



BY  
**TECHLAB**  
SYSTEMS

## METROTEC

ADVANCED SOLUTIONS FOR QUALITY CONTROL AND TESTING MATERIALS.

- **TECHLAB SYSTEMS, S.L.** is a company which specializes in designing, developing, manufacturing and marketing advanced technologies for carrying out physical Quality Control tests.
- **Through its industrial division and under the registered trademark METROTEC®, TECHLAB SYSTEMS, S.L. operates in industrial sectors related to metals, plastics, rubber, composites, food, adhesives, etc.**
- **TECHLAB SYSTEMS, S.L.** is also present in the packaging, cardboard, paper and pulping industries through its industrial division and under the registered trademark TLS®.
- **TECHLAB SYSTEMS, S.L.** as it exists today is the result of merger between its parent company METROTEC S.L. and TECHLAB SYSTEMS, S.L. itself, and its shareholders also include the North American company TECHLAB INVESTMENT, LLC.



# 2



METROTEC

- **METROTEC®** is a well-known, trusted brand that has been on the market since 1984. It has a wealth of experience and expertise in the sectors in which it specializes, as well as an extensive portfolio of clients.
- Some of the testing and measuring equipment offered through the **METROTEC® brand** includes: An extensive range of electromechanical universal testing machines, servo hydraulic universal testing machines which a range from 400 to 2000 kN, Charpy and Izod impact pendulums for plastics, Charpy impact pendulums for metals, equipment for determining the Vicat softening point/HDT, rheometers and Mooney viscometers, Vickers and Brinell hardness testers, free fall impact testers, etc., which you will be able to see throughout this catalogue.
- For any further information you can check our website [www.metrotec.es](http://www.metrotec.es)



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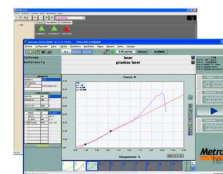
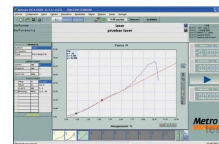
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METROTEC



# MATERIAL TESTING



METROTEC

## ELECTROMECHANICAL UNIVERSAL TESTING MACHINES-**MTE** Series

Electromechanical Universal Testing Machines with capacities between **1 and 750 KN**, designed to perform tensile, compression, bending, shear, etc. In accordance with the most demanding International Standards and used to determine the resistance of a variety of materials.

### Characteristics:

- Accuracy +/- 0,5% (EN ISO 7500:2004 Class 0.5 ASTM E4)
- Electromechanical drive

Standard supply content:

- METROTEST Advanced testing Software Multilingual (English – Spanish – French & German)
- Management Module with Basic Statistics Packs: Bar Charts - Gaussian Bells and Reference Comparison
- Pc (Laptop, or “All in one”)

# UNIVERSAL TESTING MACHINE BENCHTOP - SINGLE COLUMN

Universal testing machines with **1 to 5 kN** capacity, designed to perform tests:

- Tensile
- Compression
- Flex
- Shear
- Peel
- Tear...

On specimens of materials like Plastics, Rubbers, Adhesives, Textiles, , Rows, Food texture...



# UNIVERSAL TESTING MACHINES BENCHTOP – DUAL COLUMN

Universal testing machines with **10 to 50 kN** capacity, designed to perform tests:

- Tensile
- Compression
- Flex
- Shear
- Peel
- Tear...

On specimens of materials like Plastics, Rubbers, Adhesives, Textiles, , Rows...



# UNIVERSAL TESTING MACHINES DUAL COLUMN

Universal testing machines with **100 to 750 kN** capacity, designed to perform tests:

- Tensile
- Compression
- Flex
- Shear
- Peel
- Tear...

On specimens of materials like Plastics, Rubbers, Adhesives, Textiles, , Rows...



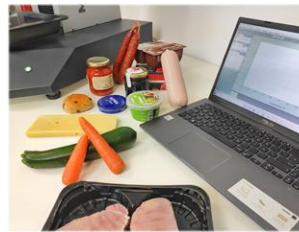


# FTM -50 TEXTURE ANALIZER

Designed to analyze properties related to Food Texture like:

- Pet Food
- Fruits
- Snacks
- Meats
- Vegetables
- Fish
- Dairy
- Nuts
- Biscuits
- Sausages...

This machine allows to run film/package tests too.

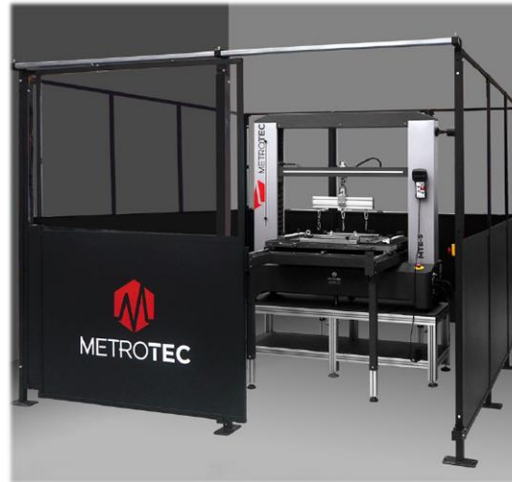


# CUSTOMIZED TESTING MACHINES

We design and manufacture customized Universal Testing machines, adapting their characteristics to the needs of our customers.



