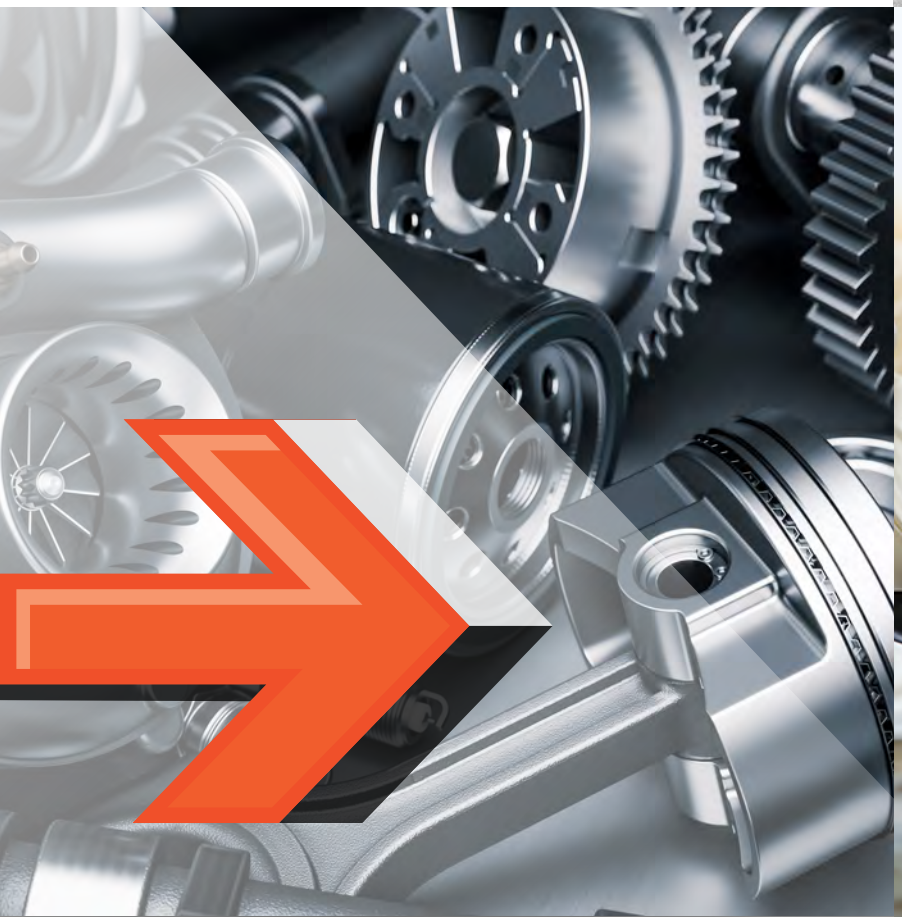
TESTING EQUIPMENT



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NG – LeebGen 3000

Leeb Rebound Portable Hardness Tester

Standards

ISO 18625
ASTM A956
JIS B7731

Description

LeebGen3000- Leeb Portable Rebound Tester is a non-destructive precision metal hardness tester developed according to the latest industry standards. LeebGen 3000 is equipped with features which provide the instrument with a combination of a user-friendly interface and exceptional test result accuracy. This in turn allows for ease of operation and an accurate conversion display of virtually any metal hardness testing value.

Main Function and Features of Leeb Rebound Portable Hardness Tester

- A large, high contrast LCD screen for premium image quality in any condition
- The unit is equipped with a self-contained Universal D Impact device which eliminates the need for cables. Additionally, the unit is equipped with an impact direction sensor.
- High testing result with precision within +/-4HL in any impact direction with 360° automatic angle adjustment.
- Equipped with a USB port for ease of data transfer to a PC. Professional software is included at no extra cost.
- Internal data storage of dates and times of use
- Rechargeable battery through the USB port

MORE INFO

Specifications

	LeebGen 3000
Operating Environment	-10~+60°C; Humidity: 20%-85%.
Storage Environment	-30~+80°C; Humidity: 5%-95%.
Dimensions (LxWxH)	147x35x22 mm
Weight	100 g

MORE INFO

Ultrasonic Contact Impedance Hardness Tester

UH200

★★★★★

Standards

ASTM-A1038-05
DIN 50159-1
JB/T 9377-2010

Description

The UH200 non-destructive ultrasonic hardness tester, relying on the principle of ultrasonic vibration sensor rod, can easily and swiftly detect the material hardness of several metals without any damage.

Features

The Ultrasonic Contact Impedance (UCI) tester is used for measuring the hardness value of small items, objects with a thin wall, complex forms, and to measure the hardness of surface hardened layers.
The built-in camera allows user to picture of testing object and mark tested area with corresponding hardness value.

MORE INFO

Specifications

Product Name	UH200 – Ultrasonic Hardness Tester
Model	UH200
Loading Force	5kgf manual probe (optional 1/2/10kgf manual probe) (optional motorized probe: 0.3/0.5/0.8/1kgf)
Measuring Range	**Main Line:** HB: 85-650; HV 10-2980 HV; HRC 20-70; HRB: 41-100; HRA: 61-85.6 HS: 34.2-97.3; Mpa: 255-2180N/mm **Economical Line:** HRC(10-80) HB (200-550) HV (200-999)
Hardness Scale	HV, HB, HRC, etc.
Measuring Accuracy	HV: ±3%HV; HRC: ±1.5HRC; HB: ±3%HB
Indenter	136° Vickers Diamond Indenter
Measuring Direction	Support 360°

MORE INFO

NextGen Telebrineller Brinell Hardness Testing System

Standards

ASTM E10

Description

Telebrineller - Measuring Brinell Hardness anywhere in the field, the plant or the laboratory. A test bar of known BHN (Brinell Hardness Number),approximating the hardness of the specimen to be tested, is selected. Consistent accuracy is maintained when the test bar BHN is within + or -15% of the specimen BHN and is of the same general material. (Testing non-ferrous materials with carbon steel bars causes impact errors that must be compensated for by applying correction factors to the test results.) The test bar is inserted into the Telebrineller instrument and the instrument placed upon the specimen.

Accuracy

Standard Telebrineller Test Bars are guaranteed to have a uniform hardness within plus or minus 2% of the BHN etched on the end of the bar. They are made of various alloys of carbon steel and finish ground to 9/16" square.
The diameters of the impressions are then measured and converted to BrinellHardness Numbers using a Brinell manual or automatic microscope. Automated microscopes such as the GenScope are computerized and calibrated systems in which the accuracy is traceable to the National Institute of Standards. The resulting Brinell HardnessNumbers are rounded to the nearest standard BHN occurring at a .05mm interval in TableI of ASTM Standard E10 and this BHN is etched on the end of the bar.

MORE INFO

Specifications

Item #	Description of Part	Part No.
Ass'y	Telebrineller Bar Holder Assembly	239-35
1	Anvil	239-17
2	Rubber Front Piece	239-18
3	Test Bar	
4	Impression Ball - Standard	239-14
5	Impression Ball – Tungsten Carbide	239-29
6	Spacer Button	239-19

MORE INFO

NG-RockGen – Analogue Series Rockwell Hardness Tester

Manual and Electronic Models

Standards

ASTM E18

Description

The NG-RockGen Analogue Rockwell Hardness Tester is designed to test the hardness of metals by determining the depth of penetration of an indenter under a large load compared to the penetration made by a preload according to the Rockwell regular scales. TNG-RockGen Analogue Rockwell Hardness Tester is capable of testing the following Rockwell Regular Scales: HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK. The NG-RockGen Analogue Rockwell hardness tester is also capable of testing the following Rockwell Superficial Scales: HR15N, HR30N, HR45N, HR15T, HR30Tand HR45T.

Main Function and Features of Manually Operated Hardness Tester

- High gloss and scratch resistance surface allows the unit to maintain a brand new look after many years of use
- Casted molding shell with a stable structure is resistant to minor damages
- The dial gauge reads the hardness value directly. The indicator has a sensitive response and shows the hardness value accurately
- The loading wheel is easy to adjust with the three loading test forces based on the hardness scale
- This model does not require electric power. The unit is very economical

MORE INFO

Specifications

Model	RockGen-MR	RockGen-ER
Rockwell Regular Scales	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK	
Rockwell Superficial Scales	HR15N, HR30N, HR45N, HR15T, HR30Tand HR45T	
Preliminary Test Force	10kg (98N)	
Total Test Force	60kg (588N), 100kg (980N), 150kg (1471N)	
Hardness Data Read	Dial Gauge	

MORE INFO

NG-RockGen DGEN Series – Digital Rockwell Hardness Tester

Rockwell Regular, Rockwell Superficial and Rockwell TWIN Digital Models

Standards

ASTM E18

Description

The NG-RockGen - Digital Rockwell Hardness Tester is designed to test the hardness of metals by determining the depth of penetration of an indenter under a large load compared to the penetration made by a preload according to the Rockwell scale. There are variations of the RockGen DGEN - Digital Rockwell Hardness Tester system for Rockwell Regular scales, Superficial scales as well as a TWIN scales system is capable of both regular and superficial scales. With an easy to navigate operational menu, the RockGen DGEN - Digital Rockwell Hardness Tester provides the solution for any Rockwell testing requirements.

Main Function and Features of RockGen DGEN

- High gloss and scratch resistance surface allows the unit to maintain a brand new look even after many years of use
- Large LCD Display for clear visibility of your hardness readings. Removes all aspects of human error.
- Automatic Testing procedures. System will make the indentation and provide the reading automatically.
- The DGEN system provides a high level of repeatability when testing any parts for Rockwell hardness.

Specifications

Model	RockGen R-DGEN	RockGen S-DGEN	RockGen TWIN-DGEN
Rockwell Scales	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRR, HRL, HRM and HRK.	HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HRD, HRE, HRF, HRG, HRH, HRR, HRL, HRM and HRK	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Conversion Scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, H15N, H30N, H45N, H15T, H30T, H45T	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, H15N, H30N, H45N, H15T, H30T and H45T	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, H15N, H30N, H45N, H15T, H30T, H45T
Preliminary Test Force	10kg (98N)	3Kg (29.42N)	10Kg(98.0N), 3Kg (29.42N)
Total Test Force	60kg (588N), 100kg (980N), 150kg (1471N)	15Kg(147.1N), 30Kg(294.2N), 45Kg(441.3N)	60Kg (588N), 100Kg (980N), 150Kg (1471N), 15Kg(147.1N), 30Kg(294.2N), 45Kg(441.3N)
Hardness Data Read	Digital LCD Display		

MORE INFO

GenRock NG-150 Series – Advanced Rockwell Hardness Tester

Manual and Automatic Rockwell Hardness Testing System

Standards

ASTM E18
EN ISO 6508
GB/T230

Main Function and Features of RockGen DGEN

- Rockwell Regular and Superficial Scale Tester
- Supports various relative conversion scales
- Equipped with Arc correction function
- Touch Screen Display Dynamically Displays the Working Table Functionality
- Fast Indentation Cycle

MORE INFO

Specifications

Model	RockGen TWIN DGEN
Rockwell Initial test force	3kgf, 10kgf 29.4N, 98N
Rockwell Total test force	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N), 60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter, ϕ1.588mm Ball Indenter
Loading Method	Automatic (Loading/Dwell/Unloading)
Automatic Test Table	Automatic Rising and Homing, One Key to Complete
Hardness Reading	Touch Screen
Test Scale	HRA, HRD, HRC, HRF, HRB, HRG, HRH, HRE, HRK, HRL, HRM, HRP, HRR, HRS, HRV, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y

MORE INFO

Description

This Automatic Digital Rockwell Hardness Tester is designed to test the hardness of metals by determining the depth of penetration of an indenter under a large load compared to the penetration made by a preload according to the Rockwell scale. There are variations of the RockGen DGEN - Digital Rockwell Hardness Tester system for Rockwell Regular and Superficial Testing Scales. With an easy to navigate operational menu, the RockGen DGEN-AUTO - Digital Rockwell Hardness Tester provides the solution for any Rockwell testing requirements.

BrinGen – 3000 Series – Digital Brinell and Automatic Brinell Hardness Tester

Closed Loop System

Standards

ISO 6506
ASTM E10

Features

- BrinGen is engineered to obtain highly sensitive and accurate readings
- Direct Digital Reading
- Perfect for laboratories, workshops, tool rooms, inspection labs, etc.
- BrinGen's test process eliminates room for all human error for maximum accuracy.
- It is equipped with a large LCD display screen with a user friendly interface.
- Most commonly, BrinGen is used to test the hardness of unquenched steel, cast iron, non-ferrous metals, soft bearing alloys, etc.
- Equipped with a 20X optical microscope to measure the diameter of Brinell indention

MORE INFO

Description

BrinGen 3000 - Digital Brinell Hardness Tester is designed to test the resistance of a metal specimen for indentation. A fixed force (load) is applied against the specimen by an indenter to determine the material hardness. The smaller the indentation, the stronger the specimen is. According to the ASTM E-10 BrinGen - Digital Brinell Hardness Tester is commonly used on surfaces of materials that are too rough to be tested by any other test method.

Specifications

	BrinGen – 3000M
Brinell Scale	HBW2.5/62.5, HBW2.5/187.5, HBW5/62.5, HBW5/125, HBW5/250, HBW5/750, HBW10/100, HBW10/1500, HBW10/3000, HBW10/250, HBW10/500, HBW10/1000
Test Force	62.5kgf(612.9N), 100kgf(980.7N), 125kgf(1226N), 187.5kgf(1839N), 250kgf(2452N), 500kgf(4903N), 750kgf(7355N), 1000kgf(9807N), 1500kgf(14710N), 3000kgf(29420N)
Test Space (HxD)	9x6.1" (230x155mm)
Measure Resolution	0.5%

MORE INFO

BrinGen Scope

Optically Advanced CCD Brinell Measuring Scope for Manual or Digital Brinell Hardness Testing System

Description

BrinGen Scope - is a Optically Advanced CCD Brinell Measuring Scope for Manual or Digital designed as Brinell Hardness Testing automatic scanning system. It is engineered to work with a computer or a laptop to make your testing program faster and more accurate. The Optical Brinell Scope is equipped with real-time result support.

Features

- When you need a Brinell Hardness testing solution that produces reliable, accurate and repeatable test results, choose BrinGen Scope
- Here the screen shows auto-measurement, result, tolerance values, and other information.

Ease of Use

- Automatic accurate measurement of hardness with a single push of a button.
- The BrinGen Scope eliminates room for human error on test results.
- Supports manual measurement.

Real-Time Results

- Real-time display of result measurements
- Offers various hardness conversion table : The ASTM-E140 Scale Conversion Table is provided to convert the hardness value of one test methodology to the approximate value of another test methodology
- Offers custom conversion table

Results

- Basic result is easy to view
- Add or remove result column function
- Real-time statistic result view
- Hardness value by histogram view

MORE INFO

Micro Vickers and Knoop Hardness Tester

Analogue, Digital and Digital with CCD Optical Analysis Software

★★★★★

Standards

ASTM E384
ASTM E92
ISO 6507

Description

CCD - Micro Vickers and Knoop Hardness tester measurements are performed through a CCD Camera combined with an Analytical Software. The measurements can be made through the eyepiece or it can be done through the analysis software and CCD camera. The advanced accuracy of this Vickers hardness testing system, the Motorized Turret and the Built-in-Printer make this machine the top pick for quality control laboratories.

NG-1000 Series

The NG-1000 - Micro Vickers and Knoop Hardness tester is the most advanced hardness tester for accurate measurements and ease of use. The NG-1000 - Micro Vickers and Knoop Hardness tester comes standard with a motorized turret and is available in three (3) different configurations to suit all requirements. The series includes the NG-1000 - Micro Vickers and Knoop Hardness tester AGEN - Analogue Vickers Hardness Tester, DGEN - Digital Vickers Hardness Tester and CCD - Digital Vickers Hardness Tester with CCD Optical Analysis Software.

MORE INFO

Specifications

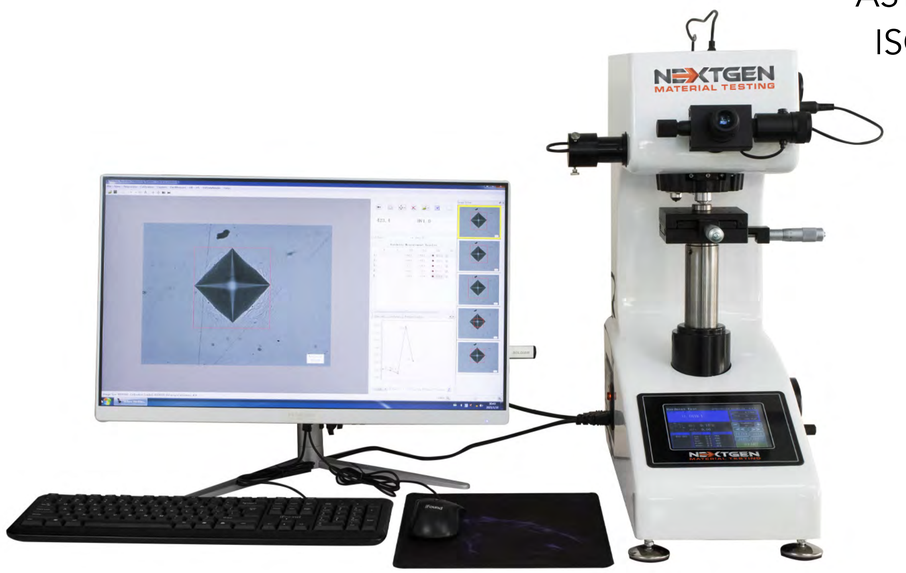
	NG-1000 Series
Testing Forces	8 Testing Forces 10g(0.098N), 25g (0.245N), 50g (0.49N), 100g (0.98N), 200g (1.96N), 300g (2.94N), 500g (4.9N), 1000g (9.8N)
Vickers Scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1, HV2 (Optional)
Conversion	The unit can convert your Vickers value to HRA, HRC, HR15N, HR30N, HR45N, HB
Minimum Measuring Unit	0.01µm
Vickers Value Range	IHV - 4000HV
Eyepiece	10x Magnification Eyepiece
Objectives	10x (Observation) and 40x (Measurement)

MORE INFO

Macro Vickers Hardness Tester

Analogue, Digital and Digital with CCD Optical Analysis Software

★★★★★



Standards

ASTM E384
ASTM E92
ISO 6507

Description

NG-5000 Series Macro Vickers Hardness tester is the most advanced model for accurate measurements and ease of use. The NG5000 - Macro Vickers Hardness tester is equipped with a motorized turret and an optional CCD camera and software to take out all possibilities of human error.
This testers are equipped with a large display and a built in printer. The unit can be connected to a computer with the included USB/ RS-232 cord for easy data transfer. The files can be easily exported to either a word or excel format for easy printing.

NG 5/10/30/50 CCD

CCD - Digital Macro Vickers Tester with CCD Optical Analysis Software with 5kgf, 10kgf, 30kgf and 50kgf loads, Motorized Turret and Built-In Printer.
CCD - Digital Macro Vickers Tester with CCD Optical Analysis Software measurements can be made through the eyepiece or it can be done through the analysis software and CCD camera. This Macro Vickers tester allows for the most accurate measuring and result reading options.

MORE INFO

Specifications

	NG-5CCD	NG10CCD	NG30CCD	NG50CCD
Testing Forces	300g (1.96N), 500g (4.9N), 1kg (9.8N), 2kg (19.6N), 3kg (29.4N), 5kg (49N)	500g (4.9N), 1kg (9.8N), 2kg (19.6N), 3kg (29.4N), 5kg (49N), 10kg (98N)	1kg (9.8N), 2kg (19.6N), 3kg (29.4N), 5kg (49N), 10kg (98N), 30kg (294N)	1kg (9.8N), 2kg (19.6N), 3kg (29.4N), 5kg (49N), 10kg (98N), 30kg (294N), 50kg (490N)
Vickers Scales	HV0.3, HV1, HV2, HV3, HV5	HV1, HV2, HV3, HV5, HV10	HV1, HV2, HV3, HV5, HV10, HV20, HV30	HV1, HV2, HV5, HV10, HV20, HV30 HV50
Conversion	Conversion of Vickers value to: HRA, HRC, HRD, HK, HBS, H15N, H30N, H45N, H15T, H30T, H45T			
Minimum Measuring Unit	0.01µm			
Vickers Value Range	HV1 - HV4000			

MORE INFO

Universal Hardness Tester for Vickers, Rockwell and Brinell

Standards

EN ISO 6508
ISO 6506
ASTM E92
ISO 6507
ASTM E-18
JIS Z2245
GB/T 230.2
ASTM E10-12
JIS Z2243
GB/T 231.2
JIS Z2244
GB/T 4340.2

Main Features

- Equipped Brinell, Rockwell, Vickers test methods;
- Large touch-screen interface for ease of operation;
- Closed loop system with the highest accuracy load cell avoiding the need to install weights;
- Automated test force correction and force compensated to ensure the a high level of accuracy;
- Meets all up-to-date industry strands and conversions;

MORE INFO

Description

NextGen's UniGen is a versatile all-in-one Universal Hardness Testing System. The unit is specifically designed to offer industry leading user-friendliness combined with a robust built for accurate and repeatable Vickers/Knoop, Rockwell and Brinell Hardness testing measurement results. The unit comes standard with an 8" LCD touch screen, CCD Camera, state-of-art automatic measuring software, and the full scope of NIST Certified consumables for all 3 testing methods, providing the ultimate Turnkey Solution for your facilities hardness testing requirements.

Specifications

Universal Hardness Testing System - UniGen Series

Brinell Scale	HBW1/5, HBW2.5/6.25, HBW1/10, HBW2.5/15.625, HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW10/100, HBW5/125, HBW2.5/187.5
Rockwell Scales	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV
Vickers Scale	HV5, HV10, HV20, HV30, HV40, HV50, HV60, HV80, HV100, HV120
Test force	**Rockwell:** 60kgf(588N), 100kgf(980N), 150kgf(1471N); Initial test force:10kgf(98N); **Brinell:** 5kgf(49N), 6.25kgf(61.25N), 10kgf(98N), 15.625kgf(153.125N), 30kgf(294N), 31.25kgf(306.25N), 62.5kgf(612.5N), 100kgf(980N), 125kgf(1225N), 187.5kgf(1837.5N) **Vickers:** 5kgf(49N), 10kgf(98N), 20kgf(196N), 30kgf(294N), 40kgf(392N), 50kgf(490N), 60kgf(588N), 80kgf(784N), 100kgf(980N), 120kgf(1176N)
Indication accuracy	**Brinell:** 8-650HB (δ/%):±2.5; **Rockwell:** ±0.1HR; **Vickers:** ±2

MORE INFO

Hardness Test Blocks, Indenters and Hardness Testing Accessories

★★★★★

Standards

ASTM E384
ASTM E18
ASTM E10

Description

NextGen Material Testing offers a full line up of hardness test blocks and other accessories for your metal hardness testing needs. Certified Test Blocks are a requirement as a reference material for any type of hardness testing. At NextGen, we understand the importance of a Test Block to ensure the accuracy of your hardness testing procedures. Industry standards, such as ASTM, specify that a test block must be used every day that your testing apparatus is in operation as well as whenever an indenter, anvil or load force is changed.

Brinell Hardness Test Blocks – ASTM E-10 and ISO 6506

All of our Brinell Test Blocks come certified to applicable standards. We adhere to a strict procedure for the calibration of these blocks, and the accuracy of the tester is maintained using a proving ring and load cell both traceable to N.I.S.T. The readings themselves are done using a stage micrometer also calibrated and traceable to N.I.S.T.

