



PROETI

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PROETI

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Material Testing Equipment



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Proeti - who we are

Proeti opened its business in 1985 manufacturing laboratory equipment for the control and testing of construction materials used in Civil Engineering projects. Since then we have been able to cover a complete range of testing equipment for Concrete, Cement, Asphalt, Steel, Rock, Aggregates and Soils. Our mission is to offer our clients personalised attention by analysing their needs and providing solutions by using the experience and knowledge we have acquired over more than 23 years.

Our offices are located 25 km from Madrid, well communicated by road and very near the International Airport and one of largest train stations in the city. Our facilities cover an area of 2300 m² that include 5 buildings for manufacturing, storage, packaging, offices, a calibration laboratory, a conference room, an exhibition area and a technical service area.



Our mission

To manufacture the most advanced laboratory equipment for our clients. To this end, in Proeti we have developed a business culture founded on the following Principles:

Solution factory

At Proeti, all our services and products are directed towards satisfying the needs of our clients. Therefore, this is the main theme of our company's activity. Rather than being a challenge, the principle is a strategic priority of the first order. Proeti operates as an agile and efficient "Solution Factory".

Mandatory quality

This aspect must be the predominant mandatory principle in all the business areas of the company, from the design and production of our products to marketing and customer service. This principle translates into a philosophy of continuous improvement.

Search for creativity

Proeti constantly searches for ways to increase its level of competitiveness and dynamics by the permanent application of creativity, leading to the development of new lines of production and service, based on strict policies that promote Research and Development.

Internal cohesion

At Proeti, the main asset we have for attaining our goals are our employees. Proeti is a closely knit family company that recognises the value and potential for progress and leadership of all the individuals on our staff. Thus, our constant effort to generate an environment that features the cohesion, integration and commitment of all our personnel.

Business culture and values

The complete satisfaction of our clients is our priority and *raison d'être*.

Design flexibility allows us to adapt to the needs of our clients in a market undergoing continuous change.

Quality, founded on the professionalism of Proeti's staff, is the mainstay of our relationship with our clients.

Prominent alliances with our distributors.

Investment in the qualification and certification of all company personnel.

The search for excellence through service.

We offer personalised solutions to the needs of our clients through our team of technicians, who are highly experienced in the various technological areas that we cover.



Research and development

At Proeti, we have progressed to the point of becoming a leading manufacturing company in our sector. The importance given to innovation in Proeti is so crucial that we can affirm without doubt that all our product lines have been the result of our work in R+D. This requirement for innovation has been the single most important factor in our position as a leading manufacturer of Material Testing and Control Equipment.



Quality policy

At Proeti, S.A, our commitment to quality is not new. In fact, in 1996 we were one of the first companies to be certified as an "ENAC Calibration Laboratory", and in 1999 our quality assurance system obtained the ISO 9001 certification. Since then, Proeti, S.A. has continued making progress in the implementation of measures that guarantee the quality of all its processes.



Customer service

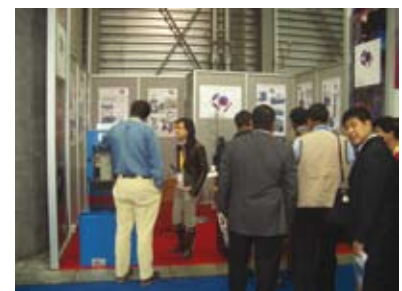
Within the framework of Proeti, S.A. Principles and Values, we consider our commitment to quality as one of the principle strategic pillars of our business activity. This quality is always oriented towards the complete confidence of our clients in the company, whether directly, through a system that guarantees unsurpassed attention to their needs, or indirectly, through a policy of internal and external communication where the client is our main concern and *raison d'être*. As evidence, at Proeti we are not only concerned about certifying our Quality System, but about performing the necessary tests and certifications of our products in the corresponding approved institutions according to current standards so that our clients can be sure at all times that they are purchasing products of total confidence.

