

Quality
we deliver...

Our Speciality:

- Strong Customer Care
- Trained Engineering & Application team
- Deliver Product as per Commitment
- One-stop service to customers
- Prior user demand or need

Products List:

1. Ultra Micro Balance
2. Analytical Balance
3. Precision Balance
4. Moisture Balance
5. Mass Standards weight
6. Platform Scales
7. Load Cell mild steel scales
8. Truck pallet scales
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13. TB-2 Tablet PC with Integrated Microscopes with Camera
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32. Fat Extraction system (Food Analysis)
33. Fibre Extraction System (Food Analysis)
34. Compact digestion system (Food Analysis)
35. Rotational Viscometers (Food Analysis)
36. Nitrogen-Protein Distiller (Food Analysis)
37. Water Distiller Single & Double
38. Disintegration Tester
39. Dissolution Tester
40. Friability Tester
41. Hardness Tester
42. Flame Photometer
43. Vacuum Filtration Unit
44. Laboratory Incubator with Natural air convection
45. Cooled (BOD) Incubators with Forced air convection
46. Drying Ovens with Natural air convection
47. Stability chamber/Climatic with phytotron system
48. Refrigerator
49. Freeze Dryer
50. pH, DO, EC Temp. Meter
51. Multi-ranging DO, pH, TDS, Con., Temp. Meter
52. Multi-parameter water quality
53. Professional plus multi-parameter
54. Bench top pH meter (multi-parameter)
55. Portable multi-parameter
56. Capp Automatic Electronic Pipette
57. Capp Eco pipettes (Single/Multi Channel)
58. Capp Aid (Pipette Controller/Electronic Pipette Filler)
59. Capp Harmony (Serological Pipettes)
60. Digital burettes
61. Bottle Dispenser
62. Mini Centrifuge 13500rpm
63. 1524 High Speed Micro centrifuge 15000rpm
64. 1730R Refrigerated, High Speed Micro centrifuge 17000rpm
65. 2236R High Speed Refrigerated Centrifuge 54000 g
66. 416 Low Speed Centrifuge
67. 406 Low Speed Centrifuge
68. Autoclave/NEOCLAVE Sterilizer
69. Natural Convection Oven
70. Vacuum Oven
71. Compact Economic Incubator
72. General Incubator
73. Programmable Low Temp. B.O.D. Incubator
74. Compact Shaking Incubator
75. Laminar Flow Cabinet
76. Dry Block Heater
77. Bio-Suction Pump
78. Electric Muffle Furnace
79. Digital Water Bath
80. Digital Oil Bath
81. Visco-Sight Bath
82. Shaking Water Bath
83. Refrigerated Bath Circulator
84. Orbital Shaker
85. CO2 Growth Chamber
86. Growth Chamber
87. Plant Growth Chamber 3-Side Illumination
88. Plant Tissue Culture Chamber
89. Economic Climatic/Humidity Chamber
90. Hotplate Magnetic Stirrer
91. Digital/Analog Overhead Stirrer
92. Ultrasonic Cleaner
93. Digital Colony Counter
94. Romax Series
95. Deionizing Water System
96. Seed Germinator
97. Rotary Evaporator
98. Heating Mantel
99. Grain Moisture Meter
100. Vortex Mixer
101. Microtome Machine
102. Sieves Shaker
103. PCR Super Cyclers Kyratec
104. ECO PCR Real time Illumina
105. Mupid-exU Gel Electrophoresis (Submarine)
106. Mupid-One Gel Electrophoresis (Submarine)
107. Multi SUB mini
108. Multi SUB Choice
109. Multi SUB midi
110. Horizontal with Power Supply
111. Comet assay tanks
112. Clinical electrophoresis
113. Omni PAGE mini
114. Omni PAGE maxi
115. Modular systems
116. Large format vertical
117. Gel dryers
118. Vacuum pumps
119. Omni PAC power supplies
120. Gel documentation
121. UV transilluminators

So many instrument/Equipment, glass ware & Accessories with kits, reagent, chemicals available

Tech Vision BD

House # 194 (Ground Floor), Road # 01, New DOHS, Mohakhali, Dhaka-1206.

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Balance Ultra Micro, Analytical (Radwag, Poland)

Ultra Micro Balance

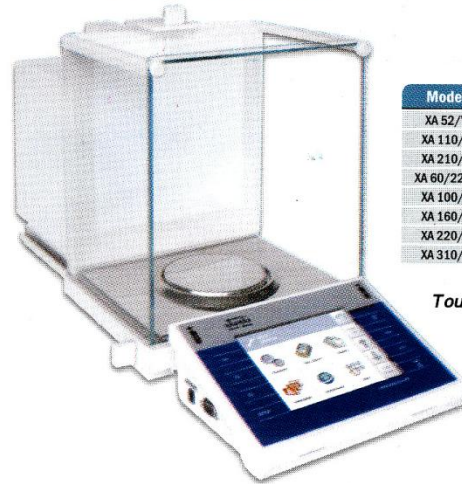


Touch screen LCD display
CE, GEP, IQ, OQ, PQ

Model	Capacity	d
MYA 21/P	21 g	1 µg

Pipettes-PC Software

Analytical Balance



Model	Capacity	d
XA 52/Y	52 g	0.01 mg
XA 110/Y	110 g	0.01 mg
XA 210/Y	210 g	0.01 mg
XA 60/220Y	60/220 g	0.01/0.1 mg
XA 100/Y	100 g	0.1 mg
XA 160/Y	160 g	0.1 mg
XA 220/Y	220 g	0.1 mg
XA 310/Y	310 g	0.1 mg

Touch screen LCD display
CE, GEP, IQ, OQ, PQ

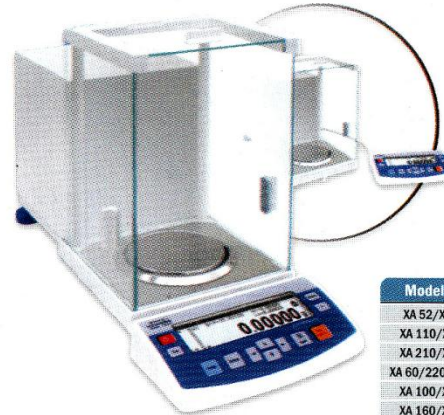
Analytical Balance



Model	Capacity	d
AS 60/Y	60 g	0.01 mg
AS 60/220/Y	60/220 g	0.01/0.1 mg
AS 110/Y	110 g	0.1 mg
AS 160/Y	160 g	0.1 mg
AS 220/Y	220 g	0.1 mg
AS 310/Y	310 g	0.1 mg

Touch screen LCD display
CE, GEP, IQ, OQ, PQ

Analytical Balance



Model	Capacity	d
XA 52/X	52 g	0.01 mg
XA 110/X	110 g	0.01 mg
XA 210/X	210 g	0.01 mg
XA 60/220/X	60/220 g	0.01/0.1 mg
XA 100/X	100 g	0.1 mg
XA 160/X	160 g	0.1 mg
XA 220/X	220 g	0.1 mg
XA 310/X	310 g	0.1 mg

CE, GEP, IQ, OQ, PQ

Analytical Balance

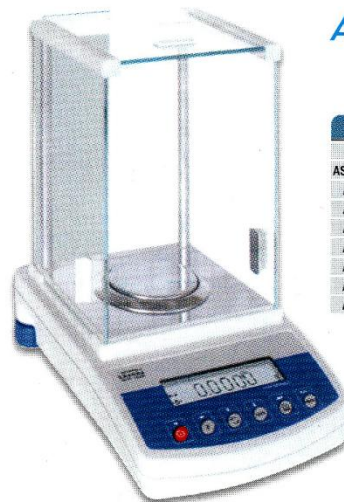
CE, GEP, IQ, OQ, PQ



Model	Capacity	d
AS 110/X	110 g	0.1 mg
AS 160/X	160 g	0.1 mg
AS 220/X	220 g	0.1 mg
AS 310/X	310 g	0.1 mg

Analytical Balance

CE, GEP, IQ, OQ, PQ



Model	Capacity	d
AS 60/C/2	60 g	0.01 mg
AS 60/220/C/2	60/220 g	0.01/0.1 mg
AS 110/C/2	110 g	0.1 mg
AS 160/C/2	160 g	0.1 mg
AS 220/C/2	220 g	0.1 mg
AS 310/C/2	310 g	0.1 mg
AS 110/C/1	110 g	0.1 mg
AS 160/C/1	160 g	0.1 mg
AS 220/C/1	220 g	0.1 mg

95

85

Precision Balance

Touch screen LCD display
CE, GEP, IQ, OQ, PQ



Model	Capacity	d
PS 200/2000/Y	200/2000 g	1/10 mg
PS 250/Y	250 g	1 mg
PS 450/Y	450 g	1 mg
PS 600/Y	600 g	1 mg
PS 750/Y	750 g	1 mg
PS 1000/Y	1000 g	1 mg
PS 1500/Y	1500 g	10 mg
PS 2500/Y	2500 g	10 mg
PS 4500/Y	4500 g	10 mg
PS 6000/Y	6000 g	10 mg
PS 8000/Y	8000 g	10 mg

Precision Balance

CE, GEP, IQ, OQ, PQ



Model	Capacity	d
PS 200/2000/X	200/2000 g	0.001/0.01 g
PS 250/X	250 g	1 mg
PS 450/X	450 g	1 mg
PS 750/X	750 g	1 mg
PS 1000/X	1000 g	1 mg
PS 1500/X	1500 g	0.01 g
PS 2500/X	2500 g	0.01 g
PS 4500/X	4500 g	0.01 g
PS 6000/X	6000 g	0.01 g
PS 8000/X	8000 g	0.01 g

Moisture Analyzer

CE, GEP, IQ, OQ, PQ



Model	Capacity	d
MAC 50/NH	50 g	1 mg
MAC 50/NP	50 g	1 mg
MAC 110/NH	110 g	1 mg
MAC 110/NP	110 g	1 mg
MAC 50/1/NH	50 g	0.1 mg
MAC 50/1/NP	50 g	0.1 mg
MAC 50/WH	50 g	1 mg
MAC 210/NH	210 g	1 mg
MAC 210/NP	210 g	1 mg
MAC 50/1/WH	50 g	0.1 mg
MAC 110/WH	110 g	1 mg
MAC 210/WH	210 g	1 mg

160°C Hal Bulb/250°C IR Bulb

Mass Standards

E1, E2, F1, F2, M1, M2



Certificate fractional weight

Mass	1 mg - 500 mg	1 g - 100 g	1 g - 200 g	1 g - 500 g	1 g - 2 kg	1 kg - 5 kg
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Platform scales



Model	Capacity	d
WTC 6 C1	6 kg	2 g
WTC 15 C1	15 kg	5 g
WTC 30 C1	30 kg	10 g
WTC 60 C2	60 kg	20 g
WTC 150 C2	150 kg	50 g
WTC 300 C2	300 kg	100 g
WTC 150 C3	150 kg	50 g
WTC 300 C3	300 kg	100 g
WTC 3 C1/R	3 kg	1 g
WTC 6 C1/R	6 kg	2 g
WTC 15 C1/R	15 kg	5 g
WTC 30 C1/R	30 kg	10 g
WTC 60 C2/R	60 kg	20 g
WTC 150 C2/R	150 kg	50 g
WTC 300 C2/R	300 kg	100 g
WTC 150 C3/R	150 kg	50 g
WTC 300 C3/R	300 kg	100 g
WTC 6 C1/K	6 kg	2 g
WTC 15 C1/K	15 kg	5 g
WTC 30 C1/K	30 kg	10 g
WTC 60 C2/K	60 kg	20 g
WTC 150 C2/K	150 kg	50 g
WTC 300 C2/K	300 kg	100 g
WTC 150 C3/K	150 kg	50 g
WTC 300 C3/K	300 kg	100 g

4 load cell mild steel scales



Model	Capacity	d
WTC/4 600 C6	600 kg	0.2 kg
WTC/4 600 C7	600 kg	0.2 kg
WTC/4 1500 C7	1500 kg	0.5 kg
WTC/4 1500 C8	1500 kg	0.5 kg
WTC/4 3000 C8	3000 kg	1 kg
WTC/4 1500 C8/9	1500 kg	0.5 kg
WTC/4 3000 C8/9	3000 kg	1 kg
WTC/4 1500 C9	1500 kg	0.5 kg
WTC/4 3000 C9	3000 kg	1 kg
WTC/4 3000 C10	3000 kg	1 kg
WTC/4 3000 C11	3000 kg	1 kg
WTC/4 6000 C11	6000 kg	2 kg
WTC/4 12000 C14	12000 kg	5 kg

Truck pallet scales



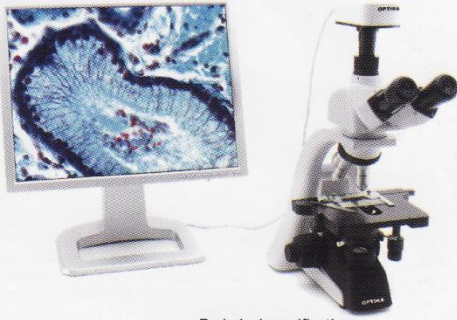
WWC (mild steel version)

WWC H (mild steel version)

Model	Capacity	d
WWC 4/1000	1000 kg	0.5 kg
WWC 4/2000	2000 kg	1 kg
WWC 4/1000H	1000 kg	0.5 kg

Beam length 1180 mm

Trinocular, Binocular Microscope



B-350 SERIES

Technical specifications

Model	Head	Eyeieces	Objectives
B-352A	Binocular 360° rotating 30° inclined	Wide Field 10x/20 mm	Achromatic 4x, 10x, 40x, 100x (oil immersion)
B-353A	Trinocular 360° rotating 30° inclined	Wide Field 10x/20 mm	Achromatic 4x, 10x, 40x, 100x (oil immersion)

POL SERIES Upright polarising microscope



Technical specifications

Model	Head	Eyeieces	Objectives	Magnifications
B-600POL	Trinocular 30° inclined 360° rotating	WF10X/22mm	PLAN IOS POL (strain free) 4x/0.10, 10x/0.25, 40x/0.65, 60x/0.85	40x, 100x 400x, 600x
B-600POL-I	Trinocular 30° inclined 360° rotating	WF10X/22mm	PLAN IOS POL (strain free) for transmitted and incident polarised light 5x, 0.15, 10x/0.30, 20x/0.45, 50x/0.55	

FLUO SERIES - HBO Fluorescence



XDS-2FL - Technical specifications

Part	Description
Optical system	Infinity corrected system, 45 mm parafocality distance. Field of view 22mm.
Head	Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 48 - 75 mm. Adjustable dioptic compensation. Ergonomical headavailable as option.
Eyeieces	Extra-wide field EWF 0x/22mm, High point.
Nosepiece	5 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	Long working distance (LWD) infinity corrected (IOS) planachromatic: 4x/0.10 (working distance 18mm), 10x/0.25 with phase ring (working distance 10mm), 20x/0.40 with phase ring (working distance 5.1mm), 40x/0.60 (working distance 2.6 mm Corrected for 1.2 mm coverglass).

