



OENOLOGY

Wine & Spirits Analysis





 **EXACTA**
Wine & Beverage

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Dear Customer,

For over 45 years we have been dedicating and committed to large and small labs in wineries, Research Institutes, winemakers and farms. We have actively participated in their development and identification of their new key role in the wine field.

In the hope of being able to be more and more at Your side, we are pleased to introduce You our new catalogue, completely dedicated to the **oenological laboratory**.

We have tried to collect everything You could need to design, equip and supply a modern oenological laboratory.

From the design to the laying of the technical furniture;

From the simple manual instrument to the advanced automatic version;

From the common reagent to the dedicated enzyme kit;

Our skills at Your service.

Do you need an efficient and reliable after-sales service? Exacta+ Optech Labcenter is also this!

Installations and training to personnel, repairs, on-site interventions, certifications and calibrations.

Not only products, services too.

Enjoy the reading,
with our warmest greetings
Exacta+Optech Labcenter Spa

Since 1921 "Ing. C. Bullio" Quality is always at Your side.



ING.
C. BULLIO
1921

1921

Since 1921, Ing. C. Bullio began his activity by designing and building up, in the historic headquarters in Milan, Ebulliometers, Acidimeters, Distillers, Alembics and Afrometers.



ALESSANDRINI
strumentazione

2000

Since 2000, Alessandrini Strumentazione acquires Ing. C. Bullio to strengthen his presence in the oenological laboratory.

APPARECCHI SCIENTIFICI

ING. C. BULLIO



2017

New and up-to-date portfolio for the modern oenological laboratory.

ING. C. BULLIO



2018

The EXACTA Wine & Beverage brand is born, certifying our commitment to continue the development of new products throughout the FOOD sector.

 **EXACTA**
Wine & Beverage

LABCENTER
EXACTA + OPTECH



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1 Electronic distiller model Dualstill Plus

According to the OIV regulation concerning the determination of the Volumetric Alcoholic Titration and Volatile Acidity in wines, its derivative musts and in spirit drinks.

Ultra-rapid and totally automatic instrument for detection of ALCOHOL and VOLATILE ACIDITY; born and designed to automate all pre- & post-distillation steps.

Shiny stainless steel 1810 epoxy painted frame.

Analysis chamber in Pyrex and PTFE.

Heating is done inside a DURAN glass chamber through a dual system: Electric (electrodes with electronic control) and Steam (electronically controlled high efficiency boiler).

The interface with the user takes place through the large graphical display and the comfortable membrane keyboard: to program very easily all the parameters of the analysis to be performed (you can enter up to 99 different types of analyzes).

Technical features

Heating system: Electric/Steam.

Distillation end block: Automatic.

Cooling circuit: Water automatic stop.

Distillation Vessel: DURAN PTFE.

Construction: stainless steel - PTFE.

Power supply: 240/220 V - 50/60 Hz, 15 Amp.

Distillation timing

ALCOHOL: about 3 min. 30 sec. for 100 mL distillate.

VOLATILE ACIDITY: about 7 min. for 250 mL distillate.

STANDARD EQUIPMENT INCLUDES: Instrument starting kit, consisting in n. 2 x 100 cc flasks, n. 1 x 200 cc flask, n. 1 x 250 cc flask, antifoam dosing device, calcium hydroxide solution dispenser, n. 2 x plastic pipettes, distilled water container, chemicals for distillation, fittings, instruction manual.

DESIGNED AND CONSTRUCTED in accordance to D.P.R. 459/96, D.P.R. 24/5/98 No 224 and CEI EN 61010-1.

"CE" Marked.

1



Dualstill Plus

Description	PK	Cat. No.
Dualstill Plus	1	A11350

2 Electronic distillers

According to the OIV regulation concerning the determination of the Volumetric Alcoholic Titration and Volatile Acidity in wines, its derivative musts and in spirit drinks.

Double heating system, steam and electric, simultaneously acting, thus ensuring at an exceptionally short time the extraction of alcohol from the matrix in which it is dissolved. The sample matrix can be of any type, being the instrument an "open distillation vessel" one, a condition greatly simplifying sample preparation steps and cleaning when distillation is finished.

All deteriorable parts are easily accessible and can also be replaced by non-specialized personnel, thus simplifying ordinary and extraordinary maintenance.

The carrying structure of the instrument, completely in stainless steel AISI 304 having 1.5 mm thickness, always keeps it in perfect functional and goodlooking conditions.

Distillation timing

- Alcohol: about 4 minutes (approximate time to distill 100 mL of alcohol solution).

- Volatile acidity: about 6 minutes (approximate time to obtain 200 mL of distillate starting from 20 mL of product).

Technical features

- Heating system: steam current/electric, selectable.

- Distillation end block: Automatic and adjustable to the values required by the user.

- Cooling circuit: Water, with automatic stop at end of distillation.

- Distillation vessel: open, with quick locking system.

- Safety: safety devices both on door and boiler.

- Power supply: 220V ±10%.

- Absorption: 15 A max.

- Dimensions: 400x380x850 mm (LxWxH).

Standard equipment includes: Instrument starting kit, consisting in n. 2 x 100 cc flasks, n. 1 x 200 cc flask, n.1 x 250 cc flask, n. 2 x distillation rooms, antifoam dispensers, calcium hydroxide solution dispenser, n. 2 plastic pipettes, distilled water container, chemicals for distillation, fittings, instruction manual.

DESIGNED AND CONSTRUCTED in accordance with D.P.R. 459/96, D.P.R. 24/5/98 No 224 and CEI EN 61010-1.

"CE" marked.

2



Dualstill / Unistill

Description	PK	Cat. No.
Dualstill. Alcohol & Volatile Acidity.	1	A11301
Double heating system: electric / steam, selectable. Electronic keyboard.		
Unistill. Alcohol only.	1	A11308
Electric heating system through two electrodes. Membrane keyboard.		

Accessories and spares for automatic distillers

For all our models: Dualstill, Unistill and Dualstill Plus.

Description	PK	Cat. No.
Distillation cup, 100 mL	1	F11316
Distillation cup, 200 mL	1	F11317
Flask, 100 mL complete with cap	1	F11310
Flask, 200 mL complete with cap	1	F11311
Flask, 250 mL complete with cap art. YK0001142 (NOTE: only for model Dualstill)	1	9141036
Sealing for distillation cup	1	X10099

Distillers



A113301



A113302

1 2 Official EEC distillers

For Alcohol detection.

Type	Description	PK	Cat. No.
1-place, with gas heating system	complete with spherical joint round bottom flask, 500 mL	1	A113301
1-place, with electric heating system	complete with collection flasks 100 - 200 cc	1	A113302

Automatic Enzymatics



ITALO^S
100% automatic
120 tests/hour

"ALL IN ONE"
user console

THE RIGHT MODEL
FOR EVERY KIND
OF LAB



ITALO^{XL}
300 tests/hour
Double arm

ITALO^L
240 tests/hour

ITALO^M
120 tests/hour



More infos on page 25

1 Acidimeter Model CAZENAVE, Miconi modified

Instrument for volatile acidity detection with LPG or methane gas heating.
Complete with tripods, bunsen, tubes and instruction manual.

Description	PK	Cat. No.
CAZENAVE, Miconi modified	1	A113413

Accessories and spares for Cazenave

Description	PK	Cat. No.
Flask 200 cc, marked at 120 cc	1	X200398
Flask 120 cc, marked at 60 cc	1	X200404
Distillation round bottom flask	1	X200598
Cooling element	1	X200599
Bunsen Poligas lamp, complete with thermocouple and tap	1	YL0084000



Cazenave mod. Miconi

2 Acidimeter model Jozzi

Steam current distiller, complete with glassware and reagents, for volatile and total acidity detection.
According to EEC norms.

Description	PK	Cat. No.
1-place, electric heating system 400 W	1	A113421



JOZZI 1 place

3 Accessories and spares for Jozzi acidimeters

Description	PK	Cat. No.
Glass boiler	1	X200731
Glass boiling tube	1	X200732
Flask 250 mL, with spherical joint	1	X200736
Beaker 250 mL, for distillation collection	1	X200737
Cooling element, spherical joints	1	X200075
Junction for multi-position Jozzi, having electrical heating system	1	X200076
Junction for 1-place Jozzi, having electrical heating system	1	X200097
Clamp for spherical joint 29/15	1	X200070
Clamp for spherical joint 18/9	1	X200088
Heating element for 1-place Jozzi	1	X200232
Heating element for multi-position Jozzi	1	X200738



Boiler, tube, cooler, junction



Juffmann

1 Acidimeter model Juffmann

Rapid steam vapour distillator, for volatile acidity detection.

Extremely fast and effective method.

RAL 7035 epoxy painted sheet metal frame. The base is complete with cast iron heating furnace for distilled water tank, main switch, operating lamp, and fuses; on the left side of the instrument a plastic bottle is placed for air vent; in the middle part the distilled water containment bottle, cap and control valve. The bubbler is placed on a heating mantle fixed to the base through a chrome support bar. The instrument ends with a serpentine glass refrigerant supported by the same chrome bar.

Standard equipment includes: glassware for collecting the distillate, reagents, hydraulic tubes and instruction manual.

Power 220/240 V - 780 W.

"CE" marked.

Description	PK	Cat. No.
Juffmann, electric 780 W heating system	1	A113404

Accessories and spares for Juffmann acidimeter

Description	PK	Cat. No.
Oval distillation round bottom flask	1	X200127
Flask, 40 cc	1	X200128
Power and safety tube	1	X200102
Cico small hotplate for titration	1	X200114
Electric hotplate	1	X200576
Mobile hotplate	1	X200107
Cooling element	1	X200101
Spike tube with cap	1	X200108
Pellet burette, Schelbach glass, cap. 10 mL div. 1/20 (NOTE: accessories to be requested separately)	1	YA0065350
Flask, 500 mL	1	9141044

Titration AT1000 series



Exacta+Optech Labcenter, distributor on the Italian market for Hach wine division.

More info on page 18

1 2 3 4 5 Afrometers

For CO₂ detection.

Description	PK	Cat. No.
PIN AFROMETER, for cork caps, 0-6 bar pressure gauge	1	A113501
PIN AFROMETER with tap, for cork caps, 0-6 bar pressure gauge	1	A113502
PIN VACUUM GAUGE with tap, for cork caps, -1+5 bar pressure gauge	1	A113502/V
"UNIVERSAL" AFROMETER with case, for any cap, 0-6 bar pressure gauge	1	A113503
DIGITAL "UNIVERSAL" AFROMETER with case, for any cap, 0-6 bar pressure gauge	1	A113504
AFROMETER for pressure measurement during the fermentation in bottle	1	A113506



A113503



A113504



A113506



A113501



A113502 - A113502/V

Accessories and spares for afrometers

Description	PK	Cat. No.
Spare pin	1	X200196
Ejecting tip	1	X200197
Pressure gauge 0 - 6 Bar	1	X200194
Pressure gauge - 1 / 5 Bar	1	X200542
Digital pressure gauge 0 - 6.000, Division 0.001 Bar	1	X200781
Pressure gauge 0 - 6 Bar, with S.I.T. Certificate	1	X200194C
Pressure gauge - 1 / 5 Bar, with S.I.T. Certificate	1	X200542C
Silicon seal for Universal Afrometer	1	X200137

6 WITHDRAWING DEVICE and AFROMETER for sparkling wine

Device that allows bottles to be filled with sparkling wine in order to directly sample on the autoclave under pressure.

Description	PK	Cat. No.
WITHDRAWING DEVICE and AFROMETER for sparkling wine	1	A11348

6



7 CARBODOSEUR for CO₂ detection

100 mL cylinder with sealed screw cap and vent hose.

Description	PK	Cat. No.
Carbodoseur	1	A13001

7



8 9 Oxygen meters

Instruments for measuring oxygen dissolved (and other parameters) in wines.