International presence

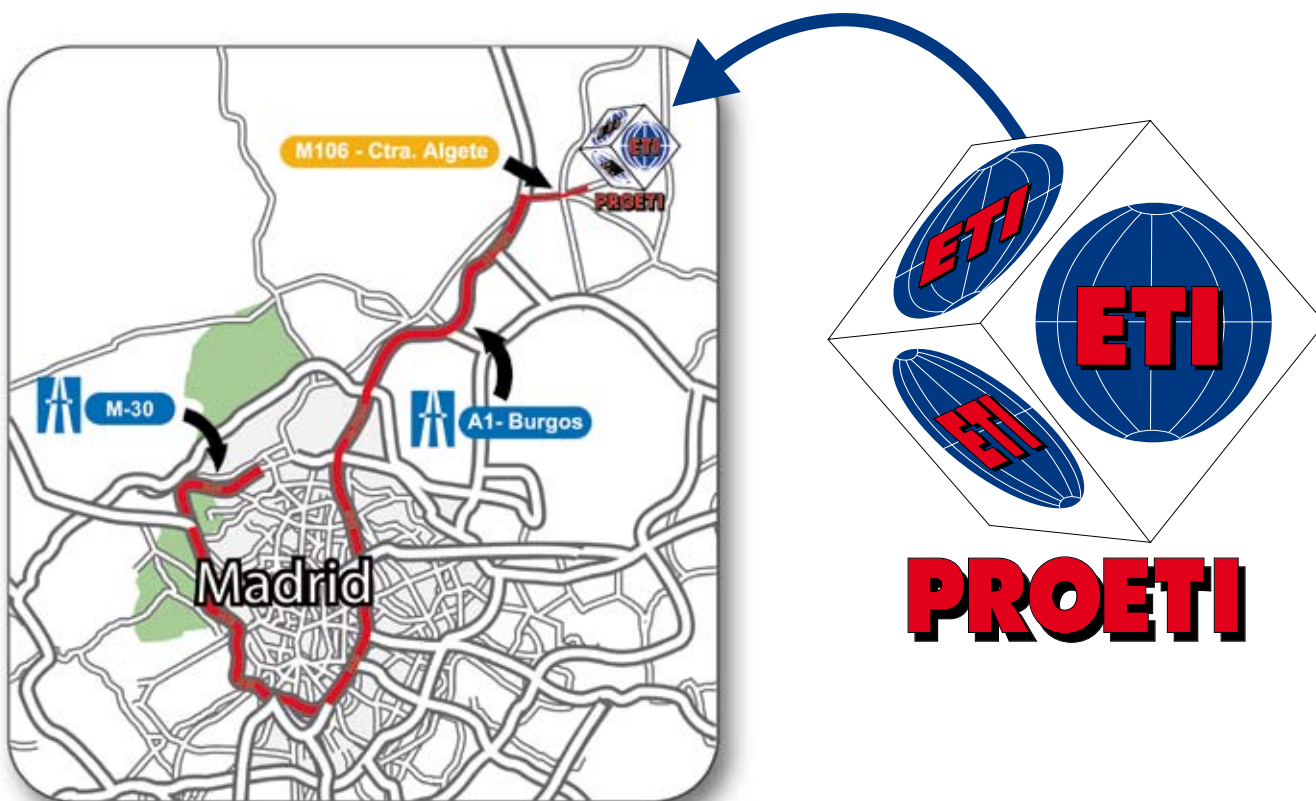
In recent years, Proeti has pursued a geographical diversification and growth strategy oriented to markets with high development potential, where our company can capitalise its capacity and experience to obtain significant market presence.

Our philosophy in those countries we are present in is to adapt to the internal market by designing, manufacturing and marketing products that serve the needs and purchasing power of our clients.

In the coming years, we will continue to analyse new opportunities to enter foreign markets that allow us to grow, because we are convinced that part of the growth of the company must come from a presence in the international market that creates opportunities for Proeti to compete in the future of a world that is becoming increasingly smaller.



How to find proeti



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Website www.proetisa.com

New new website

New web page, divided into sections for real time access to all the new products developed by Proetisa.

Our "ON LINE catalogue" section offers access to all the equipment, accessories and spare parts manufactured by Proeti, as well as quote requests and any other information that you may need.