MORE INFO

Superficial Rockwell Hardness Test Blocks - ASTM E-18 and ISO 6508

Hardness Scale	Part #	Penetrator	Major Load	Hardness Values Available	Material
HR15N	TB-HR15N	N Diamond	15kg	All	Steel
HR30N	TB-HR30N	N Diamond	30kg	All	Steel
HR45N	TB-HR45N	N Diamond	45kg	All	Steel
HR15T	TB-HR15T	1/16" Ball	15kg	All	Brass
HR30T	TB-HR30T	1/16" Ball	30kg	All	Brass
HR45T	TB-HR45T	1/16" Ball	45kg	All	Brass
HR15W	TB-HR15W	1/8" Ball	15kg	All	Brass

MORE INFO

Class A – Single Column Bench Top Units

50N-5kN – Universal Tensile Testing Machine

Description

The EML class A Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. The single column Class A testing systems are suited for tension, compression, flexure, and other testing applications where load range requirements are less than 5 kN and lab space is limited. They are typically used for quality control and production testing.

Features

- Complete selection of sturdy, compact single column load frame configurations
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Specifications

NG-EML Class A	
Model	EML102, EML103, EML202, EML203, EML501, EML502 ,EML503
Class	Class A, single column
Capacity	50N, 100N, 200N, 500N,1kN, 2kN, 5kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.2% – 100%FS/ 0.4% – 100%FS
Force accuracy	±1% / 0.5%of reading
Force resolution	1/500,000FS
Position accuracy	0.5%of reading

MORE INFO

★★★★★

Class B – Dual Column Bench Top Units

1kN-10kN – Universal Tensile Testing Machine

Description

The EML class B Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. 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. They are typically used for quality control and production testing in the plastics and rubber industries.

Features

- Complete selection of sturdy, compact dual column load frame
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Specifications

NG-EML Class B	
Model	EML101,EML201,EML501,EML102,EML202,EML502,EML103,EML203,EML503,EML104
Class	Class B, dual column, table-top
Capacity	10N,20N,50N,100N,200N,500N,1kN,2kN,5kN,10kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.2% – 100%FS / 0.4 – 100%FS
Force accuracy	±1.0% / ±0.5% of reading
Force resolution	1/500,000FS
Position accuracy	±0.50% of reading
Position resolution	0.027µm

MORE INFO

Class C – Dual Column Floor Standing Units

20kN-50kN – Universal Tensile Testing Machine

Description

The EML Class C Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. 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. They are typically used for quality control and production testing.

Features

- Complete selection of sturdy, compact dual column load frame
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Specifications

Model	NG-EML Class C
Capacity	20kN – 50kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.4 - 100%FS
Force accuracy	±0.5% of reading
Force resolution	1/500,000FS
Position accuracy	±0.50% of reading
Position resolution	0.06µm

MORE INFO

Class D – Dual Column Floor Standing Units

50kN-600kN – Universal Tensile Testing Machine

Features

- Complete selection of sturdy, compact dual column load frame
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Description

The EML Class D Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. 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. They are typically used for quality control and production testing.

Specifications

NG-EML Class D						
Model	EML504	EML105	EML205	EML305	EML505	EML605
Class	Class D					
Capacity (kN)	50	100	200	300	500	600
Calibration standard	ISO 7500, Class 1 / Class 0.5					
Force range	0.2% - 100%FS / 0.4 - 100%FS					
Force accuracy	±1.0% / ±0.5% of reading					
Force resolution	1/500,000 FS					
Position accuracy	±0.50% of reading					
Position resolution (µm)	0.048		0.014		0.021	
Crosshead speed (mm/min)	0.001 - 500		0.001 - 250			

MORE INFO

Advanced Test Pilot Data Acquisition Software

Description

TestPilot is designed to enhance your ability to perform accurate and repeatable mechanical testing of materials, components and finished goods across a full spectrum of applications. It provides the simplicity and ease-of-operation needed for quick and efficient quality assurance and quality control testing, the flexibility to adapt readily to changing requirements, and the sophistication to address unique or complex demands. The software's intuitive operator interface, powerful analysis and reporting, and growing host of test methods make it an excellent foundation for establishing and sustaining a truly global standardized testing methodology.

Features

- Versatile, easy-to-use TestPilot software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more)
- Modular design permits easy upgrading
- Multiple graphs on the same screen & report to observe multiple events at the same time: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others.
- Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, Kgf, lbf, Mpa, and so on, user can define the unit by themselves using formula.
- Customizable report format with full flexibility of adding & removing items in terms of layout, content, graphing to suite the exact test requirement, like company information, statistics, and etc. Test report can export to Excel or Word.

MORE INFO

NextGen GenTor Horizontal Torsion Tester

★★★★★

Standards

ASTM A938
ASTM E143
ISO 7800
GB10128

Description

Introducing the NextGen GenTor Torsion Tester, a state-of-the-art computerized machine designed specifically for the torsion testing of a wide range of materials including metals, non-metals, composite materials, and component parts. This testing machine boasts a horizontal type load frame with high stiffness, ensuring accurate and reliable test results.

NextGen GenTor Horizontal Torsion Tester Working Principle

The NextGen GenTor Torsion Tester is a highly advanced testing machine that comprises a host machine, torsion angle measuring device, dedicated measuring system, and a computer. When conducting a test, the computer sends instructions to the control unit, which in turn drives the servo motor to operate. The moving grip rotates along with the reducer, causing the sample to undergo torque. The torque is then transmitted to the fixed grip, and the torque sensor detects this torque, sending a signal to the amplifying circuit of the control unit.

MORE INFO

Specifications

Specifications	NDW-6000				
Max. Torque Capacity (N.m)	200	500	1000	2000	6000
Torque Measuring Range (N.m)	4-200	10-500	20-1000	40-2000	24-6000
Distance Between Grips (mm)	0-500		4-1000		Inquire
Min. Torque Reading (N.m)	0.01				
Relative Error of Torque	≤±1.0% (from 20% of each full range)				

MORE INFO

TensileMill CNC

Features

- 21.6" x 6.3" Table
- Hiwin precision linear ways
- 3000 to 24,000 rpm precision spindle
- 220V 15A single-phase AC
- ISO 20 Spindle Interface
- High quality casting
- Compact structure
- PMI double nut ballscrews
- High-quality electrical components
- Automatic lubrication system

MORE INFO

Description

With specialized, user-friendly software, TensileMill CNC makes it easier than ever before to create high-quality tensile specimens tailored to your exact needs. The unique interface is so effortless to use that all you'll need to get started is the measurements for your required specimen. This can be based on ASTM, ISO, DIN, JIS, or other industry standards. Once your measurements are entered, it is only seconds before the machine is ready to begin milling. TensileMill CNC also saves your previously entered specimen sizes so they can be accessed again with the touch of a button. Further, a diverse library of preprogrammed specimen sizes comes included for many common applications. And of course, the TensileMill CNC is loaded with our full Carbon software, giving you access to the complete range of capabilities you would expect from any CNC mill.

Specifications

TensileMill CNC	
X Travel	10.6"
Y Travel	6.3"
Z Travel	10.6"
Table Size X	21.65"
Table Size Y	6.3"
Face Mill Capacity	2"
Min Spindle Speed (RPM)	3000
Max Spindle Speed (RPM)	24000

MORE INFO

TensileMill CNC XL

Flat Tensile Sample Preparation Equipment

★★★★★

Description

Every manufacturing floor would benefit from the dynamic and powerful addition offered by TensileMill CNC XL - Large Flat Tensile Sample Preparation machine. Removal rates for materials are increased by servos and the high powered spindle. CNC control based on Mach4 when combined with substantial memory simplifies the loading and execution of large and complex programs. Machine programming for smaller jobs is made fast and easy by wizards as they facilitate the fast creation of pockets, text engraving, hole patterns etc.

Features

- The linear guide ways and strong cast iron frame offers a strong foundation for machines with high speed.
- Large 20 mm ball screws on X and Y, 25 mm on Z.
- The higher material removal rate is powered by a belt driven 5 horsepower 10,000 RPM servo spindle with BT30 taper.
- Servo spindle with complete synchronous position control. Disc spring tool clamping with gripper having collet shaped gripper. It also features air over hydraulic tool release.

MORE INFO

Specifications

	TensileMill CNC XL
Dimensions	
Dimensions (D x W x H)	66.1 x 75.79 x 86.54 in
Table Size	31.5 x 10.24 in
Load Capacity	330 lb
T-Slot Size	.63 in
Weight	2976 lb
Working Travel X	15.75 in
Y	9.1 in
Z	15.75 in

MORE INFO

Class D – Dual Column Charpy Impact Tester

150J, 300J, 450J, 600J or 750J

★★★★★

Standards

ISO 148
EN10045
ASTM E23

Main Features

- The heavy cast iron base is mechanically designed to avoid any vibrations having an effect on impact testing results.
- Dual column impact frame (front and rear) provide additional structure and support for high energy testing.
- Standard touch screen display and optional connectivity to a PC for software analysis
- Motor-driven raising of the hammer with auto-return after completion of a test
- Electromagnet locks the pendulum securely
- Fully enclosed testing area for the highest safety while undergoing impact testing

MORE INFO

Description

The Class D Metals Impact Tester is a dual column impact testing system designed for Charpy Impact testing according to ASTM E23, ISO 148 and EN10045 industry standards. The Class D has has two popular models with peak capacities of 450J and 750J with optional pendulums for 150J, 300J, 450J and 600J. The 450J Model is commonly used in educational institutions, government facilities, laboratories and R&D facilities. The 750J Model is most commonly used in high level industrial manufacturing facilities like steel production, heat treating facilities, aerospace and more.

Specifications

NG-Impact Class D		
Model	NG452 Class D	NG752 Class D
Maximum Impact Energy	450J	750J
Optional Pendulum	150J, 300J	300J, 450J, 600J
Angle Resolution	0.025°	
Angle of Striking	150° ±1°	
Velocity of Striker	5.24 m/s	
Support Span	40 mm	

MORE INFO

Class G – Servo-Motor Single Column Charpy/Izod Impact Tester

150J, 300J or 450J

Standards

ISO 148
EN10045
ASTM E23
ASTM E1820
ASTM E2298

Main Features

- The heavy cast iron base is mechanically designed to avoid any vibrations having an effect on impact testing results.
- Single column impact frame
- Standard touch screen display and optional connectivity to a PC for software analysis
- Motor-driven raising of the hammer with auto-return after completion of a test
- Electromagnet locks the pendulum securely
- Fully enclosed testing area for the highest safety while undergoing impact testing
- The pendulum height and weight are precisely designed to ensure high accuracy

MORE INFO

Description

The Class G Metals Impact Tester is a single column impact testing system designed for Charpy and Izod Impact testing according to ASTM E23, ASTM E1820, ASTM E2298, ISO 148 and EN10045 industry standards. This unit has the highest accuracy and can be equipped with a force transducer for precise data sampling and complete measurement system. The Class G has a peak capacity of 450J with optional pendulums for 150J and 300J. Class Gcomes standard as a fully enclosed system and allows for impact testing at any pre-set angle.

Specifications

NG-Impact Class G	
Model	NG452 Class G
Maximum Impact Energy	450J
Optional Pendulum	150J, 300J
Angle Resolution	0.025°
Angle of Striking	30°–150° ±1° - Adjustable
Velocity of Striker	5.24 m/s

MORE INFO

Class H – Servo-Motor Dual Column Charpy Impact Tester

300J, 450J, 600J or 750J

★★★★★

Standards

ISO 148
EN10045
ASTM E23
ASTM E1820
ASTM E2298

Main Features

- The heavy cast iron base is mechanically designed to avoid any vibrations having an effect on impact testing results.
- Dual column impact frame
- Standard touch screen display and optional connectivity to a PC for software analysis
- Motor-driven raising of the hammer with auto-return after completion of a test
- Electromagnet locks the pendulum securely
- Fully enclosed testing area for the highest safety while undergoing impact testing
- The pendulum height and weight are precisely designed to ensure high accuracy

MORE INFO

Description

The Class H Metals Impact Tester is a dual column impact testing system designed for Charpy Impact testing according to ASTM E23, ASTM E1820, ASTM E2298, ISO 148 and EN10045 industry standards. Class H is designed for high volume and especially hard materials. This unit has the highest accuracy and can be equipped with a force transducer for precise data sampling and complete measurement system. The Class H has a peak capacity of 750J with optional pendulums for 300J, 450J, 600J and 750J. Class Hcomes standard as a fully enclosed system and allows for impact testing at any pre-set angle.

Specifications

NG-Impact Class H	
Model	NG752 Class H and Class G
Maximum Impact Energy	750J
Optional Pendulum	300J, 450J, 600J and 750J
Angle Resolution	0.025°
Angle of Striking	30°–150° ±1° - Adjustable
Distance from Axis of Support to Center of Percussion	29.5" 750 mm

MORE INFO

Specimen Notching/Broaching Machine

Standards

ISO 148
EN10045
ASTM E23
DIN 50115

Specifications

GenNotch 4000 Series	
Broacher Travel	340±10mm
Speed	2-3m/min
Lubrication System	Lubricating oil circulation, the oil is interchangeable
Hydraulic Oil	L-HM46 (Anti-wear)
Oil Volume	20L
Power Consumption	350W
Power Requirements	3-phase, 5-line, AC 220V±10%, 50Hz
Machine dimension (LxWxH)	22.83 x 15.75 x 44.90-inches 58 x 40 x 114cm
Weight	440lbs / 200kg

Description

The GenNotch 4000 Series is a dual chamber 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 4000 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.

MORE INFO

Impact Specimen Cooling and Heating Temperature Chamber

★★★★★

Standards

ASTM E23
ISO148

Description

GenChamber is a versitile high and low temperature chamber used for cooling and heating preparation of Charpy impact test specimens. The low-temperature function of the instrument adopts a high quality compressor and uses the principle of thermal balance and circulating stirring method to achieve automatic cooling and constant temperature of the impact notch sample. The refrigeration system has multiple protection systems for overheating and over currents.

Specifications

Model	GenChamber
Range of control temperature	Low temperature +30°C - -60°C (room temperature ≤25°C) High temperature +30°C- 100°C(room temperature ≤25°C)
Precision of Temperature control	Low temperature: ≤±0.5°C High temperature: <±1°C
Cooling speed	+30°C - 0°C, about 2.5°C/min 0°C - -20°C, about 2°C/min -20°C - -40°C, about 1.5°C/min -40°C - -60°C, about 1°C/min -60°C - -80°C, about 1°C/min
Heating speed	20°C-50°C, about 2°C/min 50°C - 100°C, about 3°C/min
Work area (LxWxH)	**Low Temperature:** 5.9x5.5x4.7" 150x140x120mm **High temperature:** 5.9x5.5x4.7" 150x140x120mm
Capacity of put into specimen	60 - 120 pcs (Impact specimen: 10x10x55mm)
Outer dimension of chamber	25.6x20.0x29.90" 650x510x760mm (LxWxH)
Timer	1 - 99 min, resolution 1s
Cooling medium	Cooling part: ethyl alcohol Heating part: air
Stirring motor	8W
Working power	1-phase, 110V, 60Hz, 2.5kW

MORE INFO

DWT-1800 Computer Controlled Drop Weight Impact Testing Machine

Standards

UL 651
UL1
UL360
UL1660
UL797
UL6
UL1242

Specifications

Specifications	Values
Impact Hammer - Heavy Hammers	180kg, 272kg (600lb)
Impact Hammer - Light Hammers	9.1kg, 34kg, 1.36kg, 4.54kg, 22.7kg, 2.72kg
UL Standard Impact Hammers	**Right Cylindrical (Flat Face)** Diameter = 1" Diameter = 1-1/8" Diameter = 2", Diameter = 6" **Rectangular** ¾" x 6" (Width is 3/8") (Polyurethane) 2" x 6" 3" x 6"
Sample Seat	According to Customers Requirements following UL Standards 

Description

The drop weight impact testing machine is an essential tool for testing the impact resistance of both metal and non-metal materials. This machine is specifically designed for determining the non-plastic transformation temperature of ferritic steel, which includes plates, profiles, cast steel, and forged steel. With computer control, this machine has exceptional reliability, versatility, adaptability, and strong expansibility, making it an excellent investment for those who need to perform these types of tests regularly.

MORE INFO

GenCut GL100M – Precision Manual Metallographic Sample Cutting Machine with Simple User-Friendly Operation and Large Cutting Capacity Φ100mm

Description

Introducing the GenCut GL100M Cutting Machine, expertly designed for precision metal sample cutting. Embracing a secure closed structure with a spacious observation window, prioritizing user safety. Benefit from its swift clamping mechanism, ensuring effortless sample securing. The dedicated cooling water tank facilitates efficient circulating cooling liquid.

Gencut GL100M Standard Configuration

- GenCut GL100M Manual Metallographic Cutting Saw
- Coolant Tank
- Coolant Pump
- Wrench 14#-17#
- Wrench 24-27#
- Water Inlet Tube
- Drain Pipe

MORE INFO

Specifications

Model	GenCut GL 100M
Cutting Wheel	Φ350×2.0×Φ32mm
Maximum Cutting Section	Φ100mm
Speed	2800rpm
Y Axis Cutting Range	100mm (3.937")
Motor Power	3.0kW
Cutting Room Light	Low Voltage DC Led Lighting

MORE INFO

GenCut GL 120XY – Multi Function Abrasive Cut Off Saw with Touch Screen User Friendly Interface and Large Cutting Capacity Φ120mm

Description

The GenCut GL 120XY has a large 120mm diameter maximum cutting capacity equipped with a fully automated XY table. Equipped with a double hood fully enclosed structure for the safest operation along with quick clamping mechanisms to achieve the most efficient cutting processes.

GenCut GL 120XY Standard Configuration

- GenCut GL120XY Cutting Saw
- Coolant Chamber
- Wrench 13#-15#
- Wrench 17#-19#
- Internal Hexagonal Wrench 6mm and 8mm

MORE INFO

Specifications

Model	GenCut GL120XY
Cutting Wheel	Φ350×2.5×Φ32mm
Maximum Cutting Section	Φ120mm
Cutting Table Size	400 x 300mm
Z-Axis (Cutting Blade Spindle Drop Distance)	150mm
Y-Axis Movement Stroke	300mm
Y-Directional Speed of the Table	0-300mm/min
X-Axis Travel	100mm
Effective Tool Fed Distance	300mm

MORE INFO

GenCut GL 170XY – Multi Function Abrasive Cut Off Saw with Touch Screen User Friendly Interface and Large Cutting Capacity – Φ170mm

Description

The GenCut GL 170XY has a large 170mm diameter maximum cutting capacity equipped with a fully automated XY table. Equipped with a double hood fully enclosed structure for the safest operation along with quick clamping mechanisms to achieve the most efficient cutting processes.

GenCut GL 170XY Features

- The GenCut GL170XY allows for seamless switching between electronic hand wheel control and automatic control, providing flexibility in operation.
- The touch screen interface of the GenCut GL170XY conveniently displays various cutting data, enhancing user experience.
- With precise positioning capabilities, the GenCut GL170XY ensures accurate and reliable cutting.
- The GenCut GL170XY offers three cutting modes: chopping, intermittent cutting, and reciprocating cutting. It intelligently adjusts the cutting speed based on the material's hardness, enabling fast and efficient cutting.

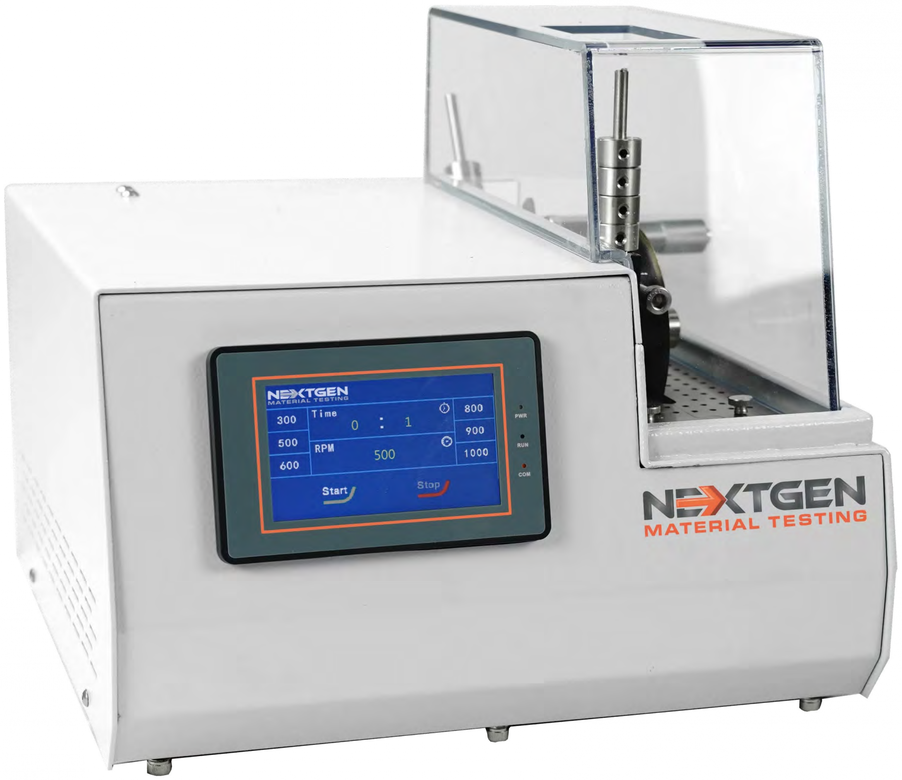
MORE INFO

Specifications

Model	GenCut GL 170XY
Cutting Wheel	Φ450×3.5mm×Φ32mm
Maximum Cutting Section	Φ170mm
Cutting Table Size	600 x 800 mm
Z-Axis (Cutting Blade Spindle Drop Distance)	290 mm
Y-Axis Movement Stroke	750 mm

MORE INFO

GenCut GL100E – Low Speed Precision Series Automatic Precision Cutter with User-Friendly Touch Screen Interface with max. cutting diameter of 25mm



Description

GenCut GL 100E & 100 Series low speed advanced automatic precision cut-off saw is well established in the metallography industry. This diamond saw precision cutter is a perfect fit for cutting and sectioning a wide variety of small and delicate samples particularly when the material structure is not homogeneous. This precision cut off saw can accept cutting a cutting wheel of 4".

GenCut GL 100E Features

- Two Cutting Modes – Manual or Gravity (weight, counterweight)
- Digital Touch Screen Control with programmable menu structure for a user-friendly operating experience
- Precision cutting off with micrometer head control
- Closed transparent protective cover and safety switch provide protection for operators
- Features a weight sliding loading system to minimize sample damage

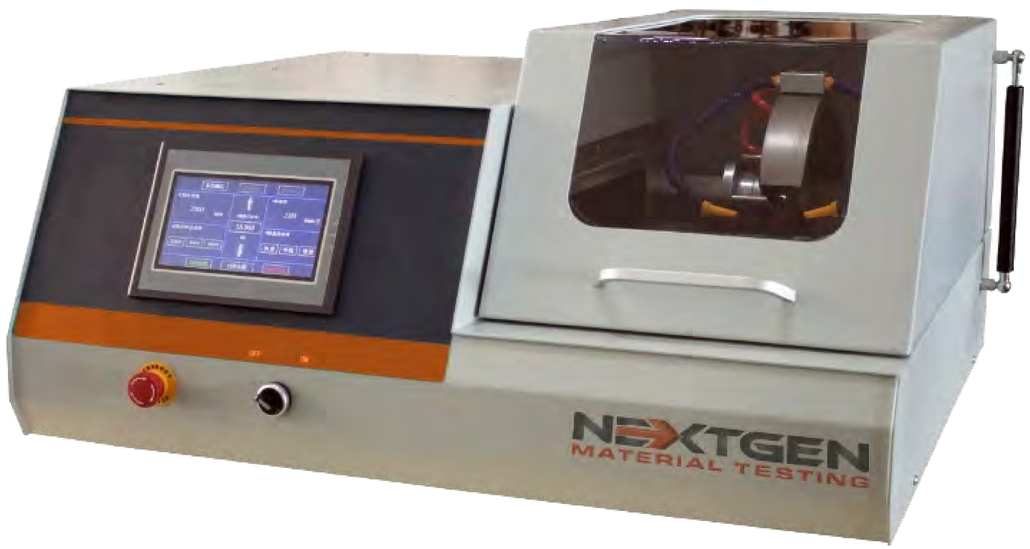
MORE INFO

Specifications

Model	GenCut GL 100E
Cutting Wheel	Ø100xØ12.7x0.3mm
Cutting Depth	25mm
Motor	300W
Variable Speed	50-1000rpm
Cooling Device	Automatic cycle cooling of cutting fluid (the cutting wheel drives the circulation of the water in the tank to cool down)

MORE INFO

GenCut GL 200E – Low Speed Precision Series Automatic Precision Cutter with User-Friendly Touch Screen Interface with max. cutting diameter of 60mm



Description

GenCut GL 200E high-speed precision cutting machine includes a touch screen and PLC control, with stable performance and real-time display of cutting parameters. The GenCut GL 200E features Y-axis automatic feed cutting, with high position accuracy, large speed range and high cutting capacity; the cutting chamber is a fully enclosed structure with transparent protective cover for observation during cutting.

