



**OENOLOGY**  
Wine & Spirits Analysis

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



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.



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 was born, certifying our commitment to continue the development of new products throughout the FOOD sector.

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## 1 2 3 4 Automatic enzyme analyzers, ITALO series

ITALO, Automatic Enzyme Analyzer.

Complete with touch-screen PC.

Reagent and samples barcode reader, level and obstacle sensor, cooling system for reagents, starting kit.

Type	Description	PK	Cat. No.
Italo Evolution	40 reagents & 64 samples positions. Cooled samples & reagents. Kit in bottles. Reduced H <sub>2</sub> O consumption.	1	A11320
Italo S	24 reagents & 24 samples positions. Cooled reagents compartment. Kit in bottles. Reduced H <sub>2</sub> O consumption.	1	A11391
Italo M	20 reagents & 15 samples positions. Cooled reagents compartment. Fully automatic. Special kits.	1	A11331
Italo L	44 reagents & 49 samples positions. Cooled reagents compartment. Fully automatic. Special kits.	1	A11360



## 1 Enzyme Kits for automatic Analyzers

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 mg/L 10x10 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 370 / Manual 54	1	EN021AM15
TARTARIC ACID STANDARD 5 g/L 1x10 mL	/	1	EN021-STD-FL
TOTAL ACIDITY 6X33 mL	Automatic 530 / Manual 100	1	EN134M15
TOTAL ACIDITY STANDARD 8,00 g/L 1x10 mL	/	1	EN134STD-FL
ACETIC ALDEIDE Reagent + Lyophilised 5x20 mL (Standard included)	Automatic 500 / Manual 50	1	EN009
ACETIC ALDEIDE STANDARD 100 mg/L 1x10 mL	/	1	EN009-STD-FL
CARBON DIOXIDE CO <sub>2</sub>	Automatic 330 / Manual 33	1	EN100M15
CARBON DIOXIDE STANDARD 1300 mg/L, 1x10 mL	/	1	EN100STD-FL
ANTHOCYANIS	Automatic 565 / Manual 73	1	EN011M15
AMMONIA NITROGEN Enzymatic UV	Automatic 410 / Manual 41	1	EN008BM15
NITROGEN AMINO-ALPHA O-phthalaldehyde UV	Automatic 410 / Manual 41	1	EN010BM15
NITROGEN, AMINO-ALPHA STANDARD 250 mg/L 1x10 mL	/	1	EN010-STD1-FL
IONIC CALCIUM Arsenazo III	Automatic 355 / Manual 35	1	EN020BM15
IONIC CALCIUM STANDARD 200 mg/L 1x10 mL	/	1	EN020-STD1-FL
CATECHINS	Automatic 410 / Manual 41	1	EN019LM15
CATECHINS STANDARD 500 mg/L 1x5 mL	/	1	EN019-STD-FL
COLOUR 420-520-620	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
ALCOHOLIC DEGREE 2x37 + 2x8.5 + 3x10 mL	Automatic 410 / Manual 41	1	EN132
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 modified	Automatic 274 / Manual -	1	EN018BM15
TOTAL POLYPHENOLS modified 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, n. 3 standards 1x10 mL	/	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
FREE SO <sub>2</sub>	Automatic 321 / Manual -	1	EN022OX15
FREE SO <sub>2</sub> STANDARD 60 mg/L 1x10 mL	/	1	EN022OXB-STD-FL
TOTAL SO <sub>2</sub>	Automatic 330 / Manual -	1	EN023BM15
TOTAL SO <sub>2</sub> 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
TOTAL SUGARS 2x7 mL Standard included 10 g/L (saccharose) 1x10 mL	Automatic 415 / Manual 41	1	EN141

NOTE: to be used with GLU-FRU kit

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## 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 (also valid for Italo S)	250	P3140000001-250
Cylindrical test tubes PP, 12x75 mm	1000	110440-1000
Polystyrene cylindrical test tubes, 3 mL 15x56 (100 pcs) + PE finned caps (100 pcs)	1	F11340
System solution 6x50 mL	1	P3140000087
Additive for system solution	1	E203M
Washing solution 1x5 litres	1	D111.
Distilled water, 20 lt	1	D002-20
Sampling needle	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
Spare lamp, for Italo & Miura series	1	P3140000350



