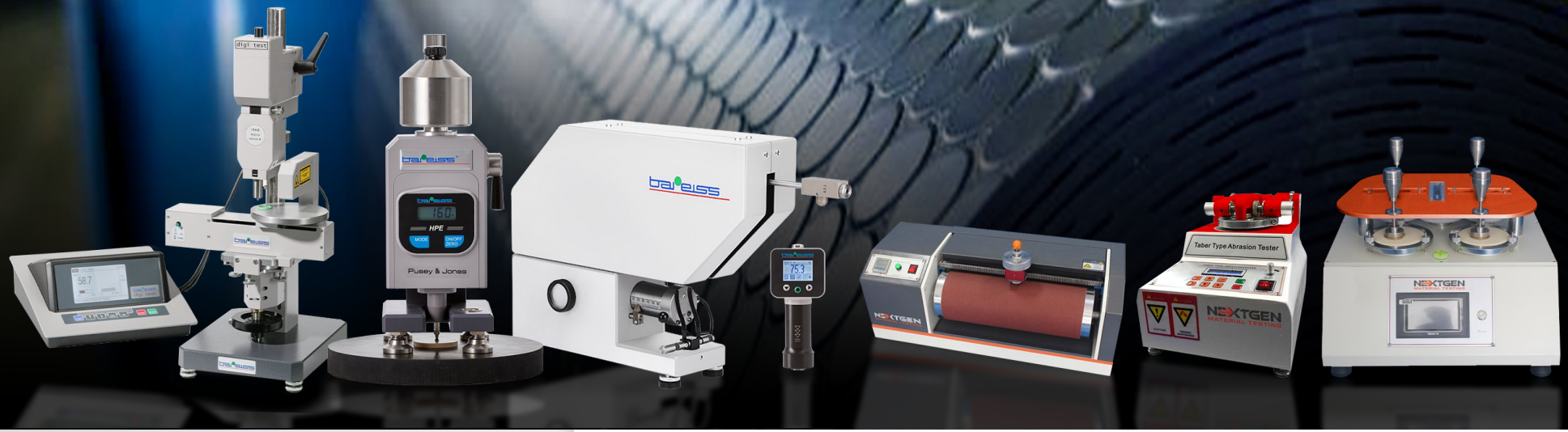
PLASTICS AND RUBBERS TESTING EQUIPMENT

- TENSILE TESTING EQUIPMENT
- PORTABLE SHORE DUROMETERS
- AUTOMATIC SHORE / IRDH HARDNESS TESTING EQUIPMENT
- IMPACT TESTING EQUIPMENT
- ABRASION TESTING EQUIPMENT
- REBOUND RESILIENCE EQUIPMENT



NEXTGEN MATERIAL TESTING

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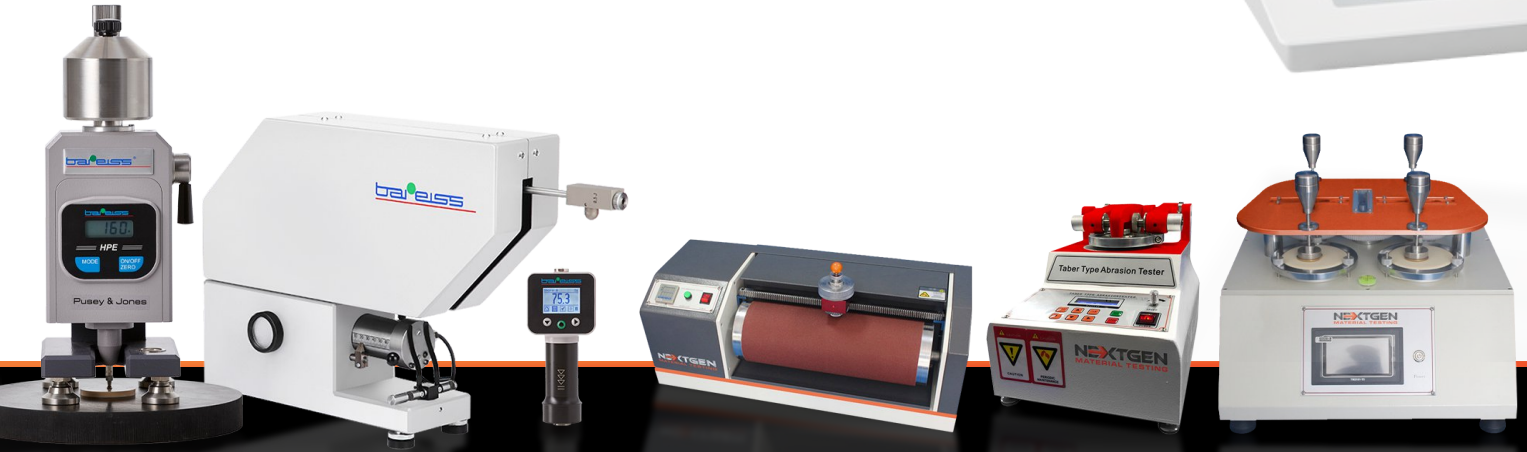