GenCut GL 200E Features

- Digital Touch Screen Control with programmable menu structure for a user-friendly operating experience
- Precision cutting off with micrometer head control
- Closed transparent protective cover and safety switch provide protection for operators
- Closed loop control cutting to prevent overload of the motor
- Automatically stops after finishing the cut

MORE INFO

Specifications

Model	GenCut GL200E
Cutting Method	Automatic spindle Y-feed (automatic return when cutting is complete), manual feed, pulse feed (automatic return when cutting is complete)
Feed Speed	0-600mm/min (Adjustment steps of 0.01mm)
Cutting Wheel Size	Φ200 x 1.0 x Φ32mm
Spindle Speed	500-5000rpm
Y-Axis Travel	260mm
Maximum Cutting Diameter	Φ60mm

MORE INFO

GenCut GL80A – Precision Metallographic Sample Cutting Machine with Simple User Friendly Operation and Large Cutting Capacity Φ80mm

Description

Introducing the GenCut GL80A, a highly precise cutting machine offering both automatic and manual work modes. Comprising essential components such as the body, electric control box, cutting room, motor, cooling system, cutting wheel, and more, this machine is a comprehensive solution for your cutting needs.

Standard Configuration

- GenCut GL80A Cutting Saw
- Coolant Tank 50L
- Coolant Pump
- Wrench 12-14mm
- Wrench 24-27mm
- Wrench 36mm

MORE INFO

Specifications

Model	GenCut GL80A
Cutting Wheel	Φ350×2.5×Φ32mm
Maximum Cutting Section	Φ80mm
Max. Movement of the Table in the Y Axis	275mm
Spindle Speed	Constant Speed 2100rpm
Cutting Speed	0.01 - 1mm/s
Cutting Table Size	310 x 280 mm

MORE INFO

GenCut GL350 – Precision Metallographic Sample Cutting Machine with Simple User-Friendly Operation and Large Cutting Capacity Φ100mm

Features

- Introducing the GenCut GL350 - a cutting machine that sets the standard for high precision. With its versatile automatic work mode and manual work mode, it offers unparalleled flexibility in operation.
- The GenCut GL350 is expertly constructed with essential components including a durable body, an efficient electric control box, a well-designed cutting room, a powerful motor, a reliable cooling system, a precision-engineered cutting wheel, and other integral elements.
- Pushing boundaries, the GenCut GL350 excels at cutting both circular workpieces with a diameter under 100mm and rectangular samples with a height of 100mm and a depth below 200mm.
- To ensure optimal sample preservation, the GenCut GL350 incorporates a highly effective cooling system, effectively preventing overheating and minimizing the risk of tissue burning during the cutting process.

MORE INFO

Description

The GenCut GL350 is a cutting-edge high precision cutting machine equipped with advanced features and capabilities. It offers both automatic and manual work modes, providing flexibility for various cutting tasks. With components such as the body, electric control box, cutting room, motor, cooling system, and cutting wheel, this machine is designed to deliver exceptional performance.

Specifications

Model	GenCut GL350
Cutting Wheel	Φ350×2.5×Φ32mm
Maximum Cutting Section	Φ100mm
Automatic Cutting Stroke	125mm
Max. Movement of the Table	275mm

MORE INFO

GenPress MFA MOT – Fully Automatic Motorized Mounting Press

Motor Controlled – 1-2” (25-50mm) Mold Assembly (other sizes available upon request)

Description

GenPress MFA MOT Fully Automatic Mounting Presses for Metallographic Sample Preparation is an advanced automatic mounting press for compression mounting of material samples. The fully automatic mounting press system is controlled with a 7” touch screen controller where the parameters for heating, cooling and timing can all be adjusted and saved.

GenPress MFA MOT Standard Configuration

- Mounting Press
- Mold Assembly (please identify which size of mold assembly upon ordering)
- Powder Spoon
- Funnel
- Water Inlet Pipe
- Drain Pipe

MORE INFO

Specifications

Model	GenPress MFA MOT
Mold Diameter	Ø22/25/30/40/45/50mm or Ø 1”/1.25”/1.5”/1.75”/2”
Standard Features	Programmable database with the ability to store over 100 programs
System Pressure	0-300Bar
Pressure Setting Range	0-60Bar
Heated Power	2KW
Temperature Range	0 - 200°C adjustable

MORE INFO

GenPress MFA HYD – Fully Automatic Hydraulic Mounting Press

Hydraulic Controlled – 1-2" (25-50mm) Mold Assembly

Description

NextGen's MFA Series - Fully Automatic Mounting Presses for Metallographic Sample Preparation is an advanced automatic mounting press for compression mounting of material samples. The fully automatic mounting press system is controlled with a 7" touch screen controller where the parameters for heating, cooling and timing can all be adjusted and saved.

GenPress MFA HYD Features

- High Quality ABS Shell allowing for a modern appearance with ease of cleaning and maintenance
- Touch Screen Control – 7" User Friendly Interface
- Precision Hydraulic Operated Cycles with Silent Operation
- Closed Loop Fully Automatic Process
- Integrated Cooling System allows for more efficient sample preparation times
- Molds can be customized depending on your size requirements
- Operated Manually or Automatically – depending on your requirements

MORE INFO

Specifications

Model	GenPress MFA
Mold Diameter	Ø 22/25/30/40/45/50mm or Ø 1"/1.25"/1.5"/1.75"/2"
Standard Features	Programmable database with the ability to store over 100 programs
System Pressure	0-300Bar
Pressure Setting Range	0-60Bar
Heater Power	2KW

MORE INFO

GenPress MFA Dual HYD Fully Automatic Dual Hydraulic Mounting Press

Hydraulic Controlled – 1-2" (25-50mm) Mold Assembly (other sizes available upon request)

GenPress MFA Dual HYD Standard Configuration

- Mounting Press
- Mold Assembly (please identify which size of mold assembly upon ordering)
- Powder Spoon
- Funnel
- Water Inlet Pipe
- Drain Pipe

MORE INFO

Description

NextGen's GenPress MFA Dual HYD - Fully Automatic Mounting Presses for Metallographic Sample Preparation is an advanced automatic mounting press for compression mounting of material samples. The fully automatic mounting press system is controlled with a 7" touch screen controller where the parameters for heating, cooling and timing can all be adjusted and saved.

Specifications

Model	GenPress MFA Dual HYD
Mold Diameter	Ø22/25/30/40/45/50mm or Ø 1"/1.25"/1.5"/1.75"/2"
Standard Features	Programmable database with the ability to store over 100 programs
System Pressure	0-300Bar
Pressure Setting Range	0-60Bar
Heater Power	4KW
Temperature Range	0 - 200 °C adjustable
Time Range	0-99min

MORE INFO

GenVac MP Series

Epoxy Mounting Vacuum Impregnation System for Metallographic Sample Preparation

★★★★★

Description

GenVac MP2 - Vacuum Impregnator is designed for precision sample impregnation for porous materials. Common applications for vacuum impregnation systems include rocks and minerals, ceramics, electronic circuit boards and other composite materials. The GenVac Series - Vacuum Impregnation system includes a separate Vacuum pump and is easily controlled through the user friendly interface. Complete with a disposable sample cup holder, the GenVac Cold mounting press encompasses everything you need to achieve the absolute best sample impregnation.

Spare Parts and Consumables

Parts and all consumables are readily available in stock and can be acquired directly from NextGen Material Testing by request. Also, we do not use proprietary parts, therefore additional parts can be sourced from local suppliers as needed many years down the road.

Specifications

GenVac MP2	
Motor Power	180W
Vacuum Chamber Size (Ø x H)	16 x 16 cm 6.3 x 6.3 inches
Machine Size (WxDxH)	48 x 40 x 40(cm) 18.9 x 15.75 x 15.75 inches
Vacuum Pump Size (WxDxH)	14 x 20 x 20 (cm) 5.5 x 7.9 x 7.9 inches
Weight	34kg 75 lbs
Power Supply	110V/60Hz/1Ph
Vacuum Pressure	10.7Kpa (10700Pa)

MORE INFO

GenVac MP3 Series

Epoxy Mounting Vacuum Impregnation System for Metallographic Sample Preparation

Description

The upgraded intelligent vacuum impregnation system, GenVac MP3 allows to set up ninety-nine degassing circles. This epoxy system will is unique because it is exceptional at filling pores and cavities in the sample to enhance the edge retention. The 4.3 inch color touch panel and graphic display make the parameter setting more intuitively. With eight memory methods, multiple languages, unit conversion and the design of ninety-nine degassing circle, all of your vacuum impregnation needs will be met to the best of your satisfaction.

Spare Parts and Consumables

Parts and all consumables are readily available in stock and can be acquired directly from NextGen Material Testing by request. Also, we do not use proprietary parts, therefore additional parts can be sourced from local suppliers as needed many years down the road.

MORE INFO

Specifications

	GenVac MP3
Vacuum Pressure	-600 mm/Hg (-0.799 bar/-79.993 Kpa/-11.602 Psi)
Vacuum Pump Motor Power	180W
Pump Flow	50L/min
Vacuum Chamber Size (WxDxH)	30 x 30 x 30 (cm) 11.8 x 11.8 x 11.8 inches
Pressure Relief Method	Programmable Pressure Relief
Machine Dimension (WxDxH)	54 x 55 x 56 (cm) 21.25 x 21.65 x 22 inches
Weight	45kg 99 lbs
Power Supply	AC110V/220V-1Ø
Standard Accessories	High Flow Epoxy Resin, Vacuum Pump

MORE INFO

GenGrind N Series 8” 200S / 10” 250S / 12” 300 S – Single Wheel Manual Grinder & Polisher

Variable Speed 50-1000rpm – Touch Screen Controlled

Description

Introducing the GenGrind N Series metallographic grinders and polishers, offered in sizes 8", 10", or 12" diameter, with options for both single and dual wheels. These machines redefine convenience with a user-friendly 7” touch screen featuring an intuitive menu structure. Prepare your materials with ease on the GenGrind N Series NextGen grinders and polishers!

GenGrind N Series Features

- Engage effortlessly with the 7” touch screen, boasting an intuitive menu structure for seamless operation.
- Experience versatility like never before – tackle coarse grinding, fine grinding, and both coarse and fine polishing of metallographic specimens, all in one machine.
- Enjoy the flexibility of stepless speeds from 50 to 1000rpm, alongside an easy-to-use 8 constant speed design for simplified settings.
- Opt for manual magnetic anti-sticking disc replacement, allowing you to perform diverse coarse and fine grinding and polishing processes with ease (optional purchase).

MORE INFO

Specifications

Model	GenGrind N Series - Single Wheel
Disc Diameter	254mm (10”) with Magnetic Disc (Standard) (203mm 8” Optional and 305mm 12” Optional)
Speed of Working Plate	Stepless: 50-1000r/min Constant speed: 300r/min, 400r/min, 500r/min, 600r/min, 700r/min, 800r/min, 900r/min, 1000r/min
Rotation Direction	Clockwise or Counter clockwise (reversible)

MORE INFO

GenGrind FA-IC Dual Wheel Fully Automatic

Rolls Royce

★★★★★

Description

Introducing the GenGrind FA-IC, a state-of-the-art single-chip microcomputer controlled grinding and polishing machine. The GenGrind FA-IC features a durable ABS material shell, providing a beautiful appearance and excellent resistance to corrosion. With its stepless speed control and reversible rotational direction, this machine offers versatile functionality. The grinding head offers two methods: individual pressure and central pressure.

GenGrind FA-IC Dual Standard Configuration

- Dual Wheel GenGrind FA-IC (Individual and Central Force Control)
- Automatic Power Head
- Water Pipe
- Splash Cover
- Aluminum Grinding Platen
- O-Ring
- Aluminum Polishing Platen

MORE INFO

Specifications

Model	GenGrind FA-IC 250 Dual	GenGrind FA-IC 300 Dual
Disc Diameter	250mm (10")	300mm (12")
Grinding Papers and Polishing Cloth Diameters	250mm (10")	300mm (12")
Disc Speed	Stepless Speed 50-100rpm	
Disc Rotational Direction	Clockwise or Counterclockwise	
Disc Electromotor	DC Brushless Motor, 110V, 1.2kW	
Power Head Motor	DC Brushless Motor, 110V, 750W	
Head Speed	Stepless Speed 20-120rpm	

MORE INFO

GenGrind SA-I 250S 10″ Single Wheel Semi Automatic Grinder & Polisher

Variable Speed 100-1000rpm –Individual Force Control – Touch Screen Controlled

Description

Discover the GenGrind SA-I 250S, your ultimate answer to grinding and polishing needs. Equipped with a spacious 10″Ø wheel (254mmØ), it offers automatic two-direction control and stepless variable speed. Its intuitive touch screen, enriched by advanced programming and parameter storage, ensures user-friendly operation.

GenGrind SA-I 250S Features

- Remarkable cost-effectiveness, offering stable quality and versatile functions, easily customizable to cater to various customer requirements.
- Crafted from a single piece of aluminum alloy, the machine base guarantees lightweight construction, exceptional shock absorption, and corrosion resistance.
- Enjoy a single working plate with standard dimensions of 10″ diameter (254mm)
- Efficiently polish 6 samples of 30mm diameter in a single operation (various other sizes available upon request).
- The sleek ABS shell exudes a sophisticated appearance, adding a touch of elegance to the machine's design.

MORE INFO

Specifications

Model	GenGrind SA-I 250S
Disc Diameter	254mm (10") with Magnetic Disc
Speed of Working Plate	100-1000 rpm Stepless Speed Supports Clockwise and Counter clockwise directions
Four Level Constant Speeds	V1=300rpm, V2=500rpm, V3=800rpm, V4=1000rpm (each speed can be set between 100-1400rpm)
Grinding Head Speed	0-120rpm

MORE INFO

GenGrind FA-IC 250S 10″ Single Wheel Fully Automatic Grinder & Polisher

Variable Speed 100-1400rpm – Both Individual and Central Force Control – Touch Screen

Description

Introducing the GenGrind FA-IC 250S Single Wheel Polisher and Grinder, an advanced and fully automatic metallographic grinding and polishing machine. This state-of-the-art equipment seamlessly integrates pre-grinding, grinding, and polishing processes to deliver exceptional results.

GenGrind FA-IC 250S Features

- Super cost-effective, offering outstanding value for money.
- Single working plate with standard dimensions of 254mm, providing 50% more working area compared to regular grinding and polishing machines.
- Capable of polishing 6 pieces of 30mm diameter samples in a single operation, maximizing productivity.
- High-end ABS shell, giving it a sophisticated and modern appearance.
- User-friendly touch screen display for clear and intuitive interface, ensuring simple operation.
- Adjustable testing time, rotating speed, and pressure to suit specific needs.

MORE INFO

Specifications

Model	GenGrind FA-IC 250S
Disc Diameter	250mm (10")
Speed of Working Plate	100-1400 rpm Stepless Speed Supports Clockwise and Counter clockwise directions
Four Level Constant Speeds	V1=300rpm, V2=500rpm, V3=800rpm, V4=1000rpm (each speed can be set between 100-1400rpm)
Grinding Head Speed	0-200rpm

MORE INFO

GenGrind FA-IC 250D 10″ Dual Wheel Fully Automatic Grinder & Polisher

Variable Speed 100-1400rpm – Both Individual and Central Force Control – Touch Screen

Description

Introducing the GenGrind FA-IC 250D Dual Wheel Polisher and Grinder, an advanced and fully automatic metallographic grinding and polishing machine. This state-of-the-art equipment seamlessly integrates pre-grinding, grinding, and polishing processes to deliver exceptional results.

GenGrind FA-IC 250D Features

- Super cost-effective, offering outstanding value for money.
- Dual working plates with standard dimensions of 254mm, providing 50% more working area compared to regular grinding and polishing machines.
- Capable of polishing 6 pieces of 30mm diameter samples in a single operation, maximizing productivity.
- High-end ABS shell, giving it a sophisticated and modern appearance.
- User-friendly touch screen display for clear and intuitive interface, ensuring simple operation.
- Adjustable testing time, rotating speed, and pressure to suit specific needs.
- The grinding head is equipped with an electromagnetic clutch for convenient and quick operation, automatically locking when needed.

MORE INFO

Specifications

Model	**GenGrind FA-IC 250D**
Disc Diameter	250mm (10")
Speed of Working Plate	100-1400 rpm Stepless Speed Supports Clockwise and Counter clockwise directions

MORE INFO

GenGrind SA-C 250S 10″ Single Wheel Semi Automatic Grinder & Polisher

Variable Speed 100-1000rpm –Central Force Control – Touch Screen Controlled

Description

Introducing the GenGrind SA-C 250S – your ultimate grinding and polishing solution. The GenGrind SA-C 250S boasts automatic, two direction control on a spacious 10″Ø wheel (254mmØ) with stepless variable speed. Enjoy intuitive touch screen controls and a user-friendly interface, enhanced by cutting-edge programming and parameter storage technologies.

GenGrind SA-C 250S Features

- Advanced grinder polisher with automatic central pressure head.
- Highly cost-effective, stable quality, customizable to customer requirements.
- One-piece aluminum alloy machine base for lightweight, shock absorption, and corrosion resistance.
- Single working plate, standard 254mm dimension, 50% larger than typical machines.
- Polishes 6 pieces of 30mm diameter samples in one cycle.
- High-end ABS shell for a novel appearance and durability.

MORE INFO

Specifications

Model	GenGrind SA-C 250S
Disc Diameter	250mm (10") with Magnetic Disc
Speed of Working Plate	100-1000 rpm Stepless Speed Supports Clockwise and Counter clockwise directions
Four Level Constant Speeds	V1=300rpm, V2=500rpm, V3=800rpm, V4=1000rpm (each speed can be set between 100-1400rpm)
Grinding Head Speed	0-120rpm
Grinding Head Power	0.2kW (Clockwise Rotation)

MORE INFO

★★★★★

GenGrind FA-IC Series

Central and Individual Control Fully Automatic Metallographic Polisher and Grinder Equipment for Metallographic Sample Preparation

Description

GenGrind FA Series - Fully Automatic Metallographic Polisher and Grinder incorporates our basic variable speed grinding wheels with a fully-automatic specimen moving head equipped with advanced pneumatic control. The FA - Fully Automatic Polisher and Grinder systems regulate the pressure to your specimens through the use of a pneumatic connection. This means that you may adjust the pressure being applied to your specimens from one to eight kilogram force. Our single wheel FA-IC - Fully Automatic Metallographic Polisher/Grinder units have the capabilities of individual specimen as well as central specimen pressure control. Our FA-I-D dual wheel system can only apply individual pressure for sample preparation.

Specifications

Specifications	FA-IC			FA-I-D		
Platen Diameter (cm)	Ø20 (8″)	Ø25 (10″)	Ø30 (12″)	Ø20 (8″)	Ø25 (10″)	Ø30 (12″)
Sample Pressure	Individual and Central Pneumatic Force			Individual Pneumatic Force		
Plate Quantity	1			2		
Sample Quantity	3 or 5					
Grinding Method	Fully-Automatic					
Grinding Motor	750W					
Speed (rpm)	50-600 - (Special Requirements can be ordered)					
Head Speed (rpm)	Fixed - 80 or 150					
Cooling System	1			2		
Timer Setting Max	99 minutes 59 seconds					
Machine Type	Table Top					
Weight (kg)	102	110	120	138	146	156
Machine Size (WxDxH) (cm)	58x92x75			75x69x75		85x75x75
Water Inlet Pipe	3/8″ pipe (internal diameter 1cm - external diameter 1.5cm)					
Water Outlet Pipe	1″ - (Internal diameter Ø2.6cm - external diameter Ø3.0cm)			1-1/4″ - (Internal diameter Ø3.2cm - external diameter Ø3.6cm)		
Power Supply	110/220V 60/50Hz 1ph			110/220V 60/50Hz 1ph		

MORE INFO

GenGrind Belt BT

Dual Stage Tabletop Belt Grinder for Metallographic Sample Preparation

Features

- Water connections controlled for each individual belt
- Vacuum connection available for debris removal
- Standard or Optional Recirculating Water Tank (Depending on the Model)
- Built in faucet for the cleaning of your grinded specimens
- User friendly and accessible controls for quick changes to your grinding procedures

MORE INFO

Description

The GenGrindBelt BT series is a dual stage, wet or dry table top belt grinder offering the most economical solution for manual grinding applications. The GenGrind BT - Dual Stage Belt Grinder for Metallographic Sample Preparation is designed for high material removal of various sample shapes and configurations. The BT - Belt Grinder system is a table top belt grinder suitable for laboratories designed for high material removal. The Belt protective coverings are easily removed to remove and replace the grinding belts. A faucet is built in to the front of the unit for washing your specimens of any dust and debris. Water flow can be controlled for each individual belt. A vacuum connection is also recommended for the cleanest grinding operations. With a wide variety of consumables available, the GenGrind Belt BT Belt Grinder for metallographic sample preparation is your ideal choice for manual grinding operations.

Specifications

Specifications	GenGrind Belt BT
Belt Size (Inch)	4" x 36"
Machine Size (WxLxH) (cm)	63 x 62 x 38
Power Supply	120/220V 50/60Hz 1Ph
Motor Power	370W
Weight (kg)	54
Maximum Sample Size (cm)	16-21 square

MORE INFO

GenGrind Belt BF

Floor Standing Heavy Duty Dual Stage Belt Grinder for Metallographic Sample Preparation

Description

The GenGrind Belt BF Series is a heavy duty dual stage, wet or dry belt grinder offering a robust, floor standing solution for high volume manual belt grinding applications. GenGrind Belt BF - Heavy Duty Dual Stage Belt Grinder for metallographic sample preparation is designed for high material removal of various sample shapes and configurations. The BF series - belt grinder is a floor standing, ruggedly designed unit for laboratory or production shop environments. A recirculation system is built in to the front cabinet of the GenGrind BT for lubrication and cleaning of your specimens. With a wide variety of consumables available, the GenGrind BF Heavy Duty Dual Stage Belt Grinder is your ideal choice for manual grinding operations.

