIR-BAR WITH BEAKER COVER "CENTRIMAN"

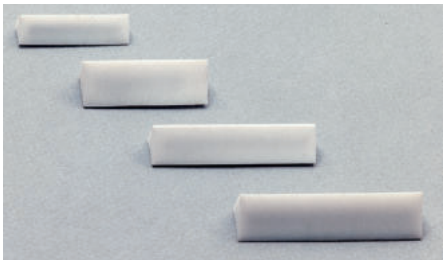
Encased in PTFE with an adjustable axis bar made of AISI 304 stainless steel. Suitable for applications with volumes of 100 to 2000 ml.

Soft start stirring and adjustable height prevents the stir-bar jumping inside the vessel.

Conical fitting lid of polypropylene with excellent chemical and thermal properties that resists temperatures up to 160 °C. The lid has an auto-lubricating central axis hole with two lateral air displacement holes.

Part No.

1000900	Concentric stir-bar with conical fitting lid for beakers volumes of 100 ml to 500 ml. Length 32 mm.
1000901	Beaker capacities of 500 ml up to 1000 ml. Stir-bar length 50 mm.
1000902	Beaker volumes of 1000 ml up to 2000 ml. Stir-bar length 55 mm.



TRIANGULAR STIR-BAR "TRIMAG"

Encased in heat resistant PTFE of temperatures up to 275 °C. useful for "dissolving solids" and stirring silts. Liquids flow upwards as well as sideways. Quiet with excellent stability. Suitable for flat bottomed vessels.

Part No.

1000536	9 side x 35 mm long.
1000538	12 side x 50 mm long.
1000537	14 side x 40 mm long.
1000539	14 side x 55 mm long.

STARHEAD STIR BAR

Circular, encased in heat resistant PTFE for temperatures up to 275 °C. Useful for tubes,matrix flasks and round bottom vessels.

Part No.

1000790	25 Ø x 15 mm high.
1000791	40 Ø x 17 mm high.

BOX OF 17 ASSORTED STIR BARS

Box with 17 assorted stir-bars encased in temperature resistant PTFE for temperatures up to 275 °C.

Contents:

1 stir-bar with pivot ring 6x10 mm.
1 stir-bar with pivot ring 4 x12 mm.
1 stir-bar with pivot ring 7x20 mm.
2 stir-bars with pivot ring 8x32 mm.
2 stir-bars with pivot ring 8x40 mm.
2 stir-bars with pivot ring 10x45 mm.
1 triangular stir-bar of 9x35 mm.
1 triangular stir-bar of 14x40 mm.
1 triangular stir-bar of 12x50 mm.
1 triangular stir-bar of 14x55 mm.
1 stir-bar Rotor-Pat of 11x35 mm.
1 oval stir-bar of 16x30 mm.
1 oval stir-bar of 20x40 mm.
1 star head stir-bar of 20x15 mm.
1 star head stir-bar of 40x17 mm.

Part No. 1000487

STIR BAR "ROTOR-PAT"

Encased in PTFE useable up to temperatures of 275 °C.

Excellent stability with strong vortexing turbulence, useful for round bottom or convex bottom flasks.

Part No.

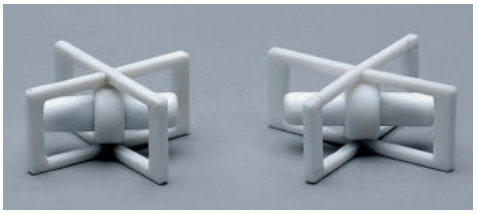
1000001 10 Ø max. x 32 mm long.

OVAL STIR-BARS

Encased in PTFE for temperatures up to 275 °C. Can be used in all types of vessel and recommended for round bottom flasks.

Part No.

1000788	16 Ø x 30 mm long.
1000789	20 Ø x 40 mm long.



FLOATING MAGNETIC STIR-BAR "IMANFLOTER"

Encased completely in PTFE. Dismountable structure, autoclavable. Designed specifically for low constant speed stirring. Recommended for tissue culture applications.

The floating conception of the Imamfloter minimises the grinding effect of cell damage as there is no friction on the bottom of the flask.

Medium speed levels prevent the IMANFLOTER from jumping within the vessel.

Part No.	Total length	Stir bar length
1000897	50 mm.	39 mm.
1000898	60 mm.	45 mm.

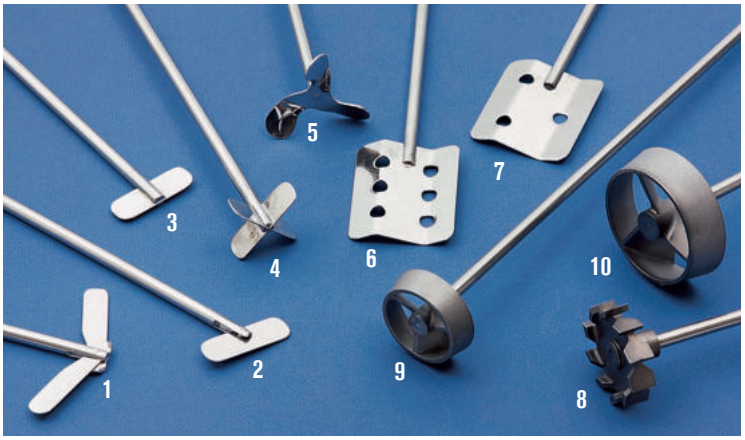
STIR-BAR RETRIEVER

Flexible, encased in PTFE.

Part No.

1000020 Length: 280 mm.

OVERHEAD STIRRER ACCESSORIES "RZR"



STIRRING SHAFTS WITH ROTORS

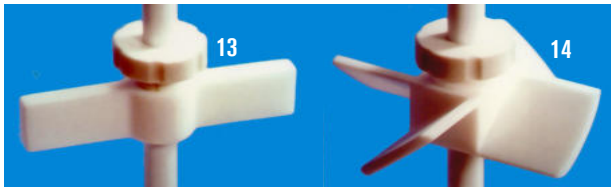
Shaft with AISI 304 stainless steel rotor. Shaft: 7mm Ø.

Part No.	Rotor type	Ø shaft mm	Total length mm	Features
6002891	1	90	400	Double fly vane
6002892	2	60	400	Fly vane
6002893	3	50	400	Fixed blade
6002894	4	50	400	Double cross vane
6002895	5	58	400	Helix
6002896	6	70	450	Six hole paddle
6002897	7	70	450	Three hole paddle
5050921	8	46	400	Radial turbine
5050932	9	45	400	Turbo helix 45 mm Ø
5050933	10	66	400	Turbo helix 66 mm Ø

SHAFTS WITH PTFE PADDLES

Shaft of 8 mm Ø.

Part No.	Rotor type	Ø shaft mm	Total Length mm	Features	Speed range r.p.m.
5050934	11	50	500	Helix PTFE	500
5050935	12	80	500	Anchor PTFE	500

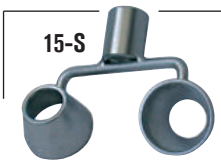


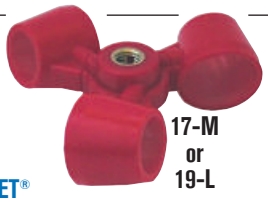
ADJUSTABLE HEIGHT SHAFT STIRRERS

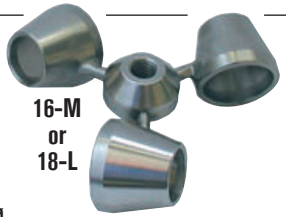
Shafts made of AISI 304 stainless steel coated in PTFE and PTFE stirrer paddles. Shaft: 7 mm Ø. Adjustable height paddles using a locking thread.

Can be used with differing paddles on the same shaft to create a multiple mixing action.

Part No.	Rotor type	Ø shaft mm	Total Length mm	Features
5050936	13	70	400	Shaft PTFE
5050937	14	40	400	Helix PTFE
5050938	**Shaft PTFE** Spare or additional paddle for multiple stir effect			
5050939	**Helix PTFE** Spare or additional paddle for multiple stir effect			







SHAFTS WITH ROTORS VISCO-JET®

- Shafts with rotors made from AISI 316Cb stainless steel. Shaft: 10 mm Ø.
- Shaft made from AISI 316Cb stainless steel with POM plastic rotor. Shaft: 10 mm Ø.

Part No.	Rotor type	Ø shaft mm	Total Length mm	Features	Speed range r.p.m.
5050950	15-S	60	500	Doble cone-S Stainless	200 - 800
5050951	16-M	80	500	Triple cone-M Stainless	200 - 700
5050952	17-M	80	500	Triple cone-M Plastic	200 - 700
5050953	18-L	120	500	Triple cone-L Stainless	120 - 500
5050954	19-L	120	500	Triple cone-L Plastic	120 - 500

VISCO-JET®

A suitable system for all types of stirring.

Dynamic stirring with turbulent flow on vessel walls and bottom.

Homogenised liquids and fluids of low viscosity.

The fluid is aspirated by the widest part of the cone and is expulsed by acceleration from the smaller Ø, creating in the middle a turbulent effect; prevents the formation of foam, clots, aeration and heating up of the sample, degasses the medium being stirred.

Reduces the vortex formed, for short stir periods.

Graphic effect of the incident fluid flow using differing paddle forms: paddle, helix, turbine and conical Visco-Jet®

Rotor Type 5 9 10 11 14

Axial flow, diagram showing the agitation flow. Representative of rotors with blades angles of 90° in relation to the stirring axis. (Rotor type; Helix).

Rotor Type 1 2 3 4 6 7 12 13

Radial flow, diagram showing the agitation within the liquid medium. Representative of rotors such as paddles and anchors that run parallel to the stirring axis

Rotor Type 8

Radial flow, diagram showing the agitation within the liquid. Representative of radial turbine rotors that run parallel to the stirring axis.

Rotor Type Visco-Jet® 15 16 17 18 19

Dynamic radial flow, diagram showing the principal of agitation through a cone within the liquid. Representative of the Visco-Jet®. Rotors. Excellent results for minimum power consumption.

COMECTA Graduated jars

FEATURES

Graduated and stackable jars. Made of natural colour transparent polypropylene. Graduation in liters and ml. Resistant to chemical products as well as high temperatures (121 ºC for 20 minutes)

MODELS

Part No.	Capacity ml
8000028	500
8000025	1000
8000026	2000
8000027	3000

COMECTA Frasco lavador

FEATURES

Bottles made of translucent polyethylene of natural colour, with lid and outlet tube of different colours to choose. Wide neck for an easy filling. Capacity of 500ml and numerical graduation every 100ml..

MODELS

Part No.	Colour	Capacity ml
5113640	Neutral	500
5113641	Red	500
5113644	Blue	500
5113646	Yellow	500

10 units are supplied.

Self-sealing parafilm ® M

PARAFILM ® Dispenser

APPLICATIONS

Parafilm ® M, is ideal for laboratories because it is a thermoplastic, self-sealing film that enables to cling even to irregular surfaces, culture tubes, flasks, Erlenmeyers, bottles, Petri capsules and any kind of recipients with an adequate sealing, protected against moisture loss, spillage, pollution or evaporation.

FEATURES

Parafilm ® M, is a translucent waxy polyethylene film of 127µm width which slowly stretches to about three or four times its original length.

PROPERTIES

It is resistant to acids, gases and alkaline solutions as well as methanol and many common reagents. It resists operating temperatures from -45 ºC to 50ºC. It can be sterilized by using radiation techniques as hydrogen peroxide.

MODELS

Part No.	Roll width mm.	Roll length m.
1012201	50	75
1012202	100	38
1012203	100	75

ACCESSORIES

Paraffin dispenser ® made of blue ABS plastic for 50 and 100 mm. width Parafilm® rolls, with built-in cutter
Capacity: One or two 50 mm. rolls or one 100 mm. roll.
Part No: 1012200

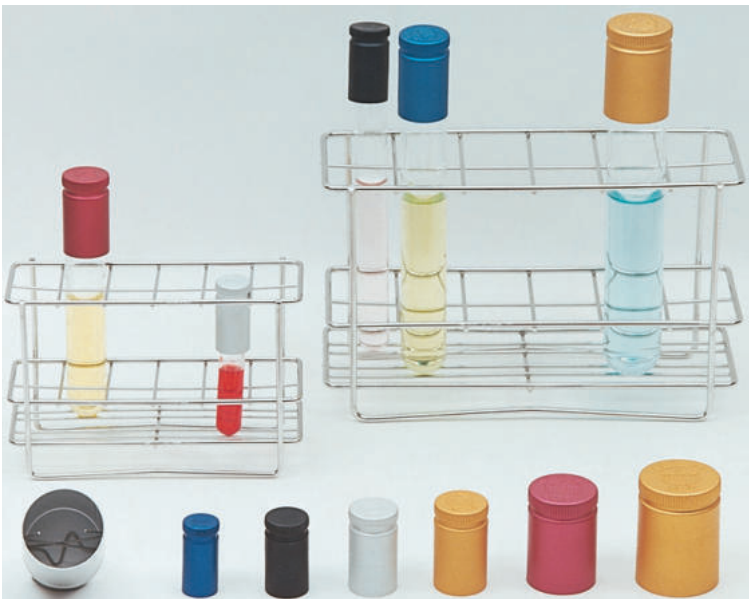
Sterile stoppers

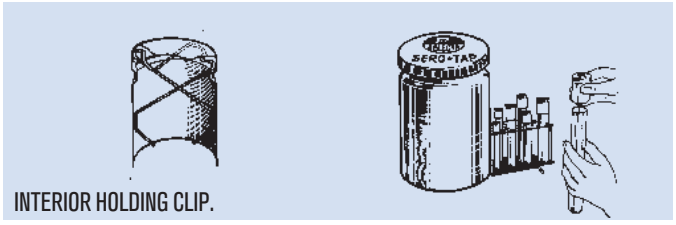
Features
Designed for microbiology and cell culture applications.
Made from very flexible cellulose, tapered to fit most sizes of: Erlenmeyer, matrix flasks and tubes.
Sterile to 200 °C.
Permeable to air.
Transpirable.
Hermetically adjustable by pressing on the top of the glass vessel.

RANGE OF SIZES
For Ø of 9 to 11.5 mm. Part No. 1001478
For Ø of 12.5 to 14.5 mm. Part No. 1001479
For Ø of 13.5 to 15.5 mm. Part No. 1001480
For Ø of 17.5 to 18.5 mm. Part No. 1001481
For Ø of 18 to 22 mm. Part No. 1001482
For Ø of 25 to 27 mm. Part No. 1001483
For Ø of 28 to 31 mm. Part No. 1001484
For Ø of 31 to 35 mm. Part No. 1001485
For Ø of 36 to 42 mm. Part No. 1001486
For Ø of 44 to 48 mm. Part No. 1001487

Caps for biological culture tubes “Sero-Tap”

Made of anodised aluminium with internal AISI 304 stainless steel spring inside the cap.
Not hermetically sealed. Autoclavable at 1 bar.





INTERIOR HOLDING CLIP.

Made of anodised aluminium with internal AISI 304 stainless steel spring inside the cap. Not hermetically sealed. Autoclavable at 1 bar.

Part No.	For tubes Ø 12 - 13 mm	Part No.	For tubes Ø 19 - 20 mm
1012131	Colour Blue	1019201	Colour Blue
1012132	Colour Silver	1019202	Colour Silver
1012133	Colour Gold	1019203	Colour Gold
1012134	Colour Garnet	1019204	Colour Garnet
1012135	Colour Black	1019205	Colour Black
Part No.	**For tubes Ø 14 - 16 mm**	**Part No.**	**For tubes Ø 24 - 26 mm**
1015161	Colour Blue	1024261	Colour Blue
1015162	Colour Silver	1024262	Colour Silver
1015163	Colour Gold	1024263	Colour Gold
1015164	Colour Garnet	1024264	Colour Garnet
1015165	Colour Black	1024265	Colour Black
Part No.	**For tubes Ø 17 - 18 mm**	**Part No.**	**For tubes Ø 28 - 30 mm**
1017181	Colour Blue	1028301	Colour Blue
1017182	Colour Silver	1028302	Colour Silver
1017183	Colour Gold	1028303	Colour Gold
1017184	Colour Garnet	1028304	Colour Garnet
1017185	Colour Black	1028305	Colour Black

POLYPROPYLENE TOPS FOR CULTURE TUBES "BACTI-CAPS"

General features:
Adaptable to the tubes by three flexible internal flaps that hold onto the edge of the tube, not a hermetic seal, for minimal sample evaporation.
Highly resistant to culture media, acids, alkalis, alcohol and ether.
Easy to clean, can be sterilized at 121 °C (1 atm, vapour pressure).
Not suitable for dry sterilization.
Come in 5 colours:
YELLOW, BLUE, WHITE, RED and GREEN.

Part No.	For tube Ø 12 - 13 mm
5726013	Yellow Colour
5726113	Blue Colour
5726213	White Colour
5726413	Red Colour
5726513	Green Colour

Packet of 100 units.

Part No.	For tube Ø 15 - 16 mm
5726016	Yellow Colour
5726116	Blue Colour
5726216	White Colour
5726416	Red Colour
5726516	Green Colour

Packet of 100 units.

Part No.	For tube Ø 18 - 19 mm
5726019	Yellow Colour
5726119	Blue Colour
5726219	White Colour
5726419	Red Colour
5726519	Green Colour

Packet of 100 units.

Part No.	For tube Ø 24 - 25 mm
5726025	Yellow Colour
5726125	Blue Colour
5726225	White Colour
5726425	Red Colour
5726525	Green Colour

Packet of 100 units.

Part No.	For tube Ø 37 - 38 mm
5726238	White Colour

Boxes of 25 units

WEIGHING BOATS "ACCU-WEIGH"

Anti-static, Suitable for weighing with reproducible tare weight.
Free from contaminants, Wide range of sizes.

General features:
Made from high impact polystyrene with a flat base, round edge, smooth surface, contamination free and hydrophilic.
Flexible and easy to manipulate, suitable for liquids and solids.
Supplied in two forms:
- Diamond, black or white colours.
- Rectangular, white colour.

Part No.	Shape	Capacity ml	External dimensions mm Height	Width	Depth	Weight g	Colour	Quantity
5726004	Diamond	5	3.8	31	54	0.25	White	100 units
5726005	Diamond	5	3.8	31	54	0.25	Black	100 units
5726006	Diamond	30	13.5	55	85	1.00	White	100 units
5726007	Diamond	30	13.5	55	85	1.00	Black	100 units
5726008	Diamond	100	20	92	132	2.6	White	100 units
5726009	Diamond	100	20	92	132	2.6	Black	100 units
5726010	Rectangular	7	8.5	44	44	0.65	White	100 units
5726011	Rectangular	100	24	80	80	2.2	White	100 units
5726012	Rectangular	250	24	134	134	6.1	White	100 units

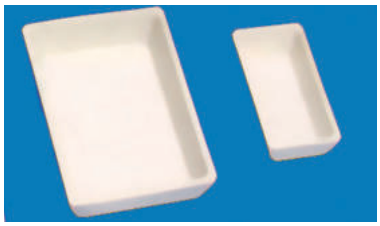
ALUMINIUM DISHES

Pressed with crenulated edge.
No static.
Withstands temperatures up to 450 °C.
Can be used as a lid by mounting one on top of another.
Ideal for sample testing of solids, humidity, mixtures of emulsions and moisture determinations by weight loss.
Suitable use as a weighing boat, cooling or evaporation of samples.
Single use and disposable.

Part No.	Thickness mm	Height. / Ø (usable) mm		Quantity
5726000	0,2	5	42	packet of 112 units
5726001	0,2	10	57	packet of 110 units

COMECTA Porcelain

GLAZED PORCELAIN, RESISTANT TO THERMAL SHOCK UP TO 1050 °C.
BETTER CHEMICAL AND ACID RESISTANCE COMPARED TO GLASS.
INCOMPATIBLE WITH HYDROFLUORIC ACID AND ALKALI SALTS.



GLAZED PORCELAIN TRAYS

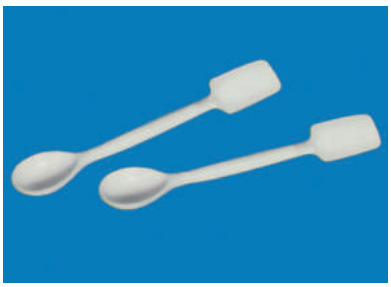
Part No.	Height mm	Length mm	Base length mm	Width mm	Base width mm
5310001	15	50	42	28	17
5310002	15	60	52	30	20
5310003	18	87	80	60	50
5310004	18	120	110	60	45

GLAZED PORCELAIN EVAPORATION BASINS, ROUND BOTTOM WITH SPOUT

Part No.	Capacity ml	Length mm	Ø exterior mm
5310005	35	25	60
5310006	60	30	74
5310007	100	35	90
5310008	300	52	126
5310009	500	58	168

FLAT BOTTOM CRUCIBLE WITH HANDLE AND SPOUT

Part No.	Capacity ml	Height mm	Ø Top mm	Ø Bottom mm
5310010	50	34	60	36
5310011	100	45	80	52
5310012	200	52	96	56
5310013	300	62	110	66
5310014	500	70	132	80



SPATULA SPOON GLAZED

Part No.	Total Length mm
5310022	140

CRUCIBLES MEDIUM HEIGHT WITH GLAZED LIDS

Part No.	Capacity ml	Height mm	Ø Bottom mm	Ø Top mm
5310015	15	30	21	35
5310016	25	36	23	40
5310017	50	46	30	53
5310018	100	57	34	63

CRUCIBLES, LOW FORM WITH LIDS, GLAZED

Part No.	Capacity ml	Height mm	Ø Bottom mm	Ø Top mm
5310019	15	23	19	43
5310020	25	27	24	47
5310021	50	38	28	59

MORTAR AND PESTLE, WITH SPOUT, UNGLAZED INTERIOR AND PESTLE

Part No.	Capacity ml	Length mm	Ø Bottom mm	Ø superior mm	Handle length mm	Ø Pestle mm
5310023	100	45	60	100	110	30
5310024	300	62	80	130	140	37
5310025	500	74	90	160	170	42
5310026	1000	90	114	216	200	48

COMBUSTION BOATS, UNGLAZED

Part No.	Height mm	Width mm	Depth Width mm	Exterior length ml
5310027	10	15	9	95

AGATE MORTAR AND PESTLE

Suitable for grinding and mixing, medium and hard substances.
Very resistant to abrasions and contamination.
Hardness: 7 Mohs scale.
Compression resistance: 110 Kg/mm^2
Breaking resistance: 210 Kg/mm^2
Mortar and pestle polished externally and internally.

Models Part No.	Capacity ml	Ø / Base (interior) mm		Dimensions (exterior) mm
5310029	15	45	11	60
5310030	30	65	16	80
5310031	70	80	24	100
5310032	140	100	30	120

SPARES

Pestle

Part No.	For Mortar Part No.	Handle length mm
5310033	5310029	77
5310034	5310030	95
5310035	5310031	100
5310036	5310032	130

GREY IRON MORTAR WITH PESTLE

In grey iron.

Part No.	Ø usable	Height
1004713	130 mm	65 mm
1004715	150 mm	75 mm

COMECTA Sealer “305-C”

FEATURES

Sealer for any type of thermo-plastic material up to 0.4 mm thickness.
Easy to use: Pressure and release.
Manual cutting by slip cutting edge.
Energy saving system by a micro-switch, activated only when the sealing arm is in place.
Heat impulse for only 0.2 to 1.3 seconds.
Time controll according to the thickness of plastics to be seal.
A LED and audible beep are activated when the seal is complete.

MODEL

Part No.	Seal Width mm	Maximum seal length mm	Maximum plastic thickness mm	Seal time seconds	Height / Width / Depth (exterior) cm	Power W	Weight Kg
5800042	5	300	0.4	of 0.2 to 1.3	19 48 8.2	1100	5.2

Supplied complete with 2 heaters, 2 PTFE heater covers and cutting blade.

ADDITIONAL SPARES: Maintenance kit 305-C: 2 heaters, 2 PTFE heater covers and cutting blade Part No. Part No. 5800044

COMECTA Sealer “455”

HIGH THROUGHPUT SEALER.

FEATURES

Ideal for large size samples.
Sealer for any type of thermo-plastic material up to 0.8 mm thickness.
Easy to use by pressing a foot pedal which enables to have the hands free in order to manipulate the bag.
Includes a platform of 45 cm wide x 12 cm depth to support the sample. This platform is adjustable in height up to 19.5 mm to adapt different volumes.
Energy saving system by a micro-switch, activated only when the sealing arm is in place.
Heat impulse for only 0.2 to 2.2 seconds.
Time controll according to the thickness of plastics to be seal.
A LED and audible beep are activated when the seal is complete.
Replaceable PTFE anti stick coated heaters.
The pressure of the pedal can be adjusted.
Includes a recoil mains cable at the back of the unit.
All metal robust construction.
Adjustable base level.

MODEL

Part No.	Seal Width mm	Maximum seal length mm	Maximum plastic thickness mm	Seal time, seconds	Height / Width / Depth (exterior) cm	Power W	Weight Kg
5800047	5	450	0.8	of 0.2 to 2.2	90 54 38	1000	29

Supplied complete with 2 heaters and a fuse.

ADDITIONAL SPARES: Maintenance kit 455: 2 heaters and fuse. Part No. 5800049

COMECTA Portable sealer “150-C”

Bench top sealer.

Manual sealer.

FEATURES

Plastic sealer, PE, PP and thermoplastic material such as cellophane, Aluminium covered paper and craft paper up to 0.6 mm thickness.
Easy to use pressure clamp.
Parallel seal for both sides of the bag.
Superior heaters covered in PTFE that produces a parallel hermetic seal.
Two temperature selection switch 120 °C and 180 °C

MODEL

Part No.	Seal Width mm	Maximum seal length mm	Maximum plastic thickness mm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
5800038	14	150	0.6	9 17 18	50	0.6

Vacuum sealer “Sealcom-V”

OPTIMUM QUALITY SEAL AND PRESERVATION.
SUITABLE FOR SEALING SOLIDS AND LIQUIDS.

APPLICATIONS

Vacuum seal for any type of thermoplastic material: polyethylene, polypropylene, polyester, aluminium etc. Ideal for sealing solids, liquids, powders, granules, seeds, fruit, food, medical apparatus, forensics, chemical products, sludge samples, mud, cores, etc. Prevents the oxidation, mould and decomposition. Prolongs the quality, durability and freshness of items to be stored.

FEATURES

Bench top. Stainless steel AISI 304 robust construction with transparent lid.
Easy to use and program. After closing the door the complete process is automatic.
Operates using a oil vacuum pump (type AV-30 or N32).

CONTROL PANEL

Vacuum gauge with scale 0 to -0.1 Mpa.
Sealer temperature adjustment, high, medium or low.
Push button emergency stop.
LED indicator of operation.
Digital selection and display of the following parameters:
- Vacuum time 0-99 seconds.
- Seal time 0 to 9.9 seconds
- Discharge time 0 to 9.9 seconds

MODEL	Part No.	Seal Width mm	Max. seal length mm	Pump rate m^3/h	Vacuum limit Mpa	Height / Width / Depth (usable) cm	Height / Width / Depth o (exterior) cm	Power W	Weight Kg
SEALCOM-V	4100050	10	260	10	-0.1	5 28 39	36 35 52	370	35

Supplied with a maintenance kit that includes 2 heaters, 3 PTFE heater covers. 1 lid seal and a 250 ml bottle of oil.

ADDITIONAL SPARES
Maintenance kit for Sealcom-V: 2 heaters, 3 PTFE heater covers. 1 lid seal. Part No. 4100051
Vacuum pump oil: 1 litre bottle (Type AV-30). Part No. 4100052

Bag sealer “S-400-B”

SUITABLE FOR POLYPROPYLENE-POLYESTER STERILIZING BAGS WITH A PAPER BASE.

FEATURES

Metal epoxy covered case.
Pressure sealer. Manual cut.

CONTROL PANELS

Illuminated mains switch.
Lamp “ON” when the thermostat has reached the pre-set working temperature.

MODEL

Part No.	Seal Width mm	Maximum seal length mm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4100047	12	300	12 35 21	100	4,8

SEALING MACHINE ACCESSORIES

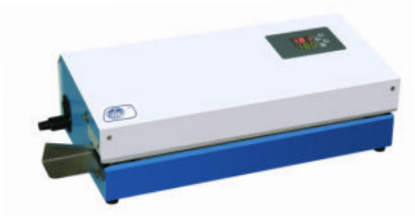
Rolls of paper for sterilisation “Polisteril”

Paper base polypropylene and polyester bags showing differing ink prints of sterilized items.

Part No.	Bag width cm	Bag length m
4100075	7,5	100
4100100	10	100
4100200	20	100

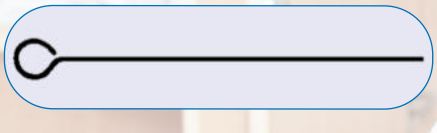
SEE A FULL RANGE OF BAG SEALERS FOR STERILIZATION AND ACCESSORIES ON PAGE 68 AND 69

Automatic bag sealer
“Seal-Com 2”. Part No: 4100044



Bag sealer
“Seal-1000”. Part No: 4101712

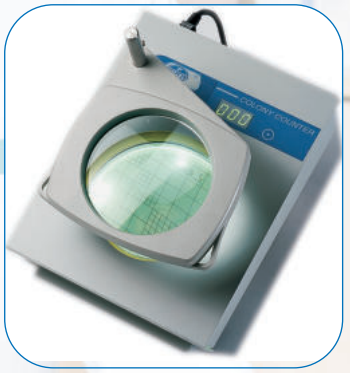
INSTRUMENTS FOR BIOLOGY AND HISTOLOGY



HANDLES FOR KOLLE RODS
In iridiated platinum

PIPETTE DISPENSERS AND AUTOMATIC DISPENSERS

KOLLE MANDLES LOOPS
Infrared sterilizers.



COLONY COUNTERS

LABORATORY LIGHT

PARAFFIN WAX FLOATING BATHS

RECTANGULAR HOTPLATE "PLACFIN"

Instruments for dissection and slide boxes	**pages**	**213 to 216**
Magnifier screen	**page**	**216**
Hand microtome	**page**	**216**
Wax dispenser and paraffin wax floating	**page**	**217**
Cooling plates and baths	**pages**	**217 to 219**
Stackable anatomy - Histology	**page**	**219**
Dispensing pipettes	**pages**	**220 to 222**
Digital counter for blood and colony counter	**page**	**224**
Ultraviolet sterilizer and colony counter	**page**	**225**

"Work is the law of life, and to reject it as boredom is to submit to it as torment."
Victor Hugo

LABORATORY SCISSORS

Made of AISI 410 stainless steel.

1 Scissors universal "Multi purpose" with a serrated/notched blade.
Suitable for cutting hard plastic, cardboard and soft wire etc.
Part No. 1001468 Cut length 50 mm. Total length 180 mm.

2 Large laboratory scissors.
Part No. 1001469 Cut length 100 mm. Total length 250 mm.

3 Multipurpose straight scissors, general use and bandages.
Part No. 1001470 Cut length 50 mm. Total length 140 mm.

4 Multipurpose scissors, general use and bandages.
Part No. 1000806 Cut length 40 mm. Total length 145 mm.

5 Dissection scissors.
Part No. 1000807 Cut length 35 mm. Total length 125 mm.

6 Mini dissection scissors.
Part No. 1001471 Cut length 25 mm. Total length 110 mm.

7 Flat scissors with serrated safety lock, ideal for laminates, negatives and chromatography.
Part No. 1001472 Flat length 40 mm. Total length 160 mm.

DISSECTION NEEDLES

Plastic handled, AISI 304 stainless steel needle.

Part No.	Point	Total length
1000431	Lancet	140 mm
1000275	Fine	140 mm

DISSECTION NEEDLES

Hexagonal metallic handle with a AISI 304 stainless steel needle.

Part No.	Point	Total length
1001359	Lancet	40 mm
1001360	Fine	140 mm

SCALPEL HANDLE No. 4

Made of AISI 304 stainless steel, comes with three sterile blades No. 20, 22 and 23.
Part No. 1001361
Spares:
Part No.
1001362 10 sterile blades nº 20
1001363 10 sterile blades nº 22
1001364 10 sterile blades nº 23

ANATOMY SCALPEL

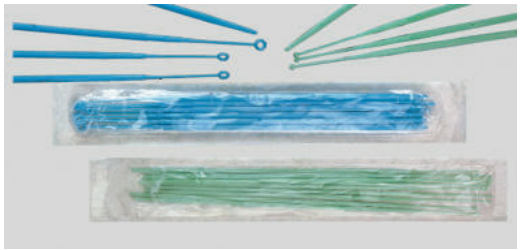
Made of AISI 304 stainless steel.
Blade length: 35 mm.
Part No. 1000809

FORCEPS RING SHAPED TIP

AISI 304 stainless steel forceps for picking up swabs and textiles etc.
Part No. 1001192

DISSECTION KIT

Model Student.
Contains: 1 fine point probe, 1 lancet probe, 1 blunt end forceps, 1 fine tip forceps, 1 scalpel handle nº 4, 3 sterile blades for scalpel handle nº 4, 1 scissors, 1 magni-fying glass, 1 style probe, 1 scalpel.
Part No. 1001365



STERILE CULTURE LOOPS

Disposable flexible polystyrene culture handle, one loop and one pointed end.

Part No.	Capacity	Colour	internal loop Ø	In packets of
1000866	1 µl	green	1 mm	20 units
1000867	10 µl	blue	4 mm	20 unts

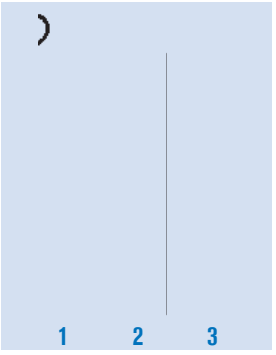
DISSECTING FORCEPS AND GENERAL LABORATORY USE

Made of AISI 304 stainless steel with electro-bright finish.

Type	Description	Total length	Part No.
1	**Dissecting Straight forceps round tips**	140 mm	1000580
2	**Dissecting Straight forceps fine tips**	140 mm	1000801
3	**Dissecting curved forceps round tips**	140 mm	1000865
4	**Dissecting curved forceps fine tips**	140 mm	1000864
5	**Sprung straight forceps with curved fine tips** with wood laminate sides	160 mm	1001190
6	**Forceps straight serrated fine point,** with wood laminate sides.	160 mm	1001189
7	**Laboratory forceps curved point**	160 mm	6000128
8	**Laboratory forceps fine point**	120 mm	1001191

KOLLE HANDLES

Nickel metal handle with loop end of Ni-Cr.
Handle length: 43 mm. Internal loop Ø: 3 mm.
Part No.
1000033 ABS handle. Handle length: 200 mm.
1000488 "Pasteur", with metal handle. Handle length: 290 mm.



1. CULTURE LOOP FOR KOLLE HANDLE

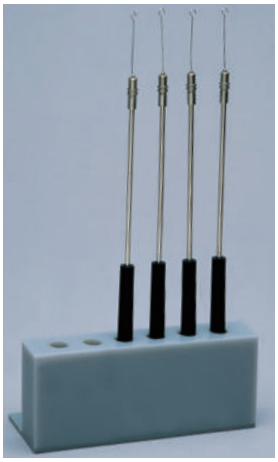
Loop end.
Handle length: 43 mm. Loop Ø: 3 mm.
Part No.
1000013 Made of Ni-Cr.
1000014 Made of Platinum iridium (10% iridium).

2. NEEDLE FOR KOLLE HANDLE

Made of Ni-Cr.
Part No. 1000802

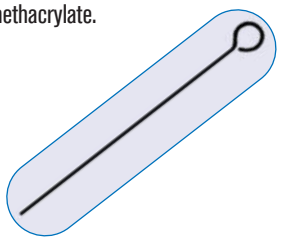
3. LANCET TIP FOR KOLLE HANDLE

Made of Ni-Cr. Total long: 50 mm.
Part No. 1000803



STAND

Support rack for Kolle handles dissection needles made of hardened methacrylate.
Capacity: 6 places.
Part No. 1000903



CULTURE LOOP FOR KOLLE HANDLE

1000014 Made of Platinum iridium (10% iridium).
1000013 Made of Ni-Cr.

INFRARED TIP STERILIZER "STERILBIO"

Applications

Sterilization of culture tips, needles and small instruments. Incinerates organic material at 900 °C for 5/8 seconds.

Features

Made from ceramic elements with a quality quartz tube interior.
Does not need purged oxygen and can be used in anaerobic environments.
Eliminates problems of aerosols and bacterial contamination.
Support at the side for 4 Kolle handles, needles, lancet or dissecting forceps etc.

Model

Part No.	Height/Width/Depth (exterior) cm			Ø/Length (tube interior) cm		Power W	Weight Kg
3000788	20	13	18	1.4	15	110	1.5

BUNSEN J3000 BLUE UNIVERSAL

For Butane gas. Instant safety flame push button ignition incorporating a LOCK/ON mechanism that prevents accidental fires, Unit switches off when the users hand is removed. Regulation of flame intensity and flame color. Gas fill by a simple lighter gas fuel as used common gas lighters. Long life flint. Power by a 1.5 V battery. Flame temperature: 1300 ºC.

APPLICATIONS

Microbiology, bacteriology, dentistry and for general use where a fine hot flame is required for fast heat and fusion.
Part No. 1001134

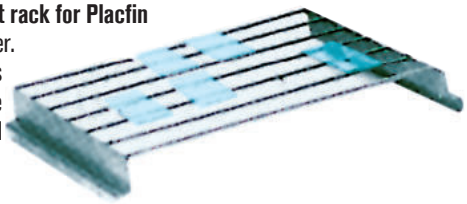
RECTANGULAR HOTPLATE "PLACFIN"

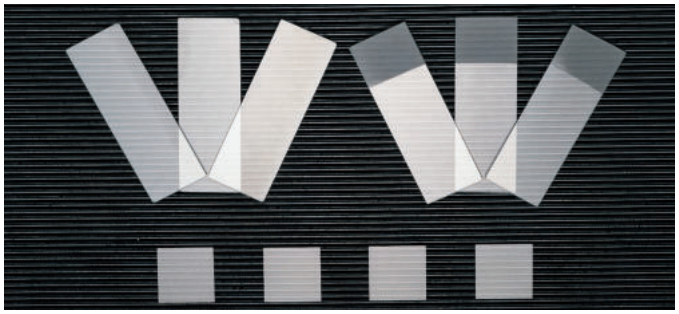
Adjustable temperature from ambient+5 °C to 130 °C.
Stability ±3 °C. Not suitable for boiling.
Coated with chemically treated aluminium, enamelled outer case.

Part No.	Width/Depth (plate) cm		Height/Width/Depth (exterior) cm			Power W	Weight Kg
7000497	23	22	8	22	30	1500	3.7

ACCESSORY: Slide support rack for Placfin

"Placfin" slide support adapter.
Made of AISI 304 stainless steel. Capacity: up to 18 slide of 76 x 25 mm (in a horizontal or inclined position).
Part No. 7000498





GLASS SLIDES

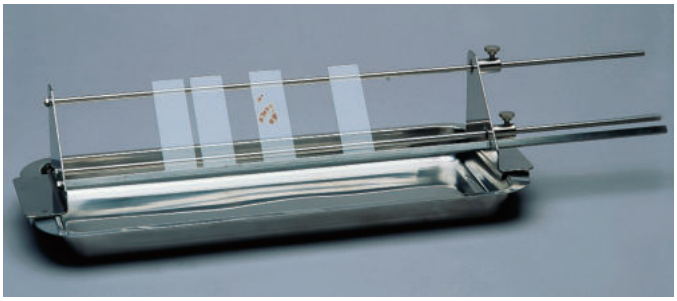
Slides, unground of 26 x 76 x 1.5 mm thickness.
Box of 72 units.
Part No. 5600400

Slides of 26 x 76 x 1.5 mm with ground end of 26 x 20 mm for writing.
Box of 72 units.
Part No. 5600399

Cover slide of 18 x 18 mm.
Box of 100 units.
Part No. 5600396

Cover glass of 22 x 22 mm.
Box of 100 units.
Part No. 5600397

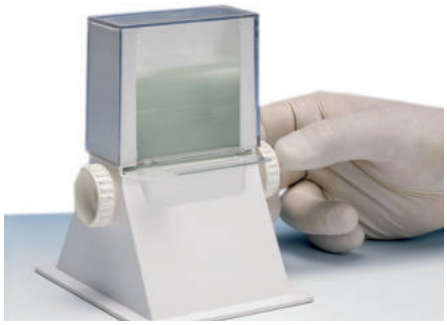
Cover glass of 24 x 24 mm.
Box of 100 units.
Part No. 5600398



SLIDE STAINING STAND

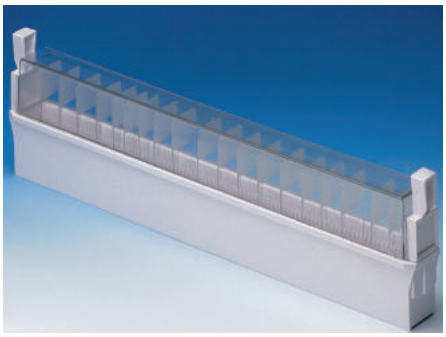
Extendible and made of AISI 304 stainless steel. Fits tanks and trays up to 50 cm in length. Capacity 12 to 14 slides inclined at an angle.
Part No. 6000904

ACCESSORY: Long rectangular instrument tray.
Made from AISI 304 stainless steel, 350mm long x 150mm wide.
Part No. 8080207



SLIDE DISPENSER

Made of ABS plastic with a transparent polycarbonate lid. With single slide manual extraction.
Capacity 50 slides of 76 x 26 mm.
Part No. 1001366



SLIDE SUPPORT RACK, FOR 26 x 76 mm SLIDES

Made from ABS plastic with transparent polycarbonate lid. Holds 100 slides in a vertical position, with numbered guides and index table.
Part No. 1001367

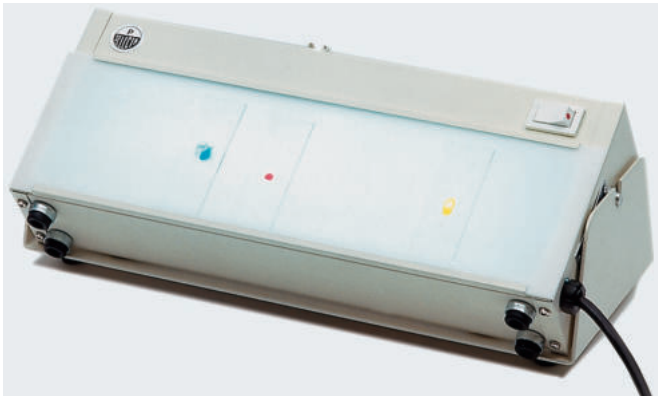
FORCEPS FOR LIFTING SLIDES

Made of AISI 304 stainless steel, with flat jaws.
Length: 105 mm. Suitable for lifting, slides, watch glass or small flat object.
Part No. 1000105

LABORATORY LIGHT "LABOR-LAM"

Used for the classification and manipulation of blood images of; anti serum transparencies, albumin control, RH tests, colony counting, micro examination, colloidal rings, observation of precipitates, acid and oil filters etc. Swivel accessory for bench or wall mount bracket. Light: white light with diffusing methacrylate screen. Temperature 30 °C to 35 °C on the screen surface. Screen light: 300 mm long x 85 mm wide. External dimensions: 320 mm long x 130 mm wide x 55 mm high. Power: 8 W.
Part No. 3000438

ACCESSORY: Table top support. Swivel type. Part No. 7000483



STORAGE BOX FOR 26 x 76 mm SLIDES

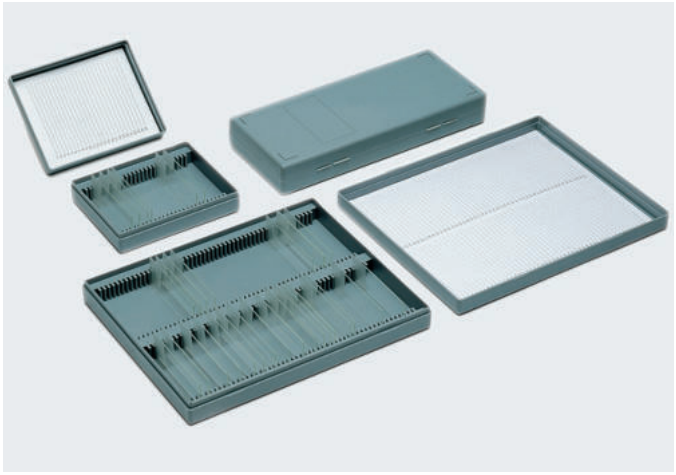
Made of white ABS with a hinge lid and catch, numbered slots for slides and a cork base. An index for slide identification is placed inside the lid.
Part No. 1001371 for 100 slides

SLIDE BOXES

Holds 5 slides, made of polypropylene. Ideal for personal use. Dimensions:82 mm long x 30 mm wide.
Part No. 1000869

STORAGE BOX FOR SLIDES OF 26 x 76 mm

Made of polystyrene with numbered slots and index in the lid.
Part No. 1001368 for 25 slides
Part No. 1001369 for 50 slides
Part No. 1001370 for 100 slides



EPS SLIDE HOLDER FOR 5 SLIDES

Polystyrene slide holder designed for transporting and preservation of samples and the mailing of slides with safety, such as blood samples, serum and section samples. System of 5 divided sections to prevent rubbing against each other in transit. Up to 10 slides (75 x 24mm). A fitted lid holds the slides in place.
Dimensions: 53 mm height x 100 mm long x 63 mm deep.
Part No. 1001717 Packs of 25 units

Hand microtome

Cylindrical hand microtome, that can achieve a minimum cut of 10 µm, using a manual advanced mechanism.
External milled knob with a micrometer scale of 50 divisions of 10 µm.
Maximum sample section of 20 mm.
Precise internal sample holder with a maximum aperture of 8 mm.
Part No. 5900019
Supplied complete with a carry case, dissection forceps, blade and a 5 mm thick glass base.

Cooling plate “Plac-Center”

DIGITAL DISPLAY WITH ANALOGUE TEMPERATURE CONTROLLER.
ADJUSTABLE TEMPERATURES FROM -10 TO 5 °C.

APPLICATIONS

Designed to keep material in a solid state.

FEATURES

External case made of AISI 304 stainless steel. Cooling plate made of black anodised aluminium.
Anti vibration, hermetically sealed CFC free compressor.

CONTROL PANEL

Illuminated Mains ON/OFF switch.
Analogue electronic temperature control with digital display (2 digits).
Resolution: ±1 digit.
Temperature probe: PTC.

MODEL

Part No.	Width/Depth (plate) cm	Height/Width/Depth (exterior) cm	Power HP	Power W	Weight Kg
4000501	30 15	27 33 50	1/3	160	15

Wax dispenser “Dispenser”

ADJUSTABLE TEMPERATURE FROM AMBIENT +5 TO 100 °C.
STABILITY ±1.5 °C.

FEATURES

External metal case coated with epoxy. Internal tank made of aluminium coated with black indelible PTFE. Independently heated tap.

CONTROL PANEL

Illuminated Mains switch.
Indicator lamp shows when the heater is on.
Adjustable temperature thermostat controller.
Adjustable tap temperature controller.

MODEL

Part No.	Capacity litres	Ø / Height (usable) cm	Ø / Height (exterior) cm	Power W	Weight Kg
4000490	4	20 15	28 30	400	5

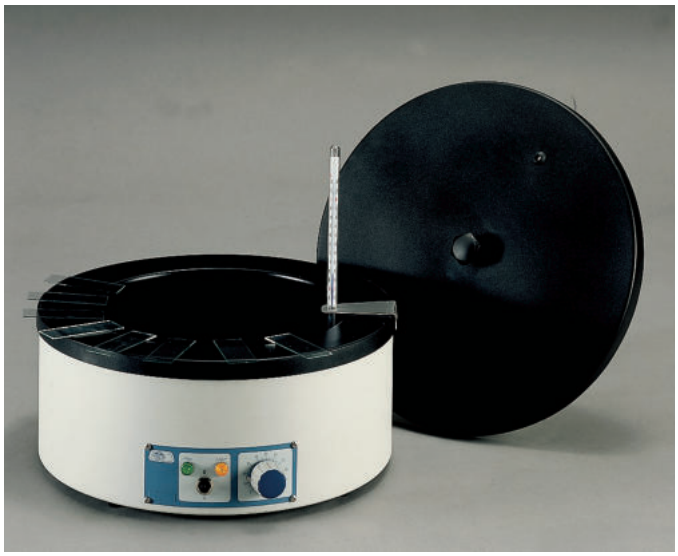
Paraffin wax floating out bath for histology samples “Termofin”

ADJUSTABLE TEMPERATURE FROM 40 °C TO 100 °C. STABILITY ±1 °C.

APPLICATIONS

Suitable for the fusion and preservation of paraffin wax in a liquid state that enables the users to see the floated sections.

PTFE coated lid



FEATURES

Bath and lid made of black PTFE. coated aluminium with a location hole in the lid for a thermometer.

CONTROL PANEL

Mains ON/OFF switch. Adjustable temperature thermostat synchronised with an indicator lamp while heating.

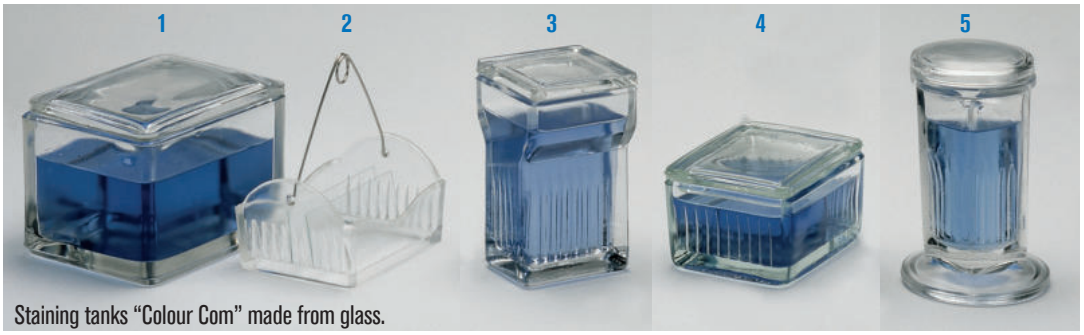
MODEL

Part No.	Capacity litres	Ø / Height (usable) cm	Ø / Height (exterior) cm	Power W	Weight Kg
3000459	4	25 10	34 14	430	2.3

Supplied complete with lid and thermometer.