The NextGen testing frames incorporate precision electromechanical load frame equipment to meet all of your testing needs. Built according to industry standards, the NextGen EML line features or latest TestPilot software which comes pre-programmed with some of the latest testing methods. TestPilot is designed for users to reach the most accurate results while providing an easy to use interface for even the most inexperienced users. The EML line is broken down into Class A, B, C and D covering a wide variety of laboratory configurations.

NextGen EML units can come equipped in the following variations:
- 50N-5kN Single Column Bench Top Units for Low Capacity Applications
- 1kN-10kN Dual Column Bench Top Units for Medium Capacity Applications
- 20kN-50kN Dual Column Floor Standing Units for High Capacity Applications
- 50kN-600kN Dual Column Floor Standing Units with High Rigidity for the Highest of Capacity Applications

Repeatable results are constantly achieved through the NextGen EML series.
From advanced Aerospace Industries to Educational facilities, NextGen EML Electromechanical Universal Testing Machines are found across the industry.

Class A

Single Column Bench Top Units - 50N-5kN Universal Tensile Testing Machine

The single column Class A testing systems are suited for tension, compression, flexure and other testing applications where specimens require less than 5 kN and where lab space is limited. The system is equipped with 1/500,000 Force Resolution the system is capable to providing +/- 1% down to 0.2N.

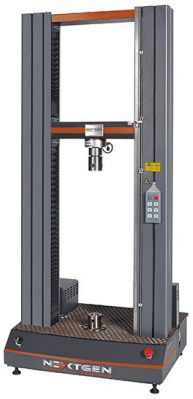
MORE INFO

Class B

Dual Column Bench Top Units - 1kN-10kN Universal Tensile Testing Machine

The dual column Class B testing systems are suited for tension, compression, flexure and other testing applications where load range requirements are between 10N to 10kN. This bench top model offer a user-friendly compact solution for your universal testing needs.

MORE INFO



Class C

Dual Column Floor Standing Units - 20kN-50kN Universal Tensile Testing Machine

The dual column Class C testing systems are suited for tension, compression, flexure and other testing applications where load range requirements are between 20kN to 50kN. The advanced load cell system offers ±0.5% accuracy down to 0.4% of capacity.

MORE INFO

Class D

Dual Column Floor Standing Units - 50kN-600kN Universal Tensile Testing Machine

The dual column Class D testing systems are suited for tension, compression, flexure and other testing applications where load range requirements are between 50kN to 600kN. This heavy duty system offers ±0.5% reading accuracy as well as position accuracy down to 0.021µm.

MORE INFO

Advanced Test Pilot Data Acquisition Software

NextGen NG-EML Test Pilot software provides a versatile, easy-to-use platform with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more) to fully control your NG-EML series Electromechanical Testing Machine.

MORE INFO

NextGen offers a full range of Portable Shore / IRHD Hardness Testing Solutions for Plastic and Rubber testing. Each units comes standard with a certificate of calibration designed to meet the latest industry standard for your Shore / IRHD or other testing requirements. The systems comply with ASTM, DIN, EN, SRIS and other standards. System upgrades, such as advanced user-friendly software, spare parts and a full scope of testing consumables is available for immediate order. Our quality consultants are here to help you identify the optimal solution for your laboratory needs.

Fruit
Firmness Tester

This German manufactured fruit firmness and fruit hardness testing device is designed specification for the determination of the pulp hardness of a given fruit. Additionally, the system is fully capable of testing the firmness of vegetables, meat and even fish thanks to the interchangeable indenters. This state-of-the-art device is invaluable for trading companies serious about their quality control procedures. The unit helps identify the harvest date of the specific fruits relative to the time of transpirations and storage. A unique value of the tester is that it is a non-destructive test method to determine the ripeness of fruit, vegetables and other food products.