Features

- Included recirculation unit for coolant supply and filtering
- Adjustable coolant supplies for ideal positioning of your lubricant
- User friendly and accessible controls for quick changes to your grinding procedures
- Side access to the individual belts for quick removal and replacement belt procedures
- Variable belt speed from 50-600 RPM through the front access controls
- Compatible with a standard 4" x 36" grinding belt

Specifications

Specifications	GenGrind Belt BF
Belt Size (Inch)	4" x 36"
Machine Size (WxLxH) (cm)	75 x 65 x 105
Power Supply	220V 50/60Hz 1Ph
Motor Power	370W
Weight (kg)	184
Maximum Sample Size (cm)	16-21 square

MORE INFO

NG-SHM Class A
Servo Hydraulic Testing Machine

Description

The SHM class A Series addresses the needs of standardized and routine testing, providing the user high quality and exceptionally affordable price. This multi-column testing system is suited for a full range of testing applications, including tension, compression, shearing, bending, and more.

The NG-SHM Class A series is designed to provide a solution for your high-force mechanical testing of a diverse range of materials covering many different industries.

Load Frame

- Lead screw driven crosshead to adjust the test space
- Durable 6-column load frame design incorporates 3-position crosshead, adjustable specimen positioning, precision guide columns, thick crosshead and a base beam minimizes the load frames stored energy while producing reliable, stable, accurate loads, strain and modulus values.
- Ergonomically designed load frames ensure safety, reduce operator fatigue, and provide the highest level of flexibility.
- Standard Dual Zone Test Space for reducing setup time
- "Quick Return" hydraulic valve for higher throughput

MORE INFO

Specifications

Servo-Hydraulic Universal Testing Machine					
Model	SHM205 SHM305	SHM505 SHM605	SHM1006	SHM2006	SHM3006
Class	Class A				
Capacity	200kN 300kN	500kN 600kN	1000kN	2000kN	3000kN
Calibration accuracy	Class 1 / Class 0.5				
Force range	1% - 100%FS				
Force accuracy	Better than ±1%/±0.5%				
Extension Range	1% - 100%FS				

MORE INFO

NG-SHM Class B

Servo Hydraulic Testing Machine

★★★★★

Description

The NG-SHM Class B series is designed to provide a solution for your high-force mechanical testing of a diverse range of materials covering many different industries. Class B has been designed around the application of testing fasteners, rebar, chains, welds and castings and uses a "worm wheel" driven cross head to adjust the test space.

Load Frame

- Lead screw driven crosshead to adjust the test space
- Durable 6-column load frame design incorporates 3-position crosshead, adjustable specimen positioning, precision guide columns, thick crosshead and a base beam minimizes the load frames stored energy while producing reliable, stable, accurate loads, strain and modulus values.
- Ergonomically designed load frames ensure safety, reduce operator fatigue, and provide the highest level of flexibility.
- Standard Dual Zone Test Space for reducing setup time
- "Quick Return" hydraulic valve for higher throughput
- Automatic limit checking for crosshead position, overload, over temperature, over voltage, etc.

MORE INFO

Specifications

Servo-Hydraulic Universal Testing Machine				
Model	SHM305	SHM605	SHM106	SHM306
Class	Class B			
Capacity	300kN	600kN	1000kN	3000kN
Calibration accuracy	Class 1 / Class 0.5			
Force range	1% - 100%FS			
Force accuracy	Better than ±1%/±0.5%			

MORE INFO

NG – EML Test Pilot Series

TestPilot Software

★★★★★

Description

TestPilot is designed to enhance your ability to perform accurate and repeatable mechanical testing of materials, components and finished goods across a full spectrum of applications. It provides the simplicity and ease-of-operation needed for quick and efficient quality assurance and quality control testing, the flexibility to adapt readily to changing requirements, and the sophistication to address unique or complex demands. The software's intuitive operator interface, powerful analysis and reporting, and growing host of test methods make it an excellent foundation for establishing and sustaining a truly global standardized testing methodology.

Features

- Versatile, easy-to-use TestPilot software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more).
- Modular design permits easy upgrading.
- Multiple graphs on the same screen & report to observe multiple events at the same time: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others.
- Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, Kgf, lbf, Mpa, and so on, user can define the unit by themselves using formula.
- Customizable report format with full flexibility of adding & removing items in terms of layout, content, graphing to suite the exact test requirement, like company information, statistics, and etc. Test report can export to Excel or Word.

MORE INFO

TensileTurn CNC

Round Tensile Sample Preparation

★★★★★

Description

The TensileTurn CNC - Industrial Upgrade Model Round Specimen Preparation is a conveniently sized automatic CNC lathe designed to prepare accurate round tensile specimens to achieve the highest accuracy in tensile results. The TensileTurn CNC features our award winning touch screen tensile milling interface to allow any operator, with or without machining experience, to quickly prepare tensile specimens as per your desired size. By simply selecting a common tensile size from our library of common standards (ASTM, ISO, DIN, etc) or by entering your own dimensions on the touch screen numerical keypad, TensileTurn CNC is ready to machine specimens up to 5" in diameter (up to 1" by 1" squares) and up to 8" in length after only a few simple steps.

Features

- Granite frame and balls crews – robust and shock absorbent frame offering a stable foundation for industrial grade high speed machining
- Stainless steel enclosure
- 4500 RPM 3.5 HP (2.6kW) Motor
- 8 position turret, 1/2" shank OD tools
- 4 Boring tool holders, 3/4" shank
- Servos: Yaskawa 400W AC Servo

MORE INFO

Specifications

Technical Specifications	Imperial	Metric
Swing Over Bed	Ø8"	Ø203mm
Center Width	9"	228mm
Spindle Bore	Ø1"	Ø26mm
Spindle Speed Range (rpm)	0"-177"	0-4500 mm
Lathe Chuck	Ø4"	Ø101mm
Tool Changer Type	Electric	
Number of Tool Position	8 with ½" shank external tools	
Tool Holder	4 Boring Tool Holders, ¾" Shank	
Max Section of Tool	0.47" x 0.47"	12x12mm
X Travel	7.09"	180mm

MORE INFO

Metallography Consumables

Description

NextGen Material Testing offers a full range of consumables for all metallography and hardness testing applications. Our metallographic consumables can be used for our own NextGen line up of testing equipment along with various other brands on the market. From abrasive sectioning, precision saw blades, vices, mounting, grinding, polishing and hardness testing, NextGen has what you need for all applications. Contact our experienced quality control consultant today to discuss how we can provide a solution for you.

Full Scope of Metallography Consumables and Their Applications

Sectioning

From abrasive sectioning to precision cutting, we have it all! Check out our full catalogue including metallographic abrasive blades (both resin bonded and resin-rubber bonded), precision diamond wafering blades (and cubic boron nitride blades), and cutting fluid in various sizes and quantities.

Hot and Cold Mounting

A complete list of mounting consumables to suit all materials including compression mounting and castable mounting. Compression mounting resins are available in various colors and with a wide range of fillers to improve hardness or conductivity. Epoxy, acrylic Resins and polyesters are available for all castable mounting procedures in various sizes of powders and hardeners.

Grinding and Polishing

An extensive list of grinding papers, diamond disks, composite disks, lapping films, polishing pads and polishing abrasives to ensure the best finish for further metallographic analysis. Including a wide variety of diamond suspensions, pastes and lubricants to achieve your desired finish.

MORE INFO

Advanced Test Pilot Data Acquisition Software

Description

TestPilot is designed to enhance your ability to perform accurate and repeatable mechanical testing of materials, components and finished goods across a full spectrum of applications. It provides the simplicity and ease-of-operation needed for quick and efficient quality assurance and quality control testing, the flexibility to adapt readily to changing requirements, and the sophistication to address unique or complex demands. The software's intuitive operator interface, powerful analysis and reporting, and growing host of test methods make it an excellent foundation for establishing and sustaining a truly global standardized testing methodology.

Features

- Versatile, easy-to-use TestPilot software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more)
- Modular design permits easy upgrading
- Multiple graphs on the same screen & report to observe multiple events at the same time: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others.
- Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, Kgf, lbf, Mpa, and so on, user can define the unit by themselves using formula.
- Customizable report format with full flexibility of adding & removing items in terms of layout, content, graphing to suite the exact test requirement, like company information, statistics, and etc. Test report can export to Excel or Word.

MORE INFO

NG – EML Test Pilot Series

TestPilot Software

★★★★★

Description

TestPilot is designed to enhance your ability to perform accurate and repeatable mechanical testing of materials, components and finished goods across a full spectrum of applications. It provides the simplicity and ease-of-operation needed for quick and efficient quality assurance and quality control testing, the flexibility to adapt readily to changing requirements, and the sophistication to address unique or complex demands. The software's intuitive operator interface, powerful analysis and reporting, and growing host of test methods make it an excellent foundation for establishing and sustaining a truly global standardized testing methodology.

Features

- Versatile, easy-to-use TestPilot software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more).
- Modular design permits easy upgrading.
- Multiple graphs on the same screen & report to observe multiple events at the same time: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others.
- Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, Kgf, lbf, Mpa, and so on, user can define the unit by themselves using formula.
- Customizable report format with full flexibility of adding & removing items in terms of layout, content, graphing to suite the exact test requirement, like company information, statistics, and etc. Test report can export to Excel or Word.

MORE INFO

PLASTICS TESTING EQUIPMENT

NEXTGEN MATERIAL TESTING

2023

INTERNATIONAL TOLL FREE NUMBER
1(888)332-3582
WWW.NEXTGENTEST.COM

Class A – Single Column Bench Top Units

50N-5kN – Universal Tensile Testing Machine

Description

The EML class A Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. The single column Class A testing systems are suited for tension, compression, flexure, and other testing applications where load range requirements are less than 5 kN and lab space is limited. They are typically used for quality control and production testing.

Features

- Complete selection of sturdy, compact single column load frame configurations
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Specifications

NG-EML Class A	
Model	EML102, EML103, EML202, EML203, EML501, EML502 ,EML503
Class	Class A, single column
Capacity	50N, 100N, 200N, 500N,1kN, 2kN, 5kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.2% – 100%FS/ 0.4% – 100%FS
Force accuracy	±1% / 0.5%of reading
Force resolution	1/500,000FS
Position accuracy	0.5%of reading

MORE INFO

Class B – Dual Column Bench Top Units

1kN-10kN – Universal Tensile Testing Machine

Description

The EML class B Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. 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. They are typically used for quality control and production testing in the plastics and rubber industries.

Features

- Complete selection of sturdy, compact dual column load frame
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Specifications

NG-EML Class B	
Model	EML101,EML201,EML501,EML102,EML202,EML502,EML103,EML203,EML503,EML104
Class	Class B, dual column, table-top
Capacity	10N,20N,50N,100N,200N,500N,1kN,2kN,5kN,10kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.2% – 100%FS / 0.4 – 100%FS
Force accuracy	±1.0% / ±0.5% of reading
Force resolution	1/500,000FS
Position accuracy	±0.50% of reading
Position resolution	0.027µm

MORE INFO

DIN Abrasion Tester

★★★★★

Standards

ASTM D5963
EN ISO 20344
ISO 4649
DIN 53516
SATRA METHOD 174

Description

GenDin is designed to conform to the ASTM, EN, IS0 and DIN 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.

Certified DIN Abrasion Tester Supplier

The method conforming to ASTM D5963 / ISO 4649 has proven to be the best way of simulating long term wear. This method enables comparative tests for the control of the uniformity of a specific material. The achieved test results provide important parameters with respect to the wear of elastomers in practical use. The abrasion resistance is measured by moving a test piece across the surface of an abrasive sheet mounted to a revolving drum, and is expressed as volume loss in cubic millimeters or abrasion resistance index in a percentage. Learn more about the significance of DIN Abrasion Testing.

MORE INFO

Specifications

Model	GenDIN
Load	2.5±0.1N; 5±0.1N; 10.0±0.2N
Specimen Size	Diameter 16mm, thickness 6-16mm
Rotating Drum Diameter	150mm
Rotating Drum Speed	40 ±1RPM
Emery Cloth Specification	60 #, 425 ±473 ±1.5 (mm)
Testing Length	40M (about 84 rotations)
Horizontal Displacement	4.2mm / rotation
Test-Arm Weight	250 ± 5 (g)

MORE INFO

Freezing Tester
GenFreeze

Description

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.

Specifications

Type	GenFreeze-H	GenFreeze-V
Material	Stainless Steel 304	
Controller	PID Control	
Temp range	(I),RT--300C (II),RT--500C	
Inner box action	Finished shoe bending resistance, sole flexing, leather flexing, vamp flexing fixture (or custom-made)	
Safety Devices	Thermal, overheat, overload protection	
Temp Accuracy	+OSC	
Temp uniformity	± I c	
Cooling Speed	RT--30'C within 60min	
Refrigerant	R404 with environmental protection	
Compressor	France tellcan	
Compressor start Delay time	8 min	
Insulation materials	rigid polyurethane foam/glass wool	
Counter	LCD, 0 - 999.999 Intelligent power failure recovery	
Viewing Window	2 - 10x35x270 mm, 2 - layer vacuum glass	
Inner lamp	PI Lamp 5W	
Motor	No belt with gear reducer motor	
Interior Dimensions	60x60x50 cm	60x60x55 cm

MORE INFO

Salt Spray Tester
GenSalt

★★★★★

Standards

ISO 9227
ASTM B117

Unique Features

- Robust impact resistant 5mm PVC plate capable of withstanding up to 85°C
- The inner and outer edges are 15mm thick reinforced PVC material to prevent deformation resulting from long-term high temperature exposure
- Saturated air tank adopts SUS#304 stainless steel high pressure for optimal insulation
- The sample placing anvil is made of 8mm temperature-resistant ABS plate developed for high weight support.
- The spray nozzle is made of special glass nozzle, which can adjust the amount of spray and the angle of spray

MORE INFO

Description

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.

Specifications

Laboratory Temperature	35°C±1°C (RT - 60°c)
Temperature of Saturated Air Cylinder	47°C±1°C (RT - 60°c)
Interior Dimensions	60x45x40 cm
Test Water	15 L
Dimensions (W x D x H)	115x72x108 cm
Weight	68 kg
Power	110V/60Hz or 220V/50Hz

MORE INFO

Taber Abrasion Tester

Standards

ASTM D1044
ASTM D3884
ASTM D4060
ASTM F1978
DIN 53754
DIN 53799
DIN 53109
DIN 52347
ISO-5470
ISO-7784-2
ISO 9352

Specifications

Specimen Size (Outer Diameter)	108mm ID:8mm ,3mm
Abrasion Wheel	2"(max.45mm), 1/2"(W)
Wheel Center Distance	63.5mm
Rotating Speed	60/72 rpm
Loads	250g, 500g, 1000g
Counter	LCD Touch screen, 0-999,999 Automatic shutdown
Wheel and Specimens disk center space	37-38mm
Machine Size (L*W*H)	530 x 320 x 310mm (Including vacuum cleaner)
Weight (kg)	18kg (Excluding vacuum cleaner)
Power	AC110V / AC220V/50Hz
Wear index calculation formula	Abrasion loss weight/test turnover number x1000

Description

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

Ultrasonic Contact Impedance Hardness Tester

UH200

★★★★★

Standards

ASTM-A1038-05
DIN 50159-1
JB/T 9377-2010

Description

The UH200 non-destructive ultrasonic hardness tester, relying on the principle of ultrasonic vibration sensor rod, can easily and swiftly detect the material hardness of several metals without any damage.

Features

The Ultrasonic Contact Impedance (UCI) tester is used for measuring the hardness value of small items, objects with a thin wall, complex forms, and to measure the hardness of surface hardened layers.
The built-in camera allows user to picture of testing object and mark tested area with corresponding hardness value.

MORE INFO

Specifications

Product Name	UH200 – Ultrasonic Hardness Tester
Model	UH200
Loading Force	5kgf manual probe (optional 1/2/10kgf manual probe) (optional motorized probe: 0.3/0.5/0.8/1kgf)
Measuring Range	**Main Line:** HB: 85-650; HV 10-2980 HV; HRC 20-70; HRB: 41-100; HRA: 61-85.6 HS: 34.2-97.3; Mpa: 255-2180N/mm **Economical Line:** HRC(10-80) HB (200-550) HV (200-999)
Hardness Scale	HV, HB, HRC, etc.
Measuring Accuracy	HV: ±3%HV; HRC: ±1.5HRC; HB: ±3%HB
Indenter	136° Vickers Diamond Indenter
Measuring Direction	Support 360°

MORE INFO

GenVac MP3 Series

Epoxy Mounting Vacuum Impregnation System for Metallographic Sample Preparation

Description

The upgraded intelligent vacuum impregnation system, GenVac MP3 allows to set up ninety-nine degassing circles. This epoxy system will is unique because it is exceptional at filling pores and cavities in the sample to enhance the edge retention. The 4.3 inch color touch panel and graphic display make the parameter setting more intuitively. With eight memory methods, multiple languages, unit conversion and the design of ninety-nine degassing circle, all of your vacuum impregnation needs will be met to the best of your satisfaction.

Spare Parts and Consumables

Parts and all consumables are readily available in stock and can be acquired directly from NextGen Material Testing by request. Also, we do not use proprietary parts, therefore additional parts can be sourced from local suppliers as needed many years down the road.

MORE INFO

Specifications

	GenVac MP3
Vacuum Pressure	-600 mm/Hg (-0.799 bar/-79.993 Kpa/-11.602 Psi)
Vacuum Pump Motor Power	180W
Pump Flow	50L/min
Vacuum Chamber Size (WxDxH)	30 x 30 x 30 (cm) 11.8 x 11.8 x 11.8 inches
Pressure Relief Method	Programmable Pressure Relief
Machine Dimension (WxDxH)	54 x 55 x 56 (cm) 21.25 x 21.65 x 22 inches
Weight	45kg 99 lbs
Power Supply	AC110V/220V-1Ø
Standard Accessories	High Flow Epoxy Resin, Vacuum Pump

MORE INFO

Metallography Consumables

Description

NextGen Material Testing offers a full range of consumables for all metallography and hardness testing applications. Our metallographic consumables can be used for our own NextGen line up of testing equipment along with various other brands on the market. From abrasive sectioning, precision saw blades, vices, mounting, grinding, polishing and hardness testing, NextGen has what you need for all applications. Contact our experienced quality control consultant today to discuss how we can provide a solution for you.

Full Scope of Metallography Consumables and Their Applications

Sectioning

From abrasive sectioning to precision cutting, we have it all! Check out our full catalogue including metallographic abrasive blades (both resin bonded and resin-rubber bonded), precision diamond wafering blades (and cubic boron nitride blades), and cutting fluid in various sizes and quantities.

Hot and Cold Mounting

A complete list of mounting consumables to suit all materials including compression mounting and castable mounting. Compression mounting resins are available in various colors and with a wide range of fillers to improve hardness or conductivity. Epoxy, acrylic Resins and polyesters are available for all castable mounting procedures in various sizes of powders and hardeners.

Grinding and Polishing

An extensive list of grinding papers, diamond disks, composite disks, lapping films, polishing pads and polishing abrasives to ensure the best finish for further metallographic analysis. Including a wide variety of diamond suspensions, pastes and lubricants to achieve your desired finish.

MORE INFO

Class J – Charpy and Izod Automatic Impact Testing System

1J – 50J

★★★★★

Standards

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

Features

High Resolution

Using a shaftless encoder allows angle resolution of 0.045 °

Energy Losses

Shaftless encoder for angle measurement rotates without friction, thereby offering the lowest energy loss.

Touch Screen Display

Touch screen provides easy setup of specimen dimensions, pendulum energy, units and calibration data. The unit can also intuitively display test results such as absorbed energy and impact toughness

Interchangeable Pendulum

Simply change the pendulum to satisfy Charpy, Izod and tensile impact tests

MORE INFO

Description

Class J Impact Testing System is widely used for Izod and Charpy impact test on plastics 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.

Specifications

Test type	Standard	Pendulum
Charpy for plastics	ISO179, GB/T 1043	1J, 2J, 4J, 7.5J, 15J, 25J, 50J
	ASTM D6110	2.7J, 5.4J, 10.8J, 21.6J
Charpy for plastic pipe	ISO 9854.1	15J, 50J
	ISO 179, GB/T1843, GB/T1844	2.75J, 5.5J, 11J, 22J

MORE INFO

Impact Specimen Cooling and Heating Temperature Chamber

Standards

ASTM E23
ISO148

Description

GenChamber is a versitile high and low temperature chamber used for cooling and heating preparation of Charpy impact test specimens. The low-temperature function of the instrument adopts a high quality compressor and uses the principle of thermal balance and circulating stirring method to achieve automatic cooling and constant temperature of the impact notch sample. The refrigeration system has multiple protection systems for overheating and over currents.

Specifications

Model	GenChamber
Range of control temperature	Low temperature +30°C - -60°C (room temperature ≤25°C) High temperature +30°C- 100°C(room temperature ≤25°C)
Precision of Temperature control	Low temperature: ≤±0.5°C High temperature: <±1°C
Cooling speed	+30°C - 0°C, about 2.5°C/min 0°C - -20°C, about 2°C/min -20°C - -40°C, about 1.5°C/min -40°C - -60°C, about 1°C/min -60°C - -80°C, about 1°C/min
Heating speed	20°C-50°C, about 2°C/min 50°C - 100°C, about 3°C/min
Work area (LxWxH)	**Low Temperature:** 5.9x5.5x4.7" 150x140x120mm **High temperature:** 5.9x5.5x4.7" 150x140x120mm
Capacity of put into specimen	60 - 120 pcs (Impact specimen: 10x10x55mm)
Outer dimension of chamber	25.6x20.0x29.90" 650x510x760mm (LxWxH)
Timer	1 - 99 min, resolution 1s
Cooling medium	Cooling part: ethyl alcohol Heating part: air
Stirring motor	8W
Working power	1-phase, 110V, 60Hz, 2.5kW

MORE INFO

NextGen Environmental Chambers
NG-EC 100,150,225,408,1000

Standards

ASTM A 194
ASTM C 157
ASTM C 367
ASTM D 1151
ASTM D 1183

Description

The temperature and humidity NextGen Environmental Chambers feature a sturdy cabinet made of cold-rolled steel and stainless steel, with an insulation layer to prevent frost and dew. The cabinet includes independent temperature control, circulating air ducts, heaters, and cooling systems. It also has a manual, single-opening door with a constant temperature heating belt and a viewing window with moisture-proof lighting fixtures. The chamber uses mechanical compression refrigeration and high-quality refrigeration accessories. It has a 7" TFT colour touch screen controller with an extensive program capacity and various protection features. The equipment provides two stainless steel sample racks with adjustable spacing and a maximum load of 100kg.

Specifications

Item	NG-EC100	NG-EC150	NG-EC225	NG-EC408	NG-EC1000
Internal Dimensions (W x H x D)	20" x 20" x 16"	20" x 24" x 20"	24" x 30" x 20"	31.5" x 33.5" x 24"	39" x 39" x 39"
External Dimensions (W x H x D)	25" x 68" x 52"	28" x 72" x 56"	35.5" x 75" x 60"	42.5" x 82" x 65"	51" x 91" x 81"
Temperature Range	-40°C to +150°C				
Temperature Fluctuations	≤±0.5°C (w/o anything in chamber)				
Temperature Uniformity	≤4°C (w/o anything in chamber)				
Temperature Deviation	≤±2°C (w/o anything in chamber)				
Heating Rate	+25°C to +150°C ≥40min (without load)				
Cooling Rate	+25°C to -70°C ≥80min (without load)				
Power Requirements	1 phase, AC220V, 50/60Hz, Approx. 4.5kW	1 phase, AC220V, 50/60Hz, Approx. 5kW	3 phase, AC380V, 50/60Hz, Approx. 9kW	3 phase, AC380V, 50/60Hz, Approx. 9.5kW	3 phase, AC380V, 50/60Hz, Approx. 14kW

MORE INFO

DWT-1800 Computer Controlled Drop Weight Impact Testing Machine

Standards

UL 651
UL1
UL360
UL1660
UL797
UL6
UL1242

Specifications

Specifications	Values
Impact Hammer - Heavy Hammers	180kg, 272kg (600lb)
Impact Hammer - Light Hammers	9.1kg, 34kg, 1.36kg, 4.54kg, 22.7kg, 2.72kg
UL Standard Impact Hammers	**Right Cylindrical (Flat Face)** Diameter = 1" Diameter = 1-1/8" Diameter = 2", Diameter = 6" **Rectangular** ¾" x 6" (Width is 3/8") (Polyurethane) 2" x 6" 3" x 6"
Sample Seat	According to Customers Requirements following UL Standards 

Description

The drop weight impact testing machine is an essential tool for testing the impact resistance of both metal and non-metal materials. This machine is specifically designed for determining the non-plastic transformation temperature of ferritic steel, which includes plates, profiles, cast steel, and forged steel. With computer control, this machine has exceptional reliability, versatility, adaptability, and strong expansibility, making it an excellent investment for those who need to perform these types of tests regularly.