- Door security mechanism test
- Customers corporate color



- Workstation



- Automotive windshield testing
- Lower T-Groove platen

## TEST ACCESORIES

We have a wide range of testing accessories (grips, bending fixtures and special devices)

## EXTENSOMETRY

Contact extensometers for small and large elongation for different type of materials



**METROTEC**

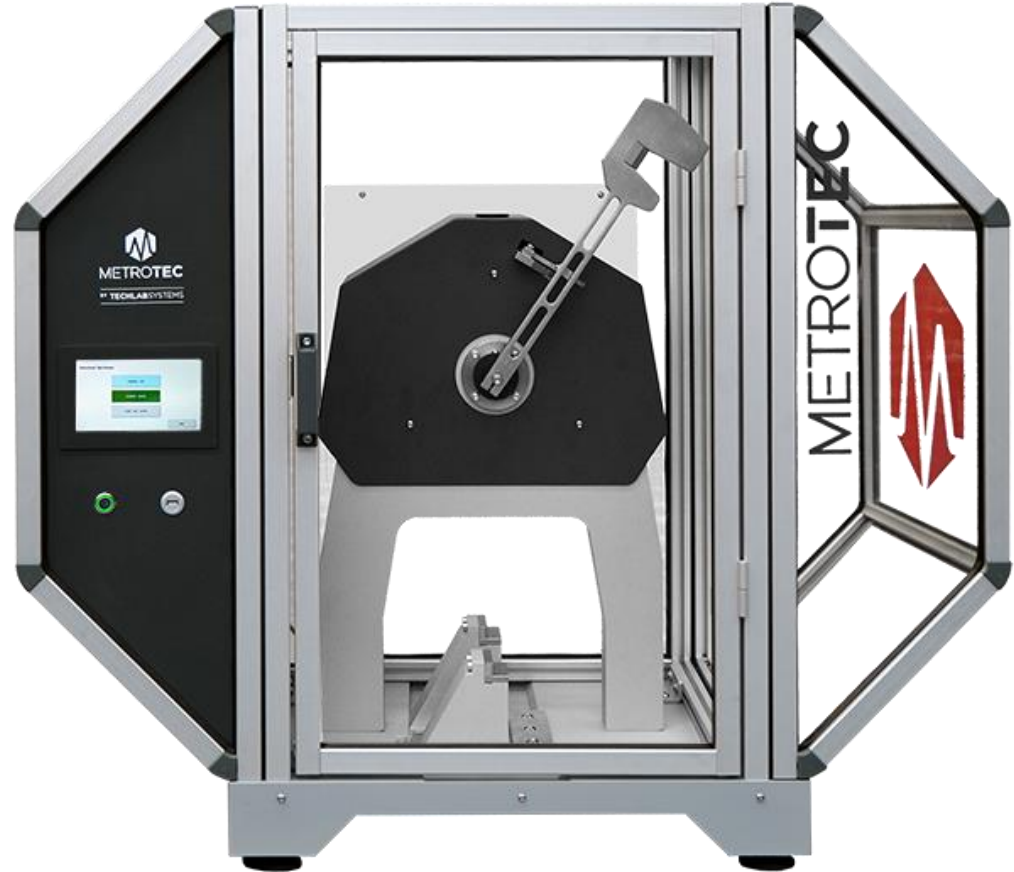


## **PIT-25 IMPACT TESTER for PLASTICS**

Digital Charpy/Izod Impact Tester to provide the absorbed energy value of standardized plastic samples.

Maximum energy capacity up to 25 Joules and available several hammers with different impact energies both Charpy and Izod.

According to ASTM D 6110 & ISO 179 (Charpy) - ASTM D 256 & ISO 180 (IZOD)



# HDT / VICAT TESTER

Equipment for determining the VICAT softening temperature and HDT heat deflection temperature of thermoplastic materials. Available version of 3 independent working stations.

According to ASTM D 648 - ASTM D 1525  
- ISO 75-2 - ISO 306 - DIN 53460 - DIN 53461 - UNI EN ISO 75-2, UNI EN ISO 306



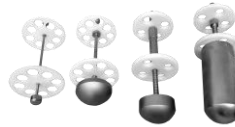


## **FIT-2000**

### **FREE FALL IMPACT TESTING**

#### **Plastic Pipes**

Equipment for determining the impact resistance of a free-fall impact striker on plastic pipe samples with diameter between 20 and 630 mm. It has a guide frame and motorized lift system.



## **AT-50**

### **ABRASION TESTER**

Laboratory Equipment to determine the abrasion resistance of Rubber, Plastics, Leather and other simples.



