Heating plates RC

- Structure studied and tested in order to give to the instrument an excellent resistance to the attack of chemical and mechanical agents and to corrosion in general.
- Heating setting from room temperature up to 350° C.
- Heating plate diameter: 155 mm.
- Places separately controlled with a flag pilot.

51092 Heating plate – 1 place
- Dimensions: 190x260x90 mm.
- Weight: 1,7 Kg.
- Power: 750 Wat.
- Voltage: 220-240V/50-60 Hz.

51081 Heating plate – 2 places
- Dimensions: 340x160x90 mm.
- Weight: 3,3 Kg.
- Power: 1.500 Wat.
- Voltage: 220-240V/50-60Hz.

Accessories:

51171 Hemispheric bowl for 250 ml flasks
51172 Hemispheric bowl for 500 ml flasks
51173 Hemispheric bowl for 1000 ml flasks

42837 Heating plate 250x250 mm
- Ceramic-glass hot plate with resisting surface of 250 x 250 mm.
- Heating setting from room temperature up to 600° C.
- External dimensions LxWxH: 280x320x95 mm.
- Weight: 3,7 Kg.
- Power: 1.500 Wat.
- Voltage: 230V/50-60 Hz.

42860 Infrared Heater IRB 1
- High temperature up to 750° C.
- Long life of the heating element.
- High safety.
- Low power consumption 250 Wat and high temperature.
- Dimensions (WxDxH): 100x100x100 mm.
- Weight: 850 gr.
- Voltage: 230V.

42861 Power control between 0-100%
- For IRB 1.

42862 Infrared Heater IRB 2
- High temperature up to 900° C.
- Integrated electronic power contro for stepless control between 0% and 100%.
- Long life of the heating element.
- High safety no open flame, no smoke emission, no smell.
- Power: 800 Wat.
- Dimensions (WxDxH): 150x150x170 mm.
- Weight: 2,25 Kg.
- Voltage: 230 V.

42866 Support rod

42875 Infrared heater
- With 6 infrared heaters.
- With back holder.

Polarimeters

- Instrument for determining the optical rotation of the substances, the concentration, purity, sugar degree or content of active materials such as sugar solution, turpentine oil, camphor...
- Applications: food and feed analysis, oil analysis, sugar content, chemical industries..

404 Polarimeter

- Uses double-vernier in reading.
- Measuring range of Optical rotation : ±180°.
- Vernier value in reading: 0,05°.
- Eye piece with diopter adjust.
- Magnification of the reading lents: 4X.
- Maximum length of test tubes: 220 mm.
- Test tubes included: 100 mm and 200 mm.
- Stabilization time: 5/10 min.
- Zero through macro and micro drive.
- Light source sodium lamp: 589,3 nm.
- Dimensions: 540x220x380 mm.
- Weight: 14 Kg.

414 Automatic Polarimeter WZZ-2

- Photoelectric detector.
- For measuring optical rotation.
- Automatic indication and digital display.
- Display digital 5 LCD.
- Measuring range : ± 45°.
- Accuracy: ± 0,01°.
- Repeatability: < 0,01°.
- Minimum sample transmittance 10%.
- Minimum reading: 0,002°.
- Light source (sodium lamp): (589,44 nm).
- Interface RS232.
- Included: 100 and 200 mm tubes.
- Dimensions: 600x320x220 mm.
- Weight: 28 Kg.

418 Automatic Polarimeter WZZ-2S

- Automatic measuring of optical rotation.
- Suitable for low transmitance samples.
- Automatic indication and digital display.
- Measuring range: ± 45°.
- Accuracy: ± 0,01.
- Repeatability: > 1% < 0,002°.
- Available minimum sample trasmittance: 1%.
- Minimum value in reading: 0,001°.
- Light source (sodium lamp): (589,44 nm).
- Interface RS232.
- Included: 100 and 200 mm tubes.
- Dimensions: 600x320x220 mm.
- Weight: 30 Kg.