Description	PK	Cat. No.
HQ30d - Digital portable instrument, 1 channel for pH, conductivity, dissolved oxygen & redox. With pH electrode	1	39987198
HQ30d - Digital portable instrument, 1 channel	1	39987101
LDO luminescent probe for standard oxygen analysis, with 3m cable	1	3998763

8



HQ30D

9

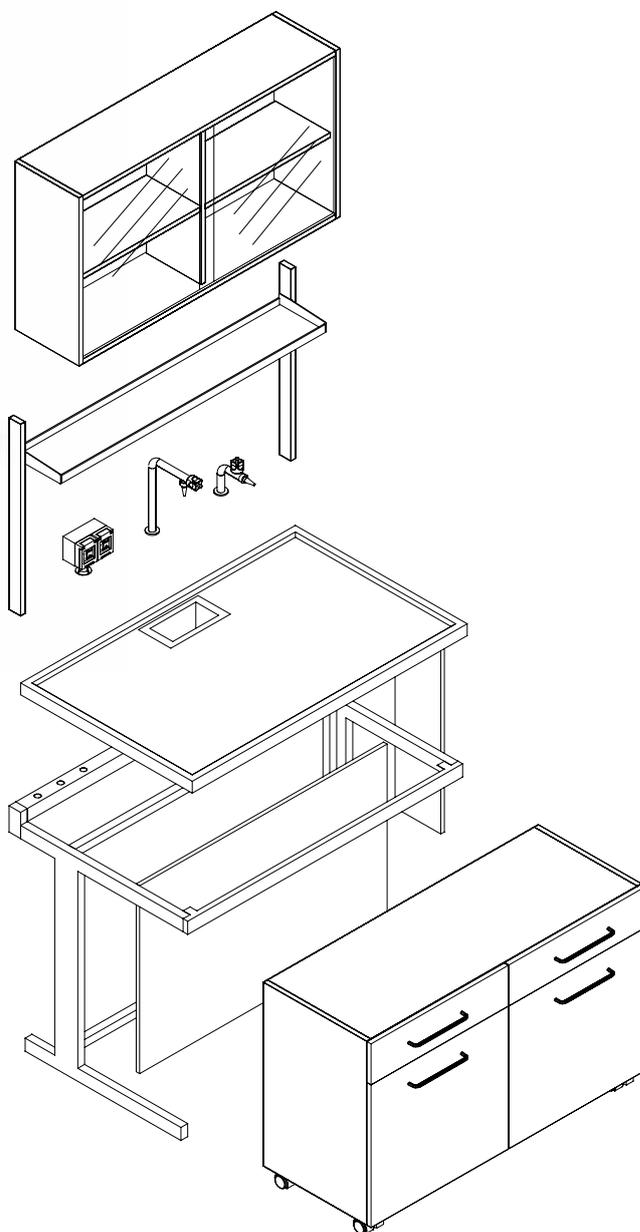


Probe

TECHNICAL FURNITURE FOR YOUR LABS

ETA

ETA P1000



**MODULAR &
CUSTOMIZABLE**



PROTECTING YOUR LIFE IN LABORATORY

1 Alcofast

ALCOFAST electroebullimeter is an automatic tool designed and manufactured to determine alcoholic concentration in wines, musts and derivatives.

The instrument frame is made in epoxy painted laminate while the front is made of glossy stainless steel.

The boiling chamber is Duran glass so that user can inspect sample conditions at any time.

The working process is fully automatic: once START is activated, instrument will automatically boil sample and directly detect value of the VOLUME ALCOHOLOMETRIC TITLE (V/V%) on the LCD display.

Compared to manual ebulliometric systems, ALCOFAST is equipped with a microprocessor that automatically compensates the barometric pressure.

The microprocessor can store and display boiling temperature only when it is stable for (x) time.

At the end of the analysis, the instrument automatically deactivates the boiler heating resistance and stops the cooling water in the cooling unit. Sample loading and unloading is manual. To operate, the instrument only needs cooling water and a power outlet.

TECHNICAL DETAILS:

- Anti-acid membrane keypad
- LCD display
- Pt100 stainless steel probe
- Water electrovalve
- Electronic Barometric Pressure Detector

SUPPLIED BY:

- Power cable
- Hydraulic fittings
- Instruction manual.

TECHNICAL FEATURES:

- AISI 304 stainless steel 20/10 construction
- Dimensions: mm. 210x240x480 (LxPxH)
- Power: 220/240 V 50 - 60 Hz.
- Absorption: 1.5 A Max
- Fuses: 2 x 2 A
- "CE" MARK
- DESIGNED ACCORDING TO DPR 459/96 - DPR 24/5 N° 224 - CEI 61010-1.

1



Description	PK	Cat. No.
Alcofast	1	A11316

Accessories and spares for Alcofast

Description	PK	Cat. No.
Heating element, 125 W	1	X200018
Loading funnel	1	X200263
Water - wine cylinder	1	X200162
Boiler, complete with tap and waste tube	1	X200260
Boiler tap	1	X200261
Hydroalcoholic calibration solution 10.00%, 500 mL	1	X13042
Hydroalcoholic calibration solution 14.00%, 500 mL	1	X13041

2 3 Ebulliometers

For alcoholic degree measurement.

Description	PK	Cat. No.
Malligand, chrome, long scale. Range 0-18%. With case	1	A113102P
Malligand, chrome, long scale. Range 0-18% O.I.V. With case	1	A113102/O
Salleron, 125 W electric heating system. With case	1	A113104

Accessories and spares for ebulliometers

For Malligand and Salleron.

Description	PK	Cat. No.
Wick for alcohol lamp. Length 5 cm	1	X200188
Chromed alcohol lamp	1	X200004
Water-Wine tube for Salleron	1	X200023

2



Malligand

3



Salleron

1



1 Kem Densimeter, model ALM-155

High precision oscillating capillary density meter, for the density analysis in wines and musts on samples as is and of alcohol, after distillation of the sample.

High precision and reliability

The fifth decimal resolution for density and centesimal one for alcohol, together with Peltier thermostation to ensure the data exactly refers to 20.0 °C, make instrument suitable to satisfy what is required by official methods.

The illuminated cell, visible from a special window, allows you to view the presence of any bubbles.

Very user-friendly, fast and easy to clean

The analysis starts by simply pressing a button; then instrument will load the sample into the measuring cell via a peristaltic pump; the analytical data will be obtained on average after only two minutes!

For the cleaning at the end of the day, simply suck up water using the peristaltic pump.

Calibration with water

The quintessential standard for oscillating capillary densimeters is distilled water.

To calibrate the ALM-155, simply suck in bi-distilled water in the cell after selecting the "calibration" option: the instrument will be perfectly aligned in a few minutes.

Technical features:

Density measuring range:	0 - 3 g/cm ³
Resolution:	0.00005 ±0.00001 g/cm ³
Alcohol measuring range:	0.00... 100.00%
Resolution:	0.00% ±0.01%
Thermostating temperature:	20 °C stable (Peltier system)
Resolution:	20.00 °C ±0.03 °C
Sample volume needed:	Approx 8 mL (cell volume 2 mL)
Display:	LCD, backlit
Interfaces:	1) Personal Computer (PC) 2) Printer
Power:	AC 100 ~ 240V; 50/60 Hz

Description	PK	Cat. No.
ALM-155, Kem	1	ALM-155

2



2 Mettler densimeter, Densito

Ideal for rapid and accurate routine measurements in quality assurance, incoming and outgoing goods inspection.

Available Measurement Scales: API, °Baumé, Brix, Density, Ethanol, H₂SO₄, Proof (US And IP), °Plato, Specific Gravity, User-Defined Concentration.

Automatic temperature compensation.

Backlit measuring cell.

Adjustable limits with customisable colours in the display.

Bright display with good readability.

Technical features:

Density measuring range:	0 to 3 g/cm ³
Resolution:	0.0001 g/cm ³
Accuracy:	±0.001 g/cm ³
Sample temperature range:	0 ... 50 °C
Resolution:	0.1 °C
Accuracy:	±0.2 °C
Sample volume:	2 mL
Memory:	1100 samples
Display:	2.4" colour display, backlit
Interfaces:	USB-A, USB-C
Power supply:	Removable and rechargeable Li-Ion batteries

Description	PK	Cat. No.
Densito	1	6291652

3



Cylinder

3 Alcoholometers and mostimeters

Description	PK	Cat. No.
Tralles alcoholometer, range 0 - 100%. WITH thermometer	1	K71502
Tralles alcoholometer, range 0 - 100%. WITHOUT thermometer	1	X71111
"Official" alcoholometer, range 0/45, div. 1/2°. WITH thermometer	1	X71212
"Official" alcoholometer, range 45/75, div. 1/2°. WITH thermometer	1	X71213
"Official" alcoholometer, range 75/100. WITH thermometer	1	X71214
"Official" alcoholometer 3pcs, ranges: 0-45 / 45-75 / 75-100. WITH thermometer	1	X71215
BABO mostimeter, range 0-35. WITHOUT thermometer	1	K71501
BABO mostimeter, range 0-36. WITH thermometer	1	K71500
Glass cylinder, diam. 34x550 h, with foot	1	X71198
Glass cylinder, diam. 40x450 h, with foot	1	X71199
Cylinder for "Prof" alcoholometer, diam. 33x453 h, with foot	1	X71196
PP cylinder, 500 mL, diam. 50x350 h	1	9004900

1 M5 - ALCOWEIGHT

System for detection of alcoholic volumetric title, dry extract and for evaluation of musts in accordance with OIV method and according to Regulations 2870/2000 and 128/2004. The large Touch-Screen display allows the selection of parameters to be analyzed. Automatic calibration programmed with internal motor weight. Possibility of verification and calibration with DKD certified masses. Relative density range from 0.00 to 2.30 g/cm³.

Reading precision D = 0.00001

Accuracy: 0.00005

Repeatability: ±0.00005

Temperature compensation: 10-30 °C

Thermocouple: Pt100 1/3 DIN Sensitivity: 0.01 °C

Accuracy and repeatability: ±0.05 °C

Reading: 0.1 °C

THE BALANCE INCLUDES AN INTERNAL SOFTWARE to manage:

- Volume alcoholic strength: 0-100% V/V
- Density reading at 20 °C
- Readability: 0.01% V/V
- Accuracy and repeatability: 0.02% V/V
- Recommended working conditions between 10 and 30 °C
- Total dry extract from 0.0 to 505.8 g/L
- Evaluation of musts in: Baumé, Babo, Volumetric mass, theoretic alcohol.
- Data storage via USB

THE SOFTWARE also allows:

- Correction of the float's volume in distilled water and in known solutions
- Calibration and zero
- Update of time, minutes, date, etc ..
- Print of reading data
- Customized users creation

THE SUPPLY includes:

- N.2 x 20 mL floaters (code F11315)
- N.2 x double-walled glass cylinders (code F11313)
- USB data output RS232
- Instruction manual

OPTIONAL ACCESSORIES:

- RS232 printer

External dimensions: 200x360x480(h)mm

Weight: 5 kg

Power: 220 V - 50 Hz

Power consumption: 12 VA

Designed according to current regulations

"CE" marked.

1



Description	PK	Cat. No.
M5 - Alcoweight	1	A1460

Accessories and spares for M5

(suitable also for the former model Alcoweight II)

Description	PK	Cat. No.
Double wall cylinder	1	F11313
Calibrated floater	1	X10093
PT100 probe	1	F11324
Thermal printer model PLUS-SA	1	A11508

2 Waterbath

Electronic regulation with digital P.I.D. thermoregulator.

Range: - 5 °C to + 70 °C.

Precision: ±0.1 °C.

Manual safety thermostat (with screw adjustment).

Stainless steel tank, 25lt with holes for glassware; dimensions: 380x250x250 mm.

Support TROLLEY with wheels.

2



Description	PK	Cat. No.
IF25	1	A11302

A11302

1



1 Solfotech, with glassware

Automatic instrument for detection of sulphur dioxide in musts, wines and its derivatives. It has been designed according to the norm on EEC OFFICIAL METHODS OF ANALYSIS IN WINE: "OIV - MA - AS323 - 04A" WINE & ITS DERIVATIVES & "OIV - MA - AS323 - 05" MUSTS.

Free and total sulphur dioxide can be easily detected respecting times and methods stated in the norm.

The extraction processes stop is totally automatic, thanks to a programmable digital timer.

To work properly, instrument just needs cooling water and a power socket.

The Gas flow adjustment is driven by a flow meter, visible on the stainless steel front part of the instrument.

- Electrical heating system, with heating mantle.

- Automatic stop when distillation is finished.

- Automatic cooling system with electro-valve.

The instrument is supplied with power cable, hydraulic fittings/joints, instruction manual.

The glass SO₂ distiller (art. A11314) is part of the instrument.

"CE" marked.

Description	PK	Cat. No.
SOLFOTECH Extractor, complete with glassare	1	A11312

2



2 Solfotech S, official EEC extractor

Instrument for the extraction of Free and Total SO₂ in wines and its derivatives.

It is made of a boiler with automatic drain through a PTFE tap, and a glass frame designed to meet exactly the requirements of EEC legislation.

The extraction air is automatically blown into the sample through a controlled flow pump.

The heating is done by means of an infrared lamp which allows to reach the desired temperature in few seconds.

Cooling water is driven by a solenoid valve, which activates the flow only during the analysis cycle.

Dimensions/Weight: WxDxH 230x270x570 mm / 4 kg.

Power: 600 W.

Description	PK	Cat. No.
Solfotech S, complete with glassware	1	A11379

Instruments for SO₂ detection

Description	PK	Cat. No.
Official distiller, gas heating system	1	A11313
Official distiller, electric heating system	1	A11313/E
Glassware for Official distiller	1	A11314

Accessories and spares

For Solfotech and other SO₂ detection devices.

