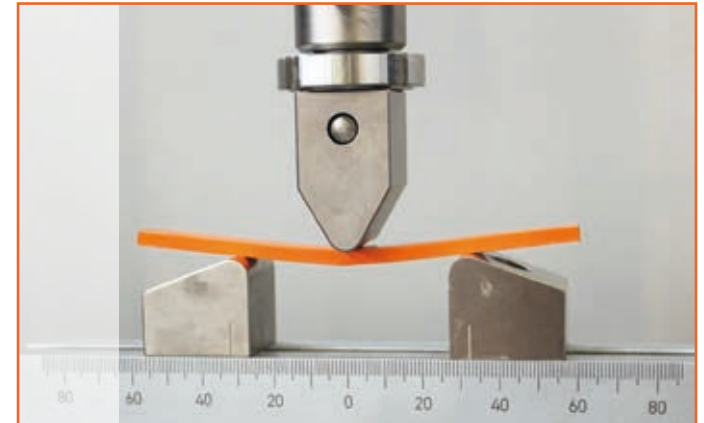


**GALDABINI**  
1890

Plastic, Rubber and Non-metal Testing Solutions





# 1890

## Our Heritage

Founded in 1890 and fully owned by the Galdabini family, the company has its headquarters close to Milan.

The company has always been innovative - the initial artisan activity of maintenance and repair of the local textile factory soon evolved into the construction of machines for the mechanical industry.

Nowadays, we design and manufacture universal testing machines, straightening machines and hydraulic presses.

## Core Values

Galdabini's philosophy is to work with dedication and commitment, putting the customer first.

Innovation is our culture.

Finding technological solutions to meet customer needs is our common goal.

Challenges inspire our passion.

# Customer **First**

How do we satisfy your needs and requirements?

**Providing our customers with the best know-how, experience and service**

We supply the highest quality products, innovative technology, expert support and world-class service.

With more than 125 years of experience in the material testing industry, Galdabini instrument systems are found in applications and industries such as plastics, metals, composites, elastomers, aerospace, automotive and biomedical components.

## **THE WORLD OF RUBBER, PLASTIC AND NON-METAL**

Qualifying materials to guarantee ever-better performances is a common need in the plastics and elastomers industry, where metals are being replaced with plastics in order to take advantages of their greatest flexibility and variability in forms.

We provide solutions that confirm to International Standards and meet our customers' requirements in:

**RESINS, PLASTICS (PET, POLYCARBONATE, PVC...), ELASTOMERS, RUBBER, FILM, COMPOSITES, GLASS, CERAMIC, WOOD.**



# Quasar Line

## Product Portfolio

A wide range of electromechanical materials testing machines suitable for bidirectional tests: tensile, compression, flexure, bending, friction, cycle, constant load and many others according to International Standards or customer procedures.

Galdabini identifies the various needs of the plastics sector to develop customised solutions as special frames for elongation and high speed performances.



Quasar 2.5 kN, tensile test on rubber

# Quasar Line **at a glance**

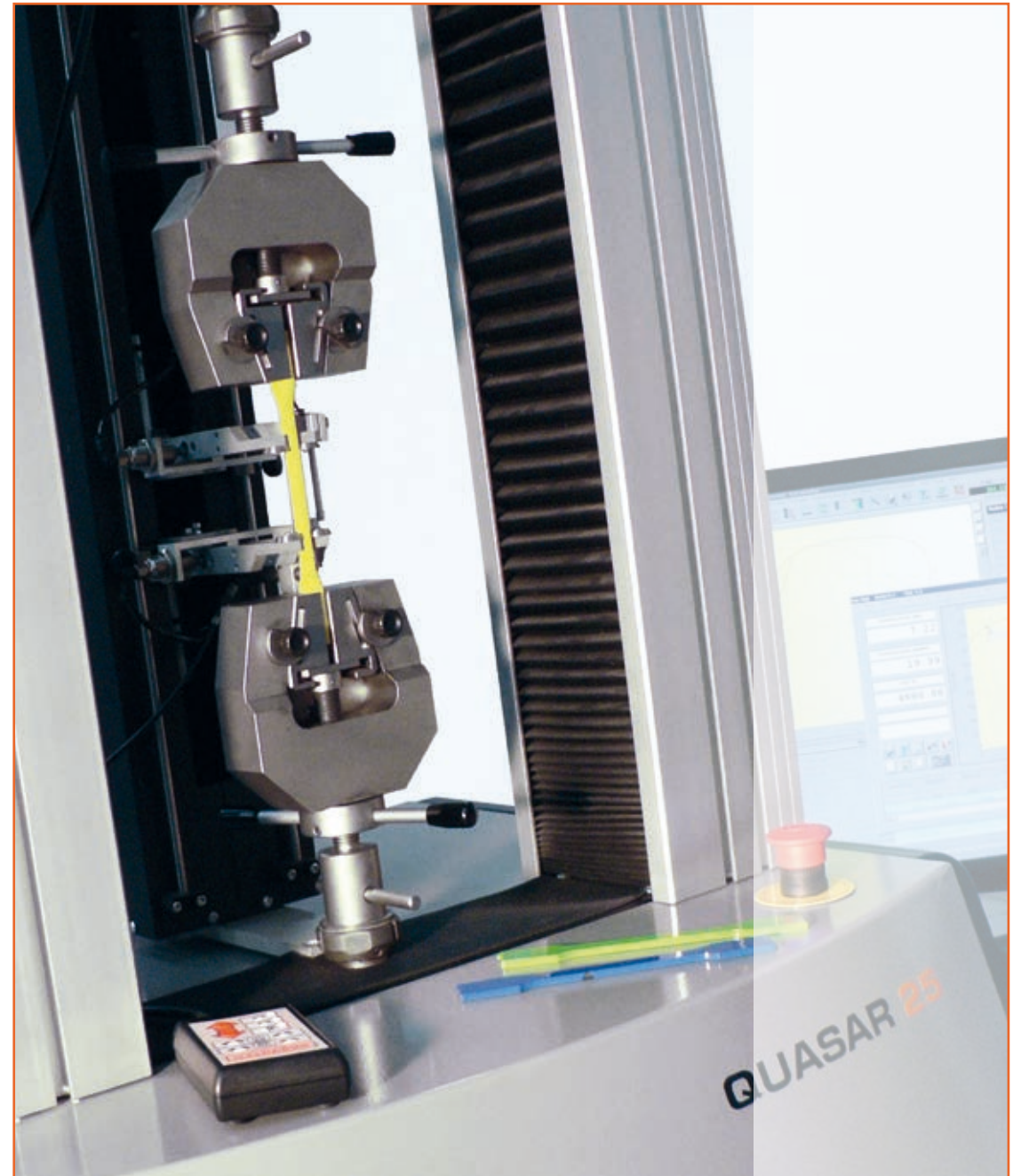
## Single Column Bench-top for Low-force Testing:

- Capacities up to 2.5 kN
- Small dimensions, high performances
- Commonly used in plastic films, rubber, microelectronics, wires, small components, textiles.