The tester provides important quality control information designed for quality control and price setting benefiting both the seller and the end-user. The system is famous for its ability of using the portable fruit hardness tester for both indoor and outdoor workplace conditions.

MORE INFO

Advanced Portable
Shore Durometer System with Test Stand Options

HPE III is R&D's latest development of the next generation HPE testing systems. The system offers cutting edge features above and beyond the standard HPEII model.

The system is capable of taking a hardness value while a temperature sensor mounted on the bottom of the device is taking a temperature value. The display will indicate the hardness value, the temperature as well as the humidity values. The unit is equipped with a large LCD display and now comes standard with a USB connection for the BSA test stand and battery charging purposes. The patented hand grip designed to achieve correct measuring angle and correct force amount are all standard features on HPE III.

- Shore-hardness
- Specimen-/environment
- Temperature Humidity

MORE INFO

Test Stands
for Portable Hardness Testing Equipment

Manual and Automatic test stands are perfectly compatible with our Portable Hardness Testing Equipment systems allowing for hardness measurements in accordance with Shore standards. The pick-up device found on the test stand allows for quick and easy clamping of the hardness tester. The test stance are designed to increase accuracy and reputability for each test, partially or fully eliminating the operator error factor. These systems are quoted as optional add-ons with the portable testing equipment.

MORE INFO

Material hardness is one of the most common properties when testing Plastics or Rubbers. Testing for the resistance to indentation follows the Shore / IRHD principles and utilizes a durometer for the testing procedure. This test determines the depth of the indentation on any given material according to ASTM D2240 and ISO 868. There are a wide variety of scales available for testing different materials in the Plastics and Rubber industry. The methods can be distinguished primarily by the dimensions of the indenter and the applicable total testing force.

The NextGen's Shore/IRHD equipment range from analogue handheld systems up to fully automated Shore / IRHD testers. This allows our users to select the most appropriate instrument to measure the complete Shore/IRHD range including Shore: A, D, B, C, D0, 0, 00 and 000. Micro scales (M scale) are also available for tests on thinner and narrower testing specimens. Experience the full range of high end Automatic Hardness Testing systems for your plastic and rubber material testing needs.

Automatic Shore, IRHD and VLRH Hardness Testing System

Digi Test II is an automatic Shore, IRHD and VLRH hardness testing system. The unit comes equipment with 4 main components: Electronic unit, the loading module (pick-up bracket), the test stand, and the interchangeable measuring unit for methods of Shore, IRHD and VLRH. The unit complies with DIN ISO 7619, DIN ISO 48, DIN EN ISO 868, NF EN ISO 868, ASTM D 2240, BS 903 Part. A 26, NF T 46-003, ASTM D1415, DIN ISO 27588 standards.

MORE INFO

Automatic Capsule and Soft Gel Hardness Tester

Gelomat is an automatic capsule hardness tester designed for regular and soft gel capsule testing. This state of the art system is developed by the latest R&D technology to meet and exceed the highest quality standards for gelatin capsule testing. The system comes standard with your desired testing head and can be upgraded to optional accessories for maximum efficiency.

MORE INFO

Pusey & Jones Tester

Pusey & Jones is a rubber and rubber like material testing plastometer system. The unit is designed for testing rubber rollers in the paper industry. The system can test specimens with flat surfaces and thickness of 13 mm. This portable solution can be upgraded to the automatic test stand which allows for the ultimate accuracy and repeatability results regardless and elimination of operator error.

MORE INFO

Charpy and Izod Automatic Impact Testing System
1J to 50J

Standards
ISO 179, ISO 180, ASTM D6110, ISO 13802, ISO 8256, ISO 9854.1, ASTM D256, ASTM D1822

Class J is widely used for Izod and Charpy impact test on plastic and rubber specimens. Equipped with tensile impact pendulum and fixtures, it can carry on tests on plastic film and sheet. The newly enhanced design offers the most cost-effective configuration to address Charpy test from 1J to 50J, and Izod test from 1J to 22J.