## 1 Enzyme Kits for Italo S and Evolution

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
ENOAL LD 1x10 mL Calibrator	/	1	EN050STD-LD-FL
D-LACTIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN006IS
D-LACTIC ACID STANDARD 0,60 g/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 mg/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 0,40 g/L 1x10 mL	/	1	EN017-STD-FL
TARTARIC ACID Enzymatic UV	Automatic 150 / Manual 15	1	EN021IS
TARTARIC ACID STANDARD 5 g/L 1x10 mL	/	1	EN021-STD-FL
TOTAL ACIDITY 6x33 mL	Automatic 265 / Manual 50	1	EN134IS
TOTAL ACIDITY STANDARD 8,00 g/L 1x10 mL	/	1	EN134STD-FL
ACETIC ALDEIDE Reagent + 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 CO <sub>2</sub> 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 150 / Manual 15	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 Arsenazo III	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 420 - 520 - 620	Automatic 170 / Manual 34	1	EN024IS
IONIC IRON Feren S	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
ALCOHOLIC DEGREE 2x37 + 2x8.5 + 3x10 mL	Automatic 410 / Manual 41	1	EN132
GLUCOSE Enzymatic UV	Automatic 150 / Manual -	1	EN140IS
MAGNESIUM Xilidile blue	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 modified STANDARD 3 g/L 1x10 mL	/	1	EN018B-STD-FL
POTASSIUM, turbidimetric	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, n. 3 standards 1x10 mL	/	1	EN150STD-FL
COPPER (standard included 2-1-0.1 mg/L)	Automatic 150 / Manual 34	1	EN013BIS
COPPER STANDARD 2-1-0.1 mg/L	/	1	EN013-STD
FREE SO <sub>2</sub>	Automatic 150 / Manual -	1	EN022OXIS
FREE SO <sub>2</sub> STANDARD 60 mg/L 1x10 mL	/	1	EN022OXB-STD-FL
TOTAL SO <sub>2</sub>	Automatic 150 / Manual -	1	EN023IS
TOTAL SO <sub>2</sub> STANDARD 120 mg/L 1x10 mL	/	1	EN023B-STD-FL
UREA Enzymatic UV	Automatic 150 / Manual 15	1	EN055IS
UREA STANDARD 500 mg/L 1x10 mL	/	1	EN055-STD-FL
TOTAL SUGARS 2x7 mL Standard included 10 g/L (saccharose) 1x10 mL	Automatic 200 / Manual 32	1	EN141

NOTE: to be used with GLU-FRU kit

## Consumable and spares for Italo S

Description	PK	Cat. No.
Diluent 4x16 mL	1	ENDILMIS
Sample Cups 3 mL, also available in 250 pcs pack (art. P3140000001-250)	1000	P3140000001
Reading Cuvettes	50	P3140000136
Cylindrical test tubes PP, 12x75 mm	1000	110440-1000
Polystyrene cylindrical tubes, 3 mL 12x56 (100 pcs) + PE finned caps (100 pcs)	1	F11340
System solution 6x50 mL	1	P3140000087
Additive for system solution	1	E203M
Distilled Water, 20 litres	1	D002-20
Sampling needle	1	S3143000275
Peristaltic pump head, white	1	P3140000277
Peristaltic pump head, red	1	P3140000278
Spare Lamp	1	P3140000350