Description	PK	Cat. No.
Bunsen Poligas lamp, with thermocouple and tap	1	YL0084000
250 cc heating element	1	X12008
Vacuum pump: water tube external Ø 11,85 cm; vacuum tube external Ø 9 cm; 191,50 mm Hg	1	YK0001395
Bubbler, 29/32 cone	1	X12011
Glass frame	1	X12012
Glass frame	1	X12051
Bottle with capillary tube	1	X12013
250 mL round bottom flask	1	X12014
100 mL round bottom flask	1	X12015
Bubbler attachment, frame with emery cone	1	X12067
Bubbler attachment, frame with emery cone	1	X12041
Glass frame with emery cone	1	X12042

3



3 Ripper methods

Manual titration of free and total SO₂ through Ripper method.

Description	PK	Cat. No.
Lighting base	1	A11309L

1 portable pH-meter

Very easy to use portable instrument for pH/mV/°C measurements. pH and temperature values can be stored directly on the SD card (Excel file) or directly transferred from the pH-meter to the PC via the RS-232 interface.
 Gel-filled electrode with external temperature sensor and 1 m cable.
 Automatic temperature compensation (ATC).
 Large easy-to-read LCD display.
 3 calibration points.
 BNC connector.
 Suitable for all SD cards 1-16 GB.

Batteries 6 x 1.5V AA (to be ordered separately).
 Optional: power cable, PC connection cable, PC software.

The supply includes: pH-meter, pH electrode with temperature sensor, pH4 and pH7 buffers, 4 GB SD-Memory card, transport case.



Description	PK	Cat. No.
LLG-pH Meter 5	1	6263691
pH electrode, general applications, plastic body, pH 0...14, 0...80 °C with S7 screw head	1	3126038
pH electrode, general applications, plastic body, pH 0...14, 0...80 °C with S7 screw head & temperature sensor	1	3126058

2 LLG-pH Pen, pH tester

Economical pH tester, perfect for small volume measurements in tight containers.
 3-points calibration, ATC from 0 °C to 50 °C. Large, easy-to-read LCD display.
 Supplied with storage container to prevent the electrode from drying.

Technical features:

Measure range:	0.00 to 14.00 pH
Accuracy:	±0.1 pH
Resolution:	±0.1 pH
Electrode dimensions (L x W x H):	36 x 20 x 210 mm
Electrode dimensions (diam. x L):	12 x 110 mm
Weight:	72 g
Battery:	2 x 3 V CR2032, button
Protection class:	IP 65
Warranty:	2 years



Description	PK	Cat. No.
LLG-pH Pen	1	6263690

Tartaric stability



**EASY
RAPID
PRECISE**

**100% air cooling system
Maintenance-free**

POTASSIUM



TARTARIC

More infos on page 21

TARTARCHECK
with display and printer

TARTARCHECK PLUS
with touch screen tablet

1



1 Bench pH-meter, Hach Lange Sension + Ph3

Quick results: Ideal choice of quick response electrodes for desired applications.
Maximum simplicity: supplied complete with everything needed for your measurements.

Technical specifications:

ORP accuracy: 1 mV.
Temperature Accuracy: 0.2 °C.
mV accuracy : 1 mV.
Data storage: date and time, instrument ID and sample.
Result internal storage capacity: No.
GPL Features: No.
Certification of conformity: CE.
Temperature compensation: with Pt1000 probe or via keypad.
Environmental conditions:
_ Temperature: 5 - 40 °C.
_ Relative humidity (non-condensing): <80%.
Dimensions (HxWxL): 110x350x201 mm.
Display: backlit graphical LCD, 128x64 pixels.
Data export: No.
CA and USB operation: Yes.
Inlets: BNC, ref, Pt1000.
Operating Interface: Keypad.
Temperature measurement: -20 to 150 °C.
Measure mV: -1999 to 1999 mV.
Parameters: pH, mV, Temperature.
PH Accuracy: 0.02 pH.
PH electrode calibration: 1 - 3 points.
pH measure: -2 to 16.
Optional pH printer.
Measuring range ORP: -1999 to 1999 mV.
Automatic buffer recognition: IUPAC standards (DIN 19266) or Technical buffer (DIN 19267).
Temperature resolution: 0.1 °C.
mV resolution: 1 mV.
ORP resolution: 1 mV.
PH resolution: between 0.01 and 0.1 pH.
Calibration Intervals/Alerts/Reminder: Reminder 1 hour for 7 days.

Measurement details:

Range	Resolution
-2 ... 16 pH	0.01 pH
±2000 mV	1 mV
-20 ... 150 °C	0.1 °C
Measure error (1 digit)	Reproducibility (1 digit)
≤ 0.01 pH	±0.01 pH
≤ 1 mV	±1 mV
≤ 0.2 °C	±0.1 °C

Description	PK	Cat. No.
Sension+ PH3, with accessories + 50 10T electrode (Universal, plastic body, with T° sensor).	1	3126050
Sension+ PH3, with accessories + LZW5012T electrode (Universal, glass body, with T° sensor).	1	3126057
Sension+ PH3, simple pH & ORP bench meter with magnetic stirrer and sensor's support, w/o electrode.	1	39987201
Sension+ PH3, with high-performances electrode 5021T for hard samples	1	E004089

2



2 Electrodes for Hach Lange bench pH-meters

Description	PK	Cat. No.
Electrode, plastic body, low maintenance, gel electrolyte pH 0-14 0-80 °C	1	3126030
pH electrode 5010T, low Cost, plastic body, gel electrolyte, pH 0-14, 0-80 °C with T° sensor	1	3126092
pH electrode 5011T. With T° sensor, plastic body, gel electrolyte 0-14 ph, 0-60 °C	1	3126061
pH electrode 5021 for hard samples. Frosted glass diaphragm, crisolyt electrolyte, glass body 0-14 ph,0-60 °C	1	3126069
pH electrode 5021T for hard samples. Same as art. 3126069 + T° sensor	1	3126070
pH electrode for hard samples, pH 0-12, 0-60 °C	1	3126278

3



3 LLG-pH-Buffer solution

Tested and certified at 20 °C. Provided with label that gives the pH value at different temperatures.
Tolerance ±0.02 pH. Supplied in HDPE containers. Traceable to NIST (SRM). Temperature dependence data is printed on the label as well as batch numbers and expiry dates. Buffers have a 24 month shelf life from date of manufacture.

Description	cap. mL	PK	Cat. No.
Buffer: citrate. pH 4,00 at 20 °C	1000	1	4664603
Buffer: phosphate. pH 7,00 at 20 °C	1000	1	9041368
Buffer: borate. pH 9,00 at 20 °C	1000	1	9041374
Buffer: borate. pH 10,00 at 20 °C	1000	1	9041369

1 Waterbath, Memmert

A combination of high level stainless steel grade 1.4301 (ASTM 304), anti-corrosion and top-technology.

Inside:

- easy to clean, grade 1.4301 (ASTM 304), laser welding, stainless steel frame reinforced by deep ribs.
- heating surface extended on 3 tanks walls, corrosion-proof.

Control:

- microprocessor PID controller, Fuzzy supported with integrated self-diagnosis system and error code signaling.
- solid-state switching unit.
- 2 x Pt100 class A sensors, 4-pin, mutual performance control and lead at the same temperature value.
- Digital timer from 1 minute to 999 hours for: On (continuous operation)/On delayed.

Memory, or temperature-dependent memory adjustment, with pre-set stop time.

Triple protection against overheating.

T° range: +10 °C (however at least 5 °C above ambient T°) to + 95 °C; Resolution: 0.1 °C.

Temperature range adjustment: from +10 °C to + 95 °C and boiling mode

Power: 230 V, 50/60 Hz; 115 V, 50/60 Hz at no extra cost.

1



WNE 14

Type	Description	PK	Cat. No.
WNE 7	Capacity: 7 L power: 1200 W	1	9906591
Gabled lid	for WNE 7	1	9906550
WNE 14	Capacity: 14 litri Power: 1800 W	1	9906593
Gabled lid	for WNE 14	1	9906552
W7 tube holder	24 holes (3x8), Ø 18 mm	1	6201919
Tube 18X100mm	screw cap, SVL Pyrex	1	YA0315700

EFO Series
SAFETY CABINETS
FOR INFLAMMABLES
FIRE RESISTANT 90 MINUTES
ACCORDING TO
EN 14470-1, EN 14727
NORMS

ECO Series
SAFETY CABINETS
FOR CHEMICALS
ACCORDING TO
EN 61010-1 - CEI 66-5
NORMS

AT1000 Complete system



1 2 3 Titrators, Hach Lange AT1000 series

The TITRALAB AT1000 HACH LANGE system uses pre-set features that eliminate the need for complex programming and provide accurate results. Reliable results with titration. Simple titrator configuration.

Applications:

- Drinking water
- Waste water
- Food and drink
- Petrochemical industry

IMPORTANT!

It is necessary to match the titrator with the appropriate kit (pH acidity or free and total SO₂ - see "Sampler & Kit for AT1000 titrator"), depending on the analysis to be carried out. The sampler plate (called "Sampler") is optional.

Description	PK	Cat. No.
model AT1102, including: 1 syringe for pH and Total Acidity	1	AT1102.98
model AT1122, including: 1 syringe and 2 pumps for Free, Total & Combined SO ₂	1	AT1122.98
model AT1222, including: 2 syringes and 2 pumps for Free, Total & Combined SO ₂ , pH and Total Acidity	1	AT1222.98



AT1102 - 1 syringe



AT1122 - 1 syringe e 2 pumps



AT1222 - 2 syringes and 2 pumps

Sampler & Kit for AT1000 titrator

Description	PK	Cat. No.
Sampler TitraLab, 12 beakers x 50 mL, complete with software	1	AS1000.98.12
Sampler TitraLab, 30 beakers x 50 mL, complete with software	1	AS1000.98.30050
Sampler TitraLab, 20 beakers x 90 mL, complete with software	1	AS1000.98.20
Sampler TitraLab: shaking from both above and below. Complete with palette stirrer and disposable beakers	1	AS1000.98.20B
Sampler TitraLab, 20 reusable beakers x 90 mL. Standard plate; shaking from both above and below	1	AS1000.98.20C
Kit pH & Total Acidity in food and wine	1	39987209
Kit Free & Total SO ₂ in food and wine	1	39987211

Accessories for AT1000 titrators

Description	PK	Cat. No.
DPU-S445 USB: Kit including printer and thermal paper	1	39987000
THERMAL PRINTER for printer 8201 (rolls)	5	3126119
TITRAMASTER 1000, PC software with Ethernet cable	1	39987002
External PUMP (sample auto-level)	1	39987197
Motor STIRRER, with 70 mm shaft	1	39987003
Adjustable BRACKET SLAP100 for Laptop. Made in steel.	1	E003299
TABLET pc Lenovo Yoga 300	1	E000469
Waterproof KEYBOARD	1	E003306
USB MOUSE with cable and HPX900 optical sensor	1	E002985
PROBE HOLDER for two probes in sampler AS1000	1	E000356

Spare parts for AT1000 titrator

Description	PK	Cat. No.
10 mL glass syringe (LZE102)	1	39987004
O-ring for 10 mL glass syringe (LZE106)	1	39987005
Kit beakers, 150 mL (LZE109)	10	39987006
Kit beakers, 50 mL (LZE108)	10	39987007
Kit tubes (2x) for syringe (suction and outlet) (LZE114)	1	39987008
Kit tubes (2x) for pump (suction and outlet) (LZE115)	1	39987009
Cap for bottle (GL25) (LZE116)	1	39987010
Cap for bottle (GL45) (LZE117)	1	39987011
Drying tube with cotton (LZE120)	1	39987012
Conical NS 14/23 transparent adapter, electrode holder (LZE122)	1	39987013
Teflon stirring bar 20x6 (LZE136)	10	39987014
4-position tube support (LZE141)	1	39987015
2x tube adapter (LZE124)	1	39987016
Spare box for pump (LZE125)	1	39987017
USB key for food and drink applications (LZE131)	1	39987018
Complete kit for 10 mL syringe (LZE137)	1	39987019
Power supply (cable not included) (LZE144)	1	39987020
RS-232 adapter cable (LZE145)	1	39987021
Protection cover for syringe (LZE156)	1	39987022
Electrovalve connector and block (LZE165)	1	39987023
Beakers 90ml in PP, 20 pcs (LZE194)	1	39987032
Peristaltic pump assembly "Neop", Int 2mm, Capacity 70 mL/min	1	3126122

Electrodes for AT1000

Description	PK	Cat. No.
Pt-Pt electrode. 1mt cable	1	39987024
Ph glass electrode, Red Rod in Kcl and PTFE ring	1	39987025
Adapter for previous models	1	39987026

Optech microscopes
www.exactaoptech.com

1



F12401

1 Torbidimeter

PORTABLE TORBIDIMETER 2100 Q ISO, according to ISO 7027.

Optical system with 2 detector ratios for accurate routine analysis, performed according to EN-DIN-ISO 7027.

Technical data:

Measurement criteria: Nephelometry.

Measurement method: 90° refracted light.

Operating modes: Manual or automatic range selection.