TB-2 Tablet PC with Integrated Camera



Tablet PC Specifications

Tablet PC Specifications	TB-2L	TB-2W
PCU	Intel Atom 1.6GHz	
Screen	10" Touch	
Hard Disk	160 GB	
RAM	1GB (Max 2GB)	
Graphics Card	GMA950	
LAN	Ethernet port	
USB	2.0 3 ports	
VGA output	Yes	
W-LAN	Wi-Fi adapter	
Bluetooth	Yes	
SD Card Reader	Yes	
OS	Linux Ubuntu	Windows 7
Image Analysis Software	Image J	Optika Vision Lite

USB Camera Specifications

USB Camera Specifications	CMOS 1/3"
Sensor	1600x1200pixels (2 M pixels)
Resolution	10 fps
Frame Rate at Max Resolution	25 fps
Frame Rate at VGA Resolution	56 dB
S/N Ratio	60 dB
Dynamic range	1.0V-lux-second
Sensitivity	Yes
Calibration slide	

Digital Camera

Model: Pro-3,5/B3,B5



OPTIKAM Pro-3 c-mount and Eyepiece Camera
Sensor CM0oS 1/2.5"
Resolution 2048 x 1536 pixels (3.2 Mpixel)

OPTIKAM Pro-5 c-mount and Eyepiece Camera
Sensor CM0oS 1/3"
Resolution 2560 x 1920 (5.0 Mpixel)

OPTIKAM Pro-B3 c-mount and Eyepiece Camera
Sensor CM0oS 1/2"
Resolution 2048 x 1536 pixels (3,14 Mpixels)

OPTIKAM Pro-B5 c-mount and Eyepiece Camera
Sensor CM0oS 1/2.5"
Resolution 2592 x 1944 pixels (5,04 Mpixels)

Digital Microscope

Model: DM-10, 25

Technical Features

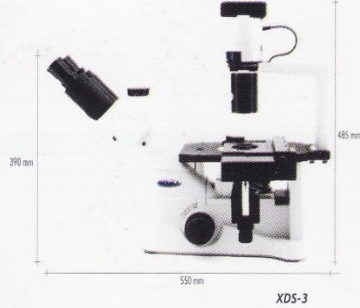
Head:	Digital, Monocular, 360° rotating, 45° inclined
Eyeiece:	WF10X/20mm
Nosepiece:	Quadruple, reverse
Objectives:	Achromatic 4x, 10x, 40x, 100x (oil immersion)
Working stage:	Double layer with mechanical sliding stage, 160x142mm, mov. range 76x52mm
Condenser:	1.25 N.A. Abbe type with centring system X-LED system with brightness control
Digital camera resolution:	2048x1536pixels, 3.14M
Output:	USB 2.0 port
Software:	Optika Vision Lite
Packing:	Carton box with inner foam



Inverted Biological Microscope

Model: XDS-3

- Part** Description
- Optical system** Infinity corrected system, 45 mm parafocality distance. Field of view 22 mm.
- Heads** Trinocular: 45° inclined. Interpupillary distance: 55 - 75 mm. Adjustable dioptic compensation.
- Eyeieces** Extra-wide field EWF10x/22mm, eyeglass-compatible.
- Nosepiece** 5 positions, with bidirectional rotation on ball bearings and click stop.
- Objectives** Phase contrast 10x/0.25, 20x 0.40, 40x/0.60
- Specimen stage** Size: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 114 x 81 mm.
- Illumination system** 6V / 30W halogen precentered illuminator, with adjustable intensity, filter and phase ring holder and aperture diaphragm.



XDS-3

Stereo Microscope Lab Series

Model: Lab-10, 20



- Heads:** Binocular heads, 360° rotating and 45° inclined. Interpupillary distance: Adjustable between 51 and 75 mm.
- Eyeieces:** WF10x/20 mm.
- Specimen stage:** Fitted with a semi-transparent plastic disc for transmitted light with specimen clamps.
- Objectives:** LAB-10 double 2x-4x that can be selected by rotating the lens body; LAB-20 with continuous increment zoom 0.7x...4.5x (6.43:1 zoom factor).
- Focusing:** By means of a rack and pinion controlled by a pair of knobs placed on both sides.
- Illumination:** Double adjustable illuminator for incident and transmitted light fitted with two high-efficiency LED light sources. The angle of the incident illuminator is adjustable.

Technical specifications

Model	Head	Objectives	Working Distance	Illumination
Lab-10	Binocular	2x-4x selectable by rotating	80 mm	Double, for incident and transmitted light. High-efficiency LED light sources with separate brightness controls
Lab-20	Binocular	Continuous increment zoom 0.7x...4.5x	85 mm	Double, for incident and transmitted light. High-efficiency LED light sources with separate brightness controls

Digital Stereozoom Microscope

Model: SZM-D



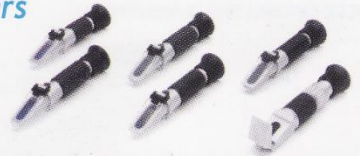
Model	Head	Objectives	Stand	Illumination
SZM-D	Binocular	0.7...4.5x Zoom	Pillar stand	Incident and transmitted 12V/15W halogen with separated brightness controls

Camera Specifications

Technical Features of the built-in camera

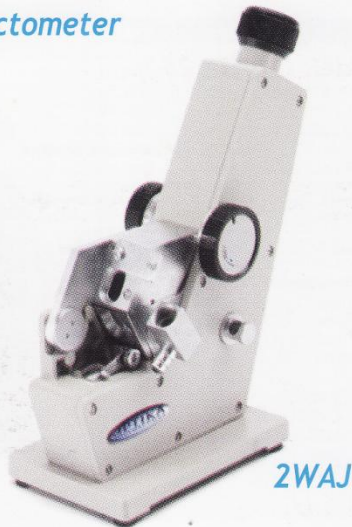
- Resolution:** 1280x1024 pixels (1.3 M pixels)
- Sensor:** CMOS 1/2
- Pixel Size:** 5.2 μm x 5.2 μm
- Frame Rate at Full Resolution:** 7.5 frames/sec (fps)
- Frame Rate at Half Resolution:** 15 frames/sec (fps)
- Optical Format:** 1/2"
- Aspect Ratio:** 5:4
- S/N Ratio:** max 45 dB
- Dynamic Range:** 68.2 dB
- ADC:** 10 bit
- Data Output (Uncompressed Video):** 3x8 bit
- Exposure Range:** 0-70 msec
- Sensitivity:** 1.0V/Lux-second
- C-Mount Lens Adapter:** no
- System Requirements:** Windows 2000/XP SP2/Vista/Win 7 32bit, USB 2.0
- Software:** Optika Vision Lite, TWAIN interface, several freeware for image elaboration
- Capture Features:** Continuous auto white balance, continuous auto exposure
- Included with the camera:** Optika Vision® software package, 1.5 m USB cable.

Hand Refractometers



HR-110 Hand refractometer, 0-18% Measuring range: 0-18% Brix Resolution: 0.1% Brix Without ATC	
HR-120 Hand refractometer, 0-32% Measuring range: 0-32% Brix Resolution: 0.2% Brix Without ATC	
HR-130 Hand refractometer, 0-32% ATC Measuring range: 0-32% Brix Resolution: 0.2% Brix With ATC Compensation temperature range: 10°C-30°C	
HR-140 Hand refractometer, 0-32% ATC, triple scale Measuring range: 0-32% Brix, 0-140° OE (Oechsle), 0-40° Babo (KMN) Resolution: 2% Brix, 1% OE, 0.2° Babo Without ATC	
HR-150 Hand refractometer, 0-80% double scale Measuring range: 0-80% Brix Resolution: 1% Brix Without ATC	

ABBE Bench Refractometer



ZWJ

- Main prism: horizontal Secondary prism: fitted on a hinge
- Refraction index scale: Nd 1.300-1.700
- Precision: Nd±0.0003
- Division: Nd 0.0005
- Sugars scale: 0-95% from Nd 1.300-1.530
- Precision: 0-50%±0.2%; 51-95%±0.1%
- Division: Nd 0.25%
- Thermometer scale: 0°C - 70°C, div. 1°C
- Weight: 4 Kg Size: 140x100x235mm

Polarimeter Bench POL-1



POL-1

- Circular polarimeter using Nicol prisms, with monochrome light sour (589.3 Nm sodium bulb), Measurement range: ±180°
- Precision: 0.05% Division: 1°
- Magnification: 3x Eyepiece: with fine focusing
- Stabilisation time: 5 mins. approx.
- Polarimeter tubes: 100mm and 200mm
- Size: 510x135x380mm Power supply: 230V/50Hz, 30W

Replacement parts for POL-1 polarimeter:

- POL-1.1 Sodium bulb
- POL-1.2 100 mm polarimeter tube
- POL-1.3 200 mm polarimeter supply: 230V/50Hz, 30W

UV-VIS Spectrophotometer (Mecasys, Korea)

UV/VIS SMART SPECTROPHOTOMETER **OPTIZEN POP**

UV-VIS Spectrophotometer Single Beam

IQ/OQ/PQ Document, CE, ISO Certified



Specifications:

Photometric System	Single beam type
Spectral Bandwidth	< 1.8 nm
Wavelength Range	190 - 1100nm
Accuracy	≤ ± 0.5nm [at D2 Peak 656.1nm, 486.0nm]
Reproducibility	≤ ± 0.1nm
Touch Screen, Voice guide	

OPTIZEN POP QX

NEW CONCEPT OF WATER QUALITY ANALYZER

Water Quality Analyzer

IQ/OQ/PQ Document, CE, ISO Certified



Pre-programmed Methods: over 150 methods

Acid capacity CT to pH 4.3	0.20-8.00	mmol/l OH
(Total Alkalinity)	10-400	mg/l CaCO ₃
Aluminium	0.020-1.20	mg/l Al
Ammonium	0.010-193	mg/l NH ₄
Ammonium, Nitrogen	0.01-80	mg/l NH ₄ -N
Arsenic	0.001-0.100	mg/l As
BOD	0.5-3000	mg/l BOD
Boron	0.050-2.00	mg/l B
Bromine	0.020-10.00	mg/l Br ₂
Cadmium	0.002-1.000	mg/l Cd
Calcium	1.0-250	mg/l Ca
Chloride	2.5-250	mg/l Cl
COD	4.0-10000	mg/l COD
Copper	2.0-8.00	mg/l Cu
Fluoride	0.025-2.00	mg/l F
Gold	0.5-12.0	mg/l Au
Hydrazine	0.005-2.00	mg/l H ₂ O ₂
Hydrogen peroxide	0.015-20.0	mg/l H ₂ O ₂
Iodine	0.050-10.0	mg/l I ₂
Iron	0.015-50	mg/l Fe
Lead	0.010-5.00	mg/l Pb

Split beam UV/VIS spectrophotometer OPTIZEN 2120UV plus

IQ/OQ/PQ Document, CE, ISO Certified



Specifications:

Photometric System	Split beam Optics
Spectral Bandwidth	< 1nm
Wavelength Range	190 - 1100nm
Accuracy	≤ ± 0.5nm
Reproducibility	≤ ± 0.1nm

UV/VIS SMART SPECTROPHOTOMETER **OPTIZEN α hybrid**

Double Beam UV/VIS Spectrophotometer

IQ/OQ/PQ Document, CE, ISO Certified



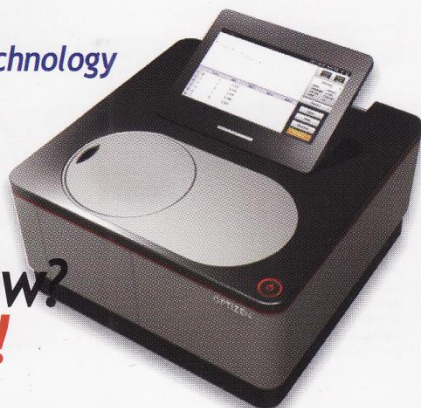
Specifications:

Photometric System	Double beam type+ CCD Array
Spectral Bandwidth	< 1.5nm
Wavelength Range	190 - 1100nm
Accuracy	≤ ± 0.5nm [at D2 Peak 656.1nm, 486.0nm]
Reproducibility	≤ ± 0.1nm
Touch Screen, Voice guide, Build in computer	

Feature:

- Android OS
- Double beam optic system + CCD Array
- 2 year or 2500 hr warranty
- E-mail accessibility
- Multi touch
- Voice Guided
- Fully Customizable Face Plates
- On-line upgrade / Self-diagnostic function
- Wi-Fi, Bluetooth support
- PDF, Excel file supportable
- Tiny Footprint
- Up to 16GB of storage
- Low Power Usage
- User account management
- Quartz Coated
- USB 2.0, USB host, PC connection support

OPTIZEN HYBRID CCD+Scanning Technology



**You Know?
Thoughts!**

Smart idea. Get SMARTi! CCD+Scanning Technology



**Snappy!
U will be Nutty
about it
with U.**

Fat Extraction System "SOXTEST"

Intended use:

Extraction system with solvents, for fat and soluble materials determination, in food, feeds, soils, detergents, polymers, paper pulp, fibres, rubbers, textiles, petrochemical products, pharmaceutical products, etc.