Our download section offers access to our most recent software, manuals, etc



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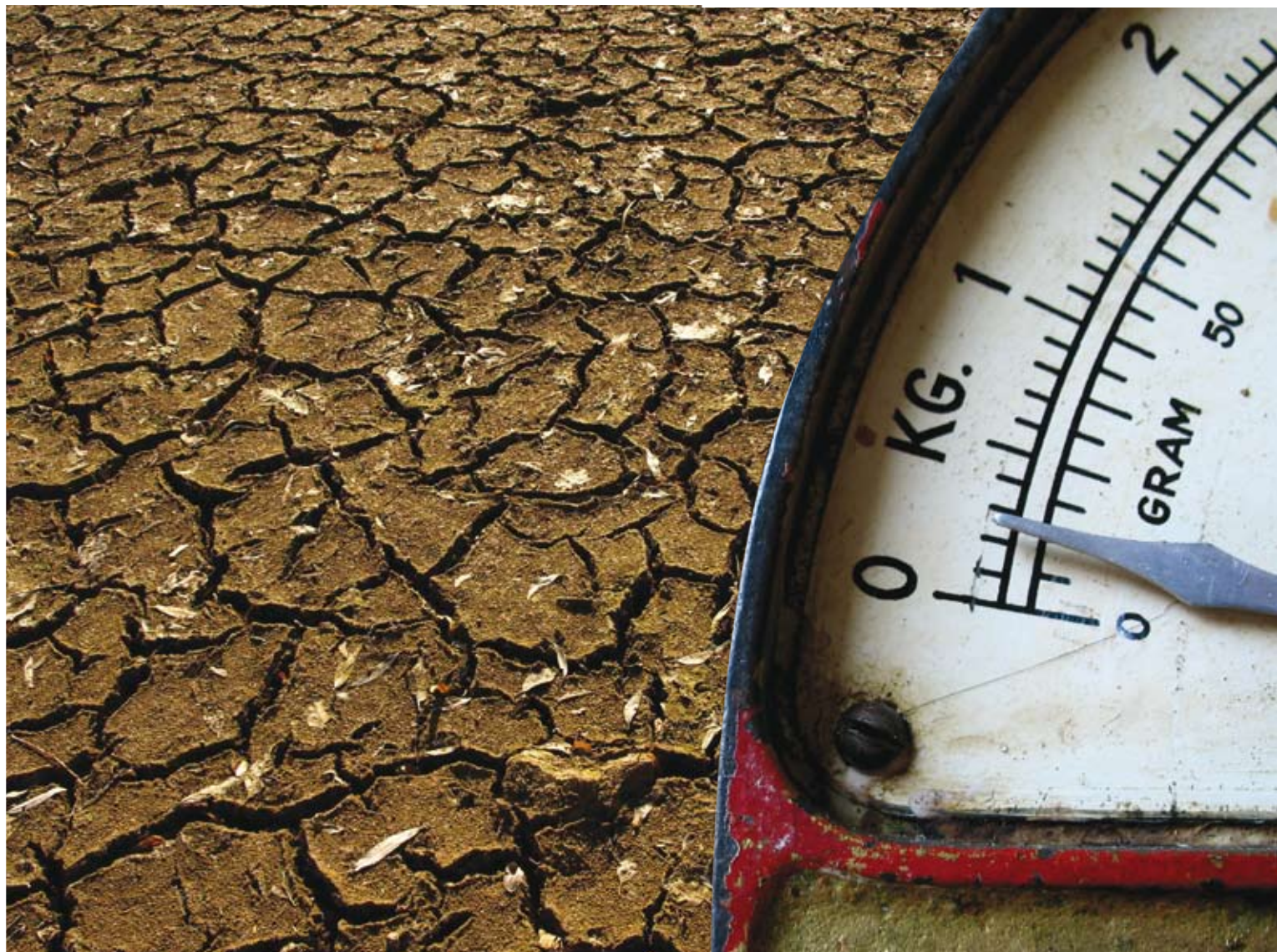
steels

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general material

1

WEIGHING AND DRYING TECHNIQUES



Electronic scales

Analytical scales

Autocalibration with internal weight (except P0001/1)
 Reset the entire reading range.
 RS-232 interface.
 ± 0.0001 g linearity.
 Operating temperature 14/40° C.
 Equipped for hydrostatic weighing.