Measuring range: NTU.

Measurement intervals: 0-1000 NTU in automatic range selection mode; 0-9.99, 0-99.9, and 0-1000 NTU in manual range selection mode.

Accuracy: ±2% of reading value; ±1 on the last significant digit in the range 0-500 NTU; ±3% of reading value between 500-1000 NTU.

Resolution: 0.01 on the lowest range.

Reproducibility: ±1% of reading value or ±0.01 NTU.

Light source: 870 nm IR LED (model 2100Q IS); tungsten lamp (model 2100Q).

LCD display.

Included accessories:

6 x Cuvettes, 4 x 100 mL StabCal prima formazin standard (<0.1, 20, 100 and 800 NTU), secondary Gelex standard kit, silicone oil, cuvettes cleaning cloth, instruction manual, case.

Description	PK	Cat. No.
Hach portable Torbidimeter 2100Q, tungsten lamp	1	39987207
Hach portable Torbidimeter 2100Q IS, LED IR	1	F12401
Bentotest, 250 mL solution for white wine	1	X200714
Bentotest, 250 mL solution for red wine	1	X200715
MINISART syringe filters 0,65 um, diam 26 mm	1	6901409



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1 2 Tartarcheck: tartaric stability in wine

TartarCheck is an instrument for monitoring the tartaric stability which allows to evaluate how to stabilize, saving on the process and ensuring quality. TartarCheck works on the principle of accelerating the THK precipitation, by adding it in excess as fine crystals. The precipitation kinetics is followed by measuring the sample's electrical conductivity, which depends on the ions in solution (so not yet precipitated), in a thermostated chamber whose temperature follows a pre-set time profile by a microcomputer-controlled Peltier heat pump.

The instrument is complete and compact, with LCD display and thermal printer, and can be connected to external computer via RS232C. It does not need other external elements to work.

With its simple and intuitive software You can:

- perform isotherm precipitation kinetics (at any T° between -4 and 40 °C).
- detect the TS by intersecting the thermal conductivity profiles both with and without THK crystals.
- print and/or store (depending on the model) the precipitation kinetics for the isotherm test and the differential conductivity diagrams according to the temperature for the Ts calculation.

Isothermal speed: test at 0 °C in 20 min.

Ts speed: complete test in 35 min.

Sample volume: 25 mL/magnetic stirrer/environment T°: -4 °C to 40 °C.

Power: 220 - 240 V/50-60Hz/100 W.

Dimensions: 42x32x23 cm; Weight: 5 kg.

"CE" marked.

COMMON TECHNICAL CHARACTERISTICS

Conductivity:

Conversion from 16 Bit to D/A

Conductivity range: 0-4000 uS/cm

Sensibility: ±2µS

Accuracy: ±2µS

Thermometer:

Semiconductor thermal sensor

Temperature range: -5/35 °C

Sensibility: 0.01 °C

Accuracy: 0.01 °C

MAIN DIFFERENCES

Data storage:

Tartarcheck

Thermal printer releasing a receipt at the end of the analysis;
No data storage.

Tartarcheck Plus

Tablet touchscreen (no printer) with data storage; PDF analysis report, can be downloaded from the inner archive to PC or mobile via wi-fi connection.

Control panel:

Tartarcheck

with buttons

Tartarcheck Plus

Touchscreen tablet

Description	PK	Cat. No.
Tartarcheck	1	A11307
Tartarcheck Plus	1	A11373



Tartarcheck Plus



Tartarcheck

Accessories and spares for Tartarcheck

Description	PK	Cat. No.
50ml syringe for chamber of analysis emptying	1	X200141
THK dosing syringe	1	X200143
Syringe filters 0,80 microS	50	9049103
Potassium Hydrogenated (THK), 250 g	1	A15281-250G
Conductivity solution 1413 microS at 25 °C, 500 mL	1	CL12.1110.0500
Thermal paper 57x30 m, in rolls	10	X200722

1

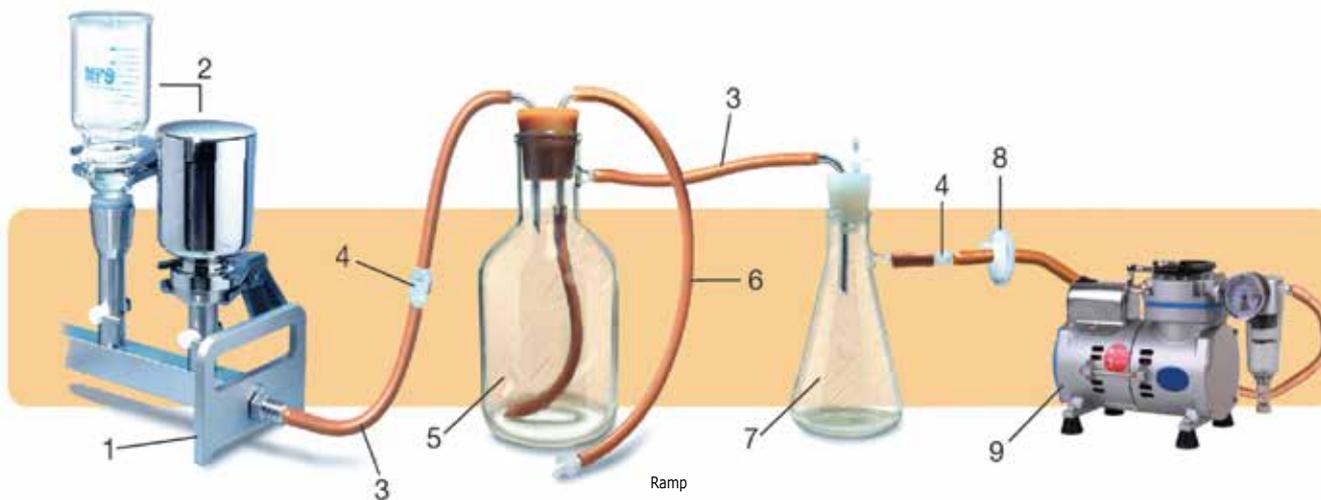


9604076

1 2 Filtration

Description	PK	Cat. No.
Filtration system, type 16309	1	9604076
SPEED-FLOW stainless steel base ramp, 1-place, with handles, nose and closure cap	1	E0000156
SPEED-FLOW stainless steel base ramp, 3-places, with handles, nose and closure cap	1	3500031
SPEED-FLOW stainless steel base ramp, 4-places, with handles, nose and closure cap	1	247340
SPEED-FLOW stainless steel base ramp, 6-places, with handles, nose and closure cap	1	3500033
RA-S column, for Ø 47 mm beakers, with stainless steel disc and PTFE gasket	1	3500032
500ml stainless steel beaker, graduated at 250 and 500 mL, complete with stainless steel cover (sealing clamp non included)	1	F5003
Blue anodized TONG for fixing glasses on membranes Ø 47/50 mm	1	F5004
LABOPORT® membrane vacuum pump model N 86 KT.18	1	9880680
Flame lamp with piezoelectric ignition	1	E000348
Spare cartridge for Flame lamp art. E000348	1	E000349

3



Microbiological Media & Plates

Description	PK	Cat. No.
Malt Extract Agar. For yeasts and molds research, isolation and counting 500 g per 10,0 L media	20	CM0059B
Czapek Dox Agar Modified, for fungus cultivation 500 g per 11,0 L media	20	CM0097B
Tomato Juice Agar, for lactobacilli cultivation 500 g per 9,6 L media	20	CM0113B
WL Nutrient Agar, for microbial flora during beer preparation & fermentation 500 g per 6,7 L media	20	CM0309B
MRS Agar (De Man, Rogosa, Sharpe), for lactobacilli cultivation 500 g per 8,1 L media	20	CM0361B
Yeast and Mould Agar, For yeasts and molds isolation and keeping 500 g per 12,2 L media	20	CM0920B
Dichloran Rose-Bengal Chloramphenicol. Yeasts & molds associated with food spoilage. According to ISO 21527-1. 500 g per 15,8 L	20	CM1148B
Bacterial Agar (Agar No.1). Transparent, purified, high gel resistance, suitable to all media; 500 g	20	LP0011B
Yeast Extract Powder. Autolysate of dried yeast acting as a source of vitamins and nitrogen. 500 g	20	LP0021B
Peptone Bacteriological. Nutritive and multipurpose, high-quality. 500 g	20	LP0037B
Dextrose Bacteriological. For addition to bacteriological culture media. 500 g	20	LP0071B
AFPA. Selective media for Aspergillus flavus & A.parasiticus research Chloramphenicol Supplement	20	SR0078E
MRS Agar. 20 plate. 60 mm	20	163832
MRS Agar. 6 bottles x 200 mL	20	412320
MRS Agar. 25 bottles x 200 mL	20	452320
MRS Agar pH 5. 6 bottle x 100 mL	20	402160
Petrefilm Aerobic Count plates	100	6237738
Petrefilm Rapid Coliform plate	50	6245052
Petrefilm Coliform plates	50	6269820
Petrefilm E.coli plates	50	6269819
Petrefilm E.coli/Coliform plates	50	6257512
Petrefilm Enterobacteriaceae plates	50	6251171
Petrefilm Staph Express disk	20	7658234
Petrefilm Staph Express Plates	50	6257510
Petrefilm rapid yeast/molds plates	50	6282104
Petrefilm Yeast and Mold Count Plates	100	7657837
WM-7, with ATC	1	9054132
Complete kit for Yeasts & Molds. Ready to use. 20 x individually sterilized membranes 0.45 & 20 sterile media 5pcs-packed	1	A113K.13
Sabouraud Agar plates. Ready to use	20	X200219

1 2 3 4 5 Instruments

Description	PK	Cat. No.
Mini-Incubator CULTURA® M and CULTURA® M Multirack incl. Thermometer LLG-Min / Max	1	6280596
Mini incubator LLG-uniINCUB 20	1	6263570
Incubator LLG-uniINCUB 28 Cool	1	6263575
Autoclave Labo 1	1	3050102
Colony counter, model 570	1	K1710
Portable fridge model KFT32A	1	E000468
Manual Grapes-press, with PP beaker with handle	1	A11332
B3 Binocular microscope	1	K7161
with achromatic optics 4x-10x-40x-100x; magnifications 40-1000x		
B4SP Binocular microscope	1	K71650
with semiplan optics 4x-10x-40x-100x; magnifications 40-1000x		
Planar positive phase contrast device for B4SP.	1	K71212
With objectives 10x-20x-40x-100x		
Planar positive phase contrast device for B4SP.	1	K71652
With objectives 10x-40x (for YEASTS 400 magnifications)		
B6PT ICS Trinocular microscope, with infinite optics.	1	K71474
with planar optics 4x-10x-40x-100x: magnifications 40x-1000x		
Planar positive phase contrast device for B6PT ICS.	1	K71516
With objectives 10x-20x-40x-100x (for yeasts and bacteria)		
Blood cells BURKER counting chamber with tongs	1	YA0068200
Epifluorescence device HBO 100 W,	1	K71060
complete with lamp and power supply for B4SP		
Epifluorescence device with HBO 100 W lamp and complete with filters,	1	K71622
for B6PT ICS		

1



LLG-uniINCUB 20

2



LLG-uniINCUB 28 Cool

3



Labo 1

4



B6 + epifluorescence

5



B4SP

1



portable models

1 2 3 Optech portable refractometers

Simple and precise instruments to analyse liquids and their dissolved solid content. Except for two models, all Optech portable refractometers are equipped with an automatic temperature compensation device (ATC). Supplied in plastic box with imitation-leather case and instruction manual.

2



Mod. RMT

3



UniRefracto1 and UniRefracto2

Type			Readability	PK	Cat. No.
RBC with ATC	Tomato, oily emulsions, etc	0-10% Brix	0.1%	1	K71900
RLC with ATC	Fruit, fruit juices, milk	0-18% Brix	0.1%	1	K71901
RCS with ATC	Salinity concentration	0-28% Brix	0.2%	1	K71905
RCZ with ATC	General purpose	0-32% Brix	0.2%	1	K71319
RFC with ATC	Jam, tomato juice or paste	28-62% Brix	0.2%	1	K71320
RMM with ATC	Honey, jam	58-90% Brix	0.5%	1	K71902
		12-27% Water	1%		
		38-43° Baumé	0.5°		
RPD with ATC	Jam, tomato juice or paste	45-82% Brix	0.5%	1	K71314
RPU	General purpose	0-80% Brix (2 scales)	1%	1	K7117
RTS	General purpose	0-90% Brix (3 scales)	0.2%	1	K71316
RBA	General purpose	0-90% Brix	0.5%	1	K71318
RMA with ATC	Potential alcohol in wine	0-25% Vol	0.2% Vol	1	K71907
	Sugar content in grapes	0-40% Brix	0.2%		
RMB with ATC	Potential alcohol in wine	0-25% Vol	0.2% Vol	1	K71908
	Density	0-20° Baumé	0.2°		
RBB with ATC	Potential alcohol in wine	0-25% Vol	0.2%	1	K71321
	Sugar content in grapes	0-40% Brix	0.2%		
	Density	0-22° Baumé	0.2°		
RBO with ATC	Oenology	0-140° Oechsle	1°	1	K71196
	Sugar content in grapes	0-25° Babo	0.2°		
		0-32% Brix	0.2%		
RMT		0-95 %	0,2 %	1	K7121
		nD 1,300 - 1,700			
PAL 1 (Atago)		0.0 - 53.0 % Brix	0,1 %	1	9801375
WM-7 with ATC (Atago)		0-45 % Brix	0,5% Brix	1	9801345
		0-26.0 % Potential Alcohol	±0,2%		
			±1°		
			±0,2°		
			±0		
uniREFRACTO 1, with ATC		0-54% Brix	0.1 % Brix	1	6263630
		1,3300-1,4200 nD	0.0001 RI		
uniREFRACTO 2, with ATC		0-95% Brix	0.1 % Brix	1	6263631
		1,3300-1,5400 nD	0.0001 RI		
RFM712, digital		0-50% Brix	0.1 % Brix	1	6284799

Other models available on request

4



4 Standard Brix

Sugar standards (Brix), stabilized at 20 °C For refractometers' calibration.