The Quasar 2.5 kN and its equipment are designed for flexibility of use - modules can be added quickly, easily, and when needed.

## Dual Column Bench-top for Mid-force Testing:

- Capacities up to 100 kN
- Multi-purpose, versatile requirements
- Used for automotive and aerospace industry, non-ambient temperature applications; plastics, metals, composites, fiberglass, refractory material, wood, technical textiles.

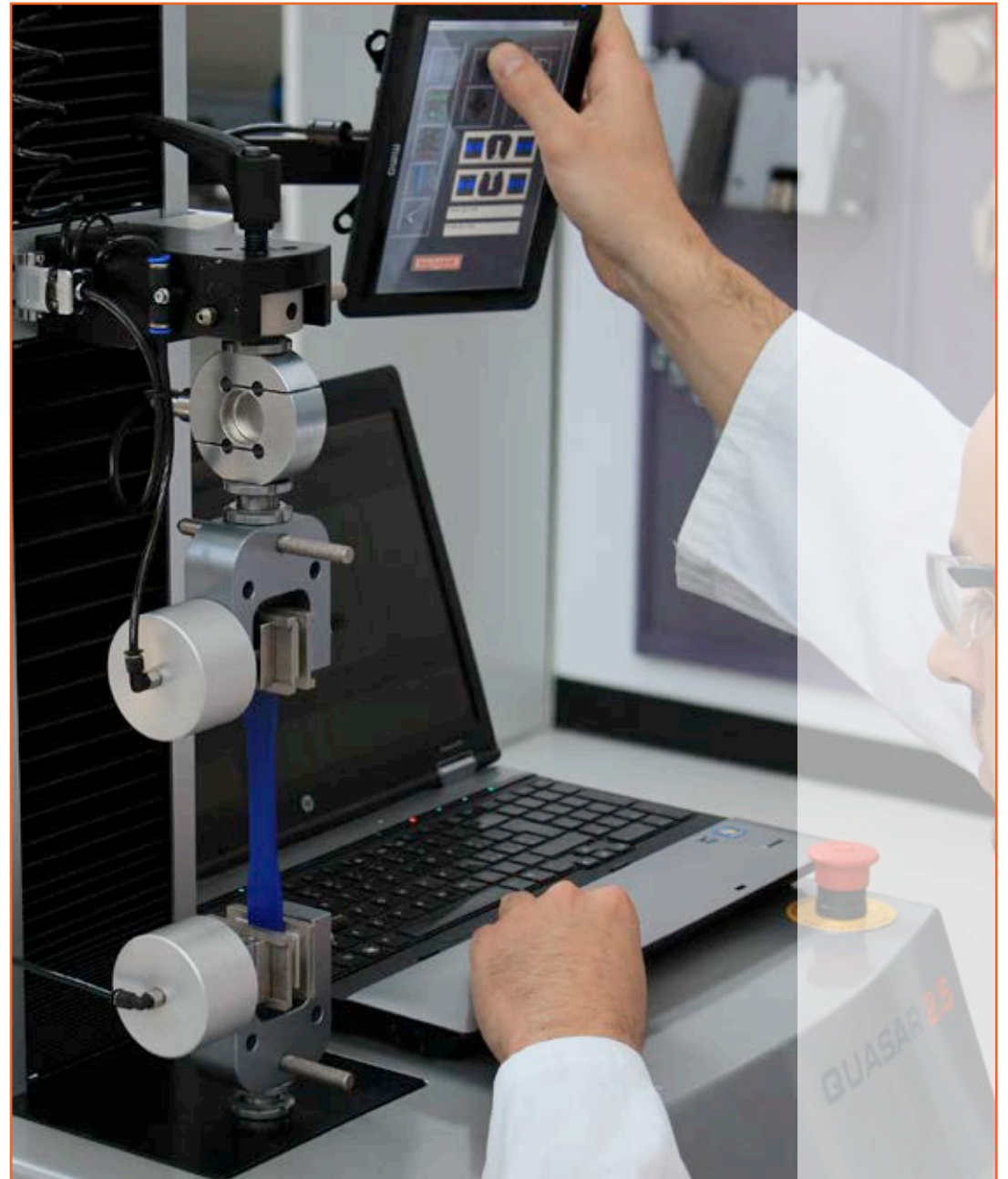


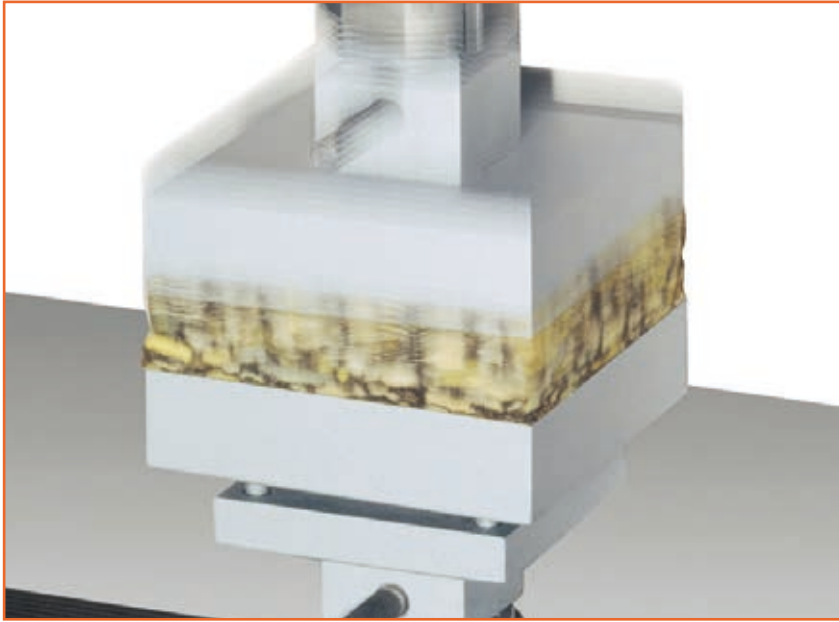
# The world of **Plastics,** **Rubbers and Non-metals**

Although plastics have been around for about 100 years they are considered to be modern when compared to traditional materials like wood, stone, metal, glass and paper. Resins, plastics (PET, Polycarbonate, PVC, thermoplastics, fiberglass - reinforced plastics..), elastomers, plastic films, rubbers and foams are used for a wide variety of applications in the packaging industry, in medicine, biomedical, for agricultural purposes and in the construction industry.