Features:

Furniture in stainless steel, epoxy resin painted. Control of temperature by microprocessor with P.I.D. action and probe Pt100 class A. Over temperature safety control by independent thermocouple. Independent programming for the plate temperature, extraction time ("boiling"), and extraction time ("rinsing").

Specifications:

Temperature range: amb. +5°C - 250°C
Solvent volume: up to 50 mL
Solvent recovery: 60-70%
Max. sample volume: 25 mL
"Boiling" extraction time: 0-500 hours
"Rinsing" extraction time: 0-99 hours
Extraction time: 30-60 minutes



Fibre Extraction System "FIBERTEST"

Intended use:

Determination of raw fibre contents (Weende, Wijstrom), dietetic fibre, acid/neutral detergent fibre (Van Soest), lignin, hemicelluloses.

Features:

- * Extraction and filtration without sample transfer (it avoids loss of sample)
- * Up to 36 analysis/day (Weende)
- * Versatile use: samples can be dried/weighted at every phase if needed.

Performance:

Range of measurement: 0,1-100%
Sample size: 0,5-3 gr.
Reproducibility: ±1% for a fibre contents level of 1-30%



Compact digestion system "MBC"

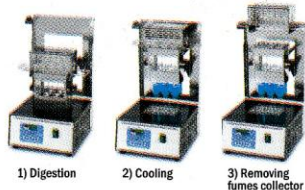
Kjeldahl method is the most accepted worldwide for the analysis of proteic Nitrogen in organic substances as: nourishing products, fertilizers, seeds, beer, meal, sauces, water, petroleum, etc.

Feature:

New system: Microprocessor built-in the case. Nine user free programs. Each program has a waiting time to initializing. All programs can have 18 different temperature/incubation time segments. Quick and safe manipulation of samples. Save reagents, energy and space at the lab. Efficient fume removal system

Solid sample size

Solids : 5 gr. (macro), 1 gr. (micro)
Liquids : 15 mL. (macro), 3 mL. (micro)
Sample tube (macro) : 250 mL (ø 42 x 300 mm)
Sample tube (micro) : 100 mL (ø 26 x 300 mm)



Rotational Viscometers Model: RP1 - RP2

RAYPA viscometers, models RP1 and RP2, are rotational viscometers for the quick determination of viscosity as specified in ISO 2555 and other ASTM norms. Instrument offers a precise digital torque measurement and viscosity measurement results which are 100% compatible to the Brookfield method.

Features:

Interface RS232 for data transfer to PC or printer, temperature probe PT 100, digital display for direct reading of various parameters, software Viscosoft Basic for easy data evaluation, warning of under- or over-range condition, complete spindle set and 24 months warranty. Additionally model RP2 offers bi-directional interface RS232 for RP2 control and data evaluation through a PC and the software Viscosoft Plus for the automated control of viscometer and the issuing of rheological studies.



Water Distiller & Double Distiller

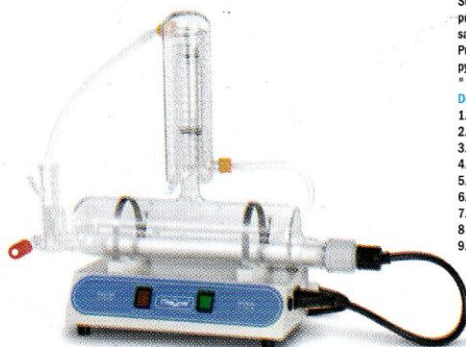
Free of metallic ions and pyrogen substances

Features:

* Table top compact water distiller, made of borosilicate glass.
Stainless steel heating element (INCOLOY), protected against over temperature with safety thermostat.
Production of high purty distilled water, pyrogen free and low conductivity.
* Water production: 4 litres/hour

Description:

1. Water inlet.
2. Distilled water outlet.
3. Cleaning and aeration tube.
4. Water outlet.
5. Safety thermostat.
6. Heating element.
7. Fixing nut.
8. Alarm pilot light.
9. Rear valve to drain the system.



Model: DSE-3, W4000 & 2000DDQ XL

Nitrogen-Protein Distiller "DNP-1500 MP"

Advantages:

20 user programs
Pumps calibration by end-user
Electric steam generator with control level of water.

Features:

- * Control of the system by microprocessor with LCD screen
- * Additionally, the system has two fixed programs:
- * Ammonium sulphate test
- * Preheating of the system

Safety:

- * Closed door detection.
- * Digestion tube detection.
- * Over-temperature thermostat.

Programmable parameters and values:

Water for dilution: 0-200 mL
NaOH solution: 0-200 mL
Reaction time (delay): 0-30 minutes
Distillation time: 0-30 minutes or indefinite
Steam power regulation: 30-100



Disintegration Testers Series DTG 2000

IQ/OQ/PQ Document, CE, ISO Certified



Model: DTG 2000

All Copley Tablet Disintegration Testers feature:

- Sturdy, robust design including novel 'quick release' basket, one-piece water bath and independent heater/circulator
- Simple, easy-to-use operation ensures that the number of operations required to perform a test are kept to a minimum
- Full supporting documentation (including full IQ/OQ/PQ qualification documentation if required)
- Special accessories available for hard/soft gelatin capsules and large tablets, capsules and boluses

Dissolution Tester Dis 6000

IQ/OQ/PQ Document, CE, ISO Certified



MODEL: DIS 6000

All Copley Dissolution Testers feature:

- Sturdy, robust construction specifically designed to reduce clutter and maximize visibility and access in the critical sampling area above the water bath
- Simple, easy-to-use operation ensures that the number of operations required to perform a test are kept to a minimum
- Full supporting documentation (including full IQ/OQ/PQ qualification documentation if required)

Friability Tester Series FR & FRV

IQ/OQ/PQ Document, CE, ISO Certified



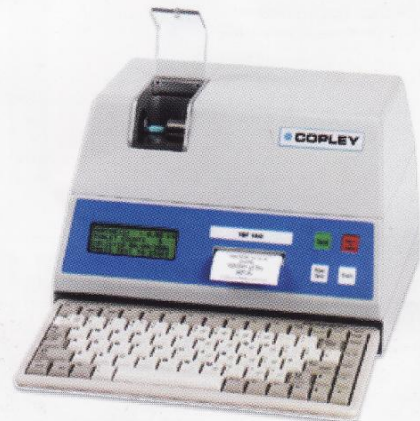
Model: FRV 2000

All Copley Friability Testers feature:

- Simple, easy-to-use operation; ensures that the number of operations required to perform a test are kept to a minimum
- Full supporting documentation (including full IQ/OQ/PQ qualification documentation where applicable)

Copley Hardness Tester TBF 1000

IQ/OQ/PQ Document, CE, ISO Certified



TBF 1000 (with Keyboard Option)

All Copley Hardness Testers feature:

- Simple, easy-to-use operation ensures that the number of operations required to perform a test are kept to a minimum
- Full supporting documentation (including full IQ/OQ/PQ qualification documentation where applicable)

Flame photometer



Technical Specification

Parameter	PPP7
Range	0 to 199.9ppm
Limits of detection	
Na	0.2ppm
K	0.2ppm
Li	0.25ppm
Ca	15ppm
Ba	30ppm
Reproducibility	<1% coefficient of variation for 20 consecutive samples using 10ppm Na set to read 50
Linearity	<2% error when 3ppm Na/K and 5ppm Li are set to read 100
Stability	<2% drift over 5min when continuously aspirating 10ppm sample set to 50.0. Specificity Interference from Na/K and Li equal in concentration to test element will be <0.5%
Recorder output	Nominal 1.00V for a reading of 100.0
Electrical supply	90-125V or 190-250V @50/60Hz
Air supply	Moisture and oil free, 6 litre/min @ 14psi
Fuel	Propane, butane, natural gas or LPG
Size (w x d x h)	420 x 360 x 300mm
Weight	8kg

Vacuum Filtration Unit



Specification:

Power:110-120V/50,60Hz
 Max. power consumption(W):65
 Max. current(A):0.7
 Max. vacuum:-650mmHg=-85.5kPa=110Torr
 Max. flow rate:20 l/min
 Horse Power:1/8HP
 Pole:4P
 Net wet:4.1kg
 Gross weight:5.1kg
 Port thread:5/16"

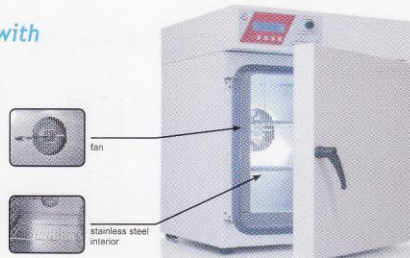
Power:220-240V/50,60Hz
 Max. power consumption(W):60
 Max. current(A):0.3
 Max. vacuum:-650mmHg=-85.5kPa=110Torr
 Max. flow rate:17 l/min
 Horse Power:1/8HP
 Pole:4P
 Net wet:4.1kg
 Gross weight:5.1kg
 Port thread:5/16"
 Noise Level:50dB



Incubators, cooled incubators, drying ovens, sterilizers, climatic chambers (POL-EKO, Poland)

Laboratory incubators with Natural air convection Powder coted/S.S

IQ/OQ/PQ Document, CE, ISO Certified

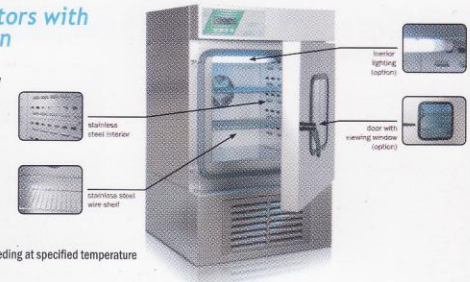


Model	CL 15	CL 32	CL 53	CL 115	CL 240	CL 400	CL 750	CL 1000
Parameter								
Air convection	Natural (CLN)		Natural (CLN/forced (CLW))			Forced (CLW)		
Chamber capacity' [l]	15	32	56	112	245	424	749	1005
[cu ft]	0.5	1.1	2	3.9	8.6	15	26.4	35.5
Door type	Solid		Solid/door with viewing window or double' (option)					
Temperature range [°C]	5° above ambient temperature...+100° (+70° for ECO version)							
[°F]	41° above ambient temperature...+212° (+158° for ECO version)							
Controller	Microprocessor with external display							
Interior	Acid-proof stainless steel according to DIN 1.4301							
Housing	Power coated sheet/stainless steel linen finish (INOX)							



Cooled (BOD) incubators with Forced air convection Powder coted/S.S

IQ/OQ/PQ Document, CE, ISO Certified



Application:

microbiological research
plant growing, microorganisms and insects breeding at specified temperature
samples incubation

Model	ILW 53	ILW 115	ILW 240	ILW 400	ILW 750
Parameter					
Air convection	Forced				
Chamber capacity' [l]	56	112	245	424	749
[cu ft]	2	3.9	8.6	15	26.4
Door type	Solid/door with viewing window or double' (option)				
Temperature range [°C]	0...+70 (+100 in TOP+version)/-10...+70 (+100 in TOP+version) (option)				
[°F]	+32...+158 (+212 in TOP+version)/+14...+158 (+212 in TOP+version) (option)				
Controller	Microprocessor with external display				
Interior	Acid-proof stainless steel according to DIN 1.4301				
Housing	Power coated sheet/stainless steel linen finish (INOX)				

Drying ovens with Natural air convection Powder coted/S.S

IQ/OQ/PQ Document, CE, ISO Certified



Model	SL 15	SL 32	SL 53	SL 115	SL 240	SL 400	SL 750	SL 1000
Parameter								
Air convection	Natural (SLN)		Natural (SLN/forced (CLW))			Forced (SLW)		
Chamber capacity' [l]	15	32	56	112	245	424	749	1005
[cu ft]	0.5	1.1	2	3.9	8.6	15	26.4	35.5
Door type	Solid		Solid/door with viewing window or double' (option)					
Temperature range [°C]	5° above ambient temperature...+300° (+250° for ECO version)							
[°F]	41° above ambient temperature...+572° (+482° for ECO version)							
Controller	Microprocessor with external display							
Interior	Stainless steel, acid-proof according to DIN 1.4301							
Housing	Power coated sheet/stainless steel linen finish (INOX-G)							