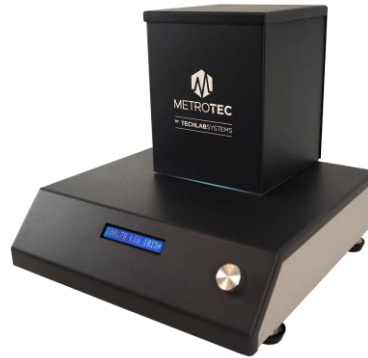
# FILM OPTIC PROPERTIES



## OPACIMETER OF-10

Precision instrument designed to measure OPACITY in plastic films, transparent, clear or diffused, black or black/white, formed with Polyethylene and co-polymers. For industries and sectors such as: Horticultural, Floricultural, Alimentation, Garbage Bags...

According to Standards: EN 13655:2002 – NF T 54-190...



## HAZEMETER

The HZ-1003 transmission hazemeter quantifies the optical qualities of transparent materials.

Transmission Haze – a measurement of the light scattering characteristics of a material. Haze can be due to suspended particles or contaminants within a sample or fine surface texture & contamination. Haze measurement can be used to quantify optical characteristics of plastics and packaging films.



# TEST SAMPLE PREPARATION

We have a wide range of sample preparation equipment, such as:

- CNC Milling Machines
- Hand-Operated and Pneumatic Sample Presses
- Test Sample Injection Moulding Machine
- Charpy Motorized Notching Machine for plastics
- Double Blade Cutter



# MELT FLOW INDEX TESTING



Entry level model for determining the Melt Flow Index (MFR) of thermoplastic materials by the gravimetric method. It has a PID temperature controller and automatic cutting samples.

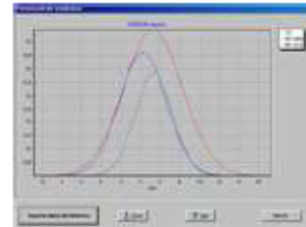
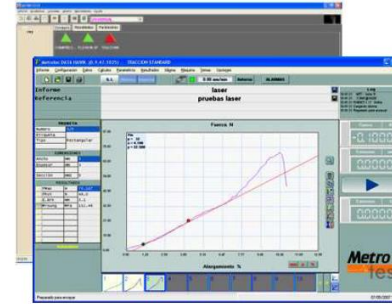
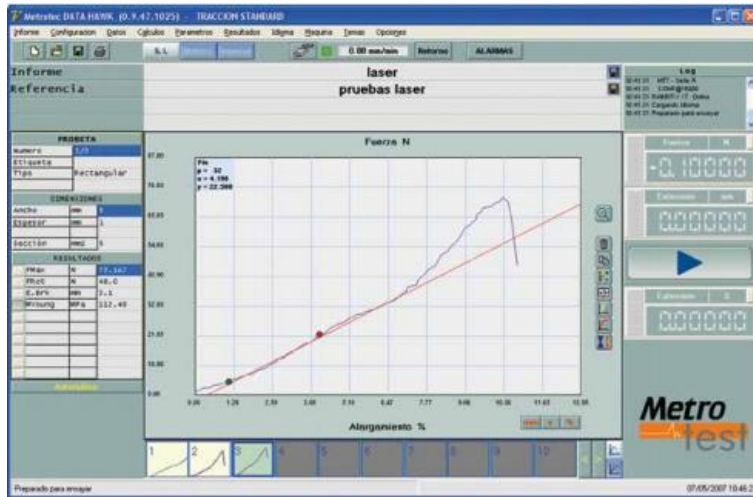


Advanced solution for determining the Melt Flow Index (MFR & MVR) of thermoplastic materials by the volumetric and gravimetric methods. It has a PID temperature controller, automatic cutting samples and software.



Advanced solution for determining the Melt Flow Index (MFR & MVR) of thermoplastic materials by the volumetric and gravimetric methods. It has a PID temperature controller, automatic cutting samples, software and fully automatic system for loading masses onto the piston.

# METROTEST TESTING SOFTWARE



Provides Control Software management of the data obtained in one tester or instrument. It works as independent software module or integrated in other advanced solutions like LYNX PLUS and LYNX PRO Software.



## TRADE ITEMS

As a complement to  
our product line,  
we offer a variety of  
distribution  
equipment listed  
below

TABER Abrasion Testers • Hot-Tack Tester • Precision and Analytical  
Balances • Electronic Densimeters • Elmendorf Tearing Testers • Shore A &  
D Hardness Testers • Brinell Hardness Testers • Rockwell Hardness Testers •  
Micro Vickers Hardness Testers • Precision Ovens • Salt Spray Chambers •  
Kesternich Corrosion Chambers • Cyclic Corrosion Chambers • Climatic  
Chambers QUALITY CONTROL TECHNOLOGIES | 37 • Ozone Exposure  
Chambers • Carbon Black Content Analyzers • Flammability & Fire Testers •  
Leak & Seal Vacuum Chambers • Muffle Furnaces • Oxygen Permeability  
Testers • Gas Permeability Testers • Water Vapor Permeability Testers



**METROTEC**



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