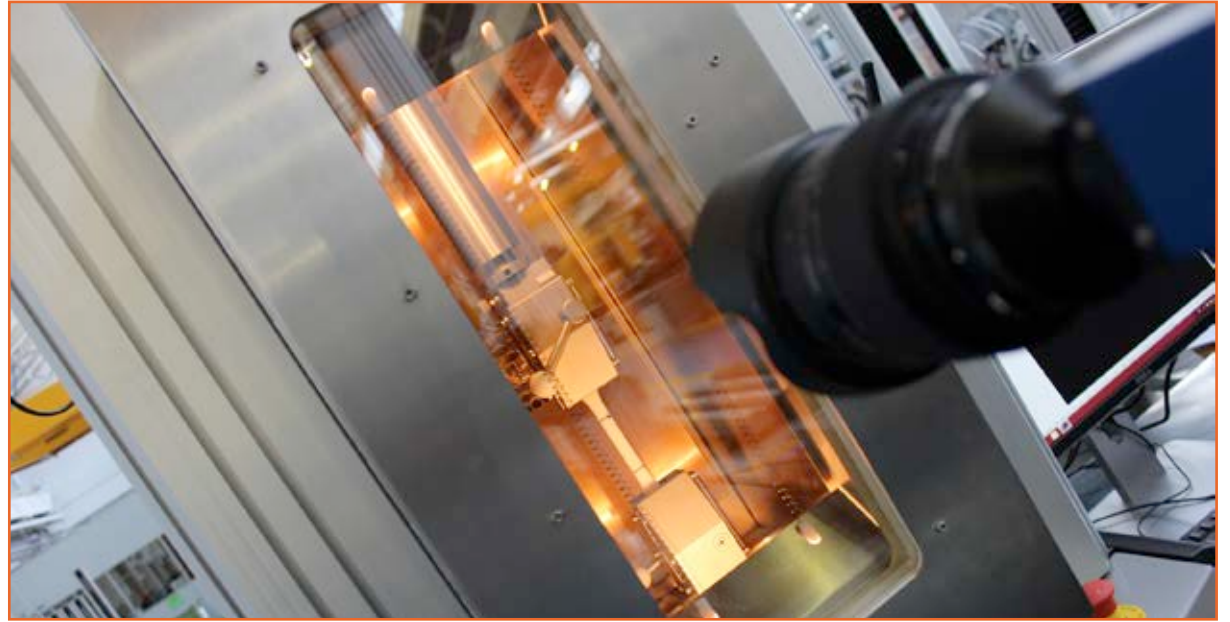
Besides, glass, paper, composite, ceramic and wood are found in applications and industries applying today's best practices and technologies to reduce the environmental impact such as eco packaging and labelling, flint glass, superhydrophilic stain- resistant ceramics (..).

Galdabini has designed testing equipment for these specific demands and suitable for various mechanical tests, providing accurate and reliable measurement of values for: stress-strain / flexure / friction characteristics, penetration resistance and more - according to International Standards, as: ISO 527, ASTM D638, ISO 178, ASTM D882, ISO 2062, EN 310, ASTM D3039, ISO 604 (..).