## 1 Enzyme kits for Gallardo and Manual

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

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 1 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
TOTAL ACIDITY 6x33 mL	Gallardo 530 / Manual 100	1	EN134M15
TOTAL ACIDITY STANDARD 8,00 g/L 1x10 mL	/	1	EN134STD-FL
ACETIC ALDEIDE Reagent + Lyophilised 5x20 mL Standard included 100 mg/L	Gallardo 100 / Manual 50	1	EN009
CARBON DIOXIDE CO <sub>2</sub> Enzymatic UV	Gallardo 33 / Manual 15	1	EN100IS
ANTHOCYANIS	Gallardo 80 / Manual 40	1	EN011IS
AMMONIA NITROGEN Enzymatic UV. Standard included 50 mg/L	Gallardo 100 / Manual 50	1	EN008B
AMINO-ALPHA NITROGEN O-phthaldialdehyde UV. Standard included 150 mg/L	Gallardo 100 / Manual 50	1	EN010B
CATECHINS. Standard included 500 mg/L	Gallardo 120 / Manual 60	1	EN019L
IONIC CALCIUM Arsenazo III. Standard included 100 mg/L	Gallardo 200 / Manual 100	1	EN020B
COLOUR 420-520-620	Gallardo 84 / Manual 54	1	EN024M15
GLYCERINE Enzymatic OIV method. Standard included 0.4 g/L	Gallardo 100 / Manual 50	1	EN015UV
IONIC IRON Ferene S. Standard included 20 mg/L	Gallardo 80 / Manual 40	1	EN016
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 gallic acid	Gallardo 200 / Manual 100	1	EN018
POTASSIUM turbidimetric. Standard included 1500 mg/L	Gallardo 100 / Manual 50	1	EN026
COPPER Standard included 2 - 1 - 0.1 mg/L	Gallardo - / Manual 50	1	EN013
FREE SO <sub>2</sub> Standard included 80 mg/L	Gallardo 100 / Manual 50	1	EN0220XB
TOTAL SO <sub>2</sub> Standard included 120 mg/L	Gallardo 100 / Manual 50	1	EN023B
UREA Enzymatic UV	Gallardo 30 / Manual 15	1	EN055IS
TOTAL SUGARS 2x7 mL Standard included 10 g/L (saccharose) 1x10 mL	Gallardo 100 / Manual 50	1	EN141

NOTE: to be used with GLU-FRU kit



## 2 Fluorimeter for Riboflavin detection

Portable fluorimeter, user-friendly, with touch-screen interface.

The fluorimeter relies on a fluoroimmunoassay to detect the light intensity of the fluorescent reagent in an immune test.

Fluoride immunoassay technology has the advantage of high specificity, sensitivity and utility.

Under low-concentration conditions, the sample concentration is linear to the intensity of the fluorescences, so the test sample can be examined in both qualitative and quantitative analysis.

Description	PK	Cat. No.
Fluorimeter FLUO-100	1	BF500
Kit for 10 tests	1	EN500BE10
Kit for 50 tests	1	EN500BE50



# Titration

## 1 2 3 4 Titration, Hach Lange AT1000 series



AT1102



AT1122



AT1222

pH

The TITRALAB AT1000 HACH LANGE system uses pre-set features, eliminating the need for complex programming and providing accurate results. Reliable results with titration. Simple titration configuration.

**Applications:**

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

Acidity

**IMPORTANT!**

It is necessary to match the titrator with the appropriate kit (pH acidity or free and total SO<sub>2</sub>), depending on the analysis to be carried out.

The sampler plate (called "Sampler") is optional.

SO<sub>2</sub>

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 <sub>2</sub>	1	AT1122.98
model AT1222, including: 2 syringes and 2 pumps for Free, Total & Combined SO <sub>2</sub> , pH and Total Acidity	1	AT1222.98
Sampler TitrLab, 20 beakers x 90 ml, complete with software	1	AS1000.98.20
Kit pH & Total Acidity in food and wine	1	39987209/B
Kit Free & Total SO <sub>2</sub> in food and wine	1	39987211/B

✓ REDUCED TIMING FOR ANALYSIS, THANKS TO FREE AND COMBINED SO<sub>2</sub> SETTINGS

✓ SHAKING FROM ABOVE, THROUGH SCOOP

✓ SHAKING FROM BELOW, THROUGH MAGNETIC BAR

✓ USER-FRIENDLY SOFTWARE

✓ AUTOMATIC AUTO-LEVELLING

✓ 20 SAMPLE POSITIONS

✓ L.I.S. CONTINUOUS EXIT FOR ANALYSIS RESULTS





## Accessories for AT1000 titrators

Description	PK	Cat. No.
DPU-S445 USB: Kit including printer and thermal paper	1	39987000
THERMAL PAPER 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
Waterproof KEYBOARD	1	E003306
USB MOUSE with cable and HPX900 optical sensor	1	E002985
PROBE HOLDER for two probes in sampler AS1000	1	E000356
Temperature glass COMPENSATOR (C.A.T.) Pt1000, for immersion	1	G00397

## 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)	5	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 90 ml in PP, 20 pcs (LZE194)	1	39987032
Peristaltic pump assembly "Neop", Int 2 mm, 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

## Density meter ALM-155



- ✓ High precision oscillating capillary density meter, for analysis of density in wines and musts on samples as it is and for alcohol, after sample distillation.
- ✓ Top level precision and reliability. Very user-friendly, quick and easy to clean.
- ✓ Calibration with air and water.