Model	Capacity	Precision	Plate	Weight
P0001/1	110 g	0.0001 g	8.5 cm	7 kg
P0001/2	210 g	0.0001 g	8.5 cm	7 kg
P0001/3	310 g	0.0001 g	8.5 cm	7 kg
P0001/4	510 g	0.001 g	8.5 cm	7 kg



Electronic scales I

With full scale automatic calibration.
 RS-232 I/O data output.
 On/off display.
 Graphic bar indicating the position and scale used.
 Response time: 2-3 seconds.
 Operating temperature: 10 - 40° C.
 Voltage: 220 V. +10% with external power supply.
 Consumption: 14 VA.

Accessories

P0032 Hydrostatic weighing hook.

Model	Capacity	Precision	Plate	Weight
P0003	510 g	0.001 g	110 mm	5.8 kg
P0004	620 g	0.01 g	150 mm	5.8 kg
P0005	1,000 g	0.01 g	150 mm	5.8 kg
P0006	3,200 g	0.01 g	150 mm	5.8 kg
P0007	3,300 g	0.1 g	190 mm	5.8 kg
P0008	2000 / 4000 g	0.01 / 0.1 g	150 mm	5.8 kg
P0009	6,300 g	0.1 g	190 mm	5.8 kg
P0010	8,500 g	0.1 g	190 mm	5.8 kg



Electronic scales II

Scales with high internal resolution: 1/60,000.
 Software calibrated.
 Power supply: 110 v, 220v + 10%.
 Full range tare function.
 Weights in: grams, pounds or ounces
 Optional modules: Mini-Printer Interface. RS232C.
 Internal module for printer: DP-343.
 Keypad with buttons.
 Internal rechargeable battery.
 Measurements: 390x345x120 mm.

Model	Capacity	Precision	Plate
P0020	30 kg	1 g	320x240 mm
P0020/1	15 kg	0.5 g	320x240 mm
P0020/2	6 kg	0.2 g	320x240 mm



Electronic scales III

Full scale automatic calibration with external mass.
 Full range tare function.
 2/3 second stabilisation time.
 Power supply: 220 V ± 10% with external power supply.
 Operating temperature: 10 - 40° C.
 Operation with relative humidity of up to 85%.
 RS232 output.

Model	Capacity	Precision	Plate
P0028	25 kg	0.5 g	400x500 mm
P0028/1	6.5 / 35 Kg	0.1 / 1 g	400x400 mm
P0028/2	50 kg	1 g	400x500 mm

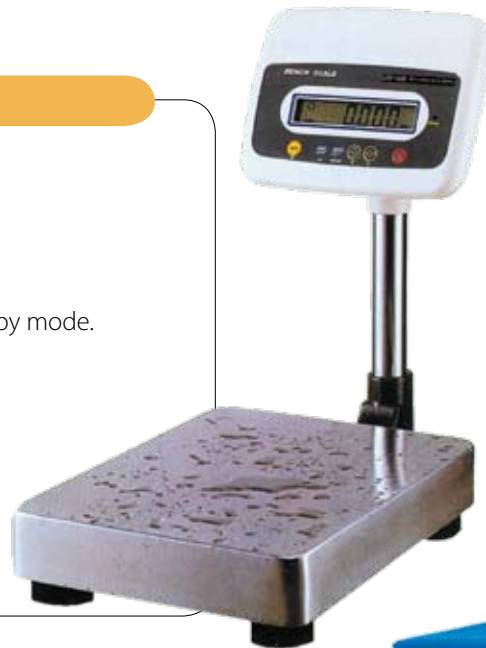


Large capacity electronic scales

Large capacity electronic scales

- Part counter function.
- Software calibrated with external weights.
- Full range tare function.
- IP 66 load cell.
- Stainless steel platform.
- Internal rechargeable battery with 120h in standby mode.
- Power supply: 110/220 V.
- Optional: RS232C.