ACCESSORY

Thermometer support (can only be used without the lid).
Part No. 6004591



Staining tanks “Colour Com” made from glass.

Staining tank with screw cap hermetically sealed lid.

STAINING TANK

Part No.	Type	Height / Width / Depth (exterior) mm	Slide quantity	Applications
1001138	1	85 105 70	10 of 76 x 26 mm	Tank with lid, requires rack No. 2 that is placed inside.
1001139	2	30 90 48	10 of 76 x 26 mm	Tank rack, bottomless, submerge in No.1 tank.
1001140	3	105 60 55	16 of 76 x 26 mm	Hellendahl vertical tank with lid.
1001141	4	50 85 70	10 of 76 x 26 mm	Horizontal staining tank with lid.
1001142	5	105 45 45	10 of 76 x 26 mm	Coplin, vertical staining tank with lid.
1001352	6	110 56 56	10 of 76 x 26 mm	Coplin, staining tank made of polyethylene with lid.

1. ANGLE FORM MOULDS

For paraffin wax covers.
Supplied as two separate angular plates made of AISI 304 stainless steel.

Part No.	Height / Width / Depth (usable mould) mm	Part No.	Height / Width / Depth (usable mould) mm
6051622	14 22 44	6051645	20 45 85
6051635	20 35 65	6051690	25 90 150

2. ROUND INSERT MOULDS

Made of perforated AISI 304 stainless steel with lid.

Part No.	Ø mm	Height mm
1051837	37	8

Cooling bath “Refricub”

ELECTRONIC CONTROL WITH DIGITAL DISPLAY
ADJUSTABLE TEMPERATURE DOWN TO -25 °C.

APPLICATIONS

Suitable for maintaining paraffin wax and waxes in a solid form for long periods of time, etc.

FEATURES

Temperature homogeneity: ±2 °C.
Precision of temperature controller: 1 °C.
External case made of epoxy covered metal with AISI 304 stainless steel tank and top.
An anti vibration hermetically sealed CFC free compressor is mounted in the base of the unit, supplied with ventilated evaporator, regulating valve and condenser.

CONTROL PANEL

Illuminated mains indicator switch.
Electronic controller for temperature with two digit digital display with a resolution of: ±1 digit.
PTC probe.

Part No.	Capacity litres	Height/Width/Depth (tank) cm	Height/Width/Depth (exterior) cm	Power HP	Power W	Weight Kg
4100519	18	20 30 31	80 46 44	3/8	350	22

Chromatography tanks

APPLICATIONS

For quantitative analysis. Useful for storing and protecting the plates by means of the hermetic upper lid.

FEATURES

Made of heavy thick glass, with a flat bottom, ground rims with rounded edges. Solid glass rectangular lid, smooth base with ground edges to make an air tight fit tank. Rectangular glass lid with handle, smooth base and ground surface for hermetically sealed closure with the tank.

MODELS	Part No.	Heigh/Width/Depth mm	Nº of plates	With Lid
MINICROM	1001162	139 135 80	1	Yes
CROMACROM	1001163	240 236 118	1	Yes
MULTICROM	1001164	240 236 118	5	Yes

The model MULTICROM has 5 plate slots to maintain the plate upright.

Fixed volume dispensing pipettes "Dispen-Fix"

WITH VALIDATION TEST ACCORDING TO SERIAL NUMBER.

FEATURES

Fixed volume pipettes from 1 to 1000 µl, model dependent.
Simple and easy to use.
Discard tip ejection for all models.
Comes complete with calibration tool.

MODELS	Part No.	Capacity µl	Accuracy %	Precision %
Dispen-Fix	5904009	5	±2.0	< 0.8
Dispen-Fix	5904010	10	±1.6	< 0.5
Dispen-Fix	5904011	20	±1.0	< 0.3
Dispen-Fix	5904012	25	±1.0	< 0.3
Dispen-Fix	5904013	50	±0.8	< 0.3
Dispen-Fix	5904014	100	±0.8	< 0.25
Dispen-Fix	5904015	200	±0.8	< 0.15
Dispen-Fix	5904017	500	±0.8	< 0.2
Dispen-Fix	5904018	1000	±0.8	< 0.13

Variable volume dispensing pipettes "Dispen-Var"

WITH VALIDATION TEST ACCORDING TO SERIAL NUMBER.
AUTOCLAVABLE UP TO 121 °C.

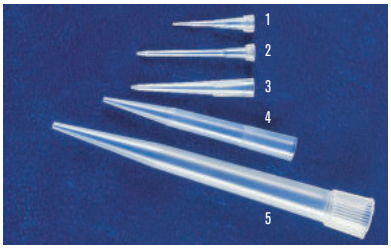
FEATURES

Variable volume from 1 to 5000 µl, model dependent.
Simple and easy to use adjustable dispense volume.
Digital set volume selection.
Discard tip ejection for all models up to 1000 µl.
Comes complete with calibration tool.

MODELS	Part No.	Capacity µl	Divisions µl	Precision %
Dispen-Var	5900010	1 - 10	0.1	< 1.5 - < 0.4
Dispen-Var	5900020	2 - 20	0.1	< 1.5 - < 0.8
Dispen-Var	5900100	10 - 100	1	< 1.0 - < 0.3
Dispen-Var	5900200	20 - 200	1	< 1.0 - < 0.5
Dispen-Var	5901000	100 - 1000	10	< 0.8 - < 0.28
Dispen-Var	5905006	1000 - 5000	10	< 0.4 - < 0.2

ACCESSORIES. PIPETTE TIPS AND RACKS. Accurate and precise, made of polypropylene.

Models Nº image	Part No.	Range µl	Colour	Qty. tips x part No.	Suitable for pipette part No.	Volumes pipette µl
1	Tips 5490040	0.1- 10	Transparent	1000	5904009	5
	Rack 5490035	0.1- 10	Transparent	96	5904010	10
					5900010	1 - 10
2	Tips 5490041	2 - 20	Transparente	1000	5900020	2 - 20
	Rack 5490036	2 - 20	Transparente	96		
3	Tips 5490042	5 - 200	Transparent	1000	5904011	20
	Rack 5490037	5 - 200	Transparent	96	5904012	25
					5904013	50
					5904014	100
					5904015	200
					5900100	10 - 100
					5900200	20 - 200
4	5490044	101 - 1000	Blue	1000	5904017	500
	5490034	101 - 1000	Blue	96	5904018	1000
					5901000	100 - 1000
5	5490047	1000 - 5000	Blue	500	5905006	1000 - 5000
	5490039	1000 - 5000	Blue	500		



Pipette rack.
Made of AISI 304 stainless steel. No. of places: 6 dosing pipettes up to 28 cm in length.
Part No. 1001215

Rack for pipette tips.

Multichannel variable volume dispensing pipettes

COMECTA

FEATURES

Due to its excellent tips alignment, they offer a great advantage in microtitrer techniques such as: agglutination, immunological radio assays, hemagglutination, antibiotic test, etc. (All models are calibrated according to DIN 12600 recommendations)

MODELS	Part No.	Tips Range µl	Nominal Volume Accuracy A < ±%		Coefficient variation Nominal volume CV < %		Increments µl	Tips types µl
			Min %	Max %	Min %	Max %		
Multi-Var 8	5905027	5-50	0.8	6	0.4	3	0.1	200
Multi-Var 8	5905028	10-100	0.8	4	0.3	2	0.2	200/300
Multi-Var 8	5905029	20-200	0.8	4	0.3	1.5	0.2	200/300

Pipette Holder

Universal Container

ACCESSORIES

Pipette tips rack. Part No. 5490037
Carousel support for a maximum 3 multichannel pipettes. Part No. 5490038
Reversible universal container in polypropylene. Code 5310102

Repeat multi dispenser "Repette-HW"

COMECTA

UP TO 49 SUCCESSIVE DISPENSES WITHOUT THE NEED TO REFILL.
DISPENSING VOLUME FROM 2 µl UP TO 5000 µl.

FEATURES

Multi dispenser pipette.
Precise repeat dispenser.
Ideal for dispensing low and high viscosity liquids.
Designed for rapid dispensing.
Depending on the setting, the dispenser can discharge up to a maximum of 49 times successively, without the need to be refilled.
Accepts 8 different syringes.
Precision table using COMECTA syringes. (These values are based on a maximum volume for each pipette using distilled water at ambient temperature):

Type syringe ml	Volume doses µl	Precision nominal volume A ≤ ±%		Variation coefficient nominal volume CV ≤ %	
		10%	2%	-10%	2%
0.5	10 - 50	0.8	4.0	0.6	1.4
1.25	25 - 125	0.8	4.0	0.3	0.8
2.5	50 - 250	0.7	3.5	0.2	0.8
5	100 - 500	0.5	2.5	0.2	0.6
12.5	250 - 1250	0.3	1.5	0.2	0.4
25	500 - 2500	0.3	1.5	0.2	0.4
50	1000 - 5000	0.3	1.5	0.15	0.4

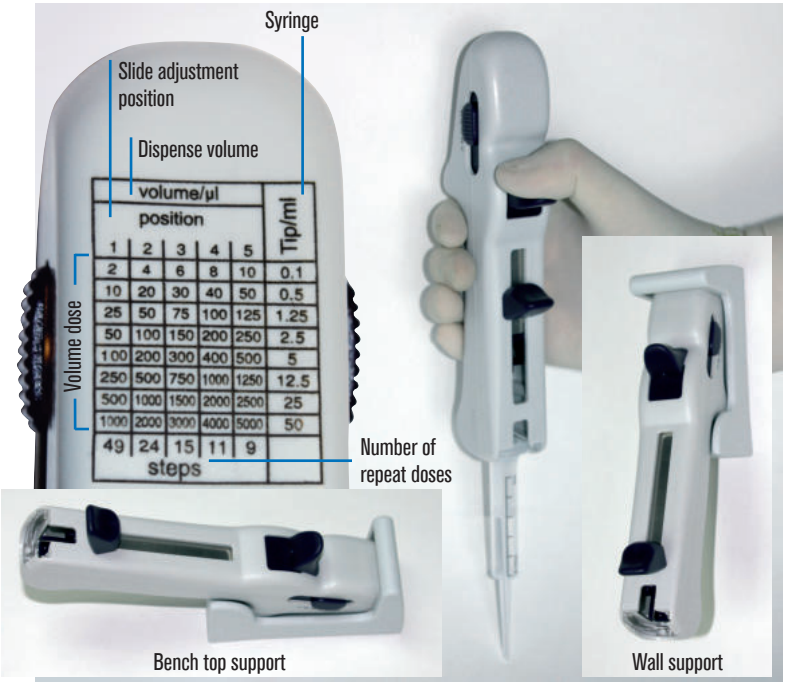
ACCESSORIES

Steril syringes. Supplied in individual bag.

Part No.	Volume ml	Syringes x part No.
5490053	0,5	100
5490054	1,25	100
5490055	2,5	100
5490056	5	100
5490057	12,5	50
5490058	25	50
5490059	50	50

Dispense volumes from 2 µl up to 5000 µl, depending on syringe used.
Maximum viscosity per syringe is:
50 ml = 20 mPas, 5 ml = 260 mPas and 1.25 ml = 977 mPas.
Maximum pressure: 500 mbar.
Operating temperature: from 15 to 40 °C.
At the back of the dispenser shows a quick table reference of the volume and dose, that shows the repeatable dose from the syringe to be used and the correct slide position.
Includes an easy to locate wall or bench support.
Supplied complete with a 5 ml syringe and an autoclavable PP adapter for 25 and 50 ml syringes.

Repeat multi dispenser "Repette HW".
Part No. 5490050



SPARE

8	5490060	**Adapter made from PP** for 25 and 50 ml syringes

COMECTA Motorized pipette dispenser "Rota-Filler 3000®"

FOR ANY KIND OF PIPETTES FROM 1 TO 100 ML.

FEATURES

Three positions switch for fast or slow aspiration and dispensation or gravitatorial dispensation for free dispensing.
The pressure over the ergonomic bulbs allows modulation, speed control of aspiration and dispensation.
It is supplied with a couple of 0,45 µm filter by default for and effective protection against contaminated air either of the equipment during aspiration or of the sample during dispensation.
Two rechargeable and interchangeable batteries.
Low-battery light indicator signal.
Can be used while recharging.

TECHNICAL DATA

Charger of 65/12 mA. Charge time: 14 hours.
Weight: 215 g.
Dimensions: 170 height x 47 width x 143 length mm.
Pipettes: from 1 to 100 ml (glass and plastic).

Motorized pipette dispenser "Rota-Filler 300®".
Part no: 5900700

It includes bench top support.

It includes wall support.

COMPLEMENT

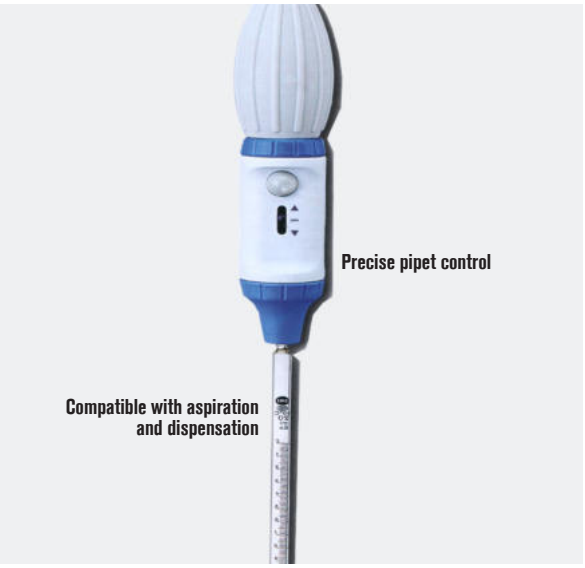
5 hydrophobe filters pack of 0,45 µm.
Part no: 5900701

COMECTA Manual pipette dispenser "Pipet"

FOR ANY KIND OF PIPETTES FROM 1 TO 100 ML.

FEATURES

Ergonomic, comfortable, solid, lightweight and ease of use.
It has been designed with an ultracompressor silicone bulb that provides a soft manual control of the pipette, either in aspiration or dispensation.
Once the bulb is squeezed, control with the toggle both speeds, the aspiration and dispensation one. Push the middle button to expel blowing-out any liquid remaining in the pipette. 0,45 µm .
Measure: 25 mm Ø.
Weight: 130 g.
Manual pipette dispenser "Pipet". Part no 5900800



COMPLEMENT

5 hydrophobe filters pack of 0,45 µm.
Part no: 5900801

Measuring range "COM-PIP"

FEATURES

Made of polypropylene with silicon joints, for volumes up to 25 ml. Precise and safe, ergonomic design that allows filling and emptying without having to change the setting. Flexible thermoplastic seal against any type of burette. A button on the side empties the burette automatically. Easily dismantled and cleaned.

Part No.	Capacity	Identification colour
1001131	0 to 2 ml	Blue
1001132	0 to 10 ml	Green
1001133	0 to 25 ml	Red

PIPETTE RACK "COM-PIP"

Made from AISI 304 stainless steel.
Capacity 6 pipettes of differing sizes.
Part No. 1001702

COMECTA Variable Volume Dispensers "ZP"

WITH CALIBRATION CERTIFICATE ACCORDING TO SERIAL NUMBER.

UNI EN 29002 (ISO 9002) JENCONS

FEATURES

Highly precise and repeatable, designed for safe dispensing.
Drip-proof safety valve useful against accidental dispensing.
Recirculation valve, prevents accidental liquid leakage between dispensings.
Discharge cannula in FEP, angled at 90° for safe dispensing into narrow-neck flasks. Suction tube in PTFE.
Fully autoclavable at 121°C.
All parts in contact with the liquid are chemically resistant. However, they are not suitable for liquids that are incompatible with PTFE, PVDE, FEP, borosilicate glass, aluminum oxide, or platinum-iridium, nor for the dispensing of hydrofluoric acid or liquids containing solid particles.
Bubble-free dispensing.
Direct attachment to GL30 threaded bottles and supplied with 5 adapters: S40, GL32, GL38, GL25, and GL28.Bottles are not included (see accessories).
Volume selection by setting the cursor on the graduated scale with an additional locking stop.
Suction and dispensing by manual upward and downward movement of the piston.
Calibration by upper fine-tuning device that allows for better reproducibility in repetitive tests or in media with different viscosities.

MODELS	Code	Capacity ml	Increments ml	Accuracy %	Precision % CV
ZP 5	5900900	0,5 5	0,1	±0,5	0,2
ZP 10	5900901	1,0 10	0,2	±0,5	0,2
ZP 25	5900902	2,5 25	0,5	±0,5	0,2
ZP 50	5900903	5,0 50	1	±0,5	0,2

ACCESSORIES

Amber-colored borosilicate glass bottles, absorbent.
1 liter capacity bottle. Code 5900904
2 liter capacity bottle. Code 5900905

COMECTA Digital Burette "CAT"

DIN EN 60529 (IP43)

CAT

NEW

FEATURES

Due to their valveless design the dead volume is minimized and the reproducibility is increased. They are suitable for the use with all common laboratory bottles and their integrated calibration function allows to compensate the deviation of accuracy when using liquids with a density significant different than water.

Electronic calibrateable
Electronic measuring system
Minimal setting units 10µl
No glass piston, no valves, minimal dead volume
Self-venting
All wetted parts are made of aluminium oxide (99,7% Al2O3), ETFE and FEP
Free rotatable on the bottle

MODEL	Código	Min - Dispensing volume	Dosing accuracy %	Precison % CV	Weight Kg
Digital Burette CAT	5059020	10µl - 500ml	± 0,2	<±0,1	0,39

ACCESSORIES

Adapter tube A32-25 Code 5059021
Adapter tube A32-28 Code 5059022
Adapter tube A32-38 Code 5059023

Digital cell counter for blood components “CC-1431”

NEW SOFTWARE

FEATURES

Designed for any type of cell or type counting and blood analysis.
Languages: Spanish, English and French.
Operating menu displayed on the screen, 4 LCD lines of 20 characters per line.
Visualization of data can be displayed as partial, total, and absolute or percentage of key strokes.
Possibility to correct the last count.
Memorizes the last pulsed count and identifies it on the screen.
Audible pulse control when the key is pulsed, advises when the count limit is reached.
Up to 14 separate key inputs per program.
Power: 12 V. Includes mains adapter.
USB interface for download of results to a computer.
Includes software for PC with the following parameters: Patient Number, Laboratory name, Date, Hour, Comments and comparison of previous results after treatment.

FOUR PROGRAMS INCLUDED:

LEUC (leukocytes)
- Leukocyte count.
- 14 different cell types.
- 3 Keys for counts that are not used in the final count:
  («11. Normo» «12. Tox Gr» «14. Ery»).
- Total cell count (at the end of counting) selectable from 100 to 1000 in steps of 100.

MYEL (myelocytes).
- Myelocytes count.
- 14 different cell types that accumulate to the total count.
- Total cell count selectable from 100 to 1000 in steps of 100.

RETI (reticuloecytes/erythrocytes)
- Reticuloecytes count.
- No. of cells by configurable view from 50 to 250.
- 1 Key for reticulocyte fields.
- 1 Key for erythrocytes that are not included in the final count.
- Total (end of count) fixed at 1000.

FREE (program, customer set)
- Configurable count.
- Each key can be activated or deactivated for the count.
- Total cell count (at the end of counting) selectable from 100 to 1000 in steps of 100.

KEYS

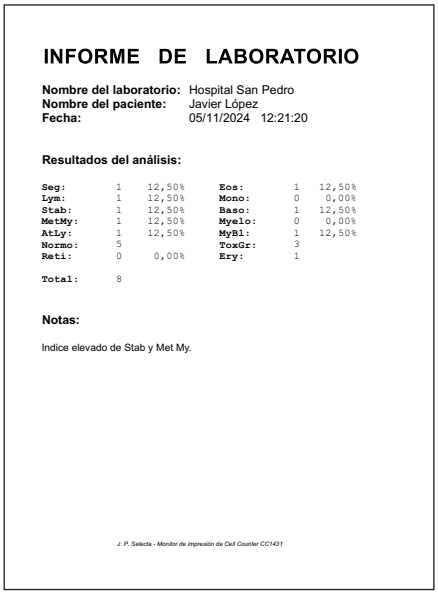
Two control keys:
- SELECT: choose one program or one option.
- ENTER: accept the option choose.

14 Keys for different cell types:

- Seg: Segments or granulocytes.
- Eos: Eosinocytes.
- Lym: Linfocytes.
- Mono: Monocytes.
- Stab: Bands.
- Baso: Basocytes.
- Met My: Metamielicocytes.
- Myelo: MieloBlasts.
- At Ly: Linfocytes untypical.
- My Bi: Mielococytes Binucleads.
- Normo: NormoBlasts.
- Tox. Gr.: Granulocytes toxic.
- Reti: Reticulocytes.
- Ery: Eritrocytes / EritoBlasts.

MODEL

Part No.	Height / Width / Depth cm	Power W	Weight Kg
7121431	7 15 22	6	0.6



INFORME DE LABORATORIO

Nombre del laboratorio: Hospital San Pedro
Nombre del paciente: Javier López
Fecha: 05/11/2024 12:21:20

Resultados del análisis:

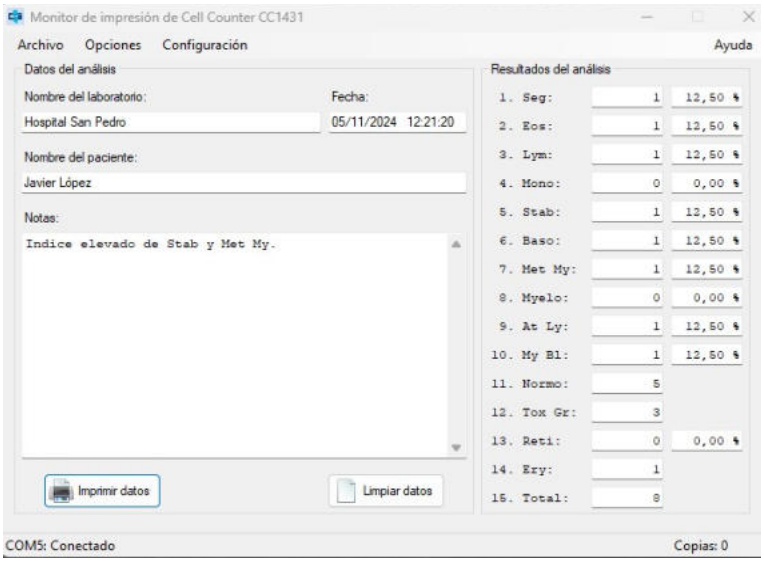
Seg:	1	12,50%	Eos:	1	12,50%
Lym:	1	12,50%	Mono:	0	0,00%
Stab:	1	12,50%	Baso:	1	12,50%
MetMy:	1	12,50%	Myelo:	0	0,00%
AtLy:	1	12,50%	MyBl:	1	12,50%
Normo:	5		ToxGr:	3	
Reti:	0	0,00%	Ery:	1	
Total:	8				

Notas:

Indice elevado de Stab y Met My.

J. P. Selecta - Monitor de impresión de Cell Counter CC1431

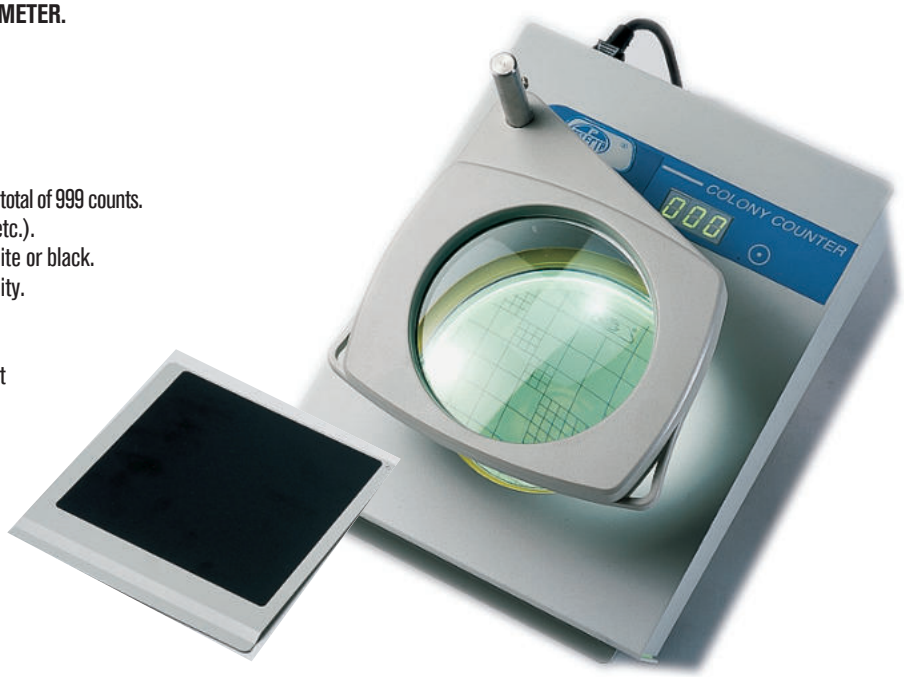
Report.



Software download and report.

Colony counter “Digital S”

FOR PETRI DISH OF UP TO 100 mm DIAMETER.
LED ILLUMINATION.



APPLICATIONS

Molecular Biology, Genetics and microbiology.

FEATURES

The unit records each pulsed colony count on the digital screen to a total of 999 counts.
Pressure to count can be made by any way (pencil, or pen tip etc.).
Epoxy coated casing. Reversible interior background part in white or black.
Steady, (glare free) LED illumination,clear and wide view visibility.
Removable plates for housing varying sizes of Petri dishes.
Location for reversible contrast plates.
Magnifying glass X2 with adjustable height and rotation support

CONTROL PANEL

Mains switch.
Numerical digital display: 3 digits.
Audible confirmation beep for each count. Zero reset button. RESET.

MODEL

Part No.	Ø of magnifying glass cm	Magnification	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4905002	12.5	2x	25 23 30	20	3.5

Supplied complete with Wolffhuegel disc.

ACCESSORY

5 Wolffhuegel discs.
Part No. 4905001

COMECTA Economy model sterilizer stand

The germ-killing effect of ultraviolet rays is primarily based on the absorption of energy in albuminoid bodies, causing disruption in the germinative and reproductive apparatus of bacteria. It destroys bacteria, viruses, spores, yeasts, and molds in minimal time.

FEATURES

Outer body made of light-colored expanded polystyrene, with an interior tray in bright mirror-polished stainless steel. The top cover is made of slightly transparent smoked-colored methacrylate, allowing visibility of the material in the sterilization chamber while being opaque to UV radiation.
UV wavelength: 2537 Angstroms.
Germicidal lamp lifespan: Approximately 5000 hours.

CONTROL PANEL

Main switch.
Microswitch device that disconnects the germicidal lamp when the lid is opened, preventing UV radiation from damaging eyesight or affecting the skin.

MODEL

Code	Height/Width/Depth (interior) cm	Height/Width/Depth (exterior) cm	Consumption W	Weight Kg
5000912	5 to 8 31 21	17 40 31	8	2

HEATING MANTLES AND HOTPLATES

HEATING MANTLES

Two position heating page 228
Heating mantles with digital electronic regulation page 229
Heating mantels made with a double woven mineral wool page 230
Flexible heatings page 231

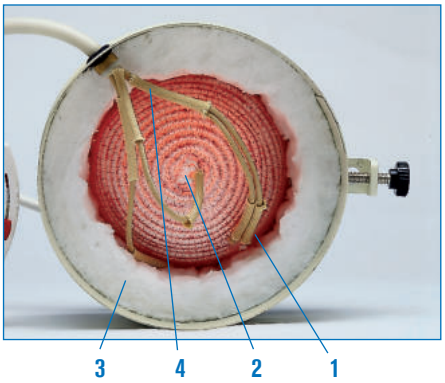
HOT PLATES

Round hotplates pages 232 to 234
Ceramic top hotplates page 233
Rectangular hotplates pages 234 to 235

"The first requisite for success is the ability to apply your physical and mental energies to one problem incessantly without growing weary."
Thomas Edison

HEATING MANTLES FOR FLASKS

SAFETY:
FOLLOWING CE STANDARDS, IN THE CASE OF LIQUID SPILLS AN EARTH WIRE IS WOVEN INTO THE MANTLE TO PREVENT ELECTRIC SHOCKS.



COMMON FEATURES

1. Hand woven mineral wool with flexible braiding, which adapts snugly around the flask, with drain hole, replaceable .
2. The heating element is distributed homogeneously throughout the mantle. Connectors and cables are protected by mineral fibre tubes. Efficient low power consumption of 1 w/cm^2. Maximum mantle temperature of 400 °C.
3. Double walled fibre wool thermally insulated casing.
4. Pure Nickel connection terminals protected by mineral fibre tubing that prevent the deterioration of the contact due to high temperature.

Support for retort bar.

APPLICATIONS

For digestion distillation, extraction, evaporation and boiling processes.

MODELS SELECTION SUMMARY TABLE

Capacity ml	Ø flask mm	Fibroman C 2 positions	Fibroman D Woven	Fibroman O Funnel hole	Agiman Woven	Fibroman HT-W Electronic regulator	Micro for Kjeldahl banks banks	No. Places	For Kjeldahl/Soxhlet banks	No. Places
100	65	3003141	–	–	–	3031470	6014204	4	–	–
100	65	–	–	–	–	–	6014206	6	–	–
250	83	3003142	3004192	–	3000447	3031471	–	–	–	–
500	102	3003145	3004195	–	3000448	3031472	–	–	6003294	4
500	102	–	–	–	–	–	–	–	6003296	6
1000	132	3031410	3041910	3049110	3000449	3031473	–	–	–	–
2000	164	3031420	3041920	3049120	3000450	3031474	–	–	–	–
3000	190	3031430	–	–	–	–	–	–	–	–
5000	222	3031450	–	3049150	–	–	–	–	–	–
10000	290	3314100	–	3491100	–	–	–	–	–	–
20000	365	3314200	–	3491200	–	–	–	–	–	–

Heating mantle for flasks “Fibroman-C”

DUAL HEATING POWER. TEMPERATURES UP TO 400 °C.

With power heating switch selector

FEATURES

Two position isolated rocker switch heating control with power on indicator lamp.

TECHNICAL DESCRIPTION

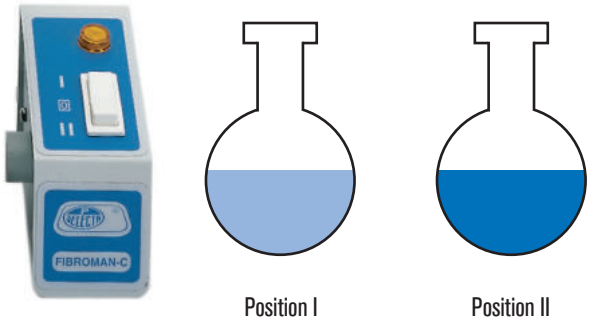
- DUR ALLOY aluminium exterior case with epoxy coating.
- Suspended mineral wool woven heating mantle.
- Heating element homogeneously distributed throughout the woven mantle.
- Thermally insulated case, mineral wool fibre insulation.
- Nickel connectors.
- Retort stand clamp at the back of the unit.
- To prevent breakage or spills a drain hole is provided at the bottom of the mantle.
- Safety earth connection.

MODELS

Part No.	Flask capacity ml	Flask Ø approx. mm	Ø / Height (exterior) cm		Power W	Weight Kg
3003141	100	65	16	11	130	1
3003142	250	83	18	11	250	1,1
3003145	500	102	20	12	270	1,2
3031410	1000	132	22	13,5	410	1,4
3031420	2000	170	26	14	530	2
3031430	3000	190	29	18	620	2,2
3031450	5000	222	33	19	1500	3,2
3314100	10000	290	38	22	2250	4,7
3314200*	20000	365	48	26	2300	11

* The mantle part no. 3314200 supplied without the 2 position controller and switch.
See Accessories on (page 31) and Regulators and controllers (pages 303 and 306).

CROSS SECTION OF HEATED FLASKS



Position I
50% power output.

Position II
100% power output.

ACCESSORY

Support bar Dur-Aluminium of 12 Ø x 700 mm long.
Part No. 6000270

Heating mantles for flasks “Fibroman HT-W”

FOR ADJUSTABLE TEMPERATURES FROM AMBIENT +5 °C TO 400 °C.
STABILITY ±0,5 TO 1 °C ACCORDING TO TEMPERATURE.
ELECTRONIC REGULATION OF TEMPERATURE WITH DOUBLE SCREEN TO SHOW THE PRESENT TEMPERATURE AND THE PROGRAMMED ONE.

FEATURES

External case made of AISI 304 stainless steel.
Heating elements homogeneously distributed inside of the mineral wool woven and thermically insulated.
Pure nickel connection terminals.
Temperature control system by inner thermocouple.
TC probe connector included in the equipment for the liquid temperature control inside the flask.
Device to hold support bar.

CONTROL PANEL

On / Off switch.
Digital display indicating set and real temperature.
Heating operating led.
Push button ▲ increase temperature.
Push button ▼ decrease temperature.
Side: TC probe connector for the liquid real temperature.

Device that allows to hold the rod has supported.

MODELS

Part No.	Flask Capacity ml	Ø Flask mm	Height / Width / Depth (exterior) cm	Ø Lenght Sensor TC mm	Stability °C	Power W	Weight Kg
3031470	100	65 to 67	13 22 26	4 170	±0.5 to 1	130	1,5
3031471	250	83 to 87	13 26 29	4 170	±0.5 to 1	216	3
3031472	500	102 to 105	13 26 29	4 170	±0.5 to 1	220	3,5
3031473	1000	132 to 139	14 30 33	4 170	±0.5 to 1	500	4
3031474	2000	164 to 170	16 31 34	4 200	±0.5 to 1	760	5

Note: the heating mantles are supplied with TC probe connected to the case.

ACCESSORIES

Support bar Dur-Aluminium, 12 mm Ø x 700 mm long.
Part No. 6000270

Double bosshead.
Part No. 1000069

Spring clamp to hold thermometers.
Part No. 7000025

Clamp to support and hold condensers or other glassware.
Part No. 7000161

Heating mantle for flasks and funnels “Fibroman-1”

WITH TRIPOD SUPPORT STAND.

APPLICATIONS

Suitable for round bottom flasks, decanting funnels and reaction flasks with a bottom drain.

FEATURES

- Woven mineral fibre mantle.
- Epoxy coated exterior.
- On/Off switch.
- Safety earth.

MODELS

Part No.	Flask capacity ml	Ø /Height (Exterior dims.) cm		Ø cm Bottom hole	Tripod Height cm	Power W	Weight Kg
3049111	1000	24	10.5	8	34	410	1.5
3049121	2000	28.5	12	8	36	530	2.5
3049151	5000	37.5	17.5	9	38	840	3.5
3491101	10000	43.5	20	9	43	1400	5
3491201	20000	48	25	12	36	2300	13

Due to its capacity the part no. 3491200, 20000 ml capacity is manufactured in a cylindrical case.
Controller (pages 303 and 306).

Heating mantle for flasks

ADAPTABLE FOR THE “AGIMAN” STIRRER UNIT.

MODELS

Part No.	Flask capacity ml	Ø / Height (Exterior dims.) cm		Power W	Weight Kg
3000457	250	15	6.5	130	0.8
3000458	500	17	7	270	0.9
3000459	1000	20	8.5	410	1
3000460	2000	24	11	530	1.5

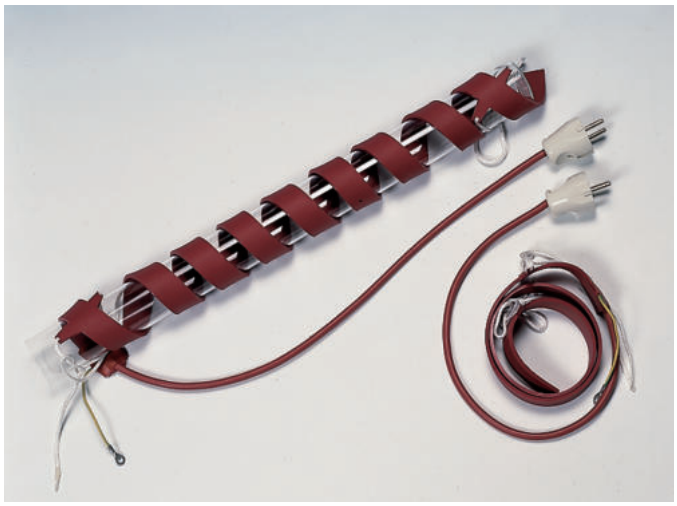
ACCESSORIES

Mantle magnetic stirrer “Agiman”. With interchangeable mantle adapters. Electronic control of stir speed (up to 1600 r.p.m.). Part No. 7000446 See page 26. With connection at the back for an electronic contact thermometer “Sensoterm” or digital electronic regulator “Electemp-TFT”.
See controller (pages 303 and 306).

Stirring mantle, complete.

Heating tapes

HEATING TAPE SURFACE TEMPERATURE UP TO 210 °C. CONFORMS TO VDE EN 60335-A.



FEATURES

Heating elements distributed homogeneously between flexible moulded sheets of silicon.

APPLICATIONS

Used for heating small areas such as heating ducts for distillation, valves and pipes etc.

MODELS

Part No.	Length m	Width mm	Power W
3003178	0.80	25	180
3031710	1	25	210
3031715	1.5	25	265

Flexible heating cord

FEATURES

For tape surface temperatures up to 180 °C. Thermally insulated using flexible silicon tube.

APPLICATIONS

For heating small areas such as heating ducts, distillation, valves and pipes etc.

MODELS

Part No.	Length m	Ø Cord mm	Power W
1000781	1.5	3	45
1000782	3	3	90
1000783	6	3	180
1000784	12	3	360

Large surface area heating mats

MAT SURFACE TEMPERATURES UP TO 210 °C.
CONFORMS TO VDE STANDARD EN 60335-A.

FEATURES

The heating element is insulated and distributed homogeneously between two sheets of flexible moulded silicon.
Heating Power: 0.39 W cm^2.
Mat surface temperature up to 210 °C.
Held in place by hooked spring fittings.

APPLICATIONS

Suitable for heating drums up to 200 litres Ø 60 cm.
Total: 3 bands of 171 cm in length x 15 cm wide.
Power consumption 3000 W.
Part No. 4000200

ACCESSORIES

Controller (pages 303 and 306).

HOTPLATES

Round Hotplates

HOTPLATE TEMPERATURE UP TO 400 °C. WITH 6 PLACE HEATING POWER CONTROLLER.

FEATURES

Cast steel plate with embedded heating elements throughout the plate surface.
Fast heating rate at maximum power setting.
Painted outdoor furniture.

CONTROL PANEL

Controller 6 position power settings.

MODELS

Part No.	Plate Ø cm	Height / Width / Depth (exterior) cm			Power W	Weight Kg
1000442	15	8	22	22	1600	3
1000443	19	8	26	26	2100	4.5

Hotplate double circular “Duplac”

FOR PLATE TEMPERATURES UP TO 400 °C.

FEATURES

Hot plate with non warping cast steel plate with embedded heating elements throughout the hot plate surface.

Independent plate temperature control is maintained by pulsed energy controllers.

The exterior is epoxy covered steel.

CONTROL PANEL

Two temperature energy controllers.

Two indicator lamps function when the heaters are on.

MODEL

Part No.	Plate Ø cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4000634	19	15 47 24	1750	8.5

Ceramic top hotplates “Ceramic-plac”

ADJUSTABLE HOT PLATE TEMPERATURE UP TO 400 °C. MAXIMUM SUPPORTABLE WEIGHT: 40 KG.

SAFETY

CONFORMS TO THE EN 61010 STANDARD,OVER TEMPERATURE CUT-OUT FITTED.

Excellent resistance to chemicals.Unaffected by thermal shock

Model part no. 3000920

Model part no. 3000921

Model part no. 3000919

FEATURES AND ADVANTAGES

The “CERAMIC-PLAC” has the following features and advantages:

- Flat, smooth surface.
- Excellent resistance to chemical agents.
- High heating power within the heated area that permits extreme temperature within a short heat up time.
- Excellent thermal qualities and penetration of infrared radiation.
- Easy to clean.

FEATURES

- External case of AISI 304 stainless steel.
- Heating elements mounted on ceramic fibre thus making an insulated compact block.
- Temperature energy control from 6 % to 70 % of nominal power. (Model Part No. 3000919 and 3000920).
- Hydraulic thermostat temperature control up to 400 °C (Model Part No. 3000921).

MODELS

Part No.	Heating Zones	Heating area in cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg	Control system
3000919	1	18 Ø	10 28 33	1800	5.5	Energy controller
3000920	2	14 Ø + 14 x 14 ⊠	10 27 47	2200	7.5	With individual energy controllers for each zone
3000921	1	30 x 30 ⊠	10 49 49	3700	11	With hydraulic thermostat

Hotplate-Rectangular "Combiplac"

PLATE TEMPERAURE ADJUSTABLE UP TO 400 °C.

FEATURES

Electronic energy temperature control.
The non warping steel hotplate has heating elements embedded throughout the hotplate surface maintaining the heat distribution.
The main case is made of AISI 304 stainless steel.

CONTROL PANEL

Main power switch with "ON" indicator lamp.
Electronic energy control from 0 to 100 %.
An indicator lamp shows when the unit is hot.
Connector at the back for the external digital thermometer, "Sensoterm" or "Electemp-TFT".
See Regulators and Controllers (pages 303 and 306).

MODELS

Part No.	Width / Depth (plate) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
3000156	20 40	12 22 55	2300	9
3000718	30 30	13 33 46	2800	13

ACCESSORIES

Sand bath adapters. Made entirely of AISI 310 stainless steel, removable for easy cleaning.

Part No.	Hotplate Part No.	Height/Width/Depth (Sand tray dims) cm
6000719	3000156	5.5 20 40
6000720	3000718	5.5 31 31

Hotplate-Circular "Combiplac"

PLATE TEMPERATURE ADJUSTABLE UP TO 400 °C.

FEATURES

Electronic energy controller and embedded heating element throughout the non warping steel hotplate surface.
A retort bar can be located in a hole at the back of the unit.
The main case is made of AISI 304 stainless steel.

CONTROL PANEL

Main power switch with "ON" indicator lamp.
Temperature controlled by a 0 - 100 % energy controller.
A lamp indicates when the hot plate is "ON".
A Thermometer "Sensoterm" or "Electemp-TFT" that can be added and are listed as accessories.
See section Regulators and Controllers (303 and 306).

MODELS

Part No.	Plate Ø cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
3002302	20	13 21 30	950	3

ACCESSORIES

Suitable for the 12 cm Ø hotplates only Part No.3002301:

Bath of AISI 304 stainless steel of 140 mm Ø x 75mm high, with concentric reduction ring lid, Suitable for water, oil or sand. Part No. 7002510

Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 50 to 100 ml and 50 to 100 ml round bottom flasks. Part No. 1002290

Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 300 to 800 ml and round bottom flasks of 250 to 500 ml. Part No. 1002280

Support rod of 12mm Ø and 500 mm high, fits on to the main body of the hotplate. Suitable for the circular Combiplacs 3002301 and 3002302.
Part No.1000725

Electronic contact thermometers with digital readout "Sensoterm".
With Pt100 sensor with stainless steel AISI 304 sheath.
Part No. 1001009
Features. See Regulators and Controllers (pages 303 and 306).

Electronic temperature controller "Electemp-TFT"

Part No.	Height / Width / Depth (exterior) cm	Max power (at 230 V) W	Weight Kg
3000897	10.5 13.5 21	3100	1.250

Features. See Regulators and Controllers (see pages 303 and 306).

Rectangular precision hotplate "Plactronic"

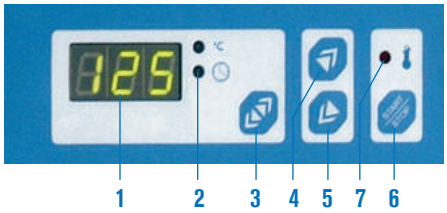
ADJUSTABLE TEMPERATURE FROM AMBIENT +5 UP TO 200 °C STABILITY ±0.5 °C.
WITH ELECTRONIC DIGITAL TEMPERATURE AND TIME CONTROL DISPLAY.
SUITABLE FOR THERMAL TESTS (NOT SUITABLE FOR BOILING TESTS).
SURFACE PLATE COATED WITH P.T.F.E. FOR PROTECTION AGAINST CHEMICALS.

FEATURES

Digitalelectronic temperature and timer control. and Digital display (3 digits).
Display resolution: 1°C.
Temperature probe Pt 100.
DUR aluminium alloy hotplate's coated with P.T.F.E., with heating elements embedded in the plate surface.
Main case, heater element and protective grill, made of AISI 304 stainless steel.

SAFETY:
CONFORMS TO EN61010. OVER TEMPERATURE SAFETY CUTOUT FITTED.

Maximum precision



CONTROL PANEL

1. Digital display of temperature and time.
2. Indicator lamp to show the parameters (temperature or time).
3. Push button to select visualised parameter.
4. Push button to increase parameter value.
5. Push button to decrease parameter value.
6. Push button start and stop.
7. Indicator alarm if the plate is over temperature.

MODELS

Part No.	Width / Depth (plate) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
6155100	24 24	13 25 42	700	7.5
6156100	20 40	13 22 57	800	8
6157100	25 60	13 27 77	1000	16.5

Rectangular hotplate "Placfin"

ADJUSTABLE HOT PLATE TEMPERATURE
FROM AMBIENT +5 °C UP TO 130 °C. STABILITY ±3 °C.
SUITABLE FOR THERMAL TESTS (BUT NOT BOILING).

FEATURES

Temperature control by a hydraulic thermostat.
Protected thermometer from 0 °C to 130 °C.
Hotplate surface protected by chemically treated aluminium, with heating elements distributed throughout the hotplate's surface.
Enamelled external case, resistant against corrosive chemicals.

CONTROL PANEL

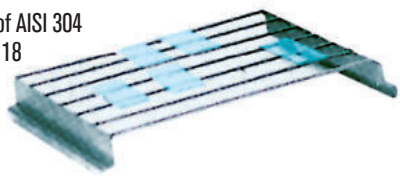
Hydraulic thermostat control, synchronised with an indicator lamp when in operation.

MODEL

Part No.	Width / Depth (plate) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
7000497	23 22	11 22 30	1500	3.7

ACCESSORY

Slide support adapter made of AISI 304 stainless steel. Capacity: up to 18 slide of 76 x 255 mm (in a horizontal position).
Part No. 7000498



Bank of circular hotplates "Uniplac"

ADJUSTABLE TEMPERATURE HOTPLATE UP TO 400 °C. SUITABLE FOR KJELDAHL DIGESTION ASSAYS AND SOXHLET EXTRACTION.

FEATURES

Independent hotplate control using pulsed energy regulators.
Cast steel hotplates with embedded heating elements distributed throughout the hotplate's surface.
Adjustable height and angle stand bars for supporting condensers and other glassware etc.
External case made of AISI 304 stainless steel.

CONTROL PANEL

Independent temperature control for each position.
- Temperature control by pulsed energy regulators.
- Indicator lamps showing when the hotplate is on.

MODELS

Part No.	No. of places	Plate Ø cm	Height / Width / Depth (exterior) cm			Power W	Weight Kg
6002314	4	12	23	77	27	2200	15
6002316	6	12	23	105	27	3300	22

ACCESSORIES

Bath of AISI 304 stainless steel of 140 mm Ø x 75mm high, with concentric reduction ring lid, Suitable for water, oil or sand.
Part No. 7002510

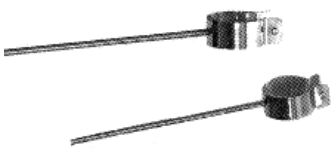
Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 50 to 100 ml and 50 to 100 ml round bottom flasks.
Part No. 1002290

Round bottom flask adapter made of aluminium and suitable for Kjeldahl flasks of 300 to 800 ml and round bottom flasks of 250 to 500 ml.
Part No. 1002280

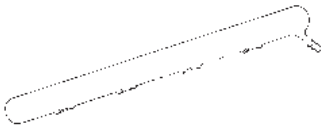
ACCESSORIES FOR KJELDAHL DIGESTION

Kjeldahl support Bar for Kjeldahl flasks, made of AISI 304 stainless steel.
Part No. 6023141 4 places
Part No. 6023161 6 places

Clamp for Kjeldahl condenser tubes made of AISI 304 stainless steel.
Part No. 6000008



Borosilicate glass fume tube.
Part No. 1000104 4 place
Part No. 1000106 6 place



EXTRACTION AND NEUTRALIZING SYSTEM FOR GASSES AND VAPOURS.

Prevents water wastage.

"Scrubber" **Recirculating pump.**

Features (see page 253).

Models

Unit "Scrubber"

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

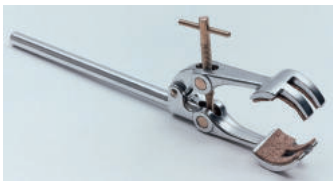
It is supplied with 3 Kg. acid vapours neutralizer solution.

Water recirculating vacuum pump

Part No.	Height / Width / Depth (exterior) cm			Vacuum level bar	Vacuum pump rate litres/minute	Weight Kg
4001612	44	39	28	0.98	10	10

ACCESSORIES SOXHLET EXTRACTION

Boss head for supporting clamps.
Part No. 1000069



Clamp for flasks or condenser tubes.
Part No. 7000403

ANALYTICAL TECHNIQUES

Thermocycler for thermal cycles	page	238
Spectrophotometers	pages	239 to 242
Colorimeters	pages	243
Nano Drop	page	244
Microplate reader and washer	page	245
pH-meters	pages	246 to 247
Conductivity meter	page	248
Electrodes and Probes	pages	249 to 250

"As long as men are free to ask what they must, free to say what they think, free to think what they will, freedom can never be lost and science can never regress. "
Julius Oppenheimer

COMECTA Thermocycler for thermal cycles “B960”

FOR FOUR ADAPTER MODULES FOR 0.2ML VIALS, 0.5ML VIALS AND WELLS.
ADJUSTABLE TEMPERATURES FROM 0ºC TO 99 ºC.