**KEM**  
**KYOTO ELECTRONICS**  
 MANUFACTURING CO.,LTD.

More infos on page 15

## 1 | 2 Solfotech S, official EEC extractor

Instrument for the extraction of Free and Total SO<sub>2</sub> 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: 23x27x57 cm (WxDxH) / 4 kg

Power: 600 W

Description	PK	Cat. No.
Solfotech S, complete with glassware	1	A11379
Solfotech S3, 3-places	1	A11305



## Accessories and spares

for Solfotech and other SO<sub>2</sub> detection devices

Description		PK	Cat. No.
Bubbler, 29/32 cone	all models	1	X12011
Glass frame	for Solfotech S (art. A11379)	1	X12051
Bubbler attachment, frame with emery cone	for Solfotech S (art. A11379)	1	X12067
Glass frame	for Solfotech S3 (art. A11305)	1	X12072
Bubbler nozzle	for Solfotech S3 (art. A11305)	1	X12076
Sodium hydroxide N/100	for Solfotech S & Solfotech S3	1	CL05.1408.1000
Mix indicator solution for SO <sub>2</sub>	for Solfotech S & Solfotech S3	1	CL12.0904.0100
Phosphoric acid 85% a.r.	for Solfotech S & Solfotech S3	1	CL00.0605.1000
Hydrogen peroxide 0.9 weight % solution	for Solfotech S & Solfotech S3	1	CL12.2303.1000

3



## 3 Ripper methods

Manual titration of free and total SO<sub>2</sub> through Ripper method

Description	PK	Cat. No.
Lighting base	1	A11309L



Gas Volume / Air content Analyzer

# GVA-710

By simply setting a sample container on the sample stage, the following operations are performed automatically; opening, snifting, continuous shaking, the injection of the sample gas into the absorbent cylinder filled with alkaline solution, and the dissolution of the carbon dioxide gas in the absorbent cylinder.

By continuously rotating a sample container, the gas volume /internal gas pressure is calculated from the equilibrium pressure of the sample container and the sample temperature.

Furthermore, after absorbing the carbon dioxide gas in the absorbent cylinder, the amount of gas (residual gas) except for carbon dioxide is measured by the plunger pump and air content is calculated by measurement of oxygen concentration by the optional oxygen sensor.



**KYOTO ELECTRONICS**  
MANUFACTURING CO.,LTD.



Dualstill Plus

## 1 Electronic distiller model Dualstill Plus

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

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 user interacts with the interface 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 analysis).

### Technical features

Heating system: Electric/Steam

Distillation end block: Automatic

Cooling circuit: Water automatic stop

Distillation Vessel: DURAN PTFE

Frame: 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, including 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.

Description	PK	Cat. No.
Dualstill Plus	1	A11350



Dualstill / Unistill

## 2 Electronic distillers

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

Heating system 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, washing 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 instrument main frame, completely in stainless steel AISI 304 having 1.5 mm thickness, always keeps it in perfect functional and good-looking conditions.

### Distillation timing

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

- Volatile acidity (for Dualstill only): about 6 minutes (approximate time to obtain 200 ml of distillate starting from 20 ml of product)

### Technical features

- 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: 220 V  $\pm$ 10%

- Absorption: 15 A max

- Dimensions: 40x38x85 mm (LxWxH)

Standard equipment includes: Starting kit, including n. 2 x 100 cc flasks, n. 1 x 200 cc flask, n. 1 x 250 cc flask, n. 2 x distillation chambers, 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

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 (NOTE: only for model Dualstill)	1	9141036
Sealing for distillation cup	1	X10099

## 1 Automatic distiller model RaB

Fully automatic Rapid Distiller for determination of alcohol in wines, musts, its derivatives and spirits.  
Compliant with O.I.V. normatives

The instrument has been designed with a compact design to minimize the space occupied in the laboratory.  
Distillation times are extremely fast: in 4 minutes you get the 100 ml necessary for the analysis of wines and musts and in 6 minutes the 200 ml required for spirits.