Stability chamber Climatic chambers with phytotron system

IQ/OQ/PQ Document, CE, ISO Certified



Chambers of this kind can be also produced according to customer's requirements

Model	KK 115	KK 350	KK 500	KK 700	KK 1200
Parameter					
Air convection	Forced				
Chamber capacity' [l]	115	335	493	625	1365
[cu ft]	3.9	11.8	17.4	22	48.32
Door type	Solid/ glass or double' (option)				
Temperature range [°C]	-10...+60				
FIT version	+10...+50				
Temperature range [°F]	+14...+140				
FIT version	+50...+122				
Humidity range [%]	30...90 (with temperature range +10...+60)				
Lighting	FIT version	Lamps in the ceiling		In door and walls	Shelves with over-shelf lighting
Controller	Microprocessor with external display				
Interior	Acid-proof stainless steel according to DIN 1.4301				
Housing	Power coated sheet/stainless steel (INOX/G or INOX/S)				

Refrigerator

IQ/OQ/PQ Document, CE, ISO Certified

Standard Specifications Up-Right Freezers Single Stage Refrigeration System: -10°C to -35°C



Model No.	DF3510	Swing Rotor	Swing Rotor	Swing Rotor	Swing Rotor
Capacity	246 Liters	369 Liters	484 Liters	605 Liters	730 Liters
Ext Dimensions WxDxH mm	920x900x1740	920x900x1979	920x1050x1979	1070x1050x1979	1070x1180x1979
Int Dimensions	600x480x960	600x480x1280	600x630x1280	750x630x1280	750x760x1280



IQ/OQ/PQ Document, CE, ISO Certified

Standard Specifications Chest Freezers Single Stage Refrigeration System: -10°C to -45°C

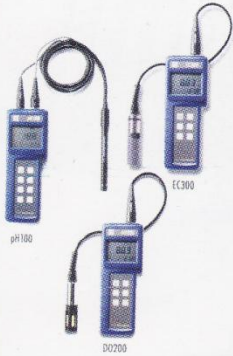
Freeze Dryer

Model: M5000
With shell Freezer Model (FDS Series)
With Concentrator Model (MCFD Series)
IQ/OQ/PQ Document, CE, ISO Certified



Model No.	FDS5508	FDS5512	FDS5518	FDS8508	FDS8512	FDS8518
Ice Capacity/day	5 Liters	10 Liters	12 Liters	5 Liters	10 Liters	12 Liters
Total Ice Capacity	8 Liters	12 Liters	18 Liters	8 Liters	12 Liters	18 Liters
WxDxH mm	-50°C to -55°C			-75°C to -85°C		

**pH, DO, EC
Temp. meter**



pH100 System Specifications			
	Range	Accuracy	Resolution
pH	-2 to 16 units	±0.1% ±2 digit	0.01 unit
mV	-1999 to +1250 mV	±0.1% ±1 digit	1 mV
Temperature	-10 to +120°C	±0.3°C ±2 digit	0.1°C

DO200 System Specifications			
	Range	Accuracy	Resolution
Dissolved Oxygen % air saturation	0 to 200%	±2% of the reading or ±2% air saturation, whichever is greater	0.1% air saturation
Dissolved Oxygen ppm (mg/L)	0 to 20 ppm	±2% of the reading or ±0.2 ppm, whichever is greater	0.01 ppm
Temperature	-6 to +46°C	±0.3°C ±1 digit	0.1°C

EC300 System Specifications			
	Range	Accuracy	Resolution
Conductivity	0 to 499.9 µS/cm	± (1% of reading + 2 µS/cm)	0.1 µS/cm
	0 to 4999 µS/cm	± (1% of reading + 5 µS/cm)	1 µS/cm
	0 to 49.99 mS/cm	± (1% of reading + 0.05 mS/cm)	0.01 mS/cm
	0 to 200.0 mS/cm	± (2.5% of reading + 0.5 mS/cm)	0.1 mS/cm
Salinity	0.0 to 70.0 ppt	±0.2% FS	0.1 ppt
TDS	(Total Dissolved Solids) TDS in g/L calculated; enter constant values from 0.30 to 1.00, default value 0.65		
Temperature	-10 to +90°C	±0.2°C or ±0.4%, whichever is greater	0.1°C

**Multi-parameter
pH, DO, TDS, Con. Temp. meter
Water quality**



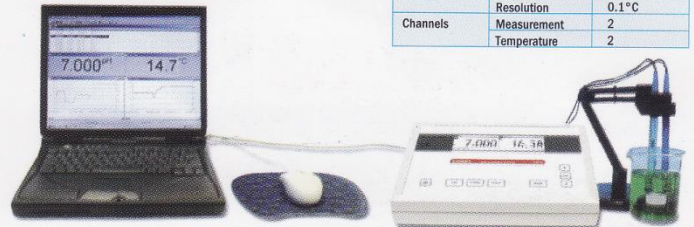
ProODO System Specifications (Instrument with C)				
	Sensor Type	Range	Accuracy	Resolution
Dissolved Oxygen (%)	Optical (dynamic luminescence quenching lifetime detection)	0 to 500% air saturation	0 to 200% air saturation, ±1% of the reading or whichever is greater; 200 to 500% air saturation, ±10% of the reading	0.1% air saturation
Dissolved Oxygen (mg/L)	Optical (dynamic luminescence quenching lifetime detection)	0 to 50 mg/L	0 to 20 mg/L, ±0.1 mg/L or ±1% of the reading, whichever is greater; 20 to 50 mg/L, ±10% of the reading	0.01 or 0.1 mg/L (auto-scaling)
Temperature		-5 to 70°C	±0.2°C	0.1°C
Barometer		375 to 825 mmHg	±1.5 mmHg from 0 to 50°C	0.1 mmHg

**Multi-parameter
Water quality**



Pro20 System Specifications (Instrument with Cable & Probe)				
	Sensor Type	Range	Accuracy	Resolution
Dissolved Oxygen (%)	Polarographic or Galvanic	0 to 200% air saturation	2% of the reading or ±2% air saturation whichever is greater 200 to 500% air saturation, ±6% of the reading	0.1% or 1% air saturation (user selectable)
Dissolved Oxygen (mg/L)	Polarographic or Galvanic	0 to 50 mg/L	0 to 20 mg/L ±2% of the reading or ±0.2 mg/L whichever is greater; 20 to 50 mg/L ±6% of the reading	0.01 or 0.1 mg/L (user selectable)
Temperature		-5 to 55°C (0 to 45°C; DO compensation range for mg/L)	±0.2°C (±0.3°C cables over 45-meters)	0.1°C
Barometer		400 to 999.9 mmHg	±5 mm Hg within ±5°C temperature range from calibration point	0.1 mm Hg

**benchtop pH Meters
Multi-parameter/
Data-loggers**



Model	C3010	
Channels	2	
pH	Range	-2...16
	Resolution	0.001
mV	Range	±2000
	Resolution	0.1
Conductivity	Range	0...2000
	Resolution	0.001
Resistivity	Range	0...2000 MΩ.cm
	Resolution	1 .cm
Salinity	Range	0...70 ppt
	Resolution	0.1 ppt
TDS	Range	0...100 g/l
	Resolution	0.01 mg/l
Temperature	Range	-5...+105°C
	Resolution	0.1°C
Channels	Measurement	2
	Temperature	2

**Professional Plus
Multi-parameter
Water quality**



Professional Plus System Specifications (Cables & Sensors)						
	Sensor Type	Range	Accuracy	Resolution	Units	Calibration
Dissolved Oxygen (%) (temp comp range -5 to 45°C)	Polarographic or Galvanic	0 to 500%	0 to 200% (±2% of reading or 2% air saturation, whichever is greater) 200% - 500% (±6% of reading)	1% or 0.1% air saturation (user selectable)	%	1 or 2-points with zero
Dissolved Oxygen (mg/L) (temp comp range -5 to 45°C)	Polarographic or Galvanic	0 to 50 mg/L	0 to 20 mg/L (±2% of reading or 0.2 mg/L, whichever is greater) 20 - 50 mg/L (±6% of reading)	0.1 or 0.01 mg/L (user selectable); 0.1% air saturation	mg/L ppm	1 or 2-points with zero
Temperature (Field rugged cables)		-5 to 70°C	±0.2°C (±0.3°C cables over 45-meters)	0.1°C	°C, °F, K	
Temperature (Lab-grade)*		0 to 40°C	±0.35°C	0.1°C	°C, °F, K	

Portable Multi-parameter



Model	C933
pH	-2...+16pH
mV	+2000 mV
Ion	0.01 ng/L...100 g/l
Conductivity	0...2000 mS/cm
Resistivity	0...200 MΩ.cm
Salinity	0...70 ppt
TDS	0...100 g/l
Dissolved oxygen	0...60 mg/l
Air pressure	600...1300 hPa
Temperature	-30...+130°C

One channel for all ranges
One temperature channel

Capp Tronic Electronic pipettes

Ordering Info

Capp Tronic Single

Cat. No.	Description
E20-1BA	Capp electronic pipette, single channel, 2-20 ul
E200-1BA	Capp electronic pipette, single channel, 10-200 ul
E1000-1BA	Capp electronic pipette, single channel, 100-1000 ul

Capp Tronic Multi

Cat. No.	Description
E20-8BA	Capp electronic pipette, 8-channel, 2-20 ul
E200-8BA	Capp electronic pipette, 8-channel, 10-200 ul
E1200-8BA	Capp electronic pipette, 8-channel, 100-1200 ul



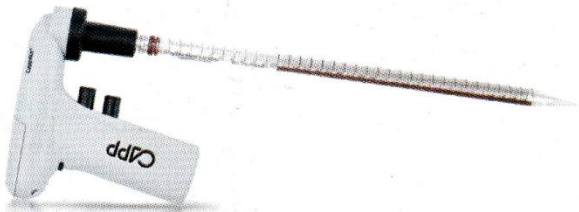
Capp Eco pipettes (Single/Multi channel)

Ordering Info

Cat. No.	Description
C02-1S	Capp pipette, variable vol. 0.2-2 ul, ecopipette
C10-1	Capp pipette, variable vol. 0.5-10 ul, ecopipette
C20-1	Capp pipette, variable vol. 2-20 ul, ecopipette
C50-1	Capp pipette, variable vol. 5-50 ul, ecopipette
C100-1	Capp pipette, variable vol. 10-100 ul, ecopipette
C200-1	Capp pipette, variable vol. 20-200 ul, ecopipette
C1000-1	Capp pipette, variable vol. 100-1000 ul, ecopipette
C5000-1	Capp pipette, variable vol. 1000-5000 ul, ecopipette



Capp Aid (Pipette Controller)



Ordering Info

Capp Aid

Cat. No.	Description
PA-100	CappAid pipette controller, 0,1-100ml
PA-100FT	CappAid disposable filter, 0,2um
PA-100NC	CappAid autoclavable nose cone
PA-100TH	CappAid silicon pipette holder

Capp Harmony (Serological Pipettes)



Cat.No.	Description	Volume	Package	Color
SP-1-C	Serological pipette	1ml	4x200 pcs.	
SP-2-C	Serological pipette	2ml	4x150 pcs.	
SP-5-C	Serological pipette	5ml	4x100 pcs.	
SP-10-C	Serological pipette	10ml	4x100 pcs.	
SP-25-C	Serological pipette	25ml	4x 50 pcs.	
SP-50-C	Serological pipette	50ml	4x 45 pcs.	

Digital burette



*Buttress thread

This article is available in the following variants:

Art-Nr.	Type	Volume/l ml	Thread	SP	Price per unit plus tax
1620506	E	2.5	GL 45	1	581,74 €
1620507	RS	5.0	GL 45	1	581,74 €

VITLAB® continuous E/RS

With recirculation valve and patented double-piston pump for permanent and pulse-free supply of the solution to be measured. Conformity certified according to DIN 12600.

Margins of error in accordance with DIN EN ISO 8655-3:

Accuracy:	VITLAB® continuous E at 25 ml	VITLAB® continuous RS at 50 ml
Coefficient of variation:	= ±0.2 %	= ±0.2 %
	= 0.1 %	= 0.1 %

Items supplied:

VITLAB® continuous E/RS, thread adapters PP GL 32, GL 38 and S*40, telescopic intake tube (200 - 350 mm), telescopic discharge tube (140 - 220 mm), two micro-batteries 1.5 V (LR 03/AAA), instruction manual, quality certificate.

Bottle Dispenser



VITLAB® simplex

With variable volume. Conformity certified according to DIN 12600.

Margins of error in accordance with DIN EN ISO 8655-5:

Nominal volumes: 2.5 ml 5.0 to 100.0 ml

Accuracy: ±0.6 % ±0.5 %

Coefficient of variation: ±0.1 % ±0.1 %

Items supplied:

VITLAB® simplex, three thread adapters of PP (see below), telescopic intake tube (200 to 350 mm), mounting key, instruction manual, quality certificate stating all test values.