4041	Tube 100 mm for polarimeter	4044	Sodium lamp for WZZ
4042	Tube 200 mm for polarimeter		
4043	Sodium lamp for model 404		Calibration quartz tubes

Digital ABBE refractometer

- ABBE refractometer controlled by microprocessor with digital reading.
- Useful for measuring of refractive index nD in transparent, subtransparent liquid, or solid substances.
- Measuring °Brix for determination of sugar concentration.
- Automatical correction of the affect of temperature on °Brix.
- Interface RS232 to PC conection.

Technical specifications:

– Range of refractive Index nD: 1.3000-1.7000 nD
– Accuracy: 0,0002 nD.
– °Brix range: 0-95%.
– Accuracy: ±0,1.
– Temperature range: 0-50 °C.
– Correcting range of °Brix versus temperature: 15 °C - 45 °C.
– Include: bottle of monobromine naphthalene, piece for test callibration, screwdriver, and cover.
– Overall dimensions of the instrument: 330x180x380 mm.
– Power supply: 220V/50 Hz
– Weight: 10 kg.

315 Digital ABBE refractometer


315

ABBE refractometer

- For measuring of refractive indices nD in transparent and translucent liquid or solid substances.

Technical specifications:

– Reading by scale.
– Range of refractive Index nD: 1,3000 - 1,7000 nD.
– Accuracy: 0,0005 nD.
– °Brix range: 0-95%.
– Accuracy: ±0,25.
– Thermometer in metallic socket.
– Temperature range: 0-70 °C.
– Magnification of telescopic system: 2x.
– Magnification of reading system: 30x.
– Include: bottle of monobromine naphthalene, piece for test callibration, screwdriver, and cover.
– Overall dimensions of the instrument: 330x180x380 mm

325 ABBE Refractometer


325

ABBE refractometer

- Useful for measuring of refractive index nD in transparent, semi-transparent liquid, or solid substances.
- Measuring in ºBrix.
- Incident or reflected lighting, high brightness.
- Possibility of thermostatting of samples through a circulating thermostat (see thermostats section).
- Thermometer with metallic protection.
- Work prism with wide dimensions.
- Complete equipment with calibration piece and Mono bromine naphthalene flask.
- Eyepiece with dioptrical correction.
- Manual temperature correction: 0-100º
  - Reading by scale.
  - Range of refractive Index nD: 1,3000 - 1,7000 nD.
  - Accuracy: ± 0,0005 nD.
  - Scale ºBrix: 0 – 95%.
  - Accuracy: 0,25%.
  - Thermometer included: 0-100ºC.
  - Illumination: 6V-20 w.
- Dimensions: 205x120x305 mm.
- Weight: 5,0 Kg.

320 **ABBE refractometer**

Portable digital refractometers

- Portable, easy use.
- Microprocessor controlled.
- LCD display with 3 digits.
- Reading by high precision optics cell.
- Response in 3 seconds.
- Automatic temperature correction.
- Reading and conversion of ºC and ºF.
- Low voltage alarm.
- Automatic disconnecting for no operation.
- 9V battery, included and protection cover.
- Water – proof.
- Sample volume aprox: 0,2 ml.
- Dimensions: 50x185x60 mm.
- Weight: 250 g.

309 **Digital refractometer 0-45%**
- Fruits, juices, wines, milk, ...
- ºBrix range: 0-45%.
- Resolution 0,1 - Accuracy ± 0,2% Brix.
- Refractive index range: 1.3330 – 1.4098.
- Temperature range: 0-40ºC y 32-104ºF.

310 **Digital refractometer ºBrix-Salinidad-nD**

0-35% ºBRIX
Resolution 0,1% - Accuracy ± 0,2% Brix.
0 -28% SALINITY
Resolution 0,1% - Accuracy ± 0,2% Brix.
1.3330 – 1.3900 REFRACTIVE INDEX
Resolution 0,0001 - Accuracy ± 0,0003.

311 **Digital clinic refractometer**
- 0-12 g/dl Proteins in serum (Accuracy ± 0,1).
- 1.000-1.050 sg Specific Density of urine (accuracy 0.001 sg).
- 1.3330-1.3900 Refractive Index (accuracy 0.0001 nD).