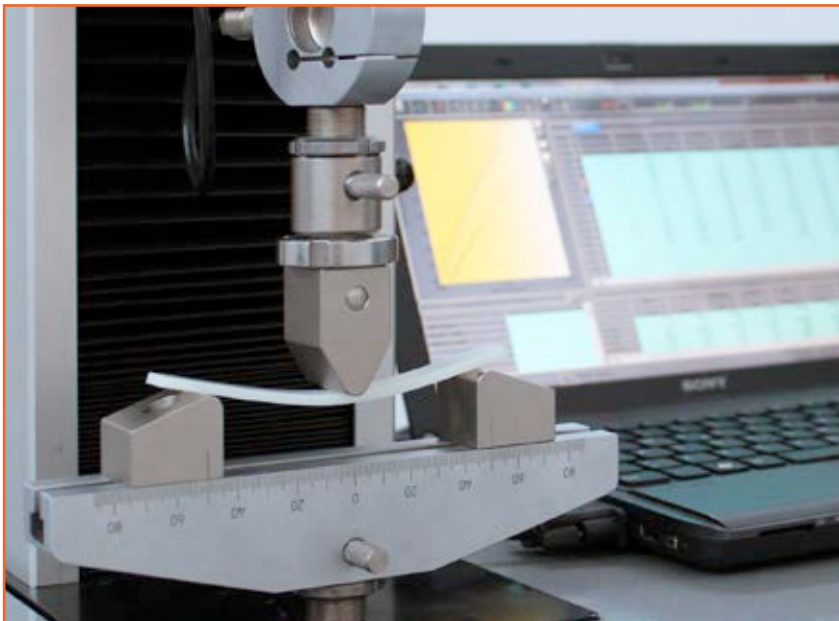




Compression test on foam, ISO 3386



Video Extensometer and thermostatic chamber on plastic, ASTM D638 - ISO 527-1



Flexure test on plastic, ASTM D790 - ISO 178



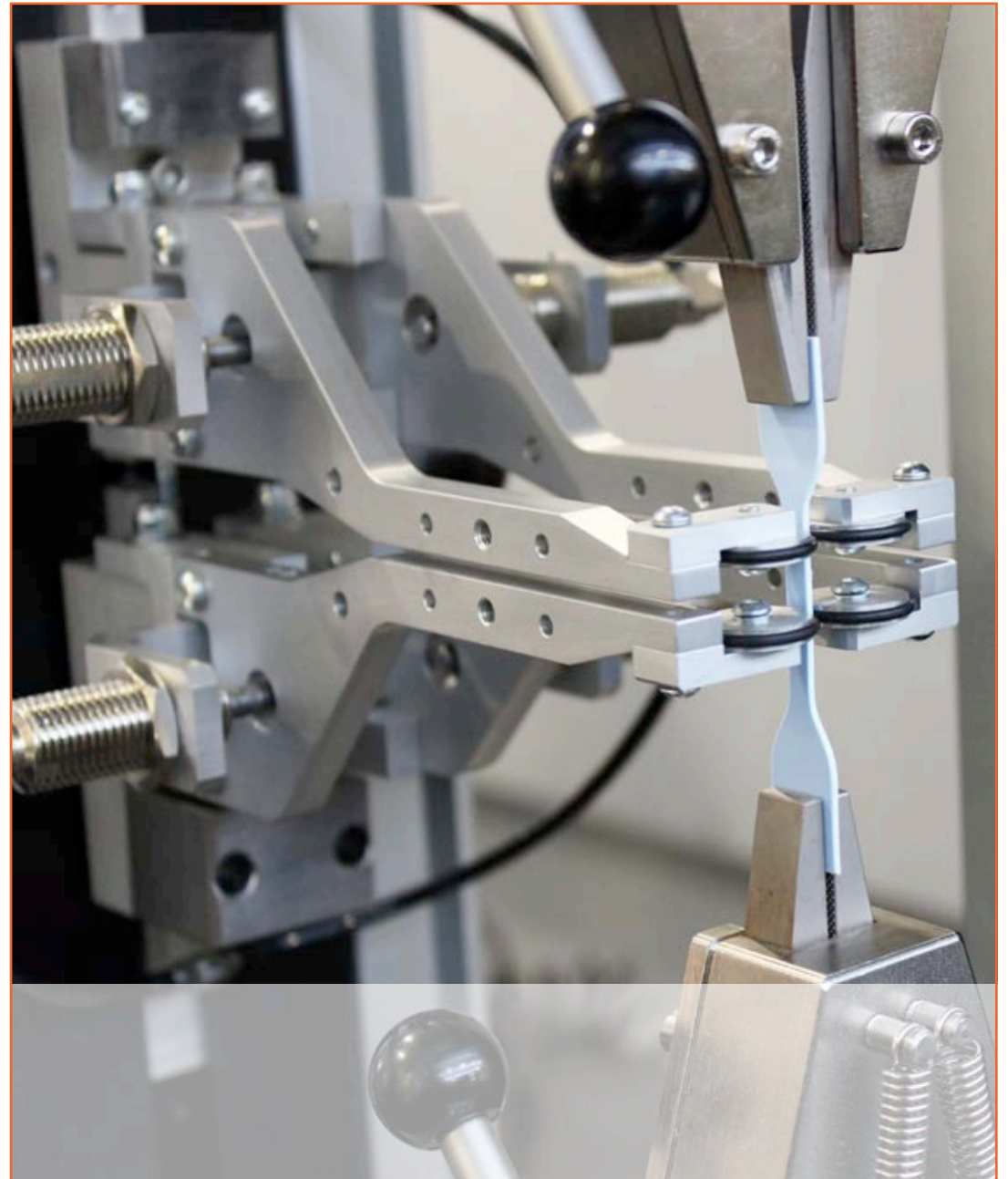
Tensile test on textile, ISO 13934

# Applications

Galdabini has a wide range of customised solutions for specific applications and in accordance with International Norms. Our expertise allows us to meet our customers' requirements by providing the best testing equipment, gauges, and accessories.

The highest quality of each mechanical and electrical components ensure the best performances, providing accurate and reliable measurements. Extensometers with special knives, low-force auxiliary cells and safety barriers are available in our range.

If you wish to see more details about applications and accessories please contact us at: [info@galdabini.it](mailto:info@galdabini.it)