Advanced technology. Peltier effect.

APPLICATIONS

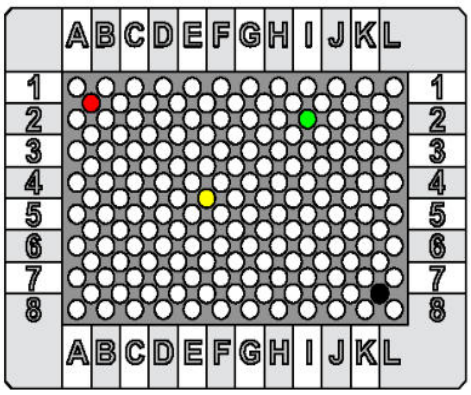
It is used in molecular biology to amplify DNA via a method based in the polymerase chain reaction process.

BASIC PRINCIPLE

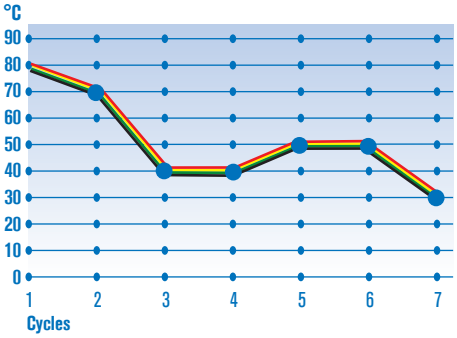
The equipment performs a certain quantity of thermal cycles depending on the method used and repeat them many times for a while, and at the end, the initial DNA fragment Fiber have been replicated thousands times.
For a better process output, changes between temperature levels must be made with minimum time. With thermocycler K96, the cycle temperature can be reached in seconds, even if beginning from remote positions of the last set point. These changes take place by keeping a perfect uniformity between different block points.
The system can also be programmed to produce a linear gradient of temperature widthways the block. This achieves that the highest level of productivity points of the process is optimized and located.

FEATURES

The thermocycler is composed of an inner lid system with heater and with adjustable height in order to perfectly adapt to the samples size. This prevents condensations in the upper side of the samples.
The equipment is based on a heat bomb controlled by continuous electric current and composed by several thermo electrical modules of Peltier effect, a low thermal resistance radiator and a fan convention system.
As it is integrated in the same block, this system allows increasing the process output and also fast transferring and extracting the block's temperature, going from the highest temperature level to the lowest in a minimum time.
The powerful control microprocessor allows monitoring the point where the process is at any moment, and showing it on the screen with real-time graphic images.
There is a useful elaborated software for processes organization, accessible by means of the keyboard and a high resolution LCD screen.



384 wells block, with red, yellow, green and black identification in diferent positions.



Graphic detail that shows temperature perfect uniformity in the different block wells, distinguished by different colours: red, yellow, green, black. It also shows how uniformity is maintained during all the thermal cycle periods, previously programmed in the display.

INTERCHANGEABLE BLOCKS

Each block incorporates a connector that identifies it and allows the thermocycler to recognize it. There's also an extractor handle which makes easy the block support use.

TECHNICAL SPECIFICATIONS

Temperature range: 0ºC to 99ºC.
Durability: 99min. 99sec.
Warming-up speed: 4ºC/sec.
Cooling down speed: 4ºC/sec.
Uniformity: At 95ºC ±0.4ºC.
From 20ºC to 75ºC ±0.2ºC.
Precision: ±0.2ºC.
Programmed gradient: From 2ºC to 30ºC according to the program.
Temperature range gradient: 30-99 ºC.
Heater lid: From 70 to 115ºC according to the program.
Max. cycles number: 299.
Stored programs: Up to 1000.
Graphic display of 14.5cm, 320x240 pixels.
USB 2.0, LAN and RS232 output.

CONTROL PANEL

START switch.
Interactive graphic display.
Numeric and functions keyboard.
Height levelling control of the inner lid.

MODEL

Part No.	Height / Width / Depth (exterior) cm	Power supply	Power W	Weight Kg
5109000	25 27 38	220V/50-60Hz	780	7,8

ACCESSORIES

Interchangeable modules:

A. 96 vials of 0,2 ml. Code: 5109001
B. 54 vials of 0,5 m.l Code: 5109002
C. 96 vials of 0,2 ml + 77 vials of 0,5 ml. Code: 5109003
D. 384 wells Code: 5109004

Visible range spectrophotometers “V-1100” and “VR-2000”

“V-1100” MODEL WITH MANUAL WAVELENGTH SETTINGS AND AUTOMATIC BLANK.
“VR-2000” MODEL WITH AUTOMATIC WAVELENGTH SETTINGS AND BLANK.

“V-1100” Part no. 4120025

“VR-2000” Part no. 4120026

APPLICATIONS

They are widely used in colleges and enterprises for general quantitatives analysis and experiments based in absorbance measurements.

COMMON FEATURES

High quality silicon photometric diode detector and **1200 lines/mm** diffraction grating ensure the high quality accuracy and precision.
Digital display for an easy readout.
Automatic zero and blank (easy to use). Easy switching of transmittance, absorbance and concentration modes, just by pressing one key.
Large sample compartment, which can accommodate 5 to 100mm path length cuvettes with optional holders.
Its pre-aligned design makes it possible to change the halogen lamps by the user himself.

Optional:
Optional software based on Windows® which can expand the applications to standardcCurve and kinetics.

V-1100 MODEL

Easy of use.
Ergonomic and solid design for a continuous suitable use, for students and workers.

VR-2000 MODEL

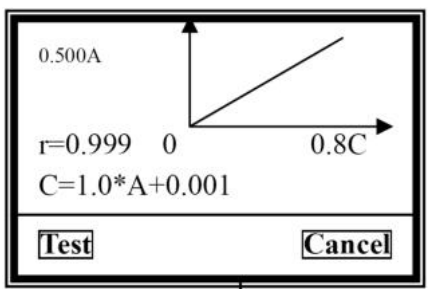
Large LCD screen (128x64bits).
It can display a total of 50 groups of data (3 groups per screen).
It can display standard curve and kinetics curve graphic.
The system can also save the test results.
A total of 50 data groups and 10 standard curves can be saved in the RAM memory.
At most 9 standard samples can be used to establish a standard curve.
The curve and the curve equation will be displayed simultaneously on the screen.The unknown concentration solutions, can be measured by the curve.
If one knows the coefficient **k** and **b** of the formula: **C=kA+b**, one can input the value directly.
Data is stored in the memory in case of power cut.

ACCESSORIES

Profesional software. Part No. 4312001
(see page 242).

MODEL	V-1100	VR-2000
Part No.	4120025	4120026
Wavelength range	325-1000 nm	
Spectral bandwidth	5 nm	4 nm
Optical system	Single beam, diffraction grating 1200 lines/mm	
Wavelength adjustment	Manual	Automatic
Wavelength accuracy	±2 nm	±1 nm
Wavelength repeatability	1 nm	0,5 nm
Photometric accuracy	±0,3% T	±0,5% T
Photometric repeatability	±0,3% T	
Photometric range	-0,3-3 A, 0-200% T. 0-9999 Concentration	
Stray light	0,5% T	0,3% T
Stability	± 0,004 A/h @ 500 nm	± 0,002 A/h @ 500 nm
LCD Display	3,5 Digits	128x64 pixels
Detector	Silicon	
Sample compartment	10 mm path length standard cuvette (100mm optional)	
Light source	Tungsten lamp	
Output	USB, Parallel port (printer)	
Mains supply	220 V / 50Hz AC or 110 V / 60 Hz AC	
External dimensions (HxWxD)	160 x 480 x 360 mm	180 x 470 x 370 mm
Weight (Kg)	8	12

SPARE	V-1100	VR-2000
Halogen lamp (visible)	4312004	4312007



Graphic display visualized detail of a regression line for concentration calculation. (VR-2000)

Ultraviolet and visible range spectrophotometers “UV-2005” and “UV-3100”

AUTOMATIC WALVELENGTH POSITIONING AND BLANK SETTING

“UV-2005” Part no. 4120020

“UV-3100” Part no 4120021

APPLICATIONS

Suitable for pharmaceutical and biochemical laboratories, kinetics, quantitative analysis, wavelength scanning, multiple components and DNA/protein analysis.

COMMON FEATURES

Spectrophotometers UV-2005 and UV-3100 have been developed for accurate tests; Its stray light is only of 0.05% T. They are flexible, easy-to-use and maximize value. Value is provided from every day perfomance. The independent local software provides the following functions: Basic Mode, Quantitative Test, Kinetics and System Utilities.
Data is stored in the memory in case of power cut.
The Special application software provides a complete control of the spectrophotometer from a PC, through the built-in USB port.
Wavelength scanning models can be upgraded when connected to the PC via the special software based in Windows®.
Automatic wavelength settings.
Halogen and deuterium lamps can be switch on/off individually to extend lamp lifetime.
Its pre-aligned design makes it possible to change lamps for the user himself.
Large sample compartment for 5-100mm path length cuvettes, with optional holders.
A wide range of optional accessories can also be selected.

UV-2005 MODEL

Large LCD screen (128x64bits).
It can display a total of 200 groups of data (5 groups per screen).
It can display standard curve and kinetics curve graphic.
The system can also save the test results.
A total of 200 data groups and 200 standard curves can be saved in the RAM memory.

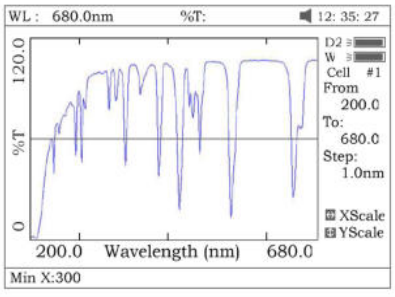
UV-3100 MODEL

Absorbance, transmittance and concentration measurements.
It establishes or uses stored calibration equations to measure solutions of unknown concentration.
Spectrum scan of sample at any selected wavelength range with choice of scanning speed and wavelength interval.
Measurement of absorbance changing versus time with reaction rate calculation function.
Measurement at multiple wavelengths to analyse and determine the composition of the mixtures.
Calculation of concentration and DNA purity.
Note: ratio at other wavelengths can be measured.

ACCESSORIES

(see page 242).

MODELS	UV-2005	UV-3100
Part No.	4120020	4120021
Wavelength range	190-1100 nm	
Spectral bandwidth	2 nm	
Optical system	Single beam, diffraction grating 1200 lines/nm	
Wavelength accuracy	±0,5 nm	
Wavelength repeatability	0,3 nm	
Photometric accuracy	±0,3% T	
Photometric repeatability	±0,2% T	
Photometric range	-0,3-3 A, 0-200% T. 0-9999 Concentration	
Stray light	0,05% T @220 nm, 340 nm	
Stability	± 0,002 A/h @ 500 nm	
LCD Display	Graphic(128x64)	Graphic(320x240)
Scanning velocity	-	High,Med, Low.Max 3000 nm/min.
Uniformity	-	± 0,002 A (200-1000nm)
Sample compartment	10mm path length standard cuvette (100mm optional)	
Light source	Halogen and deuterium lamps (pre-aligned)	
Output	USB, parallel port (printer)	
Power requirements	220 V / 50Hz AC or 110 V / 60 Hz AC	
External dimensions(HxWxD)	180 x 470 x 370 mm	160 x 480 x 360 mm
Weight (Kg)	14	16



Graphic display visualized detail of holmium crystal scanning, from a UV3100 spectrophotometer.

SPARE PARTS	UV-2005	UV-3100
Halogen lamp (visible)	4312007	
Deuterium lamp (UV)	4312006	

Ultraviolet-Visible Double Beam Spectrophotometer “UV-6301”

BAND WIDTH 1 nm. TOTAL STABILITY DOUBLE BEAM OPTICS.
AUTOMATIC WAVELENGTH CORRECTION CALIBRATION.
USB PORT FOR DATA STORAGE.
WIDE RANGE OF ACCESSORIES.

APPLICATIONS

Investigación, laboratorios químicos, biotecnológicos, análisis espectrofotométricos y ensayos ambientales.

COMMON FEATURES

All methods are included as built-in standard, this eliminates de need of additional software.

The local control software includes functions as ; Photometry, Quantitative, wavelenght scan, Kinetics, DNA/Protein, Muli wavelenght, Test and system Utilities

Kinetics: This mode may be used for time course scanning or reaction rate calculations. Abs vs time graphics is displayed on the screen in real time.
Wait time and measurement time up to 12 hours may be entered with time ingtervals of 0,5, 1, 2,5 10, 30 seconds and 1min.

Standard Curve: Up to 10 standard solutions may ve used to establish calibration quation curve. There is a choice of four methods for fitting curve through the calibration points. Linear Fit, Linear fit though zero, Square fit and cubic fit.

Multi-Wavelenght: Up to 10 wavelenghts may be entered, allowing the measurement of multiple wavelenghts on a series of samples.

Wavelength Scan: The wavelenght scan intervals are 0.1, 0.2, 0.5, 1, 2, 5nm and High, medium and Low scan speeds are available. Scan speeds vary from 100 to 3000 nm/min. Wavelenghts are scanned from high to low so that the instrument stand-by at high wavelenght. This minimizes de degradation of UV sensitive samples. precise control of filter and lamp changes measn that their effects are not seen on the final scan.

DNA/protein test: Concentration and DNA purity are calculated. Absorbance ratios 260nm/280nm or 260nm/230nm with optional subtracted absorbance at 320nm

TECHNICAL DATA

Display:	LCD 5” - 320 X 240p
Optical system:	Double beam
Absorbance Rang:	-0,3….+3,0 A
Absorbance Precision:	±0,0002 A a 1,0 A
Photometric Precision:	< 0,3% T
Photometric Range :	0 - 200% T; 0,3 - 3A
Photometric Stability:	0,001 A/h a 500 nm
Wavelenght Accuracy:	± 0,3 nm
Wavelenght Range:	190 - 1100 nm
Interface:	Paralel port (printer)
Light source:	Tungsten & Duterium
Memory:	200 test & 200 curves
Output:	USB
Scan Speed:	100 - 3000 nm/min. Intervals 0,1; 0,2; 0,5; 1,0; 5,0 nm
Stray Light:	< 0,05% T a 220 y 360 nm

USB connectable storage.
“Flash” memory not included.

MODEL	Code	Height / Width / Depth cm			Voltage	Weigth Kg
UV-6301	4120036	60	45	20	110-220V / 50-60Hz	22

SPARE PARTS

Tungsten halogen lamp.
Part No. 9597510

Deuterium lamp (UV).
Part No. 4312006

ACCESSORIES

Thermostatted flow Peltier cuvette holder (only compatible with UV-2005 and UV-3100 models)
Temperature range: from 15 ºC. to 40 ºC. in steps of 0.1 ºC (ambient temperature ± 22ºC.)
Precision: ± 0,2 ºC.
Sample suction volume: 1, 2, 3, 4, 5, 7.5, 10, 12.5, y 15 ml/min.
LCD Display: 128x64 pixels.

Part No	Height / Width / Depth (Controller) cm	Height / Width / Depth (Cuvette holder) cm	Power W	Weight Kg
4120018	11,5 27 17	10 12 7	30	3,5

Cuvette holder
For long cuvettes, pathlength between 1 and 50 nm. Part No. 4120030
For path leength100 mm. cuvettes. Part No. 4120031

Test tubes holder
For tubes from 10 to 20 mm. Ø Part No. 4120032

Code 4120030

Code 4120031

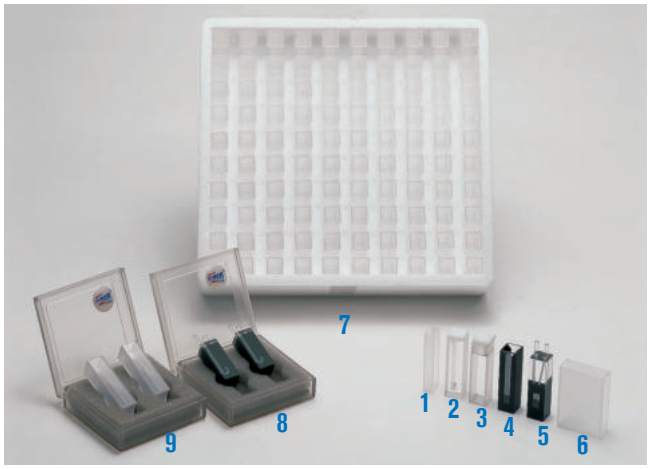
Code 4120032

Ink printer (not thermal). Paper 2 1/4" (56 mm) wide roll.
Includes power transformer and interface cables. (5V-3A)

Model

Part No.	Height / Width / Depth cm	Weight Kg
4120117	4 16 10	1

COMECTA Cuvettes for Spectroscopy



FEATURES

Range of polystyrene, glass and quartz cuvettes.
Standard size pathlength 10mm x 45mm high.
Special cuvette pathlength 40mm x 45 mm high (fig 6).
Special cuvette pathlength 4mm x 45 mm high (fig 1).

MODELS

Standard cuvettes

Part No.	Figure	Material	Optical path length	Description	Presentation
5100020	9	Quartz	10 mm	Standard square, "macro"	Pack of 2 units
5100021	9	Glass	10 mm	Standard square, "macro"	Pack of 2 units
5100022	7	Polystyrene	10 mm	Standard square, "macro", disposable	Box of 100 units
5100025	8	Glass	10 mm	Flow through cell, square "micro"	Pack of 2 units

Special cuvettes

Part No.	Figure	Material	Optical path length	Description	Presentation
5100014	6	Glass	40 mm	Rectangular	Pack of 1 unit
5100015	5	Glass	10 mm	Flow through cell. Window 5 x 10 mm	Pack of 1 unit
5100016	4	Glass	10 mm	Standard square, "micro"	Pack of 1 unit
5100017	3	Glass	10 mm	Standard square, "macro" with round lid	Pack of 1 unit
5100018	2	Quartz	10 mm	Semi-micro	Pack of 2 units
5100019	2	Glass	10 mm	Semi-micro	Pack of 2 units
5100023	7	Polystyrene	10 mm	Square Semi-Micro, disposable	Box of 100 units
5100024	1	Glass	5 mm	Square Semi-Micro	Pack of 1 unit

Semi Automatic clinical analyser “Photometer S-2000”

LOW PROFILE FUNCTIONAL CLINICAL ANALYSER.

APPLICATIONS

Clinical laboratories, Clinical Biochemistry, Haematology, E.I.A. Electrolytes and Ions.

FEATURES

47 most commonly used Pre-programmed clinical methods: cholesterol, glucose, blood iron, LHD, AST, UREA etc.
Storage for up to 134 methods and up to 1000 stored results.
6 analytical fitting routines: final point, bio-chromatic, regression fit, multi-standard curve, best fit and kinetics.
Graphic display LCD (640 x 240 pixels, 256 colours).
Lamp life save function.
Graphic display.
Quality control of analysis function.
Built in printer.
Control by “roller ball mouse” or “external mouse.”
Temperature conditions: 15 °C to 32 °C: Maximum humidity 85%
RS232 out put interface.

SPECIFICATIONS

Solid state photodiode detector.
Bichromatic optical system with 7 filters, 340, 405, 500, 546, 578, 620 and 670 nm.
Band pass: 10 nm.
Flow cell: 30 ul.
Measuring range: from 0.000 to 2.500 ABS.
Resolution: display 0.001 ABS, calculations to 0.0001ABS.
Thermostatted Peltier cuvette holder: 25, 30 and 37 °C Precision ±0.1 °C.
Tungsten halogen lamp of 6V 10 W.
Comes complete with protective cover, spare lamp and two rolls of printer paper.

MODEL

Part No.	Height / Width / Depth cm			Power rating	Power W	Weight Kg
4120010	14	45	33	110-220V/50-60Hz	150	10

ACCESSORY

Metallic thermostat dry block “BIO-BATH”

Small size with a fixed temperature of 37 °C with check thermometer, 8 tube positions for 75x13 VAC tubes.
Note: Accelerates the extraction of plasma for faster results and waiting time for the patient.

MODEL

Part No.	Height / Width / Depht (exterior) cm			Stability °C	Power W	Weight Kg
7001561	8.8	9.6	7	0.5	8	0.5

SPARE. Halogen lamp 6 V 10 W. Part No. 4312015

Digital colorimeter “Clormic”

MICROPROCESSOR CONTROLLED.
AUTOMATIC ZERO ABSORBANCE AND 100% TRANSMITTANCE.
ALPHANUMERIC 20 CHARACTER 2 LINE L.C.D. DISPLAY.

APPLICATIONS

Chemistry Laboratory, quality control, environmental control.

FEATURES

Wavelength range: 400 to 800 nm, by using special filters with a 30 nm band pass.
12 position Filter disc wheel selection .
Standard filters: 420, 440, 490, 520, 550, 580, 620 and 680 nm.
Expanded Absorption range: -0.3 to 3.5 O.D. in real time.
Transmission: 0 to 100 T %.
Photometric accuracy: >1 %.
Photometric precision: ±1 %.
Photometric stability: 0.004 A/hr.
Light source: Long life tungsten lamp.
Detector: Solid state.
Sample chamber: 10 mm cuvettes or test tubes of 12 and 16 mm Ø.
Minimum volume: 1 ml.
Display: Alphanumeric LCD display of 2 lines of 20 characters.
Calculation functions: Transmission T %. Absorbence, Concentration by factor or standard concentrations.
Calibration: Self adjusting by software.
USB interface for download of results to a computer

CONTROL PANEL

ON/OFF switch.
Interactive LCD display.
Numeric and function keypad.

MODEL

Part No.	Built in printer	Height / Width / Depth cm			Power W	Weight Kg
4120009	NO	11	18	28	10	4.5

SPARE

Lamp of 6 V / 6 mm.
Part No. 4512009

UV-Vis Spectrophotometer “Nano-Drop Digital 7”

ANDROID SYSTEM, TOUCHSCREEN, USB PORT.
MICROVOLUME UV-VIS.
WAVELENGTH (200-800 NM)
MINIMUM LOAD FOR DETECTION: 2 µl.
INCLUDES THERMAL PRINTER

NEW

USB

DESCRIPTION

The Nano-Drop Micro-Spectrophotometer is a spectrophotometer that measures samples from 0.5µl-2µl with high precision and capacity. Sample holders apply surface tension to form a sample column so that samples are held in the holder. During measurement, light passes through the sample column. In addition, the Nano-Drop has the ability to measure highly concentrated samples without dilution (100x higher concentration than samples measured by a standard cuvette).

APPLICATIONS

Rapid and precise detection of nucleic acids and proteins with just 2 µl of sample.
Measurement of bacterial concentration and culture solutions using the cuvette mode.
Determination of bacterial growth through the bacterial cell concentration test function (OD600).
Applications in various fields of life sciences, serving as a routine instrument in laboratories.
Detection of colorimetric methods such as Bradford and Lowry.

TECHNICAL CHARACTERISTICS

1. Wavelength range 200-800 nm.
2. Minimum sample size: 0.5-2.0 µl.
3. Path length: 0.2 mm / 1.0 mm.
4. Light source: Xenon flash lamp.
5. Detector Type: 2048 linear CCD array.
6. Wavelength accuracy: ±1 nm.
7. Spectral resolution: ≤3 nm (FWHM at Hg546 nm).
8. Absorbance accuracy: 0.003 Abs.
9. Accuracy of absorbance: ±1 % (7.332 Abs at 260 nm).
10. Absorbance range: 0.04 - 90 A.
11. Detection range: 2 ng/µl to 4500 ng/µl (dsDNA).
12. Measurement time: < 8 S.
13. Data output: USB
14. Material of sample pedestal: Aluminum alloy and quartz fiber.
15. Operating power: 25 W.
16. Standby power: 5 W..
17. Android system.
18. ABS stability ≤0.5 % (at 0.3 ABS).
19. ABS repeatability ≤0.5 % (at 0.3 ABS)
20. ABS accuracy ≤1 % (at 2.3 ABS).

OD600nm measurement:

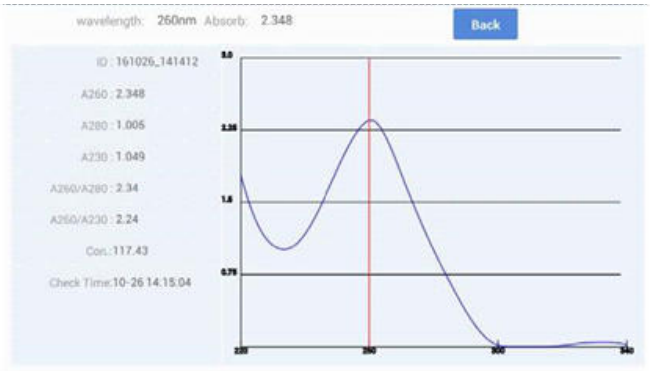
1. Light source: LED.
2. Wavelength range: 600±8 nm.
3. Absorbance range: 0-4 A.

Code	Width/Depth/Height cm	Supply voltage	Weight Kg
4120037	21 28 18	DC 24V 2A	3.6

ACCESSORIES

INCLUDED

Thermal printer
Carrying case
Spectrophotometric cuvettes
Thermal printer paper rolls
Mouse for easy screen operation



Nucleic acid detection

COMECTA Microplate Reader "TR-6"

FULLY AUTOMATIC. TOUCHSCREEN. PLATE SENSOR.

APPLICATIONS

Clinical diagnosis. Food quality control. Hematology.

FEATURES

7-inch LCD touchscreen.
8-channel optical fiber system: Ensures fast and accurate readings, with a time of 5 seconds for a 96-well plate.
Plate shaking function
Capacity to store up to 100 programs and 10,000 sample results, facilitating data management and retrieval.
Built-in printer: Allows direct printing of results without the need for additional devices.
Compatibility with multiple calculation methods: Includes calculations such as ABS, cutoff, multi-percent, log-percent, linear, exponential, index, and 4PL regression.
Support for methodologies: Compatible with various types of assays, including endpoint, fixed time, and kinetics.
Compatibility with standard 96-well microplates and other types: Provides versatility to use different types of microplates.
Absorbance range: 0-4 Abs
Resolution: 0.001 Abs (displayed), 0.0001 (calculated)
Bichromatic optical system with four wavelengths: 405nm, 450nm, 492nm, 630nm, (3 additional optional filters). **Spectral range from 400 to 700 nm.**
Bandwidth: 8 ± 2 nm

CONTROL PANEL

Navigation buttons: To facilitate the selection of options, configure parameters, and control the reading process.
Shaking controls: Allow adjustment of the speed and frequency of plate agitation to ensure proper mixing of reagents. I
ntegrated printer: Direct access to print results, without the need to connect external devices.
USB connection: To transfer data to other devices or perform software updates. Settings for calculations and results: Offers options to select the types of calculations to perform, such as regression and percentages.

MODEL	Part No.	Height / Width / Depth (exterior) cm			Voltage	Weight Kg
RT-6900	5690054	22	31	42	AC 110-240 V / 50-60 Hz	12

COMECTA Microplate washer 2600-C

COMPLETELY AUTOMATIC. EASY TO USE. 50 WASH PROGRAMS.

FEATURES

Plate sensor
Wash head of 8 x 1 Code: 5110009.
(12 x 1 optional) Code: 5110008.
Plate wash by 12 x 8 strips or 8 wells/strip.
Plate clean for flat, round and V bottom plates.
Automatic wash and rinse processes.
Reservoirs: 2 litre, wash solution.
2 litre, waste, with liquid level sensor.
Memory for up to 50 wash programs.
Software controll of head's depth adjust and horitzontal position.
Wash cycle times from 1 sec. to 2 hrs.
Wash dosing range: from 50 to 2000ul.
Dosing resolution: 50 µl per step.
Dosing resolution: ±2% at 300 µl.
Dosing resolution: 5% CV (based on 350ul of distilled water)
Residual volume (after aspiration):
< 1 µl (Cells, bottom U and V well plates.).
< 5 µl (Cells, bottom of flat well plate.).

APPLICATIONS

Clinical laboratories.
Blood banks.
Quality control food laboratories.

CONTROL PANEL

Color display with keyboard
LCD graphic display of 90 x 50mm
Membrane key pad of 9 keys.
Emergency stop button.

MODEL	Part No.	Height / Width / Depth (exterior) cm			Voltage	Weight Kg
2600-C	5110000	14	45	33	AC 110-250 V / 50-60 Hz	12

Multi-parameter water quality meter “MP-3006”

LARGE TOUCH SCREEN. TO MEASURE PH, ORP, CONDUCTIVITY, TDS, SALINITY, DISSOLVED OXYGEN, IONS & TEMPERATURE SUPPLIED WITH REX-6 ELECTRODE SUPPORT AND TOUCHPEN

NEW DESIGN

RS232

USB

FEATURES

7-inch touch screen.
Ability to store up to 1000 data sets. LPG method.
Possibility of memorizing, printing and deleting the measurement data.
USB and RS-232 ports for connection to PC.
Continuous, delayed and balanced measurement.
IP 54. AC adapter, 100-240V AC input, 24V DC output

TECHNICAL DATA

	Range	Accuracy	Resolution
pH:	-2 to +20	±0,002 FS	0,001
ORP:	-2000.00 to 2000.00 mV	±0,03 FS	0,01 mV
Conductivity:	0,000 µS to +2000mS	±0,5 FS	0,001µS
TDS:	0,000 mg/L to 1000ppt	±0,5 FS	0,001 mg/L
Salinity:	0,0 to 80.0 ppt	±0,1%	0,1%
Dissolved oxygen:	0,00 to 99.99 ppm	±0,5 mg/L	0,01 mg/L
Iones:	0 to 19990(ug/L, mol/L)	±0,5%	±1
Tª:	-10 to 135 ºC, 14 to 275 ºF	±0,5 FS	0,1

MODEL

Code	Height / Width / Depth cm			Power	Weight
4120702	22	19,5	6,8	100-240v AC input	0,95

See the "Electrodes and Probes" section for additional electrodes and probes (pages 249 and 250).

Digital pH meter “pH-3004”

HIGH-PERFORMANCE PORTABLE EQUIPMENT WITH IP65 PROTECTION AGAINST WATER AND DUST. SUPPLIED WITH CARRYING CASE THAT INCLUDES CONECTOR CON CABLE, CABLE DE COMUNICACIÓN, SOLUCIONES PH4,7,10,101,50ML SUPPLIED WITH PH ELECTRODE, ATC.

NEW DESIGN

RS232

USB

FEATURES

3.5-inch LCD screen.
The multi-read function allows automatic reading, timed reading and continuous reading.
Automatic/manual temperature compensation ensures accurate results.
The automatic hold function detects and locks the end point of the measurement.
Data capacity up to 500 sets for each parameter (GLP compliant).
Support for USB communication.
The portable meter is suitable for field measurements.
Calibration from 1 to 5 points with standard recognition.
Selectable pH buffer groups including NIST, DIN, GB, USA.
Automatic electrode diagnosis with pH slope and compensation display.
Rechargeable lithium battery, AC adapter, AC 100-240V input, DC 5V output

SPECIFICATIONS

	Range	Precision	Resolution
pH:	-2.00 to 20.00pH	± 0.01 pH	0.1, 0.01 pH
mV:	-2000.0 to 2000.0 mV	± 0.3 mV or ± 0.1%	0.1
Tª:	-5 to 110 ºC, 23 to 230 ºF	± 0.2	0,1

MODEL

Part No.	Height / Width / Depth cm			Power source	Weight Kg
4120403	22,5	8	3,5	Rechargable lithium battery	0.4

Digital pH-meter "pH-3003"

PORTABLE EQUIPMENT FOR FIELD MEASUREMENTS IP65 WATERPROOF.
CHARGER WITH PH 4, 7 AND 10 OF 50ML SOLUTIONS SUPPLIED.
PH 0-14 ELECTRODE INCLUDED

NEW DESIGN

FEATURES

3.5-inch LCD screen.
The portable meter is suitable for fields.
1-2 point calibration with standard recognition.
Manual temperature compensation ensures accurate results.
Rechargeable lithium battery, AC adapter, AC 100-240V input, DC 5V output.

SPECIFICATIONS

	Range	Precision	Resolution
pH:	0 to 14	±0,03	0,01
mV:	±1400	±2	1

MODEL

Part No.	Height / Width / Depth cm			Power source	Weight Kg
4120301	22	8	3	Rechargable lithium battery	0.4

Digital pH meter "pH-3005"

BENCH TOP MODEL WITH LARGE SCREEN. 6.0 INCH LCD SCREEN IP54 WATERPROOF
SUPPLIED WITH PH AND TEMPERATURE ELECTRODE.

NEW DESIGN
USB
RS232

FEATURES

Multiple reading function allows automatic reading and continuous reading.
Automatic/manual temperature compensation guarantees results.
Automatic hold function detects and locks the end point of the measurement.
Data storage 50: sets for each parameter.
IP54 waterproof.
1 to 3-point calibration with standard recognition.

SPECIFICATIONS

	Range	Precision	Resolution
pH:	-2.00 to 18.00 pH	±0,01	0,01
mV:	-1999 to 1999 mV	±0.1%FS	1
Tª	(ºC):-5 to 110 ºC(23 to 230 ºF)	±0,5	0,1

MODEL

Part No.	Height / Width / Depth cm			Weight Kg
4120501	19	24,2	6,8	0,9

See the "Electrodes and Probes" section for additional electrodes and probes (pages 249 and 250)

Digital pH meter "pH-3006"

BENCH TOP, LARGE GRAPHIC TOUCH SCREEN CONTROL. 7-INCHHIGH CONTRAST.
SUPPLIED WITH ELECTRODE HOLDER AND PH AND TEMPERATURE ELECTRODE

NEW DESIGN
RS232

FEATURES

The multi-read function allows automatic reading, timed reading and continuous reading.
Automatic/manual temperature compensation guarantees a result.
Data storage 1000: sets for each parameter (GLP compliant).
The data analysis function helps the user to review, compare and recalculate the results.
Support for USB or RS-232 communication.
IP54 waterproof.
Calibration from 1 to 6 points with standard recognition.
Selectable pH buffer groups including DIN, NIST, USA, MERK, JIS, GB.
Support for customization of the pH standard group.
Automatic device diagnostics with compensation display and pH slope.

SPECIFICATIONS

	Range	Precision	Resolution
pH:	-2 to 20 pH	± 0.002 pH	0.1, 0.01, 0.001pH
mV:	-2000.00 to 2000.00 mV	± 0.1 mV or ± 0.03%	0.1, 0.01 mV
Tª (ºC):	-10 to 135 ºC, 14 to 275 ºF	±0,1	0,1

MODEL

Part No.	Height / Width / Depth cm			Weight Kg
4120601	29	20	7	0,4

Conductivity meter “CD-3004”

PORTABLE EQUIPMENT WITH IP65 PROTECTION AGAINST WATER AND DUST.
3.5 INCH LCD DISPLAY
SUPPLIED WITH CONDUCTIVITY AND TEMPERATURE ELECTRODE

FEATURES

Multiple reading function allows automatic reading, timed reading and continuous reading.
Automatic temperature compensation ensures accurate results
.Automatic hold function detects and locks the end point of the measurement.
Data capacity of up to 500 sets for each parameter (GLP compatible).
USB communication support.
1 to 3-point calibration with standard recognition.
Configurable parameters including cell constant, temperature compensation, coefficient and TDS factor.
Temperature compensation type.
Rechargeable lithium battery, AC adapter, 100-240 V AC input, 5 V DC output.

SPECIFICATIONS

Reading ranges: (automatic)
Conductivity
Range: 0.000 µ S/cm to 500 mS/cm
Reesolution: 0.001 µ S/cm
Precisionn: ± 1.0% FS

TDS:
Range: 0.00ppm ~ 300ppt
Resolution: 0,01 ppm mínimo.
Precision: ± 1.0%FS
Salinity range: 0.0 ~ 80.0 ppt
Temperature range:-5 to 110 ºC, 23 to 230 ºF

MODEL

Part No.	Width / Height / Depth cm			Power source	Weight Kg
4120413	8	22,5	3,5	AC Adapter	0.4

Conductivity meter “CD-3005”

BENCH TOP METER WITH LARGE SCREEN.

FEATURES

High resolution LCD display, 6.0 inches.
Multiple reading function allows automatic reading and continuous reading.
Automatic hold function detects and locks the end point of measurement.
Data storage 50 sets for each parameter.
Reset function automatically resets all settings to factory default settings.
1-point calibration with standard recognition.
AC adapter, 100-240 V AC input, 9 V DC output.

SPECIFICATIONS

Range: 0.00 µS/cm to 200 mS/cm
Accuracy: ±1.0% F.S.
Resolution: 0.001 µS/cm
Temperature (range): -5.0 to 110 ºC, 23.0 to 230 ºF
TOS:
Range: 0.00mg/L ~ 100g/Lt
Resolution: 0.01 ppm minimum.
Accuracy: ±1.0% F.S.

MODEL

Part No.	Width / Height / Depth cm			Weight Kg
4120511	19,5	24,2	6,8	0.8

See the "Electrodes and Probes" section for additional electrodes and probes (pages 250)

ELECTRODES AND PROBES

pH electrodes

Code	electrode	pH range	Material	Working Temp.	Measures	Connector Type	Valid for
4120143	pH and Temperature	0 ~ 14	Polycarbonate	5~60 ℃	Φ12×120 mm	BNC(Q9)& 4-pin aviation	PH-3004 / PH-3005 / PH-3006 / MP-3006
4120118	pH	0 ~ 14	Polycarbonate	5~60 ℃	Φ12×120 mm	BNC(Q9)	PH-3003 / PH-3004 / PH-3005 / PH-3006 / MP-3006
4120119	pH	0 ~ 10	POM	5~60 ℃	Φ12×36+Φ20×132 mm	BNC(Q9)	PH-3003 / PH-3004 / PH-3005 / PH-3006 / MP-3006
4120133	pH	0 ~ 14	Glass	5~60 ℃	Φ12×120 mm	BNC(Q9)	PH-3003 / PH-3004 / PH-3005 / PH-3006 / MP-3006
4120134	pH	0 ~ 14	Polycarbonate	0~80 ℃	Φ12×120 mm	BNC(Q9)	PH-3003 / PH-3004 / PH-3005 / PH-3006 / MP-3006
4120137	pH	0 ~ 14	POM and 316 Stainless Steel	0~60 ℃	Φ8×60+20×135 mm	BNC(Q9)	PH-3003 / PH-3004 / PH-3005 / PH-3006 / MP-3006
4120140	pH	0 ~ 14	Epoxy	0~80 ℃	Φ12×120 mm	BNC(Q9)	PH-3003 / PH-3004 / PH-3005 / PH-3006 / MP-3006

Selective Ion Electrodes

Code	Electrode type	Ion	Range Measur.(mol/L)	Working Temp.	Measures	Connector Type	Valid for
4120148	Selective Ion	Fluoride (F-)	1×10-6~0.1 M	5~45 ℃	Φ12*120 mm	BNC(Q9)	MP-3006
4120192	Selective Ion	Chloride (Cl-)	5×10-5~0.1M	5~60 ℃	Φ12*120 mm	BNC(Q9)	MP-3006
4120189	Selective Ion	Calcium (Ca2+)	1×10-5~0.1 M	5~60 ℃	Φ12×120 mm	BNC(Q9)	MP-3006
4120191	Selective Ion	Copper (Cu2+)	5×10-7~0.1 M	5~60 ℃	Φ12×120 mm	BNC(Q9)	MP-3006
4120190	Selective Ion	Nitrate (NO3-)	1×10-5~0.1 M	5~60 ℃	Φ12×120 mm	BNC(Q9)	MP-3006

*** SOLUTIONS PH-METER CALIBRATION TAMPHERS**

4120107 250 ml bottle Buffer ±0,02 pH 4,00 A 20 ºC; 4,01 a 25 ºC
4120108 250 ml bottle Buffer ±0,02 pH 7,02 A 20 ºC; 7,00 a 25 ºC
4120127 250 ml bottle Buffer±0,02 pH 9,23 A 20 ºC; 9,18 a 25 ºC
4120109 250 ml bottle 3M KCl solution (Electrolyte pH electrodes)

Complete probe calibration and maintenance kit
Code: 4121010
*Includes all

Conductivity Probes

Code	Electrode Working Temp.	Measu. range	Working Temp.	Measures	Material	Connector Type	Valid for
4120150	Conductivity Probe	2 ~ 20000 µS/cm	0~80 ℃	Φ12×120 mm	Glass	5-pin aviation	CD-3004 /CD-3005 /MP-3006
4120151	Conductivity Probe	2 ~ 3000 µS/cm	0~80 ℃	Φ12×120 mm	Glass	5-pin aviation	CD-3004 /CD-3005 /MP-3006
4120152	Conductivity Probe	0.05 ~ 200 µS/cm	0~80 ℃	Φ12×120 mm	Glass	5-pin aviation	CD-3004 /CD-3005 /MP-3006
4120153	Conductivity Probe	2000 ~ 200000 µS/cm	0~80 ℃	Φ12×120 mm	Glass	5-pin aviation	CD-3004 /CD-3005 /MP-3006

Dissolved Oxygen Electrodes

Code	Electrode type	Type	Measu. range	Working Temp.	Measures	Connector Type	Valid for
4120147	DO Electrode	DO&Temp.	0 ~ 20 mg/L	5~40 ℃	Φ12×120 mm	4-pin aviation	MP-3006

Temperature Probes

Code	Electrode type	Measu. range	Material Sensor	Measures	Compensation unit Temperature	Connector Type	Valid for
4120144	Temperature Probe	-5 ~ 105 ℃	316 Stainless Steel.	Φ4×120 mm	2.25KΩ	4-pin aviation	PH-3004 / PH-3005 / PH-3006 / MP-3006

Redox electrodes

Code	Electrode type	Working Temp.	Material Sensor	Measures	Filling solution	Connector Type	Valid for
4120146	Redox	5~70 ℃	Glass	Φ12×120mm	3 M KCl	BNC(Q9)	PH-3006 / MP-3006

Reference Electrodes

Code	Electrode type	Working Temp.	Material Sensor	Measures	Filling solution	Connector Type	Valid for
4120194	Reference	5~55 ℃	Glass	Φ12×120 mm	KC Saturated Solutionl	U shape terminal	MP-3006
4120154	Reference	5~55 ℃	Glass	Φ12×120 mm	Saturated KCl solution (internal solution) + solution (Free choice)	banana	MP-3006

Other Electrodes

Code	Electrode type	Working Temp.	Material Sensor	Measures	Material	Connector Type	Valid for
4120183	Platinum Electrode	5~50 ℃	Glass	Φ12×120mm	Platinum	BNC(Q9)	PH-3004 / PH-3005 / PH-3006 / MP-3006
4120187	Silver Electrode	5~50 ℃	ABS	Φ12×120mm	Silver	BNC(Q9)	PH-3004 / PH-3005 / PH-3006 / MP-3006

STANDARD SOLUTIONS FOR CONDUCTIVITY METERS

4120160 250 ml bottle Pattern ±0,05 de 1278 mS/cm a 20 ºC; 1413 mS/cm a 25ºC
4120161 250 ml bottle Pattern ±0,025 de 4,915 mS/cm a 20 ºC; 5,446 mS/cm a 25ºC
4120162 250 ml bottle Pattern ±0,06 de 11,67 mS/cm a 20 ºC; 12,88 mS/cm a 25ºC

*** FOR MORE ELECTRODES CONSULT**

NUTRITIONAL AND WATER ANALYSIS APPARATUS

Kjeldahl Digestion Unit	page 253
Kjeldahl Distillers	pages 257 to 260
Fats and oils extractor	page 261
Cellulose and fiber determinant extractor	page 262
Oenological distiller	pages 263 and 265
Water analysis “COD” and “BOD”	pages 265 and 266
Biological oxygen demand “BOD”	page 267
Laboratory flocculators	page 268
Demineralizers	page 269
Water distillers	pages 270 to 271
Water softeners	page 271

“Only in the dictionary does the word success come before work”
Professor Luis Huguet

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"
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.*

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 & Wijkström		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	Method Kjeldahl through precipitation of casein	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-Digest**
Raw Cellulose	Method Weende & Wijkström		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	YES				
Phosphorus	Method Photometric					YES
Hydrocyanic Acid	Distillation in Silver Nitrate	YES				
Pure zolidine	Soxhlet Extraction				YES	
ANALYSIS OF FRUIT BEVERAGES AND DERIVATIVES	**Reference**	**Pro-Nitro M,S and A**	**Dosi-Fiber**		**DE-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**		**D.Q.O./ECO-8/ECO16**	**Bloc-Digest**
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.

Dry block for Determination of Organic Nitrogen by the Kjeldahl method

Models Macro and Micro

THE EQUIPMENT FOR THE DETERMINATION OF ORGANIC NITROGEN IS MADE OF TWO BASIC ELEMENTS:
- **BLOCK DIGESTER (MINERALISATION) WITH PROGRAMMABLE TEMPERATURE CONTROL AND GLASSWARE (MACRO 250 ml AND MICRO 100 ml).**
- **DISTILLATION UNIT "PRO-NITRO M", "PRO-NITRO S" (SEMIAUTOMATIC) AND "PRO-NITRO A" (AUTOMATIC).**

RS232

Digestion Block "Bloc-digest"

FEATURES

Minimal sample manipulation
Uniform heating.
Capacity to store 20 programs of 4 steps for temperature and time.
RS-232 port for temperature register and digestion programation from a PC.
Gas collection system that does not require special water jet pumps.
Supplied complete with:
1 metal heater block.
1 programmer for time and temperature
1 tube support rack
1 gas collector
Digestion tubes.

Complete unit with: Dry-block connected to a programmable process unit, (time and temperature) rack support for tubes and fume extractor.

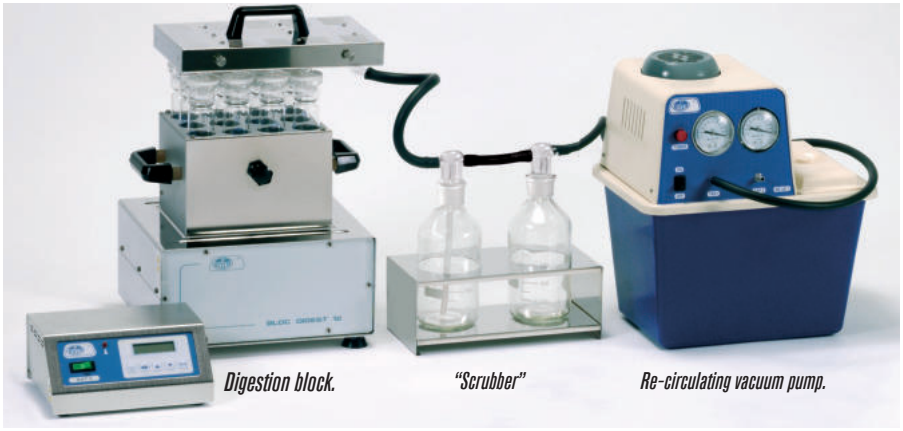
MODELS - COMPLETE UNIT MACRO

MACRO	Part No.	No. of positions
Bloc Digest 6	4000629	6
Bloc Digest 12	4000630	12
Bloc Digest 20	4000631	20

MODELS - COMPLETE UNIT MICRO

MICRO	Part No.	No. of positions
Bloc Digest m 12	4001047	12
Bloc Digest m 24	4001048	24
Bloc Digest m 40	4001049	40

ACCESSORIES: EXTRACTION SYSTEM AND NEUTRALIZATION OF ACID VAPOURS



Specially designed to absorb and neutralize vapours generated in the Kjedahl digestion processes.
Composed of a "Scrubber unit" that blocks the passage and neutralizes the condensed acids, and a re-circulating water pump that produces sufficient vacuum to aspirate the vapours.
It is essential to put the " Scrubber" unit together with the neutralizer solution between the digestion block and the re-circulating pump. Digester "Bloc Digest 20" requires 2 "Scrubber" units for a proper neutralization of fumes. Note: Pump with part number 4001612 has 2 suction inlets.

Reduces water consumption, no requirement for a constant connection for mains water.
Prevents emission of gas vapours and acidic water to waste.
Low noise level (<65dBA)
Re circulating pump made from chemically resistant materials

"Scrubber" unit

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

It is supplied with 3 Kg. acid vapours neutralizer solution.
Spare part:
3 Kg. acid vapours neutralizer solution.
Part No. 4001610

Water recirculation vacuum pump

Part No.	Height / Width / Depth (exterior) cm	Vacuum level bar	Pump rate Litres/minute	Weight Kg
4001612	44 39 28	0.98	10	10

Digestion apparatus for trace metal determination “TMB-12”, “TMB-20”.

DIGESTION SYSTEM FOR 12 SAMPLES (TMB-12) AND FOR 20 SAMPLES (TMB-20)

Fully automatic digestion process, with lifting and lowering of the sample rack.

Apparatus with epoxy enameled metal structure with automatic sample holder including the raising and lowering of the insertion frame and the exhaust manifold. Other components in stainless steel or with thermoplastic coating resistant to chemical agents.

APPLICATIONS

Digestion system to determine the acid-soluble parts of metals in sludge, sediments and soils according to DIN 38414.

CARACTERÍSTICAS COMUNES

Uniform heating.
Digestion block assembly that allows a temperature process with maximum precision, with an increased digestion yield of up to 12 or 20 samples.
Capacity to store 20 programs of 4 temperature and time steps.
RS-232 output for temperature recording and digestion programming from a computer.

Supplied complete with:
1 metal heating block.
1 automatic sample elevation system.
1 “Rat-2” programmer of time/temperature processes.
1 digestion tube rack with tube rack holder and 1 condensation tube rack with tube rack holder.
Tubes for digestion.
Condensation tubes.