Model	Capacity	Precision	Plate
P0024	100 kg	10 g	442x332 mm
P0024/1	60 kg	5/10 g	442x332 mm
P0024/2	30 kg	5/10 g	442x332 mm
P0024/3	15 kg	1/2 g	442x332 mm



P0030 Hydrostatic weighing frame

BS 812/2 -1881:114. ASTM C127. AASHTO T85. EN 12390/7

The hydrostatic weighing system consists of a rigid frame which includes a water tank mounted upon a platform. A mechanical lifting system allows the water tank to be raised in order to submerge the sample suspended beneath the scale. (not included with the equipment).

Approx. measurements: 510 x 510 x 1150 mm.

Weight: 50 kg.

Accessories

P0030/1 Support for suspending test cubes and cylinders.

A0565 Stainless steel basket of Ø 200 x 200, with 3.35 mm mesh.

Spares:

P0030/2 Bucket for hydrostatic weighing.



P0031 Anti-vibration table for scales

Equipped with an anti-vibration system that is independent from the rest of the table. It comprises a large inertial mass that rests on the vibration and impact damper elements. It has a capacity to absorb more than 90% of the amplitude of vibrations with frequencies in excess of 750 cycles / minute. The unit is manufactured from melamine and stratified laminates. The auxiliary work panel is post-formed and hollow, with a stainless steel or treated aluminium edge moulding.

Approx. measurements: 100 x 80 x 90 cm.



Mechanical precision scales

Scales designed in accordance with the specifications required by construction industry laboratories.

P0050 CENT – 0 - GRAM SCALES

Supplied complete with stainless steel plate.

Capacity: 310 g.

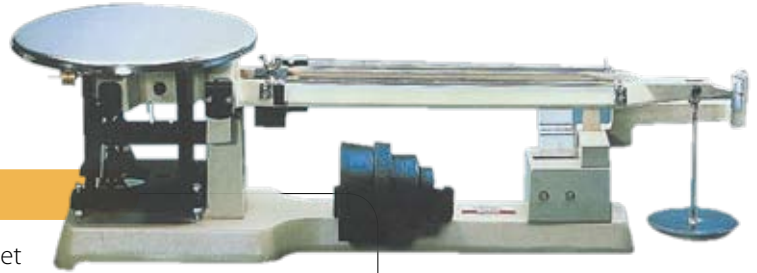
Sensitivity: 0,01 g.

Weight: 3 kg.



Triple beam mechanical scales

Complete with stainless steel plate, tare device and set of weights.



Model	Capacity	Precision	Plate
P0060	20 kg	1 g	280 mm
P0062	2,610 g	0.1 g	150 mm

Platform scales

Automatic scales

Automatic scales with clear and direct reading. Full metal structure, with digital display.

Model	Capacity	Precision	Plate
P0090	60 kg	5/10 g	430x530 mm
P0091	150 kg	20 g	430x530 mm
P0092	300 kg	50 g	430x530 mm
P0093	600 kg	200 g	450x600 mm



Dynamometers

2 second stabilisation time. Approximate net weight: 250 gr. Power supplied with 9 V battery included.

Measurements: 90x80x30 mm.
Total length including hook: 105 mm.



Model	Capacity	Precision
P0100	15 kg	20 g
P0101	25 kg	50 g
P0102	50 kg	50 g

Sets of weights

Set of weights

In order to control and verify the weighing equipment used in laboratories, the high quality and precision of the calibration masses is essential. The weights are classified according to the tolerance or maximum permissible error. The material used and the quality of finish affect their classification. The weights are manufactured from stainless steel or chrome plated brass (cast iron) of the following classes: E1; E2; F1; F2; M1; M2. On request, each set can be supplied with a Traceability Certificate issued by an accredited mass laboratory.