Hand refractometers

- Hand refractometers for ºBrix measurement in sweet drinks, fruit juices, conserves, wine, milk, oils, fruits, yolk ...
- Available versions with eyepiece compensation with diopter adjustment.
- Direct scale of direct reading.
- Temperature with ATC* or without it.
- Included: case, pasteur pipette and adjustment turnscrew.
- Dimensions aprox: 27x40x210 mm.
- Weight aprox.: 400 gr.

** ATC: Automatic Temperature Compensation*

Model	ºBrix range	Accuracy	A.T.C.	Dimensions mm	Price
331	0 – 10%	0,1%	NO	27x40x210 mm	
332	0 – 18%	0,1%	NO	27x40x190 mm	
301	0 – 32%	0,2%	NO	27x40x160 mm	
302	28 – 62%	0,2%	NO	27x40x148 mm	
335	45 – 82%	0,5%	NO	27x40x140 mm	
336*	58 – 90%	0,5%	NO	27x40x160 mm	
	38 - 43% Bé	0,5%			
	12 – 27% Water	1 %			
341	0 – 10%	0,1%	YES	27x40x210 mm	
343	0 – 32%	0,2%	YES	27x40x160 mm	

(*) models for honey high sugar content, and water content.

Aplications		Concentration %
Fruits:	Orange, pear	6- 13 %
	Tomatoe	3 - 6 %
	Apple, melón	12-18 %
	Strawberry, peach	6-12 %
	Grape	13-24 %
	Triturated tomatoe	7-16 %
	Nectares	16-23 %
Fruit juice		12-18 %
Fruit juice concentratedntrados		42-68 %
Gaseous drinks		6-15 %
Condensed milk		50-70 %
Liquid sugar		58-80 %
Conserved Fruit		14-28 %
Milk		12-17 %
Egg Yolk		45-48 %
Marmalade		60-70%
Vegetal oil		57-90 %
Emulsions		0 – 7 %

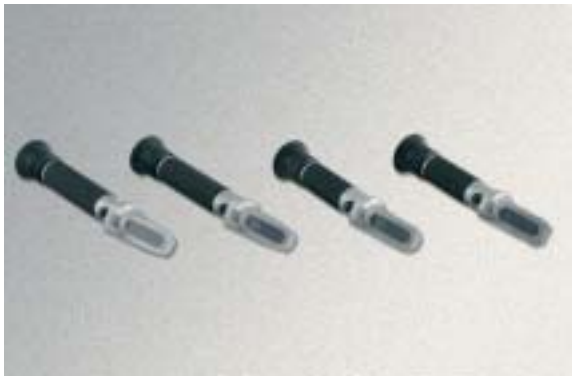
333 **Hand refrectometer 0-90% ºBrix**

- High contrast and type of product.
- With termometer.
- 3 scales: 0-42%, 42-71% and 71-90%.
- Accuracy: ± 0,2%.
- Dimensions: 30x36x200 mm.

Saline refractometers

317 **Saline refractometer 0-100‰**
- Hand refractometer, for salinity control, density and specific weight.
- Salinity range : 0-100‰.
- Accuracy: 1‰.
- Density range: 1.000-1.070 sg.
- Accuracy: 0,0001.
- ATC.
- Dimensions: 27x40x190 mm.

308 **Saline refractometer 0-28%**
- Hand refractometer for salt concentration measurements.
- Salinity range: 0-28% sal (saline °Brix).
- Accuracy: 0,2%.
- Dimensions: 27x40x160 mm.



Clinic refractometers

- Hand refractometers for readings of proteins in serums, specific density of urine and refraction index.

Model	Range	Measurement	Accuracy	A.T.C.	Dimensions mm	Price
305	0-12	Proteins serum g/dl	0,2 g/dl	NO	27x40x160	
	1000-1050	Urine Density sg	0,002 sg			
314	0-12	Proteins serum g/dl	0,2 g/dl	YES	27x40x160	
	1000-1050	Urine density sg	0,002 sg			
	1,3330-1,3600	Refraction ind. nD	0,0005 RI			

Refractometers for alcohol content measurements: Wines, must, liquors...

- Alcohol grade measurements in aqueous solutions.
- Direct reading for the probable alcohol content.