* Buttress thread

This article is available in the following variants:

Art-Nr.	Volume ml	Graduation ml	Thread	Adapter	SP	Price per unit plus tax
1601503	0.25 -2.5	0.05	GL 32	GL 28, 45, S*40	1	202,70 €
1601504	0.5 - 5.0	0.10	GL 32	GL 28, 45, S*40	1	202,70 €
1601505	1.0-10.0	0.20	GL 32	GL 28, 45, S*40	1	202,70 €
1601506	2.5-25.0	0.50	GL 45	GL 32, 38, S*40	1	270,27 €
1601507	5.0-50.0	1.00	GL 45	GL 32, 38, S*40	1	294,58 €
1601508	10.0-100.0	2.00	GL 45	GL 32, 38, S*40	1	401,19 €

Centrifuges (Labogene-Denmark)

mini Personal Microcentrifuge for up to 13,500 rpm



Specifications:		RCF/RPM conversion	Yes
Max. RPM	13,500 rpm	Noise level (dependent on rotor)	60 dB
Max. RCF	12,300 x g	Acc. time to max. speed	12 sec
Max. capacity	12 x 1.5/2.0, 4 PCR strips	Dec. time from max. speed	16 sec
Time control	Pulse or timed 30 min	Display	Blue LCD

1524 High Speed Microcentrifuge for up to 15,000 rpm



Specifications:		Max. RPM	15,000 rpm	Noise level (dependent on rotor)	60 dB
Max. RCF	21,206 xg	Acceleration ramp	5	Deceleration ramp	5
Max. capacity	24 x 1.5/2.0, 4 PCR strips	Time control	Pulse, timed < 100 min, or continuous	Program memory	100
RCF/RPM conversion	Yes	Imbalance cutout	Yes		

1730R Refrigerated, High Speed Microcentrifuge for up to 17,000 rpm



Specifications:		Time control	Pulse, timed < 100 min, or continuous
Max. RPM	17,000 rpm	RCF/RPM conversion	Yes
Max. RCF	27,237 x g	Noise level (dependent on rotor)	60 dB
Max. capacity	30 x 1.5/2.0, 8 PCR strips	Acceleration ramp	5
Temp. Range	-20 to 40	Deceleration ramp	5
FAST cool button	Yes	Program memory	100

2236R High Speed Refrigerated Centrifuge for up to 54,000 g



Specifications:		Fixed Angle Rotor	Swing Rotor	Max. RPM/RCF	22,000/54,111	4,000/3,134
Max. capacity	30x1.5/2.0	8x15	4x12x15	Temp. range	-20 to 40	
	8x50	4x4x50	6x85	Time control	Pulse, timed < 100 min, or continuous	
	6x250	4x2x85	6x500	RCF/RPM Conversion	Yes	
	6x1,000	4x250	6x1,000	Noise level (dependent on rotor)	60 dB	
		4x4xMTP		OS	Windows CE	

416 Low Speed Centrifuge



Specifications:		Fixed Angle Rotor	Swing Rotor	RCF/RPM Conversion	Yes
Max. capacity	16x15	4x2x15	4x50	Noise level (dependent on rotor)	60 dB
		2x2xMTP		Acc. time to max. speed	20 sec
Max. RPM/RCF	4,000/2,700	16x15		Dec. time from max. speed	25 sec
Time control	Timed < 100 min, or continuous			SOFT start/stop	Yes

406 Low-Speed Centrifuge



Specifications:		Max. RPM	4,000 rpm	RCF/RPM conversion	Yes
Max. RCF	2,075 x g	Noise level (dependent on rotor)	60 dB	Acc. time to max. speed	20 sec
Max. capacity	6x15	Dec. time from max. speed	20 sec	Program memory	10
Time control	Timed < 100 min or continuous				

Autoclave



Main Specifications

Temp. up to 123 °C
 Accuracy $\pm 0.5^\circ\text{C}$ at 121.0 °C
 Pressure up to 1.2 kg-f/cm²
 Digital PID control with pt-100 sensor
 Fully automated sterilization cycle
 Triple safety feature

Model	Capacity
JSAC-40	40 L
JSAC-60	60 L
JSAC-80	80 L
JSAC-100	80 L

NEOCLAVE/Autoclave/Stem Sterilizer



Main Specifications

Tem. Range : Max. 135 °C
 Pressure sensor measure and control safe operation
 Safety Door Lock
 Fully automatic
 12 Preset Program
 One touch open

Model	Capacity
JSAX-60	60 L
JSAX-80	80 L

Natural Convection Oven



Main Specifications

Temp. Range : ambient + 10 °C - 250 °C
 Controller : Digital PID Control
 Accuracy : $\pm 1.0^\circ\text{C}$
 Uniformity : $\pm 2.0^\circ\text{C}$
 Heating Type : Natural (Gravity) Convection

Model	Capacity
JSOEN-050	50 L
JSOEN-100	96 L
JSOEN-150	150 L
JSOEN-250	250 L

Vacuum Oven



Main Specifications

Temp. Range : ambient + 10 °C - 250 °C
 Vacuum : 760 mmHg
 Controller : Digital PID Control
 Accuracy : $\pm 2.0^\circ\text{C}$
 Uniformity : $\pm 3.0^\circ\text{C}$
 Heating Type : Transduction through aluminum shelf

Model	Capacity
JSVO-30T	27 L
JSVO-60T	64 L

Compact Economic Incubator for Bacterial Screening



Main Specifications

Temp. Range : ambient + 5 °C - 50 °C
 Controller : Digital PID Control
 Accuracy : $\pm 0.1^\circ\text{C}$
 Uniformity : $\pm 1.0^\circ\text{C}$
 Heating Type : Gravity Convection

Model	Capacity
JSGI-10T	10 L
JSGI-30T	30 L

General Incubator Ideal for Bacterial, fungal, cell and tissue culture



Main Specifications

Temp. Range : ambient + 5 °C - 70 °C
 Controller : Digital PID Control
 Accuracy : $\pm 0.1^\circ\text{C}$
 Uniformity : $\pm 0.5^\circ\text{C}$
 Heating Type : Internal Circulation

Model	Capacity
JSGL-50T	50 L
JSGL-100T	96 L
JSGL-150T	150 L
JSGL-250T	250 L
JSGL-250DT	250 Lx2

Programmable Low Temp. B.O.D. Incubator



Main Specifications

Temp. Range : ambient + 5 °C - 70 °C
 Controller : Digital PID Control
 Accuracy : ± 0.1 °C
 Uniformity : ± 0.5 °C
 Heating Type : Internal Circulation

Model	Capacity
JSBI-150CP	150 L
JSBI-150CP	250 L
JSBI-150CP	420 L

Compact Shaking Incubator



Main Specifications

Temp. Range : ambient +5 °C - 60 °C (JSSI-100T)
 or +10 °C - 60 °C (JSSI-100C)
 Shaking : 20 - 300 rpm
 Controller : Digital PID Control
 Accuracy : ± 0.1 °C
 Uniformity : ± 1.0 °C

Model	Capacity
JSSI-100T	115 L
JSSI-100C	115 L

Laminar Flow Cabinet Class 100



Main Specifications

Type : Vertical air flow
 Filtration : Aluminum Frame
 Mini Pleated HEPA Filter
 Efficiency : 99.995% at 0.3um particles
 Control : Microprocessor Control
 9 Step Air Velocity Control
 Material : Stainless Steel 304
 (AISI304) working chamber
 Sterilization : Germicidal UV lamp /w timer

Model	Capacity
JSCB-900SL	840x530x680 900x800x1990
JSCB-1200SL	1200x530x680 1260x800x1990
JSCB-1500SL	1500x530x680 1560x800x1990
JSWB-22T	1800x530x680 1860x800x1990

Dry Block Heater



Main Specifications

Temp. Range : ambient +5 - 150 °C
 Controller : Digital PID Controller
 Accuracy : ± 0.2 °C at 60 °C
 Blocks : Aluminum, Interchangeable

Model	Capacity
JSBL-01T	1 Block
JSBL-02T	2 Blocks
JSBL-04T	4 Blocks

Bio-Suction Pump



Main Specifications

TSuction Pump System for Safety Cabinets
 3000 cc Large capacity Suction Bottle
 Easy to remove liquid collected in bottle
 Dual over flow protection
 Compact size
 Supplied with Foot Pedal Switch
 Ø50mm 0.2um PEFE Disc Filter
 Max. Vacuum: 650mmHg
 Max. Flow Rate: 15 LPM

Model	JSBS-3000	Bio-Suction Pump
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Electric Muffle Furnace



Main Specifications

Temp. Range : up to 1200 °C
 Controller : Digital Programmable PID
 9 Segment
 Heater : Kanthal embedded
 Insulation : Vacuum Molded Ceramic

Model	Capacity
JSMF-30T	3.0 L
JSMF-45T	4.5 L
JSMF-120T	12 L
JSMF-140T	14 L
JSMF-270T	27 L

Digital Water Bath ICH Technology



Main Specifications

Temp. Range : ambient + 5 °C - 99 °C
 Controller : Digital PID Control
 Accuracy : ± 0.2 °C
 Uniformity : ± 0.5 °C
 Heating Type : Immersed incoloy heater

Model	Capacity
JSWB-06T	6 L
JSWB-11T	11 L
JSWB-22T	22 L
JSWB-30T	30 L

Digital Oil Bath



Main Specifications

Temp. Range : ambient + 10 °C - 250 °C
 Controller : Digital PID Control
 Accuracy : ± 1.5 °C
 Uniformity : ± 3.0 °C
 Heating Type : Incoly immersed heater

Model	Capacity
JSOB-100T	10 L
JSOB-200T	20 L
JSOB-330T	33 L

Visco-Sight Bath



Main Specifications

Temp. Range : ambient + 5 °C - 99 °C
 Controller : Digital PID Control
 Accuracy : ± 0.1 °C
 Uniformity : ± 0.2 °C
 Heating Type : Direct Heating with circulation

Model	Capacity
JSVB-30T	30 L

Shaking Water Bath

Ideal for chemistry, chemical engineering, cell culture biological samples, yeast and soil extraction



Main Specifications

Temp. Range : ambient + 5 °C - 99 °C
 Controller : Digital PID Control
 Accuracy : ± 0.2 °C
 Uniformity : ± 0.5 °C
 Heating Type : Immersed incoloy heater

Model	Capacity
JSSB-30T	30 L
JSSB-50T	50 L

Refrigerated Bath Circulator



Main Specifications

Temp. Range : - 40 °C or - 20 °C - +120 °C
 Controller : Digital PID Control
 Accuracy : ± 0.1 °C
 Uniformity : ± 0.3 °C
 Circulation : Internal and external up to 12 Liters/min

Model	Capacity
JSRC-13C	13 L
JSRC-22C	22 L
JSRC-13CL	13 L
JSRC-22CL	22 L

Orbital Shaker

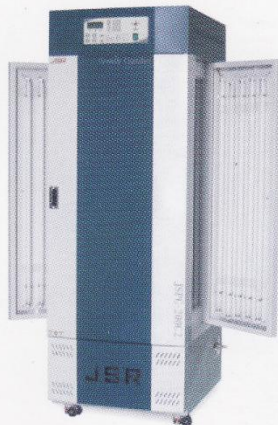
Main Specifications

Shaking : 20 - 300 rpm
 Controller : Digital feed-back control
 Accuracy : within ± 1 rpm
 Platform : JSOS-500 500 x 500 mm
 JSOS-700 700 x 600 mm



Model	Platform Size
JSOS-500	500x500mm
JSOS-700	700x600mm

CO2 Growth Chamber 3-Side Illumination WCO₂ Control

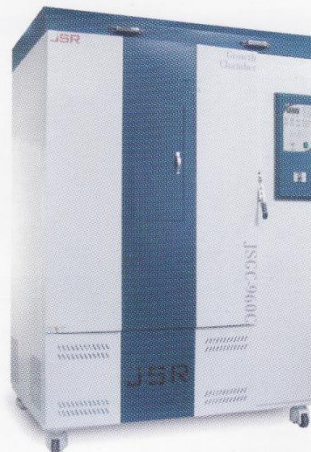


Main Specifications

Temp. Range : + 5 °C - 60 °C
 Humidity : 30 - 98% RH
 Illumination : 0 - 20,000 Lux 3-D
 Illumination by FL Lamp
 CO₂ Conc. : 0 - 5000 ppm (%)
 Controller : Programmable 11 Step 999 Cycle
 Accuracy : ± 0.1 °C
 Uniformity : ± 0.8 °C
 Heating Type : Forced Convection

Model	Capacity
JSPC-300C2	300 L
JSPC-420C2	432 L
JSPC-960C2	964 L

Growth Chamber Top Illumination



Main Specifications

Temp. Range : + 5 °C - 60 °C
 Humidity : 30 - 98% RH
 Illumination : 0 - 25,000 Lux (40,000 Lux) from Top
 Illumination by FL & Metal Halide Lamp
 Controller : - Basic PG-4CP Program Control
 option : - Premium PG-300CP
 Remote Control System
 Accuracy : ± 0.1 °C
 Uniformity : ± 0.8 °C
 Heating Type : Forced Convection

Model	Capacity
JSGC-420C	423 L
JSGC-960C	972 L
JSGC-1500C	1512 L

Plant Growth Chamber 3-Side Illumination Ideal for Agriculture/Biotechnology testing growth of plants



Main Specifications

Temp. Range : + 5 °C - 60 °C
 Humidity : 30 - 98% RH
 Illumination : 0 - 20,000 Lux (40,000 Lux Option)
 3-D Illumination by FL Lamp
 Controller : Programmable 11 Step 999 Cycle
 Accuracy : ± 0.1 °C
 Uniformity : ± 0.8 °C
 Heating Type : Forced Convection

Model	Capacity
JSPC-200C	200 L
JSPC-300C	300 L
JSPC-420C	432 L
JSPC-960C	964 L

Plant Tissue Culture Chamber Programmable temp. control/W Illumination



Main Specifications

Temp. Range : + 0 °C - 60 °C
 Illumination : FL Lamp Day-Night
 Controller : Programmable 10 Step 999 Cycle
 Accuracy : ± 0.1 °C
 Uniformity : ± 0.5 °C
 Heating Type : Forced Convection
 Cooling : Hermetically Sealed Compressor

Model	Capacity
JSCC-150CP	150 L
JSCC-250CP	250 L
JSCC-460CP	432 L

Economic Climatic/Humidity Chamber



Main Specifications

Temp. Range : - 20 / - 40 °C - + 120 / + 150 °C
 Humidity : 35 - 98% RH
 Controller : Programmable 10 Step 999 Cycle
 Accuracy : ± 0.3 °C / ± 3 % RH
 Uniformity : ± 0.8 °C