P0154 ENAC calibration certificate

JX-100	JX-200	JX-500	JX-1000	JX-2000	JX-5000	JX-100000
50 g	100 g	200 g	500 g	1000 g	2000 g	5000 g
20 g	50 g	100 g	200 g	500 g	1000 g	2000 g
10 g	20 g	100 g	100 g	200 g	1000 g	1000 g
10 g	10 g	50 g	100 g	100 g	500 g	1000 g
5 g	10 g	20 g	50 g	100 g	200 g	500 g
2 g	5 g	10 g	20 g	50 g	100 g	200 g
2 g	2 g	10 g	10 g	20 g	100 g	100 g
1 g	2 g	5 g	10 g	10 g	50 g	100 g
500 mg	1 g	2 g	5 g	10 g	20 g	50 g
200 mg	500 mg	2 g	2 g	5 g	10 g	20 g
200 mg	200 mg	1 g	2 g	2 g	10 g	10 g
100 mg	200 mg	500 mg	1 g	2 g	5 g	10 g
50 mg	100 mg	200 mg	500 mg	1 g	2 g	5 g
20 mg	50 mg	200 mg	200 mg	500 mg	2 g	2 g
20 mg	20 mg	100 mg	200 mg	200 mg	1 g	2 g
10 mg	20 mg	50 mg	100 mg	200 mg	500 mg	1g
5 mg	10 mg	20 mg	50 mg	100 mg	200 mg	500 mg
2 mg	5 mg	20 mg	20 mg	50 mg	200 mg	200 mg
2 mg	2 mg	10 mg	20 mg	20 mg	100 mg	200 mg
1 mg	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg
	1 mg	2 mg	5 mg	10 mg	20 mg	50 mg
		2 mg	5 mg	5 mg	20 mg	50 mg
		1 mg	2 mg	2 mg	10 mg	20 mg
			2 mg	2 mg	5 mg	20 mg
			1 mg	1 mg	2 mg	5 mg
					2 mg	2 mg
					1 mg	2 mg
						1 mg

Class f1 individual chrome plated brass weights, case included. OIML densities

Model	Capacity
P0163/1	1 g
P0163/2	2 g
P0163/3	5 g
P0163/4	10 g
P0163/5	20 g
P0163/6	50 g
P0163/7	100 g
P0163/8	200 g
P0163/9	500 g
P0163/10	1,000 g
P0163/11	2,000 g
P0163/12	5,000 g
P0163/13	10,000 g
P0163/14	20,000 g

Drying ovens

Ovens with analogue indicator and control.

These ovens have been specially designed for drying large quantities of samples. Adjustable temperatures ranging from ambient temperature to 200°C ± 1° C. Convection or forced air circulation (as requested). Metal structure with double chamber and thermal insulation. Internal enclosure, trays and stainless steel baffle door. Control panel comprising start-up switch, indication lights, temperature regulation thermostat and front precision thermometer. Supplied with two trays with adjustable height supports.

Model	Capacity	Internal measurements	External measurements	Power
P0200 (NC)	36 l.	40 x 30 x 30 cm	67 x 43 x 43 cm	28 kg 1,100 W
P0201 (NC)	80 l.	50 x 40 x 40 cm	77 x 53 x 53 cm	42 kg 1,600 W
P0202 (FA)	80 l.	50 x 40 x 35 cm	77 x 53 x 53 cm	42 kg 1,600 W
P0203 (NC)	150 l.	50 x 60 x 50 cm	77 x 90 x 68 cm	63 kg 2,000 W
P0204 (FA)	150 l.	50 x 60 x 45 cm	77 x 90 x 68 cm	63 kg 2,000 W
P0205 (FA)	216 l.	60 x 60 x 60 cm	87 x 110 x 68 cm	80 kg 3,600 W
P0206 (FA)	288 l.	80 x 60 x 60 cm	108 x 110 x 78 cm	92 kg 3,600 W
P0207 (FA)	400 l.	100 x 80 x 50 cm	140 x 145 x 75 cm	125 kg 4,100 W
P0208 (FA)	720 l.	120 x 100 x 60 cm	160 x 165 x 85 cm	170 kg 5,000 W

NC Natural convection
FA Forced air.



Drying ovens

Ovens with electronic - digital control

These ovens have been specially designed for drying large quantities of samples. Adjustable temperatures ranging from ambient temperature to 200°C ± 1° C. Convection or forced air circulation (as requested). Metal structure with double chamber and thermal insulation. Internal enclosure, trays and stainless steel baffle door. Control panel comprising start-up switch, indication lights, temperature regulation thermostat and front precision thermometer. Supplied with two trays with adjustable height supports.