MODELS - COMPLETE EQUIPMENT

MACRO	CODE	Number of seats	Height/Width/Depth Cm	Consumption W	Weight Kg
TMB-12	4002630	12	94 55 58	2152	61
TMB-20	4002631	20	94 55 58	2552	67

Time/temperature process programmer RAT-2.
Code 4001538

Features
Temperature range from 45 to 450 ºC.
Memory for 20 programs of 4 steps.
Maximum time per step: 600 minutes.
Acoustic indication of end of digestion program.
Two selectable temperature gradients:
Kjeldahl / D.Q.O.
Temperature sensor breakage alarm.
Independent temperature control.
Bidirectional RS-232 serial connection for temperature recording and editing of the digestion program with the RAT connected to a computer.
A software CD is included in the digestion unit.
Recirculation pump control connection.
Sample elevator control connection.

Control panel
The control panel and display of the RAT-2 allows the creation and execution of a digestion program.
During digestion it displays the block temperature, the elapsed time and the program step.

Racks with digestion tube rack holder
Thermoplastic coated, with handles and side plates to prevent heat loss.

Models	Code	Number of seats
TMB-12	4005011	12
TMB-20	4005013	20

Condensation tube racks with tube rack holders
Thermoplastic coated, with handles and side plates to prevent heat loss.

Models	Code	Number of seats
TMB-12	4005012	12
TMB-20	4005014	20

Metal heating blocks
For their correct operation it is essential to include the RAT-2 time/temperature process programmer, since they should not be connected directly to the mains.

Models	Code	Number of seats	Consumption W	Weight Kg
MACRO	4000508	12	2100	25
MACRO	4000509	20	2500	31

Digestion tubes. Code 4001030
250 ml capacity.

Lower coolant tubes. Code 4001031

Upper condenser tubes. Code 4001032

PARTS LIST AND ACCESSORIES

Heating blocks

To function correctly it is important to include in the purchase the controller unit for time and temperature RAT-2, The block should not be connected directly to the mains supply.

Models	Part No.	No. of positions	Ø tube mm	Height / Width / Depth (exterior) cm	Temperature °C	Power W	Weight Kg
MACRO	4000507	6	42	18 33 28	45 to 450	1500	18
MACRO	4000508	12	42	18 39 33	45 to 450	2100	25
MACRO	4000509	20	42	18 44 39	45 to 450	2500	31
MICRO	4001050	12	26	18 33 28	45 to 450	1500	16
MICRO	4001051	24	26	18 39 33	45 to 450	2100	22
MICRO	4001052	40	26	18 44 39	45 to 450	2500	27

Process programmer for time / temperature RAT-2. Part No. 4001538

Features

Temperature range from 45 ºC to 450 ºC.
Memory for 20-4 steps programs.
Maximum time per step: 600 minutes.
Acoustic indication for digestion end of program.
Two selectable temperature gradients: kjeldahl/D.Q.O.
Temperature sense breakage alarm.
Independent control of safety maximum temperature.
Bidirectional RS-232 serial connection. For temperature registration and digestion program edition with the RAT connected to a PC.

Control Panel

The control panel and the RAT-2 display allow the creation and execution of the digestion program.
During the digestion, it shows the block temperature, the elapsed time in the program step.

Electronic controller RAT-2

Tube support rack.

Made of chemically treated no corrosive Dural, with handles and side panel that prevents heat loss.

Fume extraction

Unit for collecting fumes supplied with a support rack. Made of borosilcate glass and stainless steel.

Models	Part No.	No. of places	Height / Width / Depth (exterior) cm
MACRO	4005071	6	15 17.5 12.5
MACRO	4005081	12	15 23 18
MACRO	4005091	20	15 28.5 23.5
MICRO	4001053	12	15 17.5 12.5
MICRO	4001054	24	15 23 18
MICRO	4001055	40	15 28.5 23.5

Models	Part No.	No. of places	Height / Width / Depth (exterior) cm
MACRO	4005072	6	15 18 12
MACRO	4005082	12	15 23 18
MACRO	4005092	20	15 29 23
MICRO	4001056	12	15 18 12
MICRO	4001057	24	15 23 18
MICRO	4001058	40	15 29 23

Digestion and distillation tube Series MACRO of 250 ml volume. Graduated to 100 ml 42 mm Ø x 300 mm high.
Part No. 4042300

Tube for digestion and distillation Series MICRO of 100 ml volume. 26 mm Ø x 300 mm high.
Part No. 4001045

Water jet pump for vacuum extraction. Made of PVC designed for the fume extraction of the 20 and 40 place models.
Part No. 4000633

Water Jet pump for vacuum extraction. Metallic, suitable for the extraction of fumes for the 6, 12 and 24 place models. Part No. 7000293

Steam distillation unit Kjeldahl “Pro-Nitro M”

DETERMINATION OF ORGANIC NITROGEN (KJELDAHL METHOD).
AUTOMATIC NaOH DOSAGE AND TEMPORIZE STOP.

Steam distillation Kjeldahl unit.
Simple secure systematic analysis suitable for small to Medium throughput of samples.

FEATURES

Steam distillation system.
Compact steam generator with safety over temperature thermostat and over pressure device.
Safety door, the system will not operate if the door is open.
“Tube in place” sensor: if the tube is not located, the dosing process of NaOH will not take place.
Universal adapter for digestion/distillation tubes MACRO (Ø 42 mm) and MICRO (Ø 26mm)
Small footprint, saves bench top space: The H_2O and NaOH reservoirs are placed within the unit.
Stainless steel case with reinforced ABS plastic front.
Automatic distillate titration kit. (See accessories).

SPECIFICATIONS

Measuring range: from 0.2 to 200 mg of Kjeldahl Nitrogen.
Programmable distillation time.
Nitrogen recovery >99.5%
Distillation speed: from 35-40ml/minute
Typical distillation time: from 7-10 minutes.
Water consumption rate: from 80-100 litres/Hr.
Steam generator water consumption: 2,5 Litres/ Hr.
Water reservoir for steam generator: 6 litres
NaOH reservoir: 2 Litres.

ALARMS

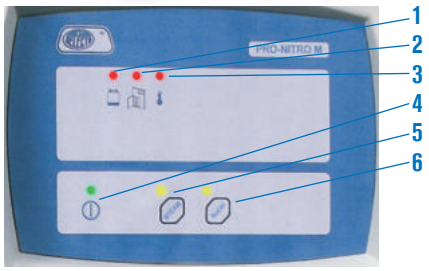
Low water level for the steam generator.
Safety door open or no distillation/digestion tube in place.
Steam generator over temperature.

AUTOMATED SEQUENCES

Open and closure of cooling water to the cooling coil.
Automatic load of NaOH once the distillation has started.
Select NaOH volume.
Stop at the end of the pre-set programmed time.

ADDITIONAL REQUIREMENTS

To complete Kjeldahl Nitrogen analysis a digestion block is also required.



CONTROL PANEL

1. Low water indicator.
2. Door open or no tube presence indicator.
3. Over temperature indicator.
4. Mains on indicator.
5. Push button and indicator start/stop distillation.
6. NaOH volume selection.

MODEL

Part No.	Height / Width / Depth cm			Power W	Weight Kg
4002627	75	50	50	1800	30

Supplied with a MACRO Ø 42mm tube, set of reagent containers and tubing.

ACCESSORIES

Tube for digestion and distillation
Series MICRO of 100 ml volume.
Part No. 4001045

Digestion and distillation tube
Series MACRO of 250 ml volume.
Part No. 4042300

Polycarbonate conical flasks durable. CAPACITY 250 ml
Part No. 5310101 without cap.

Circulation chiller Chiller 1400.
To avoid water consumption
Code 6001493 (See page 112).

Steam distillation unit Kjeldahl Semi-Automatic “Pro-Nitro S”

DETERMINATION OF ORGANIC NITROGEN (KJELDAHL METHOD).
AUTOMATIC BORACIC AND NaOH DOSAGE, SAMPLE DRAINAGE AND TEMPORIZED STOP.

Semi-automatic steam distillation Kjeldahl unit. Simple secure systematic analysis suitable for medium to large throughput of samples.

FEATURES

Steam distillation system. Compact steam generator with safety over temperature thermostat and over pressure device. Safety door, the system will not operate if the door is open.
“Tube in place” sensor: if the tube is not located, the dosing process of NaOH will not take place.
Universal adapter for digestion/distillation tubes MACRO (Ø 42mm) and MICRO (Ø 26 mm).
Small footprint, saves bench top space: The H_2O, NaOH and H_3BO_3 reservoirs are placed within the unit.
Empty Digestion/Distillation tube system.
Stainless steel case with reinforced ABS plastic front.
Green LED 2 digit display.
Distillation program: (Add NaOH, Add Boric Acid, Distillation time, Empty tube.)
Automatic distillate titration kit. (See accessories).

SPECIFICATIONS

Measuring range: from 0.1 to 200 mg Nitrogen.
Programmable distillation time.
Nitrogen recovery >99.5%
Distillation speed : from 35-40ml/minute
Typical distillation time: from 7-10 minutes.
Water consumption rate: from 80-100 litres/Hr.
Steam generator water consumption: 2.5 Litres/ Hr.
Water reservoir for steam generator: 6 litres
NaOH reservoir: 2 Litres.
Boric Acid reservoir: 2 Litres

ALARMS

Low water level for the steam generator.
Safety door open or no distillation/digestion tube in place.
Steam generator over temperature.

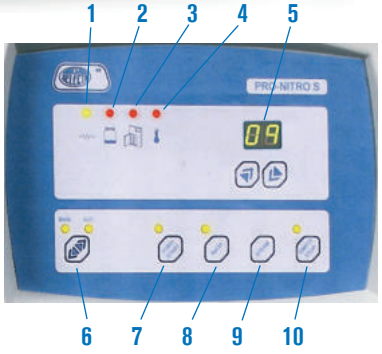
AUTOMATIC

Single push button to start the distillation cycle:
- Boric acid dosing
- Start distillation.
- NaOH dosing
- Stop Distillation (Programmed time transpired.)
- Acoustic indicator at the end of the cycle.

ADDITIONAL REQUIREMENTS

To complete Kjeldahl Nitrogen analysis a digestion block is also required.

CONTROL PANEL



1. Illuminated indicator. Steam generator
2. Low water in the steam generator
3. Door open or no tube present indicator.
4. Over temperature indicator.
5. Push button and display to select parameters.
6. Mode push button, Manual or Automatic.
7. Push button, dose Boric Acid/Push button START in automatic mode.
8. Dose NaOH push button.
9. Push button, start the distillation in manual mode.
10. Push Button, empty sample tube.

MODEL

Part No.	Height / Width / Depth cm			Power W	Weight Kg
4002851	75	50	50	1800	32

Supplied complete with a MACRO Ø 42 mm tube, set of connection tubes, set of reservoirs.

ACCESSORIES

Tube for digestion and distillation
Series MICRO of 100 ml volume.
Part No. 4001045

Digestion and distillation tube
Series MACRO of 250 ml volume.
Part No. 4042300

Polycarbonate conical flasks durable. CAPACITY 250 ml
Part No. 5310101 without cap.

Circulation chiller Chiller 1400.
To avoid water consumption
Code 6001493 (See page 112).

Automatic steam distillation unit Kjeldahl "Pro-Nitro A"

DETERMINATION OF ORGANIC NITROGEN (KJELDAHL METHOD)
FULLY AUTOMATIC OPERATION. FROM THE REAGENT DOSAGE TO THE TITRATION.

Steam distillation system Kjeldahl, complete with automated "ON-LINE" analysis (evaluation in real time). For systematic precise analysis, with minimum personnel intervention, simple and safe. Adequate for a laboratory with a medium to large throughput of samples.

The Kjeldahl steam distillation unit «PRO-NITRO A» evaluates the distillate at the same time as it is produced (evaluation «On-Line»), the evaluation and distillation are completed as one operation, reducing drastically the analysis time. This type of evaluation offers the following additional advantages: detects the point where the sample no longer produces Nitrogen, which means that, the distillation stops at the optimum maximum Nitrogen recovery and does not prolong the analysis longer than necessary.

The titration is a colorimetric method and is accepted by AOAC and does not require any periodic calibration.

FEATURES

Distillation by steam generation.
Automatic «On-line» colorimetric evaluation.
Steam generator with safety thermostat, over temperature and over pressure device.
Safety, door closed, that prevents distillation if open.
Detects that a digestion/distillation tube is present. This prevents the dosing of NaOH if there is no tube located.
Universal adapter for MACRO (Ø 42 mm) and MICRO (Ø 26 mm)distillation tubes.
Space saving in the laboratory: the reservoirs for the H2O, NaOH, Boric Acid and HCl are located inside the unit.
Empties the digestion/distillation tubes and the collector automatically.
Automatic stop when distillation is complete.
Large LCD display of 20 x 4 characters.
RS232 output to results printer.
Main system made from stainless steel with an ABS plastic front.

SPECIFICATIONS

Measuring range: 0.2 to 200 mg Nitrogen.
Nitrogen recovery:> 99.5%
Distillation speed: from 35 to 45 ml/minute
Coolant water consumption: 80 to 100 litres per hour.
Steam generator water consumption: 2.5 Litre/Hr.
Steam generator water reservoir capacity: 6 litres.
NaOH reservoir capacity: 2 Litres.
Boric Acid reservoir capacity: 2 Litres.
Titrant reagent reservoir capacity: 2 Litres.
Evaluation precision: 1.5%
Minimum reagent dose 0.01ml.

ALARMS

Low water level for the steam generator.
Safety door open or no distillation/digestion tube in place.
Steam generator over temperature.

ADDITIONAL REQUIREMENTS

To complete Kjeldahl Nitrogen analysis a digestion block is also required.

MODEL

Part No.	Height / Width / Depth cm			Power W	Weight Kg
4002430	75	50	50	1800	38

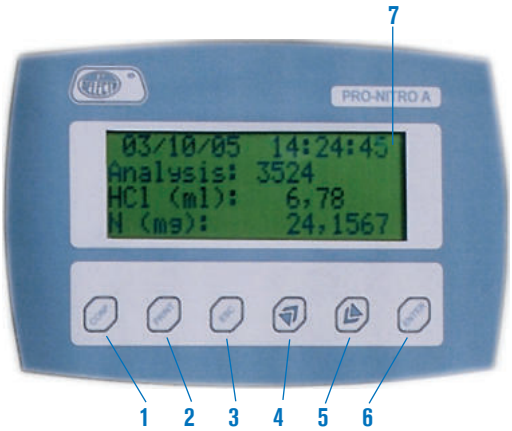
Supplied complete with a MACRO Ø 42 mm tube, set of connection tubes, set of reservoirs, 250 ml. of mixed indicator 4.8 and 100 gr. of sulphate ammonium.

AUTOMATION

Closing and opening of the condenser cooling water in line with the distillation process.
Dosing of Boric Acid.
Dosing of NaOH once the distillation has started.
Select NaOH and Boric Acid volume.
«On-line» evaluation of distillate.
Auto detection of the end of the distillation process.
Special functions to maximise performance.
Special functions for maintenance.

REAGENTS

All the reagents used in the «PRO-NITRO A» are easily located:
- Solution of 30-40% NaOH.
- Solution of Boric Acid at 1% concentration (approx.) with mixed indicators (Bromo-cresol green and methyl red).
- Reagent for titration: HCl or H2SO4 from 0.05N or 0.25N adjusted to 0.001 Normal.



CONTROL PANEL

1. Menu to configure the date, time and selectable parameters.
2. Print the analysis information using the optional printer 4120113, purchased as an accessory.
3. <<ESC>> to cancel changes and escape from the menu.
4. Increase values and navigation through the menu.
5. Decrease values and navigate through the menu.
6. <<ENTER>> to accept changes to parameters and navigation through the menu.
7. LCD display to visualise parameters and results

ADVANTAGES

Excellent precision on results.
Complete Nitrogen recovery from the sample.
Minimum operator intervention.
No calibration required.
Minimum analysis time.

RESULTS

The results can be downloaded to a printer (Optional), required for GLP, and includes the following data:
- Consecutive unrepeatable I.D. number of analysis.
- Date and time.
- Volume of NaOH.
- Volume of Boric acid.
- Reagent normality.
- Nitrogen detected.

```
15/10/05 12:16:08
Analysis Nr: 087598
NaOH:      75ml.
Boric:     25ml.
Normality: 0.1503

Results:
Reagent:   10.521ml
Nitrogen:  22.1382mg
```

ACCESSORIES

Ink printer (not thermal paper), size (4/6/10 cm) suitable for use with the PRONITRO A.
Paper 2 1/4" (56 mm) wide.
Interface RS232.
Includes interface and mains cables.
Part No. 4120113

Digestion and distillation tube. Series MACRO of 250 ml volume. Graduated to 100 ml 42 mm Ø x 300 mm high.
Part No. 4042300

Tube for digestion and distillation. Series MICRO of 100 ml volume. 26 mm Ø x 300 mm high.
Part No. 4001045

Note: Compatible with the "Chiller" water recirculation unit to create a closed cooling water circuit (see page 82).

QUALITY CONTROL INFORMATION
ALL OF THE KJELDAHL DISTILLATION UNITS 4002430 REQUIRE A PROTOCOL ASSAY FOR THE RECOVERY OF NITROGEN WHEN MANUFACTURED.
THESE RESULTS COME WITH THE EQUIPMENT AND ARE VALID FOR IQ AND OQ CLARIFICATION.

COMPLEMENT

Digital colorimeter "Pro-A 520"

MICROPROCESSOR CONTROLLED.
AUTOMATIC ZERO ABSORBANCE AND 100% TRANSMITTANCE.
ALPHANUMERIC 20 CHARACTER 2 LINE L.C.D. DISPLAY.

APPLICATIONS

Reagent preparation for Pro-Nitro A.

FEATURES

Wavelength range: 400 to 800 nm, by using special filters.
Standard filter: 520 nm.
Expanded Absorption range: -0.3 to 3.5 O.D.
Transmission: 0 to 100 T %.
Photometric accuracy: >1 %. @ 1.000 A.
Photometric precision: ±1 %. @ 1.000 A.
Photometric stability: 0.004 A/hr. @ 0.000 A.
Light source: Long life tungsten lamp.
Detector: Solid state.
Sample chamber: 10 mm cuvettes.
Minimum volume: 1 ml.
Display: Alphanumeric LCD display of 2 lines of 20 characters.
Calculation functions: Transmission T %.
Absorbence, Concentration by factor or standard concentrations.
Calibration: Self adjusting by software.
RS-232 interface.

CONTROL PANEL

ON/OFF switch.
Interactive LCD display.
Numeric and function keypad.

SPARE

Lamp of 6 V / 6 mm.
Part No. 4512009

MODEL

Part No.	Built in printer	Height / Width / Depth cm			Power W	Weight Kg
4120029	NO	11	18	28	10	4.5

Solvent recovery extractor for fats and oils “Det-gras N”

FOR THE DETERMINATION OF FATS BY SOXHLET METHOD.
SAFETY PROTECTION IP65.

Equipment for the extraction of fats and soluble substances that will dissolve in solvents. Based on the Soxhlet methods by Randall, the DET-GRAS-N extracts fats (and or other substances) from the sample by dissolving them in a solvent. If compared to the classic standard soxhlet method, a time saving of between 30-70% can be obtained due to a two stage extraction process and high speed in obtaining high temperatures.

APPLICATIONS

Practically all methods of classic soxhlet extraction can be substituted by the DET-GRAS N. Typical fat determinations are: in meat products, animal fodder, pre-prepared foods, fish etc. Also suitable for the extraction of soluble components in paper paste, textile fibres etc.

FEATURES

Heating by protected electric heater, distributed throughout the radiator surface that provides homogeneous heating throughout the samples.
Electrical safety according to IP65.
Robust temperature control by a durable thermocouple.
Safety over temperature device.
Outer case made of solvents resistant epoxy coated steel.
Extractions can be completed using glass or cellulose thimbles.
Compatible with most common solvents: Petroleum ether. Diethyl ether, hexane, acetone acetonitrile etc.
Supplied complete with 2 sets of seals, adapters for different solvent types.
Typical extraction time (food fats) 50 minutes.

SPECIFICATIONS

Cellulose extraction thimbles $Ø_{ext}$ 26 x 60 mm.
Working temperature of 90 to 240 °C.
Solvent recovery 60 to 80 %.
Solvent volume (by sample): up to 50 ml.
Program memories: 16.
Extraction time <<boiling>>: from 0 to 99 minutes.
Extraction time <<rinsing>>: from 0 to 99 minutes.
Time to recuperate solvents: from 0 to 99 minutes.

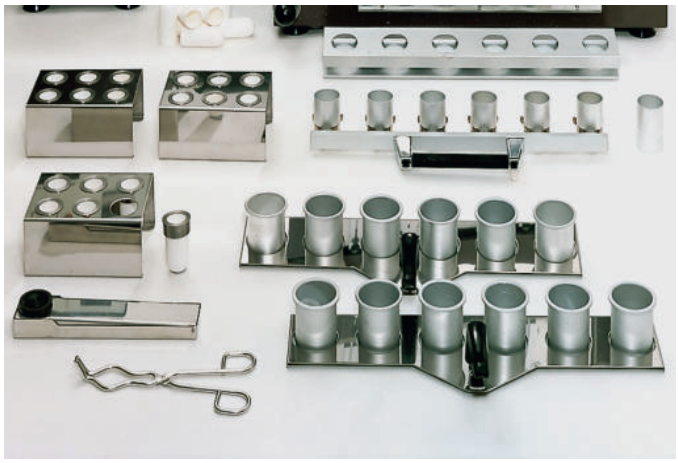
CONTROL PANEL

LCD display of 2 lines of 20 characters.
Keypad with 4 push buttons to select temperature, time and programs.

MODELS

Part No.	No. of places	Height / Width / Depth cm			Water consumption litres/minute	Power W	Weight Kg
4002841	2	70	45	40	1	200	19
4002842	6	70	75	40	2	600	25

Supplied with	model 6 places	model 2 places
Cellulose sample thimbles	25	25
Thimble rack	3	1
Support rack beakers	3	3
Aluminium tubes for thimble support	6	2
Extraction support for thimbles	18	6
Aluminium solvent beakers	18	6
Magnetic tongs for thimble manipulation	1	1
Tongs for manipulation of Aluminium beakers	1	1
Support rack	1	1
Transporting support handles	1	1
Butyl Joints	6	2
Vitron Joints	6	2



Accessories supplied with the 6 place model.

Note: Compatible with the “Chiller” water recirculation unit to create a closed cooling water circuit (see page 82).

Extractor for the determination of cellulose and fibre “Dosi-fiber”

APPLICATIONS
Total Fibre (WEENDE,VAN SOEST or similar).Dietary fibre. Neutral detergent fibre. Acid detergent fibre. Other extraction processes which do not use acetic acid, acetic trichloric acid or nitric acid. Textile fibre. Wood and paper fibre.

EQUIPMENT DESCRIPTION
Integral extraction and filtration.
No sample transfer reduces the risk of sample loss, since the tubes,crucibles and filtre are transferred with the samples in place.
Excellent results due to reproducible operating conditions.
Easy sample handling due to the special crucible support stand.
Versatile and precise test procedure that allows the samples to be weighed at various stages in the extraction process.

FEATURES
Rugged external case with a “RILSAN” protective coating. All equipment components; condenser, valves, heater, compressed air valves and controls are all protected within the main case. Infrared heating elements.

CONTROL PANEL
Mains illuminated ON/OFF switch.
Switch for compressed air pump.
Heating element with electronic control.

TECHNICAL DATA
Sample size: 0.5 to 3 g (Normally 1 g).
Reproducibility: approximately ±1 % for fibre level between 5-30 %.
Measuring range: 0.1 to 100 %.
Cooling water consumption: 1 litre/minute.

EQUIPMENT
Comes complete with: crucible with a porosity P-2, Crucible support rack, heater lid and holder manipulator.

MODELS

Part No.	No. of places	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4000599	4	56 43 32	1000	19
4000623	6	56 57 32	1500	25

6 places extractor, part no. 4000623.

Note: Compatible with the “Chiller” water recirculation unit to create a closed cooling water circuit (see page 82).

ACCESSORIES
Double hotplate for reagents.
Power consumption 1750 W.
Part No. 4000634
Beaker for reagents.
Part No. 1000635

SPARES
Support rack
4 crucibles.
Part No. 4000600

Support rack
for 6 crucibles.
Part No. 4000624

Crucibles
with a P - 2 porosity.
Part No. 4000601

EQUIPMENT FOR THE DETERMINATION OF TOTAL DIETARY FIBRE, ENZYMATIC METHOD
THE DETERMINATION OF TOTAL DIETARY FIBRE BY THE ENZYMATIC METHOD (AOAC, AACC) IS VERY DIFFERENT TO THE WEENDE AND THE DE VAN SOEST METHODS. THE EQUIPMENT FOR THIS ANALYSIS DEPENDS ON THE ENZYME KIT THAT YOU ARE GOING TO USE. ONCE THE TYPE OF ENZYME KIT IS SELECTED THE KIT INSTRUCTIONS WILL INDICATE THE NECESSARY EQUIPMENT TO COMPLETE THE ANALYSIS. THE COLD EXTRACTION UNIT EF-1425 PART NO 4001425 AND THE RECIPROCAL BATH PART NO 6032011 ARE FREQUENTLY USED (SEE PAGE 98).

Cold extraction unit “EF-1425”

DESCRIPTION
Specifically designed unit for cold extraction of up to 6 samples simultaneously, using acetone or other solvents. Complements the Dosi-Fiber for the analysis of crude fibre.
Components: 1 litre receptacle for solvent recovery, suction tube and 6 adapters to hold the filtration crucibles Part No. 4000601.
A pump or jet pump will be required to connect to the suction tube.
Comes complete with: blank stoppers in the case that not all of the 6 crucible places are used and a 1 litre solvent recovery vessel.

FEATURES
Stainless steel AISI 304, extractor, modular construction, easy to use and fast removal for efficient cleaning. Support and crucible rack, made from hardened glass.

MODEL

Part No.	Height / Width / Depth (exterior) cm	Weight Kg
4001425	45 20 34	3

ACCESSORY
Jet pump.
Part No. 7000293

Oenological Distillation unit "DE-1626"

APPARATUS TO OBTAIN THE DISTILLATION OF ALCOHOL FROM ALCOHOLIC BEVERAGES IN ACCORDANCE WITH CEE NO. 2676/90 (WINE ANALYSIS) AND CEE NO. 2870/2000 (ANALYSIS OF SPIRITS.)

APPLICATIONS

Degree of alcohol in wines, Degree of alcohol in spirits, Volatile acids and Sorbic acid.

FEATURES

Vapour distillation.
Designed especially to obtain the distillation of wines and spirits to determine the alcohol grade by volume, volatile acid, ascorbic acid and other components.
Distillation volume up to 400 ml.
Auto stop at the end of the distillation.
Simple operation with minimum service.
Vapour generator protection system.
- Tube Ø 42 mm for volatile acid samples.
- Tube Ø 52 mm for volatile acid samples and 100 ml proof alcohol.
- Tube Ø 80 mm for samples of 200 ml for proof alcohol.
- 200 ml Matrix flask to collect distillate.

Automatic termination of final distillation at 200 ml of distillate. By using the ADD function small quantities of distillate can be added to accurately fill the matrix flask to the mark without having to add water to the distillation.

TECHNICAL SPECIFICATIONS

Validated to the criteria of CEE No. 2676/90 and CEE No. 2870/2000
Distillation speed: 30-40 ml/min (Recover of 200 ml of distillate in 5/6 minutes).
Condenser coolant water rate: 80-100 l/hr.
Generator water consumption: 1 and 1.25 ml for each ml of distillate.
Vapour generator power: 2400 W.

CONTROL PANEL

Control Panel.
Electronic controller.
Mains switch.
START Push button.
STOP Push button.
ADD Push button.
By the use of the ADD button allows the distillate to set burette level, then, there is no need to fill up with water to a level of 200 ml.

VALIDATION

The oenological DE-1626 has been validated by the oenological laboratory INCAVI in Vilafranca del Penedés. This laboratory has completed analysis from the distillation unit DE-1626 for the determination of alcohol proof by volumetric analysis, following the criteria of CEE No 2676/90 and CEE 2870/2000. They have analysed samples of hydrated alcohol, different wines and spirits with a high alcohol content. The unit was successfully appraised by the laboratory.

MODEL

Part No.	Height / Width / Depth cm			Power W	Weight Kg
4001626	90	30	30	2400	20

Supplied with tubes and flasks Ø 42, 52 and 80 mm and a 200 ml matrix flask.

ACCESSORIES

Glass tube adapters.

Part No.	Dimensions
4042300	Ø 42 x 300 mm
1001422	Ø 52 x 300 mm
1000646	Ø 80 x 300 mm

Support rack for 6 tubes, made of stainless steel.

Part No.	Suitable tubes dimensions
4000648	Ø 42 mm
4001473	Ø 52 mm
4001613	Ø 80 mm

Matrix flask 200 ml.
Part No. 1001636

Alcoholmeters, graduations in 0.1 grade alcohol.

Part No.	Graduations
1001629	0 - 10
1001630	10 - 20
1001631	20 - 30
1001632	30 - 40
1001633	40 - 50
1001634	50 - 60
1001635	90 - 100

Alcoholmeters stand 6 places.
Part No. 1000015

Circulation chiller Chiller 1400.
To avoid water consumption
Code 6001493 (See page 81).

COMPLEMENTS FOR THE OENOLOGICAL DISTILLER "DE-1626"

ALL BASIC WINE ANALYSIS WITH A SIMPLE MANUAL EQUIPMENT, COMPOSED OF: OENOLOGICAL ANALYSER PHOTOMETER "M-3000", MICRO-CENTRIFUGE "CENCOM-1" AND DRY-BLOCK THERMOSTAT "ENOBLOC".

Oenological analyser photometer "M-3000"

SMALL BENCHTOP ANALYSER.
FOR COLOR MEASUREMENT, FOLIN-CIOCALTEAU INDEX AND FOR ENZYMATIC ANALYSIS.

RS232

APPLICATIONS

With the oenological application photometer, the following determinations can be performed:
1. Wine colouring intensity (absorbances addition at: 420, 520 and 620 nm.)
2. Folin index (polyphenols).
3. Grapes phenolic colour and maturity by means of *Cromoenos*® method.
4. Enzymatic analysis for grape juice, grape juice-wine and wine. Acids: acetic, malic, gluconic and lactic, glucose, fructose and glycerine.

FEATURES

Wavelength range: from 340 to 750 nm, with interference filters with a 10 nm band pass.
Manual filter selection (12 positions filter disc).
Supplied with filters: 340, 420, 520, 620 and 750nm.
Other optional filters posible.
ABS, T% and concentration reading.
ABS reading range: from -0.3 to 3.5 OD.
T% reading range from 0 to 100%T.
Concentration range: from 0.001 to 9.999
Photometric accuracy: 1%.
Precision: ±1 %.
Photometric stability: better than 0.004 A/h.
Light source: halogen lamp 6V/12W.
Cell holder for 10 mm. path length cuvettes.
Internal calibration by software.

CONTROL PANEL

Filter change knob.
Numeric keypad and for functions.
Alphanumeric display with interactive messages.
RS-232 interface for connection to printer or computer.

MODEL

Part No.	Height / Width / Depth mm			Power W	Weight Kg
4120019	11	18	28	35	3

SPARE

Halogen lamp 6 V 12 W.
Part No. 4313040

ACCESSORIES

Glass cuvettes 10 mm. path length. 2 units pack. Part No. 5100021
Glass cuvettes 1 mm. path length. 2 units pack. Part No. 4120034
Polystyrene cuvette, semi-micro, 10 mm. path length. 100 units box. Part No. 5100023
Cuvettes adapter of 1 mm. Part No. 4120033

Note: A visible ultraviolet range spectrophotometer UV-2005 is needed for a total polyphenols index determination (absorbance 280 nm) and the *Cromoenos*® method exact and accurate measurement.
Part no. 4120020. Page: 240

Microcentrifuge "Cencom III"

FOR MICROTUBES OF 2,2/1,5, 0,5 AND 0,2 ML.
DIGITAL ELECTRONIC CONTROL OF SPEED AND TIME. ADJUSTABLE SPEED UP TO 14500 r.p.m.

FEATURES

ABS external case.
Maintenance free induction drive motor.
Rubber suspended motor which reduces the vibrations.
High speed microcentrifuge that minimizes the samples over temperature.
Extremely quiet operation.
For 12 microtubes with identification code.
Polycarbonate upper lid.
Peephole on the lid to visualize the centrifuge inside.

CONTROL PANEL

Start switch.
Push button Start/Stop.
LCD display indicating time and speed.
Time selector push button.
Speed selector push button.
Push button ▲ increase different parameters.
Push button ▼ decrease different parameters.
Push button motor drive rotation for quick acceleration Short/Spin.
Push button open lid when cycle has ended.

MODEL

Part No.	Tubes capacity	Height/ Width/ Depth (exterior) cm			Max. speed r.p.m.	R.c.f.(xg)	Power W	Time selected	Weight Kg
5022010	12	15	21	25	14500	14000	105	till 99' 99"	4

Comes complete with 12 adapters of 0,5 and 0,2ml.

Metallic thermostat dry block "Enobloc"

APPLICATIONS

To use the enzymatic reagents performing at full capacity, it is recommended to incorporate the thermostat dry-block incubator for tubes/cuvettes at a fixed temperature of 35 ºC.
Part No. 7001570
Capacity: 15 cuvettes pathlength 10 mm, which can be macro or semi-micro of 1,5 ml..

MODEL

Part No.	Height / Width /Depth (exterior) cm			Stability °C	Power W	Weight Kg
7001570	11	18	28	±0,5	10	2,4

Cromoenos® is a registered trademark by Bioenos S.L *http://www.bioenos.com* *(for analytical applications, please check out the website).*

APPARATUS FOR WATER ANALYSIS

Thermo reactor for determining COD Chemical Oxygen Demand of waste water plants

STANDARD TO C.E.E. AND UNE 77-004.
REFLUX METHOD.

FEATURES

Composed of a Hot block for 6,12 or 20 samples, process programmer and lifting racks. Uniform heating throughout the block to all samples. Automatic temperature and time control during digestion.
C.O.D. unit comprises of:
- 1 metallic hot block.
- 1 Processor for temperature and time.
- 1 Support rack for tubes.
- 1 Support rack for condensers.
- C.O.D. tubes with an aperture of 29/32.
- Condensers for C.O.D.

MODELS - EQUIPMENT DESCRIPTION

	Part No.	No. of places
DQO. - 6	4000638	6
DQO. - 12	4000639	12
DQO. - 20	4000640	20

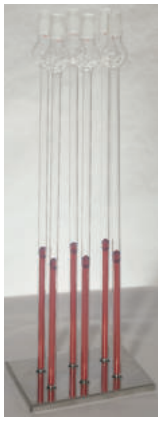
INDIVIDUAL PARTS LIST AND SPARES

Hot block. This block cannot be used without the RAT controller of temperature and time.

Part No.	No. of places	Ø tube mm	Height / Width / Depth (exterior) cm	Temperature °C	Power W	Weight Kg
4000507	6	42	18 33 28	45 - 450	1500	18
4000508	12	42	18 39 33	45 - 450	2100	25
4000509	20	42	18 44 39	45 - 450	2500	31

System programmer for temperature/time RAT-2. Part No. 4001538

Condenser tube support.
Part No.
4000643 6 places.
4000644 12 places.
4000645 20 places.



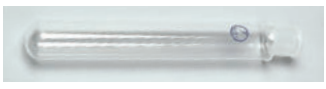
Tube support rack.
Made of chemically treated dural sheet metal, with handles and removable panels that maintain the heat around the tubes and allow the user to examine the samples during the process.
Part No.
4005071 for C.O.D. 6 (block 4000507).
4005081 for C.O.D. 12 (block 4000508).
4005091 for C.O.D. 20 (block 4000509).

Features
Display of time, temperature and program. Selectable temperature from 45 to 450 °C. Memory capacity: 10 programs of 5 stages of each program. Maximum time per stage: 600 minutes. Visual and acoustic alarm at the end of the cycle. Alarm if the temperature probe fails.

Control Panel
Mains switch.
Temperature display.
Push button to select temperature.
Push button to increase value.
Push button to start.
Push button to stop.
Push button to decrease value.
Push button to select time.
Display time and program number
Push button to select program.

Condenser tubes for C.O.D. process.
Part No. 1000642

Tubes for C.O.D.
Part No. 1000641



Chemical Oxygen Demand COD Thermoreactors "Eco-8" and "Eco-16".

TEMPERATURES UP TO 160ºC.
DQO IN 30 MINUTES

APPLICATIONS

For the analysis of Chemical Oxygen Demand COD, total phosphorus, total chromium and various analyses by decomposition of water and sludge samples.

CARACTERÍSTICAS

Metal structure coated with epoxy paint highly resistant to chemical and corrosive agents.
Thermostatic block made of aluminum for optimum thermal stability at all selected temperatures and excellent reproducibility.
Equipped with acoustic end-of-cycle alarm with automatic switch-off.

THERMOREACTOR DQO. ECO-8

Dry thermoreactor for 8 tubes of 16 mm Ø and 1 tube for decomposition of 22 mm Ø.
It allows the selection of 5 different working temperatures at 70, 100, 120, 150, and 160 ºC and 4 times of 30, 60, 120 min. infinite.
The thermostatic block is equipped with a protective hood for greater safety during operation.

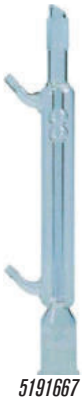
DIGITAL THERMOREACTOR DQO. ECO-16

Dry thermoreactor for 14 tubes of 16 mm Ø and 2 tubes for decomposition of 22 mm Ø.
Equipped with microprocessor and digital LCD display that allows programming temperatures and reaction times, in very wide ranges, with high precision and repeatability.

MODELS	THERMOREACTOR D.Q.O ECO-8	D.Q.O. THERMOREACTOR ECO-16
Code	5100127	5100126
Max. number of pipes (fittings)	8 tubes 16 mm Ø + 1 tube 22 mm	14 tubes 16 mm Ø + 2 tubes 22 mm
Programmable Temperature Range	70, 100, 120, 150 y 160 ºC	from ambient to 160 ºC resolution 1 ºC
Thermal Stability	±0,5 ºC to 150 ºC	
Programmable time	30, 60, 120 min. or infinity	0 to 199 min or infinity
Temperature and Time Reading	Analog	Digital
Power	135 W	550 W
Voltage	220-240V/50Hz - 110-120V/60Hz	220-240V/50-60Hz
Dimensions height x width x depth / Weight	10x14x23 cm / 2 Kg	11x17x27 cm / 3,8 Kg

ACCESSORIES

5191666


5191667

5191668

Protective hood (only for ECO-16).
Code 5191651

Decomposition sample tube for decomposition samples of 22 mm Ø with ground NS 19/26 and glass stopper.
Code 5191666

Stainless steel rack. AISI-304, for 12 tubes of 16 mm Ø ext.
Code 1025512

KS type refrigerant of 20 cm and 3 m. of Polyethylene pipe.
Code 5191667

Set of 20 glass tubesØ 14x16 mm glass tubes.
Code 5191680

Absorption tube for coolant.
Code 5191668

SHAKER FOR ROTATING FLASKS, "HEI-SHAKE SALTO CORE"

Specially designed for the examination of wastewater and sludge (according to DIN 38414) Section 4: "Determination of water elutriation".For filtration or solution extraction test. For 0.5 to 2 liter bottles. COMECTA / HEIDOLPH

MODELS	Code	Capacity liters	Height / Width / Depth (outside) cm			Consumption W	Weight Kg
Salto Core-4	5461730	4 jars	52	55	46.5	26	20
Salto Core-8	5461740	8 jars	52	83	46.5	26	26
Salto Core-12	5461756	12 jars	52	111	46.5	26	31

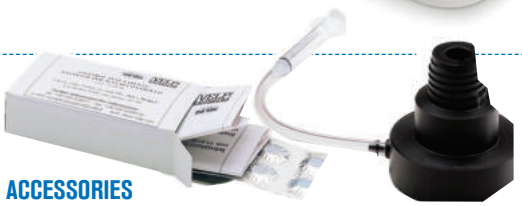
Supplied with adapters for 1.5 to 2 liter flasks.

COMECTA Biological Oxygen Demand “BOD5 Sensor 6 and 10”.

VELP SCIENTIFICA

FEATURES

Innovative ecological system (without mercury) for the determination of the Biological Oxygen Demand (BOD5) by manometric technique.
Immediate digital reading in mg/l, easy and accurate.
Microprocessor-controlled manometric sensor with automatic memorization of 5 BOD values in 24 h intervals, with the possibility to continue oxidation up to 21-28 days for the final BOD.
4 BOD measurement scales depending on the sample volume: 100 ml from 0 to 90 mg/l , 150 ml from 0 to 250 mg/l , 250 ml from 0 to 600 mg/l , 400 ml from 0 to 999 mg/l , (higher values after sample dilution).
Visual alarm for out-of-scale values and low battery.Manometric sensors powered by 2 lithium batteries.The equipment consists of a 6 or 10-place stirring unit, 6/10 manometric sensors, 6/10 carbon dioxide absorber holders, 6/10 amber bottles and 6/10 Teflon-coated magnets.
Continuous operation motor for operation without interruptions or overheating that could alter the result of the samples.Stirring speed: 60 r.p.m.
Compact design, with side recessed handles and stainless steel structure in epoxy paint resistant to chemical agents.
Note: to determine the kinetic overtaking curve of the process, it is necessary to maintain the BOD at a constant temperature of 20 °C. For this process we recommend the “Medilow S or L” refrigerated ovens.



ACCESSORIES

Two different solutions to perform the Control Tests:
Sensor Check. In a few seconds it allows a quick verification of the correct operation of the sensor, granting reliability to the expected results. Code 5100135
Control Test Tablets. They allow to verify, by means of a 5-day test, the correct tightness of the system and the calibration of the pressure sensor. The test is performed with the use of a measured tablet that allows to read the value even 24-48h later. Box of 8 tablets.
Code 5100136

SPARE PARTS

Manometric sensor.
Code 5100137
Amber bottle 500 ml.
Code 5100138

MODELS	Code	Height / Width / Depth (outside cm)			Consumption W	Weight Kg
DBO$_5$ Sensor-6	5100132	30	35	15	2	2,3
DBO$_5$ Sensor-10	5100133	30	43,2	16,5	2	3

Refrigerated cabinets for BOD. “Medilow S-L-LG”

SELECTA

SIN CFC • CFC FREE • SANS CFC

RECOMMENDED TO MAINTAIN SAMPLES AT CONSTANT TEMPERATURES OF 20 °C.
WITH ELECTRONIC REGULATION AND DIGITAL TEMPERATURE READING.
FOR ADJUSTABLE TEMPERATURES FROM +2 °C TO 40 °C. STABILITY: ±1,5 °C. WITH FORCED AIR CIRCULATION.

FEATURES

Epoxy coated exterior cabinet.Inner enclosure molded in ABS, resistant and easy to clean.
Hermetic and vibration-free compressor unit.
Air circulation turbine inside the enclosure.Lateral hole for connection input, probes, etc.
Power socket bases inside (max. power 500 W).
Front foot supports adjustable to level.Door opening direction change.
Door with lock.

TEMPERATURE CONTROL

Electronic temperature controller with digital display.
Pt 100 probe.
Probe failure alarm.Independent overtemperature alarm.

CONTROL PANEL

Temperature regulator.
Actual temperature indicator display.
Set temperature indicator display.
Push button to increase value.
Push button to decrease value.
Programming level pushbutton.
Configuration pushbutton.
Alarm indicator.

Model “Medilow S”. Capacity: two BOD blocks.

Model “Medilow L”.

MODELS	Code	Capacity BOD blocks	Glass door	Height / Width / Depth (inside) cm			Height / Width / Depth (outside) cm			Number of trays	Socket bases	Consumption W	Weight Kg
MEDILOW-S 180l	2101270	2	-	70	51	44	85	60	60	3	2	250	36
MEDILOW-L 544l	2101301	3-4	-	152,5	56,5	54	211,2	68,5	80,5	3	2	330	73
MEDILOW-LG* 544l	2101302	3-4	YES	145	60	56	164	75	95	4	2	330	82

* With double insulated and anti-fogging glass door.

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

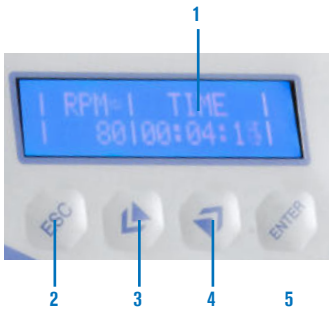
Optimization of coagulant additives and poly-electrolytes for surface and residual water treatment.
Evaluation of the efficiency of an absorbent in toxic agents.
Polyvalent. Without transmissions by belt. Due to its powerful torque it allows stirring and mixing high viscosity substances.

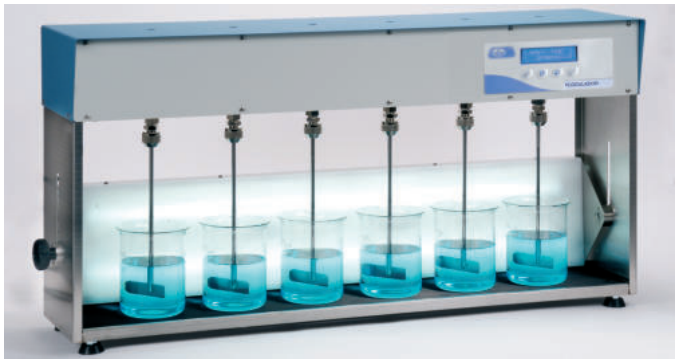
FEATURES

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 / Width / Depth (exterior) cm	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.

Portable flocculator “4P-M”

FOUR POSITIONS. WITH ILLUMINATION.

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.

MODEL

Part No.	Height / Width / Depth (exterior) cm	Power W	Power supply	Weight Kg
3000835	37 25 27	20	12 volts	6

ACCESSORY.

Carrying case.
Part No. 3000836

COMECTA Integral Demineralizers "Lab-Ion L-2 and LD-12".

SIMPLE AND ECONOMICAL METHOD TO OBTAIN EXTREMELY PURE WATER, EQUIVALENT TO THE BEST DISTILLED WATER.

FEATURES "LAB-ION LD-2

Conductivity meters with 4 or 8 diode scale depending on model, green/red light indicators of the conductivity range.
Test function for prior verification of the cartridge status.Ignition residue less than 1 mg/liter.
Conductivity lower than 1 µS/cm.
Resistivity higher than 1 megohm/cm.
Disposable ion exchanger cartridge, with special resin mixture and biodestructible.Supplied complete with cartridge, fastening accessories and 3/4" drain and tap connection hose.
Voltage: 110-220 V / 50-60 Hz.
Conductivity scale / Diodes, according to model:

Conductivity	Lab-Ion L2 4 diodes	Lab-Ion L2 8 diodes
Code	5800004	5800008
Less than 0,1 µS	1st green	1er green
To 1 µS		2nd green
To 3 µS		3rd green
To 5 µS	2nd green	4th green
To 8 µS		5th green
To 10 µS		6th green
As of 20 µS	1st red	1st red
As of 50 µS	2nd red	2nd red

FEATURES "LAB-ION LD-12

Analog conductivity meter from 0 to 30 µS/cm.
Optimal water distribution in the exchanger guaranteeing an exceptional conductivity purity of less than 0.055 µS/cm, complying with European pharmacopoeia standards.
Stainless steel ion exchanger tank, pressure tested up to 10 bar, with special resin mixture that can be replaced by simple overturning.
Supplied complete with resins and 3/4" drain and tap connection hose.Voltage: 110-220 V / 50-60 Hz.
Code 5800012

MODELS	Code	Consumption liters/h	Demineralization capacity in liters according to water hardness degree (French degrees) 10°	15°	20°	25°	30°	35°	40°	High / Ø cm	Weight Kg
L-2 4 diodes	5800004	30/ 40	750	480	360	290	240	205	180	51 / 11	3,5
L-2 8 diodes	5800008										
LD-12	5800012	100/150	2500	1670	1250	1000	830	715	625	40 / 24	15

SPARE PARTS

For Lab-Ion L-2 models 4 diodes and 8 diodes:
Disposable cartridge (1 unit). Code 5800011
Disposable cartridge (5 units). Code 5800015

For Lab-Ion LD-12 model:
Resin refill. Code 5800016

COMECTA Water demineralizer "SMEG WP-3000"

smeg DIVISIONE LABORATORIO

WATER PRODUCTION GRADE III LABORATORY (ISO-3696)).

FEATURES

Ideal for supplying several devices at the same time and especially as an accessory for SMEG washing machines.
Conductivity meter with 3-diode scale indicating the conductivity range by means of green, yellow and red light.
Test function for pre-checking the condition of the resins.
Conductivity range 0.8 to 20 µS/cm.Resistivity 1.4 - 1 MW/cm-1.
Minimum water pressure 0.3 bar, maximum 10 bar.
Instantaneous demineralization up to a maximum of 10 l/min depending on mains water inlet pressure.
Demineralization capacity according to the degree of water hardness: at 10 °F=4200 liters, at 40 °F=1050 liters, (° French).
Ion exchanger tank in stainless steel.
AISI-316, with special resin mixture, replaceable by simple overturning.
Stainless steel cabinet.
AISI-316.Supplied with resin kit.
Measures in cm (height x width x depth): 85 x 30 x 66.
Weight: 35 Kg. Voltage: 230 V / 50 Hz.
Code 5833300

Demineralization capacity, depending on the degree of water hardness.

Hardness °French	Liters
10	4200
15	2800
20	2100
25	1680
30	1400
35	1200
40	1050

REPLACEMENT

Resin Kit MI-700 WP.
Code 5833370

Water distiller “Aquasel”

DISTILLATION CAPACITY: 3 AND 6 LITRES/HOUR.