Descrizione	Taglio	Pz./Cf.	Codice
Stabilised 0%, 1.332986	15 mL	1	BS00S
Stabilised 5%, 1.340264	15 mL	1	BS05S
Stabilised 7%, 1.343253	15 mL	1	BS07S
Stabilised 10%, 1.347824	15 mL	1	BS10S
Stabilised 11.2%, 1.349682	15 mL	1	BS112S
Stabilised 11.5%, 1.350149	15 mL	1	BS115S
Stabilised 12%, 1.350930	15 mL	1	BS12S
Stabilised 12.5%, 1.35093	15 mL	1	BS125S
Stabilised 15%, 1.355679	15 mL	1	BS15S
Stabilised 20%, 1.363842	15 mL	1	BS20S
Stabilised 25%, 1.372328	15 mL	1	BS25S
Stabilised 30%, 1.381149	15 mL	1	BS30S
Stabilised 35%, 1.390322	15 mL	1	BS35S
Stabilised 40%, 1.39986	15 mL	1	BS40S
Stabilised 45%, 1.409777	15 mL	1	BS45S
Stabilised 50%, 1.420087	15 mL	1	BS50S
Stabilised 55%, 1.43080	15 mL	1	BS55S
Stabilised 60%, 1.441928	15 mL	1	BS60S
Stabilised 67.5%, 1.459290	15 mL	1	BS67S

1 2 3 4 Automatic enzyme analyzers, ITALO series

ITALO, Automatic Enzyme Analyzer.
 Complete with PC.
 Parameters: all acids, sulfur, sugars in glucose, fructose and others...
 Random access system, batch, STAT.

Tipo	Descrizione	PK Cat. No.
Italo S	PRODUCTIVITY max 120 tests/h 1 SAMPLING ARM for samples and reagents 24 position reagents 24 sample positions	1 A11391
Italo M	PRODUCTIVITY max 120 tests/h 1 SAMPLING ARM for samples and reagents 20 refrigerated reagents 15 sample positions	1 A11331
Italo L	PRODUCTIVITY max 240 tests/h 1 SAMPLING ARM for samples and reagents 44 refrigerated reagents 49 sample positions	1 A11360
Italo XL	PRODUCTIVITY max 300 tests/h 2 SAMPLING ARMS for samples and reagents 44 refrigerated reagents 49 sample positions	1 A11392



THE RIGHT MODEL
 FOR EVERY KIND
 OF LAB

1



1 Enzyme kits for automatic analyzers

Ready to use.

SLR (Stable Liquid Reagent). For O.I.V. approved methods.

Description	Tests n.	PK	Cat. No.
ACETIC ACID Enzymatic UV	Automatic 450 / Manual 45	1	EN001LM15
CITRIC ACID Enzymatic UV	Automatic 280 / Manual 28	1	EN003M15
D-GLUCONIC ACID Enzymatic UV	Automatic 410 / Manual 82	1	EN004BM15
ENOCAL LD 1x10 mL Calibrator	/	1	EN050STD-LD-FL
D-LACTIC ACID Enzymatic UV	Automatic 410 / Manual 82	1	EN006BM15
D-LACTIC ACID STANDARD 0,60 g/L 1x10 mL	/	1	EN006-STD-FL
L-LACTIC ACID Enzymatic UV	Automatic 410 / Manual 82	1	EN005BM15
ASCORBIC ACID Enzymatic UV	Automatic 302 / Manual 60	1	EN131BM15
L-ASCORBIC STANDARD 500 g/L 1x10 mL	/	1	EN131-STD-FL
L-MALIC ACID Enzymatic UV	Automatic 410 / Manual 82	1	EN007BM15
PYRUVIC ACID Enzymatic UV	Automatic 354 / Manual 70	1	EN017BM15
PYRUVIC ACID STANDARD 0.4 g/L 1x10 mL	/	1	EN017-STD-FL
TARTARIC ACID Enzymatic UV metavanadate ammonium	Automatic 375 / Manual 54	1	EN021AM15
TARTARIC ACID STANDARD 5g/L 1x10 mL	/	1	EN021-STD-FL
TOTAL ACIDITY 6x339 mL	Automatic 530 / Manual 99	1	EN134M15
TOTAL ACIDITY STANDARD 8,00 g/L 1x10 mL	/	1	EN134STD-FL
ACETIC ALDEIDE Liquid + Lyophilised 5x20 mL	Automatic 500 / Manual 50	1	EN009
ACETIC ALDEIDE STANDARD 100 mg/L 1x10 mL	/	1	EN009-STD-FL
CARBON DIOXIDE 6x339 mL	Automatic 330 / Manual 33	1	EN100M15
CARBON DIOXIDE STANDARD 6x339 mL	/	1	EN100STD-FL
ANTHOCYANIS 5x29.5 mL	Automatic 565 / Manual 73	1	EN011M15
AMMONIA NITROGEN Enzymatic UV	Automatic 410 / Manual 41	1	EN008BM15
NITROGEN AMINO-ALPHA O-phthaldialdehyde UV	Automatic 410 / Manual 41	1	EN010BM15
NITROGEN, AMINO-ALPHA STANDARD 250mg/L 1x10 mL	/	1	EN010-STD1-FL
IONIC CALCIUM Arsenazo III 3x26 mL (R1) + 1x23 mL(R2)	Automatic 355 / Manual 35	1	EN020BM15
IONIC CALCIUM STANDARD 200 mg/L 1x10 mL	/	1	EN020-STD1-FL
CATECHINS 3x30 mL	Automatic 410 / Manual 41	1	EN019LM15
CATECHINS STANDARD 500 mg/L 1x10 mL	/	1	EN019-STD-FL
COLOUR 420-520-620 9x27 mL	Automatic 1090 / Manual 54	1	EN024M15
IONIC IRON Feren S	Automatic 410 / Manual 41	1	EN016M15
IONIC IRON STANDARD 20 mg/L 1x10 mL	/	1	EN016-STD-FL
GLYCERINE Enzymatic, OIV method	Automatic 306 / Manual 37	1	EN015UVM15
GLUCOSE-FRUCTOSE Enzymatic UV	Automatic 415 / Manual 41	1	EN014M15
GLUCOSE+FRUCTOSE STANDARD 20 g/L 1x10 mL	/	1	EN014-STD20-FL
GLUCOSE Enzymatic UV	Automatic 410 / Manual -	1	EN140M15
MAGNESIUM Xilidile blue	Automatic 350 / Manual 35	1	EN025BM15
MAGNESIUM STANDARD 120 mg/L 1x10 mL	/	1	EN025-STD-FL
TOTAL POLYPHENOLS Folin-Ciocalteus	Automatic 274 / Manual 27	1	EN018M15
TOTAL POLYPHENOLS STANDARD 3 g/L 1x10 mL	/	1	EN018-STD-FL
TOTAL POLYPHENOLS Folin-Ciocalteus 3x30 mL	Automatic 274 / Manual -	1	EN018BM15
TOTAL POLYPHENOLS STANDARD 3 g/L 1x10 mL	/	1	EN018B-STD-FL
TURBIDIMETRIC POTASSIUM	Automatic 305 / Manual 31	1	EN026M15
POTASSIUM STANDARD 1500 mg/L 1x10 mL	/	1	EN026-STD-FL
pH	Automatic 452 / Manual 45	1	EN150M15
pH STANDARD 1x10 mL (2 vials x 3 std levels)	/	1	EN150STD-FL
COPPER (standard INCLUDED 2-1-0.1 mg/L)	Automatic 420 / Manual 90	1	EN013BM15
COPPER STANDARD 2-1-0.1 mg/L	/	1	EN013-STD
SACCAROSE	Automatic 190 / Manual -	1	EN149M15
SACCAROSE STANDARD 2.5 g/L 1x10 mL	/	1	EN149-STD-FL
FREE SO ₂	Automatic 321 / Manual -	1	EN022BM15
FREE SO ₂ STANDARD 60 mg/L 1x10 mL	/	1	EN022B-STD-FL
TOTAL SO ₂	Automatic 330 / Manual -	1	EN023BM15
TOTAL SO ₂ STANDARD 120 mg/L 1x10 mL	/	1	EN023B-STD-FL
UREA Enzymatic UV	Automatic 350 / Manual 35	1	EN055M15
UREA STANDARD 500 mg/L 1x10 mL	/	1	EN055-STD-FL

Consumables and spares for Enzyme Analyzers

Description	PK	Cat. No.
Diluent 3X30 mL	1	ENDILM15
Rinse solution (EW Prb) 6x20 mL	1	P3140000275
Rinse solution (EW Cvt) 6x35 mL	1	P3140000274
Sample cups 3 mL	1000	P3140000001
Sample cups 3 mL	250	P3140000001-250
Cylindrical test tubes PP, 12x75 mm	1000	114040-1000
System solution 6x50 mL	1	P3140000087
Additive for system solution A, 6x100 mL	1	E201M
Additive for system solution B, 6x100 mL	1	E202M
Washing solution 1x5 litri	1	D111.
Distilled water, 20 L	1	D002-20
Sampling needle (<i>new type</i>)	1	P3140000352
Reading cuvettes	1	P3140000093-1
Reading cuvettes	80	P3140000093-80
Peristaltic pump head, white	1	P3140000277
Peristaltic pump head, red	1	P3140000278
Peristaltic pump head, orange	1	P3140000279
Peristaltic pump head, light blue	1	P3140000280
Outlet tubing set, red (25 L)	1	P3140000293
Spare lamp, for Italo & Miura series	1	P3140000350

1 Enzyme kits for Italo S

Ready to use.
SLR (Stable Liquid Reagent). For O.I.V. approved methods.