Model	Capacity	Internal measurements	External measurements	Power
P0220 (NC)	36 l.	40 x 30 x 30 cm	67 x 43 x 43 cm	28 kg 1,100 W
P0221 (FA)	36 l.	40 x 30 x 30 cm	67 x 43 x 43 cm	28 kg 1,100 W
P0222 (NC)	80 l.	50 x 40 x 40 cm	77 x 53 x 53 cm	42 kg 1,600 W
P0223 (FA)	80 l.	50 x 40 x 40 cm	77 x 53 x 53 cm	42 kg 1,600 W
P0224 (NC)	150 l.	50 x 60 x 50 cm	77 x 90 x 68 cm	63 kg 2,000 W
P0225 (FA)	150 l.	50 x 60 x 50 cm	77 x 90 x 68 cm	63 kg 2,000 W
P0226 (FA)	216 l.	60 x 60 x 60 cm	87 x 110 x 68 cm	80 kg 3,600 W
P0227 (FA)	288 l.	80 x 60 x 60 cm	108 x 110 x 78 cm	92 kg 3,600 W
P0228 (FA)	400 l.	100 x 80 x 50 cm	140 x 145 x 75 cm	125 kg 4,100 W
P0229 (FA)	720 l.	120 x 100 x 60 cm	160 x 165 x 85 cm	170 kg 5,000 W



Cabinet type ovens

This type of oven has the same structure and regulation characteristics as the aforementioned models. Manufactured for adjustable temperatures ranging from ambient temperature up to 200° C. Temperature control and regulation can be analogue or digital. Air circulation is guaranteed by a motor that produces horizontal air flow, thus accelerating the drying process. These ovens are made to order, based on the customer's capacity and control requirements.

Heating plates

Rectangular digital heating plates

Plate built from non-deformable steel plate
Metal unit painted in epoxy paint. Heating elements are uniformly distributed over the entire plate, providing good temperature homogeneity. Adjustable plate temperatures up to 400°C (200°C depending on model). Digital regulation temperature control and 4 digit display. 1°C resolution. Manufactured in accordance with EC directives.



Model	Control	Plate measurements	External measurements	Temperature	Power
V0125	Digital	200 x 400 mm	190 x 220 x 480 mm	400 °C	2,000 W
V0126	Digital	250 x 500 mm	190 x 280 x 580 mm	400 °C	3,000 W

V0130 Circular heating plates

Non-deformable steel circular heating plate. Injected outer unit painted with epoxy paint. Includes safety thermostat which disconnects the plate if the temperature exceeds 350°C. Electronic voltage regulation allows power to be adjusted between 10% and 100%. As an optional accessory it can include a connection for a contact thermometer or digital programmer installed at the back. Equipped with an illuminated on switch and a resistor operation indication light. Manufactured in accordance with EC directives.



Accessories

- V0130/1** Support rod 12 x 450 mm.
- V0130/2** Rear socket for contact thermometer.
- V0130/3** TCD-1 (Digital contact thermometer).

Quick drying methods

P0250 Hot air dryer

Used to dry small amounts of soil and aggregates, as well as for other general laboratory uses.

Approximate weight: 1.6 kg.



P0254 Microwave oven

Specially designed for quick drying and for general laboratory use.

Measurements: 460 x 330 x 300 mm (hxax f).



P0255 Electronic scale. Humidity determination. 200 g Sensitivity 0.001g.

Temperature selection from 50° to 180° C.
 Time selection: 1 minute to 999 minutes.
 Automatic assessment of the sample stable weight when it has lost its humidity.
 Dry residue % and wet residue % on screen indication.
 Able to record five samples in the memory.
 Minimum sample weight: 140 mg, Maximum 200g.
 Acoustic warning when the test is complete.
 RS-232 data output.
 Optional printer.
 Humidity accuracy: ± 0.01 %.
 Includes: aluminium plates / special sample pincers, two extra plates.
 This model has three screens to facilitate the sampling process.