Technical features:

- Simple and immediate user interface thanks to the membrane keyboard on the front of the instrument
- New system with conductivity probe, allowing the automatic stop of distillation when the necessary volume is reached.
- Automatic stop of cooling water through the solenoid valve.
- Front frame in AISI stainless steel
- Aluminum closure protected with epoxy paint
- Distillation flask in DURAN glass
- Manual flask washing group

Power supply 240/220 V  
Dimensions 23x36x82.5 cm (LxWxH)  
Weight 17 Kg



Description	PK	Cat. No.
Distiller model RaB	1	A11315

## 2 Official EEC distillers

for Alcohol detection

Electric heating system  
Supplied with 100 cc and 200 cc collection flasks

Description	PK	Cat. No.
1-place distiller	1	A113302



A113302

1



## 1 Acidimeter model Jozzi

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

Technical features:  
Heating system: electric  
Power: 400 W

According to EEC regulations

Description	PK	Cat. No.
Jozzi 1-place	1	A113421

2



## 2 Accessori e ricambi per acidimetri Jozzi

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

# Glassware and consumables for Your laboratory



LABCENTER  
**EXACTA + OPTECH**

[www.exactaoptech.com](http://www.exactaoptech.com)

## 1 Density meter, model ALM-155, Kem

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

### High precision and reliability

The fifth decimal resolution for density and the centesimal one for alcohol, together with Peltier thermostating to ensure the data exactly refers to 20.0 °C, make the 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: the 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 air and water

The quintessential standard for oscillating capillary density meters 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:

Alcohol measuring range:	0.00 ~ 100.00%
Resolution:	0.01%
Density measuring range:	0.69937 ~ 1.24887 g/cm <sup>3</sup>
Specific gravity range (20/20):	0.70000 ~ 1.25000
Resolution:	0.00001 g/cm <sup>3</sup>
Brix:	0.0 ~ 50.0/Res. 0.02
Babo:	0.0 ~ 45.0/Res. 0.02
Baumé:	0.0 ~ 25.0/Res. 0.01
Alcohol tables:	OIML (vol%/wt%)/AOAC/HMCE/G225 (a 20°) AOAC/NIST (a 60°F)
Thermostating temperature:	20 °C/60 °F
Sample volume needed:	Approx 8 ml (cell volume 2 ml)
Display:	LCD, backlit
Interfaces:	1) Personal Computer (PC) 2) Printer 3) USB flash
Power:	AC 100 ~ 240 V; 50/60 Hz

Description	PK	Cat. No.
ALM-155, Kem	1	ALM-155
Sampler model HT1552U, HTA	1	HT1552U

1



## 2 Portable density meter DA130 N, Kem

For density measurement (based on the oscillating capillary principle) and its related parameters (Alcohol 20 °C, API tables A/B/D, Salinity, H<sub>2</sub>SO<sub>4</sub>, Plato, Brix, and others).

Settable concentration tables are available.

The user can define and store 10 temperature coefficients for automatic compensation.

### Technical features:

Measuring range:	0.0000 ~ 2.0000 g/cm <sup>3</sup>
Resolution:	0.0001 g/cm <sup>3</sup>
Accuracy:	±0.001 g/cm <sup>3</sup>
Temperature range:	0 ~ 40 °C
Calibration:	with distilled water
Memory:	1100 samples
Data storage:	to PC through IR outlet
Power supply:	2 batteries AAA

Description	PK	Cat. No.
Portable density meter	1	DA130N

2



## 3 Alcolometri e mostimetri

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

3



Cylinder



## 1 M5 - ALCOWEIGHT, hydrostatic balance

System for detection of alcoholic volumetric title and 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/cm<sup>3</sup>

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

Recommended environment conditions between 10 and 30 °C.

THE BALANCE INCLUDES AN INTERNAL SOFTWARE to manage:

- Volume alcoholic title: 0-100% V/V
- Density reading at 20 °C
- Readability: 0.01% V/V
- Accuracy and repeatability: 0.02% V/V
- Total dry extract from 0.0 to 505.8 gr/l
- Evaluation of musts in: Baumè, 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: 20x36x48 (h) cm - Weight: 5 Kg

Power: 220 V - 50 Hz

Power consumption: 12 VA

"CE" marked

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



## 1 | 2 Ebullimeters

Digital models, with electronic board.  
Designed and built to measure the alcohol content of a solution.  
It directly gives the alcoholic degree value on display.  
It works on the different boiling point at a given atmospheric pressure: the boiling point decreases with the increase of the alcoholic content of wines.