Model	Capacity
JSTH-150CP	150 L
JSTH-250CP	250 L
JSTH-500CP	500 L
JSTH-800CP	800 L
JSTH-150CPL	150 L
JSTH-250CPL	250 L
JSTH-500CPL	500 L
JSTH-800CPL	800 L

Hotplate Magnetic Stirrer



Model	Specification
JSHS-180	Hotplate Stirrer
JSHP-180	Hotplate
JSMS-180	Magnetic Stirrer

Main Specifications

Top Plate Size : 180x180mm
 Ceramic Coated Top Plate
 Temp. Range : Max. 380 °C
 Speed Range : 100~1500 rpm

Hot Plate & Magnetic Stirrer



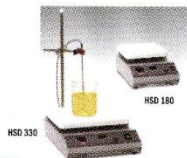
Features:

- Take this compact magnetic stirrer anywhere you need vigorous sample stirring
- Or, use it in the lab and eliminate the need for cumbersome extension cords
- Stirrer features stainless speed control knob, ceramic coated top plate and corrosion resistant epoxy coated metal case
- Offered 2 models of different function each

Specifications:

Model	HS-18	HS-30
Function	Hotplate & Magnetic Stirrer	
Top Plate (WxL)	180x180mm	300x300mm
Heater Capacity	680W	1400W
Temp. Range	Max.380 °C	Max.380 °C
Stirring Capacity	Upto 5 Liter	Upto 15 Liter
Stirring Speed	100-1500rpm	100-1300rpm
Power Source	110/220VAC, 50/60Hz	
Overall (WxDxH)	200x240x105mm	310x430x120mm
Weight (Kg)	3.5	7

Digital Hot Plate & Magnetic Stirrer



Features:

- High performance microprocessor digital feed back control
- Feed back control of the temp. on ceramic coated top plate
- Max. 380 °C and ± 1 °C control accuracy by optional PT sensor
- Feed back control of speed & digital display
- Included 99hr/59min digital timer
- The set value storage function; temp. rpm and timer
- Loking mode for experimental safety supported

Specifications:

Model	HSD-180	HSD-300
Top Plate (WxL)	180x180mm	300x300mm
Heater (Watt)	680	1400
Temp. Range	Max.380 °C	Max.350 °C
Timer	Digital, 99hr/59min	
Stirring Capacity(H2O)	Upto 5 Liter	Upto 15 Liter
Stirring Speed	100-1500	100-1300
Control & display	M/processor feed back & digital display	
Power Source	110/220VAC, 50/60Hz	
Overall (WxDxH)	200x310x105	310x430x120
Weight (Kg)	4	7

Digital Overhead Stirrer



Features:

- Low noise, compact design and light weight
- Smooth start and change of the stirring speed
- Steady and constant stirring speed against the viscosity change of sample during reaction by feed back control
- Driven by brushless DC motor
- Digital display of set & actual speed
- Functions of forward, backward & auto rotating
- The height of impeller is adjustable
- Safety: Overload protection

Specifications:

Model	BL-1020D	BL-1010D	BL-1006D	BL-1003D
Stirring Capacity (H ₂ O)	40 Liter	80 Liter	100 Liter	120 Liter
Max. Viscosity (mPa)	20,000	50,000	70,000	150,000
Motor (output/torque)	100w/4.8Kg.cm	100w/9.7Kg.cm	100w/16Kg.cm	100w/32Kg.cm
Speed range (rpm)	80-2000	50-1000	50-600	50-300
Speed control & display	Feed back & digital (forward, backward & auto)			
Timer	99hr, 59 min			
Chuck range	Dia. 1-10 mm			
Power source	220VAC, 50/60Hz			
Overall (WxDxH)	78x190x170mm			
Weight (Kg)	3.5			

Ultrasonic Cleaner



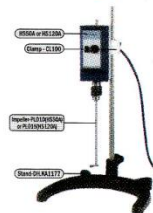
Features:

- Built-in microprocessors controller
- Finished functions are ultrasonic power, set time, elapsed time, set temperature, current temperature, heater operation status etc.
- Selectable use with ultrasonic strength controller (3 Steps)
- Built-in a digital thermometer and timer to set a condition for cleaning
- Easy to read operation status on digital display
- Built-in drain valve

Specifications:

Model	Powersonic 405	Powersonic 410	Powersonic 420	Powersonic 603
Capacity (Liter)	5.7	10	20	3.3
Bath Size (WxDxH)	300x155x150mm	300x240x150mm	500x300x150mm	240x140x100mm
Temp. Range	Digital, 0-50 °C			
Timer	Digital, 9-99 min			
Transducer	Industrial BLT 40 KHz			
Display	400 series-Digital, 500 series-LCD screen		LED screen	
Function	Thermostat			
Material	Engineering plastic exterior & stainless steel bath		ABS + SUS	
Power source	220VAC, 50/60Hz			
Overall (WxDxH)	500x285x255mm	510x375x275mm	720x450x275mm	325x225x255mm
Weight (Kg)	7	9	14	5.5

Analog Overhead Stirrer



Features:

- High speed stirring by direct driven motor
- Smooth start and change of stirring speed
- The height of impeller is adjustable
- Ideal for school, university and test laboratory

Specifications:

Model	HS-50A	HS-120A
Stirring Rating (H ₂ O)	Max. 10 Liter	Max. 20 Liter
Motor Rating	83/75 W	130/120 W
Speed Range	0-3,000 rpm	
Maximum Torque	80 Ncm	145 Ncm
Maximum Viscosity	10000 mPa	50000 mPa
Max. Start Diameter	10mm	
Temp. Range	0-40 °C	
Power Source	220VAC, 50/60Hz	
Overall (WxDxH)	90x145x180mm	
Weight (Kg)	4.5	5.3

Digital colony counter



Features:

- This counter features just touch the petri dish with any marker to achieve the counting mechanism
- Counter confirms each mark with an audible signal

Specifications:

Model	DCC-560
Counting	Integral pressure sensor
Read-out	4 digits LED display
Dish holder	Petri dish up to 15cm
Illumination	Ring shaped lamp
Count control	Push button, Needle point probe, marking pen
Power source	220VAC, 50/60Hz
Overall (WxDxH)	275x335x175mm
Weight (Kg)	5

Tap Water Deionizer



Features:

- Connect to top water line to set-up easy
- Tap water supply: 2 kg/cm²
- Exchange the ion resin in the MB polisher every 3-4 months
- Economic price and simple design

Specifications:

Model	ROMAX-04	ROMAX-08
Production flow rate	3.5 liter/hr	7 liter/hr
Conductivity	0.067-01 (us/cm)/18.2 MQ-cm	
Feed water	Tap water : 2kg/cm ²	
	MB polisher, M/F filter	
TOC value	<50 ppb	
Control & display	Power on-off, Automatic water level switch	
Power source	220VAC, 50/60Hz	
Overall (WxDxH)	230x450x550mm	
Weight (kg)	20	

Deionizing Water System

Features:

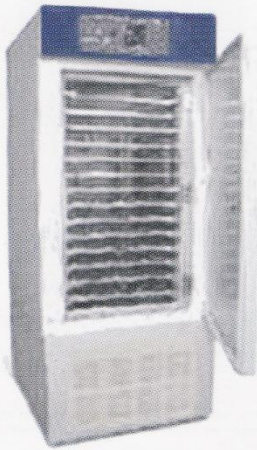
- This unit designed for the production of high purity deionized water for use as such or for further purification to ultrapure water, and the standard version is available with or without UV sterilizer
- The display/key pad unit completely new design for clear readability and maximum user convenience display
- Typical applications;
 - Rinsing of glassware
 - Preparing of diluting buffers, reagents and tissue culture media
 - Preparing samples for analytical methods such as flame AAS



Specifications:

Model	WDI-15	WDI-30	WDI-45
Production rate	15 liter/hr	30 liter/hr	45 liter/hr
Conductivity	0.067-0.1 (us/cm)/18.2MO-cm		
Feed water	Tap water + Booster pump		
Filter system	Prefilter, Active carbon filter, RO		
membrane	Ion exchange filter		
TOC value	<30 ppb		
Bacteria	< 1 cfu/ml		
Control & display	M/processor & digital display		
Functions	Power, Start/Stop, Service mode, Set value		
Power source	220VAC, 50/60Hz		
Overall (WxDxH)	400x350x600mm		
Weight (kg)	28		

Seed Germinator



Features:

- * This economical dark seed germinator ideal for use in testing labs.
- * Clear glass window allows light for seed testing that required exposure to light or may be covered for dark testing
- * Microprocessor based controller offer the functions of auto tuning, alarm, self-diagnostic error message display
- * The shelves support and are removable for decontamination cleaning

Model	Capacity
SG-245	245 L

Temp. range : Amb.to +45°C

SG-245-R 245 L

Temp. range : -5 to 60°C

Rotary Evaporator



HS Series

Features:

- * Visual display of rotating speed, temperature of the water bath and vapour
- * Excellent in durability of the body and every area of contacting vapour
- * PEFE sealing method is adopted for glass contacted area
- * Easy for washing and removal of viscous material with evaporating flask of dia. 100mm

Specifications:

Model	HS-2005V-N/HS-2005S-N
Rotational Range	20-280rpm
Drive System	Brushless DC motor
Lift System	Motorized automatic
Glass Material	Pyrex
Evaporating Capacity	50-3000ml
Receiving Capacity	50-3000ml
Pressure & Vacuum	Max. 2 bar & 710 mmHg
Bath Capacity	4.3 Liter
Bath Temperature	20-180 °C
Control & Display	Digital LED display
Safety Device	Over temp. limiter, Over current protection
Power source	220VAC, 50/60Hz
Overall (WxDxH)mm	615x410x880
Weight (Kg)	24

Heating Mantel (Digital & Manual)



Analog Heating Mantle

Model No.	Specification	Watt	Overall (DxH)	Weight
MS-E-101	Flask, 100ml	80	213x135mm	1.5
MS-E-102	250ml	150	213x160mm	1.8
MS-E-103	500ml	260	230x170mm	2.2
MS-E-104	1 Liter	380	250x180mm	2.3
MS-E-105	2 Liters	500	290x220mm	3.2
MS-E-106	3 Liters	600	310x220mm	3.8
MS-E-107	5 Liters	800	345x240mm	4.1
MS-E-108	10 Liters	1300	410x250mm	9.6
MS-E-109	20 Liters	2000	480x300mm	14



MS Series

Digital Heating Mantle with timer

Model No.	Specification	Watt	Overall (DxH)	Weight
MS-E-602	Flask, 250ml	150	213x160mm	2.1
MS-E-603	500ml	260	230x170mm	2.5
MS-E-604	1 Liter	380	250x160mm	2.8
MS-E-605	2 Liters	500	290x210mm	3.5
MS-E-606	3 Liters	600	310x220mm	4.1
MS-E-607	5 Liters	800	345x240mm	4.5
MS-E-608	10 Liters	1300	390x470x250mm	14
MS-E-609	20 Liters	2000	460x540x290mm	17

Grain Moisture Meter



Vortex Mixer



Features:

- * Two mode operation: Touch the mixing surface and the unit energizes the switch to continuous and the unit operates in continuous
- * Fully range speed control to match your contents and tube requirements
- * Suction cut feet to protect work surface and prevent walking

Specifications:

Model	KMC-1300V
Description	Test tube head (standard) or Flat head (option)
Speed range	0 to 3000 rpm
Material	ABS & Aluminum die casting
Electric power	110/220VAC, 50/60Hz
Overall (WxDxH)	130x155x155mm
Weight	5 Kg

Features:

- * Measure of grains moisture content with auto. temp. compensation
- * East to use, quick to read-out and compact size with CE mark
- * Microprocessor control with resistance, and indicates battery-low

Specifications:

Model	GMK-303	GMK-303RS
Rice (%)	9.8-26	9.8-26
Brown Rice (%)	9.8-26	x
Paddy (%)	8.5-30	8.5-30
Barely (%)	8.5-30	8.5-30
Naked Barely (%)	8.5-25	x
Wheat (%)	9.0-30	9.0-30
Soybean (%)	x	8.5-21.5
Red Bean (%)	x	12.5-19.7
Maize/Com (%)	x	8.7-22.8
Accuracy	±0.5% below 20%/Operation -10 to +40 °C	
Display	Digital LCD/Resolution :0.1%	
Power source	Battery 1.5V x 4 ea	
Overall (WxDxH)	95x165x40mm	
Weight	Approx. 1.5 Kg	

Microtome machine

Model: ERM-3000
Brand: Hestion
Origin: Australia



ERM-3000
Semi-automatic Microtome

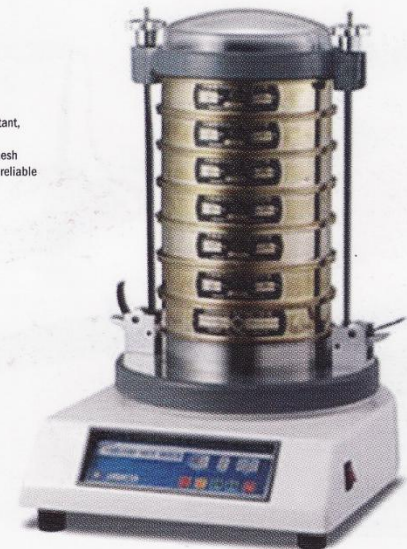
Specifications:

- Section thickness:
- * Section thickness range: 0-600 μm
0 μm-2 μm in 0.5 μm increments
2 μm-10 μm in 1 μm increments
10 μm-100 μm in 5 μm increments
20 μm-600 μm in 50 μm increments
 - * Trimming thickness range: 600 μm
 - * Specimen horizontal feed: 20mm
 - * Specimen vertical feed: 70mm
 - * Repositioning of knife holder base: 500mm (East-West)
 - * Specimen retraction: 20 μm
 - * Specimen holder orientation: ± 8° C
 - * Cutting speed: 750 μm/s
 - * Maximum specimen size: 40x50mm
 - * Standard cassette specimen holder
 - * Supply voltage: 220V±10% 50Hz
 - * Power: <80W
 - * Size: (WxDxH): 410mmx520mmx300mm
 - * Weight: 42kg

Sieves Shaker

Features:

- JVSS
- * Economical sieve shaker produces constant, accurate result
- * For use with material coarse than 100 mesh
- * Digital hertz control permits a quiet and reliable operation.



