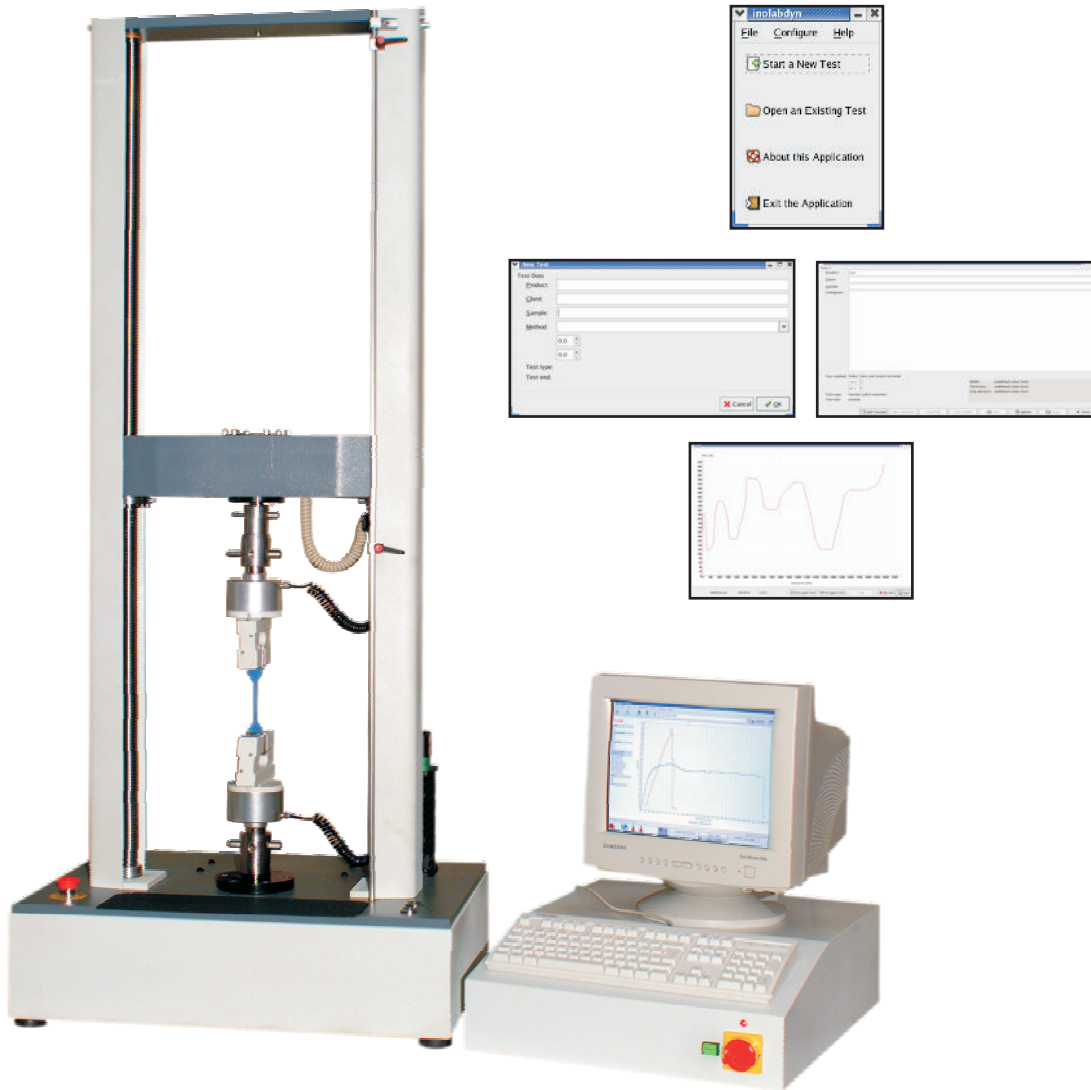


# LABORATORY EQUIPMENTS



Made in EU

**Pegasil<sup>®</sup>** by **ZIPOR**



Electronic Dynamometer



[Maximum Load Capacity: Till 1000 Kg (10 kN)]

**Commercial Services:**  
Tel.: +351.256 831 411  
Fax: +351.256 831 412

**ZIPOR** - Equipamentos e Tecnologia Industrial, S.A.

email: [pegasil@zipor.com](mailto:pegasil@zipor.com)

**Technical Services:**  
Tel.: +351.256 888 240  
Fax: +351.256 888 121

## Principle:

The electronic Dynamometer is an item of equipment that uses the most recent technology in order to carry out tests in a reliable manner that is comfortable for the operator.