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 l/h	Water consumption l/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 l/h	Water consumption l/min	Conductivity at 20 °C	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4903000	3	1	3 µs/cm	40 59 17	2800	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 l/h	Water consumption l/min	Conductivity at 20° C	Height / Width / Depth (exterior) cm	Power W	Weight Kg
4903001	4	1	2 µs/cm	69 28 30	2600	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 l/h	Water consumption l/min	Conductivity at 20 °C	Height / Width / Depth cm			Power W	Weight Kg
AC-L4	4903007	4	1	2 µs/cm	44	25	23	3000	8
AC-L8	4903008	8	1,4	2 µs/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.

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.

CONTROL PANEL

Start up main switch.
Light indicators of heating, cleaning, of lack of water and tank full.

MODEL

Part No.	Distillation capacity l/h	Water consumption l/min	Conductivity at 20º C	Height / Width / Depth (exterior) cm			Power W	Weight Kg
4903002	4	1	1.5 µs/cm	40	69	26	1x2800	12
4903016	8	2	1,5 µS/cm	48	69	40	2x2800	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.

MODEL

Part No.	Distillation capacity l/h	Water storage tank l	Water consumption l/min	Conductivity at 20º C	Height / Width / Depth (exterior) 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

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 = 26.8 A

MODEL

Part No.	Distillation capacity l/h	Water consumption l/min	Conductivity at 20 °C	Height/Width/Depth cm			Power W	Weight Kg
4903010	4	2	0.5 µs/cm	48	69	40	2x2800	22

SPARES

Heater element made of quartz. 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.

No external additional water required.

FEATURES

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.

MODEL

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

SPARE. Dispensing filter tip. Part No. 4001730

Descaler “AC-3”

APPLICATIONS

Ideal for the treatment of water with high lime content, especially recommended for domestic use and small laboratories where water hardness exceeds 25° French.Optimal for water systems supplying household appliances and prolongs their life by reducing scale build-up.

TECHNICAL SPECIFICATIONS

Automated control.
Cresin capacity: 26L.
Regeneration adjustable by upflow/downflow.
Flow rates: Nominal 1.0 m^3/h; Peak 1.2 m^3/h.
Service pressure from 2 to 6 bar, requires reducer if these values are exceeded.
Feed water temperature: 5 - 45 °C.
Dimensions: 1112 x 320 x 503 mm.
Advanced features include LCD display, automatic and manual regeneration programming.
Part No. 0703053

50 Litre distilled water reservoir

FEATURES

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 jars and carboys etc.
Fits containers 38 cm Ø.
Height 48 cm.
Part No 5903049

BALANCES, MICROSCOPES, AND MELTING POINT

MELTING POINT APPARATUS

LIGHT SOURCE

MIXING SCALE

ANTIVIBRATION BALANCE TABLE

PRECISE BALANCES

MICROSCOPES

Precise balances	page	273 to 275
Balance accessories and precision weights	pages	276 to 277
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Microscopes	pages	280 to 285
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Refractometers	pages	287 to 288
Melting point apparatus	page	289 to 290

"One researcher shines for his questions, not for his answers."
Duque de Levis

COMECTA Technical precision balances series “EU-C GOLD” and “CENT-2”

COMMON CHARACTERISTICS

Display with seven-segment digits, easy to read.
Reading in grams (g) pounds (lb) ounces (oz) and percentage (%).
Lineability:±2 LSD.
Stabilization time: 2/3 seconds.
Operating temperature: 10 to 40°C (optimum 15to30°C).
Voltage: 220V - 15% + 10% / 50 Hz.
Tare range by subtraction up to maximum capacity.
Automatic external calibration.Internal calibration in the Cent-Cal model.
Parts counting function.
Hydrostatic weighing by lower housing.
Exclusive anti-shock system for overload protection.
Bar graph that lets you know at all times what is the remaining weighing capacity of the scale.
Solvent-proof, waterproof membrane keypad, easy to operate.
Robust and ergonomic design, very suitable for industrial use; its smooth surface is easy to clean.
Supplied with protective cover and instruction manual.

NEW

MODELS	Code	Max. weighing capacity g	Accuracy ±g	Lineability ±g	Height / Width / Depth (outside) cm	Ø plate cm	Weight Kg
EU-C-GOLD 2002	5833002	2000	0,01	0,02	12 21 35,5	15x15	4,5
EU-C-GOLD 2002 BP	5833003	2000	0,01	0,02	12 21 35,5	15x15	4,5
EU-C-GOLD 4002	5833004	4200	0,01	0,02	12 21 35,5	15x15	4,5
EU-C-GOLD 4002 BP	5833005	4200	0,01	0,02	12 21 35,5	15x15	4,5
EU-C-GOLD 7500 DR	5833006	7500	0,1	0,3	12 21 35,5	19	4,5
EU-C-GOLD 7500 PT	5833007	7500	0,1	0,3	12 21 35,5	19	4,5
EU-C-GOLD 10000 PT	5833008	7500	0,1	0,3	12 21 35,5	19	4,5

BP: BATTERY PACK; **PT:** ROUND PLATE; **DR:** DUAL RANGE
GOLD MODELS AVAILABLE WITH **RS232, USB AND WIFI CONNECTIVITY**

NEW

MODELS	Code	Max. weighing capacity g	Accuracy ±g	Lineability ±g	Height / Width / Depth (outside) cm	Ø plate cm	Weight Kg
CENT 2-203	5832004	210	0,001	0,002	11 21 35	11	5,2
CENT 2-2000	5832001	2200	0,01	0,01	11 21 35	16x16	5,2
CENT 2-2000 CAL	5832005						
CENT 2-4000	5832006	4200	0,01	0,02	11 21 35	16x16	5,2
CENT 2-4000 CAL	5832007						
CENT 2-6000	5832008	6300	0,1	0,1	11 21 35	19	5,2
CENT 2-6000 CAL	5832009						
CENT 2-10000	5832010	10200	0,1	0,2	11 21 35	11	5,2

CAL: INTERNAL CALIBRATION
Supply voltage: 100/240 VAC.

Electronic humidity thermobalance “Crystal Therm”

TEMPERATURE RANGE FROM 40 TO 200 °C

FEATURES

You can weigh samples up to the maximum weighing capacity.
It is not necessary to specify the exact weight of the sample.Minimum sample weight: 500 mg.
Graphic display: moisture (%), dry residue (%), time (min) and temperature (°C).
Infrared oven with a temperature range from 40 to 200 °C (in 1 °C steps).
Clear digital display and programming of all parameters by keypad.
Programming time from 1 to 999 min. (in steps of 1 min. up to 8 hours).
Retention in memory of temperature, time, weight and humidity until cancelled by the user.
Data interface: RS-232 I/O configurable.
Stable weight determination and automatic stop at the end of each analysis.
Acoustic alarm indicating end of program.
External automatic calibration.
Supplied with 3 calibrated stainless steel plates, 100 aluminum plates and tongs.

Includes 10 memory programs

MODEL

Code	Max. weighing capacity g	Accuracy g	Height / Width / Depth (outside) cm	Ø plate cm	Accuracy humidity	Consumption W	Weight Kg
5830200	210	±0,001	26 22 35	12	±0,01%	350	7

The model operates with a supply voltage of 230-50V.

COMECTA Precision Analytical Balances “Crystal” and “Eternity” series

RS232

COMMON FEATURES

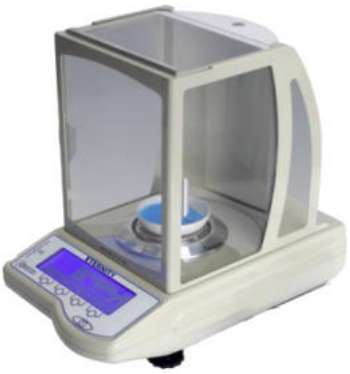
Easy-to-read display with seven-segment digits.
Easy-to-operate, solvent-proof, waterproof membrane keypad with TARE, ON/OFF, PRINT and MODE keys.
Stable weighing indicator.
Operating temperature: optimum from 18 to 25 °C).
Voltage: 100 to 240V - 15% + 10%, Consumption: 200 mA.
Automatic calibration by internal weight (external upon request).
Bar graph that allows to know the remaining weighing capacity at any time.
Power supply voltage: 100/240 VAC.
Supplied with protective cover and instruction manual.
Data interface: Possibility of installing any printer by means of RS-232.

CRYSTAL FEATURES

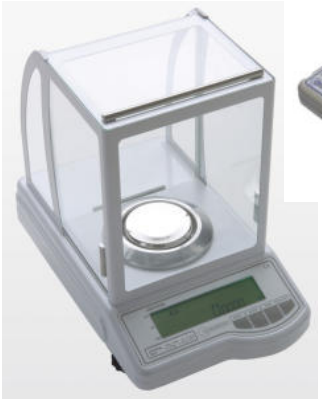
Weighing range in g (grams), oz (ounces), pcs (pieces) and % (percentage).
Lineability ± 2LSD.
Stabilization time: 6 seconds (Crystal 100, 200 and 300). 5/8 seconds (Crystal 500) (fast/slow).
Maximum capacity: 110 to 510

ETERNITY FEATURES

Weighing range in g (grams), oz (ounces), pcs (pieces), % (percent), lb (pounds), ct (carats), mo (momme), t (tola), ozt (troy pound), GN (grain), tLH (Tael Hong Kong) tLT (Tael Taiwan).
Lineability ± 0.2 mg.
Stabilization time: 4/6 sec. depending on the selected response time (fast/slow).Easy access to the leveling bubble, includes software with density measurement, standard deviation, and standard deviation.



Eternity Model



Crystal Model

MODELS	Code	Max. weighing capacity g	Accuracy ±g	Lineability ±g	Height / Width / Depth (outside) cm	Stab. time (seconds)	Height / Width / Depth (cabin) cm	Ø plate cm	Weight Kg
CRYSTAL 100 CE	5830112	110	0,0001	0,0002	33,5 21,5 38	6/10	20 18 15	8	7
CRYSTAL 200 CE	5830212	210	0,0001	0,0002	33,5 21,5 38	6/10	20 18 15	8	7
CRYSTAL 300 CE	5830312	310	0,0001	0,0002	33,5 21,5 38	6/10	20 18 15	8	7
CRYSTAL 500 CE	5830512	510	0,001	0,002	33,5 21,5 38	6/10	20 18 15	11	7,5
ETERNITY 1000 SMI	5830715	1010	0,001	0,002	33,5 21,5 38	6/10	20 18 15	11	7,5
ETERNITY 100 CAL	5830710	120	0,0001	0,0002	31 21 36	4/6	24 18 15	8	7
ETERNITY 200 CAL	5830711	220	0,0001	0,0002	31 21 36	4/6	24 18 15	8	7
ETERNITY 300 CAL	5830712	320	0,0001	0,0002	31 21 36	4/6	24 18 15	8	7

Crystal CE models only with metrological version according to CEE directive 90/384
CAL: INTERNAL CALIBRATION
SMI: WITHOUT INTERNAL CALIBRATION

Dual range (micro/macro) precision analytical balance “E 50 S/3”

FEATURES

Balance with double weighing range (micro and macro).
Display with easy-to-read seven-segment digits.
Stabilization time: 3/5 sec. 6/8 sec. in 0,01g range.
Data interface: RS-232 VO and USB.
Operating temperature: from 10 to 30 °C.
Voltage: 220V (-15% + 10%) / 50Hz
Tare range by subtraction up to maximum capacity.
Automatic calibration by internal weight.
Led indicator of stable weighing.
Bubble level and height adjustable feet
Hydrostatic weighing by means of lower housing.
Exclusive anti-shock system for overload protection.
Solvent-proof and easy to operate membrane keypad,
with TARE, ON/OFF, MODE/PRINT keys.
Maximum ease of access through side and top windows.
Supplied with protective cover, brush and instruction manual.

USB
RS232

MODEL	Code	Max. weighing capacity g	Accuracy ±g	Lineability ±g	Height / Width / Depth (total) cm	Height / Width / Depth (cabin) cm	Ø plate cm	Weight Kg
E 50 S/3	5830054	225	0,0001	0,0003	32 21 34	22 18 17	8	11
(double rank)		100	0,00001	0,00002				

Supply voltage: 100/240 VAC.

COMECTA Precise analytical balance “JF-2204M”

COMECTA

NEW

USB

RS232

FEATURES

Digital 7 segment screen.
Time to stability: 8 seconds.
Adjustable time and sensitivity control.
ON/OFF automatic zero adjustment.
Automatic calibration with internal weight.
Tare range by subtraction up to the maximum capacity.
Piece counting function.
Hydrostatic weighing through lower acommodation.
Units of measurement in g, ct, and oz.
Adjustable Height. Level adjustment (bubble).
Data interface: RS-232/USB.
Operable ambient temperature 5 to 40 °C
Power supply: 110/220 V-50/60Hz.
Supplied complete with cover.

MODELS	Part No.	Maximum weight capacity g	Precision ±g	Linearity ±g	Height / Width / Depth (exterior) cm	Height / Width / Depth (Draft shield) cm	Ø plate cm	Weight Kg
JF-2204M	5830040	220	0.0001	0.0002	35 21.5 34	26.5 22 22,5	8	5

COMECTA Electronic Balance “Laborcom”

COMECTA

COMMON FEATURES

Display with easy-to-read seven-segment digits.
Stabilization time: 3 seconds.
ON/OFF. Automatic zero setting.
External automatic calibration.
Tare by subtraction up to maximum capacity.
Piece counting function.
Overload indicator.
Operating temperature: 5 to 35 °C.
Voltage: 220 V ±10 V / 50 Hz.

NEW DESING

MODELS	Part No.	Maximum weight capacity g	Precision ±g	Height / Width / Depth (exterior) cm	Ø plate cm	Weight Kg
LABORCOM 110-L	5830025	110	0,01	7 17,5 24	12,5	1,6
LABORCOM 210-L	5830026	210	0,02	7 17,5 24	12,5	1,6
LABORCOM 600-L	5830031	600	0,1	7 17,5 24	12,5	1,6
LABORCOM 1100-L	5830032	1100	0,1	7 17,5 24	12,5	1,6
LABORCOM 2100-L	5830033	2000	0,1	7 17,5 24	12,5	1,6
LABORCOM 11000-L	5830027	11000	1	7 17,5 24	16,5 x 16,5	1,8

COMECTA Mixing Balance “Hemo MIX 3”

DELCON

TO MONITOR THE BLOOD DONATION IN BAGS

FEATURES

The device handles up to 20 fully customizable donation workflows per PC and the target volume can be easily modified during donation.
3.2” high contrast screen; icon user interface; membrane keyboard
Movement: 3D with central axis, with programmable movement, with programmable pauses and clock-wise rotation reversal.
Export memory: MMC/ SD cartridges and USB memory
Power supply: 115/230 VAC. **Online frequency:** 50÷60 Hz
Internal memory: Up to 999 records
Battery capacity: Up to 70 donations with a fully charged battery

NEW

MEDICAL DEVICE CLASS I

USB

SD

MODEL

Part No.	Max weight Capacity g	Precision g	Resolution g	Height / Width / Depth (external) cm	Power VA	Weight Kg
5010010	999	± 2	1	23,5 35,1 27,3	45 máx	3,4

ACCESSORIES

Code bar scanner LSR /CCD. Code: 5010012
Batery Ni-Mh BAT-PK.12V *(Incluido de serie con la balanza)
Code: 5010011

WEIGHING DISHES "ACCU-WEIGH"

Anti static. Reproducible tare weighing.
Contamination free. Large selection of sizes.

Common features:
Made from high density polystyrene with flat base, round edge, contamination free surface and hydrophilic. Flexible in form for easy manipulation of the sample either liquid or solid.
Manufactured in two forms:
- Diamond form, colours white and black.
- Square form, colour white.

Part No.	Form	Capacity	Height / Width / Depth	Weight	Colour
5726004	Diamond	5	3.8 31 54	0.25	White
5726005	Diamond	5	3.8 31 54	0.25	Black
5726006	Diamond	30	13.5 55 85	1.00	White
5726007	Diamond	30	13.5 55 85	1.00	Black
5726008	Diamond	100	20 92 132	2.6	White
5726009	Diamond	100	20 92 132	2.6	Black
5726010	Square	7	8.5 44 44	0.65	White
5726011	Square	100	24 80 80	2.2	White
5726012	Square	250	24 134 134	6.1	White

Comes in packets of 100 units.

ALUMINIUM WEIGHING BOATS

Static free, pressed dishes with rolled edge.
Withstands temperatures up to 450 °C.
Due to their form the dishes can be used one on top of another to protect samples.
Suitable for testing, solid samples and mixtures of emulsions for moisture content, by differential weight loss method.
Useful for weighing, comparing, freezing or evaporation.
Consumable, single use.

Part No.	Thickness mm	Height / Ø (usable) mm	Comes in
5726000	0.2	5 42	packets of 112 units
5726001	0.2	10 57	packets of 110 units

ANTIVIBRATION BALANCE TABLE

Formica covered metal table with central polished granite plate to support the balance, mounted on silent blocks.
Adjustable shock device. Maximum weight 40 Kg.

Part No.	Height / Width / Depth (exterior) cm	Height / Depth (balance support) cm	Weight Kg
5838101	80 90 70	45 39	70

BALANCE DENSITY MEASUREMENT "PR-SE" (PATENTED)

Applications: System for reading the density of liquids using the immersion of a glass sinker of known volume. Can be used for opaque and viscous liquids for all classes of liquid.
Features: Made of borosilicate glass of low dilatation coefficient and a constant volume.
Mode of operation:
- Locate the tube with liquid on an electronic balance.
- Push the TARE to achieve a zero stable reading
- Introduce and submerse the measuring suspended sinker centrally without tilting the tube, keep suspended.

At this moment the screen will indicate the DIFFERENTIAL WEIGHT, that is exactly the same as the density of the liquids multiplied by 10.
To obtain a density value in mS, it is necessary to have a balance with a minimum resolution of 0.01 g.

Part No.	Density interval g/ml	Maximum tolerance error g/ml	Temperature assay/reference °C
5600000	0.600 - 2.000	±0.0005	20 / 20

Calibrated precision weights class E2 and F1. Certification W.E.C.C. (Western European Calibration Co-operation)

COMMON FEATURES

In the manufacturing of these weights the meteorological requirements are applied to conform with the OIML verification for accuracy, raw material, geometric form, identification and conservation. To guarantee their accuracy, the individual weights are supplied in a partitioned wooden case with a clasp lid and a small tray housing for locating the mg weights. The wooden boxes are lined with velvet for the g and Kg weights.

Weight material
From 1 to 5 mg = aluminium, density approx. 2.7 g/cm^3.
From 10 to 500 mg = alpaca, density 8.6 g/cm^3.
From g and Kg = antimagnetic polished stainless steel, density approx. 8.0 g/cm^3, Without adjustable chamber E2 and with adjustable chamber F1. The calibration certificate is expedited by DKD (member of the W.E.C.C.), which contains the determination and deviation between the nominal mass values, the actual measured value and the tolerance measurement.

Weight	Part No. Weight Class E2	Part No. Certificate E2	Tolerance Max. error ± mg	Part No. Weight Class F1	Part No. Certificate F1	Tolerance Max. error ± mg
1 mg	5838102	5838124	0.006	5838146	5838169	0.020
2 mg	5838103	5838125	0.006	5838147	5838170	0.020
5 mg	5838104	5838126	0.006	5838148	5838171	0.020
10 mg	5838105	5838127	0.008	5838150	5838172	0.025
20 mg	5838106	5838128	0.010	5838151	5838173	0.03
50 mg	5838107	5838129	0.012	5838152	5838174	0.04
100 mg	5838108	5838130	0.015	5838153	5838175	0.05
200 mg	5838109	5838131	0.020	5838154	5838176	0.06
500 mg	5838110	5838132	0.025	5838155	5838177	0.08
1 g	5838111	5838133	0.030	5838156	5838178	0.10
2 g	5838112	5838134	0.040	5838157	5838179	0.12
5 g	5838113	5838135	0.050	5838158	5838180	0.15
10 g	5838114	5838136	0.060	5838159	5838181	0.20
20 g	5838115	5838137	0.080	5838160	5838182	0.25
50 g	5838116	5838138	0.10	5838161	5838183	0.30
100 g	5838117	5838139	0.15	5838162	5838184	0.5
200 g	5838118	5838140	0.30	5838163	5838185	1
500 g	5838119	5838141	0.75	5838164	5838186	2.5
1 Kg	5838120	5838142	1.5	5838165	5838187	5
2 Kg	5838121	5838143	3.0	5838166	5838188	10
5 Kg	5838122	5838144	7.5	5838167	5838189	25
10 Kg	5838123	5838145	15	5838168	5838190	50

SET OF STANDARD WEIGHTS WITH BOX AND MATCHING CERTIFICATE

Set of weights E2 of **1 mg** to **500 mg** Part No. 5831822
Set of weights F1 of **1 mg** to **500 mg** Part No. 5832822
Certificate for set of weights **E2** of **1 mg** to **500 mg** Part No. 5862350
Certificate for set of weights **F1** of **1 mg** to **500 mg** Part No. 5862450
Material: Wooden box (E2), or resin box (F1), with clasp, tweezers and a small brush.
Weight details: 1 mg, 2 mg, 2 mg, 5 mg, 10 mg, 20 mg, 20 mg, 50 mg, 100 mg, 200 mg, 200 mg and 500 mg. **Total 12 weights** = 1.11 g

Set of weights E2 of **1 mg** to **50 g** Part No. 5831302
Set of weights F1 of **1 mg** to **50 g** Part No. 5832302
Certificate for set of weights **E2** of **1 mg** to **50 g** Part No. 5862301
Certificate for set of weights **F1** of **1 mg** to **50 g** Part No. 5862401
Material: Wooden box with clasp, lined with velvet, a special glove, housing for extractable fractional weights, tweezers and a small brush.
Weight details: 1 mg, 2 mg, 2 mg, 5 mg, 10 mg, 20 mg, 20 mg, 50 mg, 100 mg, 200 mg, 200 mg, 500 mg, 1 g, 2 g, 2 g, 5 g, 10 g, 20 g, 20 g y 50 g
Total 20 weights = 111.11 g

Set of weights E2 of **1 mg** to **100 g** Part No. 5831303
Set of weights F1 of **1 mg** to **100 g** Part No. 5832303
Certificate for set of weights **E2** of **1 mg** to **100 g** Part No. 5862302
Certificate for set of weights **F1** of **1 mg** to **100 g** Part No. 5862402
Material: Wooden box with clasp, lined with velvet, a special glove, housing for extractable fractional weights, tweezers and a small brush.
Weight details: 1 mg, 2 mg, 2 mg, 5 mg, 10 mg, 20 mg, 20 mg, 50 mg, 100 mg, 200 mg, 200 mg, 500 mg, 1 g, 2 g, 2 g, 5g , 10 g, 20 g, 20 g, 50 g and 100 g
Total 21 weights = 211.11 g

Set of weights E2 of **1 mg** to **200 g** Part No. 5831304
Set of weights F1 of **1 mg** to **200 g** Part No. 5832304
Certificate for set of weights **E2** of **1 mg** to **200 g** Part No. 5862303
Certificate for set of weights **F1** of **1 mg** to **200 g** Part No. 5862403
Material: Wooden box with clasp, lined with velvet, a special glove, housing for extractable fractional weights, tweezers and a small brush.
Weight details: 1 mg, 2 mg, 2 mg, 5 mg, 10 mg, 20 mg, 20 mg, 50 mg, 100 mg, 200 mg, 200 mg, 500 mg, 1 g, 2 g, 2 g, 5 g, 10 g, 20 g, 20 g, 50 g, 100 g, 200 g y 200 g
Total 23 weights = 611.11 g

COMECTA Stereomicroscope "XTX-3C LED and ZTX-20 LED"

Model XTX-3C LED.

Model ZTX-20 LED.

APPLICATIONS

By design and quality optics, these microscopes are recommended especially for long duration work. Ideally suited for biology, botany, archaeology, geology, teaching and electronics.

COMMON FEATURES

Three dimensional optical resolution, wide field of view without side aberrations, excellent crisp contrast and true colour.
Rechargeable battery 3x1800Ah and external charger.
Binocular head inclined at 45° with adjustable interpupillary distance from 55 to 75 mm.
Rotating head of 360° with easy access for large items.
Dioptric correction in the left eyepiece of ±5dp.
Ocular head held with secure fixing screws.
Rubber eyecups.
Pair of eyepieces, wide field of view WF 10x (23 mm Ø). In the model ZTX-3C.
Pair of eyepieces, wide field of view WF 20x (20 mm Ø). In the model ZTX-20.
Objectives of 2 x and 4 x, located in a double objectives support turret with rotation in both directions.
Double focus: by means of a vertical slip clutch of the head up and down a column, with fine adjustment using a bilateral macrometer with rack and pinion tension and control.
Solid base consisting of a platform with double contrast (black and white) circular plate and translucent etched light diffuser, with fixing screw and holding clips.

Model XTX-3C LED: System with double illumination of low voltage 12 V/10 W, with incident light (episcopic) in the head and transmitted (diascopic) in the circular platform.
Model ZTX-20 LED: system with triple illumination of low voltage, with incident light (episcopic) in the head and transmitted (diascopic) in the circular platform, Activated individually or simultaneously, with controllable intensity. Also the incident light incorporates a condenser lens with an extractable blue filter.

Dimensions: XTX-3C LED: 270 high x 117 wide x 190 mm deep.
Dimensions: ZTX-20 LED: 350 high x 320 wide x 190 mm deep.

Stereomicroscope model XTX-3C LED. Part No. 5313113
Stereomicroscope model ZTX-20 LED. Part No. 5313090

ACCESSORIES

Eyepiece with wide field of view WF 5x (single). Part No. 5313091
Eyepiece with wide field of view WF 10x (single). Part No. 5313092
Eyepiece with wide field of view WF 15x (single). Part No. 5313093
Eyepiece with wide field of view WF 20x (single). Part No. 5313094
Wooden box with handle and lock. Part No. 5313022
Ocular with scale 10/100 mm (each unit). Part No. 5313095

SPARES

Set of LED lamps (for XTX-3C LED). Part No. 5313013
Set of LED lamps (for XTX-20 LED). Part No. 5313015

MODELS	Part No.	Objectives	Eyepieces	Magnification	Ø Field of view mm	Working Distance mm	Illumination	Weight kg
XTX-3C LED	5313113	2x	WF-10x	20x	10.0	57	Transmitted or incident	2.8
		4x		40x	5.0			
ZTX-20 LED	5313090	2x	WF-20x	40x	5	40	Transmitted or incident	3.6
		4x		80x	2.5		independent or simultaneous	

Comes complete with key for tightening the axis tension, spare lamp and plastic dust cover.

COMECTA Stereomicroscopes with Zoom "SQF-L LED, SQF-D LED and SQF-E LED"

Model SQF-L LED.

Model SQF-D LED with Supplementary objective 2x.

APPLICATIONS

By design and quality optics, these microscopes are recommended especially for long duration work. Ideally suited for biology, botany, archaeology, geology, teaching and electronics.

COMMON FEATURES

Variable magnification using a continuous zoom control, with control knobs on either side to enable parfocal centralised focus.
Three dimensional optical resolution, wide field of view without side aberrations, excellent crisp contrast and true colour.
Optics are protected against knocks.
Binocular or Trinocular head (Model dependent), inclined at 45°.
Adjustable interpupillary distance from 54 to 75 mm.
Rotating head of 360° with easy access for large items.
Dioptric correction of ±5 dp in both eyepieces.
Ocular head fixed with secure screws.
Rubber eyecups.
Pair of eyepieces wide field of view **WF20x** (12 Ø) or **WF10x** (22 Ø) model dependent.
Macrometric focus: by means of a vertical slip clutch with a fine adjustment using rack and pinion tension control.
Solid base consisting of a platform with double contrast (black and white) circular plates and translucent etched light diffuser, with fixing screw and holding clips.
Triple illumination LED system, low voltage with incident light (episcopic) in the head and transmitted (diascopic) in the circular platform: activated individually or simultaneously, with controllable intensity.

Model SQF-E LED trinocular
Same characteristics to the SQF-D LED model, except that the head is trinocular and it is supplied with a photography adapter and eyepiece WF 10x with an adjustable focus visor. The photographic eyepiece and camera with support T2 PK and trigger cable have to be ordered as accessories.

ACCESSORIES

Supplementary objective 0.5x. SQF-L	Part No. 5313096
Supplementary objective 0.75x. SQF-L	Part No. 5313097
Supplementary objective 1.5x. SQF-L	Part No. 5313098
Supplementary objective 2x. SQF-L	Part No. 5313099
Eyepiece with wide field of view HWF 10x (single).SQF-D & E	Part No. 5313081
Eyepiece with wide field of view HWF 15x (single).SQF-D & E	Part No. 5313082
Eyepiece with wide field of view HWF 20x (single).SQF-D & E	Part No. 5313083
Video camera for eyepiece (See page 286)	Part No. 5435041
Adapter CCD of 0.5x suitable for a video camera.	Part No. 5313089
Eyepiece WF10x with grid (single). (Model SQF-D and E)	Part No. 5313084
Wooden case with handle and lock.	Part No. 5313016

SPARES

Set of LED lamps SQF-L	Part No. 5313015
LED lamp 3 W SQF-D LED and SQF-E LED (transmitted).	Part No. 5313044
LED lamp 3 W SQF-D LED and SQF-E LED (incident).	Part No. 5313045

Technical table with the different magnifications, working distance and Ø of the field of view resulting in the configuration of the diverse eyepieces and supplementary objectives available.

MODELS	Part No.	Head	Zoom Range	Eyepieces	Standard magnification	Ø Field of view mm	Working distance mm	Illumination system	Weight kg
SQF-L LED	5313311	Binocular	1x - 4x	10x	10x - 40x	26 - 5.8	90	Transmitted	5.5
SQF-D LED	5313309	Binocular	0.67x - 4.5x	20x	13.4x - 90x	17.9 - 2.7	105	or incident or both	6.1
SQF-E LED	5313308	Triocular	0.67x - 4.5x	20x	13.4x - 90x	17.9 - 2.7	105	simultaneously	6.4

Comes with a dust cover.

COMECTA Microscope Monocular “M-100 FL LED”

APPLICATIONS
Directed at the requirements of higher education, universities and suitable for: veterinary, dentistry, biology, industry, etc.

FEATURES
Monocular head inclined angle 45° and rotatable through 360°.
Eyepiece, with wide field of view WF 10x (18 Ø) fixed in position using secure screw.
Objectives, parfocal DIN 45 mm **achromatic brightfield** of **4x** (A.N. 0.10), 10x (A.N. 0.25)and 40x retractable (A.N. 0.65).
Total magnification: 40x, 100x and 400x.
Revolving triple objectives turret, rotation in either direction with a fixed axis stop locator.
Focus, vertical slip clutch, bilateral **micrometer** adjustment of 0.002 mm, separate **macrometer** with adjustable tension. Safety fixing screw for tension adjustment and end of focus limit stop.
Stage with spring clip slide holder of 110 x 126 mm.
Condenser, fixed lens and aperture (A.N. 0.65), with diaphragm disk of 5 apertures.
Illumination, transmitted light (diascopic), LED 0.5 W, with collimator lens and blue filter for chromatic corrections.
Robust construction, with power switch and illuminator built into the base.
Dimensions: 360 height x 130 width x 175 mm depth.
Weight 2.8 kg.
Supplied complete with key to adjust the tension of the slip clutch and cover.
Microscope monocular M-100 FL LED (400x).
Part No. 5313119

ACCESSORIES
Eyepiece Widefield WF-15x with cross hairs (Pointer).
Part No. 5313076
Eyepiece Widefield WF-20x with reticule.
Part No. 5313077
Condenser ABBE 1.25 A.N. with filter and iris diaphragm.
Part No. 5313003
Graduated mechanical stage.
Part No. 5313009
Video Micro-camera, 5 MP-:
- with connection USB for direct connection to a PC, including software.
Part No. 5435041
Wooden case with carry handle and lock.
Part No. 5313022

SPARE
LED lamp 0.5 W.
Part No. 5313028

ACCESSORY
Set of polarisers with circular graduated base and filter. Part No. 5313075

COMECTA Microscope Binocular “701 LED”

FEATURES
Binocular head with 45° tilt and full 360° rotation.
Interpupillary distance: 52 to 72 mm.
Dioptric adjustment of ±5 dp in both eyepieces, sharpness compensation for visual differences.
Pair of eyepieces DIN standard **WF10x** (18 mm Ø) and **WF16x**(11mm Ø).
Objectives DIN standard, achromatic, brightfield of 4x (A.N. 0.10), **10x** (A.N. 0.25), **40x** (A.N. 0.65) retractable and 100x (A.N. 1.25) immersion oil and retractable. Colour coded objectives for easy identification.
Total magnification: 1600x.
Four position objectives turret rotating in both directions with stop locator when it is in the correct position.
Large sub stage **135x145** mm, variable height with a rack and pinion mechanism with bilateral coaxial control. **Micrometer** adjustable stage graduated to 0.002 mm and **macrometer** adjustment tension, Movement up to 30 mm.
Safety stop with pre-set adjustable safety level.
Adjustable slide holder, with 0.1 mm scale with a smooth X-Y **40 mm longitudinal** and **80 mm** traversal movement.
Condenser Abbe of 1.25 A.N. with diaphragm iris and exchangeable filters. Rack and pinion height, adjustable.
Illumination transmitted (diascopic), with removable condenser lens and pre-centred lamp LED 3W, with variable intensity control. Suitable for use with an external light source using a plan or concave reflector mirror.
Robust construction that incorporates the illumination source and mains switch in the base.
Size: height 370 x width 200 x depth 225 mm.
Weight 6 Kg.
Supplied complete with blue set filters, matt glass filter, fuse, oil, dust cover.

Power supply: 110/220 V-50/60Hz.
Microscope Binocular 701 LEd. Part No. 5313111

ACCESSORIES
Eyepiece with wide angle lens WF-5x (single).
Part No. 5313034
Eyepiece with wide angle lens WF-15x (single).
Part No. 5313004
Eyepiece with wide angle WF-10x with reticule (single).
Part No. 5313035
Eyepiece with wide angle WF-10x with pointer (single).
Part No. 5313007
Video camera for eyepiece (see page. 286)
Part No. 5435041

SPARE
LED lamp 3 W.
Part No. 5313027

COMECTA Polarising Binocular Microscope 206 LED

APPLICATIONS

Wide range of applications, includes bright-field, dark-field, polarization and phase contrast. Ideal for universities, clinics, biology, bacteriology,agriculture and industry.

FEATURES

Binocular head inclined 30° rotatable through 360°.
Adjustable interpupillary distance of 55 to 75 mm.
Diopter adjustment of ±5 dp. in the right eyepiece, compensation for any differences in sharpness.
Paired eyepieces DIN, wide field of view **WF10x** (18Ø) and a pair of **WF16x** (Ø).
Objectives DIN, achromatic brightfield of **4x** (A.N. 0.10), **10x** (A.N. 0.25), **40x** (A.N. 0.65) retractable and **100x** (A.N.1.25) oil immersion retractable; colour coded for rapid identification.
Total magnification: 1600x
Quadruple revolving objectives turret, rotates in both directions with notched location positions.
Large stage of **160 x 140 mm**, height adjustable by mechanical rack and pinion bilateral coaxial focus; 0.002 mm graduated **micrometer** and **macrometer** with adjustable tension (distance 30 mm).
Pre-adjusted, Safety stop limit.
Mechanical stage, (slide holder), graduated scale of 0.1 mm, adjustable in both (x-y) using a smooth rack and pinion movement of **50 mm longitudinal** and **70 mm** transversal.
Condenser Abbe of 1.25 A.N. with iris diaphragm and replaceable filters.
Adjustable height by rack and pinion.
Illumination: transmitted (diascopic), with removable condenser lens and LED 3 W lighting with regulable intensity.
Strong and robust, illuminator incorporated into the base.
Set of simple polarisers: controllable analysis polariser.

Set of simple polarisers.

Comes complete with a set of blue, green and yellow filters, set of simple polarisers, lamp, 2 spare fuses, bottle of immersion oil and plastic cover

MODEL	Part No.	Height / Width / Depth mm			Power supply	Weight Kg
206	5313115	425	245	335	220 V / 50 Hz	7.5

SPARE

3W LED lamp. Part No. 5313046

ACCESSORIES

Eyepiece with wide angle lens WF-5x (single) Part No. 5313034
Eyepiece with wide angle lens WF-15x (single) Part No. 5313004
Eyepiece with wide angle lens WF-10x with reticule (single) Part No. 5313035
Eyepiece with wide angle lens WF-10x with pointer (single) Part No. 5313007

Complete kit for phase contrast, made of: Objectives DIN plan negative phase contrast: 10x (A.N. 0.25), 40x (A.N. 0.65) and 100x (A.N. 1.25) retractable oil immersion, condenser turret phase A.N. 1.25, central telescope and blue filter.
Part No. 5313017

5313017

Darkfield condenser: Permits the observation of low contrast and small size, dispersed in a homogeneous substrate samples which they appear luminescent under a uniform darkfield.
Darkfield condenser A.N. 0.83 - 0.91 dry (operable under low magnification).
Part No. 5313018

5313018

Darkfield condenser A.N. 1.25 - 1.36 oil immersion (operable under high magnification). Part No. 5313019

5313019

Micro video camera, 5 MP resolution
See page 286.
Part No. 5435041

5435041

COMECTA Microscopes "3000-A LED, 3000-B LED and 3000-C LED"

EXCELLENT RESOLUTION PLANACHROMATIC OPTICS. HIGH SPECIFICATION OPTICAL MICROSCOPES. MAXIMUM VERSATILITY WITH A WIDE RANGE OF CONFIGURATIONS, MODELS SHOWN ARE BINOCULAR AND TRINOCULAR WITH PHASE CONTRAST, BRIGHT AND DARK FIELD OPTICS, THIS INSTRUMENT IS IDEAL FOR A WIDE RANGE OF APPLICATIONS.

Optics Anti mould / Anti fungal

APPLICATIONS

Biology, bacteriology, cytology, immunology, diagnostics, pathology, agriculture,industry and university laboratories.

3000-A LED (BINOCULAR) AND 3000-B LED (TRIOCULAR).

FEATURES

Head, binocular or trinocular (model dependant), inclined 30° with 360° rotation.
Interpupillary distance adjustable from 53 to 75 mm.
Dioptric adjustment of ±5 dp in the left eyepiece, to compensate any visual differences.
Pair of DIN eyepieces wide field of view **WF 10x** (20 mm Ø).
DIN objectives, planachromatic bright field of **4x** (A.N. 0.10), **10x** (A.N. 0.25), 40x (A.N. 0.65) retractable and 100x (A.N. 1.25) oil immersion retractable, colour coded for rapid identification.
The planachromatic objectives provide an excellent image to the edge of the optical field of view.
Quadruple revolving objectives turret, rotates in both directions with spring ball stop locator when it is in the correct position.
Large substage of **180x140 mm**, rack and pinion adjustable height. Coaxial focus using controls located on both sides, graduated **micrometer** in steps of 0.002 mm and **macrometer** (with adjustable tension of up to 30 mm).
Safety stop with present adjustment.
Adjustable slide holder with a graduated scale of 0.1 mm, made up of a smooth (X-Y) rack and pinion mechanism, **longitudinal** and **transversal** movement of **50 mm** and **75 mm** respectively.
Abbe condenser of 1.25 A.N. precentred, with double lens, iris diaphragm and retractable from the front. Adjustable height using a rack and pinion mechanism.
The Abbe condenser can be easily replaced for special applications with a phase contrast condenser or a darkfield condenser (see accessories).
Transmitted illumination with LED that is formed with a condenser lens, viewing diaphragm removable filters and a precentred, low voltage, adjustable intensity.
Robust stable structure that includes the illumination system in the base, adjustable intensity potentiometer and On/Off switch.
Dimensions: 410 Height x 200 Width x 310 mm Depth.

Microscope Binocular Part No. 3000-A LED. Part No. 5901981
Microscope Triocular Part No. 3000-B LED. Part No. 5901982

Model "3000-B". Part No. 5901982.

MODEL 3000-C LED PLAN PHASE CONTRAST - BINOCULAR.

FEATURES

Similar characteristics to the model 3000-A LED except for a special configuration of **Plan Phase Contrast objectives**:
The objectives, **DIN quality, are planachromatic with positive phase contrast** of 10x (A.N. 0.25), 20x (A.N. 0.40) 40x (A.N. 0.65) retractable and 100x (A.N. 1.25) retractable and oil immersion.
The condenser is a phase turret A.N. 1.25, with central telescope and a set of white, blue and green filters. With sharp detail for examination of transparent thin sections that can differentiate the refraction index that the human eye cannot differentiate. Excellent for applications in biology, medicine, crystallography, agriculture, industrial plastics and rubber etc.
Microscope Binocular model 3000-C LED. Part No. 5901983

MODELS	Part No.	Head	Eyepieces	Objectives	Technique	Illumination	Weight kg
3000-A LED	5901981	Binocular	WF 10x (20 Ø)	Planachromatic (PL) 4x - 10x - 40x - 100x	Brightfield	3 W LED	8.4
3000-B LED	5901982	Triocular					8.7
3000-C LED	5901983	Binocular		Planachromatic (PL) phase contrast 4x - 20x - 40x - 100x	Phase contrast		8.4

Supplied complete with matt glass filter, fuse and a dust cover.

SPARE
LED lamp 3. Part No. 5313026

ACCESSORIES
See page: 286

COMECTA Trinocular fluorescence microscope “3002-F”

EXCELLENT RESOLUTION. POLYVALENT, CAN WORK IN EPIFLUORESCENT OR TRANSMITTED LIGHT MODE. WITH TRINOCULAR ADAPTER FOR CAMERA AND VIDEO CAMERA. PHASE CONTRAST AND DARK FIELD MODES AS ACCESSORIES.

OPTICS ANTI MOULD / ANTI FUNGAL

APPLICATIONS

Biology, cytology, oncology, genetics, scientific investigation, clinical diagnostics, epidemic prevention and embryology.

FEATURES

Trinocular head, inclined 30° and rotatable through 360°.
Interpupillary distance adjustable from 55 to 75 mm.
Dioptric adjustment of ±5 dp in the left eyepiece, to compensate for any visual differences.
Pair of wide field DIN eyepieces WF 10x (22 Ø).
Bright field planachromatic DIN objectives of 4x (A.N. 0.10), **10x** (A.N. 0.25), **40x** (A.N. 0.65)retactable, and an oil immersion retractable **100x** (A.N. 1.25) they are colour codified for a quick identification.
Planachromatic objectives provide an excellent image to the edge of the optical field of view.
Quadruple revolving objective turret, with both sides rotation and with a roller baring and a notch stop.
Large sub stage of **180x150 mm**, **rack and pinion** height adjustable, by coaxial focus bilateral controls, graduated micrometer in steps of 0,002 mm and macrometer with adjustable tension (30 mm path). With transmitted light lock plate and **UV** radiation protection screen.
Safety stop with preset adjustable safety level.
Mechanical slide holder (moveable), with graduated scale of 0,1 mm, made up of a smooth movement mechanism (x-y), by a 50mm longitudinal and a 75mm transversal rack and pinion movement.
Abbe condenser of 1.25 A.N., precentred, with double lens, iris diaphragm and retractable **frontal lens**. Rack and pinion height, adjustable.
Abbe condenser can be easily replaced by a phase turret condenser (for contrast) or dark field condenser, for special observation conditions (see accessories).

Transmitted illumination (diascopic), according to Kölher, that consists of a condenser lens, a field diaphragm, removable filters and low voltage halogen precentred lamp of 12V/30W with adjustable intensity.
Robust stable structure that includes the illumination system, the intensity potentiometer and the On/Off switch on its base.

FLUORESCENCE UNIT

Mercury lamp of 100 W/DC
Lamp power supply connected to 110 V/220 V with intensity, voltage and power adjustable by a knob.
Illumination module for reflected fluorescence (Waveband B and G, N free).
The unit includes diaphragm, selectable attenuation filter and 5 positions filter disk: ultraviolet, violet, blue and green filters, and a empty position for transmitted light.

ACCESSORIES

Waveband V and UV. Part No. 5901986

MODEL	Part no.	Eyepieces	Objectives	Technique	Illumination	Weight kg
3002-F	5901984	WF 10x (22 Ø)	Planachromatics (PL) 4x- 10x- 40x-100x	Epifluorescent	Transmitted 12v / 30w & Mercury fluorescence 100w / DC	10,5

Supplied complete with a set of blue, green and white filters, bottle of immersion oil ηD 1.515, mercury lamp 100 w, spare fuse and dust cover.

SPARE PARTS **Halogen lamp** 12 V / 30 W. Part No. 5313021. **Mercury lamp** 100 W DC. Part No. 5313055
Block with omega fluorescence filter: U V. Part No. 5313060 Violet. Part No. 5313061 Blue. Part No. 5313062 Green. Part No. 5313063

ACCESSORIES FOR MICROSCOPES MODELS “3000-A LED”, “3000-B LED”, “3000-C LED” AND “3002-F”

Eyepiece with wide angle lens WF-15x (single). Part No. 5313073.
Eyepiece with wide angle lens WF-20x (single). Part No. 5902074
Contrast phase kit: Objectives DIN, planachromatic positive phase contrast of 10x (A.N. 0.25), 25x (A.N. 0.4), 40x (A.N.0.65) retractable and 100x (A.N.1.25) retractable oil immersion and phase condenser turret, A.N. 1.25, with central telescope and green filter. Part No. 5901985
Dark Field condenser: Permits the observation of low contrast particles dispersed in a homogenous substrate, that appear luminous in a dark field.
- Dark field condenser: A.N. 0.77 ~ 0.91 dry (low magnification). Part No. 5313071
- Dark field condenser: A.N. 1.25 ~ 1.40 immersion (high magnification). Part No. 5313072

Micrograph Kit, camera mechanism WF 10x with a visor for focus correction and a photographic objective of 2.5 - 4x. (Adaptable for **Digital reflex photographic kit**). Part No. 5902008
Digital reflex photographic kit Composed of a mount, a shutter and a SD memory card of 2Gb. Part No. 5313222
Adapter for a CCD video camera: attachment. Part No. 5313070
Wooden case. Part No. 5313016

5902008 5313071 5313072

5901985 5313222

COMECTA Microscope biological inverted, trinocular "XDS-1B LED"

ISO 9001

APPLICATIONS

Optical microscope with many benefits, specially designed for biomedicine, biology and for culture analysis in matrix flasks and in microtitre plates, flasks, culture vessels, tubes etc. through the use of its objectives and long working distance condenser, technique uses brightfield or phase contrast.

FEATURES

Robust stable design with lateral arm wrist supports for maximum comfort and easy manipulation.

Trinocular head, inclined 45°.
Interpupillary distance adjustable from 53 to 77 mm.
Diopter correction of ±5dp in the left eyepiece, used to correct differences in sharpness.

Pair of DIN wide field **WF 10x** (22 Ø), telescopic central eyepiece phase contrast DZ11x DZ11x and trinocular photography eyepiece **S 5x** (9.5 Ø).

Objectives DIN planachromatic brightfield,long working distance LWD PL of 10x (A.N. 0.25/working distance W.D.=4.3 mm), **20x** (A.N. 0.40/W.D.=8 mm), **40x** (A.N. 0.40/W.D.=3 mm) and on **negative phase contrast LWD PL ph of 10x** (A.N. 0.25/W.D.=5 mm), colour coded for rapid identification.
Maximum thickness acceptable for receptacle bases 1.2 mm.

Quadruple objectives turret with rotation in both directions with a roller baring and notch stop. Rack and pinion height adjustment mechanism with bilateral coaxial focus controls: **micrometer** of 0.2 mm rotation graduated at 0.002 mm increments and **macrometer** with adjustable tension.
Total working distance 12 mm.

Condenser with long working distance (55 mm), brightfield and phase contrast. Precentred, with iris diaphragm and flip out phase contrast. **Including a phase ring of 25x**. Rack and pinions mechanism for height regulation or lateral removal for more height receptacles of up to 145 mm.

Large stage: dimensions 227x208 mm. Includes 3 stages for optimum accommodation of differing sample vessels: plates and or culture flasks, microtitre plates, etc.

Mechanical sub-stage with graduated scale of 1 mm and vernier of 0.1 mm, made up of a smooth mechanism (x-y) rack and pinion drive with 77 mm longitudinal and 114 mm transversal.

Illumination system, diascopic transmitted light by a halogen lamp of 6 V / 20W, precentred by external knobs and controllable intensity.
The unit includes a field diaphragm with filter carousel of green and grey.

MODEL	Part No.	Height / Width / Depth exterior cm			Weight Kg
XDS-1B LED	5901988	58	30	53	17

Supplied with protective cover and 1 spare fuse in the fuseholder

ACCESSORIES

Objectives planachromatic long working distance Negative phase contrast:
Objective PLL ph 20x
(A.N. 0.40 W.D.=8 mm)
Part No. 5313065
Objective PLL ph 40x
(A.N. 0.60 W.D.=3,5 mm)
Part No. 5313066
Adapter thread CCD 0.5 x
Part No. 5313067
Adapter thread 1 x
Part No. 5313068
Eyepiece WF10x (22 mm)
With reticule Part No. 5313064

5313065 *5313066*

5313064

Digital reflex photographic kit, composed of a mount, a shutter and a SD memory card of 2Gb.
Part No. 5313222

5313222

SPARES

3W LED lamp. Part No. 5313029

COMECTA Microscope metallographical inverted “18AT”

EXCELLENT RESOLUTION. PLANACHROMATIC OPTIC.

APPLICATIONS

Microscope with high capabilities.
Made for large sample observations. Samples are placed on top of an open obstruction free stage.
Binocular or Trinocular configuration with a range of accessories, that convert the instrument into an versatile microscope ideal for the identification and analysis of different materials and alloys. Suitable for a wide range of scientific research applications in metallurgy, physical properties of metals, heat treatments and quality control.

Model triocular 18AT.