PCR Super Cycler



Kyratec PCR

Specifications:

Thermal Cycling Technology	High performance active heating and cooling using quality elements x 8 & precision sensors ± 4
Temperature Range	4°C-99°C
Temperature Accuracy	±0.25°C of set temperature, 1 minute after target
Temperature Uniformity	±0.5°C, 30 seconds after target
Temperature Resolution	0.1°C increments
Heating/Cooling Rate	3.0°C/sec maximum (block)
Well Configuration	96-Well block supporting: 0.2 mL tubes or strip tubes with flat or domed caps; 96-well high- or lowskirt plates with strip caps, adhesive cover, or oil overlay
Linear thermal gradient (Available selected regions)	Programmable 0 - 20°C across block width (12 wells)
Condensation control	Automatic utilising applied pressure heated lid
Heated Lid Temperature Range	Controllable 60°C-115°C
Dimensions	Width: 180 mm (7") Depth: 270 mm (10.6"); 340 mm (13.4") including cables Height: 190 mm lid closed (320 mm (12.6") lid open)
Weight	5.5kg (11 lbs)
Colour	White on black
Electrical	100-240 VAC @ 4 Amp (50/60 Hz) Automatic voltage sense Standard IEC Inlet plug
External Interface	USB 1.1 interface to Windows XP/Vista based PC USB host port - File transfer to & from USB memory stick - mouse/keyboard connection - printer * (future software release)
Internal Interface (optional)	Embedded graphical controller with 7" widescreen touch sensitive colour backlit display
Software	Supplied with unlimited user license. Free upgrades available via web download.
Functionality	Touch Down/Up, Long Range, Linear Thermal Gradient, Program Pauses, Temperature Graphing, Temperature Logging (PC only) User Accounts, Profile Load & Saving, Manual Mode USB File Transfer
Included Accessories	Power Cable, User Manual, Touchscreen Stylus

Illumina Real time ECO PCR



Unprecedented access. Uncompromising results.

With the Eco Real-Time PCR System, you get industry-leading data quality and reproducibility at a price that makes qPCR accessible to the individual researcher. High performance. Higher confidence. The Eco Real-Time PCR System delivers true 4-color multiplexing and offers high-performance applications such as High Resolution Melt (HRM) analysis. HRM provides you with a simple and robust alternative to real-time genotyping assays that use hydrolysis probes. Experience a new level of data quality and reproducibility with industry-leading well-to-well uniformity (variance of +/- 0.1°C). Easy installation. Simple operation. Any researcher can easily install and use the compact, 48-well Eco Real-Time PCR System in minutes. Since the Eco system is factory calibrated for SYBR Green dyes, FAM, HEX, ROX, and Cy5, you will be ready to go quickly and easily. The Eco system's intuitive, icon-driven software interface is easy to use and is compliant with Minimum.

Gel Electrophoresis with power supply

Mupid-exU

a submarine type electrophoresis system



Electrophoresis Cell	
Solution volume	Approx. 270-320 ml
Multi-sample	Multi-channel-pipette compatible
Power Supply	
Input voltage	AC100-240V, AC50/60Hz
Output voltage	135V 100V 50V 25V 70V 35V 18V Constant peak voltage of 140V and duty control
Timer	Timer operation 0 - 99 min. and continuous mode
Safety switch	Pause function supported Micro-switches in the power supply without safety lid, no output of Power
Memory function	Automatic memory (the last used V & T)
Gel Tray	
Gel Tray - S	130mm(W) x 13mm(H) x 59.5mm(L)
Gel Tray - L	130mm(W) x 13mm(H) x 122mm(L)
Quantity	Gel Tray - S : 2, Gel Tray - L : 1
Comb	
Multiple number of wells	13 or 26 wells
Quantity	4
* Power Supply Section Is very important	

Mupid-One

a submarine type electrophoresis system



Electrophoresis Cell	
Solution volume	Approx. 270-320 ml (includes gel tray and gel)
Multi-sample	Multi-channel-pipette compatible
Safety Lid	
Overall dimensions	197mm(W) x 38mm(H) x 170mm(L) 197mm(W) x 38mm(H) x 170mm(L)
Power Supply	
Input voltage	AC100-240V, AC50/60Hz
Output voltage	135V 100V 50V 25V 70V 35V 18V Constant peak voltage of 140V and duty control Can be set between 0 and 99 min. and continuous mode Temporary shutdown supported
Timer	Automatic memory (the last used V & T)
Memory function	Automatic memory (the last used V & T)
Gel Tray	
Material	Heat Resistance Materials
Comb	
Multiple number of wells	13 or 26 wells (13wells: 9mm spacing; 26wells: 4.5mm spacing)
Quantity	4
Material	Heat Resistance Materials

Gel documentation

Technical Specifications

Camera:	
Type	5x optical / 4x digital zoom camera
Effective Pixels	14.7 megapixels
CCD	1/1.7" high-density CCD
Maximum Aperture	f/2.8 (W) - f/4.5 (T)
Shutter Speed	15 - 1/4000s
Filters	+3 Close up and EtBr, optional SYBR green
Storage Media	2MB memory card
Computer Interface	USB 2.0 Hi Speed (mini-B jack)
Video Out	NTSC/PAL
Darkroom:	
Multi-power Source	For camera, inner white LED, Manual-save in BMP format
Capture	2x3W LED
Inner White Light	Safety door switch
Safety Device	6.1kg; 290x220x320mm
Weight & Dimensions	110-220V
Voltage Rating	
Screen:	
Type	8" TFT
Resolution	600x800 Pixels
Brightness	350 cd/mm2
Constant Ratio	300 : 1
Display Mode	NTSC / PAL / SECAM mode auto switching

- 14.7 Megapixel digital CCD camera
- Image visualised within a large 8" TFT colour monitor
- Light weight compact hood with easy access door and built-in inner lights
- Safety switches disconnect the UV source when the easy access door is opened
- Computer-free operation
- Available on its own with camera and darkroom, or as a complete gel documentation system with transilluminator, either with or without software
- Transilluminators supplied in single and dual wavelength formats . see page 42

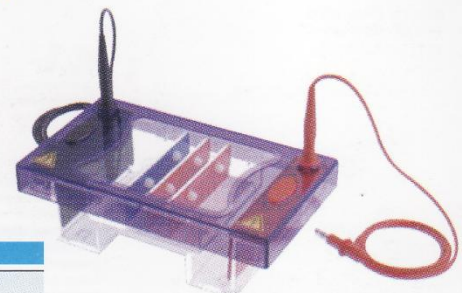


Multi SUB mini



Technical Specifications	
Gel Dimensions, (W X L)	7 X 7cm 7 X 10cm
Unit Dimensions (W X L X H)	21 X 9 X 9cm
Max. Sample Capacity	7 X 7cm Tray - 32 Samples 7 X 10cm Tray - 64 Samples
Buffer Volume	225ML
Combs Available	
No. Of Samples	1, 2, 4, 8mc, 8, 10, 12mc, 16
Thicknesses	0.75, 1, 1.5, 2mm

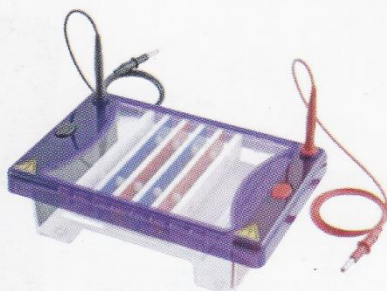
Multi SUB midi



Technical Specifications	
Gel Dimensions, (W X L)	10 X 7cm 10 X 10cm
Unit Dimensions (W X L X H)	21 X 12.5 X 9cm
Max. Sample Capacity	10 X 7cm Tray - 50 Samples 10 X 10cm Tray - 100 Samples
Buffer Volume	300ML
Combs Available	
No. Of Samples	1, 2, 4, 8mc, 12, 16, 20mc, 25
Thicknesses	0.75, 1, 1.5, 2mm

Multi SUB choice

Technical Specifications	
Gel Dimensions (W X L)	15 X 7cm 15 X 10cm 15 X 15cm 15 X 20cm 15 X 25cm
Unit Dimensions (W X L X H)	26,5 X 17,5 X 9cm 41 X 17,5 X 9cm (Stretch Models Only)
Max. Sample	15 X 7cm Tray - 70 Samples 15 X 10cm Tray - 140 Samples 15 X 15cm Tray - 210 Samples 15 X 20cm Tray - 280 Samples 15 X 25cm Tray - 350 Samples
Buffer Volume	Choice 500ML Choice Stretch 1000ML
Combs Available:	
No. Of Samples	1, 2, 4, 10, 10Mc, 12, 14Mc, 16, 18Mc, 20, 28Mc, 30Mc, 35
Thicknesses	0.75, 1, 1.5, 2Mm



Horizontal with Power Supply



Ordering Information	
MSCHOICETRIO-CS300	Choice Horizontal Electrophoresis Package, includes: - • MSCHOICETRIO - horizontal unit with 15x7cm, 15x10cm and 15x15cm gel trays and combs (Page 8) • CS-300V - 300V, 700mA, 150W midi power supply (Page 39)
MSCHOICETRIO-CS300KIT	Choice Horizontal Electrophoresis Package with electrophoresis starter kit, includes: - • MSCHOICETRIO-CS300 • CSL-LOADDYE - 10x Bromophenol Blue Loading Dye, 1ml (Page 15) • CSL-MDNA-1kb - 1kb DNA ladder (Page 15) • CSL-AG100 - 100g agarose (Page 15) • CSL-TBEP - Powdered Tris-Borate-EDTA Running Buffer - 10 pouches (Page 15)

Comet assay tanks

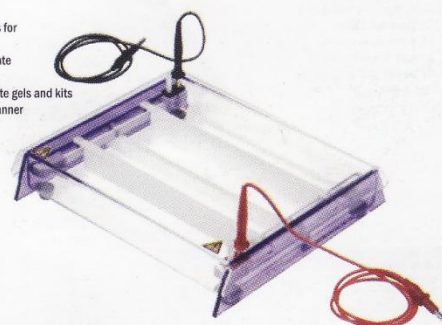


- For Single Cell Gel Electrophoresis
- Minimise exposure to light and reduce background DNA damage
- High efficiency cooling for enhanced resolution

Ordering Information	
CSL-COM10 Comet Assay Tank for 10 Slides	CSL-CHILLER Chiller unit for active slide temperature control
CSL-COM20 Comet Assay Tank for 20 Slides	Comet Assay IV DNA damage and repair software scoring system (contact sales@cleaverscientific.com)
CSL-COM40 Comet Assay Tank for 40 Slides	F250 Julabo Chiller
CSL-COM80 Comet Assay Tank for 80 Slides	

Clinical electrophoresis

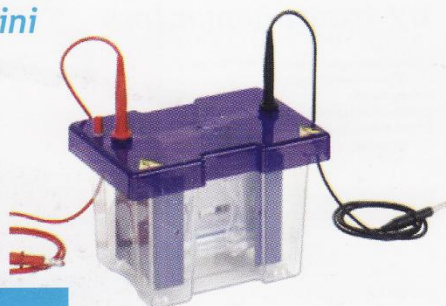
- Compact High Resolution Systems for Clinical Electrophoresis
- Can accommodate cellulose acetate strips up to 24 x 20cm
- Complete range of cellulose acetate gels and kits
- Range includes Densitometer, Scanner and Software



Ordering Information		Technical Specifications	
CSLCELLAS	Horizontal Unit for Cellulose Acetate Electrophoresis	Strip Dimensions	24 X 20cm (W X L) Max.
CSLDENS	TurboScan Software Densitometer (computer and scanner not included)	Unit Dimensions	30 X 30cm
CSLSCAN	Flatbed Scanner for TurboScan software.		