Description	Tests n.	PK	Cat. No.
ACETIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN001IS
CITRIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN003IS
D-GLUCONIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN004IS
ENOCAL LD 1x10 mL. Calibrator	/	1	EN050STD-LD-FL
D-LACTIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN006IS
D-LACTIC ACID STANDARD 0,60g/L 1x10 mL	/	1	EN006-STD-FL
L-LACTIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN005IS
ASCORBIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN131IS
L-ASCORBIC STANDARD 500 g/L 1x10 mL	/	1	EN131-STD-FL
L-MALIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN007IS
PYRUVIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN017IS
PYRUVIC ACID STANDARD 0.4g/L 1x10 mL	/	1	EN017-STD-FL
TARTARIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN021IS
TARTARIC ACID STANDARD 5g/L 1x10 mL	/	1	EN021-STD-FL
TOTAL ACIDITY	Automatic 265 / Manual 49	1	EN134IS
TOTAL ACIDITY STANDARD 8,00 g/L 1x10 mL	/	1	EN134STD-FL
ACETIC ALDEIDE Liquid + Lyophilised 5x20 mL STD included 100 mg/L	Automatic 500 / Manual 50	1	EN009
ACETIC ALDEIDE STANDARD 100 mg/L 1x10 mL	/	1	EN009-STD-FL
CARBON DIOXIDE Enzymatic UV	Automatic 150 / Manual 15	1	EN100IS
CARBON DIOXIDE STANDARD 1300 mg/L 1x10 mL	/	1	EN100STD-FL
ANTHOCYANIS	Automatic 343 / Manual 40	1	EN011IS
AMMONIA NITROGEN Enzymatic UV	Automatic 410 / Manual 41	1	EN008IS
NITROGEN AMINO-ALPHA O-phthaldialdehyde UV	Automatic 150 / Manual 15	1	EN010IS
NITROGEN, AMINO-ALPHA STANDARD 250 mg/L 1x10 mL	/	1	EN010-STD1-FL
IONIC CALCIUM	Automatic 150 / Manual 15	1	EN020IS
IONIC CALCIUM STANDARD 200 mg/L 1x10 mL	/	1	EN020-STD1-FL
CATECHINS	Automatic 150 / Manual 15	1	EN019IS
CATECHINS STANDARD 500 mg/L 1x10 mL	/	1	EN019-STD-FL
COLOUR	Automatic 510 / Manual 25	1	EN024IS
IONIC IRON	Automatic 150 / Manual 30	1	EN016IS
IONIC IRON STANDARD 20 mg/L 1x10 mL	/	1	EN016-STD-FL
GLYCERINE Enzymatic, OIV method	Automatic 150 / Manual 18	1	EN015UVIS
GLUCOSE+FRUCTOSE Enzymatic UV	Automatic 200 / Manual 32	1	EN014IS
GLUCOSE+FRUCTOSE STANDARD 20 g/L 1x10 mL	/	1	EN014-STD20-FL
GLUCOSE Enzymatic UV	Automatic 150 / Manual -	1	EN140IS
MAGNESIUM	Automatic 150 / Manual 15	1	EN025IS
MAGNESIUM STANDARD 120 mg/L 1x10 mL	/	1	EN025-STD-FL
TOTAL POLYFENOLS, modified	Automatic 150 / Manual -	1	EN018MIS
TOTAL POLYFENOLS 3g/L 1x10 mL	/	1	EN018B-STD-FL
POTASSIUM	Automatic 150 / Manual 17	1	EN026IS
POTASSIUM STANDARD 1500 mg/L 1x10 mL	/	1	EN026-STD-FL
pH	Automatic 150 / Manual 15	1	EN150IS
pH STANDARD 1x10 mL (2 vials x 3 std levels)	/	1	EN150STD-FL
COPPER	Automatic 150 / Manual 34	1	EN013BIS
COPPER STANDARD 2 mg/L / 0,1 mg/L 5+5x15 mL 10x10 mL	/	1	EN013-STD
SACCAROSE	Automatic 190 / Manual -	1	EN149IS
SACCAROSE STANDARD 2.5 g/L 1x10 mL	/	1	EN149-STD-FL
FREE SO ₂	Automatic 150 / Manual -	1	EN022IS
FREE SO ₂ STANDARD 60 mg/L 1x10 mL	/	1	EN022B-STD-FL
TOTAL SO ₂	Automatic 150 / Manual -	1	EN023IS
TOTAL SO ₂ STANDARD 120 mg/L 1x10 mL	/	1	EN023B-STD-FL
UREA		1	EN055IS
UREA STANDARD 500 mg/L 1x10 mL	/	1	EN055-STD-FL



Consumable and spares for Italo S

Description	PK	Cat. No.
Diluent 4x16 mL	1	ENDILMIS
Cylindrical test tubes PP, 12x75 mm	1000	114040-1000
Sample cups 3 mL	1000	P3140000001
Additive for system solution A, 6x100 mL	1	E201M
Additive for system solution B, 6x100 mL	1	E202M
Distilled water, 20 L	1	D002-20
System solution 6x50 mL	1	P3140000087
Sampling needle	1	P3140000352
Reading cuvettes	50	P3140000136
Peristaltic pump head, white	1	P3140000277
Peristaltic pump head, red	1	P3140000278
Peristaltic pump head, light blue	1	P3140000280
Spare lamp	1	P3140000350

1



Gallardo

1 Enzymatic Analyzer Model Gallardo

The evolution of enzymatic analysis.

Extremely easy to use: thanks to the ready-to-use Reactive Liquid Stable (SRL), no reagent preparation is needed; all the analyzes in one click.

In addition to all classic enzymatic analyzes, Gallardo also measures alcohol.

Touch screen keyboard.

Printer.

Possible analysis to be performed with the instrument:

Acetic acid Citric acid Gluconic acid D-lactic acid L-lactic acid Malic acid L-ascorbic acid Succinic acid Tartaric acid Acetaldehyde Anthocyanins Glucose/fructose Nitrates Sucrose/glucose Sulfites SO₂ 420/520 colour test 420/520/620 colour Potassium Copper AND ALSO Total Acidity Alcohol.

TECHNICAL FEATURES

Display: 320x240 (1/4 of VGA)

Number of set tests: 1000 Test

External PS2 RS232 Interface

Light Source: Halogen 12V 20W

Silicon Detector: 340 nm - 620 nm

Peltier cell temperature control

24-digits graphics printer

Power: 110/220 AC - 50-60 Hz

Dimensions: 42x38x25 cm (LxWxH)/Weight: 11 Kg

Description	PK	Cat. No.
GALLARDO, enzyme analyzer	1	A11377

2



2 SLR kits for Gallardo and Manual analysis

For O.I.V. approved methods

Ready-to-use.

Description	Tests n.	PK	Cat. No.
ACETIC ACID Enzymatic UV. Standard included 1 g/L	Gallardo 90 / Manual 45	1	EN001LB
CITRIC ACID Enzymatic UV. Standard included 0.8 g/L	Gallardo 80 / Manual 40	1	EN003
D-GLUCONIC ACID Enzymatic UV. Standard included 2 g/L	Gallardo 100 / Manual 50	1	EN004B
D-LACTIC ACID Enzymatic UV. Standard included 0.6 g/L	Gallardo 100 / Manual 50	1	EN006B
L-LACTIC ACID Enzymatic UV. Standard included 0.6 g/L	Gallardo 100 / Manual 50	1	EN005B
ASCORBIC ACID Enzymatic UV. Standard included 500 mg/L	Gallardo 80 / Manual 40	1	EN131B
L-MALIC ACID Enzymatic UV. Standard included 1 g/L	Gallardo 100 / Manual 50	1	EN007B
PYRUVIC ACID Enzymatic UV	Gallardo 30 / Manual 15	1	EN017IS
TARTARIC ACID Enzymatic UV. Standard included 5 g/L	Gallardo 160 / Manual 80	1	EN021A
ACETIC ALDEIDE Liquid + Lyophilised 5x20 mL Standard included 100mg/L	Gallardo 100 / Manual 50	1	EN009
CARBON DIOXIDE Enzymatic UV	Gallardo 33 / Manual 15	1	EN100IS
ANTHOCYANINS	Gallardo 200 / Manual 100	1	EN011
AMMONIA NITROGEN Enzymatic UV. Standard included 50 mg/L	Gallardo 100 / Manual 50	1	EN008B
AMINO-ALPHA NITROGEN O-phthaldialdehyde UV. Standard included 250 mg/L	Gallardo 100 / Manual 50	1	EN010B
IONIC CALCIUM Arsenazo III. Standard included 100 mg/L	Gallardo 200 / Manual 100	1	EN020B
CATECHINS	Gallardo 120 / Manual 60	1	EN019L
COLOUR 420 - 520 - 620	Gallardo 400 / Manual 100	1	EN024
IONIC IRON Ferene S. Standard included 20 mg/L	Gallardo 80 / Manual 40	1	EN016
GLYCERINE Enzymatic OIV method. Standard included 0.4 g/L	Gallardo 100 / Manual 50	1	EN015UV
GLUCOSE-FRUCTOSE Enzymatic UV. Standard included 1 g/L	Gallardo 100 / Manual 50	1	EN014
GLUCOSE Enzymatic UV. Standard included 1 g/L	Gallardo 100 / Manual 50	1	EN140
MAGNESIUM Xilidile blue	Gallardo 30 / Manual 15	1	EN025IS
TOTAL POLYPHENOLS Folin.Ciocalteus. Standard included 3 g/L	Gallardo 200 / Manual 100	1	EN018
POTASSIUM Standard included 1500 mg/L	Gallardo 100 / Manual 50	1	EN026
COPPER Standard included 2 - 1 - 0.1 g/L	Gallardo - / Manual 50	1	EN013
SUCROSE Standard included 5 g/L	Gallardo - / Manual 80	1	EN149
FREE SO ₂ . Powder standard included 80 mg/L	Gallardo - / Manual 60	1	EN022
TOTAL SO ₂ . Powder standard included 160 mg/L	Gallardo - / Manual 100	1	EN023
UREA Enzymatic UV	Gallardo 30 / Manual 15	1	EN055IS

1 Spectrophotometer UV1200/Wine

Single-ray compact spectrophotometer.
 Ideal for didactic and laboratory, they have embedded microprocessor and data display on 128x64 LCD.
 Wavelengths with manual or automatic positioning (with digital display), depending on the model.
 Large sample compartment with four-position slip-cell holder.
 The sources can be activated separately, saving them.
 They allow measurements in T%, ABS and CONC with generation of calibration curve via curve angular coefficient or through standards (max 9).
 They can store calibration curves and results sets.
 Bandwidth 4nm.
 Photometric Range -0.3: 3.0 ABS.
 USB and parallel outputs for printer.
 Power 220V 50 Hz
Software:
 M.Wave Pro for Windows.
 Color Intensity functions for colour analysis in wine.
 Complete unit control through USB & cable.



Type	primary wave length	PK	Cat. No.
UV-1200	200-1000 nm	1	K71466
Software Mwave Pro	/	1	K71846

2 Single channel microliter pipettes LLG-proMLP

The LLG-proMLP single channel microliter pipettes combine high accuracy and reliability with ergonomic and extremely low force pipetting relieving stress from your hand and thumb.
 This high precision instrument has been built to maintain accuracy for many years making it the ideal choice for all scientific work requiring exact and reproducible pipetting.
 The LLG-proMLP pipettes are equipped with an adjustable eject button (except for 5 mL and 10 mL pipettes) allowing right and left handed users to set the button according to their preferences.
 The built in volume locking mechanism and competitive pricing complete these high quality precision pipettes.
 Available volume ranges from 0.2 µl to 10 mL.
 High quality "Made In France".
 High accuracy, reliability and reproducibility.
 Extremely light weight while the robustness still remains.
 Perfect ergonomics for highest comfort.
 Colour-coded push-button for quick operation.
 Extremely low pipetting forces.
 Built-in volume locking for error-free results.
 Tip ejector button, adjustable for right- and left-handed users.
 Completely autoclavable at 121 °C.
 Including individual calibration certificate (according to EN ISO 8655).



Capacity µl	Readability g	Readability	Description	PK	Cat. No.
0,2-2	1,65	0,75	Color code: dark orange	1000	6288978
0,5-10	1,10	0,44	Color code: red	1000	6288979
2-20	1,00	0,33	Color code: light yellow	1000	6288980
10-100	0,80	0,17	Color code: light orange	1000	6288981
20-200	0,80	0,17	Color code: dark yellow	1000	6288982
100-1000	0,80	0,17	Color code: dark blue	1000	6288983

3 4 Accessories for spectrophotometers

Description	PK	Cat. No.
Disposable cuvettes 4,5 mL in PS, O.P. 10 mm	100	YK0001937
S/G/1	2	K94001
S/G/2	2	K94002
Optech cuvettes model S/G/10, optical glass with lid, O.P. 10 mm	2	K94004
Optech cuvettes model S/Q/10, quartz with lid, O.P. 10 mm	2	K94012
Cuvettes holder in PP, 16 numbered places. Can be sterilized at 121 °C. Dimensions: 210x70x38 mm	1	K94159



Filterability Test

1



Stainless steel filterability test

1 2 Filterability index

art. A11321

Manual operation.

The test is performed by measuring the needed time to filter 200 mL (T2) and 400 mL (T4) of wine through a 0.65 µm membrane.

The filtering index is calculated using the following formula: $IF = (T4) - 2 (T2)$

Technical specifications:

Stainless steel chamber, cover and locking ring

3 ball taps

Stainless steel manometer 63 mm KL1.6

Quick air fitting

Pressure regulator

O-ring sealing gasket

Filter Diameter: 25 mm

Filtering surface: 3.9 cm square

Tank capacity: 1 L

Complete with: Polypropylene cylinder, manual stopwatch, filter membranes, base with support rod.

art. A11327

Fully automatic determination of the filtering index (IF) and the modified filtering index (IFm).

The sample tank is made in PTFE, a resistant and sanitizable material.

By connecting the instrument to the lab's water network it is possible to use the AUTOMATIC TANK WASHING SYSTEM.

Extremely robust and practical closure system of the analysis chamber.

The instrument accepts membranes or LUER connection with syringe filters; requires connection to PC.

2



Filterability tester

Technical features:

Dimensions: 210x370x500 mm

Power: air or nitrogen

Min Pressure: 4 bar

Max pressure: 6 bar

Washing: Current water

Power: 100 to 250 V - 50/60 Hz

Calculator: 4000 IF-IFm measurements

RS232 interface

Precision <0.2 (IF-IFm) under best conditions

Weight: 5 Kg

Software: included.

Description	PK	Cat. No.
Stainless steel filterability test	1	A11321
Filterability Tester	1	A11327

After-sales service



Tel. +39 059 8081150
service@exactaoptech.com



QUALIFIED
CONSULENCE

ON-SITE
ASSISTANCE



REMOTE
INSTRUMENT
CONTROL

1 2 Magnetic stirrers

UniSTIRRER 1:

An ultra-flat induction magnetic stirrer without heating for biology and biochemistry applications. Modern magnetic coil technology consists only of non-moving parts and therefore guarantees no usury. No probes heating. For better mixing the sample, the rotation direction can be changed of every 30 seconds. 3 years warranty.