Plast Extensometer with nitrile rubber knives ASTM D412 - ISO 37





Compression test on food



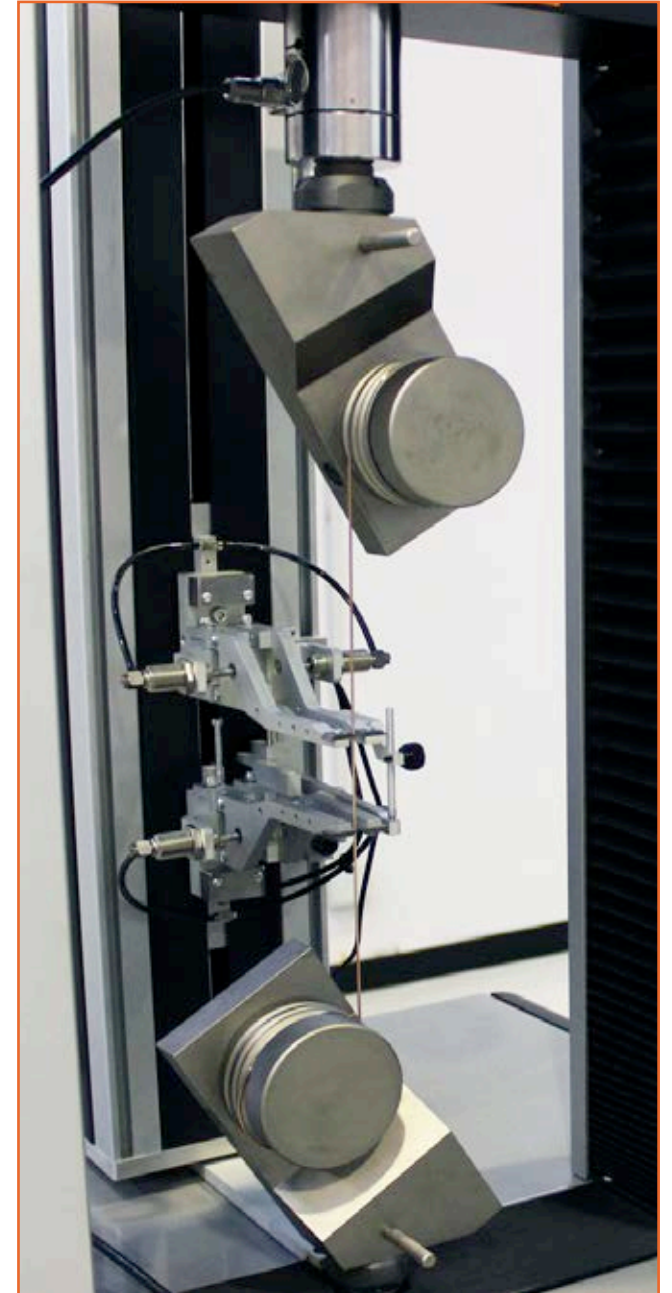
Laser Speckle Extensometer



Compression test on rubber O-ring



Delamination of brake pad plastic cover



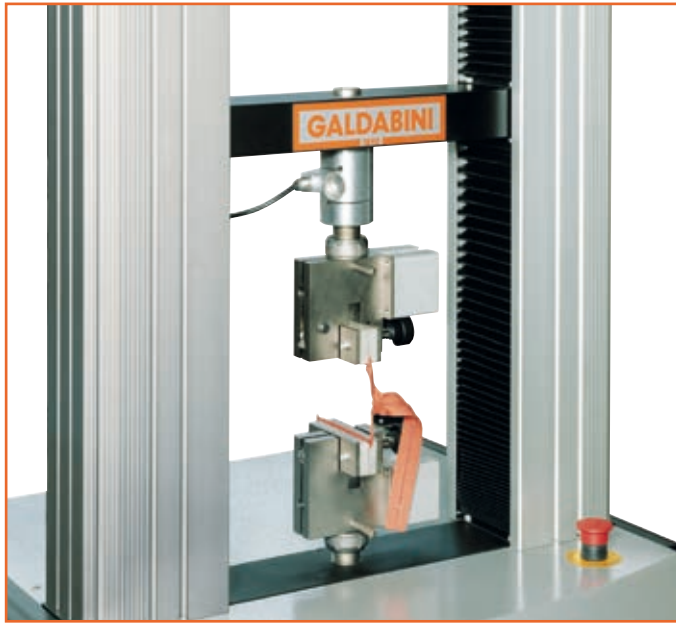
Tensile test with drum grips on wires, ISO 6892

## Details that make the difference

The design and manufacturing of fixtures and extensometers take place internally at Galdabini. This allows us to have complete control over testing processes, which are in full conformity with ISO / ASTM / JIS / GB Standards, enabling us to entirely guarantee our testing machines.

All machining and assembly of testing machine frames, crossheads and major components take place in-house at our Galdabini factory.

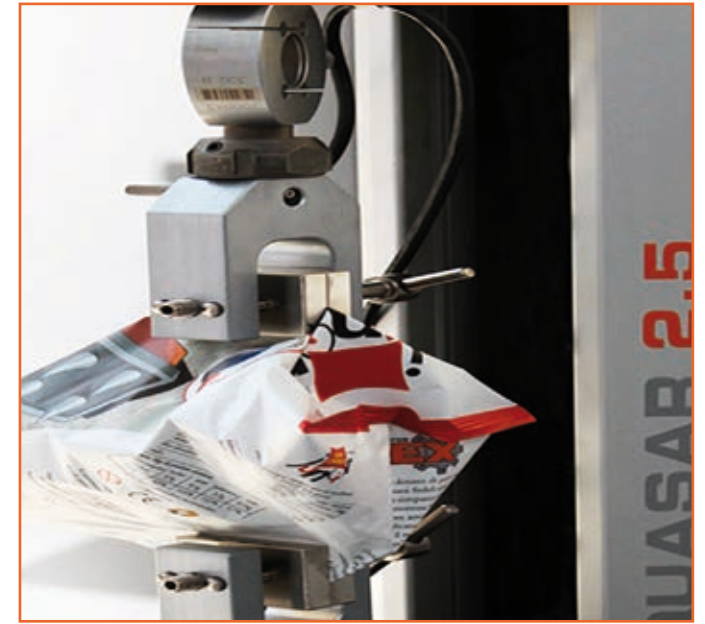




Tensile test on zip fastener;  
ASTM D2061 - BS 3084 - DIN 3419



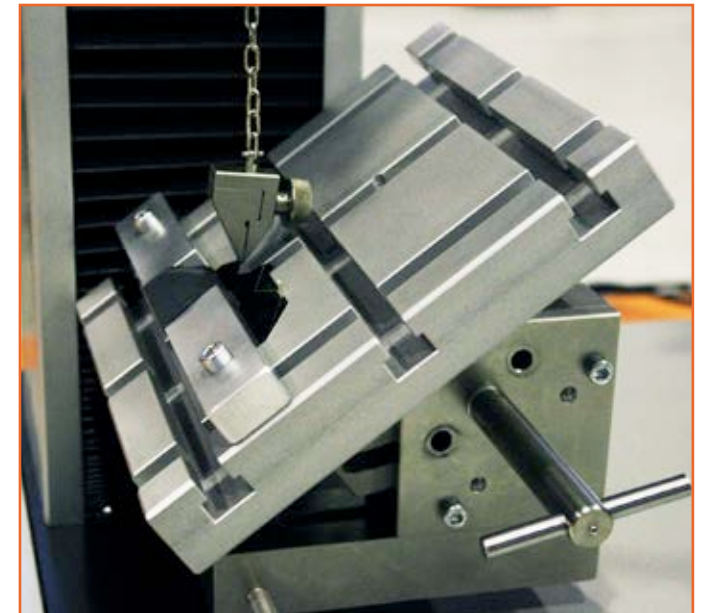
Friction test on plastic film, ISO 8295 - DIN 53375  
ASTM D1894 - TAPPI T549



Resistance test on packaging



Tensile test on electronic components



Tensile test on solar cells' section

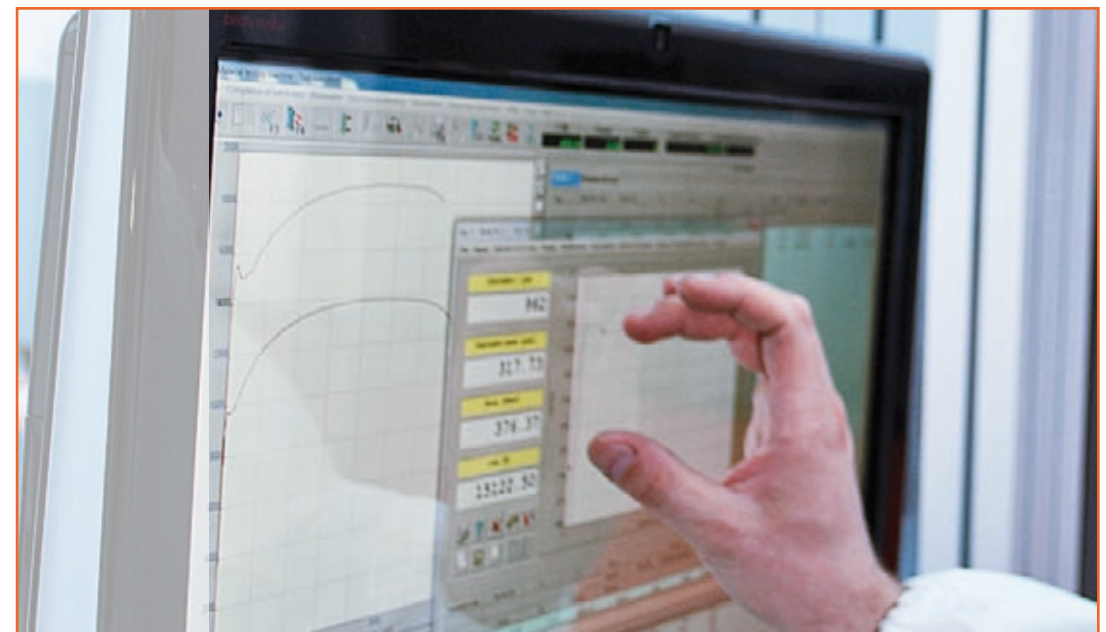
# Software

Performance beyond your expectation

The user interface of our software allows the operator to program functions easily and intuitively.