MORE INFO

Specimen Notching and Broaching Machine for Impact Testing on Plastic and Rubber Specimens

Standards
ISO 179, ISO 180, ASTM D6110,
ASTM D 256, GB/T1043, GB/T 1843

The GenNotch 2000 Series is a motorized broaching machine designed for Charpy Test notch specimens. This floor-mounted self-contained unit is equipped with a user-friendly interface for ease of operation. The GenNotch 2000 is designed for cutting Charpy and Izod V-type and U-type notches according to the latest industry standards, delivering the highest quality notching samples equivalent to that of a milling machine. Alternative models including variable motor speeds for wider material ranges are available at your request.

MORE INFO

Rubber property testing is an essential part of many manufacturing companies delivering our day to day consumables, such as articles of clothing, various seals (leak protectors), production conveyor belts, and even stationary utensils. Rubber elastomer properties are as unique as they are useful. Utilized on almost daily basis, quality testing of these compounds is crucial because they are an essential part of our daily living and manufacturing processes.

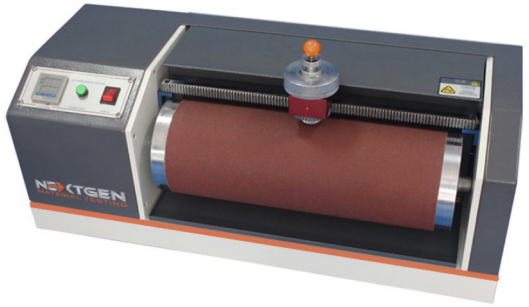
Rubbers have many classifications ranging from Natural Rubbers to Silicones and many in between such as Hypalon, Styrene Butadiene and Nitrile. These are grouped based on their physical properties which include: resistance to petroleum, sunlight, ozone and heat, flame, tensile, elongation, water, oxygen, abrasion, and many more. In manufacturing processes rubbers are used for seals in many different industries to provide a leak proof environment with substances such as chemicals, oils, fuels, and other high temperature elements.

Akron
Abrasion Tester

GenKron is used together with a special balance for testing the abrasive consumption of materials. The measurements are done through volumetric loss of a rotating specimen exposed to the action of a standard grinding wheel. It is especially suited for testing harder materials such as shoe soles, tires and other rubber materials.

MORE INFO

DIN
Abrasion Tester



GenDin, is designed to conform to the ASTM D5963 and IS0 4649 standards. This top quality and highly popular abrasion tester will allow you to measure the abrasion resistance of rubbers (vulcanized thermo set rubbers and thermoplastic elastomers) that are subject to abrasive/frictional wear on their actual service. Since wear is always a result of abrasion, different test methods have been developed for the simulation of long-term wear.

MORE INFO

Burst
Strength Tester for Fabric

GenBurst is designed to test anti-rupture strength of variety of materi- als such as leather, paper and fabric. The unit tests the resistance of specimens to bursting using a hydraulic diaphragm bursting tester.

MORE INFO

Dematia
Flex Cracking Tester

GenFlex tests the ability of rubber products to withstand repeated flexing without developing cracks is of prime importance where such products are used in conditions undergoing repeated flexing.

Flexing endurance of rubber products is determined by simulating in laboratory the action of flexing repeatedly under standard conditions of speed, mode, and degree of flexing.

MORE INFO

Martindale Abrasion Tester
GenDale

GenDale is mainly used to test shoe fabric, shoe lining, and many other types of shoe related materials. The unit can test up to four specimens at the same time for abrasion. The fabric specimen is measured by having rubbing applied on it via a complex direction of back and forth motion. The accuracy of abrasion strength is deter- mined by the specific number of cycles conducted until a hole appears in the test area of the fabric specimen.

MORE INFO

Mooney Viscosity Testing Machine
GenMooney

GenMooney is a Mooney iscosity testing machine is applied to measure the viscosity of the unmixed or mixed unvulcanized natural rubber, synthetic rubber and regenerated rubber. This tester has many functions such as fast warming, maintaining temperature, data stability, etc. It is equipped with an automated calibration feature for a simple data calibration of each experiment.

MORE INFO

Discoloration
Meter

The UV discoloration meter is a machine is used to simulate an environment of sunlight radiation on a specimen to identify the resistance of fabric to discoloration. NextGen offers two primary models based on size and temperature regulations to help meet your ASTM standards.