FEATURES

Head, binocular or trinocular (model dependent), 45° inclined angle.
Adjustable interpupillary distance from 53 to 77 mm.
Dioptric adjustment of ±5 dp in the left eyepiece, compensating for any visual differences.
Paired eyepieces, DIN quality. Wide field of view **WF 10x** (22 mm Ø).
Objectives DIN grade, planachromatic brightfield of **10x** (A.N. 0.25), **20x** (A.N. 0.50), **50x** (A.N. 0.70), retractable, and **100x** (A.N. 0.85), retractable, using immersion oil. Colour coded for easy and rapid identification.
Magnification range: 100x, 200x, 500x and 1000x.
The planachromatic objectives provide an excellent image, free from aberrations at the edge of the field of view.
Quadruple rotating objectives turret, rotates in both directions with stop locator when in the correct position.
Large sub stage of **242x200 mm,** rack and pinion adjustable height, with bilateral coaxial focus. Micrometer graduated in 0.002 mm steps and **macrometer,** with adjustable tension up to 19 mm.
Safety stop with a pre-set safety level.
Slide holder with scale of 0.1 mm, with a smooth X and Y rack and pinion movement of 15 mm **longitudinal** and 15 mm **traversal** movement.
Illumination: incidental (episcopic), Kölher, that consists of a condenser lens, condenser Abbe of 1.25 A.N., pre-centred with an iris diaphragm, filters and a pre-centred halogen 6 V / 30 W low voltage controllable light source.
Structure, robust with an illumination system in the base, intensity potentiometer and illumination switch.
Dimensions: 40 height x 25 Width x 61 cm depth.
Weight: 15 Kg.
Comes complete with a set of filters: blue, yellow, green and matt glass filter.

Microscope Triocular Part No. 18AT. Part No. 5901990

SPARE

Halogen lamp 6 V / 30 W. Part No. 5313069

ACCESSORIES

5313222

Digital reflex photographic kit composed of a mount, a shutter and a SD memory card of 2Gb. CMOS sensor higher than 10 megapixels. Speed up to 3 pictures per second. LCD display of 2,5 inches. Processed with total image control. Large area viewfinder and high luminosity.

Part No. 5313222

Eyepiece with wide field, of view WF-10x (22 mm) with reticule.
Part No. 5313064

Adapter thread CCD 0.5x.
Part No. 5313067

Adapter thread CCD 1x.
Part No. 5313068

Micrograph Kit comprising of:
Photographic adapter mechanism with eyepiece WF-10x with focus adjustment visor and objective of 4x (adaptable to **Digital reflex photographic kit**).
Part No. 5902014

5902014

Eyepiece video camera

ADAPTS DIRECTLY ONTO THE EYEPIECE OF THE MICROSCOPE OR TRINOCULAR HEAD.

Micro video camera 5 MP **with a USB connection**, direct to a PC, includes software.
Part No. 5435041

Light source, cold source, fibre optic "Z-150"

CONSTANT COLOR

APPLICATIONS

Microscopy illumination for small samples free from colour alteration.
Especially recommended for microphotography of live biological samples, cultures, micro-organisms, process control, electronic components, dental studies, etc.

FEATURES

Halogen lamp 150 W. Adjustable illumination intensity control. Forced air circulation. Heat absorption filter.
Safety transformer fitted. Primary fuse protection.

CONTROL PANEL

Mains switch. Potentiometer controlled light intensity.

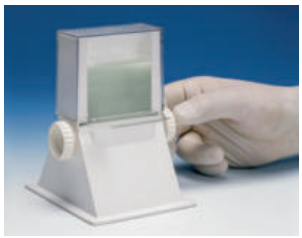
MODEL

Part No.	Height / Width / Depth exterior cm			Power W	Weight Kg
5901016	15	19	25	150	4

SPARE Lamp 150 W.
Part No. 5901017

Supplied with double flexible arm 50 cm long.

Microscope accessories and consumables



GLASS SLIDES

Glass slides (smooth): 26 x 76 x 1.5 mm.
Part No. 5600400 Box of 72.
Glass slides (matt end for notes): 26 x 76 x 1.5 mm.
Part No. 5600399 Box of 72.
Cover slip: 18 x 18 mm.
Part No. 5600396 Box of 100.
Cover slip: 22 x 22 mm.
Part No. 5600397 Box of 100.
Cover slip: 24 x 24 mm.
Part No. 5600398 Box of 100.

SLIDE DISPENSER

Base made of ABS with a transparent Polycarbonate lid, with rotating manual dispenser of individual slides.
Capacity 50 slides of 76 x 26 mm.
Part No. 1001366

CLEANING KIT

Suitable for optical microscopes.
Part No. 5313000

WOODEN MICROSCOPE BOX

Solid wood, microscope box, of 3 mm thickness, treated with varnish, fitted with a metallic door, clasp lock and a carry handle.
Microscope Box suitable for Model M-100FL, XTX-3C and ZTX-20.
420 high x 255 wide x 285 mm deep. Part No. 5313022
Microscope Box suitable for Model SQF-L, SQF-E, 2000-A, 2000-B and 2000-C.
Internal dimensions: 420 high x 265 wide x 317 mm deep.
Part No. 5313016

Slide support, Slide box for storing slides, slide staining stands, etc. (See pages 215 to 219).

Disk polarimeter "polar-2010" LED

LAURENT TYPE MODEL
LED LAMP ILLUMINATION

APPLICATIONS

Designed for colleges and universities, chemical laboratories, pharmaceutical, clinics, cosmetics and food industry.

FEATURES

Vernier reading definition. Angle ± 0,05 º.
Measuring range of optical rotation: ± 180 º.
Rotation scale division: 1º.
Measuring lens 4x.
Ocular with dioptres adjustment.
Slide rack compartment length: for tubes up to 220 mm.
Monochromatic lamp wave length: 589,3 nm.

MODEL

Part No	External measurements cm. Height / Width / Depth			Consumption W	Power V / Hz	Weight Kg
5120220	32	43	14	20	110-220 / 50-60	5

SPARE PARTS
Sodium lamp. Part No. 5120221

COMECTA Refractometer ABBE "2WAJ"

LCD DIGITAL THERMOMETER BUILT-IN.

APPLICATIONS

Ideal for measuring the refractive index ηD of liquids, solids and sugar concentrations (0 - 95% = ηD 1.333-1.531).
Indispensable instrument for industrial chemistry, petroleum, pharmaceutical, food oils and fats, sugars, universities etc.

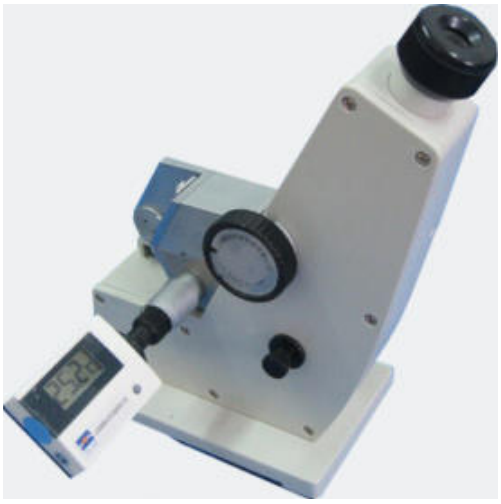
FEATURES

Telescopic system X2 magnification.
Eyepiece with dioptric correction.
Connection for external water bath.
Thermometer 0-70 °C. To see the sample temperature.
Robust metallic construction.
Weight: 2.6 Kg.
Measurements: 240 mm high x 100 mm wide x 200 mm depth.

Measuring range:
Refraction index ηD: 1300 - 1700.
Brix: 0 - 95%.

Measuring definition:
Refraction index ηD: 0.0005.
Precision ηD: ±0.0002.
Brix: 0.25%. Precision: ±0.1%.

Part No. 5901008
Supplied complete with
- Aluminium carry case,
- 1 bottle of Naphthalene Bromide,
- 1 calibration standard,
- 1 screwdriver and dust cover.



COMECTA Digital ABBE refractometer "WYA-2S"

APPLICATIONS

Ideal for measuring the refractive index of liquids, solids and sugar concentrations (° Brix), industry: chemical, petroleum, food, pharmaceutical, universities and research etc.

FEATURES

Apparatus equipped with an optical system made of a telescope with dispersion correction, used to define the division line between dark and bright areas.

Precise optics with automatic temperature compensation displayed as °Brix and sample temperature.

Stabilized temperature connection for a water bath.
RS-232 output with software included.

Measuring range:
Refraction index ηD: 1.3000 - 1.7000
Brix Bx - TC: 0 - 95%
Brix Bx: 0 - 95%

Measurement scale definition:
Refraction index ηD: ± 0.0002
Brix Bx - TC: ± 0.1%
Brix Bx: ± 0.1%

Temperature:
Working range: 0 - 50 °C.
Correction range of Bx, in respect to temperature: 15 - 45 °C.

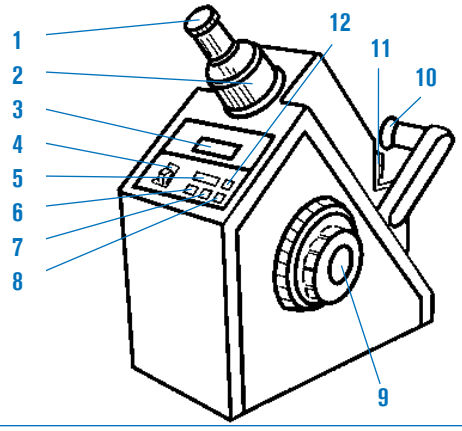
Supplied complete with dust cover and maintenance box that includes:
- 1 bottle of Naphthalene Bromide,
- 1 calibration standard,
- 1 Hex key,
- 3 lamps 6.3V, 0.25 A.
- 3 fuses 1 A.

Optimum precision

MODEL

Part No.	Height / Width / Depth (exterior) cm			Power supply	Weight Kg
5901007	38	18	33	220V ±20V 50/60Hz	10

CONTROL PANEL



Technical description

1. Monocular system.
2. Telescope adjustment.
3. Digital display.
4. Mains switch "POWER".
5. Push button "READ".
6. Push button for Brix with temperature correction "Bx - TC".
7. Push button for the refractive index "ηD".
8. Push button for Brix without temperature correction "Bx".
9. Optical control.
10. Light intensity unit.
11. Refractometer prism.
12. Push button for temperature indicating. "TEMP".

COMMON FEATURES

Robust metal construction.
Excellent optical quality.
Eyepiece with adjustable dioptric ring to compensate any visual sharpness.
Easy to use, with direct easy to read scales.
Adjustable calibration screw.
Supplied complete with pouch, Pasteur pipette and screwdriver.

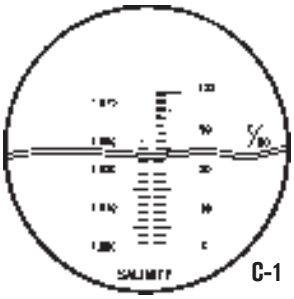
REFRACTOMETER FOR SALINITY ‰ AND DENSITY "C-1"

APPLICATIONS

For the investigation in clinical laboratories (solutions and dissolutions). Industry, food provisions (vegetables, fruit, fish and shell fish).

TECHNICAL SPECIFICATION

Automatic compensation
Temperature: . . . . . 10 - 30 °C.
Salinity range: . . . . . 0 to 100 ‰.
Division Scale: . . . . . 1 ‰.
Density: . . . . . 1000 - 1070.
Division scale: . . . . . .0.001.
Part No. 5901001


C-1

REFRACTOMETER BRIX% INDEX "C-2", "C-3", "C-4" AND "C-5"

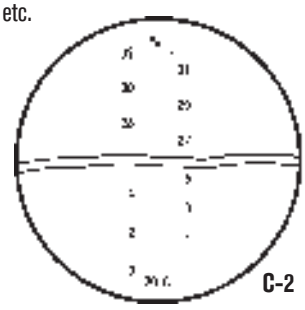
APPLICATIONS

Concentrates of sugar in fruit, juices, gaseous drinks, milk, wine, industrial oils etc.

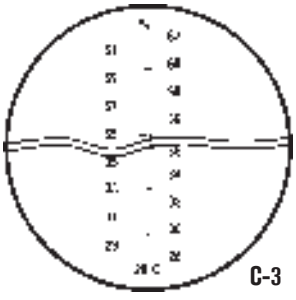
TECHNICAL SPECIFICATION

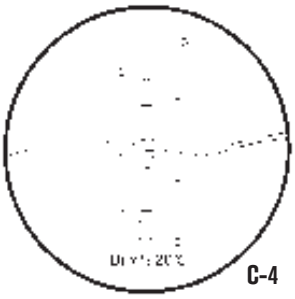
"C-2" Range Brix: . . . . . .0 - 32 %.
"C-3" Rango Brix: . . . . . .28 - 62 %.
Division scale: . . . . . .0.2 %.
Precision . . . . . .±0.2 %.

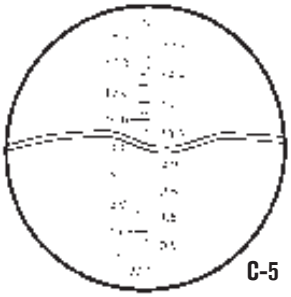
"C-4" Rango Brix . . . . . .0 - 10 %.
"C-5" Rango Brix . . . . . .0 - 20 %.
Division scale: . . . . . .0.1 %.
Precision: . . . . . .±0.1 %.


C-2

Part No.
5901002 Model C-2
5901020 Model C-2 with temperature compensation
5901003 Model C-3
5901021 Model C-3 with temperature compensation
5901022 Model C-4
5901023 Model C-4 with temperature compensation
5901024 Model C-5
5901025 Model C-5 with temperature compensation


C-3


C-4


C-5

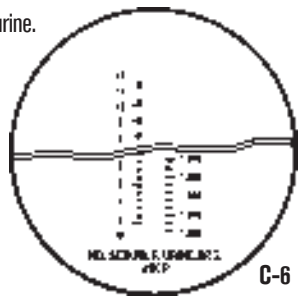
CLINICAL REFRACTOMETER 2 SCALES "C-6"

APPLICATIONS

Suitable for the determination of proteins, serum and specific gravity (density) of urine.

TECHNICAL SPECIFICATION

Proteins in serum: . . . . . .1 - 12 g/100 ml.
Division scale: . . . . . .0.2 g/100 ml.
Urine density: . . . . . .1000 - 1040.
Division scale: . . . . . .0.002.
Part No. 5901006


C-6

COMECTA Melting point apparatus "IA-9100"

MODELS FOR ADJUSTABLE TEMPERATURES UP TO 400 °C

BS EN ISO 9001

Electrothermal

COMMON CHARACTERISTICS

Temperature chamber with telescopic, folding arm and adjustable focus.
Equipped with an 8x focal magnifier.
Low voltage 12 V / 2.2 W inner chamber light.
Removable viewing head for easy cleaning.
Liquid crystal display 12 mm high.
Accommodates up to 100 capillary tubes (depending on model).
Model IA-9100 for melting points between 45 and 400 °C and capacity for 3 capillaries of max. 2 mm Ø.

APPLICATIONS

Research and analysis: Post-synthesis purity testing and control. Pharmaceutical laboratories.

TECHNICAL DATA

Model	IA-9100
Code	5609100
Max. Cap. capillary tubes 2 mm Ø max.	3 units
Melting point memory	4
Batch Memory	-
Temperature ramps	2 ramps: 1 of 1 °C/min. and 1 of 10 °C/min. for searching
Temperature range chamber	from 45 to 400 °C
Digital thermometer range	Ambiente a 400 °C
Thermometer resolution	0,1 °C
Thermometer accuracy at 23 °C ambient temperature	1 °C/min. with 2 mm Ø capillary: ±0.5 °C at 20 °C ±1 °C at 350 °C ±1 digit
Supply voltage	110/220V-50/60Hz
Consumption / Weight	45 W / 2,5 Kg
Height (closed/open) x Width x Depth cm	85/45 x 20 x 35

ACCESSORIES

Capillary tubes of 1.5 mm Ø.
Box of 10 packs of 100 units.
Code 5600150
*** Capillary tubes of 2 mm Ø.**
Box of 20 packs of 50 units.
Code 5600200
Calibration kit.
Code 9560030

COMECTA Portable digital refractometers "NR-101" and "NR-151"

OPTIC ivymen® SYSTEM

APPLICATIONS

Model NR-151. Brix % and Refractive Index hD.
Ideal for sugar % Brix concentrations and hD Refractive Index measurement. Fruits, juices, beverages, milk, wine, oils, food industry, chemical, pharmaceutical, scientific, petroleum, oils, lubricants, etc.
Model NR-101. % Brix, Refractive index hD and % Salinity.
Ideal for sugar concentrations % Brix, for the measurement of Refractive Index hD and sodium chloride in % Salinity.Fruits, juices, beverages, milk, wine, oils, fish, seafood, aquariums, canned water, food industry, chemical, pharmaceutical, scientific, petroleum, oils, lubricants, etc...

Model NR-151

COMMON CHARACTERISTICS

Portable and simple to operate. Digital alphanumeric display. Measurement by optical image detection by photocells integrated in CCD camera and digital image processing technique. Anticorrosive stainless steel prismatic basin and lid.Automatic Temperature Compensation (ATC) at 20 ºC, within a sample temperature range of 5 to 40 ºC.Temperature measurement in ºC or ºF. Calibratable with distilled water. Tolerated alarm limits selection function. Instant response microprocessor. Automatic shutdown in 3 minutes of inoperability. Low voltage alarm indicator. 9 V battery power supply. Operating temperature from 0 to 40 ºC at 90% relative humidity and at a maximum altitude of 2000 m above sea level.

MODELS	Code	Reading and Measurement	Measurement Range	Resolution Measurement	Accuracy Measurement	Temperature range	Temperature resolution	Temperature precision	Height / Width / Depth cm	Weight Kg
NR-151	5901012	Brix %	0,0 - 95,0%	0,1%	±0,1%	0 +40 °C 32 +140 °F	0,1 °C 0,2 °F	±1 °C ±2 °F	6 18 10	0,9
		Refractive Index ηD	1,3330 - 1,5318 ηD	0,0001 ηD	±0,0002 ηD					
NR-101	5901013	Brix %	0,0 - 60,0%	0,1%	±0,1%					
		Refractive Index ηD	1,3330 - 1,4419 ηD	0,0001 ηD	±0,0002 ηD					
		Salinity %	0,0 - 28,0 %	0,1 %	±0,1 %					

Supplied with protective carrying case, dosing burette, distilled water bottle and 9 V battery.

COMECTA Automatic Melting Point Apparatus "WRS-1B" "WRS-2A"

AUTOMATIC DETERMINATION NO VISUAL CONTROL REQUIRED.

A different conception.

Totally automatic, without the need to visually determine the melting point process

RS232

APPLICATIONS

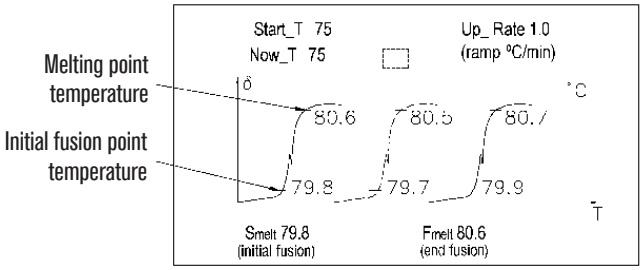
Research laboratories, quality control. Test and control of purity after synthesis in pharmaceutical laboratories.

AUTOMATIC MELTING POINT WRS-1B

Single sample analysis
LCD display, simple alphanumeric keypad.
Melting point determination by photoelectric detection.
Automatic functions. Reads and registers the starting point, fusion point and end point.
Part No. 5609401

AUTOMATIC MELTING POINT WRS-2A

Simultaneous analysis, three samples.
LCD graphic display and 16 keys numeric keypad.
Melting point determination detector photoelectric.
Automatic functions. Reads and registers the starting point fusion point, end point, melting point curve and average value determination.
Part No. 5609402



Details of graphic display, calculated average of melting point curves.

MODELS		WRS-1B	WRS-2A
Part No.		5609401	5609402
Digital LCD screen		Numeric	Numeric and graphical
Maximum capillary tube capacity, 1.4 mm Ø ext.		1	3
Temperature range		from 50 °C to 300 °C	
Readable temperature resolution		0.1°C	
Melting point measurement precision		Upto 200 °C ±0.5 °C and from 200 °C to 300 °C ±0.8 °C	
Selectable ramp rate in °C/minute		0.2 - 0.5 - 1 - 1.5 - 2 - 3 - 4 and 5 °C/min.	
Repeatability		0.4 °C ramp rate of 1 °C/min	0.3 °C ramp rate of 1 °C/min. 0.2 °C ramp rate of 0.2 °C/min.
Decending time to reach the start temperature	increasing	from 50 °C of 300 °C 3 minutes	
	decreasing	from 300 °C of 50 °C 5 minutes	
Sample holder		for capillary tubes of 1.4 mm Ø ext. / 1 mm Ø int.	
Sample fill height		3 mm	
Output interface RS-232		9600 baudrate, 1 bit stop and 8 data bits	
Power		110 W	
Power supply		220V-50/60Hz	
Weight		9.5 Kg	12.5 Kg
Weight /Dimensions, height x width x depth in mm		380 x 315 x 200	398 x 278 x 210

Supplied complete with 1000 capillary tubes of 1.4 mm Ø ext set of maintenance tools comprising of star and flat screwdrivers, drill bit of 1.5 mm Ø, allen key 3 mm, lamp and fuse, software and protective cover.

ACCESSORY **Capillary tubes** of 1.4 mm Ø ext. 1.0 mm Ø int. Box of 5000 tubes Part No. 5609404

SPARE **Lamp** 6.5 V 0.3 A. Part No. 5609405

ROTARY VISCOMETERS

FLOW CUPS

GLASS VISCOMETERS

MONITOR AND CONTROL

GLASS THERMOMETERS

REACTORS

LABORATORY FUME CUPBOARDS

Laboratory fume cupboards	page 292 and 295
Postes de sécurité biologique	page 294 and 296
Rotary viscometers	pages 297
Flow cups for measuring liquid viscosity	pages 298 to 300
Viscometer precision bath	page 300
Glass viscometers	page 301 to 302
Monitor and control apparatus	pages 303 to 305
Glass thermometers	pages 306
Laboratory reactors	pages 307 to 310
Laboratory washing machines	pages 312 and 313
Spray dryer	page 314
Filters	pages 315 to 316
Analytical consumables	pages 319 to 327

"True knowledge is rigorous and hard on itself. At the same time is amiable and tolerant."
Plutarco

Viscometers, Monitor and control, safety, Consumables.

Laboratory fume hood "VG-BS"

FOR STEAM, ACIDS, BASES AND SOLVENTS EXTRACTING.

SAFETY: DESIGNED AND BUILT MEETING EUROPEAN STANDARD UNE-EN 14175-2

COMMON FEATURES

Antiacid continuous ceramic worktop with anti-dumping peripheral rim and evacuation sink. Polypropylene basin for lateral evacuation.
Inner working chamber built in thermo stable compact resins, antiacids and anti-moisture. M1 fire resistance.
Extraction system with perfectly balanced injected polypropylene turbine. Coupled and protected engine outside the fumes way.
Vertical guillotine door with adjustable height in any position and three sections of 3 + 3mm laminated glass slide which creates a high resistance protection shield.
Self-supporting structure, made of structural elements with 2 mm steel tube, degreased, phosphated and coated with a 70 µ layer of epoxy paint vitrified in the oven. This structure is completely isolated from the working cabin and from the gases contact.
External cover in white melamine board or thermo stable resins in high humidity environments.

ASSEMBLY SYSTEM INTO TWO BODIES

Upper body with cabinet and embedded extractor.
Lower body with a structure, ceramic worktop and remote control panel for fluids and gases in an horizontal housing.
Optional: working system (Walking) at ground level for the input and working with machinery, reactors and organic synthesis appliances. (Request information).

TECHNICAL FEATURES

Lighting level: More than 500 Lux in working area IP 55 or ATEX*.
Extraction volume: from 420 to 4.500 m3/h.
Engines: from 0,37 to 2,2 CV - IP55 or ATEX*.
Voltage: 220V/50Hz. Single phase / three phase.
***ATEX:** if we work with flammable, solvents or hydrocarbons.
On request: Automatic control unit for variable flow (motor) depending on door's opening. Failure alarm.
On request: Perimeter and ceiling in continuous tiles, for working with sulfuric acid.
On request: Perimeter and ceiling in continuous tiles, for working with perchloric acid. It comes with gas washing.

Can be supplied with custom measurements on demand.
*G = Antacid stoneware throughout the interior of the upper cabin

CONTROL PANEL

ON / OFF push button with green LED and electrical sockets 230V/16A. Fuel regulator knob (Yellow). Nitrogen regulator knob (Blue/ green button). Vacuum regulator knob (Grey/ black button). Air regulator knob (Blue/ yellow button). Water regulator knob (Green/ blue button). Safety locking pin on door for recommended working position.

MODELS	Part No.	Height / Width/ Depth Upper body (exterior) cm	Height / Width/ Depth Lower body (exterior) cm	Height / Width/ Depth Upper body (inner) cm	Height / Width/ Depth Lower body (inner) cm	Upper Weight Kg	Lower Weight Kg
VG-BS-1220	5001613	180 120 90	90 120 90	130 95 69	72 95 55,5	104	64
VG-BS-1420	5001614	180 150 90	90 150 90	130 125 69	72 125 55,5	102	96
VG-BS-1720	5001615	180 180 90	90 180 90	130 155 69	72 155 55,5	180	128
VG-BS-2020	5001616	180 200 90	90 200 90	130 175 69	72 175 55,5	208	160
VG-BS-1220	5001631 Atex+G*	180 120 90	90 120 90	130 95 69	72 95 55,5	124	64
VG-BS-1420	5001632 Atex+G*	180 150 90	90 150 90	130 125 69	72 125 55,5	162	96
VG-BS-1720	5001633 Atex+G*	180 180 90	90 180 90	130 155 69	72 155 55,5	200	128
VG-BS-2020	5001634 Atex+G*	180 200 90	90 200 90	130 175 69	72 175 55,5	248	160

ACCESSORIES

Mounting kit

2 PVC pipes Ø200 x 200 cm. Code 5001617
2 PVC elbows Ø200 of 90º. Code 5001623
1 PVC elbow Ø200 of 45º. Code 5001621
1 anti-bird outlet Ø200. Code 5001629
1 PVC elbow Ø200 of 45º. Code 5001621
2 flexible Ø200 (25 cm per tube). Code 5001619

Safety cabinets

Part No.	Acids & base	Flammables	Doors
5001625	Yes	No	1
5001626	Yes	No	2
5001627	No	Yes	1
5001628	No	Yes	2

COMECTA Laboratory fume hood “TM-FH”

NEW

APPLICATIONS

The TM-FH extraction cabinet is designed to ensure optimal safety during the handling of hazardous chemical substances. It is ideal for use in chemical and pharmaceutical laboratories, academic and research institutions, quality control and testing environments, industrial laboratories, and applications involving toxic or volatile substances.

FEATURES

Built with an ergonomic and robust structure using chemically resistant steel. Seamlessly integrates into laboratory environments. Equipped with a microprocessor-based airflow control system that includes audible and visual alarms in case of low airflow or incorrect sash positioning. The optimized ventilation system ensures low energy consumption. Optional service accessories such as water, vacuum, and gas connections are available. Units can be manufactured in standard sizes or fully customized to meet the specific needs of each project.

INTERNAL UPPER BODY

Constructed from galvanized steel or AISI 304 stainless steel with an anti-acid epoxy resin coating. Equipped with rear and lower baffles to ensure uniform airflow distribution. Worktops are available in epoxy resin, phenolic resin, stainless steel, or ceramic, depending on laboratory requirements. Side panels can be made of full-height safety tempered glass or composite materials to enhance visibility and protection.

FRONT DOOR

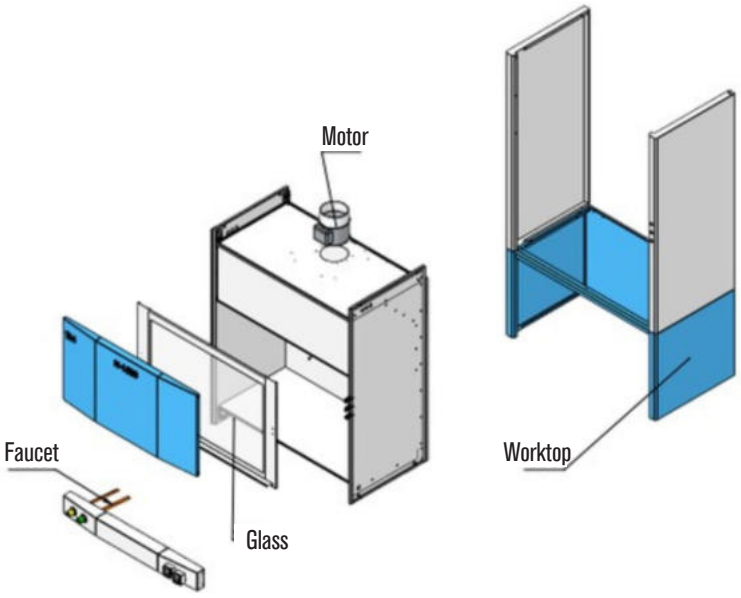
The vertical sliding sash is available in manual or motorized versions. It is made of 5 mm thick safety tempered glass. The counterweight system includes a sash safety lock. An audible alarm is triggered if the sash is raised above the safe working height. The UV interlock system deactivates the UV lamp when the sash is open. The sash also features a position memory function for consistent use.

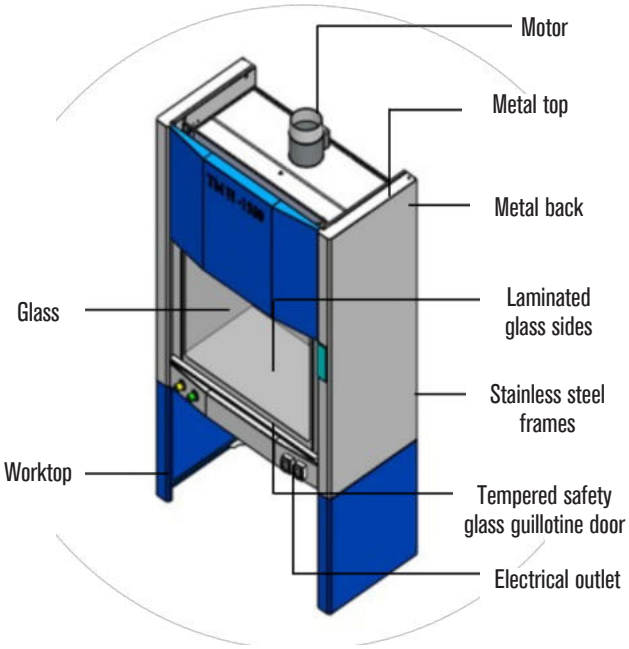
EXHAUST AND SUCTION

The exhaust ducts are made of chemically resistant polypropylene or PVC with a standard diameter of 200 mm. The extractor is equipped with a corrosion-resistant backward-curved impeller, providing a variable airflow of up to 1500 m^3/h depending on the model. Airflow speed is adjusted via a digital interface. The system operates at a low noise level of $\leq$ 60 dB.

LIGHTING

The main lighting system consists of high-efficiency LED lights that provide $\geq$ 1000 lumens. The lights are positioned outside the airflow to prevent contamination and ensure safety. They emit minimal heat and have a long service life of over 30,000 hours. An optional UV lamp is integrated behind the front panel, interlocked with the sash, and controlled by a timer (30 or 60 minutes) for safe operation.Preguntar a ChatGPT





MODELS	Code	Ext. width (mm)	Ext. depth (mm)	Ext. height (mm)	Int. width (mm)	Int. depth (mm)	Int. height (mm)
TM-FH 900	5220470	785	912	2200	685	725	686
TM-FH 1500	5220471	1394	912	2200	1295	725	686
TM-FH 1800	5220472	1700	912	2200	1600	725	686

Laboratory fume cupboards "Walking" to the ground

FOR STEAM, ACIDS, BASES AND SOLVENTS EXTRACTING

SAFETY: DESIGNED AND BUILT MEETING EUROPEAN STANDARD UNE-EN 14175-2

COMMON FEATURES

Inner working chamber built in thermo stable compact resins, anti-acid and anti-moisture. M1 fire resistance.
Extraction system with perfectly balanced injected polypropylene turbine. Coupled and protected engine outside the fumes way.
Vertical guillotine door with adjustable height in any position and 3 + 3 mm laminated glass slide in three sections creating a high resistance protection screen.
Self-supporting structure made of structural elements with a 2 mm thick steel tube, degreased, phosphated and coated with a 70 µ layer of epoxy paint vitrified in the oven. This structure is completely isolated from the work cabin and the contact with gases.
External cover in white melamine board or thermo stable resins with a high degree of environmental humidity.

Fume cupboard specially designed for pilot plant assemblies or special techniques where a large free interior space is required, fully accessible within the cabin.

TECHNICAL FEATURES

Lightning level: More than 500 Lux in working area IP 55 or ATEX*.
Extraction volume: from 420 to 4.500 m3/h.
Engines: from 0,37 to 2,2 CV - IP55 or ATEX*.
Voltage: 220V/50Hz. Single phase/three phase
ATEX*: if we work with flammables, solvents or hydrocarbons.
On request: automatic control unit for variable flow (motor) depending on the door opening function. Failure alarm.
On request: Perimeter and roof in GRES continuous for working with sulfuric acid.
On request: Perimeter and roof in GRES continuous for working with perchloric acid. Includes gas scrubber.

CONTROL PANEL

ON/OFF push button with green LED and electrical sockets 230V/16A.
Fuel regulator knob (Yellow).
Nitrogen regulator knob (Blue/green button).
Vacuum regulator knob (Grey/black button).
Air regulator knob (Blue/yellow button).
Water regulator knob (Green/blue button)
Safety locking pin on door for the recommended working position.
It can be supplied with customized measures on demand.
Standardized stainless steel supports for general use supplied on demand.

MODELS	Part No.	Height / Width / Depth (exterior) cm	Height / Width / Depth (interior) cm	Weight Kg
VG-VW-1420	5001642	270 150 90	182 125 63	116
VG-VW-1720	5001643	270 180 90	182 155 63	148
VG-VW-2020	5001644	270 200 90	182 175 63	180

ACCESSORIES

Mounting kit

2 PVC pipes Ø200 x 200 cm. Code 5001617
2 PVC elbows Ø200 of 90º. Code 5001623
1 PVC elbow Ø200 of 45º. Code 5001621
1 anti-bird outlet Ø200. Code 5001629
1 PVC elbow Ø200 of 45º. Code 5001621
2 flexible Ø200 (25 cm per tube). Code 5001619

COMECTA Biosafety Cabinet Class II “A2” and “B2”

SAFETY: DESIGNED AND MANUFACTURED IN ACCORDANCE WITH EN12469 AND NSF49.

FEATURES

Building Material:
Inner Chamber and Working Surface: SS304 stainless steel.
Outer Body: Powder coated cold rolled steel.
Filter configuration:
Downflow: HEPA H14 η99.999% down to 0.3μ.
Exhaust: HEPA H14 η99.999% down to 0.3μ.
Blowers: Supports dual DC ECM blowers that consume less energy compared to AC blowers, maximizing performance.
Hermetic Visor Seal: Silicone gasket all around the front visor ensures an airtight barrier in the biosafety cabinet for enhanced containment.

CONTROL PANEL

Controller: Supports a 5” TFT touch screen HMI controller that displays real-time filter health, airflow rates along with safety warnings such as uneven door position, airflow warnings, etc.
Automatic Airflow Compensation Technology: The controller features advanced automatic airflow compensation technology, ensuring optimal performance in various environmental conditions.It continuously monitors and adjusts airflow based on factors such as temperature, pressure and humidity to maintain desired parameters.
Out of Range Parameter Warning System: An intelligent warning system is integrated into the controller to detect and alert users when parameters exceed the preset airflow range.
Visual and audible notifications for door open, door position, filter clogging, etc., provide immediate feedback to operators, enabling timely corrective actions.

Class II Biosafety Cabinet Type A2 Dimensions										
		EXTERIOR			INTERIOR			SUPPORT BASE (lower part)		
MODELS	CODE	HIGH	WIDTH	BOTTOM	HIGH	WIDTH	BOTTOM	HIGH	WIDTH	BOTTOM
BSA 900	5609571	1330	1067	746	660	930	580	695	1055	730
BSA 1200	5609572	1330	1359	746	660	1240	580	695	1370	730
BSA 1800	5609574	1330	1980	746	660	1860	580	695	1970	730

Class II Biosafety Cabinet Type B2 Dimensions										
		EXTERIOR			INTERIOR			SUPPORT BASE (lower part)		
MODELS	CODE	HIGH	WIDTH	BOTTOM	HIGH	WIDTH	BOTTOM	HIGH	WIDTH	BOTTOM
BSB 1200	5609563	1495	1359	746	660	1240	580	695	1370	730

COMECTA Biological safety cabinets “H-1” and “H-2”

DIGITAL ELECTRONIC CONTROL
CLASS 1

SAFETY:
US STANDARD ST 209 (CLASS 100)
EUROPEAN STANDARD ISO 14644 (CLASS 5) HEPA FILTER (HIGH EFFICIENCY PARTICULATE AIR)

APPLICATIONS

Water quality control, laboratories and food industries, pharmacies services, haematology and clinical analysis, drug-injecting antibiotics, microscopic analysis, assisted fertilization, cell cultures, etc...

FEATURES

Lower setting made of PMMA transparent methacrylate.
Working surface made of stainless steel AISI 304.
Ultraviolet lamp.
Metallic parts coated with protective polymerization.
Extraction system with silent turbine.
Operating hours counter for HEPA filter replacement.

TECHNICAL SPECIFICATIONS

Illumination level (W-Lux): 500.
Airflow speed (M/S): 0.7 - 1.0.
Noise level (dB): < 67.
Power supply (V-Hz): 220/50.
HEPA filter class H14: 99,999% efficiency for particles of 0.5 microns. Working temperature in ºC: between 15 and 35.

CONTROL PANEL

Stop/start push button.
Light push button.
Sterilization push button.
Ventilation push button.

MODELS	Part No.	Height / Width / Depth (exterior) cm	Height / Width / Depth (interior) cm	Fluorescent Lamp (W)	UV lamp W	Power W	Weight Kg
H1	5609511	73 55 40	44 54 38	15x1	15x1	150	40
H2	5609510	90 70 55	50 68 54	18x1	18x1	160	60

ACCESSORIES

Supporting tables for cabinets

FOR MODEL	Part No.	Height / Width / Depth (exterior) cm	Weight Kg
H1	5609512	78 55 47	5
H2	5609513	78 70 55	8

SPARE PARTS

Replacement HEPA filter for H1 cabin
Code: 9609511

Replacement HEPA filter for H2 cabin
Code: 9609510

COMECTA Shoe soles coater “ZA-1”

AUTOMATIC.
DIGITAL TEMPERATURE CONTROL OF AIR.

FEATURES

Shoe soles coated with a PVC film.
It cuts the film by thermal contraction providing hot air with temperature control.
Different sizes shoes coated in seconds.
It saves on consumables. A roll of film can be coated up to 1000 shoes.
According with CE and ROHS regulations. Consumables 100% recyclable.

MODEL

Part No.	Dimensions cm Height / Width / Depth	Voltage	Power W	Weight Kg
5000051	33 45 80	220V-50Hz	1300	27

SPARE PARTS

PVC coil for 1000 coatings.
Part No. 5000052

Wide range rotary viscosimeters “STS-2025”

MODEL WITH TEMPERATURE READOUT AND SHEAR RATE MEASUREMENT AND SHEAR STRESS.

NEW

USB

FEATURES

10 different options of language.
L.C.D. display of parameters and results.
Parameters display:
- Selected speed ..... r.p.m.
- Selected spindle
- Viscosity result ..... cP (mPa-s) or cSt.
- Base scale percentage ..... %.
- Sample temperature: ..... °C or ° F.
- Deformation ratio (with special spindle)
- Torsion force (with special spindles)
- Density

(input by the user) ..... g/cm^3.
This instrument determines both relative and absolute viscosity.
Data can be changed between S.I. and C.G.S.
Automatically checks for correct operation point by scanning at different speeds. (Autotest)
Auto alarm in the case of any fault being detected.
Off scale detection and indication by an audible and visual signal.
Step controlled speed to prevent spindle vibrations.
User-calibrable
54 preselected speeds from 0.01 a 200 r.p.m.
The operator can select any speed within this range.
USB port.
Mains power surge protection.
9 memoirs of working programs.
Datalogger: Possibility of transferring the saveddata saved to a pendrive in excel format.

TECHNICAL DATA

Temperature range:- from -40 °C to + 300 °C (+ 40 °F to + 572 °F).
- Resolution °C: 0.1 °C (0.1722 °F).
- Precision °C: ± 0.2 °C.
- Probe type: Pt 100.

Direct results in cP(mPa-s) or cSt.: models STS-2025 L & R.
Direct results in Poise (Pa-s) or St.: model STS-2025 H.
Precision: ±1% base scale.
Repeatability: 0.2%.
The basic equipment includes:
- Main unit.
- Base-foot support.
- Spindle protector.
- Spindle support.
- Set of spindles according to model (see table).
- Power supply + mains cable.
- PT100 temperature probe.
- USB pen drive to download data.
- Calibration certificate.

MODELS	Part No.	Measuring range	Standard spindles	Power requirement	Power W	Weight Kg
STS-2025 L	1001611	*1 to 6.000.000 cP	L1, L2, L3, L4	100-240 V 50/60 Hz	25	5
STS-2025 R	1001612	25 to 40.000.000 cP	R2, R3, R4, R5, R6, R7	100-240 V 50/60 Hz	25	5
STS-2025 H	1001613	200 to 320.000.000 cP	R2, R3, R4, R5, R6, R7	100-240 V 50/60 Hz	25	5

*“Low viscosity: The minimum viscosity when using a range of ‘1’ with standard spindles is 10 cP”. “For measurements < 1cP, it is recommended to use in conjunction with the low viscosity adapter (LCP or LCP/B).”

ACCESSORIES

Standard **spindles** for L model.
L1 Part No. 1001036
L2 Part No. 1001037
L3 Part No. 1001038
L4 Part No. 1001039

Standard **spindles** for R and H model.
R1 Part No. 1000990 (for low viscosity samples)
R2 Part No. 1001070
R3 Part No. 1001071
R4 Part No. 1001072
R5 Part No. 1001073
R6 Part No. 1001074
R7 Part No. 1001075

Small sample volume adapters (APM).
Suitable for sample volumes from 6,7 to 13,5 ml.
Requires the “TL” or “TR” set of spindles.
Unit suitable for temperatures from 0 °C to +100 °C.
Part No. 1000987 Small sample adapter APM with water jacket and temperature sensor incorporated.

Special Spindles
Part No. 1001224 set of spindles TL5 – TL6- TL7 for models L.
Part No. 1001225 set of spindles TR8 - TR9 - TR10 - TR11 for models R and H.

Low viscosity adapters. (LCP).
Required if low viscosity measurements are necessary.
Reproducible results and measurements of viscosity from 1 cP.
Suitable for models L and R.
Sample volume: 16 ml.
Includes special spindle LCP.
Part No. 1000985. Adapter LCP with water jacket.
Part No. 1001624 Temperature sensor suitable for LCP.

Displacement spiral helix adapter.
Required for low fluidity samples.
Part No. 1000988

Spindle R1

AMP

AMP probe

LCP

Temperature control equipment for viscosity measurements for viscometers “ST-2025”

The influence of temperature while measuring viscosity is considerable, lower temperatures increase viscosity. Therefore it is indispensable to control temperature when precise viscosity measurements are required. The control of temperature by using a thermostatically controlled bath is the most efficient, because of the re-circulation of liquid produces a rapid and stable temperature.
We recommend our range of immersion thermostats for this application.

TEMPERATURE CONTROL AND CONFIGURATION FOR VISCOSITY MEASUREMENTS:
FRIGITERM-TFT-10 Part No. 3000546, **FRIGTERM-TFT-30** Part No. 3000547 Suitable for below ambient working environments (see page 106 for specifications).

For temperatures above ambient see the **DIGITERM-S-150** Part No. 3000543, or **DIGITEM-TFT-200** Part No. 3000544 complete with 12 litre tank Part No 6000391, (see pages 107 and 109 for specifications).

An adapter kit for the thermostat bath is required:
Adapter for thermostat bath comprising of an extension spindle and 4 leg adjusters for the bath. (Kit can be fitted by the user.)
This kit adjusts the bath measuring height to enable samples to be placed inside.

Part No. 1001627. Support for 2 500 ml beakers, to be placed inside the bath **(only for bucket 6000391).**

Part No. 1001628 Support base for the **DIGITERM** immersion thermostats. This accessory is recommended to close the bath and maintain a constant temperature.

CONSTANT TEMPERATURE CONTROL ACCESSORY FOR SMALL SAMPLE VOLUME ADAPTERS. USE WITH THE RE-CIRCULATING JACKET ACCESSORIES. PART NO. 1000996
To work below ambient temperatures, we recommend the use of the **FRIGITERM-TFT-10** Part No. 3000546, or **FRIGTERM-TFT-30** Part No. 3000547 (see page 106 for specifications.)

For temperatures above ambient see the **DIGITERM-S-150** Part No. 3000543, or **DIGITEM-TFT-200** Part No. 3000544 complete with 12 litre tank Part No. 6000391, (see pages 107 and 109 for specifications).

It is necessary to configure the immersion thermostats for “external re-circulation.” The Bath adapter kit is not required.

Frigiterm thermostat bath with adapter kit Part No. 1001625, fitted with a rotary viscometer.

Immersion thermostat Digiterm controlling temperature of viscometer.

Digiterm thermostat bath with support base Part No. 1001628. 12 litre bath Part No. 6000391 and adapter kit Part No. 1001625 or 1001626 To be used with a rotary viscometer and beaker support Part No. 1001627.

Support for 2 beakers 1001627

Flow cups for measuring liquid viscosity

CUP Nº 4 STANDARD DIN 53211.
CUPS STANDARD ISO 2431.
CUP FORD STANDARD ASTM D-1200.
CAPACITY: 100ML.

FEATURES

Suitable for measuring kinematic viscosities from 5 to 700 cSt, model dependent.
Metallic cups, chrome finished and calibrated.

Flow cups with handle.
Models DIN 53211 Nº 4
and Ford ASTM D-1200.

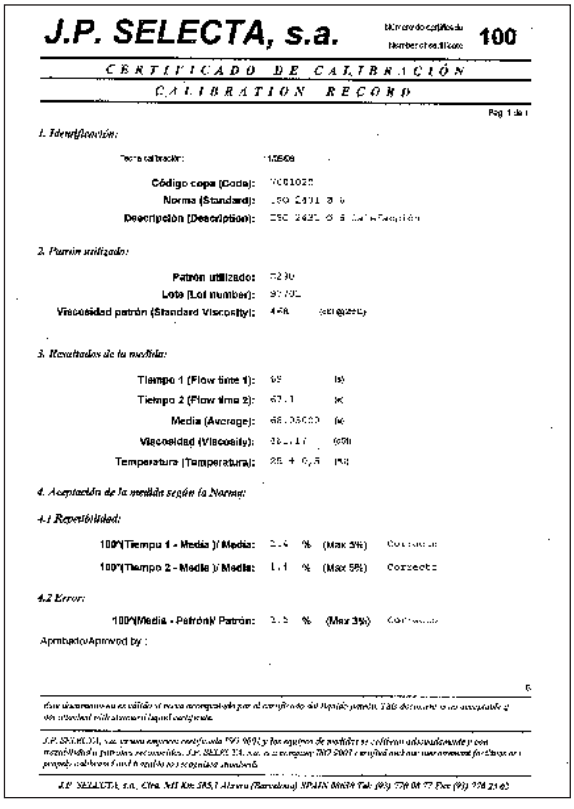
Flow cups. Standard models.

ACCESSORY
Support stand with adjustable level.
Part No. 7001021

MODELS

Part No.	Standard	Bore Ø mm	Format	Range cSt	Admisable fall times
1000123	DIN 53211	4	Standard	90 to 700	25” to 100”
1000347	DIN 53211	4	With handle	90 to 700	25” to 100”
1001013	ISO 2431	3	Standard	5 to 42	30” to 100”
1001014	ISO 2431	4	Standard	35 to 135	30” to 100”
1001015	ISO 2431	5	Standard	100 to 350	30” to 100”
1001016	ISO 2431	6	Standard	190 to 680	30” to 100”
1000705	ASTM D-1200	3.40	Standard	40 to 220	20” to 100”
		4.12		70 to 370	20” to 100”
		2.53		25 to 120	20” to 100”
1000707	ASTM D-1200	3.40	With handle	40 to 220	20” to 100”
		4.12		70 to 370	20” to 100”

Comes with a calibration certificate with results traceable to know standards and equipment



J.P. SELECTA, s.a.

CERTIFICADO DE CALIBRACIÓN
CALIBRATION RECORD

Ford cup thermostat for viscosity measurement “TV-1452”

CUP MODELS THAT CONFORM TO THE FOLLOWING STANDARDS: DIN 53211, ISO 2431 AND ASTM 1200.
ELECTRONIC DIGITAL CONTROL FROM 10ºC TO 60ºC.

Heating and cooling by Peltier effect

APPLICATIONS

Thermostat Ford cups for viscosity measurement need to be maintained at a precise temperature of 10 and 60 °C.

FEATURES

Made up of an independent Peltier thermostat control system that heats and cools. Made from AISI 304 stainless steel , with adjustable levelling feet supports, and central orifice for locating the cup.

CONTROL PANEL

Illuminate ON/OFF switch
Digital temperature display
Key pad to select readout and temperature.

MODEL

Part No.	Temperature °C	Stability °C	Homogeneity °C	Read error	Resolution	Height / Width / Depth cm			Power W	Weight Kg
3001452	10 to 60 °C	±0.1	±0.2	±0.5	0.1	23	34	30	130	5

See the different standards, models and cups (see page 299.)

Viscometer Precision Bath “VB-1423”

FOR CONTROLLABLE TEMPERATURES FROM AMB.+5 °C TO 100 °C.
STABILITY ±0.1 °C. HOMOGENEITY ±0.1 °C. READING ERROR ±0.09 °C. RESOLUTION 0.1 °C.