The fact that this item of equipment is sophisticated does not mean that it is complicated to use. In fact the opposite is true, ease of all aspects of use was one of the targets that we set for ourselves when developing this equipment, in order to facilitate its use by a wide range of operators. The ability to be operated using several languages, plus the fact that remote access to the test data base can be gained through the Internet, enables real-time operations hitherto unthinkable for this type of equipment.

The main purpose of the electronic dynamometer is to measure loads and displacements and relate these in a suitable way, given that a certain displacement will logically correspond to a specific force and vice-versa.

## Equipment Description:

The machine is composed basically of three main units, the dynamometer itself, the computer hardware and the software.

. **Dynamometer:** Has two jog buttons that are used to move the bridge manually in order to allow the fitting of tools and to put them at the desired distance. Bridge movement with these buttons is done with ramps to get better sensitivity regarding the approximation to the objective. The movement limiters on the right hand side of the column are to limit the bridge displacement, acting as emergency protectors to prevent damage to the tools and load cells. The jaws are fixed to the dynamometer by fixing bolts on the upper and lower adaptors. The main switch on the control console is the dynamometer power system switch. The enable button is the button that activates the displacement and force reading system. This button should always be activated when the dynamometer power is switched on or after an emergency situation has occurred.

. **Computer System:** This is a conventional last generation system with a basic configuration of a PC, a monitor, a keyboard, a mouse and a colour printer.

. **Software:** The software for this application runs under the LINUX operating system and is divided into two components: Inolabdyn - the dynamometer management software and Mozilla - Internet browser and data base access.

The Inolabdyn software has been developed specifically to work with the dynamometer. Its functions are to act as an interface between the operator and the machine so that all the tests and procedures involved in this operation are carried out. This software also manages the communications between the computer and the dynamometer so that data exchange occurs in an organised and correct way without any deterioration or loss of information. During a test the computer coordinates the functioning of the load cell and the motor and in exchange receives the respective load and displacement figures for a given sample in accordance with the method chosen. These data are processed instantaneously and handled in the appropriate way.

The results of each test, as well as the test methods, standards and respective calculations are stored in the data base in Mozilla.

Mozilla is an Internet browser that allows external access to the system, enabling authorised external entities to have access to the past test data base and also allowing remote technical assistance. Through Mozilla it is possible to create users, defining the permitted degree of access and the working language of each user.

The language function allows different operators to use different languages. Irrespective of the language used for the test the respective report can be consulted and printed out in a different language as long as this is one in the data base. New languages can be introduced when requested.

All data bases of the standards, test methods and calculations necessary for the execution of the tests are also created through Mozilla.

The dynamometers are supplied with the minimum data bases already created. Users can introduce new data at a later stage. If necessary, full support will be provided for preparing new test method and the respective calculations. This support can be provided remotely, taking advantage of the function made available by Mozilla.

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# LABORATORY EQUIPMENTS

## Electronic Dynamometer

### Characteristics

#### . Physical characteristics:

- Maximum load capacity: 10 kN (1000 Kg)
- Displacement velocity:
  - . Test: from 1 to 850 mm/min.
  - . Return: 500 mm/min.
- Useful test width: 320 mm
- Maximum displacement: 800 mm

#### . Equipment standard:

- 1 x 1 kN Load cell
- 1 x Pair of screw action grips
- 1 x Computer with TFT monitor
- 1 x Colour inkjet printer
- 1 x Software package.

#### . Installation:

- Power supply:
  - . 400 VAC (Dynamometer)
  - . 230 VAC (Computer + Printer)
- Environmental conditions:
  - . Temperature between 5 and 40 °C
  - . Humidity between 20 and 80 % (Without condensation)

#### . Dimensions and weight

- Dimensions:
  - . Tower: 605 x 530 x 1320 mm
  - . Console: 480 x 530 x 200 mm
- Approx. net weight: 250 Kg.

**Supplied with:**

.Operating instructions ; conformity / calibration certificate

**Power Consumption:**

2500 W

**Noise:**

60 db

**Power Supply:**

400 V.AC - 50 / 60 Hz

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