100% inductive motor without usury and maintenance
LED display for precise rotation speed adjustment
Digital rotation speed adjustment
Adjustable stirring direction
High IP 65 protection class
Stainless steel surface
Delivery includes: magnetic stirrer, power cable, adapters for UK and USA

UniSTIRRER 3:

Economical magnetic stirrer with all the needed features for operation. A LED display controls all parameters, an integrated temperature control and a closed design (IP42) are its features. The included PT-1000 sensor ensures accurate temperature control. A support rod with a sensor support is provided with the instrument.

The HOT signal warns the user when the plate is hot, even if the instrument is off. 3 years warranty.

LED display to adjust the exact rotation speed and temperature.

Digital control of rotation speed and temperature.

Included PT-1000 sensor.

Integrated temperature control.

The supply includes: magnetic stirrer with PT-1000, support rod, sensor support and fixing material.

Stirring quantity (H₂O):

UniSTIRRER 1: 800 mL

UniSTIRRER 3: 3000 mL

Speed range:

UniSTIRRER 1: 15 - 1500 rpm

UniSTIRRER 3: 100 - 1500 rpm

Allowed environment T°:

UniSTIRRER 1: 5 - 40 °C

UniSTIRRER 3: 5 - 40 °C

Heating plate:

UniSTIRRER 1: diam 94 mm/Stainless steel

UniSTIRRER 3: diam 135 mm/Stainless steel

Display: LCD

Description	PK	Cat. No.
LLG-uniSTIRRER 1	1	6263420
LLG-uniSTIRRER 3, with heating system	1	6263410

1



uniSTIRRER 1

2



UniSTIRRER 3

3 4 Thermometers and Datalogger

Data Logger EBI 20-T1-set

Temperature logger, evaluation software, interface.

Temperature measurement range: -30 ... + 70 °C.

Temperature accuracy: ±0.5 °C (-20 to + 40 °C); ±0.8 °C for the remaining measuring range.

Temperature resolution: 0.1 °C.

Memory: 40.000 measured values.

Sensor: NTC.

Operating temperature: -30 to + 70 °C.

Battery: 3V lithium, replaceable.

Protection degree : IP 67.

LLG-Digital pocket thermometer Type 12050

Measuring range -50 to +150 °C, accuracy ±1°C.

Stainless steel probe, 120x3.5 mm, with protective plastic sleeve and clip, with battery 1 x 1.5V (LR44).

Overall dimensions (L x W): 75 x 20 mm.

Description	PK	Cat. No.
Data Logger EBI 20-T1-set	1	9908073
LLG-Digital pocket thermometer Type 12050	1	9236706

3



Logger EBI-20 T1-Set

4



1 2 Centrifuges

Description	PK	Cat. No.
Compact HERMLE bench centrifuge Model Z 206 A	1	9945737
Fixed angle rotor 6x50 mL, for Model Z 206 A	1	9945729
Conical graduated tube 50 mL, for Model Z 206 A	100	YK0084002
LLG-uniCFUGE 2/5 with rotor for 5 mL tubes and EU plug	1	6263515



Technical Kern balances

Series 440.

Compact laboratory balances. Integrated program for recipes formulation and counters. Their high performances are ideal for routine laboratory activity. Protection cover supplied. Integrated calibration program to ensure high precision. LCD display with 15 mm digits. Power supply with external transformer or with 9V battery (not supplied). The balance has an AUTO-OFF function activating after 5 minutes to save battery power.

Stainless steel weighing plate.
Dimensions: 165x230x80 mm.
Weight: 1 kg.

Type	Pan dim. mm	Capacity g	Readability g	Linearity ± mg	PK	Cat. No.
440-35N	Ø 105	400	0,01	0,03	1	9901349
440-35A	Ø 105	600	0,01	0,03	1	9901341
440-45N	130 x 130	1000	0,1	0,2	1	9901346
440-47N	130 x 130	2000	0,1	0,2	1	9901347
440-49N	170 x 150	4000	0,1	0,3	1	9901343
440-49A	170 x 150	6000	0,1	0,3	1	9901342

3



3 Ultrasonic bath

SONOREX SUPER ULTRASONIC BATH Model RK 31

For accurate cleaning, liquid degassing, sono-chemistry.

It works at 35 kHz and is equipped with a PZT transducer for optimum cleaning and a very deep action.

High power ultrasound with peak and power HF 230 V, 50/60 Hz

Equipped with stainless steel basin and housing and anti-static protection.

Internal dimensions (LxWxH) 190x85x60 mm.

Capacity 0.9 L

Ultrasonic capacity 240 W

"CE" marked.

Description	PK	Cat. No.
RK 31	1	9877021



Chem-lab is pleased to offer a large selection of High Purity Solvents.

Our High Purity Solvents are filtered through 0.2 μm filters and bottled under nitrogen.

Our screw caps are fitted with an inner Teflon seal to protect the solvent against possible contamination after bottling and during storage.

Chem-Lab

High Purity Solvents

- HPLC Grade Solvents
- Pesticide Grade Solvents
- LC-MS Grade Solvents
- Dissolution Media
- Ion Pair Reagents
- Anhydrous Solvents



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1



1 LLG-uniTOPDISPENS, Dispensers for bottles

With glass piston and clear glass cylinder.
Accurate and reliable volume control
Visible dosing procedure
PP valves block providing optimized protection of the glass dosing cylinder
High precision of the glass piston to have a perfect seal in the glass cylinder
Ergonomic fingers-protector
Supplied with 2 adapters in PP: GL40 and GL45
Accuracy Max. Vol. 0.6 ($\leq \pm A\%$)
Precision Max. Vol. 0.2 ($\leq CV\%$)

Type	Sample grad. volume mL mL	PK	Cat. No.
LLG-uniTOPDISPENS	2 - 10 0,2	1	9283806
LLG-uniTOPDISPENS	10 - 50 1,0	1	9283808

2



9055513

2 Syringe filters & filter paper

Description	PK	Cat. No.
SYRINGE FILTER Ø 25 mm, CA, 0,45 µm, yellow. STERILE	50	9055513
SYRINGE FILTER Ø 25 mm, CA, 0,45 µm, yellow	500	9055503
SYRINGE FILTER Ø 25 mm, Nylon, 0,45 µm, transparent	500	9055523
SYRINGE FILTER Ø 25 mm, Nylon, 0,45 µm, transparent	50	6272641
SYRINGE FILTER Ø 25 mm, Nylon, 0,45 µm, transparent	45	6272643
FILTER PAPER, plan disc, Ø 150 mm RAPID	100	4006418
FILTER PAPER, plan disc, Ø 185 mm RAPID	100	4006419
FILTER PAPER, plan disc, Ø 210 mm RAPID	100	3997503
FILTER PAPER, plan disc, Ø 250 mm RAPID	100	4006420
FILTER PAPER, folded disc, Ø 150 mm EXTRA-RAPID	100	4006219
FILTER PAPER, folded disc, Ø 190 mm EXTRA-RAPID	100	4006220
FILTER PAPER, folded disc, Ø 210 mm EXTRA-RAPID	100	4006221
FILTER PAPER, folded disc, Ø 250 mm EXTRA-RAPID	100	4006223
FILTER PAPER, in ream, 500x500 mm BIBULA, 67 g for rough impurities (sheets)	100	G01526
FILTER PAPER, in ream, 500x500 mm, 67 g for rough impurities (sheets)	500	G01989

3



3M respirator

3 DPI/PPE - Personal Protection Devices

Description	PK	Cat. No.
Protection spectacle "Classic" blue frame, clear lenses	1	9006001
Respirator, Type 8710, FFP 1 without valve	20	6050640
Respirator Type 8810, FFP 2 without valve	20	6078942
Respirator Type 8812, FFP 1 with valve	10	6202080
Respirator Type 8822, FFP 2 with valve	10	6052910
Disposable gloves, Standard, Nitrile, size S, powder free	100	9006375
Disposable gloves, Standard, Nitrile, size M, powder free	100	9006376
Disposable gloves, Standard, Nitrile, size L, powder free	100	9006377
Disposable gloves, Standard, Nitrile, size XL, powder free	100	9006378
Protective coat, woman, model Carla, white, elastic wrists, size M	1	YL0600201
Protective coat, woman, model Carla, white, elastic wrists, size L	1	YL0600202
Protective coat, man, model Capri, white, elastic wrists, size M	1	YL0600211
Protective coat, man, model Capri, white, elastic wrists, size L	1	YL0600212
Protective coat, man, model Capri, white, elastic wrists, size XL	1	YL0600213

4



TFI-260 thermometer

4 Consumables

Description	PK	Cat. No.
Wash bottle with extractable pin, 500 mL	1	YK0000183
Safety pipetting ball, universal type, red	1	6270266
Bunsen Poligas lamp, with thermocouple and tap	1	YL0084000
Absorbent paper coil, double thickness wadding. 625 rips. 300x400 mm	2	YL0325500
Absorbent paper coil, 800 rips. 80% rips, 20% recycled	2	YL0325750
Foldable digital thermometer TLC 700, -30 to 220 °C	1	9908018
Min/Max Thermometer with outdoor sensor.	1	9243165
Inside -20 to 70 °C, outside -50 to 70 °C		
Infrared thermometer TFI-260. Measuring range -60 to 550 °C	1	6272762

1 Glassware

Borosilicate glass 3.3

Description	PK	Cat. No.
Beaker with spout, low form, 100 mL	1	YA0014505
Beaker with spout, low form, 250 mL	1	YA0014705
Beaker with spout, low form, 600 mL	1	YA0014905
Beaker with spout, low form, 800 mL	1	YA0015005
Flask, narrow mouth, 100 mL	1	YA0180405
Flask, narrow mouth, 250 mL	1	YA0180805
Flask, narrow mouth, 500 mL	1	YA0181105
Filtration flask with spout, 1000 mL	1	YA0186102
Graduated cylinder with spout, class A, 50 mL	1	YA0089010
Graduated cylinder with spout, class A, 100 mL	1	YA0089210
Graduated cylinder with spout, class A, 250 mL	1	YA0089410
Volumetric flask, class A, NS 12/21, with Moplen cap, capacity 100 mL	1	YA0210900
Volumetric flask, class A, NS 14/23, with Moplen cap, capacity 200 mL	1	YA0211000
Volumetric flask, class A, NS 19/26, with Moplen cap, capacity 500 mL	1	YA0211200
Funnel, short shaft, diam. 75 mm	1	YA0158205
Funnel, short shaft, diam. 100 mm	1	YA0159002
Volumetric pipette, 1-mark graduation, class A, capacity 5 mL	1	YA0277400
Volumetric pipette, 1-mark graduation, class A, capacity 10 mL	1	YA0277500
Volumetric pipette, 1-mark graduation, class A, capacity 20 mL	1	YA0277700
Volumetric pipette, 1-mark graduation, class A, capacity 25 mL	1	YA0277800
Graduated pipette, class A, capacity 5 mL, div. 1/10	1	YA0257800
Graduated pipette, class A, capacity 10 mL, div. 1/10	1	YA0258000
Mohr burette, Schelbach glass, class A, capacity 25 mL, div. 1/10	1	YA0052400
Pellet burette, Schelbach glass, class A, capacity 25 mL, div. 1/10	1	YA0065300
Pellet burette, amber glass, class A, capacity 25 mL, div. 1/10	1	YA0065400



1

2 3 Plastic consumables

Description	PK	Cat. No.
Measuring jug, low form, 500 mL	1	YK0001156
Measuring jug, low form, 1000 mL	1	YK0001157
Measuring jug, low form, 2000 mL	1	YK0001158
Measuring jug, low form, 3000 mL	1	YK0001159
Measuring jug, low form, 5000 mL	1	YK0001160
Measuring jug, tall form, 250 mL	1	YK0001086
Measuring jug, tall form, 500 mL	1	YK0001087
Measuring jug, tall form, 1000 mL	1	YK0001088
Measuring jug, tall form, 2000 mL	1	YK0001089
Measuring jug, tall form, 3000 mL	1	YK0001090
Bottle with graduated dispenser. Measuring container 25 mL; bottle 250 mL	1	YK0001475
Bottle with graduated dispenser. Measuring container 25 mL; bottle 500 mL	1	YK0001476
Bottle with graduated dispenser. Measuring container 25 mL; bottle 1000 mL	1	YK0001477
Bottle with graduated dispenser. Measuring container 50 mL; bottle 250 mL	1	YK0001480
Bottle with graduated dispenser. Measuring container 50 mL; bottle 500 mL	1	YK0001481
Bottle with graduated dispenser. Measuring container 50 mL; bottle 1000 mL	1	YK0001482
Graduated cylinder, low form, 10 mL	1	YK0000814
Graduated cylinder, low form, 25 mL	1	YK0000815
Graduated cylinder, low form, 50 mL	1	YK0000816
Graduated cylinder, low form, 100 mL	1	YK0000817
Graduated cylinder, low form, 250 mL	1	YK0000820
Graduated cylinder, low form, 500 mL	1	YK0000821
Graduated cylinder, low form, 1000 mL	1	YK0000822
Graduated cylinder, low form, 2000 mL	1	YK0000823
Funnel, diam. 66 mm	1	YK0000148
Funnel, diam. 81 mm	1	YK0000150
Funnel, diam. 120 mm	1	YK0000153
Vertical pipette stand. 18 small and 10 large holes places	1	YK0000265
Circular base with PVC rod, for art. YK0000265	1	YK0000262
Vertical pipette stand, 200x75 mm	1	YK0000255
Pipette stand, PP, vertical and rotatable, 94 places	1	9273895