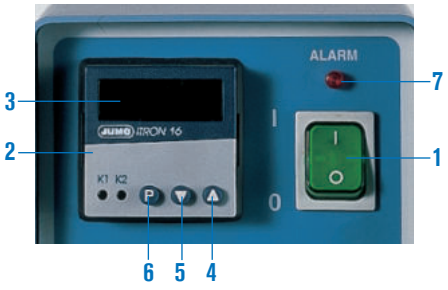
SAFETY:
STANDARD DIN 12879.2 CONTROLLABLE SAFETY THERMOSTAT WITH MANUAL RESET.

Used for measurements with glass viscometers

Made for the calibration of viscometers according to the following standards UNE 400313, ISO 3105, ASTMD 445 and 2515

FEATURES

Temperature sensor Pt100 thermo-resistor, stainless steel AISI 304 lid with three viscometer locations ports, three independent lids and an additional location port for the control thermometer. The main body of the bath is made of a 20 litre borosilicate glass tank. A white plate is located at the back to help optimise and read the viscometers.



CONTROL PANEL

1. Mains power iluminated switch.
2. Temperature regulator:
   3. Real time temperature display.
   4. Push button to increase value.
   5. Push button to decrease value.
   6. Push button to configure operation.
7. Safety thermostat safety lamp.

MODEL

Part No.	Control range °C	Capacity litres	Height / Ø (tank) cm		Height / Ø (total) cm		Power W	Weight Kg
3001423	amb.+5 up to 100	20	32	30	47	30	1000	8

ACCESSORIES

Universal viscometer support made from PTFE with stainless steel AISI 304 support. Suitable for the following viscometers :

- Cannon-Fenske for transparent liquids.
- Cannon-Fenske for opaque liquids.
- Ubbelohde.
- Ostwald.
- BS U Tube.
-Cannon-Manning semi-micro.
- Ubbelohde type BS/IP/SL, BS/IP/SL(S) & type BS/IP/MSL.
- DIN Ubbelohde.

Part No. 1001453

Calibration Chronometers (see page 305).

Thermometers for viscometer baths.

Part No.
1001454 Thermometer ASTM 120C at 38.6 to 41.4°C divisions 0.05 °C.
1001455 Thermometer ASTM 121C at 98.6 to 101.4 °C divisions 0.05 °C.
1001456 Thermometer ASTM 91C at 20.0 to 50.0 °C divisions 0.1 °C.
1001457 Thermometer ASTM 92C at 40.0 to 70.0 °C divisions 0.1 °C.
1001458 Thermometer ASTM 93C at 60.0 to 90.0 °C divisions 0.1 °C.
1001459 Thermometer ASTM 94C at 80.0 to 110.0 °C divisions 0.1 °C.

COMECTA Glass Viscometers

VISCOMETER "UBBELOHDE"

ASTM D445 - ASTM D446 - ISO 3104 - ISO 3105.
Suitable for transparent liquids.
Complete with calibration certificate.
Total length 283 mm.
Permanent amber markings.

ACCESSORY

Viscometers support rack.
Part No. 1025812
Capacity:
6 viscometers.

Ubbelohde

Part No.	Size	Nominal constant	Viscosity range in cSt
5600001	0	0.001	0.3 to 1
5600002	0C	0.003	0.6 to 3
5600003	0B	0.005	1 to 5
5600004	1	0.01	2 to 10
5600005	1C	0.03	6 to 30
5600006	1B	0.05	10 to 50
5600007	2	0.1	20 to 100
5600008	2C	0.3	60 to 300
5600009	2B	0.5	100 to 500
5600010	3	1.0	200 to 1000
5600011	3C	3.0	600 to 3000
5600012	3B	5.0	1000 to 5000
5600013	4	10.0	2000 to 10000
5600014	4C	30.0	6000 to 30000

VISCOMETERS "CANNON-FENSKE" TRANSPARENT

ASTM D445 - ASTM D446 - ISO 3104 - ISO 3105 - IP 71.
Suitable for transparent liquids.
Complete with calibration certificate.
Constant at 40 °C to 100 °C.
Total length 250 mm.
Permanent amber markings.

Transparent

Part No.	Size	Nominal constant	Viscosity range in cSt
5600050	25	0,002	0,4 a 1,6
5600051	50	0,004	0,8 a 3,2
5600052	75	0,008	1,6 a 6,4
5600053	100	0,015	3 a 15
5600054	150	0,035	7 a 35
5600055	200	0,1	20 a 100
5600056	300	0,25	50 a 200
5600057	350	0,5	100 a 500
5600058	400	1,2	240 a 1200
5600059	450	2,5	500 a 2500
5600060	500	8	1600 a 8000
5600061	600	20	4000 a 20000

VISCOMETERS "CANNON-FENSKE" OPAQUE

ASTM D445 - ASTM D446 - ISO 3104 - ISO 3105.
Suitable for opaque and transparent liquids.
Complete with calibration certificate.
Constant at 40 °C and 100 °C.
Total length 295 mm.
Permanent amber markings.

Opaque

Part No.	Size	Nominal constant	Viscosity range in cSt
5600065	25	0,002	0,4 a 1,6
5600066	50	0,004	0,8 a 3,2
5600067	75	0,008	1,6 a 6,4
5600068	100	0,015	3 a 15
5600069	150	0,035	7 a 35
5600070	200	0,1	20 a 100
5600071	300	0,25	50 a 200
5600072	350	0,5	100 a 500
5600073	400	1,2	240 a 1200
5600074	450	2,5	500 a 2500
5600075	500	8	1600 a 8000
5600076	600	20	4000 a 20000

COMECTA Glass Viscometers

MICRO-UBBELOHDE VISCOMETER 3 ml

Suitable for transparent liquids.
Calibration certificate.
Nominal overall length 290 mm.
Permanent ring marks in amber.
Sample filling volume: 3 ml.

Micro-Ubbelohde

Code	Size	Nominal constant	Viscosity range in cSt
5600020	I	0,01	0,4 to 6
5600021	Ic	0,03	1,2 to 18
5600022	II	0,1	4 to 60
5600023	IIc	0,3	12 to 180
5600024	III	1,0	40 to 800

"U-TUBE REVERSE FLOW" VISCOMETER BS/IP/RF

Suitable for opaque liquids.
With calibration certificate at 40 and 100 °C.
Nominal overall length 275 mm.
Permanent ring marks in amber.

U-TUbe reverse flow

Code	Size	Nominal constant	Viscosity range in cSt
5600025	1	0,003	0,6 to 3
5600026	2	0,01	2 to 10
5600027	3	0,03	6 to 30
5600028	4	0,1	20 to 100
5600029	5	0,3	60 to 300
5600030	6	1,0	200 to 1000
5600031	7	3,0	600 to 3000
5600032	8	10	2000 to 10000
5600033	9	30	6000 to 30000
5600034	10	100	20000 to 100000
5600035	11	300	60000 to 300000

BS/U TUBE VISCOMETER

Suitable for transparent liquids.
With calibration certificate at 40 and 100 °C.
Nominal overall length 300 mm.
Permanent ring marks in amber.

BS/U Tube

Code	Size	Nominal constant	Viscosity range in cSt
5600036	A	0,003	0,9 to 3
5600037	B	0,01	2 to 10
5600038	C	0,03	6 to 30
5600039	D	0,1	20 to 100
5600040	E	0,3	60 to 300
5600041	F	1,0	200 to 1000
5600042	G	3,0	600 to 3000
5600043	H	10,0	2000 to 10000

OSTWALD PATTERN VISCOMETER

Suitable for transparent liquids.
Calibration certificate at 20°C.
Nominal overall length 250 mm.
Permanent ring marks in amber.
Sample filling volume 10 ml.

Ostwald

Code	Size	Nominal constant	Efflux time between ring marks Water at 20 °C. (seconds)
5600044	45	0,022	45
5600045	85	0,011	85
5600046	100	0,01	100
5600047	125	0,008	125

Monitor and Control Apparatus

Electronic controller “Electemp-TFT”

FEATURES
Reading temperature range: -150 °C to 1300 °C
Stability: ±0.1 °C.
Resolution: ±0.1 °C Pt 100 /±1 °C K Type probe.
Touch screen
- Main On/Off switch.
- Acoustic and visual alarm.
- Clock calendar.
- Up to 10 work programs.
- Up to 6 segments per program.
- Stability time in each segment (from 1 min to 99h).
- Ramps between segments.
- Alarms and events storage.
- Probe error detection.
- Self Diagnostics .
- Network failure detection and saving.
- Over temperature and low temperature alarms and memorization (date, start time, end time and temperature).
- Safety thermostat (TS) by software .
- RS-232 and USB output.
- Temperature control auto-tuning.
- Configurable parameters: Date / time, temperature correction , data collection interval, language (English, Spanish and French) , °C / °F selection , over temperature and low temperature limit.
Cool/heat regulation.

CONTROL PANEL
Setpoint temperature and time indicator.
Temperature limit indicator.
Timer virtual pushbutton.
Reverse virtual pushbutton.
Start virtual pushbutton.
Stop virtual pushbutton.
Programming virtual pushbutton.

BACK PANEL
Power output (SCHUKO plug) 3100 W at 230 V.
Protection fuse.
Pt100 probe connection.
K type probe connection.

APPLICATIONS
Digital thermometer from -150 °C to 1300 °C.
To control and display temperature in any equipment with temperature control system, that uses a contact thermometer, such as: Baths, Immersion thermostats, Hotplates and Hotplate stirrers, Heating and cooling equipments, etc... (temperature from ambient +5 °C to 1300 °C.
Can also be used by a immersion thermostat controlling a heater element. (maximum power 3100 W).

MODEL

Part No.	Height / Width / Depth cm (exterior)			Max. power W (at 230 V)	Weight Kg
3000897	10.5	13.5	21	3100	1.250

ACCESSORIES
Pt 100 probe. Immersion dimensions: 4 mm Ø, 130 mm length. Cable: 150 cm length.
Part No. 1000893
Type K probe. Immersion dimensions: 2 mm Ø, 150 mm length. Cable: 150 cm length.
Part No. 1000895

Electronic contact thermometer “Sensoterm II”

DIGITAL DISPLAY, PT 1000 PROBE, AISI 304 STAINLESS STEEL.
STABILITY ±1 °C, ±1 DIGIT. RESOLUTION ±1 °C.

ONLY SUITABLE FOR INSTRUMENTS THAT CAN USE AN ELECTRICAL CONTACT THERMOMETER.

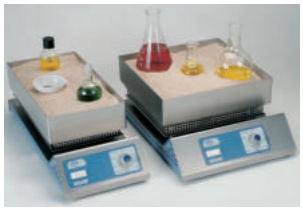
FEATURES
Advantages include a separate temperature probe that maintain the main body away from steam and other vapours. Safer than a glass contact thermometer, eliminating the risk of broken it and a mercury spillage.
Main body made of ABS plastic.

TECHNICAL DATA
Temperature range: from -50 °C to 300 °C.
Temperature probe: 3.5 mm Ø x 250 mm immersion.
Temperature Display: 8 mm high LCD display.
Ambient working range: 0 to 60 °C and a relative humidity of 80 %.

MODEL

Part No.	Height / Width / Depth cm (exterior)			Weight Kg
1001009	13	7	2.4	0.250

Instruments that can use the electronic controller “Electemp-TFT” and the electronic contact thermometer “Sensoterm”.


Sand Bath
“Combiplac-Sand”
Parts No. 6000708 and 6000709.

Hotplate - Rectangular
“Combiplac”
Parts No. 3000156 and 3000718.

Hotplate - Circular
“Combiplac”
Parts No. 3002301 and 3002302.

Magnetic Stirrers “Agimatic”
Parts No. 7000271, 7000273, 7000272, 7000280, 7000281, 7000837 and 7000838.

Electronic temperature controller “Electemp-B”

ADJUSTABLE TEMPERATURE FROM 0 °C TO 310 °C.

“Electemp-B” application to a hotplate, showing the unit connected with an electronic contact thermometer.

FEATURES

Regulates the power to the heating element by pulsing electronic circuit, free of noise and interferences

APPLICATIONS

Regulates the power of temperature in ovens baths, radiators, hotplates, etc.

CONTROL PANEL

Temperature display indicator.
Set temperature display indicator.
Set value increase/decrease button.

BACK OF CONTROLLER

Output of power (Schuko plug system).
Protection fuse.
Connection for a PT100 probe (included)

MODEL

Part No.	Height / Width / Depth cm (exterior)	Max. power W (at 230 Vav)	Max. power W (at 110 Vav)	Weight Kg
3000896	15 15.5 19	2500	1700	1.2

Digital thermometer “THE-343”

FEATURES

Housing in ABS with anti-slip design for better grip.Supports both K / J type probes for temperature measurement. Dual-channel measurement T1–T2 with differential temperature function. Temperature range (main unit) from –200 °C to 1372 °C (–328 to 2501 °F). Unit switching °C / °F.
Readings with MAX / MIN / AVG and HOLD (data retention) functions
ADJ temperature compensation: –9 to 9 °C (–15.3 to 15.3 °F).
Sampling rate: 1 time/second. Upper alarm limit: 1300 °C (2372 °F).
Lower alarm limit: –200 °C (–328 °F).
4-digit display (max 9999), 37 × 41 mm, with backlight. Low battery indicator. Automatic power-off function and auto-off cancellation. Portable, battery-operated.
Dimensions (height × width × depth): approx. 15.5 × 5.5 × 3.3 cm. Weight: 580 g.
Range of supplied probes: Wired K-type probe: –20 to 200 °C (–4 to 392 °F)
Stainless steel K-type probe: –50 to 700 °C (–58 to 1292 °F)

MODEL	Part No.	Temp. range °C	Resolution °C	Precision °C
THE-343	5903030	-200 a 1372	0,1	according to the probe

The accuracy is specified depending on the range and the type of probe used (does not include the probe error).

ACCESSORY

Sensor type K of 8 mm Ø x 30 cm length. Part No. 5903025

Digital Humidity meter with Thermometer “HT-305E”

FEATURES

Temperature range from 0 °C to 60 °C.
Humidity range from 10% to 95% RH.
Digital Display °C or in °F Fast response: 0.4”.
Power: battery 9 V.
Dimensions: (height x width x depth): 3.2 x 6 x 13.25 cm.
Weight: 264 g.

Part No. 5903023
Supplied complete with humidity / temperature sensor, protective cover and carry case.

MODEL	Part No.	Temp. range °C	Resolution °C	Precision °C	Humidity range %	Humidity resolution %	Humidity precision %
HT-305E	5903023	from 0 to 50	0.1	±0.8	from 10 to 95	0.1	> 70%: ±3% +1% < 70%: ±3%

Ink Printer “Microprinter”

APPLICATIONS

Small ribbon printer (not thermal) with paper roll 2 1/4" (56 mm) wide.
Interface connection: RS232.
Applications: Measuring equipment, pH meters, conductivity meters, spectrophotometers, etc.
Includes interface cable and power transformer 5V - 3A and cable.

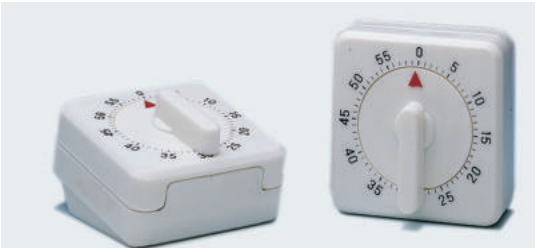
MODEL

Part No.	Height / Width / Depth cm			Power supply	Weight Kg
4120113	4	16	10	DC 5V 3A	1

Automatic programmer “Promat” 24 H

Connects and disconnects electrical power by a pre-programmed timer switch.
Adjustable timer: Cycles up to 24 hours, with controllable connection disconnection up to every 15 minutes.
Manual interrupt setting to disconnect the program, luminous indicator shows when power is being applied.
Maximum current: 16 Amp.
Part No. 1000500

Timer alarm “Relavis”



Audible sound when the program time has lapsed.
Time setting from 0 to 60 minutes in 1 minute intervals.
Part No. 5900499

Digital alarm timer “Count Down-Up”

Maximum count time 99 min. 59 sec. Timer: count-down and count-up.
Portable: table top with magnetic holder or clip if used on a pocket or overall.
Audible alarm fitted.
Part No. 5900500

Digital Chronometer “Diamond”

Maximum timer: 23 hr 59 min 59 sec. Division 1/100 seconds. Control: LAP/SPLIT (timer: split time and accumulative time).
Date incorporated.
Audible Alarm (duration 60 seconds).
Audible Alarm "snooze" function (once pressed the stop alarm goes off every 5 minutes until it is completely shut off).
Part No. 5900501

Thermometer reader “T101”

FOR TEMPERATURE MEASUREMENT FROM –50 °C TO +300 °C OR FROM –58 °F TO +572 °F.

Applications: kitchen, food, water, wax, barbecues, candles, liquids in general.
Digital display with readings in °C or °F.304 stainless steel penetration probe, 12.7 cm long, suitable for food contact.
Fast response time: 2–4 seconds. HOLD function (data retention).
Resolution: 0.1 °C / 0.1 °F.
IPX7 waterproof: washable under running water (do not immerse in hot water).
Automatic shut-off after 10 minutes of inactivity (can be disabled).
Powered by 1 × LR44 battery (1.5 V)..

MODEL

Part No.	Precision	Resolution
5903029	±1 °C / ±1,8 °F	0,1 °C / 0,1 °F

Includes a protective probe cover with clip and hanging hole.

GLASS THERMOMETERS

COMMON FEATURES

All thermometers are made of glass rod or with an opal scale, with a reinforced bulb.
A wide selection of scales and temperature ranges is available.
Scales etched in acid and graduated with indelible ink.
Resistant to most chemical agents.
All thermometers are supplied with a protective plastic cover.

Solid stem Themometers

Yellow backed, mercury filled.

Part No.	Range °C	Division scale °C	Total length cm
1090100	-10 +100	1/1	30
1092050*	0 +50	0.1	45

* White back.

White back, with red liquid content.
Suitable for measuring samples where mercury is not permitted.
E.g. food products, drinks, etc.

Part No.	Range °C	Division scale °C	Total length cm
1001257	-10 +100	1/1	30

Yellow backed with suspension ring, mercury filled.

Part No.	Range °C	Division scale °C	Immersion length cm	Total length cm
1001299	0 +200	1/1	5	25
3009200	0 +200	1/1	15	34
1009100	0 +60	0.5	15	30

Enclosed scale thermometers

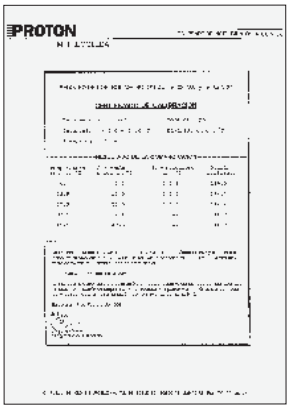
With prismatic capillary, with easy to read scale. Contains mercury.

Part No.	Range °C	Division scale °C	Immersion length cm	Total length cm
1095060	-10 +50	1/1	3	30
1095100	-10 +100	1/1	3	30
1095150	-10 +150	1/1	3	30
1095250	-10 +250	1/1	3	30
1095360	-10 +360	1/1	3	30
1096050	-10 +50	0.5	3	30
1096100	-10 +100	0.5	3	30
1097050	-10 +50	0,1	3	45
1000100	-10 +100	1/1	13	25
1000872	-10 +120	1/1	15	33

Case with 7 glass rod mercury thermometers, white back, scale in 0.1 °C.

Range °C*	Total length
-30 +20	45 cm
0 +50	45 cm
+50 +100	45 cm
+100 +150	45 cm
+150 +200	45 cm
+200 +250	45 cm
+250 +300	45 cm

*One thermometer per range.
Part No.
1001268 with **calibration certificate** PROTON.
1001298 without **calibration certificate**.



Universal reactor for laboratory “RV-12”

ADAPTABLE TO ALL NORMALIZED GLASS ELEMENTS WITH 100 MM MOUTH.
REACTOR CAPACITY: 6 OR 12 LITRES.

APPLICATIONS

Universal reactor suitable for all laboratory and pilot plant’s operations.

FEATURES

Standard mouth for connection to DN100 glass reactor’s covers.
Reactor in AISI 316 stainless steel, with a capacity of 12 litres and with a drain tap.

STANDARD EQUIPMENT

1. **Standard support.** Part No. 1001748
2. **Reactor** in stainless steel AISI 316, capacity: 12 litres with drain tap. External sizes: Height 38cm x 25cm Ø. Weight: 4.5 Kg Part No. 1001746 or 6 litres with drain tap. External sizes: Height 28cm x 25cm Ø. Weight: 3 Kg. Part No. 1001726.
3. **Clamp with support ring** for the reactor. Part No. 1001747 + 1001974 for 10-20 litres.

COMPLEMENTOS

4. Addition graduated **funnel** of 250 ml. PTFE frosted wrench 29/32. Part No. 1001795.
5. **Frame** for stirrer clamping. Part No. 1001770
6. **HEI-Torque stirrer** with adjustable speed. Part No. 5016041
7. **PTFE stirrer guide**. Part No. 1001788
8. Double effect **Refrigerant** “Dimroth”. 30 cm de length. Part No. 1001792
9. **Electronic regulator ELECTEMP-TFT.** Part No. 3000897 with connector for internal emperature control, if the heating mantle is used.
10. **Support plate** with bosshead for Electemp-TFT regulator. Part No. 1001750
11. **Pt100 probe** Part No. 1001749 400 mm length x Ø 4 mm, with connection cable to Electemp-TFT regulator.
12. **5 mouths cove** type UK. Part No. 1001790
13. **Ring holder** with double bosshead for heating mantle. Part No. 1001751
14. **Heating mantle** with double heating element for temperatures up to 400°C. Power consumption 1400W. Part No. 3001752
15. **Double bosshead** MAXIM. Part No. 7000408 and clamp for refrigerant. Part No. 7000403
16. **Anchor shape stirring shaft**, Ø 9,5 mm in PTFE. (length 65 x shovel width 10 cm). Part No. 1001822
17. **Helix shape stirring shaft**, Ø 9,5 mm in PTFE. and PTFE shovel (length 65 x shovel width 7cm). Part No. 1001789
18. **Folding shovels stirring shaft**, Ø 9,5 mm in PTFE. (length 65 x shovel width 7cm). Part No. 1001859
19. **Clamp resistance** with internal ceramic insulation and AISI 304 stainless steel exterior. 400°C, 1500W power consumption. Part No. 1001947

High vacuum grease. Dow Corning. -40 to +200ºC. For pressures up to 10-6 mm Hg use. Part No. 1001915

20. **PTFE expansion/contraction bellows** for coupling between mouth and coolant. Part No. 1001825

Faucet in PTFE frosted 29/32. Part No. 1001793
Adapter set for PT100 probe. Frosted 14/23. Part No. 1001933
Adjust 29/32 to olive 12mm for coolant and funnel. Part No. 1001794
Stopper 29/32 for lid and funnel. Part No. 1001796
For DN150 type GR reactors:
Standard support for frame and clamp. Part No. 1001748

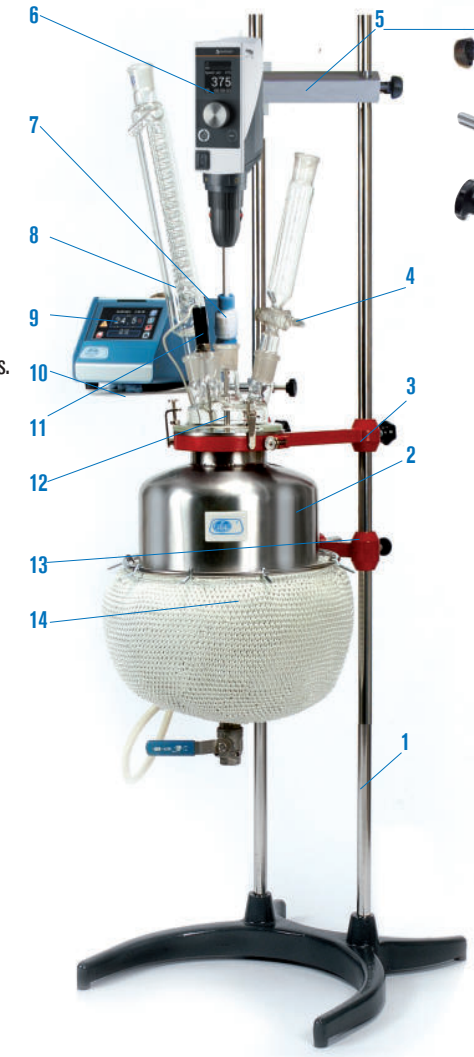
21. **Clamp** for DN150 type GR reactors subjection. Part No. 1001787
22. **Frame for clamp** Supplied with two AISI 304 stainless steel bars Ø 20mm and 500 mm length. Part No. 1001767

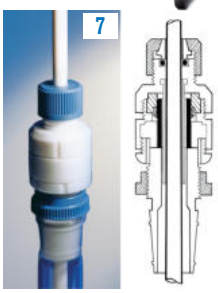
OPTIONAL

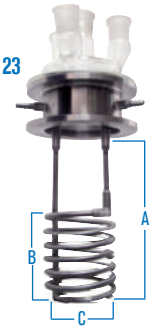
23. . AISI 304 stainless steel device, with double standard mouth and coil for heating or cooling the liquid inside the reactor. Coil measures: A: 26 cm. B: 15 cm. C: 10 cm. Part No. 1001755

This device can be coupled to the universal reactor Part No. 1001746.
Note: To be able to hold the Part No. 1001755 to the reactor, a ring holder Part No. 1001758 and a clamp bracket set Part No. 1001852 is necessary.

Note: By using the coil (23) laboratory tests have been carried out with silicone oil “47 V50” (Part No. 1000027 4 litres) and with **Ultraterm-TFT-200** thermostaat. Part No. 3000554 (See page. 106) reaching temperatures up to 170ºC in 35’ inside the reactor properly insulated with “durablanket120”. With the methanol fluid transmitter liquid and the **Frigiterm-TFT-30** thermostat. Part No. 3000553 (See page. 106)temperatures up to -21ºC have been reached in 57’ inside the isolated reactor with “durablanket120”.







Vacuum filtration system type "Nutsche". **Consult**

Customizable reactors on demand

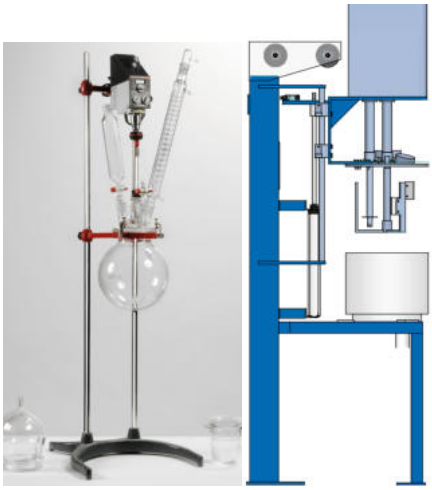
FOR LABORATORY AND PILOT PLANT WITH HEATING ANS COOLING SYSTEMS BOROSILICATE GLASS 3.3. CAPACITY: FROM 0,5 UP TO 5 LITRES. AISI 304 - 316 – 316L STAINLESS STEEL LITRES CAPACITY: FROM 12 UP TO 5 LITRES.

Borosilicate glass 3.3: Spherical, cylindrical and thermostatic with or without PTFE release valve with temperature control accessories, PH, oxygen, turbidity, etc. Heidolph stirring systems and variable PTFE blades.

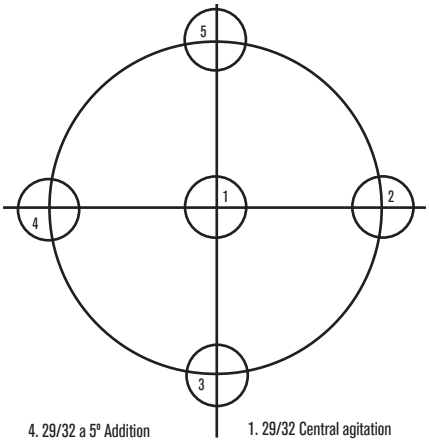
Aisi 304 - 316 - 316 L : Cylindrical and thermostatic with or without release valve. With temperature control accessories, PH, oxygen, turbidity, etc.

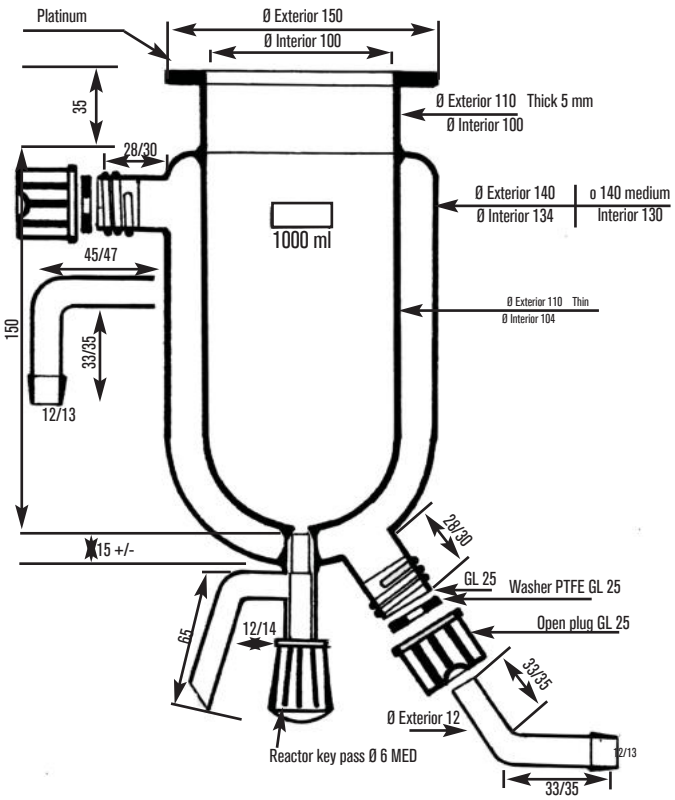
Fixed and variable stirring systems of different powers according to viscosity and density, combined with stirring elements, dispersers and emulsifiers micronizers and helical.

REQUEST INFORMATION.



Parts and assembly of reactors. Ø 100 UK





REACTOR

Capacity	Code
0,5 liters	1001960
1 liters	1001880
2 liters	1001879
5 liters	1001950

REACTOR COVER

No. Nozzles	Code
5 Nozzles	1001790
5 Nozzles*	1001892

*With SAV thread

Reactor for pilot plant "RE-605" and "RE-620"

CAPACITY UP TO 20 LITRES
FOR ATMOSPHERIC PRESSURE OR VACUUM

APPLICATIONS

This equipment is designed for reflux and distillation operations with a stirring element, for all laboratory's pilot plant operations and small productions.

FEATURES

Reactor module built-in, base made of glazed steel in epoxy and tubular structure in stainless steel AISI 304, equipped with an engine group stirring and a reaction jacketed borosilicate glass 3.3 with graduation to temper, for a volume of 4-20 liters in "RE-620" model and 1-5 liters in "RE-605" model.
Stirring anchor blade and elements in contact with the liquid or reaction steam, composed of borosilicate glass and PTFE.
Addition and reflux models.
Optional:
- Configurations for distillation can be supplied.
- Amber glass finish.
- Voltage 110V / 60 Hz.

CONTROL PANEL

Main switch ON / OFF.
Regulator knob for stirring speed from 0 to 500 rpm.
Temperature and RPM digital indicator

MODELS

Part No.	Total dimensions Height / Width / Depth			Reactor capacity	Operating temperature	Power W	Weight Kg
1001710	130	70	35	5	-50 °C to 200 °C	90	10
1001722	140	68	68	10	-50 °C a 200 °C	34	15
1001711	180	62	50	20	-50 °C to 200 °C	250	68

"RE-605" model 5 litres.

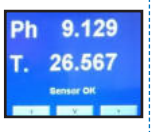
"RE-620" model 10 litres.

Model "RE-620" 20 litres.

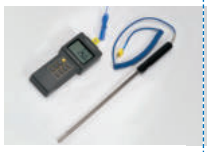
ACCESORIES

pH analyser temperature from -10°C up to 140°C. 3.5'' color touch screen. 8 digital inputs, 2 configurable analog and 6 relay outputs for signaling and control. Communications: 485 for ARC sensor network. IP-65 box. RS-232 output for connection to a computer. Possibility of performing PID control loops. GSM, RED, TCP / IP modem connections, Probes: O_2, CON, VCD and Redox.

Part number 4120824 (For measurement and reading only).
Part number 4120823 (For measurement, reading and control).
HT glass sensor pH 0-14 + Tª -10 at 100 ºC. Part number 4120801
ARC HT sensor pH 0-14 + Tª -10 at 140 ºC. Part number 4120822
Glass sensor adapter for R-605. Part number 4120802
Glass sensor adapter for R-620. Part number 4120803



Digital thermometer "TC-9226-A"
Temperature range: -200 ºC. to 1370 ºC.
Part No. 5903030
See page. 294



PTFE expansion/contraction **bellows** for coupling between mouth and coolant Part No. 1001984

Stirring rod in the shape of a helix, Ø 9.5 mm in PTFE. and shovel in PTFE (length 65 x width shovel 7 cm). Part No. 1001789

COMMON COMPLEMENTS

Silicone oil 4 liters. Temperature up to 300ºC. Viscosity 50 mm2/s at 25 ºC. Melting point 318 ° C. Part No. 1000027
Peristaltic dosing pump "Peristaltic PR-2004."
For PH stabilisation (acid-base). Also applicable to dosages in process.
Features: See page. 47. Part No. 4129051
Recirculation cryothermostat
For adjustable temperatures from -50 ºC. to 200 ºC.

FOR REACTOR R-605

Recirculation thermostat "Ultraterm-TFT-200".
For adjustable temperatures from ambient +5 ºC. to 200 ºC.
Part No. 3000545 See page. 311.
Recirculation cryothermostat "Frigiterm-TFT-30".
For adjustable temperatures from -30 ºC. to 100 ºC.
Part No. 3000547 See page. 311.

FOR REACTOR R-620

High power recirculation thermostat "Interheater"
For adjustable temperatures from ambient +5 ºC. up to 90 ºC.
Part No. 6001491 / 6001497 See page. 111.
Water refrigerador and recirculator
For temperatures from -20°C to +40 ºC.

Reactor for pilot plant "RE-650" and "RE-6100"

CAPACITY: 50 AND 100 LITERS
FOR ATMOSPHERIC PRESSURE OR VACUUM

APPLICATIONS

This equipment is designed for reflux and distillation operations with a stirring element, for all laboratory's pilot plant operations small and medium productions.

FEATURES

Reactor module built-in, made of glazed steel in epoxy and structure in stainless steel AISI 304, composed of an engine group stirring and a reaction borosilicate glass 3.3 with graduation and dual Camera to temper, for a volume of 10-50 liters in "RE-650" model and 20-100 liters in "RE-6100" model.
Stirring anchor blade and elements in contact with the liquid or reaction steam, composed of borosilicate glass and PTFE.
Optional:
- Configurations for distillation can be supplied.
- Amber glass finish.
- Voltage 110V / 60 Hz.

CONTROL PANEL

Main switch ON / OFF.
Regulator knob for stirring speed from 0 to 500 rpm.
Temperature and RPM digital indicator.

MODELS

Part No.	Total dimensions Height / Width / Depth			Reactor capacity	Operating temperature	Power W	Weight Kg
1001840	268	68	68	50	-50 °C to 200 °C	300	82
1001841	268	68	68	100	-50 °C to 200 °C	500	119

SPECIAL STIRRING MODELS

Main switch ON / OFF.
Control by variable frecuency drive 200-240 VAC (II-III) filter EMC-IP55 and IP66.

Part No.	Working conditions	RPM	Power W	Voltage V
7000386	Atmospheric pressure	0-1450	650	230-400 III 50Hz IP55
7000387	Vacuum pump	0-1450	650	230-400 III 50Hz IP55

Model "RE-6100"
100 litrers.

ACCESORIES

pH analyser temperature from -10°C up to 140°C.
3.5" color touch screen. 8 digital inputs, 2 configurable analog and 6 relay outputs for signaling and control. Communications: 485 for ARC sensor network. IP-65 box. RS-232 output for connection to a computer. Possibility of performing PID control loops. GSM, RED, TCP / IP modem connections. Probes: O_2, CON, VCD and Redox.

Part number 4120824 (For measurement and reading only).
Part number 4120823 (For measurement, reading and control).
HT glass sensor pH 0-14 + Tª -10 at 100 ºC. Part number 4120801
ARC HT sensor pH 0-14 + Tª -10 at 140 ºC. Part number 4120822
Glass sensor adapter for R-650. Part number 4120818
Glass sensor adapter for R-6100. Part number 4120819

Digital thermometer "TC-9226-A"
Temperature range: -200 ºC. to 1370 ºC.
Part No. 5903030

COMMON COMPLEMENTS

Silicone oil 4 liters. Temperature up to 300ºC. Viscosity 50 mm2/s at 25 ºC. Melting point 318 ° C. Part No. 1000027
Peristaltic dosing pump "Peristaltic PR-2004."
For PH stabilisation (acid-base).
Also applicable to dosages in process.
Features: See page. 47. Part No. 4129051
Recirculation cryothermostat
For adjustable temperatures from -50 ºC. to 200 ºC.

FOR REACTOR R-605:

Recirculation thermostat "Ultraterm-TFT-200".
For adjustable temperatures from ambient +5 ºC. to 200 ºC.
Part No. 3000545 See page. 311
Recirculation cryothermostat "Frigiterm-TFT-30".
For adjustable temperatures from -30 ºC. to 100 ºC.
Part No. 3000547 See page. 311

FOR REACTOR R-620:

High power recirculation thermostat "Interheater"
For adjustable temperatures from ambient +5 ºC. up to 90 ºC.
Part No. 6001491 / 6001497 See page. 111
Water refrigerador and recirculator
For temperatures from -20°C to +40 ºC.

Recirculation thermostat “Ultraterm-TFT-200”

ADJUSTABLE TEMPERATURES
FROM AMBIENT+5 °C TO 200 °C.

SAFETY:
STANDARD DIN 12876. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET LOW LIQUID LEVEL SENSOR PROTECTION.

FEATURES

Maximum working volume to maintain maximum temperature: 8 litres.
AISI 304 stainless steel top and lid with an inner tank of AISI 304 stainless steel.
Complete with a pump for internal and external liquid circulation with inlet and outlet connectors. A cooling coil to maintain ambient temperatures using tap water is also provided.
A RS-232 interface for print out or computer control comes as standard.
A drain tap is also fitted.

MODEL

Part No.	Capacity litres	Control range °C	Stability °C	Height / Width / Depth (usable) cm	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H₂0	Power W	Weight Kg
3000554	8	From amb. +5 to 200 °C	±0.1	15 20 14	36 28 36	150 mbar-12 l/min	2060	9.5

Refrigerated recirculation baths “Frigiterm-TFT-10-S” and “Frigiterm-TFT-30-S”

ADJUSTABLE TEMPERATURE FROM -10 °C TO 100 °C. STABILITY: 0 °C TO 100 °C, ±0,1 °C / -10 °C, ±0.1 °C.
ADJUSTABLE TEMPERATURE FROM -30 °C TO 100 °C. STABILITY: 0 °C TO 100 °C, ±0,1 °C / -30 °C, ±0.2 °C.
SET ERROR : ±1 °C. RESOLUTION: 0.1 °C.

SAFETY:
STANDARD DIN 12876. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET. LOW LIQUID LEVEL SENSOR PROTECTION.

FEATURES

Maximum working volume to maintain maximum temperature: 8 litres.
AISI 304 stainless steel top and lid with an inner tank of AISI 304 stainless steel.
Complete with a pump for internal and external liquid circulation with inlet and outlet connectors. A drain tap is placed at the side of the unit.
A hermetically sealed compressor is mounted on anti-vibration mounts.
A RS-232 interface for connection to a printer or computer.

MODELS

	Part No.	Capacity litres	Control range °C	Height / Width / Depth (usable) cm	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H₂0	Power W	Compresser power H.P.	Weight Kg
TFT-10-S	3000552	8	-10 + 100	12 20 14	66 36 46	150 mbar-12 l/min	1150	1/8	28
TFT-30-S	3000553	8	-30 + 100	12 20 14	66 36 46	150 mbar-12 l/min	1460	3/8	30

Laboratory washing machines

FEATURES LINE EASY - MODEL GW0260S

Easy to use and economical, these are the key points of the "Easy". Built entirely in AISI 304L steel, it can reach a temperature of 85°C.

FEATURES BASIC LINE - MODELS GW2145, GW1260 Y GW4260

Range of professional washing machines, based on three basic concepts: high quality materials, small size and ease of use. Perfect drying thanks to the air system "Dry system". **(GW 4260)**

Model GW2145 with built-in baskets

MODELS	GW0260	GW2145	GW1260	GW4260
Code	5802027	5801003	5802029	5802034
Standard stored programs	7 SERVICE	15	15	15
Time and date	Yes	Yes	Yes	Yes
Reschedulable phases	No	6	6	6
Tank temperature, precision and sensors	85 °C	from environment to 95 °C - 0,1°C - PT 1000		
Display	LCD + USB FOR CONNECTIVITY			
Detergent level sensor	Optional	Optional	Optional	Optional
Alkaline powder detergent dispenser	Yes	Yes	NO	NO
Pump for dosing liquid alkaline detergent	Optional	Optional	Optional	Optional
Security and Safety Lockout	safety thermostat, door lock with electromagnetic release			
Alarm indications	yes, audible and visual			
Trouble search menu	No	Yes	Yes	Yes
Program modification	No	Yes	Yes	Yes
Traceability	Yes	Yes	Yes	Yes
RS232 serial port for PC and printer connection	No	Yes	Yes	Yes
Cycle archive	Yes	Yes	Yes	Yes
Cycle file download	Yes	Yes	Yes	Yes
Ventilation drying system	No	No	No	Yes
Cold water supply	Yes, max. hardness. 42 °F			
Demineralized water feed	Yes, < 20 µS/cm			
Demineralized water booster pump	Optional			
Built-in water softener	Yes	Yes	Yes	Yes
Size extern Height/Width/Depth	600x600x850 (830)	450x620x850 (830)	600x600x850 (830)	600x600x850 (830)
Sizes intern Height/Width/Depth	525x490x570	370x480x570	525x490x470	525x490x470
Weight Kg	72	61	74	74
Noise	< 50 dB	max. 60 dB		
Steel (Tanque de lavado)	AISI304	AISI316	AISI316	AISI316
Steel(Revestimiento externo)	AISI304	AISI304	AISI304	AISI304

We recommend original detergents SMEG:
Deterliquid D2, universal alkaline liquid detergent, high power, 5 liters. Code 5801316. Acidglass P2, acid neutralizer, high power, 5 liters.. Code 5800318

ACCESSORIES (For more information, request an additional catalog).

LM40 Universal tray for washing up to 40 pieces (for 8 sizes of adapters).Code: 5800262
LM40DS (for air drying).Code: 5800300

LM40S Upper tray for washing up to 40 pieces. Maximum height 22 cm.
Code: 5800264
LM40DS (for air drying).Code: 5800303

SB30 Half universal tray for any size of glasses. Adaptable to CS-1, CS-2, and LM-20 baskets.
Code: 5800288

SB28 Half universal tray for glasses and bottles. Adaptable to CS-1, CS-2, and LM-20 baskets.
Code: 5800272

LM20 Universal tray for 20 flasks and 1/2 free basket for accessory.
Code: 5800273
LM20DS (fpr air drying). Code: 5800301

LM80 Two-level tray with a maximum capacity of 68 pieces and a maximum height of 22 cm.
Code: 5800265
LM80DS (for air drying). Code: 5800304

LPM20/20 Mixed tray for flasks and pipettes with a maximum capacity of 20 pipettes (55 cm) and 20 flasks (49 cm height).
Code: 5800266
LPM2020DS (for air drying). Code: 5800302

LPT100 Special pipette washer for washing 100 pipettes with a capacity of 1 to 20 ml.Maximum height 45 cm.
Code: 5800278
LPT100DS (for air drying). Code 5800310

Graduated Cylinder Washer Basket with a capacity for 160 cylinders. Adaptable to CS-1, CS-2, and LM-20 baskets.(Supplied individually).

Model	Code	Heigth
CP - 105	5800267	7,5 cm
CP - 132	5800268	10,5 cm
CP - 192	5800269	16,5 cm
CP - 222	5800270	20 cm

CSK2 Basket for small objects.Adaptable to CS-1, CS-2, and LM-20 baskets.
Code: 5800299

CS1 Universal upper basket.
Code: 5800284

CS2 Universal lower basket.
Code: 5800285

Spray dryer for pilot plant "Spray Dryer SD-Basic" and "Spray Dryer SD-06"

APPLICATIONS

Food and beverage industry (fish meal, golden beer, cod roe, formaldehyde, molasses, powdered milk, garlic powder, instant coffee), flavors and colorants, plant extracts, pharmaceutical industry, perfumes, cosmetics, polymers and resins, ceramics and advanced materials, soaps and detergents, adhesives, and many others..

COMMON FEATURES

Achieves excellent results in tests where a powder product is required to be produced from aqueous solutions, emulsions, suspensions, and colloids.
It is suitable for micro-encapsulation, where the liquid is mixed with a protective film. The resulting atomization from the spray forms hollow globules of approximately 10 - 20 mm in diameter, in which the product is encapsulated.
This method is primarily used for samples sensitive to moisture, the environment, contact with other elements, evaporation, or oxidation.
It eliminates the time and drying issues associated with the use of rotary evaporators, ovens, freeze dryers, etc.

SPECIFICATIONS "SPRAY DRYER SD-BASIC

It is equipped with a peristaltic pump that draws the liquid sample and directs it to the main chamber through a small-diameter injector.
A stream of pressurized air generated by an external compressor* is directed to the injector's exit point, causing the liquid to emerge, which results in the atomization of the sample inside the main chamber. At the same time, a stream of hot air in the chamber evaporates the liquid, leaving the solid particles deposited in the collection container.
The remaining airflow will be freely expelled outside or to an existing vapor extraction system.

SPECIFICATIONS "SPRAY DRYER SD-06"

Manufactured in chemical-resistant stainless steel, housing all mechanical and electrical components, including the air compressor. All clamps and fittings are designed to allow easy assembly and removal of glass components in just a few seconds.
Touch control allows the selection of inlet temperature, air flow, automatic unlocking frequency, and pump speed.
A peristaltic pump delivers the liquid sample from a container to the main chamber through a small-diameter nozzle. At the same time, an integral compressor pumps air into the outer tube of the nozzle, causing the liquid to emerge as a fine spray into the drying chamber.
The integrated fan pumps hot air through the main chamber, evaporating the liquid content of the atomized spray. The solid particles of the material, which are usually in a free-flowing state, are separated from the outgoing air stream by a cyclone and collected in the sample collection bottle. The outgoing air flow is directed through a flexible hose with a 50 mm diameter, either directly to the atmosphere or to an existing extraction system.
The rear of the cabinet includes an inlet filter designed to remove 99.99% of air-borne particles, ensuring that the drying air is free of contaminants.
To work with organic solvents, it is equipped with a connection for inert gas input (e.g., nitrogen) and a lockout system to prevent the entry of outside air.
A stainless steel stand is available, taking into account space or bench height restrictions and for use with a double cyclone or long chamber.
Supplied complete with a standard 0.5 mm Ø injector (other diameters of 1 and 2 mm Ø are available).

Model SD-BASIC

Model SD-06

MODEL	Spray Dryer SD-Basic	Spray Dryer SD-06
Code	5000002	5000005
Maximum evaporation capacity approx.	1.0 l/hour H_2O	1.5 l/hour H_2O
Maximum circulating air temperature	200 °C	250 °C
Drying air flow	70 m^3/hour	15 - 30 m^3/hour
Compressor	(*Accessory sold separately) 44 l/min. a 8 bar	2m^3/hr @2 bar-1.7m^3 @3 bar
Sample absorption flow rate	from 0.1 until 1.5 l/hour	from 0.3 until 2.1 l/hour
Particle size	1-30 microns	1-30 microns
Heating Power	3000 W	3000 W
Weight	60 Kg	80 Kg
Dimensions height x width x depth in cm.	110 x 50 x 50	111 x 82,5 x 60

ACCESSORIES

Inyector 0,7 mm. Code 5000007 **Inyector 1 mm.** Code 5000009 **Inyector 1,5 mm.** Code 5000010
Inyector 2 mm. Code 5000013 **Support Inox.** Code 5000014 **Compresor*.** Code 5000003

FILTRATION. FILTER PAPER FOR LABORATORY

Quantitative filter papers

ASH CONTENT LESS THAN 0.01%. CRITICAL GRAVIMETRIES AND ANALYSIS

Whatman-Xinhua® Part of GE Healthcare

Filtration	Basis weight g/m²	Thickness mm	Ashes %	Type	Units box
Fast	97	0,200	< 0,01	Flat	100
Medium	97	0,200	< 0,01	Flat	100
Slow	97	0,170	< 0,01	Flat	100

Fast: Ø 70: 5301070. Ø 90: 5301090. Ø 110: 5301110. Ø 125: 5301125. Ø 150: 5301150. Ø 180: 5301180.

Medium: Ø 70: 5302070. Ø 90: 5302090. Ø 110: 5302110. Ø 125: 5302125. Ø 150: 5302150. Ø 180: 5302180.

Slow: Ø 70: 5303070. Ø 90: 5303090. Ø 110: 5303110. Ø 125: 5303125. Ø 150: 5303150. Ø 180: 5303180.

General use qualitative filter papers

FILTRATIONS FOR ROUTINE ANALYSIS IN ALL KINDS OF LABORATORIES

Whatman-Xinhua® Part of GE Healthcare

Filtration	Basis weight g/m²	Thickness mm	Ashes %	Type	Units box
Fast	80	0,300	< 0,11	Flat	100
Medium	80	0,150	< 0,11	Flat	100
Slow	80	0,200	< 0,11	Flat	100

Fast: Ø 70: 5304070. Ø 90: 5304090. Ø 110: 5304110. Ø 125: 5304125. Ø 150: 5304150. Ø 180: 5304180.