### Technical features

Power supply: Rechargeable battery for electronic board via microUSB  
Base Frame: Chrome plated brass  
Measurement range: 5-20 V/V Centesimal Degrees  
Unit of measure: 0.01% V/V centesimal (Ebullimetric scale)  
Repeatability: + 0.10 Centesimal Degrees  
Tolerance: + 0.10 Centesimal Degrees  
ALCOHOL% determination: about 6 min

Description	PK	Cat. No.
ETH Malligand	1	A11310
ETH Salleron	1	A11311

## Accessories and spares for ebullimeters

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
USB RS PRO USB A/USB C cable, 2 mt, black	1	186-3055
Powder protective cap USB Amphenol ICC, for USB connector art. 186-3055	1	124-5635

## 3 Alcofast

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

The main frame is made in epoxy painted laminate; the front one 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 ebullimetric systems, ALCOFAST is equipped with a microprocessor, automatically compensating the barometric pressure and storing & displaying boiling temperature, only when this one 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 with power cable, hydraulic fittings and instruction manual

### TECHNICAL FEATURES:

AISI 304 stainless steel 20/10 frame

Dimensions: 21x24x48 cm (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

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



ETH Salleron



ETH Malligand





A113501



A113502 - A113502/V



**1 2 3 4 5 Afrometers**

for CO<sub>2</sub> 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 crown caps, -1 +9 bar	1	A113505
AFROMETER for pressure measurement during the fermentation in bottle	1	A113506



A113503



A113504



A113506

**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 allowing bottles to be filled with sparkling wine, to be directly sampled on the autoclave under pressure

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

Alternative pressure gauges are available on request.

**7 CARBODOSEUR for CO<sub>2</sub> detection**

100 ml cylinder with sealed screw cap and vent hose.

Description	PK	Cat. No.
Carbodoseur	1	A13001

## 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

LCD display

**Included accessories:**

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

1



F12401

Description	PK	Cat. No.
Hach portable Turbidimeter 2100Q IS, LED IR	1	F12401
MINISART syringe filters 0,65 µm, diam 26 mm	1	6901409
Bentotest, solution for white wines	1	X200714
Bentotest, solution for red wines	1	X200715

## Automatic Enzyme Analyzers



**ITALO EVOLUTION**  
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100% automatic  
120 tests/hour

**ITALO<sup>M</sup>**  
120 tests/hour

**ITALO<sup>L</sup>**  
240 tests/hour



More infos on page 4

## 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 - 60 Hz/100 W

Dimensions: 42x32x23 cm; Weight: 5 kg

"CE" marked

### COMMON TECHNICAL FEATURES

#### Conductivity:

Conversion from 16 Bit to D/A

Conductivity range: 0-4000 µS/cm

Sensibility: ±2 µS

Accuracy: ±2 µS

#### 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

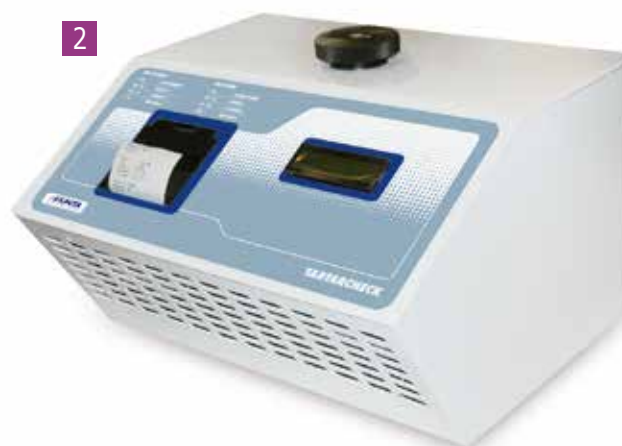
Description	PK	Cat. No.
Tartarcheck	1	A11307
Tartarcheck Plus	1	A11373

## Accessories and spares for Tartarcheck

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



Tartarcheck Plus



Tartarcheck

## 1 Instruments

Description	PK	Cat. No.
Manual Grapes-press, with PP beaker with handle	1	A11332
Trinocular microscope model B6PT-ICS: infinite optics, planar objectives 4x-10x-40x-100x, magnifications 40-1000x	1	K71474
Planar positive phase contrast device for B6PT-ICS, for yeasts and bacteria. Objectives 10x-20x-40x-100x	1	K71516
Epifluorescence device for B6PT-ICS, HBO 100 W with filters	1	K71622



B6PT-ICS with Epi

## 2 WinFit, Filterability index unit

WinFit calculates the filterability index and the modified filterability index in a liquid, by measuring the progressive clogging over time of a standard filter septum. WinFit simulates the condition in which the liquid flows through a filtering membrane at controlled pressure, measuring its flow and determining the filterability index and the modified filterability index according to the standard formulas.