Measuring jug, low form



Bottle with dispenser

3

1 2 Reagents & Chemicals



Description	CAS nr	Size	PK	Cat. No.
Hydrochloric acid 37%, p.a.	7647-01-0	1000 mL	1	30721-1L
Sulfuric acid 85% a.r.	7664-38-2	1000 mL	1	CL00.0605.1000
Sulfuric acid 0.1N	7664-93-9	1000 mL	1	CL05.2612.1000
Sulfuric acid 1:4 V/V		1000 mL	1	CL02.2624.1000
Sulfuric acid 1:5 V/V	7664-93-9	1000 mL	1	CL12.2609.1000
Sulfuric acid 95% p.a.	/	1000 mL	1	CL00.2632.1000
Bidistilled water. Tank with tap	7732-18-5	20 L	1	4217.9020
Hydrogen peroxide 1-3 volumes	/	1000 mL	1	CL12.2303.1000
Ethyl alcohol 95% P.A.	64-17-5	1000 mL	1	02870-1L
Concentrated silicone foam	/	100 mL	1	CL12.1904.0100
Silicone foam 30%	/	1000 mL	1	CL12.1905.1000
Silicone foam 2%	/	1000 mL	1	WP5000350
Bentotest, solution for white wine	/	500 mL	1	X200714
Bentotest, solution for red wine	/	500 mL	1	X200715
Blue bromothymol 0.4%	/	250 mL	1	CL12.0201.0250
Blue methylene, 1%	7220-79-3	250 mL	1	CL12.1302.0250
Fehling A, solution	7758-98-7	500 mL	1	CL12.0602.0500
Fehling A, solution	7758-98-7	1000 mL	1	CL12.0602.1000
Fehling B, solution	6381-59-5	500 mL	1	CL12.0603.0500
Fehling B, solution	6381-59-5	1000 mL	1	CL12.0603.1000
Phenolphthalein 1%	/	2500 mL	1	CL06.0604.2500
Iodine N/10	7553-56-2	fiala	1	38060-1EA
Iodine N/10	7553-56-2	500 mL	1	I2005H
Iodine N/10	7553-56-2	1000 mL	1	I2005F
Iodine N/40	7553-56-2	1000 mL	1	CL12.1006.1000
Iodine N/50	7553-56-2	500 mL	1	CL12.1001.0500
Iodine N/50	7553-56-2	1000 mL	1	CL12.1001.1000
Iodine N/64	7553-56-2	500 mL	1	CL12.1004.0500
Iodine N/64	7553-56-2	1000 mL	1	I20031F
Iodine N/100	7553-56-2	1000 mL	1	CL12.1005.0500
Iodine N/100	7553-56-2	1000 mL	1	CL12.1005.1000
Calcium hydroxide (12% CaO) solution	1305-62-0	500 mL	1	CL12.0303.0500
Calcium hydroxide (12% CaO) solution	1305-62-0	1000 mL	1	CL12.0303.1000
Granular pumice stone P.A.	1332-09-8	500 g	1	CL12.1601.0500
Potassium hydrate N/10	1310-58-3	500 mL	1	30603-1KG
Potassium hydrate 1N	1310-58-3	1000 mL	1	CL12.1102.1000
Potassium hydroxide, pellets p.a.	1310-58-3	1000 g	1	CL00.1135.1000
Potassium Hydrogenated L-Tartrate (THK)	/	250 g	1	A15281-250G
Potassium iodide BP-USP	/	250 g	1	30315-250G
Potassium iodide BP-USP	/	1000 g	1	30315-1KG
Starch 1% stabilized	/	500 mL	1	CL12.2603.0500
Starch 1% stabilized	/	1000 mL	1	CL12.2603.1000
Sodium hydroxide 0.354N	1310-73-2	1000 mL	1	CL12.1423.0500
Sodium hydroxide 1N	1310-73-2	vial	1	38215-1EA
Sodium hydroxide 1N	1310-73-2	1000 mL	1	CL05.1420.1000
Sodium hydroxide 4N	1310-73-2	1000 mL	1	CL05.1424.1000
Sodium hydroxide N/10	1310-73-2	1000 mL	1	CL05.1411.1000
Sodium hydroxide N/10	1310-73-2	vial	1	38210-1EA
Sodium hydroxide N/2	1310-73-2	1000 mL	1	CL05.1417.1000
Sodium hydroxide N/4	1310-73-2	1000 mL	1	CL05.1414.1000
Sodium hydroxide N/50	1310-73-2	1000 mL	1	CL05.1409.1000
Sodium hydroxide N/100	1310-73-2	1000 mL	1	CL05.1408.1000
Sodium hydroxide, pellets, p.a.	1310-73-2	1000 g	1	CL00.1403.1000
Sodium thiosulfate 0.5N	10102-17-7	1000 mL	1	CL12.1415.1000
Sodium chloride and potassium alum (12% solution)	/	500 mL	1	CL12.1416.0500
Buffer solution pH 7,00	/	500 mL	1	CL03.0216.0500
Buffer solution pH 4,01	/	500 mL	1	CL03.0213.0500
Mix indicator solution for SO ₂	/	100 mL	1	CL12.0904.0100
Conductivity solution 84 µS/cm	/	500 mL	1	9040861
Conductivity solution 147 µS/cm	/	500 mL	1	9040862
Conductivity solution 1413 µS/cm	/	500 mL	1	9040863
Conductivity solution 12880 µS/cm	/	500 mL	1	9040864

Other sizes available on request.

1 2 Safety devices

Pac 3500

Fast and reliable, accurate and maintenance-free for two years:

Dräger Pac® 3500 is ideal for personal monitoring of carbon monoxide, hydrogen sulfide or oxygen in industrial environments.

Measuring range: 0 - 25 vol.%

Alarm threshold A1/A2 (standard): 19/23 vol.%

AX60

The **AX60** includes a central display unit, a CO₂ sensor and a CO₂ alarm which can alert in case of a CO₂ loss.

No calibration required (except local rules do not ask for it)

Long lasting sensor, even up to 15 years

Up to 4x CO₂ sensors and 8x CO₂ alarms can be used for each Central Display Unit

Supplied with a relay on each alarm which can be used to trigger ventilation, extraction or building management system

Easy to install and maintain, by user directly

CO₂ sensors (quick connection) and additional alarms are available if you have more than one entrance to the lab or more than a hazardous area

In accordance with Exposure Limits such as EH40

The supply includes: 1x Central Display Unit with 2 relays, 1x CO₂ sensor and 1x CO₂ alarm, complete with universal power supply

1



Ax60

2



Pac 3500 O2

Description	PK	Cat. No.
O2NE+ Oxygen Depletion Safety Monitor	1	6240086
Ax60 CO2 Safety Monitor	1	6284262

Brix Standards (Stabilised)

Summary of Features & Benefits:

Commercial Benefits

- Most extensive range available in the market place
- Customised pack options available
- Extended 1 Year shelf life (For users not required to follow ICUMSA Guidelines)
- Can be used with any brand of refractometer
- Extensive range (0 - 67.5% Brix)
- Presented in a convenient high quality dropper bottle
- Available as single bottles or a handy set of 6 bottles
- Ready to Use

Technical Benefits

- Test results accredited to ISO/IEC 17025 for values 5-60% Brix (INAB Ref:264T)
- Uncertainty of measurement $\pm 0.11\%$ for all Brix values @ 20°C
- Consistency of product-Independent, Traceable Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon manufactures several ranges of Brix/Refractive Index Standards for ease of use when controlling all types of refractometers. All of these standards are manufactured using high purity raw materials. These Product ranges - Product No.'s BS005 to BS675 for single bottles and BS0056 to BS6756 for packs of six bottles, contain the same raw materials as the ICUMSA range, but are stabilised to have an extended shelf - life of 1 year. These products represent excellent value for users that are not required to follow ICUMSA Guidelines.

All products are prepared gravimetrically on a weight/weight basis. Both solute (sucrose) and solvent (water) are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO/IEC 17025 accreditation for calibration of laboratory balances (INAB Ref:265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The Brix value of the standard is verified using a high performance calibrated, temperature controlled refractometer.

The control of this instrument is completed using high purity ISO Guide 34 accredited Brix standards similar in Brix value to the products listed.



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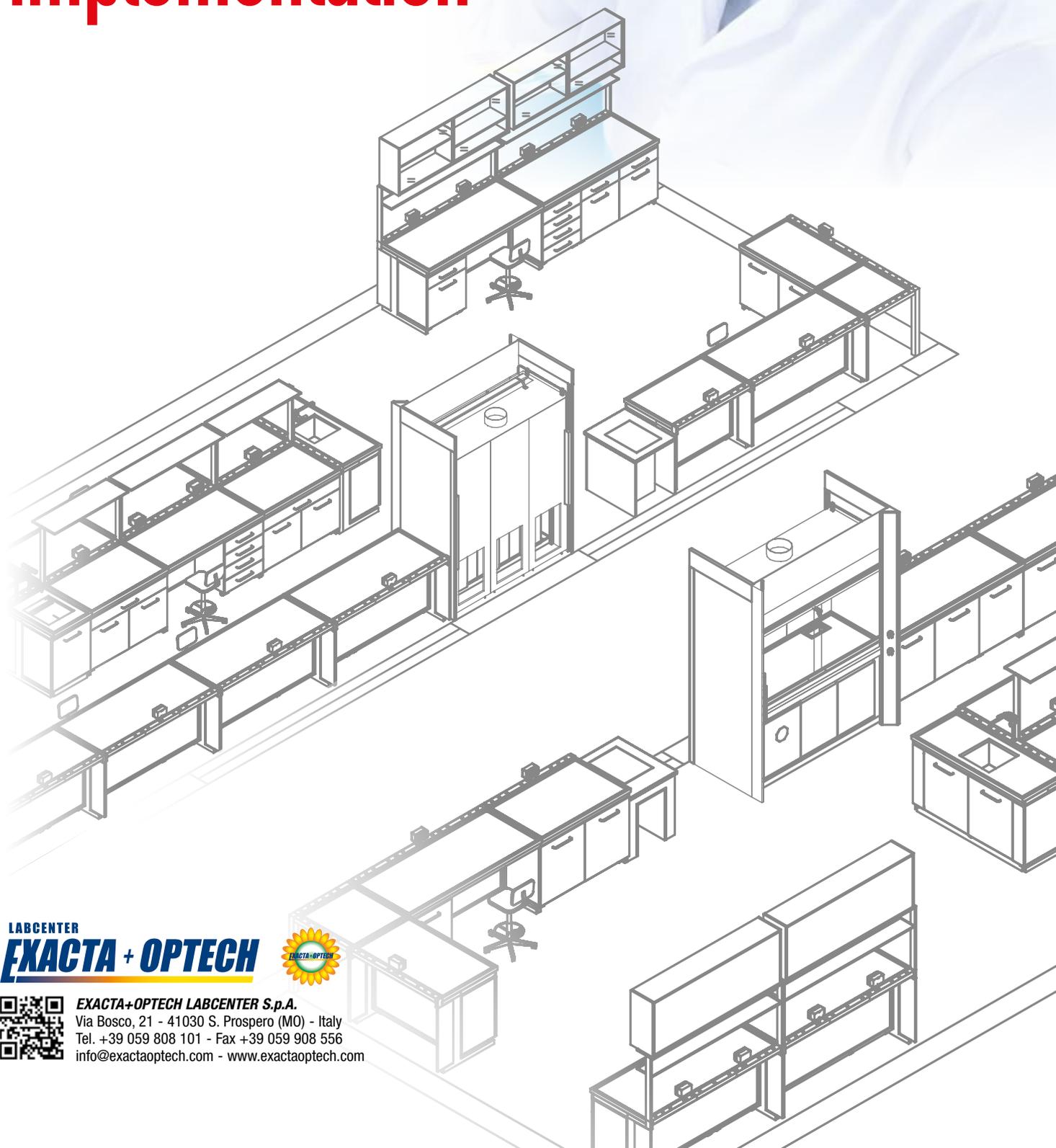
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Turn-key laboratories design & implementation



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