Medium: Ø 70: 5305070. Ø 90: 5305090. Ø 110: 5305110. Ø 125: 5305125. Ø 150: 5305150. Ø 180: 5305180.

Slow: Ø 70: 5306070. Ø 90: 5306090. Ø 110: 5306110. Ø 125: 5306125. Ø 150: 5306150. Ø 180: 5306180.

Filter paper reams

PROTECTION AND ABSORPTION IN WORKBENCHES IN ALL KIND OF LABORATORIES

Grade	Basis weight g/m2	Thickness mm	Absorption speed* mm/10 min	Moisture resistance kN/m	Units box
1305	73	0.170	75/70	0.290/0.260	500
1510	60	0.130	60/55	0.280/0.230	500

1305: 42 x 52 (cm): 5130502. 32 x 42: 5130501.

1510: 42 x 52(cm): 5151002. 32 x 42: 5151001.

Absorbent paper with polyethylene

PROTECTION AND ABSORPTION THANKS TO ITS DOUBLE LAYER: ONE OF ABSORBENT PAPER AND THE OTHER OF WATERPROOF POLYETHYLENE

Grade	Basis weight g/m²	Thickness mm	Area absorption g water/m²
1505	125	0.250	240

1505: 42 x 52 (cm): 5150502. 32 x 42: 5150501. 50 (cm) Width x 50 (meters): 5150503

Glass microfiber filters without binders

RECOMMENDED IN AIR AND WATER ANALYSIS ACCORDING TO INTERNATIONAL STANDARDS

Grade	Retention µm	Basis weight g/m²	Thickness mm	Retention DOP %	Binders	Units Box
MFV1	1.6	52	0,26	99.998	No	100
MFV3	1.2	52	0,26	99.998	No	100

MFV1: mm Ø 47: 5291047. Ø 70: 5291070. Ø90: 5291090. Ø 110: 5291110. Ø 125: 5291125. Ø 150: 5291150.

MFV3: mm Ø 47: 5293047. Ø 70: 5293070. Ø90: 5293090. Ø 110: 5293110. Ø 125: 5293125. Ø 150: 5293150.

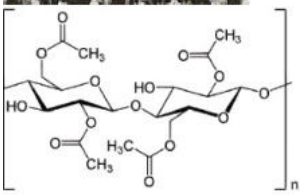
Cellulose extraction cartridges

NOBLE CELLULOSES AND COTTON LINERS TOTALLY FREE FROM IMPURITIES.
FOR REMOVING PAINTINGS, ANIMAL FAT, COSMETICS, VARNISHES, LACQUERS, OIL SEEDS, RESINS AND WOOD FATS, ETC... WALL THICKNESS: BETWEEN 1 AND 2 MM. UNITS PER BOX: 25

Part No.	Interior Dimensions mm Ø/ L	Part No.	Interior Dimensions mm Ø/ L	Part No.	Interior Dimensions mm Ø/ L
5297001	19 x 90	5297005	28 x 100	5297009	33 x 94
5297002	22 x 80	5297006	30 x 80	5297010	33 x 100
5297003	22 x 100	5297007	30 x 100	5297011	35 x 100
5297004	25 x 100	5297008	33 x 80	5297012	43 x 123

Cellulose Acetate Membrane Filters

LOW PROTEIN ABSORPTION FOR FILTERING DIFFERENT SAMPLES: BIOLOGICAL, AQUEOUS, ALCOHOLS, OILS AND HIDROCARBONS. AVAILABLE IN PORES FROM 0.22 UP TO 5 M AND IN DIAMETERS FROM 13 UP TO 293 MM.
AVAILABLE ON DEMAND IN Ø 13 - 25 - 142 Y 293 MM.
PH COMPATIBILITY: 4-8.



Part No.	Membrane Material	Diameter mm	Pore µm	Colour	Surface	Format	Units x box
5297013	Cellulose acetate	47	0.22	White	Flat	Non-Sterile	100
5297014	Cellulose acetate	47	0.45	White	Flat	Non-Sterile	100
5297015	Cellulose acetate	47	0.8	White	Flat	Non-Sterile	100
5297016	Cellulose acetate	47	3.0	White	Flat	Non-Sterile	100
5297017	Cellulose acetate	47	5.0	White	Flat	Non-Sterile	100
5297018	Cellulose acetate	90	0.22	White	Flat	Non-Sterile	100
5297019	Cellulose acetate	90	0.45	White	Flat	Non-Sterile	100
5297020	Cellulose acetate	90	0.8	White	Flat	Non-Sterile	100
5297021	Cellulose acetate	90	3.0	White	Flat	Non-Sterile	100
5297022	Cellulose acetate	90	5.0	White	Flat	Non-Sterile	100

Glass filtration equipment

TECHNICAL SPECIFICATIONS
Materials:
100% borosilicate glass 3.3 except aluminium clamps.
Capacities:
Funnel 300 ml. Filtration flasks 1000 ml.
Plate porosity: Grade 2/3
Sterilization: Autoclave (max. 134ºC), dry heat (max. 180ºC).
Diameter filters: 47 mm
Output connections to vacuum: Tube 8 - 10 mm. diameter.
Complete equipment. **Part No.** 5297023

Vacuum pumps. See page 48 and 49.

AQUISEL®

PRODUCTOS SANITARIOS
MEDICAL DEVICES

FABRICANTE DE PRODUCTOS SANITARIOS PARA DIAGNÓSTICO IN VITRO. UN SOLO USO.
MEDICAL DEVICES MANUFACTURER FOR DISPOSABLE IN VITRO DIAGNOSTIC. SINGLE USE.

GRUPO SELECTA

Evite riesgos innecesarios con el sistema Tapón-Válvula AQUISEL.
Eliminate unnecessary risks with the AQUISEL Valve-Stopper system.

Tubos para pediatría y para bajos volúmenes de sangre (hasta 1 ml
Tubes for pediatrics and for low blood volumes (up to 1 ml)

Fijación y concentración de parásitos fecales “Aquisfek-2”
Fixation and concentration of faecal parasites “Aquisfek-2”

Pipetas VSG de enrase a cero. Con émbolo de presión para tubos convencionales o con Tapón-Válvula AQUISEL.
Pipettes for E.S.R. with zero levelling and automatic closure system for conventional tubes or AQUISEL Valve-Stopper.

EN-ISO-9001 SISTEMAS DE GESTIÓN DE LA CALIDAD / EN-ISO-13485 PRODUCTOS SANITARIOS
EN-ISO-9001 QUALITY MANAGEMENT SYSTEMS / EN-ISO-13485 MEDICAL DEVICES

LRQA IVD CE

TAPÓN- VÁLVULA AQUISEL

Sistema que permite su manipulación sin necesidad de destaponar, permaneciendo hermético y evitando el riesgo de contaminación.

AQUISEL VALVE-STOPPER

System available for sample manipulation without the need of uncorking the tube, maintaining it hermetically sealed and avoiding the risk of contamination.

El sistema AQUISEL se compone de tubo, tapón-válvula y del reactivo apropiado para su uso específico.
El tubo del sistema AQUISEL está fabricado en polipropileno de alta resistencia y transparencia. El tapón-válvula es de material elástico y **posee unos cortes que por su diseño especial recuperan automáticamente su hermeticidad, después de la introducción o extracción de la muestra.**
Su contenido en reactivo ofrece diferentes posibilidades que se distinguen por el color del tapón según Normas Internacionales.
Puede ser utilizado con la mayoría de los procedimientos analíticos actuales, ya sean manuales, semiautomáticos o automáticos.

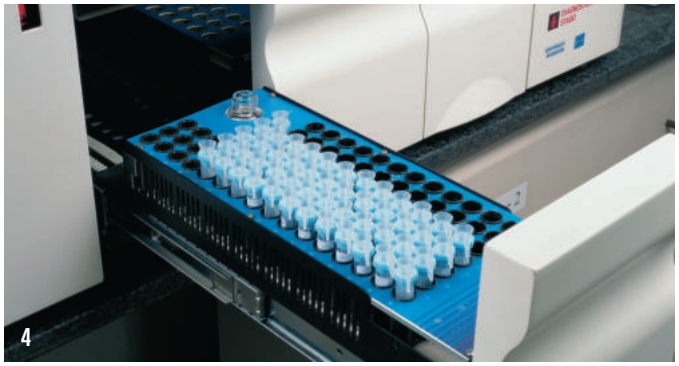
The AQUISEL system consist of a tube, valve-stopper and an appropriate reagent for specific use.
The AQUISEL tube is made of a high resistance transparent polypropylene. The valve-stopper is an elastic material and **has a special cross-cut design which allows an automatic recover to its initial closed position, after insertion or extraction of the sample.**
The tube's reagent contents is offered through different possibilities identified by the colour of the stopper in accordance with International Standards.
It can be used by most of the current analytical procedures, even if they are manual, semi-automatic or automatic procedures.

USO Y APLICACIONES

1. Introducción de muestra con jeringuilla (sin aguja).
2. Extracción y dosificación con pipeta semiautomática.
3. Transporte neumático de muestras
4. Toma de muestras automática para hematología en tubos primarios.
5. Adaptable a cabezales de centrífuga.

USE AND APPLICATIONS

1. Inserting (blood) samples with syringe (without needle).
2. Extraction and dosage with semi-automatic pipette.
3. Sample road transport.
4. Automatic sampling for haematology in primary tubes.
5. Centrifuge heads adaptable.



Tubos con Tapón-Válvula AQUISEL
Tubes with AQUISEL Valve-Stopper

Diferentes formatos y volúmenes de tubos con aditivos:
anticoagulantes, antiglicólicos, aceleradores de la coagulación o vacíos.

There are different size and volume tubes with additives:
anticoagulant, antiglicolytics, clotting accelerators or empty tubes.

Tubos para pequeños volúmenes de sangre de 12x55
Tubes for small blood volume, size 12x55

Indicados para pediatría, o para pequeños volúmenes de muestra.

Suitable for paediatrics or small sample volumes.

Presentación del producto
Product presentation

Los tubos van colocados en gradillas de poliestireno de 100 unidades.
Cada 50 unidades se cubren con una tapa transparente de protección.

The tubes are presented in polystyrene racks of 100 units.
Every 50 units are covered with a transparent lid for protection.

Accesorio: CAP-GALET
Accesory: CAP-GALET

Adaptador en forma de embudo diseñado para permitir la recogida de sangre al interior del tubo, extraída mediante punción capilar.
También permite mantener abierto el sistema de tapón válvula AQUISEL del tubo, cuando se requiere una manipulación del interior sin necesidad de ser destaponado.
Una vez extraído el CAP GALET, el tubo permanece de nuevo cerrado para su conservación o desecho.

Funnel shaped adapter designed to allow blood collection inside the tube, extracted by capillary puncture.
It also allows the AQUISEL valve cap system to be kept open when an inner manipulation is required without having to be unblocked.
Once the CAP GALET has been extracted, the tube remains closed again for its conservation or disposal.

Tubos para pediatría y para bajos volúmenes de sangre (hasta 1 ml)

Dimensiones de los tubos : 11x40 (ØxL)
Anillo superior que permite introducirse en un tubo de 13x75 para ser centrifugado.

Tubes for pediatrics and for low blood volumes (up to 1 ml)

Tube dimensions: 11x40 (ØxL)
Upper ring that allows to enter a 13x75 tube to be centrifuged.

Contenido general de los tubos / color:

General content of tubes / color:

EDTA 3K y EDTA 2K / Malva
EDTA 3K & EDTA 2K / Mauve

Citrato 3Na / Azul
Citrate 3Na / Blue

Heparina Litio y Heparina Litio + gel / Verde
Li Heparin & Li Heparin + gel / Green

Vacíos / blanco
Empty / White

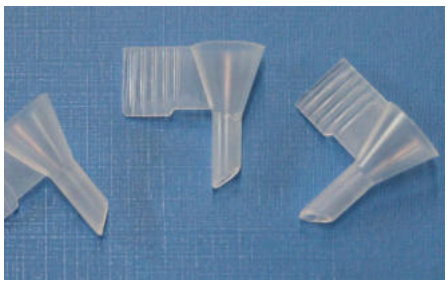
Activador coagulación / rojo
Clotting activator / Red

Accesorio: MINI-GALET

Accesory: MINI-GALET

Accesorio con forma de embudo que junto con los tubos AQUISEL para bajos volúmenes de sangre, permite recoger directamente al tubo la sangre extraída mediante extracción capilar. Una vez extraído el Mini Galet el tubo de nuevo permanece cerrado gracias a su tapón válvula.

It is a funnel-shaped accessory that, together with AQUISEL® tubes for low blood volumes,allows the collection of blood extracted by capillary extraction directly into the tube. Once the Mini Galet is removed, the new tube remains closed thanks to its valve-stopper.



Accesorios

Accesories

CAP-GALET para tubos de 12 a 16 mm Ø.
CAP-GALET for 12 to 16 mm Ø tubes.
Código 1650000. Se suministra en bolsas de 500 unidades.
Code 1650000. Supplied in bags of 500 units.

MINI-GALET para tubos de 11mm Ø.
MINI-GALET for 11 mm Ø tubes.
Código 1650050. Se suministra en bolsas de 500 unidades.
Code 1650050. Supplied in bags of 500 units.

Cuadro de productos - *Product table*

TUBOS AQUISEL CON TAPÓN-VÁLVULA - AQUISEL TUBES WITH VALVE-STOPPERS

Uds/caja Uts/carton		800 (8x100)		800 (8x100)		1000 (10x100)		1000 (10x100)		1000 (10x100)	
Tamaño (Ø x L) Size (Ø x L)		13X80		12X70		12x55		11X40 Conical Cónico		11X40 Flat bottom Con faldón	
Contenido / Content	Tapón / Stopper	Ref	ml	Ref	ml	Ref	ml	Ref	ml	Ref	ml
K2E / EDTA 2K	Malva Mauve									1501028	0,25 -0,5
K3E / EDTA 3K	Malva Mauve	1581104	4	1581105	3	1501106	2			1501118	1
		1581114	2,5			1501116	1			1501128	0,25 -0,5
		1581124 (1)	4			1501126	0,5				
		1581134 (1)	2,5			1501136	0,25				
		1681154 (2)	3								
4NC / CITRATE 3Na 3.8% (1:4 - ESR/VSG)	Negro Black	1581204 (3)	1.6	1581205	1,2	1501206	1				
		1581209 (4)	1			1501226 (5)	0,32				
9NC / CITRATE 3Na 3.2% (1:9-Clotting factors)	Azul claro Light blue	1581304	4	1581305	2	1501306	1			1501308	1
						1501326	0,5			1501328	0,5
LH / Li HEPARIN	Verde Green	1581404	4	1581405	2	1501406	1			1501408	1
LH / Li HEPARIN + SEPARATOR GEL						1501416	1			1501418	0,8
FX / FLUORIDE Na + OXALATE K	Gris Grey	1581704	4	1581705	2	1501706	1			1501708	0,5
Z / VACIO – EMPTY	Blanco White	1581964	5	1581965	3	1501966	2	1501967	1,5	1501968	1
Z / VACIO CON ETIQUETA – EMPTY WITH LABEL										1501998	1
Z / VACIO PARA SUERO – EMPTY FOR SERUM	Blanco White	1581974	5	1581975	3	1501976	2			1501978	1
Z / GEL SEPARADOR PARA SUERO Z / SEPARATOR GEL FOR SERUM		1581984	4			1501986	1,5			1501988	0,8
CAT / ACTIVADOR COAGULACIÓN PARA SUERO CAT / CLOT ACTIVATOR FOR SERUM	Rojo Red					1501806	2			1501808	0,5 -1
CAT / ACTIVADOR COAGULACION + GEL SEPARADOR PARA SUERO CAT / CLOT ACTIVATOR + SEPARATOR GEL FOR SERUM		1581814	4			1501816	1,5			1501818	0,5 - 0,8

(1). Tapón corte pequeño. (2). Tapón sin cortar (no válvula). (3). Tubo 75x13 para pipeta AQUISEL P-2.
(4). Tubo especial pipeta P-3. (5). Tubo especial pipeta P-4 micro.

(1). Small cut plug. (2). Uncut plug (no valve). (3).75x13 size tube for AQUISEL P-2 pipette.
(4). Pipette special tube P-3. (5). Pipette special tube P-4 micro.

Tubos especializados en pediatria y veterinaria

Tubes specialized in pediatrics and veterinary medicine

1581204 1.6 (3)

PIPETA AQUISEL

PIPETAS PARA LA DETERMINACIÓN DE LA VELOCIDAD DE SEDIMENTACIÓN GLOBULAR V.S.G. MÉTODO WESTERGREN.

Pipetas fabricadas en poliestireno con un comportamiento equivalente al vidrio.
El sistema de CIERRE-CERO permite el llenado de la pipeta impidiendo que la sangre supere el punto cero y evitando el vaciado total o parcial. Al quedar automáticamente sellado se convierte en un artículo de un solo uso.

AQUISEL PIPETTE

PIPETTES FOR ERYTHROCYTE SEDIMENTATION READ E.S.R. WESTERGREN METHOD.

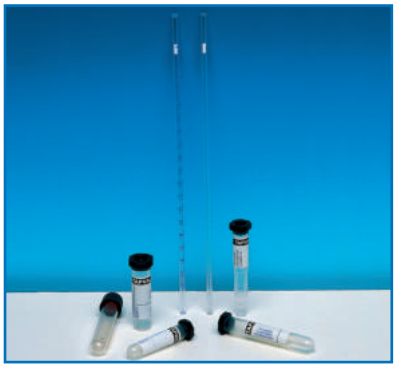
Pipettes made in polystyrene with similar properties as glass ones.
The ZERO-CLOSURE system allows the pipette filling, preventing that the blood exceeds the zero point and also avoiding total or partial loss. Automatic sealing makes it a disposable product.

Pipeta AQUISEL A-2 sin émbolo.

Para cualquier tipo de tubo, con tapon AQUISEL o convencional.
Llenado por aspiración mecánica o manual.

AQUISEL Pipette A-2 without rubber.

For any kind of tube use, even with AQUISEL or with a conventional stopper.
Suitable for mechanical or manual aspiration.

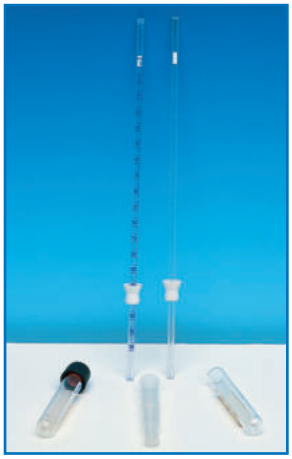


Pipeta AQUISEL P-2 con émbolo.

Para tubos de 75x13 con tapon AQUISEL o convencional.
Llenado de la pipeta por presión hasta el fondo del tubo.

AQUISEL Pipette P-2 with rubber.

For 75x13 tubes with AQUISEL or with a conventional stopper.
Pipette filling by pressure till the bottom of the tube.



Sistemas Pipeta AQUISEL P-3

Conjuntos formados por pipetas y tubos AQUISEL. Los tubos llevan incorporado el TAPÓN-VALVULA lo que permite la introducción de la pipeta sin necesidad de destaponar.
Llenado por presión.

AQUISEL Pipette P-3 systems

Set of AQUISEL pipettes and tubes. Tubes come with the valve-stopper which allows the pipette insertion without the need of uncorking.
Pipette filling by pressure.

PRESENTACIÓN DEL PRODUCTO
PRODUCT PRESENTATION

Pipetas AQUISEL A-2
Envase de P.S. expandido.
De 500 pipetas de capacidad.

AQUISEL Pipettes A-2
Expanded polystyrene packaging of 500 units.

Pipetas AQUISEL P-2
Envase de cartón de 200 unidades.
Se suministran en cajas de 800 unidades.

AQUISEL Pipettes P-2
200 units cardboard package.
Supplied in 800 units boxes.

Conjunto P-3. Pipeta con tubo AQUISEL
Envase de cartón de 200 pipetas y de P.S. expandido de 100 tubos.
Se suministra en cajas de 600 conjuntos.

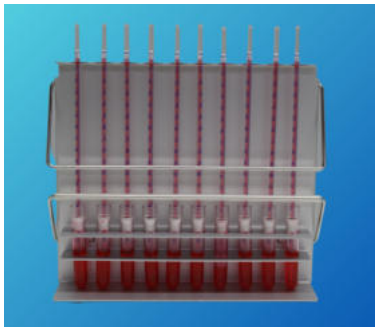
Set P-3. AQUISEL Pipette and tube
200 units cardboard package and 100 tubes rack made of expanded polystyrene, supplied in 600 sets boxes.

MODELO MODEL	CÓDIGO CODE	Nº UNIDADES CAJA UNITS / BOX	PESO CAJA Kg BOX WEIGHT Kg	MEDIDAS CAJA cm - BOX DIMENSIONS cm Ancho Width	Fondo Depth	Alto Height
A-2	1750224	500	1,5	27	14	11
P-2	1780225	800	4	55	27	26
Set P-3	1760200	600 pipetas + 600 tubos	6	47	43	26

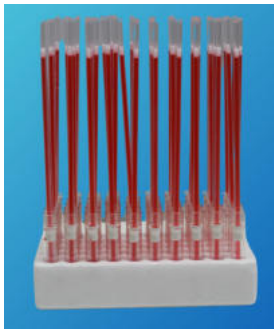
COMPLEMENTOS - *COMPLEMENTS*

Gradilla en metacrilato
10 plazas numeradas. Para conjunto P-3 / P-4.
Código
1770003 Para tubo Ø 13 mm - conjunto P-3
1770004 Para tubo Ø 12 mm - conjunto P-4 Micro

Methacrylate rack
10 place rack. For P-3 / P-4 set.
Code
1770003 For tube Ø 13 mm - set P-3
1770004 For tube Ø 12 mm - set P-4 Micro



Soporte Westergren metálico
10 plazas numeradas. Autoclavable.
Para todo tipo de pipetas AQUISEL con tubos de Ø 13 mm y para pipetas A-2 con tubos de Ø 16 mm.
Sistema simple y funcional que permite el vertido total del conjunto.
Código
1770001 Para tubo Ø 13 mm
1770002 Para tubo Ø 16 mm
Tubos sueltos para pipetas:
1581209 para AQUISEL P-3 (800 uds/caja)
1501226 para AQUISEL P-4 Micro (1000 uds/caja)



Metallic Westergren stand
10 place autoclavable stand.
For any kind of AQUISEL pipettes with Ø 13 mm tubes and A-2 pipettes with Ø 16 mm tubes.
Easy and functional system that allows the total set disposal.
Code
1770001 For Ø 13 mm tubes
1770002 For Ø 16 mm tubes
Loose tubes for pipettes:
1581209 for AQUISEL P-3 (800 units/box)
1501226 for AQUISEL P-4 Micro (1000 units/box)

FIJACIÓN Y CONCENTRACIÓN DE PARÁSITOS FECALES “Aquisfek-2”

Nuevo diseño compacto del dispositivo Aquisfek-2, el cual permite una recogida de la muestra fácil y cómoda, un transporte seguro con un sistema de manipulación más sencillo y una filtración más eficaz.

FIXATION AND CONCENTRATION OF FAECAL PARASITES “Aquisfek-2”

New compact design of Aquisfek-2 device, which allows an easy and convenient sample collection, a safe transportation with an easier handling system and a more effective filtration.

Método de utilización

RECOGIDA DE LA MUESTRA.
GRAN SENCILLEZ DE MANIPULACIÓN POR EL PACIENTE.
Separar las dos partes (A y B) del dispositivo y con ayuda de la cucharilla incorporada al filtro coger la muestra.
Introducir y cerrar el sistema.
PROCESO DE LAS MUESTRAS EN EL LABORATORIO.
FÁCIL Y RÁPIDO.
Después de homogenizar la muestra, sin extraerla del tubo de recogida, se centrifuga el dispositivo.
Desechar la parte de la cuchara del dispositivo (Parte A) y separar, con una pipeta, el sobrenadante del tubo (Parte B).
El residuo centrifugado se transifere a un porta para la observación de los parásitos al microscopio.

DOS FORMATOS DIFERENTES.
KIT 1. Con Formol / Acetato. Fijador habitual de parásitos.
KIT 2. Sin formol para minimizar el riesgo de contaminación ambiental.

KIT 1. Con formol.
Código
1800505 **Se suministran 100 unidades individuales.**

KIT 2. Sin formol.
Código
1800500 **Se suministran 100 unidades individuales.**

Procedure

SAMPLE COLLECTION.
EASY TO HANDLE BY THE PATIENT.
Separate the two parts (A and B) of the device and with the aid of the spoon built-in at the end of the filter, collect the sample.
Introduce the spoon with the sample back into the liquid and screw to close.
PROCESSING THE SAMPLES IN THE LABORATORY.
FAST AND EASY.
Once the sample has been homogenized, the whole device is centrifuged.
After centrifugation, discard the part A (spoon) and with the aid of a pipette, remove the supernatant in the tube (Part B).
The concentrated sample residue is transfered to a slide for a further microscopic observation.

TWO DIFERENT FORMATS
KIT 1. With formalin / acetate. Parasite commonl fixer.
KIT 2. Without formalin to minimize the risk of environmental contamination.

KIT 1. With formalin.
Part number
1800505 100 individual units supplied.

KIT 2. Without formalin
Part number
1800500 100 individual units supplied.

Nota: Para su centrifugación se recomienda la centrifuga Cencom 2. Código 7002240. Ver pág 138
Note: For centrifugation, Cencom 2 is recommended. Part number 7002240. See page 138

Silicone and viton hoses, borosilicate glass and propylene tubes

Silicone hoses

MODEL

Code	Composition	Ø Interior mm	Ø Exterior mm	Quantity meters
8991208	60 SH translucent silicone	4	8	10
8991209	60 SH translucent silicone	6	9	10
8991210	60 SH translucent silicone	8	12	10
8991219	60 SH translucent silicone	8	14	10
8991211	60 SH translucent silicone	12	17	10

Reinforced silicone hoses.

MODEL

Code	Composition	Ø Interior mm	Ø Exterior mm	Quantity meters
8991212	Silicone fiberglass	8	14,4	10
8991213	Silicone fiberglass	12	19	10
8991214	Silicone fiberglass	15	24	10

Viton hoses

MODEL

Code	Composition	Ø Interior mm	Ø Exterior mm	Quantity meters
8991215	Viton black 75 SH	6	10	10
8991216	Viton black 75 SH	6	12	10
8991217	Viton black 75 SH	10	14	10
8991218	Viton black 75 SH	12	16	10

COMECTA Screw cap tubes

1. Tround bottom tubes of 10 ml. ø16 x 100mm.
In polystyrene, screen-printed and with screw cap.
Bags of 50 units.
Code 5004000 Non-sterile.
Code 5004001 Sterile.

2. Round bottom tubes of 10 ml. ø16 x 100mm.
In polystyrene and with screw cap.
Code 5004002 Non sterile. Bags of 1000 units.
Code 5004003 Sterile. Bags of 200 units.

3. 13.5 ml. conical bottom tubes ø16 x 110mm..
In polystyrene and with screw cap.
Rcf: 8,000 g.
Code 5004004 Non sterile. Bags of 1000 units.
Code 5004005 Sterile. Bags of 200 units.

4. Round bottom tubes of 15 ml. ø16 x 120mm.
In polystyrene and with screw cap.
Code 5004006 Non sterile. Bags of 750 units.
Code 5004007 Sterile. Bags of 150 units.

5. Conical bottom tubes of 15 ml. ø17 x 120mm.
In polystyrene, screen-printed and with screw cap.
Rcf: 3,500 g.
Bags of 150 units.
Code 5004008 Non sterile
Code 5004009 Sterile.

6. Conical bottom tubes of 15 ml. ø17 x 120mm.
In polypropylene, screen-printed and with screw cap.
Rcf: 5,000g, Autoclavables.
Bags of 150 units.
Code 5004010 Non sterile.
Code 5004011 Sterile.

7. Flat bottom conical tubes of 50 ml. ø30 x 115mm.
In polypropylene, screen-printed and with screw caps.
Autoclavables.
Bags of 100 units.
Code 5004012 Non sterile
Code 5004013 Sterile.

8. Conical bottom tubes of 50 ml. ø30 x 115mm.
In polypropylene, screen-printed and with screw cap.
Rcf: 5,000g, Autoclavables.
Bags of 100 units.
Code 5004014 Non sterile
Code 5004015 Sterile.

9. T Conical bottom tubes of 50 ml. ø30 x 115mm. For photosensitive materials.
In polypropylene, to be printed and with screw cap.
Rcf: 5,000g, Autoclavable at 121ºc.
Temperature resistant to -80ºc.
Bags of 25 units.
Code 5004016 Sterile.

10. Racks for cylindrical and conical tubes

Code	Built in	Number of tubes	For tubes Ø up to
1001715	inox. AISI 304	15 (5 x 3)	17 mm
1025524	inox. AISI 304	24 (8 x 3)	17 mm
1001716	inox. AISI 304	8 (4 x 2)	30 mm

COMECTA Petri dishes In polystyrene.

1. Plates without compartments. Ø 90 mm.
Code : 5004017 Aseptic. Bags of 20 units.
Code : 5004018 Sterile. Bags of 20 units.

2. Plates with two compartments. Ø 90 mm. 2 winds.
Code : 5004019 Aseptic. Bags of 20 units.
Code : 5004020 Sterile. Bags of 20 units.

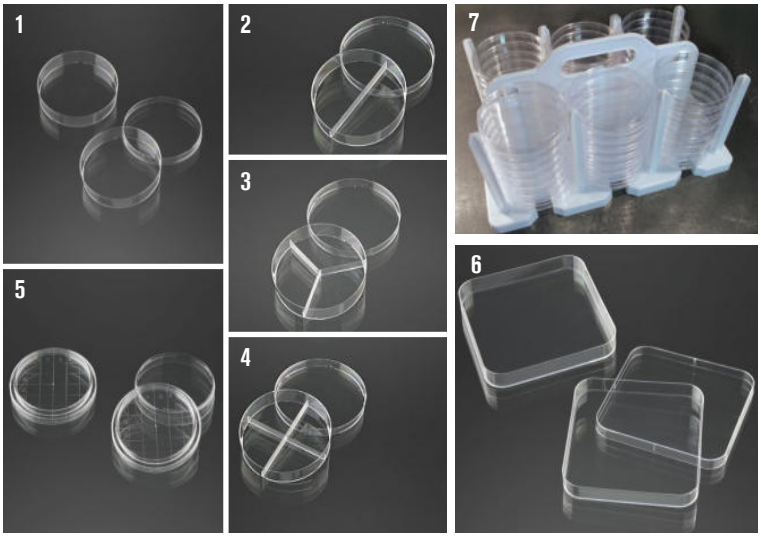
3. Plates with three compartments. Ø 90 mm. 3 winds.
Code : 5004021 Aseptic. Bags of 20 units.
Code : 5004022 Sterile. Bags of 20 units.

4. Plates with four compartments. Ø 90 mm. 4 winds.
Code : 5004023 Aseptic. Bags of 20 units.
Code : 5004024 Sterile. Bags of 20 units.

5. Contact Petri dishes with reticula for counting.
Code : 5004025 Sterile. Ø 55 mm. Bags of 10 units.
Code : 5004026 Sterile. Ø 90 mm. Bags of 20 units.

6. Square Petri dishes. 120x120 mm.
Code : 5004027 Sterile. Bags of 10 units.

7. Transport and storage support Ø 90 mm Petri dishes.
Capacity: 48 plates.
Code : 5004028



COMECTA Cryovial tubes with external thread non sterile

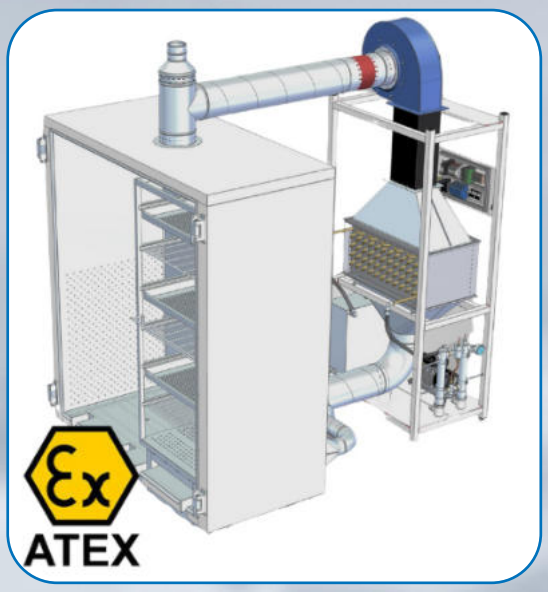
FEATURES

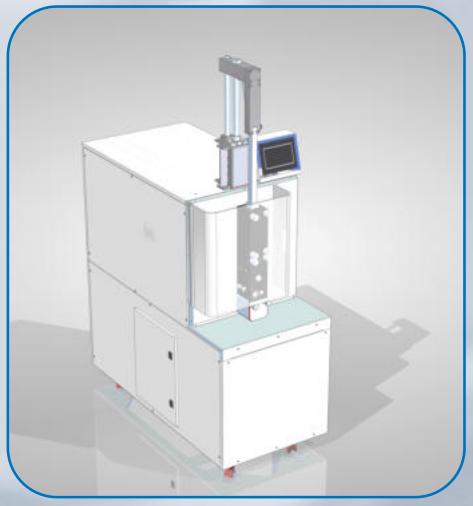
Made of polypropylene, can be used up to -196ºC. Transparent with white graduation.
Centrifugable up to 17,000 RCF and autoclavable up to 121ºC.
Stoppers made of silicone gel.Supplied with markers.

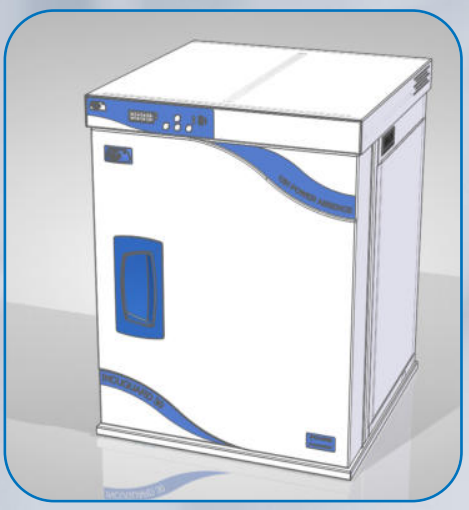
TUBE MODELS

Code	Material	Measures mm	Volume ml	Presentation 1 bag with	Resistant to Temperatures
5004030	Polypropylene	Ø12,5 x 42	1	200 u	-196 to 121ºC
5004031	Polypropylene	Ø12,5 x 49	1,8	200 u	-196 to 121ºC
5004032	Polypropylene	Ø12,5 x 47	1,8	200 u	-196 to 121ºC
5004033	Polypropylene	Ø12,5 x 90	4,5	500 u	-196 to 121ºC
5004034	Polypropylene	Ø12,5 x 89	4,5	500 u	-196 to 121ºC

SPECIAL EQUIPMENT







Digital incubator for microbiological cultures page 329
Equipment for processing human bone tissue page 330
Drying oven for critical environments page 331

Digital microbiological culture incubator for low-energy-resource countries “INCUDIGIT SV30L”

Maintains temperature for up to 12 hours during power outages; ideal for areas with electrical instability.

APPLICATIONS

Microbiological culture remains essential for diagnosing certain diseases, identifying pathogens, and determining their drug resistance, even with the advancement of modern methods such as immunoassays or genetic amplification techniques. However, in low-resource settings, culture-based diagnosis is difficult to implement due to the high cost of incubators and the lack of a stable electricity supply. Having low-cost culture incubators capable of operating on unreliable electrical grids would significantly improve access to diagnosis and epidemiological screening, enabling more effective treatment and better understanding of bacterial resistance. The new culture systems developed along these lines increase the usefulness of these incubators, which are designed to work with standard agar plates and allow manual interpretation of cultures.

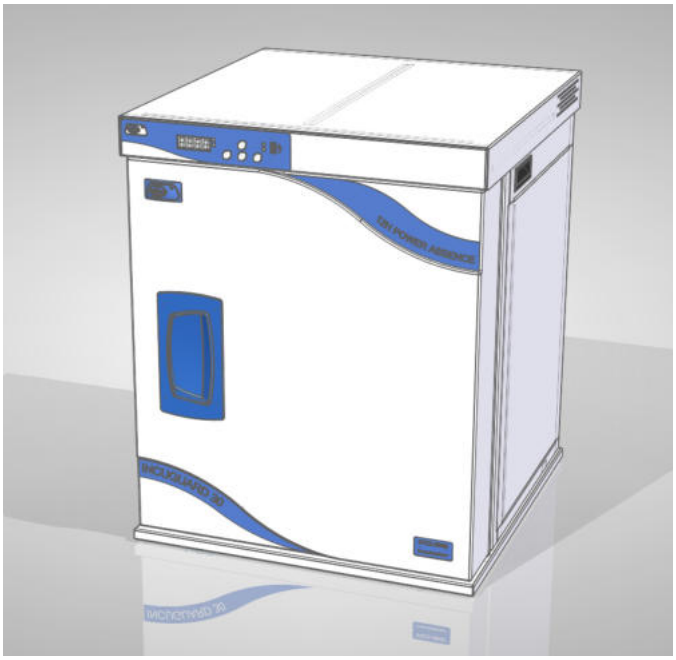
DESCRIPTION

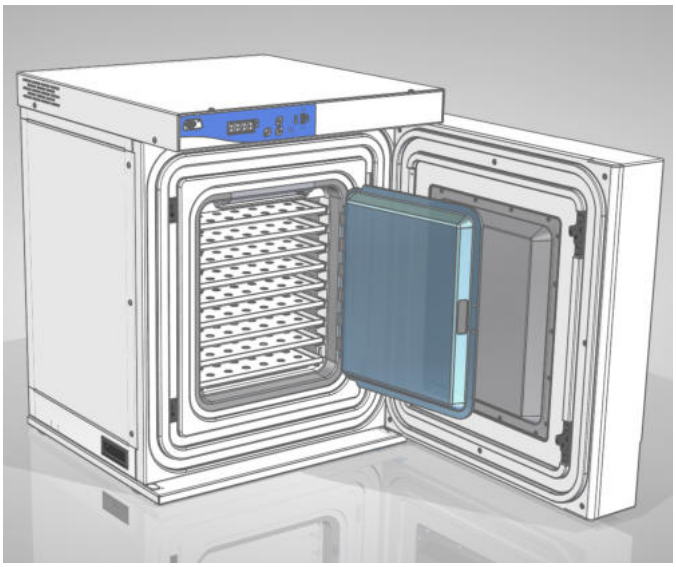
The technology, unique on the market, for thermal energy storage combined with the high insulation capacity of its housing allows the incubation chamber to maintain a constant internal temperature for periods exceeding 12 hours without electrical power or batteries (after a thermal stabilization period), regardless of the environmental conditions to which the equipment is subjected.

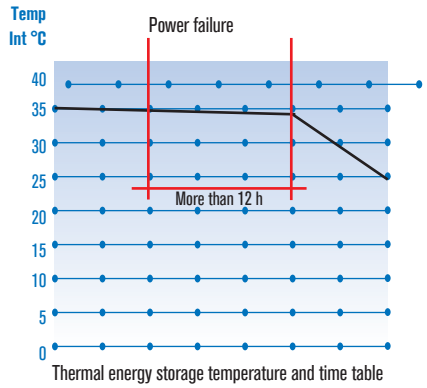
In areas where the electrical supply is insufficient and unstable to maintain culture temperatures, additional issues arise beyond simple power outages. The supply often presents overvoltages, micro-interruptions, or parameter fluctuations that can damage the electronic components of equipment. The electronics of this unit have been specifically designed with these factors in mind and incorporate three cascading electrical safety systems to prevent malfunction. In the event of voltages significantly exceeding the expected limits, the unit automatically disconnects from the power supply to prevent damage and reconnects once the voltage stabilizes, without any variation in the culture temperature.

FEATURES

Natural convection.
Microprocessor-controlled incubator.
For incubation temperatures: 35 °C or 36 °C.
Stability: ±1 °C.
Homogeneity: ±0.5 °C.
Operating ambient conditions: from +5 °C to +45 °C at 75% RH.
Transparent inner door.
Inner chamber with rounded corners for easy cleaning.
Interior light activated when the door is opened.
Power supply: 110 Vac / 230 Vac – 50/60 Hz.







Thermal energy storage temperature and time table

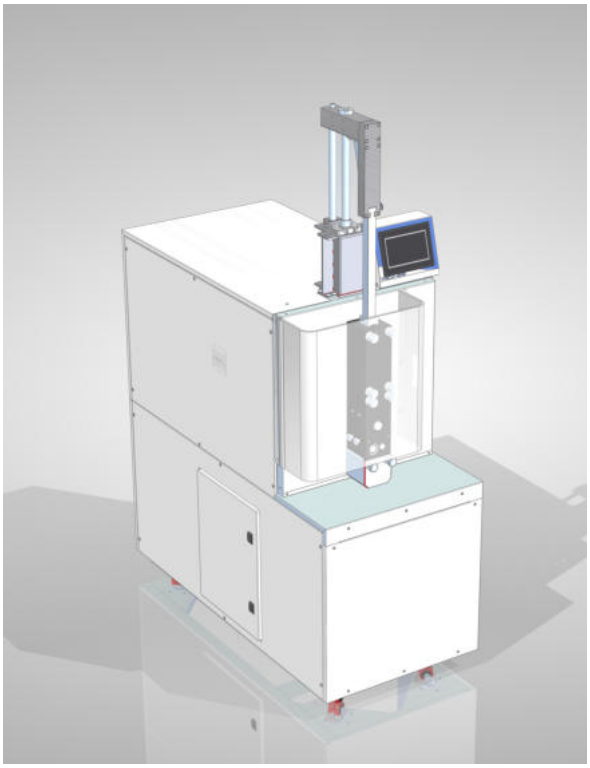
MODEL	Code	Height / Width / Depth (Internal) cm	Height / Width / Depth (External) cm	Tray holders	Consumption W	Weight Kg
INCUDIGIT SV30L	2000100	35 31 29	69 56 57	9	150	52

Automatic equipment for processing human bone tissue

Compliant with EU-GMP regulations
100% electric.
Fine particle size: 250–850 microns.

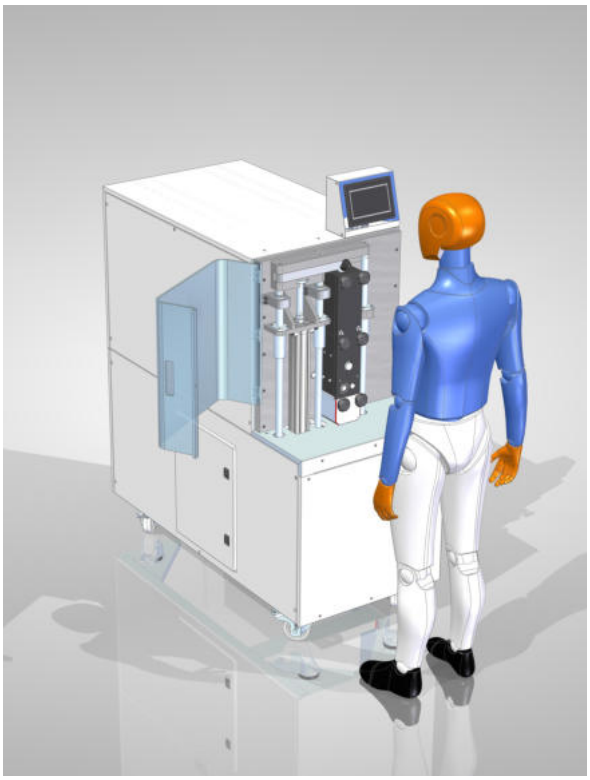
DESCRIPTION AND APPLICATIONS

The equipment enables the production of human bone tissue in the form of fine powder or homogeneous granules, without cross-contamination and while preserving the thermal and structural integrity of the material. Its use is intended for tissue banks, hospital laboratories, and bone regeneration centers, where standardized and reproducible processing is required. It features a crushing system composed of two synchronized bodies and an intelligent automatic feed that adapts pressure and speed according to the hardness and morphology of the bone. The entire process is controlled by a PLC with a 10″ TFT touchscreen, which monitors critical parameters such as temperature, vibration, and speed. All parts in contact with the sample are removable and sterilizable, manufactured from AISI 316L stainless steel, ensuring safety, hygiene, and compliance with EU-GMP regulations.



FEATURES AND OPERATION

Crushing system with fully removable steel blades.Particle production between 250–850 microns with a yield above 80%.Real-time control via PLC with integrated sensors for:
-Temperature
-Vibration
-Speed
Automatic feed with intelligent reverse motion to prevent blockages and sample damage.Maintains material temperature below 38 °C, preventing protein denaturation.Robust structure, easy to clean and suitable for complete sterilization of internal components.High-power motors for cutting and feeding, with 100% electric operation.Intuitive interface for automatic or manual processes, according to user requirements.



MAIN TECHNICAL DATA

TFT touchscreen: 10″
Blade speed: 10–15 RPM
Control processor: 32-bit RISC microprocessor
Maximum sample size: 300 mm × Ø 35 mm
Sample temperature range: 18–40 °C
Compatible material: human bone
Power supply: 230 V – power consumption 1800–2200 W
Approximate dimensions: 1300 × 600 mm
Weight: 120–380 kg (depending on configuration)
Sterilizable components: blades, guides, pressers, and crushing chamber.

MODEL

Code	Blade speed	Sample temperature	Height / Width / Depth cm	Consumption W	Weight Kg
9999095	10-50rpm	18-40°C	230x130x62	1800-2000	380

Power supply voltage: 220/240 V.

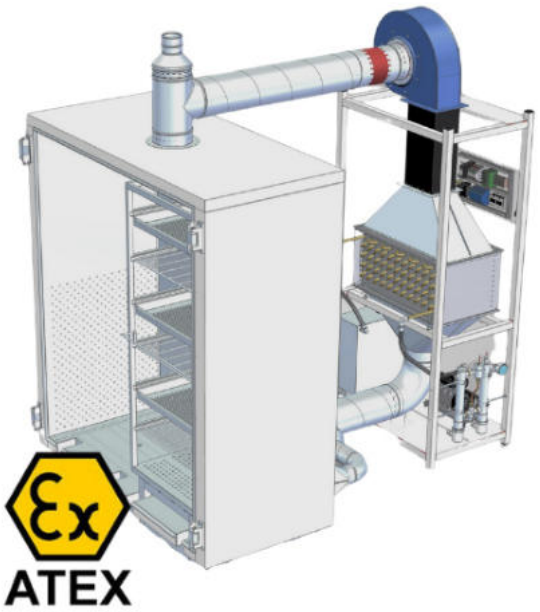
ATEX DRYBIG 2000L oven – Safe drying for critical environments

DESCRIPTION AND APPLICATIONS

The ATEX DRYBIG 2000L oven is designed for the safe drying of ammunition, metals, and sensitive materials in classified areas with a risk of dust explosion (Zone 21). Its large-capacity chamber (2000 L) and ATEX-certified recirculation system ensure uniform and stable drying even at high temperatures. Manufactured entirely from AISI 316L stainless steel, it guarantees strength, durability, and easy cleaning. It is especially suitable for defense industries, materials laboratories, metal component manufacturing plants, and any environment where operation in potentially explosive atmospheres is required. PLC control with a TFT touchscreen enables precise process monitoring, alarm management, advanced programming, and Ethernet and USB connectivity.

FEATURES AND OPERATION

ATEX certification EX II2D EX IB T120 °C DB IP30 for Zone 21
Chamber, recirculation unit, and piping made of AISI 316L stainless steel
Nominal usable volume of 2000 liters
Independent thermal recirculation for greater temperature uniformity
2 internal structures with 7 trays each
Tray load capacity: 20–35 kg
Operating temperature range: 50–85 °C
Thermal stability: ±1 °C at 80 °C
Temperature uniformity: ±3 °C at 80 °C
Setpoint deviation: ±2 °C
Electronic control via PLC + TFT HMI
USB and Ethernet connectivity
Triple temperature control with redundant safety systemsA
TEX protection for motors and electrical components
Programming of up to 10 programs with 6 segments per program
Installed power: 11.5 kW with 400 V III / 50 Hz power supply



MAIN TECHNICAL DATA

Usable volume: 2000 L
Internal dimensions: 70 × 175 × 180 cm (depth × width × height)
External dimensions: 87 × 172 × 222 cm
Weight: Chamber 370 kg / Recirculation unit 470 kg / Total approx. 840 kg
Installed power: 11.5 kW
Maximum current: 18.4 A
Fuses: 3 × 32 A + 1 × 4 A
Power supply: 400 V III / 50 Hz
Power cable: 6 m, 6 mm² cross-section
Stability: ±1 °C
Uniformity: ±3 °C
Programs: up to 10
Segments per program: up to 6

6-tray trolley

MODEL	Code	Usable volume	Temperature range	Height / Width / Depth (internal) cm	Height / Width / Depth (external) cm	Consumption KW	Weight Kg
DRYBIG 2000L ATEX	9999097	2000L	50-85°C	180x175x70	222x172x87	11.5	840

Additional capacities available on request.

NOTES

Edited by
Grupo Selecta

Director
Jordi Puig

Engineering and Consulting
Jordi Teixido
Francesc Edo
Germán Heras
Ángel Pomares
Marta Calle
Adrià Puig
Luis Otero

Produced by
Rodrigo Cañas

Graphic Design
Rodrigo Cañas

Text
Rodrigo Cañas

Photography
José Mª Ardevol
Rodrigo Cañas

Printing
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REGISTERED TRADEMARKS

COMECTA

SELECTA

AQUASEL

SELECTA

J.P. SELECTA

LABORATORY APPARATUS FACTORY
Highway A-2, Km 585, 1
E-08630 ABRERA (Barcelona) - Spain
Phone: +34 93 770 0877
Fax: +34 93 770 23 62
www.grupo-selecta.com | selecta@jpselecta.es

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