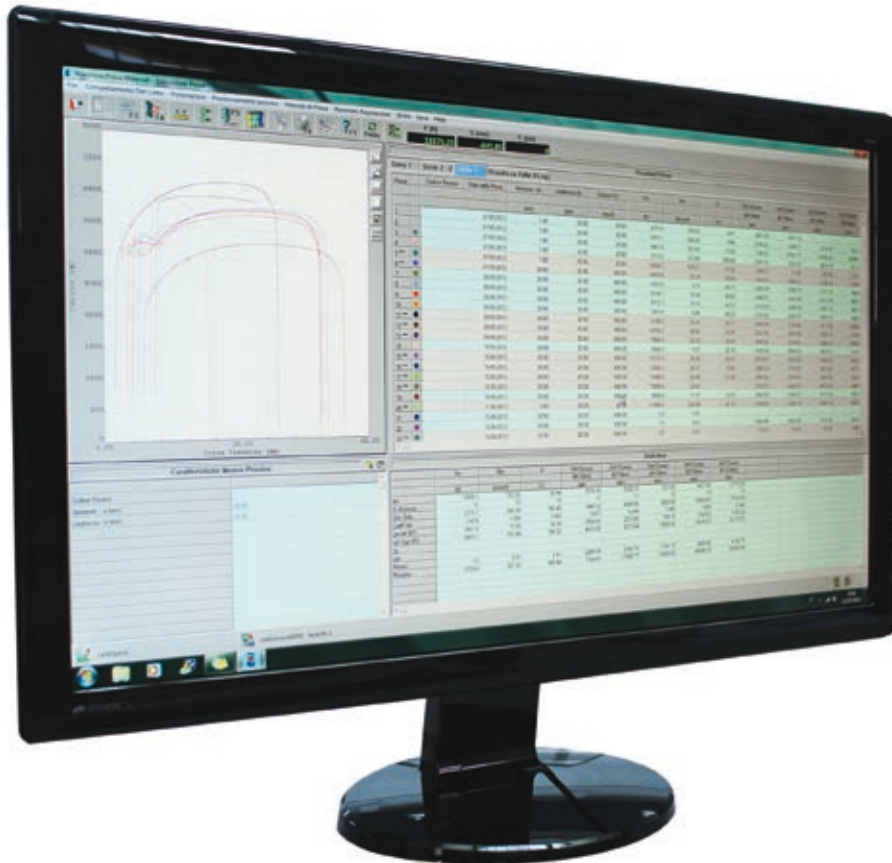
Graphwork is a complete-packaged application that is pre-installed with a library of hundreds of test methods and allows customers to create their own test methods-interactive help is provided, if needed. Included at no additional costs.


Our software is designed and updated by our Galdabini software engineers in response to customer feedback and needs.



Data results may be stored, analysed, transferred and included in personalised test reports.

The free, remote on-line customer support by means of the Team Viewer module, enables us to help customers from our service department - solving programming issues promptly while carrying out full inspection of the machine.





**CESARE GALDABINI**  
Cardano Al Campo (VA)  
- ITALY -

---

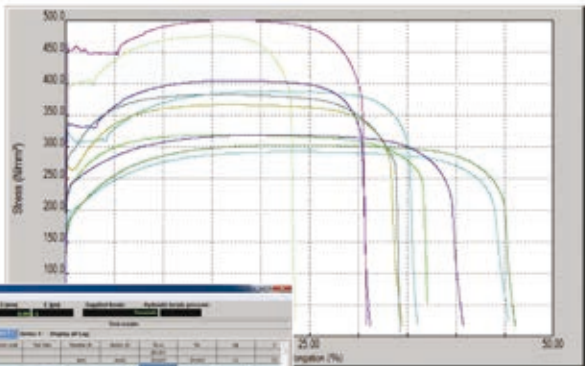
**METHOD : tensile test on 0.5mm specimens**

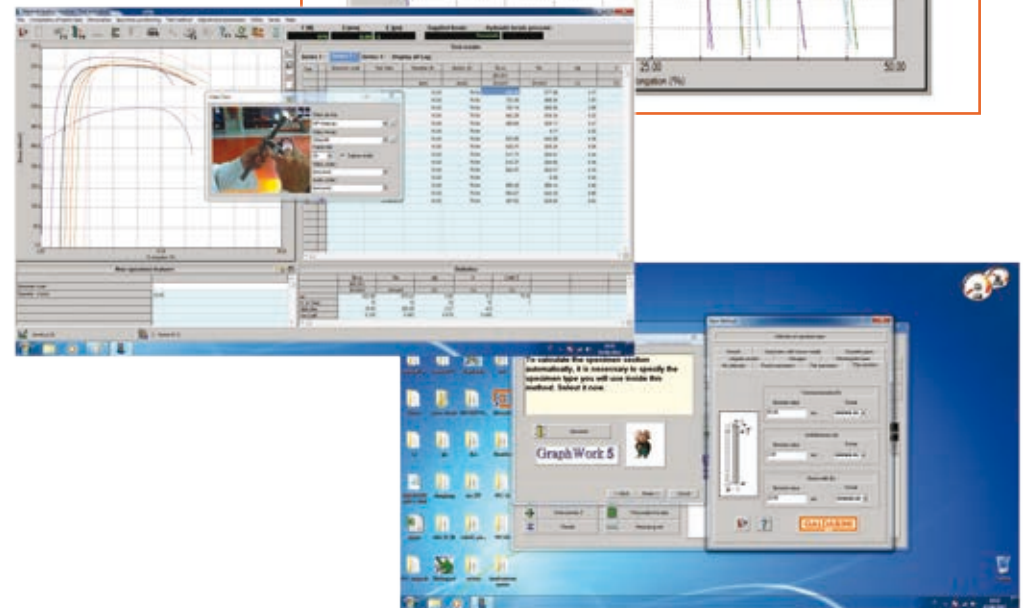
Series N. 1 -

Test conditions

Extensometer 1 : MICRON	Extensometer 1 - Serial number : 58700
Load cell : TCS-TM	Load cell - Serial Number : 805409
Load cell - Capacity : 25000.00 N	Extensometer Base : 80.00 mm