MORE INFO

Electric Crocking Tester
GenCrock

The machine is used to test the dyeing of the fabric, and the fade degree of the leather after dry or wet rubbing. The test method involves the specimen to be fastened to the base of the crocking meter and rubbed with an abrasive hammer attached to a wet or a dry cloth under controlled conditions. The transfer of colour is then measured using a scale to evaluate the rating of the specimen's dyeing grade.

MORE INFO

Wyzenbeek Abrasion Tester – GenWyze

NextGen's Certified Wyzenbeek Abrasion tester is designed to test the abrasion resistance of fabrics and metals. The abrasion of fabrics is tested when the specimen is pulled over the frame and rubbed against an abradant over a curved surface. The number of cycles, also known as double rubs, conducted on the specimen before the fabric shows visible wear is used to determine the rating of abrasion. This unit conforms ASTM and ISO methods as well as the LP-463KB-06-01 commonly referred to as the Chrysler, FCA and Stellantis method.

MORE INFO

Taber Abrasion Tester

GenTaber is NextGen's Taber Abrasion Tester is widely used to evaluate wear resistance. It can conduct tests on a wide range of materials such as: cloth, paper, paint, plywood, leather, tile, glass, rubber etc. It tests the specimen by rotating it while in contact with the grinding wheel and applying the required pressure. The Loss of weight reflects on the change in weight of the specimen. The unit also comes standard with an intelligent power failure recovery function.

MORE INFO

Freezing Tester – GenFreeze

GenFreeze is specially designed to test the characteristics of various materials in a cold environment to ensure suitability for use in a cold climate. Based on the testing demand, adjust the beater and flexing grip, then load to the desired position. It can be used to test rubbers, leather, and plastics, PU leather etc. The unit can be adjusted to meet different requirements.

MORE INFO

Oscillating / Automatic Disc Rheometer (ODR)

This machine is designed to get the characteristic curve and characteristic parameters of rubber vulcanization by measuring the applied moment of rubber to the oscillating dye body. NG-ODR rotor-free vulcameter has an excellent stability of results. The data and diagrams can be used as a reference for development, research and production quality.

MORE INFO

Salt Spray Tester – GenSalt

GenSalt is designed to test the surface of different materials for resistance to corrosion. The unit is commonly used to test coated materials of a metallic nature in a controlled corrosive environment. The test can be used on rust-proof painting, anodizing, electroplating and rust-proof of grease. The machine imitates expedited corrosion process via salt spraying on a given test sample to identify the corrosion (oxides) resistance. Test results are based on the longevity of time a material can resist visible corrosion on the test sample.

MORE INFO

Rebound resilience in rubber, plastic and foam testing is a common practice in quality assurance to determine the dynamic behavior of various materials and supply the differentiation of these materials' qualities. The objective of tests on elastomers and foams is the straightforward and fast measurement of material elasticity. NextGen has you covered for both vertical and pendulum rebound testing equipment in accordance to the latest industry standards.

Vertical Rebound Resilience Tester
GenRebound

GenRebound tests the resilience of rubber compounds according to ASTM D2632. The machine must be adjusted in a horizontal position and the plunger raised at a specific height. The plunger is then released onto the specimen for a given number of impacts. The measurements are based on the 4th, 5th, and 6th impacts. The average of the three (3) measurements is then calculated for the test result. The machine is highly useful in production of compounds designed to absorb vibration or shock according to the ASTM standards.

MORE INFO

Ball Rebound
Tester

Ball Rebound Tester is a device designed to test resilience of materials such as foam, polyurethane and other similar materials. The unit comes certified in accordance with DIN EN ISO 8307 and ASTM D3574 industry standards. The test consists of a 16mm magnetic ball dropping freely onto a sample from a specified height of 500mm. The electronic console unit that comes standard with this instrument will show the measured value and calculate the proportion of the average value in %. After the test completion, a sensor placed close to the holder ensures that the ball is returns to the home position.

MORE INFO

Pendulum Rebound Resilience
Tester

NextGen's Pendulum Rebound Resilience Tester series offer both manual and fully-automatic options with digital display terminal according to DIN 53512, ASTM D 1054, ISO 4662. These rebound testers will determine the dynamic behavior of various materials and supply the differentiation of these materials' qualities. It will also identify material changes after aging and fatigue. The Pendulum Rebound Tester is out there with an adjustable heater for sample temperatures up to 100 °C. It can simulate the effect of heat on the elasticity of samples with different formulations.

MORE INFO

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