Model	Range	Measurement	Accuracy	A.T.C.	Dimensions mm	Price
338	0-80%	Alcohol	1%		27x40x160	
339	0-25%	Probable Alcohol content	0,2%	YES	27x40x160	
	0-20%	Baumé	0,2%			

Refractometer for gemology

- Measurement of refraction index in gemology.
- With polarization filter.
- Range: 1,30 – 1,81 nD (Accuracy 0,01 nD)
- Dimensions: 130x33x70 mm.
- Weight: 345 g.

334 **Refractometer for gemology**

Viscometers VISCOLAN

- Rotational viscometers, for a rapid viscosity determination according to ISO 2555 and other ASTM norms.
- The results are 100% compatible with Brookfield method.
- Accurate and digital torque range measurement.

● 42010

Technical features:

Temperature
- Digital temperature sensor.
- Temperature range: 0,0ºC – 100ºC (+32ºF.....+212ºF).
- Temperature resolution: 0,1ºC (0,1722ºF).
- Accuracy: ±0,1ºC.

Speed
- 19 speed can be selected:
  – 0,3 – 0,5 – 0,6 – 1 – 1,5 – 2 – 2,5 – 3 – 4 – 5 – 6 – 10 – 12 – 20 – 30 – 50 – 60 – 100 and 200.
- Accuracy: >0,5% of absolute value.

Sprindles set
- Each viscometer include a complet set of sprindles.
- Included sprindles:
  – **Version L** (V1L and V2L): 4 sprindles L1-L2-L3 and L4
  – **Versión R** (V1R and V2R): 6 sprindles R1-R2-R3–R5-R6-R7

Viscosity range
- Version L (V1L and V2L): 3-2.000.000 mPas/cP in 76 ranges.
- Version R (V1R and V2R): 20-13.000.000 mPas/cP in 114 ranges.
- Accuracy 1% of full scale.
- Repeatability: ±0,2%.

- RS232 Interface to transfer data to a PC or printer.
- Version V2 has a bi-directional RS232 interface to control the viscometer and transfer data to PC.
- Regulable height stand.
- Carring case for viscometer and sprindles.
- 100-240V-50/60Hz

Microprocessor controlled.
Regulation of the following parameters:
– Speed: r.p.m.
– Dynamic Viscosity: mPas/cP.
– Percentage of full scale: %.
– Sample temperature: ºC/ºF.
– Maximum range of reading mPas/Cp with selected sprindles.
– Selected spridle.

- V2 model, with special sprindles give us the following measurements:
  – Straining ratio: S.R. 1/s.
  – Twisting force: DINA/cm2.

Viscometers

Code	Model	Price
42010	**Viscometer VISCOLAN V1L** • Set of sprindles L. • Carring case.	
42020	**Viscometer VISCOLAN V1R** • Set of sprindles R. • Carring case.	
42030	**Viscometer VISCOLAN V2L** • Set of sprindles L. • Carring case.	
42040	**Viscometer VISCOLAN V2R** • Set of sprindles R. • Carring case.	

Accessories:

42070	Transfer data Software for VISCOLAN V1
42080	Control Software for VISCOLAN V2
42081	Sprindle R for low viscosities 5cP • To be adapted in Viscometers L
42082	Adapter for small samples • For sample volumes from 8 up to 13 ml. • Includes circulation jacket which provides thermostatization of the sample between -10ºC and +100ºC.
42083	Set of sprindles TL5-TL6-TL7 • Viscosities: from 3 up to 200.000 mPas/cP
42084	Set of sprindles TR8-TR9-TR10 and TR11 • Viscosities: from 40 up to 3.300.000 mPas/cP
42088	Low viscosity adapters • Allows thermostatization of the sample. • Accurate reproducible measurements. • Viscosity reading range: – From 0,5 to 2.000 cPs/mPas (model L) – From 4,8 to 21.333 cPs/mPas (model R)
42089	Adapter for helicoidal motion • Recommended for materials which do not flow easily (cream, paste, gel ...), these kind of materials can not be measured by the standard spridles, because cause a hole in cavitation zone, and due to this fact falsify measure results. • Adjustable height. • Supplied with 6 "T" needle spindles. • Head with automatical "up-and-doun" motion. • Viscosity reading range – From 1.560 to 3.120.000 cPs/mPas (model L) – From 16.600 to 33.300.000 cPs/mPas (model R)