Specimen code	Test Date	Test time	Thickness (d)	Width (d)	grip 0.2	ReL	A5	Fu	
			(mm)	(mm)	(mm)	(N/mm²)	(%)	(N)	
1	19-10-2011	16:06	2.95	20.20	227.37	318.20	40.79	18561.3	
2	19-10-2011	16:12	4.02	20.20	451.81	499.39	30.87	40552.5	
3	19-10-2011	16:17	5.96	20.20	283.89	362.02	34.32	40962.5	
4	tomatoe dcp	20-10-2011	15:10	2.87	20.21	266.32	366.93	34.54	21225.0
5	tomatoe nero	20-10-2011	15:14	2.99	20.21	333.83	404.01	31.29	24413.8
6	E3415	21-10-2011	08:16	0.96	20.20	225.52	318.12	37.13	6297.5
7	E3402	21-10-2011	08:21	2.83	20.20	321.77	387.15	36.10	20567.5
8	19858	21-10-2011	08:59	4.03	20.20	402.39	474.70	23.51	38643.8
9	19856	21-10-2011	09:05	2.95	20.20	170.58	302.36	46.09	18217.5
10	19854	21-10-2011	09:09	2.00	20.20	181.15	291.74	45.46	11796.3
<b>AVG</b>						238.81	274.36	38.97	20445.8
<b>N of Tests</b>						10	10	10	10
<b>Min Dev</b>						80.24	76.87	4.87	12868.8
<b>Lower Lim 95%</b>						220.74	223.71	31.10	18344.8
<b>Upper Lim 95%</b>						357.28	428.91	43.92	33668.8





# Robotised Systems Line

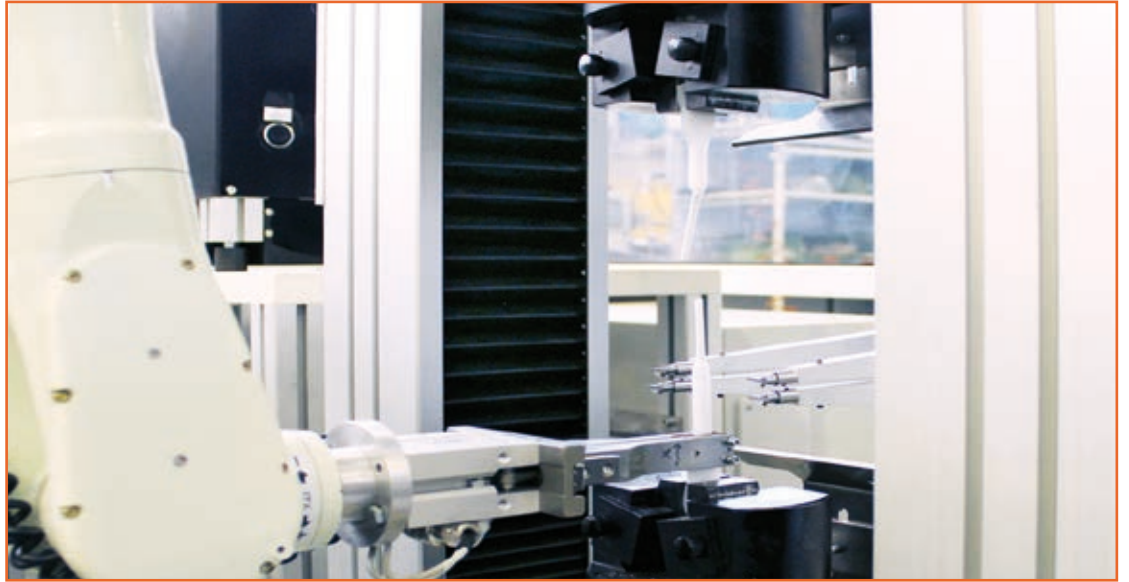
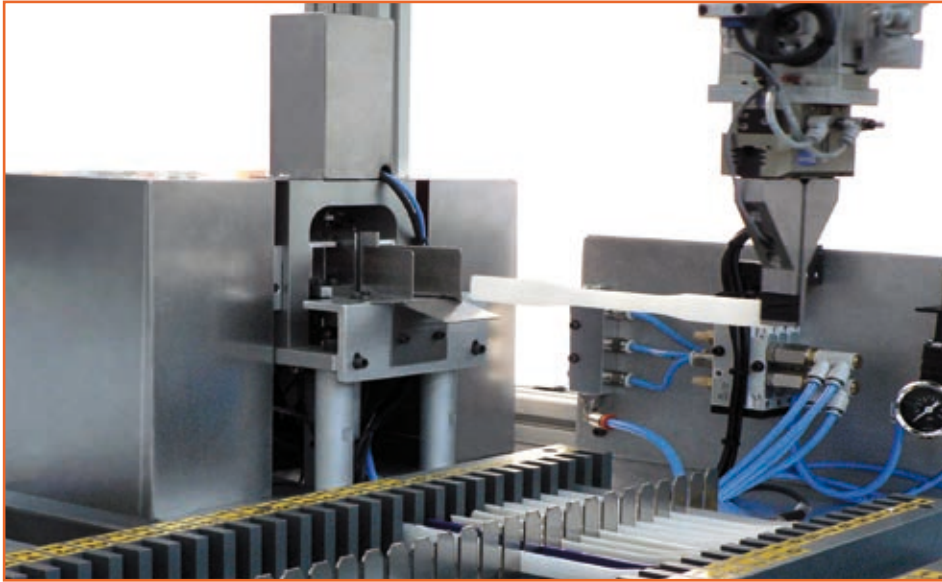
Galdabini is a pioneer in automation technology applied to industrial equipment. The software engineering department's dedicated team develops solutions for robotised testing systems with the integration of Quasar tensile and Impact resilience testing machines. The winning synergy between testing machines, robots and warehouse systems for specimens grants users high productivity and repeatability of results with limited human attendance.

Robotised systems are governed by GTA area controller and a dedicated PLC, connected through Ethernet. This set up allows an intensive and reliable 24 hour operation with lasting performances.

When needed the system can be used as a “stand alone” unit for manual tests, all changed quickly and easily within seconds using only a mouse click. The efficient system engineering and ergonomical layout make this solution extremely easy to use and maintain, as well.

Two lines of solutions are available: Multi and Compact Line, with six and three-axis robots respectively.





# Be Galdabini

What is competence for customer?