Omni PAGE mini

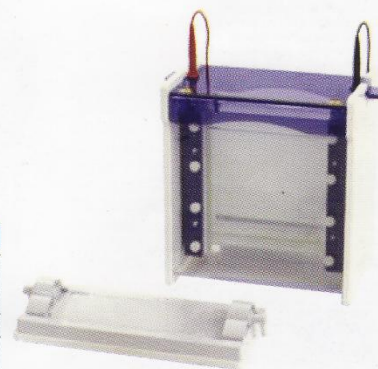
- Injection moulded construction
- Compatible with all 8 x 10 and 10 x 10cm precast gels (WxH)
- Rapid gel casting and loading
- Low buffer volumes
- Rapid set up cooling
- Run up to four gels



Technical Specifications	
Plate Dimensions	10 X 10cm
Gel Dimensions (W X L)	7.5 X 8cm
Unit Dimensions	19 X 13 X 15cm (W X D X H)
Max. Sample Capacity	80 Samples, 20 Samples Per Gel
Buffer Volume	Min 250ML; Max 1200ML
Combs Available	:
No. Of Samples	1, 5, 8Mc, 9, 10, 12, 16Mc, 20
Thicknesses	0.75, 1, 1.5, 2Mm

OmniPAGE maxi

- Ideal for high resolution separations
- Rapid gel casting and loading
- Optional low or high buffer volumes
- Rapid set up cooling



Technical Specifications	
Plate Dimensions	20 X 20cm
Gel Dimensions (W X L)	16 X 17.5cm
Unit Dimensions	26 X 16 X 28cm (W X D X H)
Max. Sample Capacity	192 Samples, 48 Samples Per Gel
Buffer Volume	Min 1200ML; Max 5600ML
Combs Available	:
No. Of Samples	1, 5, 10, 18mc, 24, 30, 36mc, 48
Thicknesses	0.75, 1, 1.5, 2mm

Modular systems

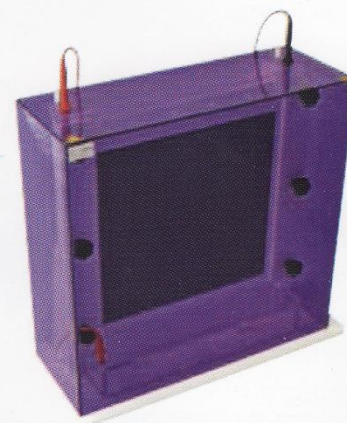
- Economy of bench space and cost
- Enhanced reproducibility
- Simple to use casting
- Rapid set up cooling



Technical Specifications	
Unit Dimensions Mini (W X D X H)	19 X 13 X 15cm
	Mini Wide 26 X 16 X 16cm
	Maxi 26 X 16 X 28cm
Max. Sample Mini Capacity	Slab 80 Samples, 20 Samples / Gel Tube - 10 Tubes; Blot - 3 Blots
Max. Sample, Mini Wide Capacity	Slab 192 Samples, 48 Samples / Gel Tube - 10 Tubes; Blot - 3 Blots
Max. Sample Maxi Capacity	Slab 192 Samples, 48 Samples / Gel Tube - 10 Tubes; Blot - 3 Blots
Buffer Volume	Mini: Min 250ml; Max 1200ml Mini Wide: Min 600ml; Max 2800ml Maxi: Min 1200ml; Max 5600ml

Large format vertical

- Run up to 96 samples
- Enhanced gel heat homogenisation
- Variable low or high buffer volumes
- 20 x 50cm or 33 x 45cm formats



Technical Specifications	
Plate Dimensions (W X L)	CSQ20 20 X 50cm CSQ33 33 X 45cm
Max Sample Capacity	CSQ20 48 Samples CSQ33 96 Samples
Buffer Volume	CSQ20 Min 500ML, Max 1000ML CSQ33 Min 800ML, Max 2000ML
Combs Available	:
No. Of Teeth	24, 48, 80, 96
Thicknesses	0.25, 0.35, 1, 1.5mm

Gel dryers

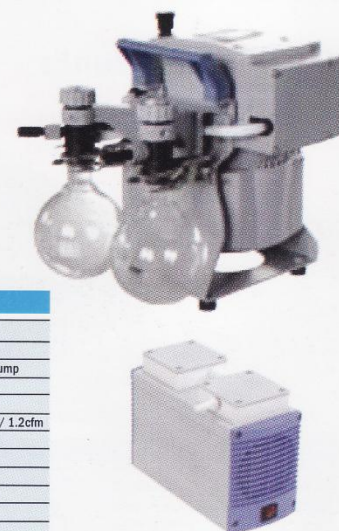
- Maxi dries up to twelve 10 x 10cm gels at a time
- Microprocessor control temperature and timer
- Optimal tight seal during the drying process



Technical Specifications	
Temperature Increment	0.1°C
Temperature Calibration	Yes
Temp Uniformity	± 0.2°C
Timer 1-999 Mins	
Drying Area	Midi 21 X 31cm Maxi 35 X 45cm
Operating Temp. Range	Ambient To 90°C
Dimension	WxLxH Midi 30 X 36 X 8cm Maxi 44 X 50 X 8cm

Vacuum pumps

- Maxi dries up to twelve 10 x 10cm gels at a time
- Microprocessor control temperature and timer
- Optimal tight seal during the drying process



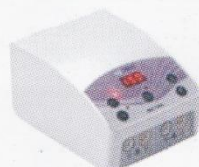
Technical Specifications	
MZ 2C + 2 AK	
Unit Dimensions (W X L X H)	24.1 X 34.5 X 32.6cm
Vacuum Pump	Chemistry Diaphragm Pump
MZ 2C	
Number Of Stages	2
Pumping Speed 50/60 Hz	1.9M3/H / 2.1 M3/H // 1.2cfm
Ultimate Vacuum (Total)	9 MBAR // 6.8 TORR
Ultimate Vacuum With Gas Ballast	15 MBAR // 11 TORR
Inlet Connection (In)	Hose Nozzle NW 10mm
Outlet Connection (Ex)	Hose Nozzle NW 10mm
Weight	11.9kg
Pump Flow Rate	35 L/min

Omni PAC power supplies

- omniPAC MAXI
- High performance, easy to operate
 - Graphic and text displays
 - Completely programmable
 - Programme constant voltage and current
 - Memory mode. Stores 16 files to recall and re-run
 - Safety. Comply to all relevant safety standards



Midi CS-250V and CS-300V



Mini150V and Mini300V

Technical Specifications		
Model	CS-500V	CS-3AMP
MAX. VOLTAGE	500V	300V
MAX. CURRENT	800MA	3A
MAX. WATT	300W	300W
Model	CS-250V	CS-300V
MAX. VOLTAGE	250V	300V
MAX. CURRENT	700MA	700MA
MAX. WATT	150W	150W
Model	MINI150V	MINI300V
MAX. VOLTAGE	150V	300V
MAX. CURRENT	600MA	400MA
MAX. WATT	60W	60W

UV transilluminators

- Three wavelength options: 254/312/365 nm.
- two Dual wavelength models
- Long life filter
- High efficiency reflector
- Hi/Low intensity switch
- Fast start up



Technical Specifications	
Filter Size	20 X 20 cm
Light Source	8W X 6 Tubes
UV Resistant Plastic Cover	33 X 25cm (WxD)
Unit Dimensions WxLxH	34 X 29.5 X 10cm

Magnetic Stirrer Hotplate,



Technical Specifications	
Speed Range	: 60-1500 rpm (Stirring Units Only)
Temp. Range	: Ambient (Heating Units Only) +5° To 380°C
Platform	: 19 X 19cm
Control	: Quick Adjustment Knobs
Dimensions	: 20(W) X 23(D) X 11.5(H) cm
Electrical Data	: 120V, 60 Hz / 230V, 50/60 Hz

Centrifuge



Technical Specifications	
Maximum Speed	6000rpm
Maximum G Force	2,000 X g
Capacity	6 X 1.5/2.0 MI 2 X 0.2MI Strips
Dimensions (W X D X H)	15 X 15 X 11.7 Cm
Weight	0.45 Kg

Melting Point Apparatus

Model: SMP30
Brand: Stuart
Origin: UK

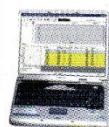
- Features:
- * Maximum temperature 400 °C
 - * Patented head up display
 - * Integrated cooling 350 °C to 50 °C in 12 minutes
 - * Large easy to read user friendly interface

Specifications:	
Model	SMP30
Number of samples	3
Temperature range	Ambient to 400 °C
Temperature resolution	0.1 °C
Display	40x4LCD
Ramp rates	0.5-10 °C in 0.1 °C increments
Temperature sensor	PT1000 Platinum resistance
Memory	8 results per tube
Accessory printer available	Yes
Date/time display	Yes
Cool down time 350-50 °C	~12 mins
Heat up time 350-50 °C	~6 mins
Electrical supply	120V/230V, 50-60Hz
Language variants	English, Germany, French, Italian
Temperature units	°C
Dimensions, mm (WxDxH)	325x200x170
Net weight, kg	3.6
IP Rating	30



Atomic Absorption Spectrometer

Fully Automatic Flame/Graphite Furnace AA
• Easy switching between Flame and Graphite furnace
Fully Automatic Flame AA

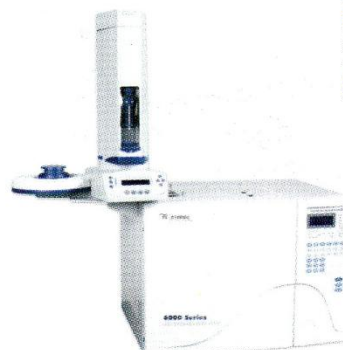


- Features
- * Controlled by PC
 - * Automatic wavelength set-up, automatic slit switching, automatic lamp current and gain set-up within 40 seconds.
 - * Easy switching and control of 6 lamps on rolling turret
 - * Automatic flame ignition, automatic flow control for gases and gas leak detection.
 - * Nitrous Oxide Gas/Acetylene Gas selection (Optional) to analyze elements under the condition of high temperature.
 - * The use of advanced 1,800 lines/mm grating for strong energy and high resolution.
 - * Compatible with MS Windows XP and user-friendly graphical user interface.

Spectrometer Wavelength Range	190nm-900nm	Spectrum Bandwidth	5-step : 0.1nm, 0.2nm, 0.4nm, 1.0nm and 2.0nm, respectively
Grating	1800 lines/mm	Mono-Chromator	Czerny-Turner Grating Mono-Chromator
Wavelength Repeatability	Full Wavelength ± 0.1 nm	Background Calibration	>50times
Blaze Wavelength	250nm	Accuracy	Full Wavelength $\leq \pm 0.2$ nm
Focal Length	300mm	Resolution	better than 0.3nm

Gas Chromatography (GC)

IQ/OQ/PQ Document, CE, ISO Certified



- Features:
- Powerful Control:**
- * Perfect control of all parameters by Autocho-3000 Data System
 - * Stable and precise control with powerful dual CPUs
 - * Remote Time Control : Remote Time Delay and Remote Signal Output
- Easy Operation:**
- * Intuitive user interface for a keyboard
 - * Column conditioning function
 - * Stores up to 20 different analytical methods
- High Performance Column Oven:**
- * Fast heating speed : up to 100°/min

- * Fast cooling down speed : 6.5 min(from 450° to 50°)
 - * Programming ramp/plateaus: 15/16
 - * Maximum temperature: 450°
- Economical Function:**
- * Time scheduling function
 - * Scheduling of system ON and OFF
 - * Run time based control
 - * Automatically repeatable runs up to 9 999 analyses
- Safety Function:**
- * Automatic flow & temperature control
 - * Detector "ON" after checking flow between reference and sample to protect TCD cell
 - * Automatic flame ignition after checking the FID temperature.

"Fully Optimized GC with Advanced Pneumatic Control"

HPLC

Think Smart Work Better
IQ/OQ/PQ Document, CE, ISO Certified



YL9100 HPLC

Quaternary Pump:

- * Operating principle: parallel dual-plunger pump, Low-pressure gradient
- * Number of Solvent: up to 4 solvents
- * Gradient formation: 4-channel mixing valve
- * Composition Precision: < 0.1%
- * Composition Accuracy: < 0.5%

Binary Pump:

- * Operating principle: Double parallel dual-plunger pump, High-pressure gradient

* Configure with Gradient pump

Vacuum Degasser:

- * Number of channel: 4 channels
- * Maximum flow rate: 10ml/min per channel
- * > 0-2.0ml/min per channel for 70% Gas Removed from Methanol

* Internal volume per channel: 925 ul per channel

* Materials in contact with solvent

* Teflon AF, PEEK and Glass-filled PTEE

Column Compartment:

- * Temperature range: 4°C(Cooling) - 90°C
- * Temperature stability: ± 0.05 °C
- * Temperature accuracy: ± 0.5 °C
- * Column capacity: Max. 4 ea of 30 cm column (Analytical)
Max. 2 ea of 30 cm column (Semi-Prep)

UV/Vis Detector:

- * Wavelength Range: 190-900nm
- * Data collection rate up to 50Hz
- * Noise level: $\leq 10.5 \times 10^{-5}$ AU, 254nm, dry cell
- * Drift: < 1 $\times 10^{-4}$ AU/hr
- * Linearity: > 99.5% for 2.5AU (acetone, 254nm)

PDA Detector:

- * No. of PDA Channel: 1024
- * Wavelength: 190-950nm
- * Noise Level: 2×10^{-5} AU (Empty Cell, 1 sec Rise Time, 254nm)
- * Drift: 2×10^{-4} AU/hr (Baseline Correction), 0.001AU/hr (Room Temp)
- * Wavelength Accuracy: 1nm (HY-1 Holmium Oxide Filter)

RI Detector:

- * RI Range: 1.00-1.75 RIU
- * Noise: $\approx 1.3 \times 10^{-8}$ RIU
- * Drift: 0.8×10^{-7} RIU/hr
- * Linear dynamic range: 80×10^{-5} RIU

FT-IR Spectrometer (Bench-top model)

IQ/OQ/PQ Document, CE, ISO Certified



Features:

Reliable and Reproducible Data:

- * No interference of humidity by desiccated and sealed interferometer
- * Stable wavelength emission by air cooled infrared sources
- * Shock-resistant by interferometer lock when transporting

High Performance:

- * DLATGS Detector with high sensitivity, excellent linearity and broad spectral response
- * Self compensated alignment at an optical system
- * MCT detector is also available.

Easy of Use:

- * Data Acquisition by Interspec For Windows data at a glance
- * Simple to control FT-IR and manage data at your fingertip
- * Data conversion to MS EXCEL
- * Fully compatible with Windows XP/7
- * Library search (Optional)

Applications:

- * Polymer analysis
- * Foods research
- * Quality assurance and control
- * Pharmaceutical research
- * Lubricant formulation and fuel additives
- * Environmental and water quality analysis methods
- * Biochemical and biomedical research
- * Academic field



Tech Vision BD

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