MORE INFO

Akron Abrasion Tester

Specifications

Type	GenKron-A	GenKron-B
Grinding Wheel	Granularity: 36	Granularity: 40
Rubber Wheel Speed	76±2 rpm	
Grinding Speed	34±1 rpm	
Angle of Inclination	0 - 35° adjustable	
Counter	LCD 0 - 999.999	
Load	26.7N ± 0.2N	1.81kg, 5.43 kg
Dimensions (W X D X H)	60 X 45 X 40cm	
Weight	60 kg	
Power	AC 110V / 50Hz 0.2 kW	

Description

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

Burst Strength Tester for Fabric

★★★★★

Standards

ISO 2759
ASTM D2210

Specifications

Type	GenBurst-AD	GenBurst-A
Sensor	Pressure Transducers	
Display Mode	LED	PLC Touch Screen Display
Load Resolution	1/20000	1/50000
Capacity	0-100kgf/cm^2	
Oil Pressure Speed	170±10ml/min	
Control Mode	Manual Clutch Control	Automatic measure and return
Print Function	n/a	Micro-printer
Dimensions (W X D X H)	45x55x52cm	55x50x55cm
Weight	60 kg	50 kg
Power	110V/60Hz or 220V/50Hz	

Description

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

MORE INFO

Dematttia Flex Cracking Tester

★★★★★

Standards

EN ISO 20344
ASTM D813
ASTM D430
ISO 132

Description

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.

Functionality

- Fix the specimen into the movable grips and observe your specimens for their resistance to cracking. The system is equipped with an intelligent testing failure system.

Specifications

Model	GenFlex-B1	GenFlex-B2
Specimen	154 x 25 ±1 x 6.3 ±0.15mm	108 ±0.5 x 70 ±0.5mm
Reciprocating Stroke	57mm	44mm
Maximum Distance Between Fixtures	75mm	57mm
Testing Speed	300 ±10cpm	340-400 ±10cpm
Counter	LCD - 0-999,999	
Dimensions (W X D X H)	35x60x75cm	
Weight	78kg	
Power	110V/60Hz or 220V/50Hz	

MORE INFO

Discoloration Meter

Standards

ASTM D1148-95

Specifications

Model #	NG-DISCO-A	NG-DISCO-B
Light Source	2pcs Germicidal UV Lamps	2pcs Germicidal UV Lamps
Control Display:	LED, 0-999999	LED, 0-999999
Inner Dimensions:	19.7x11.8x13.75" (50x30x35cm)	21.65x23.62x21.65" (500x600x500mm) (150L)
Outer Dimensions:	21.65x14.15x22.45" (55x36x57cm)	26.4x29x57" (670x740x1450mm)
Temperature	RT-200°C	RT-200°C
Weight	40lbs (18kg)	80lbs (36kg)
Power	220V/50HZ	220V/50HZ
Standard Accessories	Main Unit Sample Rack (1 set) Lamps (2 pcs)	Main Unit Sample Rack (1 set) Lamps (2 pcs)

Description

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

Standards

ASTM D2054

Specifications

Type	GenCrock-A	GenCrock-B
Capacity	2 sets	1 sets
Load	9°0, 2N	
Abrasion Stroke	104°3mm	
Friction Head Diameter	Ø16°0, 1mm	
Abrasion Speed	60cpm	
Counter	LCD 0 - 999,999	
Dimensions (W X D X H)	60x46x36cm	65x13x23cm
Weight	60kg	20kg

Description

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

Martindale Abrasion Tester

GenDale

★★★★★

Standards

IWSTM 112/196
ISO 12947-4
ISO 12947-3
ISO 12947-2
ISO 12947-1
ISO 12945-2
NEXT 16
SFS 4328
IWTO 40-88
IS 12673
SATRA TM31
DIN 53863/53865
BS 3424/5690
BS EN 388/530
ISO 5470-2
ASTM 4966/4970
ISO 20344

Description

GenDale is a certified Martindale Abrasion Testing system which 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 determined by the specific number of cycles conducted until a hole appears in the test area of the fabric specimen.

Specifications

Model #	**GenDale**
Certification	CE ISO SGS
Speed	50-2r / min Adjustable
Function	Fabric pilling test and fabric wear resistance test
Driver System	PLC Programmable Control with Large Touch-Screen
	Abrasion Test
Max. stroke of movement:	60.5+/-0.5mm
Weight of holder and spindle:	200+/-1g
	Pilling Test
Max stroke of movement:	24+/-0.5mm
Weight of holder and spindle:	155+/-1g
Dimensions (LxWxH)	34.85"x23.6x16.15" 88.5x60x41 cm
Power	AC220 1ph

MORE INFO

Mooney Viscosity Testing Machine

GenMooney

★★★★★

Standards

ASTM D1646
ISO 289
ISO 667
GB / T 1233

Features

- Integrated multiple functions: early vulcanization, Mooney viscosity and stress relaxation can be tested in the same machine.
- Accurate temperature measurement and control: strict inspection of temperature calibration process.
- Flexible and accurate torque measurement: includes pressure reduction gear box, high precision sensor and a data acquisition system.
- High data reproducibility and stable electrical properties of the complete machine

MORE INFO

Description

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.

Specifications

Technical Specifications

Temperature range	Room Temperature to 200°C
Temperature accuracy	±0.°C
Temperature display resolution	0.1 °C
Rotor frequency	2 ± 0.02rpm
Mooney viscosity range	0 to 200 Mooney
Torque unit	kg-em , lb-in, N-m Mooney
Test time	setting freely when modified in the middle
Control	By computer
Air pressure	65psi (4.6bar) Not including air compressor

MORE INFO

NBS Rubber Abrasion Tester

GenNBS

★★★★★

Standards

ASTM D1630

Specifications

Specimen	3 sets, 25.4 x 25.4 x 6.35 mm
Load	2265g, 3 sets
Counter	LCD 0 - 999.999
Rotation Speed	45&#plusmn;5 rpm
Suction	2kg/cm^2
Spare Parts	Standard Rubber (5pc) North American #40 Grit (1pc)
Dimension (W x D x H)	21.65 x 11.80 x 19.70-inches 55 x 30 x 50 cm
Weight	154 lbs / 70 kg
Power	110V/60Hz or 220V/50Hz

Description

GenNBS is NextGen's NBS Abrasion Tester used to test the abrasion resistance of vulcanized rubber or other rubber compounds. It is commonly used for the soles and heels of footwear. It has an intelligent power failure recovery system. The unit conducts measurements through volumetric loss of specimens exposed to the action of a normalized abrasive medium secured to a rotations cylinder.

MORE INFO

Oscillating / Automatic Disc Rheometer (ODR)

Standards

ASTM D2084
ASTM D5289
ISO 6502

Functionality

- Database functionality can store your curves, drawings and results for printing at any time.
- Allows you to export your testing results in Excel format.
- It has multiple analysis functions like statistics, deviation setting, standard curve setting, and CPK statistical calculations
- Interface allows for local zoom and curve comparison

MORE INFO

Specifications

Temperature Range	Room Temperature to 22°C – 200°C
Temperature Accuracy	Within ±0.3°C
Temperature Display Resolution	0.01°C
Oscillation Frequency	1.6Hz, (100r/min)
Heating Rate	120 °C / min
Torque Range	0 - 20nm
Minimum Torque Reading	0.001nm
# of Swing Angles	± 0.5°C ± 1°C ± 2°C (standard matching angle 1 degree)
Swing Angle	100r / min (1.66hz)
Control	Computer Controlled

MORE INFO

Description

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.

Wyzenbeek Abrasion Tester

GenWyze

Standards

ASTM D4157
ASTM D3597
ISO12402-7
SAE J1948
LP-463KB-06-01

Specifications

Number of Test Chambers	4 Groups
Abrasion Stroke	76±2mm
Abrasion Table	Cambered Surface: Ø10cm, Length: 40cm
Friction Head	Bollom Rubber Pressure Head: 5 X 5cm Cambered Surface: Ø10cm
Sample Load	13.4N adjustable
Adjustment Load Weight	330lbs (150g)
Sample Tensile	17.8N adjustable
Adjustable Tensile Load Weight	340g
Sample Size	7.3 x 24.5cm
Dimensions (W x D x H)	22.45 x 23.22 x 28.34 " (57 x 59 x 72cm)
Weight	265lbs (125kg)
Power	110V/60Hz or 220V/50Hz
Standard Accessories	Main System, Rubber Blocks x4, Metal Nets x2, #10 Friction Cloth x5 and Operational Manual

Description

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.

MORE INFO

Vertical Rebound Resilience Tester

GenRebound

★★★★★

Standards

ASTM D2632
ASTM D 3574
ISO 8307

Digital Ball Rebound Resilience Tester Features

- Plug-n-Play System
- Extremely Easy to Learn to Operate
- Short Measuring Cycle
- USB Port

MORE INFO

Specifications

Drop Distance of Steel ball	ISO 8307 ASTM D357: 500mm GB/T6670: 460+0.5%mm
Diameter of steel ball	Φ16-0.1mm
Steel ball quality	16.7g
Accuracy of rebound rate of falling ball	<1.5%
Sample Size	100mm×100mm×50mm
Power Supply	1∮, AC220V/50HZ

Description

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 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

Moisture Determination Balance

GenMoist

★★★★★

Description

GenMoist is designed to automatically and simultaneously dry and weight a solid sample for the determination of moisture content. The machine provides a continuous direct readout for both the weight and the percentage moisture loss through the entire cycle. It has a build-in timer.

Operation Instructions

- Turn on the balance and the heater
- Wait until the heater's internal temperature reaches 50°C
- Allow for a 30 minute warm up period
- Calibrate the balance using the weight enclosed in the package following the instructions below
- Ensure that heavy weighs do not fall on the plate of the balance so as to avoid damage to the balance itself

Specifications

GenMoist	
Capacity/Resolution	160 g x 0.001 g
Timer	0-99 min with 1 minute Interval
Dimensions	194 x 340 x 235 mm
Weight Approx.	11.5 kg
Weight Range	160 g
Readability	0.001 g
Tare Range	160 g
Linearly Deviation	<±0.001 g
Stabilization Time (typical)	3 sec
Ambient Temperature Range	10 + 40°Ccm
Calibration Weight	100 g
Line Voltage	115V-60Hz or 230V-50Hz

MORE INFO

MULTISPEED digital automatic universal tester for displacement controlled tests

Standards

EN 12697-34
ASTM D1559
ASTM D5581
AASHTO T245
EN 12697-12
EN 12697-23
AASHTO T193
ASTM D6927

Main Features

- Closed loop speed control
- CBR and MARSHALL test speed can be selected by default.
- Other testing speeds (Custom) between 0.2 and 51 mm/min, can be easily set.
- Selection of maximum platen displacement.
- The automatic stop of the machine avoids machine and specimen overloading, thus assuring operator safety.

MORE INFO

Description

The new MULTISPEED tester is the ideal solution for Road testing laboratory. The 50 kN capacity and the fully variable test speed of 0.2 to 51 mm/min make it possible to perform not only the CBR and Marshall tests, but many other applications as for instance Indirect Tensile test, Quick Triaxial tests, Unconfined and Uniaxial soil testing and, in general, all test to be performed under displacement control. The machine can be equipped with analogical or digital load/ displacement measurement systems as well as with the specific accessories, to suit either the field or central laboratory requirement.

Specifications

NG-Multispeed	
Maximum Capacity	50 kN
Test Speed	Infinitely variable: 0.2 to 51 mm/min
Power	DC motor 750 W
Horizontal Clearance	270 mm between columns
Maximum Vertical Daylight	730 mm without accessories
Platen Travel	100 mm

MORE INFO

Automatic Shore, IRHD and VLRH Hardness Testing System

Standards

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

Features and Benefits

- Programmable measuring time, 1-99 sec
- Accuracy: 0.1 (1/10 of shore value)
- Compliance with ASTM D2240
- Electronic unit provides clear display of measured value, navigation menu and Data Output.
- Easy to use with limited operator influence to guarantee accurate and repeatable hardness test results every time.
- Reading in the display gives assistance for the correct selection of the measuring device during your measurement when the measured value is above or below the limit value.
- USB-interface for data transfer.
- Modular, digital hardness testing system.
- Interchangeable measuring units offering industry leading flexibility of testing to be performed on a single system.
- Automatic identification of the measuring range and of the measuring time.
- Integrable in an automatic production process.
- Hysteresis function.

Description

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.

MORE INFO

Advanced Portable Shore Durometer System with Test Stand Options

Standards

DIN ISO 7619
DIN EN ISO 868
NF EN ISO 868
ASTM D 2240
SRIS 0101

Features

- Temperature/humidity
- Sample Temperature
- Date and Time
- Lithium Battery
- Display with backlight
- Auto-Power-Off
- Contact pressure acc. standards
- Peak Value
- USB Interface

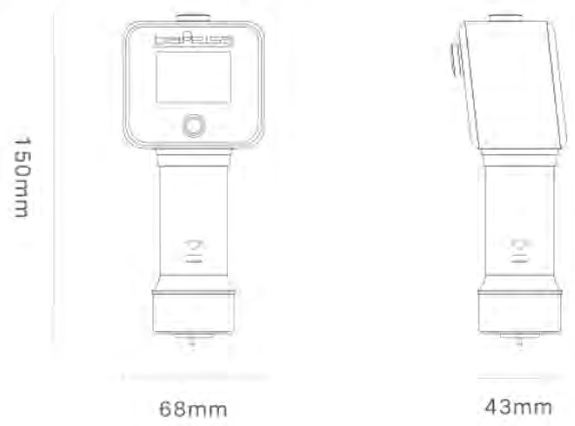
MORE INFO

Description

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. Equipped with aluminum casing alloy offers the end user the optimal combination of robust structure and light weight. The display will indicate the hardness value, the temperature as well as the humidity values. The system has an intuitive user Interface.

Specifications

Size And Weight



Height : 150mm
Width : 68mm
Depth : 43mm
Weight : 320g

MORE INFO

Pusey & Jones Tester

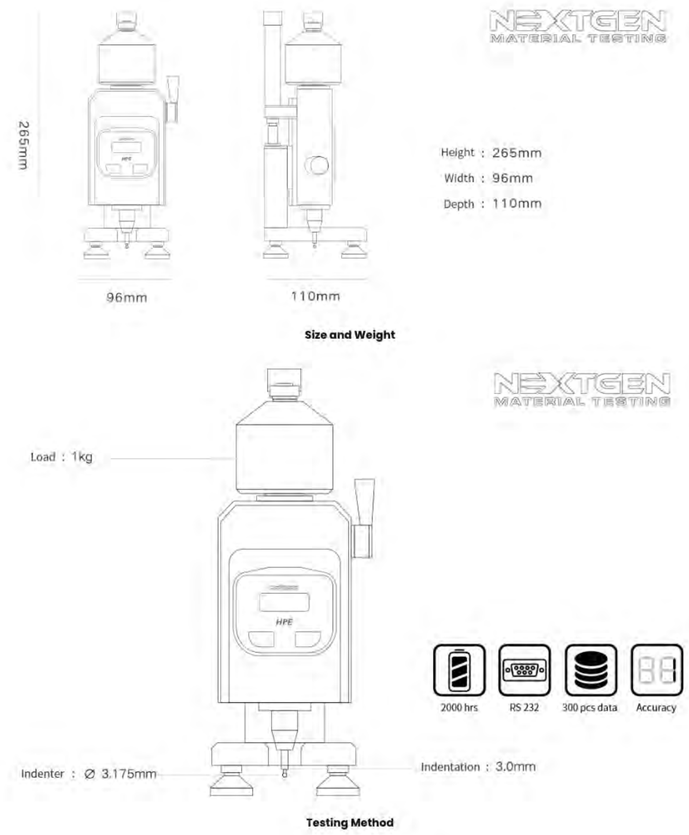
Standards

ISO 7267-3
ASTM D 531

Features

- Built-In Timer for Precise and Repeatable Measurement
- 1kg load weight
- RS232 Output for Connection to Optional HardTest Software

Specifications



Description

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

Pendulum Rebound Resilience Tester

Standards

DIN 53512
ASTM D 1054
ISO 4662

Description

NextGen's Pendulum Rebound Resilience Tester series offer both manual and fully-automatic options with digital display terminal. 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.

Features

- Determination of the dynamic behaviour of different materials
- Differentiation of different material qualities
- Extremely low-maintenance - Fully automatic sequence with geared motor as sole actuator.
- Identification of material changes after dynamic fatigue tests and after aging
- Quality assurance during the production process and at the finished product
- Wear-free mechanism - ideal for continuous operation.
- Frictionless pendulum encoder

MORE INFO

Specifications

Model #	Pendulum Rebound Resilience Tester
Power Supply: Input:	100 – 240 VAC ; 50 / 60 hz 1P
Resolution:	0.1 %
Measuring Ranges:	Rubber resilience
Data Output:	V24 RS 232 – 9600 baud, 1 start bit, 8 data bits, 1 stop bit
Length of Pendulum:	200 mm
Angle of Incidence:	90°
Impact Velocity:	2 m/s

MORE INFO

Ball Rebound Tester

Standards

DIN EN ISO 8307
ASTM D 3574

Features

- Plug-n-Play System
- Extremely Easy to Learn to Operate
- Short Measuring Cycle
- USB Port
- Test cycle, measured values, median value in %, status and operating instructions output to 4-line LCD
- No Calibration Requirements

Description

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.

Specifications

Model #	Ball Rebound Tester
Steel Ball	16.3±0.2g
Ball Diameter	16±0.2
Sample Size	100mm×100mm, height 50mm
Standards	DIN EN ISO 8307 and ASTM D3574
Power Supply	100 – 240 VAC; 50 / 60 Hz
IP Code	Electronic Unit IP 30 Down Pipe IP 20
Data Output	V24 RS 232 – 9600 baud, 1 start bit, 8 data bits, 1 stop bit
Dimensions	Test Stand: 7.87 x 9.84 x 23.6" 200 x 250 x 600 mm Electronic Unit: 7.87 x 6.73 x 3.54" 200 x 171 x 90 mm

MORE INFO

Automatic Capsule and Soft Gel Hardness Tester

Features

- The Softgel capsule hardness tester is a non-destructive solution providing the ultimate value of preserving inventory
- The Gelatine hardness tester is highly reproductible and built for the highest standard accuracy German-manufactured equipment has to offer
- The digital display unit offers clear convenient display and functionality including measuring range and measuring time function.
- Auto correction function built into the digital display for when measured values are above or below the limit value.

MORE INFO

Specifications

Model #	NG-Gelomat
Test Method	Newton
Measuring Ranges	0-20 n / 0-2 n
Power Supply	100 - 240 VAC; 50 / 60 Hz
Fuse	2 pieces of fuse 3.15 a (3.15 at)
Power Consumption	max. 20 VA
IP Code	IP 30
Reading Output	LCD-graphic display (240x128 pixel) with brightness selectable led illumination
Resolution	0.1

MORE INFO

Description

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.

Fruit Firmness Tester

Description

This German manufactured fruit firmness penetrometer 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. This fruit texture analyzer helps identify the harvest date of the specific fruits relative to the time of transpirations and storage. One of the most valuable features of the ideal replacement for fruit penetrometer system is that it offers a rare non-destructive testing solution for your fruits and vegetables which can save thousands of dollars in inventory. Please visit our blog page to learn more about the importance of a reliable Fruit Firmness Tester in the Food Industry.

Features

- German manufactured
- Ergonomic and portable design
- Interchangeable anvils designed to test fruits, vegetables, meat, and fish
- The optimal solution to replace a vegetable penetrometer
- The system comes standard with 1 anvil with additionally anvils which can be purchased at a later time.

Specifications

Indenter Size	Fruit or Vegetable
zyl 0,1 cm^2 (Ø 3,65 mm)	for peaches, apricots and plums
zyl 0,25 cm^2 (Ø 5,63 mm)	for cherries, melons, tomatoes, blueberries, grapes, eggplant
zyl 0,50 cm^2 (Ø 7,98 mm)	or strawberries, water melons, broccoli, meat, tofu
Ø 5,0 mm	ball for avocados, papayas, apples, mangoes, cucumber, pepper,pears, oranges and citrus fruits, onions (soft)
Ø 2,5 mm	ball for kohlrabi, carrots, cucumber, radish, courgette, onion (firm)
radius 6,35 mm	for boiled potatoes, bananas, smoked fish, boiled beetroot

MORE INFO

Digital Densimeter Systems

★★★★★

Standards

ASTM D792
ISO 2781
ISO 1183
GB/T1033
GB/T2951
JIS K6268
GB/T208
GB/T5163
GB/T 1933

Description

The NG-DM-A Series offers high-accuracy digital Densimeters designed for a wide variety of material testing needs. These elegant and compact densimeter systems offer capacity ranges from 150g to 3000g with accuracy of 0.001g/cm3 down to 0.0002g/cm3.

Digital Densimeter System Features & Functions

- Density precision: 0.001 OR 0.0001g/cm3
- Value Displays: Apparent density, volume, mixture ratio, density and volume change rate
- Power Supply: AC 100V-240V 50HZ/60HZ North American and European standards
- PC and printer connection via RS-232 port. This allows to print measuring data.
- High accuracy, simple operation, and fast results meet laboratory operation standard and quick cycle testing requirement for all types of testing facilities
- Function of 10 group data storage for density value and DIN volume abrasion loss.
- In accordance with DIN 53516 standard. Offers the function of calculating average value for multigroup data.

MORE INFO

Specifications

Model	NG-DM-A300	NG-DM-A600	NG-DM-A1200	NG-DM-A3000	NG-DM-A150
The maximum weight(g)	300g	600g	1200g	3000g	150g
Density precision(g/cm³)	0.001g/cm³				0.0002g/cm³
Repeatability accuracy	±0.001g/cm³				±0.0003g/cm³

MORE INFO

Ross Flex Tester

★★★★★

Standards

ASTM D1052
ISO 5423
SATRA TM60

Specifications

Model	NG-ROSS
# Grips	12 Chamber Systems Capable of Testing 12 Specimens at the Same Time
Bending Angle	90 +/- 20
Bending Speed	100±3 CPM
Dimensions (WxDxH)	19.7x24x21.6" (500 x 610 x 550 mm)
Net Weight	231 lbs / 105 kgs
Power Supply	110V/60Hz/1Ph
Vacuum Pressure	65mmm-Hg

Description

Ross Flex Tester is designed to determine the resistance of vulcanized or synthetic elastomers to cut growth. The system does so under continuously bend flexing in 90°. This digital system has a memory function and is suitable for PU, PVC and TPR foams. It is particularly used for shoe soles because it is capable of testing virtually any flexible sheet-like material. After continuous bending, the damage and cracking degree is examined. The machine clamps the end of the test specimen to the holder arm while the pierced end is placed between two rollers that must permit a free bending movement of the test specimen during the test.