The device consists of:

- Touch-screen panel with integrated PLC to completely manage the device
- Speed controlled pressurization pump
- Adjustable overflow safety valve to protect the pump
- "Floater" suction pipe with bottom non-return valve
- Flowmeter with volumetric pulse launch, currently thermal dissipation type.
- Pressure transmitter with analog signal
- Temperature transmitter with analog signal

Standard equipment:

- 1.2 lt graduated cylinder
- Desk power supply 230 Vac/24 Vdc
- Trolley with internal padding
- Kit with 10 standard filter membrane, 0,45 µm diam.33 mm, with Luer-Lock connection
- Instruction manual

Description	PK	Cat. No.
WinFit, Filterability test	1	A11322





portable models



UniRefracto1 and UniRefracto2

## 1 2 3 4 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.

Type		Readability	PK	Cat. No.
RBC with ATC	Tomato, oily emulsions, etc	0-10% Brix	1	K71900
RLC with ATC	Fruit, fruit juices, milk	0-18% Brix	1	K71901
RCS with ATC	Salinity concentration	0-28% Brix	1	K71905
RCZ with ATC	General purpose	0-32% Brix	1	K71319
RFC with ATC	Jam, tomato juice or paste	28-62% Brix	1	K71320
RMM with ATC	Honey, jam	58-90% Brix	1	K71902
		12-27% Water		
		38-43° Baumé		
RPD with ATC	Jam, tomato juice or paste	45-82% Brix	1	K71314
RPU	General purpose	0-80% Brix (2 scales)	1	K7117
RTS	General purpose	0-90% Brix (3 scales)	1	K71316
RBA	General purpose	0-90% Brix	1	K71318
RMA with ATC	Potential alcohol in wine	0-25% Vol	1	K71907
	Sugar content in grapes	0-40% Brix		
RMB with ATC	Potential alcohol in wine	0-25% Vol	1	K71908
	Density	0-20° Baumé		
RBB with ATC	Potential alcohol in wine	0-25% Vol	1	K71321
	Sugar content in grapes	0-40% Brix		
	Density	0-22° Baumé		
RBO with ATC	Oenology	0-140° Oechsle	1	K71196
	Sugar content in grapes	0-25° Babo		
		0-32% Brix		
PAL 1 (Atago)		0.0 - 53.0 % Brix	1	9801375
WM-7 with ATC (Atago)		0-45 % Brix	1	9801345
		0-26.0 % Potential Alcohol		
		±0,2%		
		±1°		
		±0,2°		
		±0		
uniREFRACTO 5 pro		0-95% Brix	1	6263632
		1,3300-1,5400 nD		
		0.0001 RI		
Atago PAL-83S		0-40° Babo	1	6320552
		0-50% Brix		
		0.1% Brix		
RFM712, digital		0-50% Brix	1	6284799
RA-130	RI and related parameters	1.3200 - 1.5000 nD	1	RA130
		0-85% Brix		
		0.1%		
		Temperature: 0-40 °C		
BX1	Portable Brix reader	0-85% Brix	1	BX1

Other models available on request

### 3 RA-130 measures the refraction index (RI) and related measures

(nD, Brix and three different conversion tables for sucrose and isomerized sugar HFCS42, HFCS55).

#### Tables of planned concentration

are available, such as 10 temperature coefficients freely definable e storable by the user for automatic compensation.

The measure can be carried out by immersing the cell in the sample or placing a drop of sample on the prism.

#### Other features:

- Calibration with distilled water
- Data memory: for 1100 results
- Data transfer to PC via IR port
- Power supply: 2 x 1,5 V batteries



RA-130

### 4 Portable brix-meter BX-1

- Compact, reliable and waterproof instrument
- Possibility to use it both with the right and with the left hand
- The wide measuring range allows to measure all types of food (drinks, wine and musts, fruit, etc ...)
- Direct calibration with distilled water
- Energy-saving batteries can run for over 30.000 measurements

#### Other features:

- Temperature: 10 - 75 °C
- HR: less than 85%
- Power supply: 2 batteries (about 30.000 measurements)
- Protection class: IP65
- Standard equipment: 2 batteries, instruction manual



BX-1

# STUDY, DESIGN AND PRODUCTION OF TECHNICAL FURNITURE, CHEMICAL HOODS AND VACUUM SYSTEMS.



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