Galdabini electronic controller board is designed and made by using high quality state of the art components. Widely used in heavy industrial application, the board offers important distinguishing features such as a data acquisition frequency starting from a standard of 500 Hz expansion capability. High reliability grants accurate usage even in the presence of difficult environment conditions. Thanks to exceptional performance features, this solution is applied to both robotised systems, subject to intensive use as well as on stand-alone testing machines.



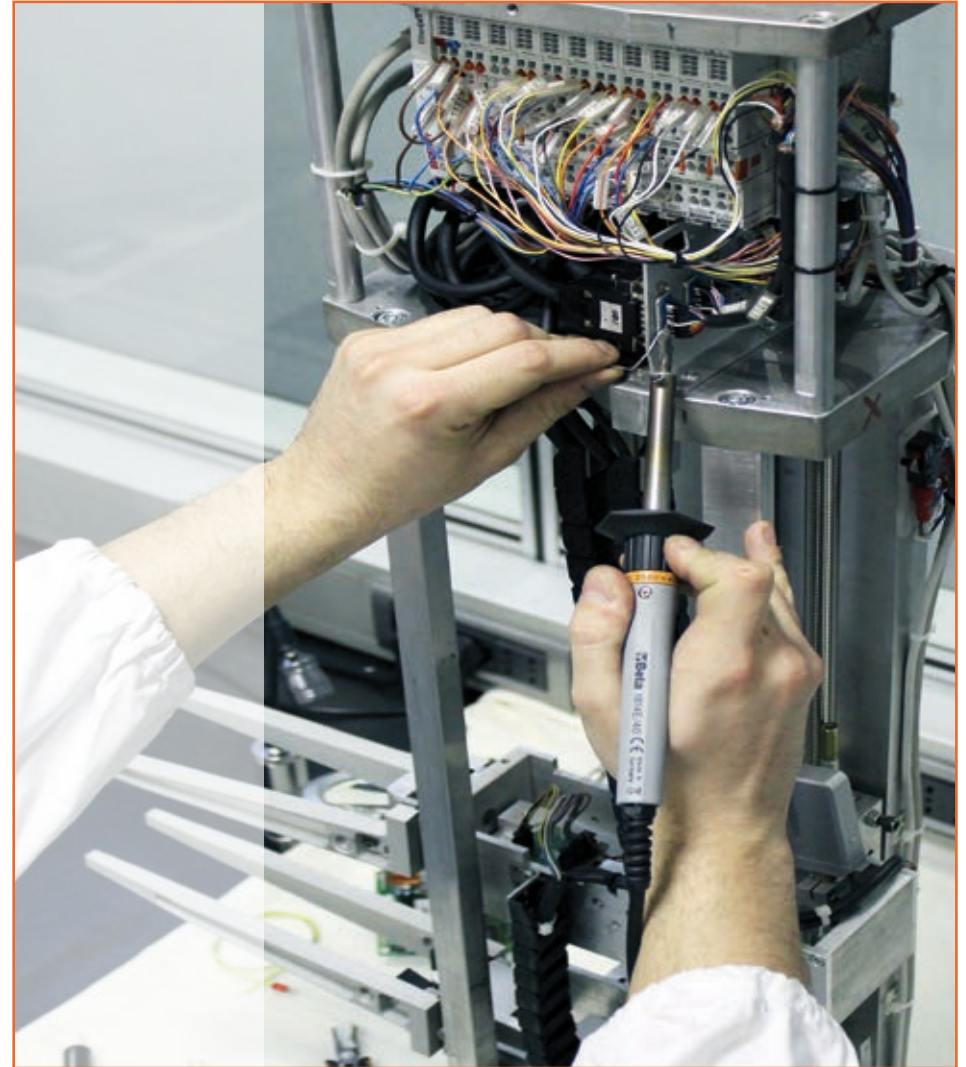
We design and manufacture frames, gauges, and extensometers. This allows us to have complete technological knowledge aimed for our users' benefit - the automatic extensometers are the best demonstration for how important this knowledge is.

Galdabini instrument frames and fixtures are designed using 3D parametric programs. Frames are verified by means of Finite Elements Method (FEM) that allows to evaluate the stress and behavior under working load. Precision in design.





We have been manufacturing ball-screw driven testing machines for more than 30 years. Over the years we have supplied several thousands of machines worldwide to some of the most important players. Ball screw quality is extremely reliable and meet the best ISO Standard. Expert assemblers ensure a perfect assembly of frames and ball screws, to guarantee precise coaxial mechanical alignment of grip connections.



The correct execution of a tensile test depends on the precise use of the extensometer. Galdabini's high level of knowledge, professionalism, design and manufacturing enables us to build our measuring instruments to measure and achieve the highest basic requirements according to the International Standards.

# Calibration and **After Sales**

Galdabini is an official European Calibration Centre for both load, deformation, resilience, hardness, pressure and other physical units typical of material testing laboratories. This is a service to ensure that our products are state-of-the-art as well as enabling us to provide the most reliable support possible. Additionally, Galdabini, as a partner of leading brands in the aerospace industry, also complies with the NADCAP certification quality standards for calibration and alignment.

Qualified staff supports customers on-site during installation, training and calibration on a world-wide scale. The technical support is provided by our skilled service engineers all over the world and is available throughout the entire life cycle of the machine. We always include on-line after sales service carried out via remote interfacing module, Team Viewer. In addition, a wide range of spare parts is stocked in our warehouse, enabling us to provide fast delivery to customers.



# Business and Values

## Growing together

### Certification

ISO 9001 - Calibration Centre LAT N° 034- UNI EN ISO/IEC 17025 “General requirements for the competence of testing and calibration laboratories”- Signatory of EA, IAF and ILAC Mutual Recognition Agreements.



### You can count on us

We are represented in every continent and in over 80 countries, providing technical and commercial service through a network of highly-qualified personnel who regularly attend on-going training courses.

### Call us!

Available year-round, anywhere in the world for professional customer care in technical assistance, calibration, repair, and instrument upgrade services of our machines.

### [galdabini.it](http://galdabini.it)

Enjoy our experience.



# Galdabini World



Italy



Switzerland



China



Usa



## Italy Galdabini S.p.a

Via Giovanni XXIII, 183 - 21010 Cardano al Campo - Varese - IT  
Tel. +39 0331 732700 Fax +39 0331 730650 - [www.galdabini.it](http://www.galdabini.it) - [info@galdabini.it](mailto:info@galdabini.it)

## Switzerland Galdabini Präzisions Maschinen AG

Markesteinstrasse, 2 Felben 8552 CH  
Tel. +41 527662020 - Fax +41 527662030 - [www.galdabini.ch](http://www.galdabini.ch) - [info@galdabini.ch](mailto:info@galdabini.ch)