MORE INFO

Surface Roughness Testers

★★★★★

Description

The surfaces roughness tester is a small handheld instrument, for shop floor use and mobile measure, it operation simple, function overall, measure fast, accuracy stability, take convenience. This tester applies to production site and can be used to measure surface roughness of various machinery-processed parts. This tester is capable of evaluating surface textures with a variety of parameters according to various international standard. The measurement results are displayed digital/graphically on the color graphic LCD display, and output to the printer.

Digital Densimeter System Features & Functions

- Portable & economical
- Large measuring range suitable for surface roughness testing of metal and non-metallic materials
- Robust and durable design with anti-electromagnetic interference ability
- High-speed DSP processor for maximum speed of data processing and calculation
- LCD with wide temperature ranges using OLED color display, high brightness and no visual angle interference, making the system suitable for various occasions.

MORE INFO

Specifications

NG-SR400T			
Measuring rang	The Z axis (vertical)	320μm (-160μm-160μm), 12600μin (-6300μin-+6300μin)	
	The X axis (Transverse)	17.5mm (0.69 inch)	
Resolution	the Z axis (vertical)	0.002μm/±20μm	0.004μm/±40μm
		0.008μm/±80μm	0.02μm/±160μm
Display	Parameter	Ra Rz, Rq Rt, Rc Rp Rv R3z R3y Rz(JIS) Ry Rs Rsk Rku Rmax Rsm Rmr RPc Rk Rpk Rvk Mr1 Mr2	
	Assessed Graphic	Rmr curve, Roughness curve, Primary Profile, Filter waveform	

MORE INFO

Classic Analogue Shore Durometer with Test Stand Options

Standards

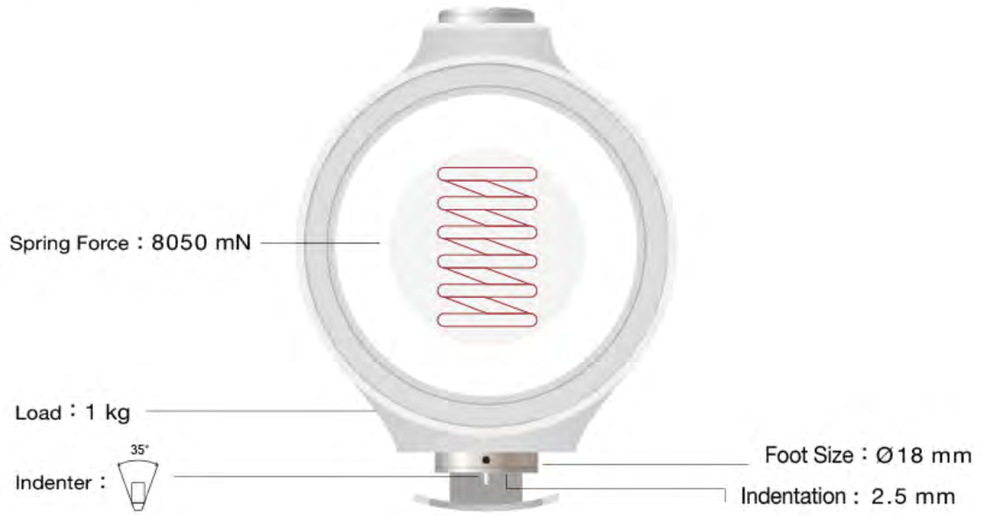
DIN ISO 7619
DIN EN ISO 868
ASTM D 2240
BS 903 Part. A 26
NF T 51-174

Features

- Excellent solution for automotive industry, rubber and plastic industry, defense and aerospace industry, and more
- Over 500,000 systems sold worldwide

Specifications

A	D	0	B	C	D0	A0	E	00	000	000S



Description

This Germany manufactured system has been the global landmark of Shore hardness testing systems since 1954. With ever enhanced ergonomic design, the HP Shore Hardness Tester is both visually appealing and precise rubber and plastic testing system as it has been for nearly 50 years. The HP system is world renowned best seller hardness tester with over 100,000 units sold to satisfied clients globally. It is considered the worlds highest and most used portable shore hardness tester.

MORE INFO

RPA Ultra

Advanced Rubber Process Analyzer Rheometer

Standards

ASTM D5289
ISO 6502

Features

- High grade sheet material solid construction
- Film cartridge for test cavity continuous feeding
- No more strain cap with a rotatable lower die
- Easy mobility using retractable casters

MORE INFO

Specifications

RPA Ultra – Advanced Rubber Process Analyzer Rheometer	
Max. shear rate in rotation	500 1/s
Max. shear rate in oscillation	100 1/s
Max. ramp rat	1.33°C/s-> 80°C/m
Max. cool rat	0.5°C/
Die config	Sealed die, biconical and plate-plate
Drive system	High dynamic torque motor, High resolution controller
Oscillation frequency	0.001 to 100 Hz
Oscillation strain	+/- 0.001° to unlimited, ,+/- 0.014% to unlimited -> rotational

Description

The RPA Ultra is a closed cavity moving die rheometer that offers unconstrained oscillation strain and a frequency breakthrough of up to 100 Hz thanks to a rotating lower die. The advanced RPA device measures the dynamic and static characteristics of raw rubber compounds and elastomers throughout the curing process. Another technological advance is the increased shear rate range, which now spans 0.001 to 500 1/s. A high shear rate might be used to imitate the extrusion process in a genuine production setting.

MORE INFO

HDA 120

Hardness and Density Automation Test System

★★★★★

Standards

DIN ISO 48
ISO 2781
ISO 1183

Features

- Consists of a built-in rotating table that provides great process stability during measurements and can handle up to 20 samples at a time.
- User-friendly and can be operated via touchscreen and has a pneumatic gripping system for density determinations along with a force ejection mechanism making it a more competitive device in the market.
- Hardness testing optionally with IRHD N (DIN ISO 48-2) or Shore A (DIN ISO 48-4)
- Density measurement acording to ISO 2781, DIN EN ISO 1183-1, ASTM D1817
- ISO/IEC 17025 certified

Description

The HDA 120 test system is a versatile solution for semi-automatic detection of sample hardness and density. The HDA 120 can be fully integrated into existing laboratory systems and processes using a data interface, allowing for the exchange of sample-specific information such as batch, compound, operator, and production date before a series of measurements is started. Ethernet interface in a defined protocol is available to then transmit this data and store it in the PLC.

Specifications

HDA 120 - Hardness and Density Automation Test System	
W x L x H	1625 x 825 x 1065mm
Weight	ca. 175kg
Impress Protection	IP 21
Power Supply	100-240VAC; 50/60Hz; 10A
Air Pressure	4-6bar
Operating Temperature	23±2°C
Specimen Geometry	Ø 35-38 mm, d=6 ± 0,5 mm / Ø 39-42mm, d=6 ± 0,5mm

MORE INFO

digiChamber

Temperature Controlled Hardness Testing

Standards

DIN ISO 48,
ASTM D 2240

Features

- Large display: DigiChamber has a 7" display and a touch screen panel that supports many languages.
- User Friendly: DigiChamber - Advanced Environmental Chamber Rubber-Hardness Tester has a user-friendly interface that minimizes the training time.
- Consists of an air-cooled refrigeration unit with SIMPAC's continuously variable power adjustment and a chloride-free refrigeration cycle.
- A spacious 200-liter test volume with polished stainless-steel walls for a test load of up to 125 kgs.

MORE INFO

Description

Designed and developed by Bareiss, digiChamber is the most advanced environmental chamber rubber-hardness tester in the market. This automatic testing device has been designed to analyze the hardness of rubber under extreme conditions using Shore hardness A or IRHD N testing methods. The device plays a critical role in the automotive and tire industries, where rubber parts need to withstand harsh temperature variations.

Specifications

Shore A Hardness System	
Standards	DIN ISO 48-4, ASTM D 2240
Spring force	8050 mN
Force on the presser foot	1kg
Presser foot size	Ø 18mm
Indenter	35°
Penetration	2.5 mm

MORE INFO

Linear Taber Abrasion Tester

Standards

ASTM D6279
ASTM F1319
ISO 105-X12

Description

Linear abrasion meters are used to evaluate the abrasion resistance, scratch resistance (single or multiple scratches), and color transmission (usually resistance to rubbing, decolorization, or rubbing fastness) of products. Both dry and wet abrasion tests can be conducted.

Linear Taber Abrasion Tester Application

It can test samples of any size or shape, and is ideal for abrasion testing of products with contoured and polished surface characteristics (such as a computer mouse and other computer or IT products for plastic finish wear resistance testing). It is commonly used in plastics, automotive accessories, rubber, leather and textile, electroplating, removable components, paints, printing patterns, and other products.

MORE INFO

Specifications

Model	GenTaber Linear
Movement Speed	2-60rpm
Dimensions	26 x 28 x 32 cm 10.25" x 11" x 12.625"
Power Supply	120V 60Hz 1Ph
Function	Linear Taber Abrasion Laboratory Testing
Features	User Friendly Touch Panel

MORE INFO

High Energy Elemendorf

★★★★★

Standards

ASTM D1424
DIN 53862
ISO 9290
EN ISO 13937-1
ISO 4674-2
M&S P29
NEXT 17
GB/T 3917.1

Features

- Advanced calculation method (potential energy calculation) to ensure accurate testing and repeatability.
- Micro control system, Automatic testing, Result calculations, Analysis of results, Printing of test reports and Uploading test data to your computer
- User friendly touch screen control panel allowing operators to conveniently and quickly operate the tester
- All data and statistical results can be checked in the machine itself or reviewed in the test report after transferring data

MORE INFO

Description

The NG-HE Elemendorf is used to measure the tearing strength of paper, plastic, cloth, film, electrical tape, metal foil and a variety of other materials.

Specifications

Parameter	Technical Data
Range	0-16N, 32N, 64N, 128N
Measurement Accuracy	≤±0.2%FS
Unit of Measurement	N, cN, gf, lbf
Clamping Method	pneumatic

MORE INFO

Advanced Motorized Multi-Specimen Notching and Broaching Machine for Impact Testing on Plastic Specimens GenNotch 3000

Standards

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

GenNotch 3000 Main Technical Specifications

- Workbench stroke: >90mm
- Knife working speed: 0-90mm/min
- Sample size: 15x0.39x0.16-inch / 80mmx10mmx4mm (customizable)
- Knife notch type: A type (optional types available)
- Feeding speed: 0-2.5mm
- Feeding stroke: 0.39-inches / 10mm

MORE INFO

Description

The GenNotch 3000 machine is designed for creating notches in plastic specimens for Charpy impact testing. It has a capacity to hold 20 samples simultaneously and can process 60 samples within a 10-minute timeframe. With its high processing accuracy, it significantly enhances work efficiency. Moreover, it adheres to ISO179 and ISO180 standards. The knife used in the machine is made of imported steel alloy, ensuring a hardness greater than HRC60 and providing a long lifespan.

Specifications

GenNotch 3000 Series	
Solid wrench (12-14)	1 piece
Hex wrench (5mm)	1 piece
Power line	1 piece
Length block (L120)	1 piece
Length block (L80)	1 piece

MORE INFO

Advanced Test Pilot Data Acquisition Software

Description

TestPilot is designed to enhance your ability to perform accurate and repeatable mechanical testing of materials, components and finished goods across a full spectrum of applications. It provides the simplicity and ease-of-operation needed for quick and efficient quality assurance and quality control testing, the flexibility to adapt readily to changing requirements, and the sophistication to address unique or complex demands. The software's intuitive operator interface, powerful analysis and reporting, and growing host of test methods make it an excellent foundation for establishing and sustaining a truly global standardized testing methodology.

Features

- Versatile, easy-to-use TestPilot software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more)
- Modular design permits easy upgrading
- Multiple graphs on the same screen & report to observe multiple events at the same time: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others.
- Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, Kgf, lbf, Mpa, and so on, user can define the unit by themselves using formula.
- Customizable report format with full flexibility of adding & removing items in terms of layout, content, graphing to suite the exact test requirement, like company information, statistics, and etc. Test report can export to Excel or Word.

MORE INFO

RUBBER TESTING EQUIPMENT

NEXTGEN MATERIAL TESTING

2023

INTERNATIONAL TOLL FREE NUMBER

1(888)332-3582

WWW.NEXTGENTEST.COM

Class A – Single Column Bench Top Units

50N-5kN – Universal Tensile Testing Machine

Description

The EML class A Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. The single column Class A testing systems are suited for tension, compression, flexure, and other testing applications where load range requirements are less than 5 kN and lab space is limited. They are typically used for quality control and production testing.

Features

- Complete selection of sturdy, compact single column load frame configurations
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Specifications

NG-EML Class A	
Model	EML102, EML103, EML202, EML203, EML501, EML502 ,EML503
Class	Class A, single column
Capacity	50N, 100N, 200N, 500N,1kN, 2kN, 5kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.2% – 100%FS/ 0.4% – 100%FS
Force accuracy	±1% / 0.5%of reading
Force resolution	1/500,000FS
Position accuracy	0.5%of reading

MORE INFO

★★★★★

Class B – Dual Column Bench Top Units

1kN-10kN – Universal Tensile Testing Machine

Description

The EML class B Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. 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. They are typically used for quality control and production testing in the plastics and rubber industries.

Features

- Complete selection of sturdy, compact dual column load frame
- High-speed, low-vibration electromechanical drive
- Precision, pre-loaded ball screws
- Linear motion guides for superior alignment
- Versatile, easy-to-use software with pre-programmed industry standards library (ASTM, ISO, DIN, EN, BS, and more)
- High-resolution, digital closed loop controls (integrated into load frame)

MORE INFO

Specifications

NG-EML Class B	
Model	EML101,EML201,EML501,EML102,EML202,EML502,EML103,EML203,EML503,EML104
Class	Class B, dual column, table-top
Capacity	10N,20N,50N,100N,200N,500N,1kN,2kN,5kN,10kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.2% – 100%FS / 0.4 – 100%FS
Force accuracy	±1.0% / ±0.5% of reading
Force resolution	1/500,000FS
Position accuracy	±0.50% of reading
Position resolution	0.027µm

MORE INFO

DIN Abrasion Tester

★★★★★

Standards

ASTM D5963
EN ISO 20344
ISO 4649
DIN 53516
SATRA METHOD 174

Description

GenDin is designed to conform to the ASTM, EN, IS0 and DIN 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.

Certified DIN Abrasion Tester Supplier

The method conforming to ASTM D5963 / ISO 4649 has proven to be the best way of simulating long term wear. This method enables comparative tests for the control of the uniformity of a specific material. The achieved test results provide important parameters with respect to the wear of elastomers in practical use. The abrasion resistance is measured by moving a test piece across the surface of an abrasive sheet mounted to a revolving drum, and is expressed as volume loss in cubic millimeters or abrasion resistance index in a percentage. Learn more about the significance of DIN Abrasion Testing.

MORE INFO

Specifications

Model	GenDIN
Load	2.5±0.1N; 5±0.1N; 10.0±0.2N
Specimen Size	Diameter 16mm, thickness 6-16mm
Rotating Drum Diameter	150mm
Rotating Drum Speed	40 ±1RPM
Emery Cloth Specification	60 #, 425 ±473 ±1.5 (mm)
Testing Length	40M (about 84 rotations)
Horizontal Displacement	4.2mm / rotation
Test-Arm Weight	250 ± 5 (g)

MORE INFO

Freezing Tester
GenFreeze

★★★★★

Description

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.

Specifications

Type	GenFreeze-H	GenFreeze-V
Material	Stainless Steel 304	
Controller	PID Control	
Temp range	(I),RT--300C (II),RT--500C	
Inner box action	Finished shoe bending resistance, sole flexing, leather flexing, vamp flexing fixture (or custom-made)	
Safety Devices	Thermal, overheat, overload protection	
Temp Accuracy	+OSC	
Temp uniformity	± I c	
Cooling Speed	RT--30'C within 60min	
Refrigerant	R404 with environmental protection	
Compressor	France tellcan	
Compressor start Delay time	8 min	
Insulation materials	rigid polyurethane foam/glass wool	
Counter	LCD, 0 - 999.999 Intelligent power failure recovery	
Viewing Window	2 - 10x35x270 mm, 2 - layer vacuum glass	
Inner lamp	PI Lamp 5W	
Motor	No belt with gear reducer motor	
Interior Dimensions	60x60x50 cm	60x60x55 cm

MORE INFO

Salt Spray Tester
GenSalt

★★★★★

Standards

ISO 9227
ASTM B117

Description

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.

Unique Features

- Robust impact resistant 5mm PVC plate capable of withstanding up to 85°C
- The inner and outer edges are 15mm thick reinforced PVC material to prevent deformation resulting from long-term high temperature exposure
- Saturated air tank adopts SUS#304 stainless steel high pressure for optimal insulation
- The sample placing anvil is made of 8mm temperature-resistant ABS plate developed for high weight support.
- The spray nozzle is made of special glass nozzle, which can adjust the amount of spray and the angle of spray

MORE INFO

Specifications

Laboratory Temperature	35°C±1°C (RT - 60°c)
Temperature of Saturated Air Cylinder	47°C±1°C (RT - 60°c)
Interior Dimensions	60x45x40 cm
Test Water	15 L
Dimensions (W x D x H)	115x72x108 cm
Weight	68 kg
Power	110V/60Hz or 220V/50Hz

MORE INFO

Taber Abrasion Tester

Standards

ASTM D1044
ASTM D3884
ASTM D4060
ASTM F1978
DIN 53754
DIN 53799
DIN 53109
DIN 52347
ISO-5470
ISO-7784-2
ISO 9352

Specifications

Specimen Size (Outer Diameter)	108mm ID:8mm ,3mm
Abrasion Wheel	2"(max.45mm), 1/2"(W)
Wheel Center Distance	63.5mm
Rotating Speed	60/72 rpm
Loads	250g, 500g, 1000g
Counter	LCD Touch screen, 0-999,999 Automatic shutdown
Wheel and Specimens disk center space	37-38mm
Machine Size (L*W*H)	530 x 320 x 310mm (Including vacuum cleaner)
Weight (kg)	18kg (Excluding vacuum cleaner)
Power	AC110V / AC220V/50Hz
Wear index calculation formula	Abrasion loss weight/test turnover number x1000

Description

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

Ultrasonic Contact Impedance Hardness Tester

UH200

★★★★★

Standards

ASTM-A1038-05
DIN 50159-1
JB/T 9377-2010

Description

The UH200 non-destructive ultrasonic hardness tester, relying on the principle of ultrasonic vibration sensor rod, can easily and swiftly detect the material hardness of several metals without any damage.

Features

The Ultrasonic Contact Impedance (UCI) tester is used for measuring the hardness value of small items, objects with a thin wall, complex forms, and to measure the hardness of surface hardened layers.
The built-in camera allows user to picture of testing object and mark tested area with corresponding hardness value.

MORE INFO

Specifications

Product Name	UH200 – Ultrasonic Hardness Tester
Model	UH200
Loading Force	5kgf manual probe (optional 1/2/10kgf manual probe) (optional motorized probe: 0.3/0.5/0.8/1kgf)
Measuring Range	**Main Line:** HB: 85-650; HV 10-2980 HV; HRC 20-70; HRB: 41-100; HRA: 61-85.6 HS: 34.2-97.3; Mpa: 255-2180N/mm **Economical Line:** HRC(10-80) HB (200-550) HV (200-999)
Hardness Scale	HV, HB, HRC, etc.
Measuring Accuracy	HV: ±3%HV; HRC: ±1.5HRC; HB: ±3%HB
Indenter	136° Vickers Diamond Indenter
Measuring Direction	Support 360°

MORE INFO

GenVac MP3 Series

Epoxy Mounting Vacuum Impregnation System for Metallographic Sample Preparation

Description

The upgraded intelligent vacuum impregnation system, GenVac MP3 allows to set up ninety-nine degassing circles. This epoxy system will is unique because it is exceptional at filling pores and cavities in the sample to enhance the edge retention. The 4.3 inch color touch panel and graphic display make the parameter setting more intuitively. With eight memory methods, multiple languages, unit conversion and the design of ninety-nine degassing circle, all of your vacuum impregnation needs will be met to the best of your satisfaction.

Spare Parts and Consumables

Parts and all consumables are readily available in stock and can be acquired directly from NextGen Material Testing by request. Also, we do not use proprietary parts, therefore additional parts can be sourced from local suppliers as needed many years down the road.

MORE INFO

Specifications

	GenVac MP3
Vacuum Pressure	-600 mm/Hg (-0.799 bar/-79.993 Kpa/-11.602 Psi)
Vacuum Pump Motor Power	180W
Pump Flow	50L/min
Vacuum Chamber Size (WxDxH)	30 x 30 x 30 (cm) 11.8 x 11.8 x 11.8 inches
Pressure Relief Method	Programmable Pressure Relief
Machine Dimension (WxDxH)	54 x 55 x 56 (cm) 21.25 x 21.65 x 22 inches
Weight	45kg 99 lbs
Power Supply	AC110V/220V-1Ø
Standard Accessories	High Flow Epoxy Resin, Vacuum Pump

MORE INFO

Metallography Consumables

Description

NextGen Material Testing offers a full range of consumables for all metallography and hardness testing applications. Our metallographic consumables can be used for our own NextGen line up of testing equipment along with various other brands on the market. From abrasive sectioning, precision saw blades, vices, mounting, grinding, polishing and hardness testing, NextGen has what you need for all applications. Contact our experienced quality control consultant today to discuss how we can provide a solution for you.

Full Scope of Metallography Consumables and Their Applications

Sectioning

From abrasive sectioning to precision cutting, we have it all! Check out our full catalogue including metallographic abrasive blades (both resin bonded and resin-rubber bonded), precision diamond wafering blades (and cubic boron nitride blades), and cutting fluid in various sizes and quantities.

Hot and Cold Mounting

A complete list of mounting consumables to suit all materials including compression mounting and castable mounting. Compression mounting resins are available in various colors and with a wide range of fillers to improve hardness or conductivity. Epoxy, acrylic Resins and polyesters are available for all castable mounting procedures in various sizes of powders and hardeners.

Grinding and Polishing

An extensive list of grinding papers, diamond disks, composite disks, lapping films, polishing pads and polishing abrasives to ensure the best finish for further metallographic analysis. Including a wide variety of diamond suspensions, pastes and lubricants to achieve your desired finish.

MORE INFO

Impact Specimen Cooling and Heating Temperature Chamber

Standards

ASTM E23
ISO148

Description

GenChamber is a versitile high and low temperature chamber used for cooling and heating preparation of Charpy impact test specimens. The low-temperature function of the instrument adopts a high quality compressor and uses the principle of thermal balance and circulating stirring method to achieve automatic cooling and constant temperature of the impact notch sample. The refrigeration system has multiple protection systems for overheating and over currents.

Specifications

Model	GenChamber
Range of control temperature	Low temperature +30°C - -60°C (room temperature ≤25°C) High temperature +30°C- 100°C(room temperature ≤25°C)
Precision of Temperature control	Low temperature: ≤±0.5°C High temperature: <±1°C
Cooling speed	+30°C - 0°C, about 2.5°C/min 0°C - -20°C, about 2°C/min -20°C - -40°C, about 1.5°C/min -40°C - -60°C, about 1°C/min -60°C - -80°C, about 1°C/min
Heating speed	20°C-50°C, about 2°C/min 50°C - 100°C, about 3°C/min
Work area (LxWxH)	**Low Temperature:** 5.9x5.5x4.7" 150x140x120mm **High temperature:** 5.9x5.5x4.7" 150x140x120mm
Capacity of put into specimen	60 - 120 pcs (Impact specimen: 10x10x55mm)
Outer dimension of chamber	25.6x20.0x29.90" 650x510x760mm (LxWxH)
Timer	1 - 99 min, resolution 1s
Cooling medium	Cooling part: ethyl alcohol Heating part: air
Stirring motor	8W
Working power	1-phase, 110V, 60Hz, 2.5kW

MORE INFO

NextGen Environmental Chambers
NG-EC 100,150,225,408,1000

Standards

ASTM A 194
ASTM C 157
ASTM C 367
ASTM D 1151
ASTM D 1183

Description

The temperature and humidity NextGen Environmental Chambers feature a sturdy cabinet made of cold-rolled steel and stainless steel, with an insulation layer to prevent frost and dew. The cabinet includes independent temperature control, circulating air ducts, heaters, and cooling systems. It also has a manual, single-opening door with a constant temperature heating belt and a viewing window with moisture-proof lighting fixtures. The chamber uses mechanical compression refrigeration and high-quality refrigeration accessories. It has a 7" TFT colour touch screen controller with an extensive program capacity and various protection features. The equipment provides two stainless steel sample racks with adjustable spacing and a maximum load of 100kg.

Specifications

Item	NG-EC100	NG-EC150	NG-EC225	NG-EC408	NG-EC1000
Internal Dimensions (W x H x D)	20" x 20" x 16"	20" x 24" x 20"	24" x 30" x 20"	31.5" x 33.5" x 24"	39" x 39" x 39"
External Dimensions (W x H x D)	25" x 68" x 52"	28" x 72" x 56"	35.5" x 75" x 60"	42.5" x 82" x 65"	51" x 91" x 81"
Temperature Range	-40°C to +150°C				
Temperature Fluctuations	≤±0.5°C (w/o anything in chamber)				
Temperature Uniformity	≤4°C (w/o anything in chamber)				
Temperature Deviation	≤±2°C (w/o anything in chamber)				
Heating Rate	+25°C to +150°C ≥40min (without load)				
Cooling Rate	+25°C to -70°C ≥80min (without load)				
Power Requirements	1 phase, AC220V, 50/60Hz, Approx. 4.5kW	1 phase, AC220V, 50/60Hz, Approx. 5kW	3 phase, AC380V, 50/60Hz, Approx. 9kW	3 phase, AC380V, 50/60Hz, Approx. 9.5kW	3 phase, AC380V, 50/60Hz, Approx. 14kW

MORE INFO

Akron Abrasion Tester

Specifications

Type	GenKron-A	GenKron-B
Grinding Wheel	Granularity: 36	Granularity: 40
Rubber Wheel Speed	76±2 rpm	
Grinding Speed	34±1 rpm	
Angle of Inclination	0 - 35° adjustable	
Counter	LCD 0 - 999.999	
Load	26.7N ± 0.2N	1.81kg, 5.43 kg
Dimensions (W X D X H)	60 X 45 X 40cm	
Weight	60 kg	
Power	AC 110V / 50Hz 0.2 kW	

Description

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

Burst Strength Tester for Fabric

★★★★★

Standards

ISO 2759
ASTM D2210

Specifications

Type	GenBurst-AD	GenBurst-A
Sensor	Pressure Transducers	
Display Mode	LED	PLC Touch Screen Display
Load Resolution	1/20000	1/50000
Capacity	0-100kgf/cm^2	
Oil Pressure Speed	170±10ml/min	
Control Mode	Manual Clutch Control	Automatic measure and return
Print Function	n/a	Micro-printer
Dimensions (W X D X H)	45x55x52cm	55x50x55cm
Weight	60 kg	50 kg
Power	110V/60Hz or 220V/50Hz	

Description

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

MORE INFO

Demattia Flex Cracking Tester

★★★★★

Standards

EN ISO 20344
ASTM D813
ASTM D430
ISO 132

Functionality

- Fix the specimen into the movable grips and observe your specimens for their resistance to cracking. The system is equipped with an intelligent testing failure system.

Specifications

Model	GenFlex-B1	GenFlex-B2
Specimen	154 x 25 ±1 x 6.3 ±0.15mm	108 ±0.5 x 70 ±0.5mm
Reciprocating Stroke	57mm	44mm
Maximum Distance Between Fixtures	75mm	57mm
Testing Speed	300 ±10cpm	340-400 ±10cpm
Counter	LCD - 0-999,999	
Dimensions (W X D X H)	35x60x75cm	
Weight	78kg	
Power	110V/60Hz or 220V/50Hz	

Description

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

Discoloration Meter

Standards

ASTM D1148-95

Specifications

Model #	NG-DISCO-A	NG-DISCO-B
Light Source	2pcs Germicidal UV Lamps	2pcs Germicidal UV Lamps
Control Display:	LED, 0-999999	LED, 0-999999
Inner Dimensions:	19.7x11.8x13.75" (50x30x35cm)	21.65x23.62x21.65" (500x600x500mm) (150L)
Outer Dimensions:	21.65x14.15x22.45" (55x36x57cm)	26.4x29x57" (670x740x1450mm)
Temperature	RT-200°C	RT-200°C
Weight	40lbs (18kg)	80lbs (36kg)
Power	220V/50HZ	220V/50HZ
Standard Accessories	Main Unit Sample Rack (1 set) Lamps (2 pcs)	Main Unit Sample Rack (1 set) Lamps (2 pcs)

Description

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

Standards

ASTM D2054

Specifications

Type	GenCrock-A	GenCrock-B
Capacity	2 sets	1 sets
Load	9°0, 2N	
Abrasion Stroke	104°3mm	
Friction Head Diameter	Ø16°0, 1mm	
Abrasion Speed	60cpm	
Counter	LCD 0 - 999,999	
Dimensions (W X D X H)	60x46x36cm	65x13x23cm
Weight	60kg	20kg

Description

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

Martindale Abrasion Tester

GenDale

★★★★★

Standards

IWSTM 112/196
ISO 12947-4
ISO 12947-3
ISO 12947-2
ISO 12947-1
ISO 12945-2
NEXT 16
SFS 4328
IWTO 40-88
IS 12673
SATRA TM31
DIN 53863/53865
BS 3424/5690
BS EN 388/530
ISO 5470-2
ASTM 4966/4970
ISO 20344

Description

GenDale is a certified Martindale Abrasion Testing system which 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 determined by the specific number of cycles conducted until a hole appears in the test area of the fabric specimen.

Specifications

Model #	**GenDale**
Certification	CE ISO SGS
Speed	50-2r / min Adjustable
Function	Fabric pilling test and fabric wear resistance test
Driver System	PLC Programmable Control with Large Touch-Screen
	Abrasion Test
Max. stroke of movement:	60.5+/-0.5mm
Weight of holder and spindle:	200+/-1g
	Pilling Test
Max stroke of movement:	24+/-0.5mm
Weight of holder and spindle:	155+/-1g
Dimensions (LxWxH)	34.85"x23.6x16.15" 88.5x60x41 cm
Power	AC220 1ph

MORE INFO

Mooney Viscosity Testing Machine

GenMooney

★★★★★

Standards

ASTM D1646
ISO 289
ISO 667
GB / T 1233

Features

- Integrated multiple functions: early vulcanization, Mooney viscosity and stress relaxation can be tested in the same machine.
- Accurate temperature measurement and control: strict inspection of temperature calibration process.
- Flexible and accurate torque measurement: includes pressure reduction gear box, high precision sensor and a data acquisition system.
- High data reproducibility and stable electrical properties of the complete machine

MORE INFO

Description

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.

Specifications

Technical Specifications

Temperature range	Room Temperature to 200°C
Temperature accuracy	±0.°C
Temperature display resolution	0.1 °C
Rotor frequency	2 ± 0.02rpm
Mooney viscosity range	0 to 200 Mooney
Torque unit	kg-em , lb-in, N-m Mooney
Test time	setting freely when modified in the middle
Control	By computer
Air pressure	65psi (4.6bar) Not including air compressor

MORE INFO

NBS Rubber Abrasion Tester

GenNBS

★★★★★

Standards

ASTM D1630

Specifications

Specimen	3 sets, 25.4 x 25.4 x 6.35 mm
Load	2265g, 3 sets
Counter	LCD 0 - 999.999
Rotation Speed	45&#plusmn;5 rpm
Suction	2kg/cm^2
Spare Parts	Standard Rubber (5pc) North American #40 Grit (1pc)
Dimension (W x D x H)	21.65 x 11.80 x 19.70-inches 55 x 30 x 50 cm
Weight	154 lbs / 70 kg
Power	110V/60Hz or 220V/50Hz

Description

GenNBS is NextGen's NBS Abrasion Tester used to test the abrasion resistance of vulcanized rubber or other rubber compounds. It is commonly used for the soles and heels of footwear. It has an intelligent power failure recovery system. The unit conducts measurements through volumetric loss of specimens exposed to the action of a normalized abrasive medium secured to a rotations cylinder.

MORE INFO

Oscillating / Automatic Disc Rheometer (ODR)

Standards

ASTM D2084
ASTM D5289
ISO 6502

Functionality

- Database functionality can store your curves, drawings and results for printing at any time.
- Allows you to export your testing results in Excel format.
- It has multiple analysis functions like statistics, deviation setting, standard curve setting, and CPK statistical calculations
- Interface allows for local zoom and curve comparison

MORE INFO

Specifications

Temperature Range	Room Temperature to 22°C – 200°C
Temperature Accuracy	Within ±0.3°C
Temperature Display Resolution	0.01°C
Oscillation Frequency	1.6Hz, (100r/min)
Heating Rate	120 °C / min
Torque Range	0 - 20nm
Minimum Torque Reading	0.001nm
# of Swing Angles	± 0.5°C ± 1°C ± 2°C (standard matching angle 1 degree)
Swing Angle	100r / min (1.66hz)
Control	Computer Controlled

MORE INFO

Description

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.

Wyzenbeek Abrasion Tester

GenWyze

Standards

ASTM D4157
ASTM D3597
ISO12402-7
SAE J1948
LP-463KB-06-01

Specifications

Number of Test Chambers	4 Groups
Abrasion Stroke	76±2mm
Abrasion Table	Cambered Surface: Ø10cm, Length: 40cm
Friction Head	Bollom Rubber Pressure Head: 5 X 5cm Cambered Surface: Ø10cm
Sample Load	13.4N adjustable
Adjustment Load Weight	330lbs (150g)
Sample Tensile	17.8N adjustable
Adjustable Tensile Load Weight	340g
Sample Size	7.3 x 24.5cm
Dimensions (W x D x H)	22.45 x 23.22 x 28.34 " (57 x 59 x 72cm)
Weight	265lbs (125kg)
Power	110V/60Hz or 220V/50Hz
Standard Accessories	Main System, Rubber Blocks x4, Metal Nets x2, #10 Friction Cloth x5 and Operational Manual

Description

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.

MORE INFO

Vertical Rebound Resilience Tester

GenRebound

★★★★★

Standards

ASTM D2632
ASTM D 3574
ISO 8307

Digital Ball Rebound Resilience Tester Features

- Plug-n-Play System
- Extremely Easy to Learn to Operate
- Short Measuring Cycle
- USB Port

MORE INFO

Specifications

Drop Distance of Steel ball	ISO 8307 ASTM D357: 500mm GB/T6670: 460+0.5%mm
Diameter of steel ball	Φ16-0.1mm
Steel ball quality	16.7g
Accuracy of rebound rate of falling ball	<1.5%
Sample Size	100mm×100mm×50mm
Power Supply	1∮, AC220V/50HZ

Description

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 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

Moisture Determination Balance

GenMoist

★★★★★

Description

GenMoist is designed to automatically and simultaneously dry and weight a solid sample for the determination of moisture content. The machine provides a continuous direct readout for both the weight and the percentage moisture loss through the entire cycle. It has a build-in timer.

Operation Instructions

- Turn on the balance and the heater
- Wait until the heater's internal temperature reaches 50°C
- Allow for a 30 minute warm up period
- Calibrate the balance using the weight enclosed in the package following the instructions below
- Ensure that heavy weighs do not fall on the plate of the balance so as to avoid damage to the balance itself

Specifications

GenMoist	
Capacity/Resolution	160 g x 0.001 g
Timer	0-99 min with 1 minute Interval
Dimensions	194 x 340 x 235 mm
Weight Approx.	11.5 kg
Weight Range	160 g
Readability	0.001 g
Tare Range	160 g
Linearly Deviation	<±0.001 g
Stabilization Time (typical)	3 sec
Ambient Temperature Range	10 + 40°Ccm
Calibration Weight	100 g
Line Voltage	115V-60Hz or 230V-50Hz

MORE INFO

MULTISPEED digital automatic universal tester for displacement controlled tests

Standards

EN 12697-34
ASTM D1559
ASTM D5581
AASHTO T245
EN 12697-12
EN 12697-23
AASHTO T193
ASTM D6927

Main Features

- Closed loop speed control
- CBR and MARSHALL test speed can be selected by default.
- Other testing speeds (Custom) between 0.2 and 51 mm/min, can be easily set.
- Selection of maximum platen displacement.
- The automatic stop of the machine avoids machine and specimen overloading, thus assuring operator safety.

MORE INFO

Description

The new MULTISPEED tester is the ideal solution for Road testing laboratory. The 50 kN capacity and the fully variable test speed of 0.2 to 51 mm/min make it possible to perform not only the CBR and Marshall tests, but many other applications as for instance Indirect Tensile test, Quick Triaxial tests, Unconfined and Uniaxial soil testing and, in general, all test to be performed under displacement control. The machine can be equipped with analogical or digital load/ displacement measurement systems as well as with the specific accessories, to suit either the field or central laboratory requirement.

Specifications

NG-Multispeed	
Maximum Capacity	50 kN
Test Speed	Infinitely variable: 0.2 to 51 mm/min
Power	DC motor 750 W
Horizontal Clearance	270 mm between columns
Maximum Vertical Daylight	730 mm without accessories
Platen Travel	100 mm

MORE INFO

Automatic Shore, IRHD and VLRH Hardness Testing System

Standards

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

Features and Benefits

- Programmable measuring time, 1-99 sec
- Accuracy: 0.1 (1/10 of shore value)
- Compliance with ASTM D2240
- Electronic unit provides clear display of measured value, navigation menu and Data Output.
- Easy to use with limited operator influence to guarantee accurate and repeatable hardness test results every time.
- Reading in the display gives assistance for the correct selection of the measuring device during your measurement when the measured value is above or below the limit value.
- USB-interface for data transfer.
- Modular, digital hardness testing system.
- Interchangeable measuring units offering industry leading flexibility of testing to be performed on a single system.
- Automatic identification of the measuring range and of the measuring time.
- Integrable in an automatic production process.
- Hysteresis function.

Description

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.

MORE INFO

Advanced Portable Shore Durometer System with Test Stand Options

Standards

DIN ISO 7619
DIN EN ISO 868
NF EN ISO 868
ASTM D 2240
SRIS 0101

Features

- Temperature/humidity
- Sample Temperature
- Date and Time
- Lithium Battery
- Display with backlight
- Auto-Power-Off
- Contact pressure acc. standards
- Peak Value
- USB Interface

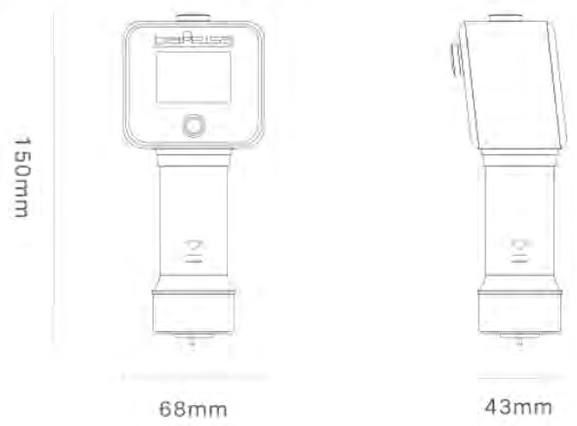
MORE INFO

Description

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. Equipped with aluminum casing alloy offers the end user the optimal combination of robust structure and light weight. The display will indicate the hardness value, the temperature as well as the humidity values. The system has an intuitive user Interface.

Specifications

Size And Weight



Height : 150mm
Width : 68mm
Depth : 43mm
Weight : 320g

MORE INFO

Digital Densimeter Systems

★★★★★

Standards

ASTM D792
ISO 2781
ISO 1183
GB/T1033
GB/T2951
JIS K6268
GB/T208
GB/T5163
GB/T 1933

Description

The NG-DM-A Series offers high-accuracy digital Densimeters designed for a wide variety of material testing needs. These elegant and compact densimeter systems offer capacity ranges from 150g to 3000g with accuracy of 0.001g/cm3 down to 0.0002g/cm3.

Digital Densimeter System Features & Functions

- Density precision: 0.001 OR 0.0001g/cm3
- Value Displays: Apparent density, volume, mixture ratio, density and volume change rate
- Power Supply: AC 100V-240V 50HZ/60HZ North American and European standards
- PC and printer connection via RS-232 port. This allows to print measuring data.
- High accuracy, simple operation, and fast results meet laboratory operation standard and quick cycle testing requirement for all types of testing facilities
- Function of 10 group data storage for density value and DIN volume abrasion loss.
- In accordance with DIN 53516 standard. Offers the function of calculating average value for multigroup data.

MORE INFO

Specifications

Model	NG-DM-A300	NG-DM-A600	NG-DM-A1200	NG-DM-A3000	NG-DM-A150
The maximum weight(g)	300g	600g	1200g	3000g	150g
Density precision(g/cm³)	0.001g/cm³				0.0002g/cm³
Repeatability accuracy	±0.001g/cm³				±0.0003g/cm³

MORE INFO

Ross Flex Tester

★★★★★

Standards

ASTM D1052
ISO 5423
SATRA TM60

Specifications

Model	NG-ROSS
# Grips	12 Chamber Systems Capable of Testing 12 Specimens at the Same Time
Bending Angle	90 +/- 20
Bending Speed	100±3 CPM
Dimensions (WxDxH)	19.7x24x21.6" (500 x 610 x 550 mm)
Net Weight	231 lbs / 105 kgs
Power Supply	110V/60Hz/1Ph
Vacuum Pressure	65mmm-Hg

Description

Ross Flex Tester is designed to determine the resistance of vulcanized or synthetic elastomers to cut growth. The system does so under continuously bend flexing in 90°. This digital system has a memory function and is suitable for PU, PVC and TPR foams. It is particularly used for shoe soles because it is capable of testing virtually any flexible sheet-like material. After continuous bending, the damage and cracking degree is examined. The machine clamps the end of the test specimen to the holder arm while the pierced end is placed between two rollers that must permit a free bending movement of the test specimen during the test.

MORE INFO

Surface Roughness Testers

★★★★★

Description

The surfaces roughness tester is a small handheld instrument, for shop floor use and mobile measure, it operation simple, function overall, measure fast, accuracy stability, take convenience. This tester applies to production site and can be used to measure surface roughness of various machinery-processed parts. This tester is capable of evaluating surface textures with a variety of parameters according to various international standard. The measurement results are displayed digital/graphically on the color graphic LCD display, and output to the printer.

Digital Densimeter System Features & Functions

- Portable & economical
- Large measuring range suitable for surface roughness testing of metal and non-metallic materials
- Robust and durable design with anti-electromagnetic interference ability
- High-speed DSP processor for maximum speed of data processing and calculation
- LCD with wide temperature ranges using OLED color display, high brightness and no visual angle interference, making the system suitable for various occasions.

MORE INFO

Specifications

		NG-SR400T	
Measuring rang	The Z axis (vertical)	320μm (-160μm-160μm), 12600μin (-6300μin-+6300μin)	
	The X axis (Transverse)	17.5mm (0.69 inch)	
Resolution	the Z axis (vertical)	0.002μm/±20μm	0.004μm/±40μm
		0.008μm/±80μm	0.02μm/±160μm
Display	Parameter	Ra Rz, Rq Rt, Rc Rp Rv R3z R3y Rz(JIS) Ry Rs Rsk Rku Rmax Rsm Rmr RPc Rk Rpk Rvk Mr1 Mr2	
	Assessed Graphic	Rmr curve, Roughness curve, Primary Profile, Filter waveform	

MORE INFO

Classic Analogue Shore Durometer with Test Stand Options

Standards

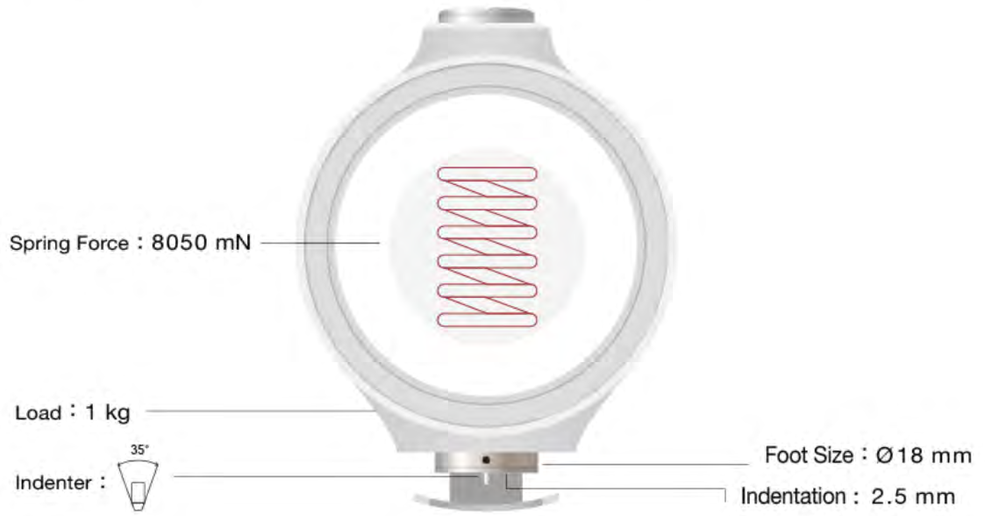
DIN ISO 7619
DIN EN ISO 868
ASTM D 2240
BS 903 Part. A 26
NF T 51-174

Features

- Excellent solution for automotive industry, rubber and plastic industry, defense and aerospace industry, and more
- Over 500,000 systems sold worldwide

Specifications

A	D	0	B	C	D0	A0	E	00	000	000S



Description

This Germany manufactured system has been the global landmark of Shore hardness testing systems since 1954. With ever enhanced ergonomic design, the HP Shore Hardness Tester is both visually appealing and precise rubber and plastic testing system as it has been for nearly 50 years. The HP system is world renowned best seller hardness tester with over 100,000 units sold to satisfied clients globally. It is considered the worlds highest and most used portable shore hardness tester.

MORE INFO

RPA Ultra

Advanced Rubber Process Analyzer Rheometer

Standards

ASTM D5289
ISO 6502

Features

- High grade sheet material solid construction
- Film cartridge for test cavity continuous feeding
- No more strain cap with a rotatable lower die
- Easy mobility using retractable casters

MORE INFO

Specifications

RPA Ultra – Advanced Rubber Process Analyzer Rheometer	
Max. shear rate in rotation	500 1/s
Max. shear rate in oscillation	100 1/s
Max. ramp rat	1.33°C/s-> 80°C/m
Max. cool rat	0.5°C/
Die config	Sealed die, biconical and plate-plate
Drive system	High dynamic torque motor, High resolution controller
Oscillation frequency	0.001 to 100 Hz
Oscillation strain	+/- 0.001° to unlimited, ,+/- 0.014% to unlimited -> rotational

Description

The RPA Ultra is a closed cavity moving die rheometer that offers unconstrained oscillation strain and a frequency breakthrough of up to 100 Hz thanks to a rotating lower die. The advanced RPA device measures the dynamic and static characteristics of raw rubber compounds and elastomers throughout the curing process. Another technological advance is the increased shear rate range, which now spans 0.001 to 500 1/s. A high shear rate might be used to imitate the extrusion process in a genuine production setting.

MORE INFO

HDA 120

Hardness and Density Automation Test System

★★★★★

Standards

DIN ISO 48
ISO 2781
ISO 1183

Features

- Consists of a built-in rotating table that provides great process stability during measurements and can handle up to 20 samples at a time.
- User-friendly and can be operated via touchscreen and has a pneumatic gripping system for density determinations along with a force ejection mechanism making it a more competitive device in the market.
- Hardness testing optionally with IRHD N (DIN ISO 48-2) or Shore A (DIN ISO 48-4)
- Density measurement acording to ISO 2781, DIN EN ISO 1183-1, ASTM D1817
- ISO/IEC 17025 certified

Description

The HDA 120 test system is a versatile solution for semi-automatic detection of sample hardness and density. The HDA 120 can be fully integrated into existing laboratory systems and processes using a data interface, allowing for the exchange of sample-specific information such as batch, compound, operator, and production date before a series of measurements is started. Ethernet interface in a defined protocol is available to then transmit this data and store it in the PLC.

Specifications

HDA 120 - Hardness and Density Automation Test System	
W x L x H	1625 x 825 x 1065mm
Weight	ca. 175kg
Impress Protection	IP 21
Power Supply	100-240VAC; 50/60Hz; 10A
Air Pressure	4-6bar
Operating Temperature	23±2°C
Specimen Geometry	Ø 35-38 mm, d=6 ± 0,5 mm / Ø 39-42mm, d=6 ± 0,5mm

MORE INFO

digiChamber

Temperature Controlled Hardness Testing

Standards

DIN ISO 48,
ASTM D 2240

Features

- Large display: DigiChamber has a 7" display and a touch screen panel that supports many languages.
- User Friendly: DigiChamber - Advanced Environmental Chamber Rubber-Hardness Tester has a user-friendly interface that minimizes the training time.
- Consists of an air-cooled refrigeration unit with SIMPAC's continuously variable power adjustment and a chloride-free refrigeration cycle.
- A spacious 200-liter test volume with polished stainless-steel walls for a test load of up to 125 kgs.

MORE INFO

Description

Designed and developed by Bareiss, digiChamber is the most advanced environmental chamber rubber-hardness tester in the market. This automatic testing device has been designed to analyze the hardness of rubber under extreme conditions using Shore hardness A or IRHD N testing methods. The device plays a critical role in the automotive and tire industries, where rubber parts need to withstand harsh temperature variations.

Specifications

Shore A Hardness System	
Standards	DIN ISO 48-4, ASTM D 2240
Spring force	8050 mN
Force on the presser foot	1kg
Presser foot size	Ø 18mm
Indenter	35°
Penetration	2.5 mm

MORE INFO

Linear Taber Abrasion Tester

Standards

ASTM D6279
ASTM F1319
ISO 105-X12

Description

Linear abrasion meters are used to evaluate the abrasion resistance, scratch resistance (single or multiple scratches), and color transmission (usually resistance to rubbing, decolorization, or rubbing fastness) of products. Both dry and wet abrasion tests can be conducted.

Linear Taber Abrasion Tester Application

It can test samples of any size or shape, and is ideal for abrasion testing of products with contoured and polished surface characteristics (such as a computer mouse and other computer or IT products for plastic finish wear resistance testing). It is commonly used in plastics, automotive accessories, rubber, leather and textile, electroplating, removable components, paints, printing patterns, and other products.

MORE INFO

Specifications

Model	GenTaber Linear
Movement Speed	2-60rpm
Dimensions	26 x 28 x 32 cm 10.25" x 11" x 12.625"
Power Supply	120V 60Hz 1Ph
Function	Linear Taber Abrasion Laboratory Testing
Features	User Friendly Touch Panel

MORE INFO

High Energy Elemendorf

Standards

ASTM D1424
DIN 53862
ISO 9290
EN ISO 13937-1
ISO 4674-2
M&S P29
NEXT 17
GB/T 3917.1

Features

- Advanced calculation method (potential energy calculation) to ensure accurate testing and repeatability.
- Micro control system, Automatic testing, Result calculations, Analysis of results, Printing of test reports and Uploading test data to your computer
- User friendly touch screen control panel allowing operators to conveniently and quickly operate the tester
- All data and statistical results can be checked in the machine itself or reviewed in the test report after transferring data

MORE INFO

Specifications

Parameter	Technical Data
Range	0-16N, 32N, 64N, 128N
Measurement Accuracy	≤±0.2%FS
Unit of Measurement	N, cN, gf, lbf
Clamping Method	pneumatic

MORE INFO

Description

The NG-HE Elemendorf is used to measure the tearing strength of paper, plastic, cloth, film, electrical tape, metal foil and a variety of other materials.

Advanced Motorized Multi-Specimen Notching and Broaching Machine for Impact Testing on Plastic Specimens GenNotch 3000

Standards

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

GenNotch 3000 Main Technical Specifications

- Workbench stroke: >90mm
- Knife working speed: 0-90mm/min
- Sample size: 15x0.39x0.16-inch / 80mmx10mmx4mm (customizable)
- Knife notch type: A type (optional types available)
- Feeding speed: 0-2.5mm
- Feeding stroke: 0.39-inches / 10mm

MORE INFO

Description

The GenNotch 3000 machine is designed for creating notches in plastic specimens for Charpy impact testing. It has a capacity to hold 20 samples simultaneously and can process 60 samples within a 10-minute timeframe. With its high processing accuracy, it significantly enhances work efficiency. Moreover, it adheres to ISO179 and ISO180 standards. The knife used in the machine is made of imported steel alloy, ensuring a hardness greater than HRC60 and providing a long lifespan.

Specifications

GenNotch 3000 Series	
Solid wrench (12-14)	1 piece
Hex wrench (5mm)	1 piece
Power line	1 piece
Length block (L120)	1 piece
Length block (L80)	1 piece

MORE INFO

Advanced Test Pilot Data Acquisition Software

Description

TestPilot is designed to enhance your ability to perform accurate and repeatable mechanical testing of materials, components and finished goods across a full spectrum of applications. It provides the simplicity and ease-of-operation needed for quick and efficient quality assurance and quality control testing, the flexibility to adapt readily to changing requirements, and the sophistication to address unique or complex demands. The software's intuitive operator interface, powerful analysis and reporting, and growing host of test methods make it an excellent foundation for establishing and sustaining a truly global standardized testing methodology.

Features

- Versatile, easy-to-use TestPilot software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more)
- Modular design permits easy upgrading
- Multiple graphs on the same screen & report to observe multiple events at the same time: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others.
- Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, Kgf, lbf, Mpa, and so on, user can define the unit by themselves using formula.
- Customizable report format with full flexibility of adding & removing items in terms of layout, content, graphing to suite the exact test requirement, like company information, statistics, and etc. Test report can export to Excel or Word.

MORE INFO

CEMENT TESTING EQUIPMENT

NEXTGEN
MATERIAL TESTING

2023

INTERNATIONAL TOLL FREE NUMBER
1(888)332-3582
WWW.NEXTGENTEST.COM

NextGen Curemate 750

Climatic Cabinet for Curing 750L

Features

- Digital control unit (0.1 resolution)
- Temperature (e.g. 20.0°C) and relative humidity (e.g. 95.0% RH) are displayed at all times as well as all the other phases (cooling-heating-ventilation-humidification, etc.).
- Temperature range: from +15°C to +30°C (± 1°C).
- Humidity range: from 80% to 100% (saturation).
- Humidifier: automatically-generated humidity by vaporization.
- Thermal insulation: in 60 mm thick self-extinguishing polyurethane (CFC-free) foam.
- Service door: at the front with magnetic sealing gasket. Safety key closure.
- Refrigerating system: airtight type with air condensation and R 404a ecological (CFC-free) gas.
- Heating: thermostatically-controlled heating element with low thermal inertia.

Description

NG-CureMate 750 - Climatic Curing Chamber has inner and outer structure made entirely in AISI 304 stainless steel. Up to six extractable shelves (600 x 800 mm, 40 kg max. load) can be fitted. Four shelves are supplied as standard, made of plasticized steel. With 6 shelves it may contain up to 24 molds.

MORE INFO

NextGen Curemate 550

Climatic Cabinet for Curing 550L

Standards

ASTM C109
ASTM C511
EN 196-8
EN 196-1
EN ISO 679

Features

- Temperature range: from +10°C to +40°C (± 1°C).
- Humidity range: from 80% to 100% (saturation).
- Humidifier: automatically-generated humidity by vaporization.
- Inner/outer structure: Entirely in AISI 304 stainless steel. Grid shelves.
- The cabinet top can be used as a work bench.
- Thermal insulation: in 60 mm thick self-extinguishing polyurethane (CFC-free) foam.
- Doors: mounted on special hinges for automatic closure. Four doors and eight (plasticized steel) shelves, supplied as standard.
- Up to six extra shelves can be added.
- Refrigerating system: airtight type with air condensation and R 404a ecological (CFC-free) gas.
- Heating: thermostatically-controlled heating element with low thermal inertia.

Description

NG-CureMate 750 - Climatic Curing Chamber has a Capacity 550 Litre. Digital control unit (0.1 resolution). Temperature (e.g. 20.0°C) and relative humidity (e.g. 95.0% RH) are displayed at all times as well as all the other phases (cooling, heating, ventilation, humidification, etc.).

MORE INFO

Automated Blaine Apparatus

BlaineGen Plus

Standards

EN 196-6
ASTM C204

Description

The Blaine apparatus is used to determine the fineness of cement (and other powdery products) in terms of specific surface in cm2g-1 The digital Automated BlaineGenPLUS model is manufactured according to specifications of the following standards:

- EN196-6 Methods of testing cement Determination of fineness.
- ASTM C 204 "Fineness of Hydraulic Cement by Air Permeametry Method".

Features

No Computer is Required

- The Automated Blaine Apparatus works as a stand-alone system. Alternatively, operator may connect the equipment to PC and manage results, export data, generate reports via the supplied software WinPerm64.

Integration with Analytical Balance

- The system can measure the mass directly through the equipment.

Ergonomic Visualization of Tests Results

- This is achieved thanks the standard 7" LCD touch screen display with IP65 protection.

MORE INFO

Specifications

	BlaineGenPLUS
Screen	Color LCD 5,7" touch screen
Level detectors	Precision photodiodes for detecting upper and lower levels and additional safety level detector. To in-crease accuracy, comprises backlight in red by means of a LED.
Time resolution	0.01 s
Isolation	Detachable protective screen, made in polycarbonate, with stainless steel frame
Temperature resolution	0.1 ºC
Manometric liquid	Light mineral oil with optimal viscosity. Non-toxic (safety datasheet is comprised)

MORE INFO

Manual Vicat Apparatus

★★★★★

Standards

EN 196-3
EN 480-2
ASTM C191
AASHTO T131

Specifications

NG-VicatGen/M	
Approximate Weight	4 kg

Description

The Vicat frame consists essentially of a metal stand with a sliding rod. An adjustable indicator moves over a graduated scale. The needle or plunger is attached to the bottom end of the rod to make up the test weight of 300 g.
The frame, VicatGen/M is supplied without accessories, which have to be ordered separately depending on the requirement. It is also proposed with basic EN accessories (NG-L028) or ASTM/AASHTO accessories (NG-L0028/A).

MORE INFO

Automatic Vicat Apparatus

★★★★★

Standards

EN 196-3
EN 480-2
ASTM C191
AASHTO T131

Description

The new Vicamatic/A machine has been completely redesigned. As with the older generations, the test procedure is unchanged where a needle (or a probe) drops freely into a cement sample at regular intervals and in fixed positions. Penetration depth is measured by a sensor with 0.1 mm resolution. Along with hardening process development the penetration depth decreases, when it matches some thresholds pre-defined by Standards initial and final setting times are measured and recorded.

Features

- New functional and ergonomic design
- Advanced electronics technologies providing superior performances and total flexibility combined with simplicity in use
- Easy-to-use double interface: local mode, with large size 4.3" touch screen color display, and remote mode, with PC
- Supplied complete with PC software for data processing VICASOFT-BASIC

MORE INFO

Specifications

	NG-Vicamatic/M
Display	4.3" Touch Screen Color Display
Connection	LAN port for direct connection to PC of a single unit or connection to a LAN hub for creating a network with up to 32 independent units all controlled by a single PC. 1 LAN cable is included
Storage Connection	USB Data Output and Storage on USB Drive
Test Procedure	Customized test procedures and based on user-defined requirements
Data Output	Optional integrated graphic printer shows the test results and setting time plot

MORE INFO

NG-DigiMix

Digital Mortar Mixer

Standards

EN 196-1
EN ISO 679
EN 196-3
EN 459-2
EN 413-2
EN 480-1

Features

- A complete set with bowl and beater in line with EN Standards
- Continuously variable speed (VFD technology)
- Options for selecting either user defined speeds or Standard speeds (it can be regulated during mixing too)
- Depending on the consistency of the mix, the Blade/Planetary speeds can be modified from 30/13 to 380/165 rpm.
- 3-points bowl supporting system that allows accurate modification of the space between the beater and bowl.

MORE INFO

Description

One of the best equipment units for mixing cement mortars efficiently. This table mounted mixer comes with planetary mixing action, as well as easily fitted and removable bowl and beater. In line with CE requirements, the machine stops immediately for operator protection once the front grill is opened. Also conforming to EN Standards, the machine comes with a bowl and stainless steel beater. One of its great features includes a seamless and dedicated keyboard control and display. This cement mixer offers options for selecting either user defined speeds or standard speeds (it can be regulated during mixing too). The digital cement mixer can be wholly delivered as fast as possible on request, with a sand open-type hopper.

Specifications

NG-DigiMix	
Planetary speeds	62 and 125 rpm or user defined
Beater speed	140 and 285 rpm or user defined
Bowl capacity	5 litres
Alphanumeric display	2 x 16 characters
Power	370 W
Overall dimensions	465x540x620 mm (l x d x h)
Weight	35 kg (approx.)

MORE INFO

NG-AutoDigiMix

Automatic Programmable Mortar Mixer

Standards

EN 196-1
EN ISO 679
EN 196-3
EN 459-2
EN 413-2
EN 480-1
ASTM C305
ASTM C451

Features

- Comes with an open-type sand hopper and EN beater, as well as a stainless steel bowl.
- Its operated by an easily usable in-built software
- Digital mixer, user-friendly interface with functional alphanumeric display 2 x 16 characters and keyboard
- Installed with procedures that conform to standards, this procedures guide the operator during the mixture, it also makes it possible to pour in sand manually
- Continuously variable speed (VFD Variable frequency drive technology)
- Adjustable and easily selectable speeds (user defined or standard speeds)

MORE INFO

Description

Strong and exceptional equipment for mixing cement mortars efficiently. This table mounted mixer comes with planetary mixing action, as well as easily fitted and removable bowl and beater. In line with CE requirements, the machine stops immediately for operator protection once the front grill is opened. The machine comes with an open-type sand hopper and EN beater, as well as a stainless steel bowl. One of its great features includes a seamless and dedicated keyboard control and display. It has offers options for selecting either user defined speeds or Standard speeds (it can be regulated during mixing too). It is programmed to carry out mixing in line with Standards, making it easy to pour in sand manually during mixing through the top filling hopper. Machine can be wholly delivered as fast as possible on request, with a sand open-type hopper for adding other things like additives or admixtures etc.

Specifications

NG-AutoDigiMix	
Planetary speeds	62 and 125 rpm or user defined
Beater speed	140 and 285 rpm or user defined
Bowl capacity	5 litres
Alphanumeric display	2 x 16 characters
Power	370 W
Overall dimensions	465x540x620 mm (l x d x h)
Weight	35 kg (approx.)

MORE INFO

NG-AutoDigiMix 2

Fully Automatic Programmable Mortar Mixer

Standards

EN 196-1
EN ISO 679
EN 196-3
EN 459-2
EN 413-2

Features

- Automatic testing cycles
- It comes with both an automatic sand dispenser and an extra dispenser to enable manual addition of water or admixtures during the course of mixing.
- Four programmable cycles that meets DIN and EN standards
- Ten operator programmable mixing cycles
- Acoustic signal harmonized with the various cycle steps
- Safe and ergonomic design

MORE INFO

Description

An exceptional mixer developed with top notch quality and durability. Strictly adhering to the standards yet meeting the demand for a broader scope in testing other materials for research application. One great characteristic of this mixer is its ability to formulate and store exceptional mixing cycles.

Specifications

- Robust and stable frame
- Easy and fast bowl mounting or removal
- Distance between beater and bowl: 3±1 mm during all cycle
- Stainless beater and bowl
- Bowl capacity: 5 liters
- Sand dispenser electronically controlled
- 4 programmable mixing cycles conforming to EN 196-1, EN 196-3, DIN 1164-5, DIN 1164-7
- 1 mixing cycle programmable by the operator
- Alphanumeric display 4x20 characters
- 2 mixing speeds: 140±5 and 285±10 r.p.m.
- Sincronised acoustic signals with test cycles

MORE INFO

Autoclave, high pressure

Standards

ASTM C151
ASTM C490

Specifications

Autoclave, high pressure	
Heater	2600 w
Overall dimensions	450x475x1080 mm
Weight approx.	55 kg

Description

The autoclave consists of a high-pressure steam vessel with internal dimensions 154 mm dia. x 430 mm high to accept a rack for holding 10 specimens obtained with the 62-L0033/B moulds (see accessories). Complete with pressure gauge, pressure regulator, temperature regulator, control switches, safety valve and specimen rack.
Certified conforming to ISPELS procedure.

MORE INFO

SOIL TESTING EQUIPMENT

NEXTGEN MATERIAL TESTING

2023

INTERNATIONAL TOLL FREE NUMBER

1(888)332-3582

WWW.NEXTGENTEST.COM

NextGen Curemate 750

Climatic Cabinet for Curing 750L

Features

- Digital control unit (0.1 resolution)
- Temperature (e.g. 20.0°C) and relative humidity (e.g. 95.0% RH) are displayed at all times as well as all the other phases (cooling-heating-ventilation-humidification, etc.).
- Temperature range: from +15°C to +30°C (± 1°C).
- Humidity range: from 80% to 100% (saturation).
- Humidifier: automatically-generated humidity by vaporization.
- Thermal insulation: in 60 mm thick self-extinguishing polyurethane (CFC-free) foam.
- Service door: at the front with magnetic sealing gasket. Safety key closure.
- Refrigerating system: airtight type with air condensation and R 404a ecological (CFC-free) gas.
- Heating: thermostatically-controlled heating element with low thermal inertia.

Description

NG-CureMate 750 - Climatic Curing Chamber has inner and outer structure made entirely in AISI 304 stainless steel. Up to six extractable shelves (600 x 800 mm, 40 kg max. load) can be fitted. Four shelves are supplied as standard, made of plasticized steel. With 6 shelves it may contain up to 24 molds.

MORE INFO

NextGen Curemate 550

Climatic Cabinet for Curing 550L

Standards

ASTM C109
ASTM C511
EN 196-8
EN 196-1
EN ISO 679

Features

- Temperature range: from +10°C to +40°C (± 1°C).
- Humidity range: from 80% to 100% (saturation).
- Humidifier: automatically-generated humidity by vaporization.
- Inner/outer structure: Entirely in AISI 304 stainless steel. Grid shelves.
- The cabinet top can be used as a work bench.
- Thermal insulation: in 60 mm thick self-extinguishing polyurethane (CFC-free) foam.
- Doors: mounted on special hinges for automatic closure. Four doors and eight (plasticized steel) shelves, supplied as standard.
- Up to six extra shelves can be added.
- Refrigerating system: airtight type with air condensation and R 404a ecological (CFC-free) gas.
- Heating: thermostatically-controlled heating element with low thermal inertia.

Description

NG-CureMate 750 - Climatic Curing Chamber has a Capacity 550 Litre. Digital control unit (0.1 resolution). Temperature (e.g. 20.0°C) and relative humidity (e.g. 95.0% RH) are displayed at all times as well as all the other phases (cooling, heating, ventilation, humidification, etc.).

MORE INFO

Moisture Determination Balance

GenMoist

★★★★★

Description

GenMoist is designed to automatically and simultaneously dry and weight a solid sample for the determination of moisture content. The machine provides a continuous direct readout for both the weight and the percentage moisture loss through the entire cycle. It has a build-in timer.

Operation Instructions

- Turn on the balance and the heater
- Wait until the heater's internal temperature reaches 50°C
- Allow for a 30 minute warm up period
- Calibrate the balance using the weight enclosed in the package following the instructions below
- Ensure that heavy weighs do not fall on the plate of the balance so as to avoid damage to the balance itself

Specifications

GenMoist	
Capacity/Resolution	160 g x 0.001 g
Timer	0-99 min with 1 minute Interval
Dimensions	194 x 340 x 235 mm
Weight Approx.	11.5 kg
Weight Range	160 g
Readability	0.001 g
Tare Range	160 g
Linearly Deviation	<±0.001 g
Stabilization Time (typical)	3 sec
Ambient Temperature Range	10 + 40°Ccm
Calibration Weight	100 g
Line Voltage	115V-60Hz or 230V-50Hz

MORE INFO

MULTISPEED digital automatic universal tester for displacement controlled tests

Standards

EN 12697-34
ASTM D1559
ASTM D5581
AASHTO T245
EN 12697-12
EN 12697-23
AASHTO T193
ASTM D6927

Main Features

- Closed loop speed control
- CBR and MARSHALL test speed can be selected by default.
- Other testing speeds (Custom) between 0.2 and 51 mm/min, can be easily set.
- Selection of maximum platen displacement.
- The automatic stop of the machine avoids machine and specimen overloading, thus assuring operator safety.

MORE INFO

Description

The new MULTISPEED tester is the ideal solution for Road testing laboratory. The 50 kN capacity and the fully variable test speed of 0.2 to 51 mm/min make it possible to perform not only the CBR and Marshall tests, but many other applications as for instance Indirect Tensile test, Quick Triaxial tests, Unconfined and Uniaxial soil testing and, in general, all test to be performed under displacement control. The machine can be equipped with analogical or digital load/ displacement measurement systems as well as with the specific accessories, to suit either the field or central laboratory requirement.

Specifications

NG-Multispeed	
Maximum Capacity	50 kN
Test Speed	Infinitely variable: 0.2 to 51 mm/min
Power	DC motor 750 W
Horizontal Clearance	270 mm between columns
Maximum Vertical Daylight	730 mm without accessories
Platen Travel	100 mm

MORE INFO

Dynamic Triaxial Systems 1000 kPa

★★★★★

Standards

ASTM D 5311

Description

Dynatriax systems are ideal for commercial and research laboratories for the following applications: Liquefaction potential, Strength degradation due to cyclic loading, Shear modulus and damping ratio, resilient modulus, Effects of blasting in mines and quarries, Effect of ocean waves on costal and off shore structures.

Main Features

- Three axis closed loop control for axial load or displacement, cell and back pressure
- Operating frequency up to 10 Hz
- Two dynamic load/displacement options:
- - Up to ±25 mm with ±5 kN actuator
- - Up to ±15 mm with ±14 kN actuator
- Capability to perform Static (effective stress and stress path), Dynamic and Unsaturated soil triaxial tests
- Available upgrade for Bender element testing and Local strain measurement

MORE INFO

Specifications

Tritech 50 or Tritech 100 Triaxial load frames

The Tritech digital loading frames feature a microprocessor controlled drive system, specifically designed to perform both static and dynamic tests.

- Static load capacity: 50 or 100 kN
- Static vertical displacement: up to 100 mm (machine travel)

MORE INFO

Automatic Triaxial Test Systems

Description

The AUTOTRIAX Automatic triaxial system not only can perform Effective Stress triaxial tests with all the above vantages but is the unique and indispensable apparatus to perform the Stress Path test.
In fact this test is performed to allow the engineer to replicate the changes in stress conditions soil sample subjected to compression and extension both in the loading and unloading status. In few words, that soil, due for example to excavation, or construction or natural events, can produce the changes of magnitude of the principal stresses (major and minor). The test can only be accurately and reliably performed with a servo controlled closed loop system.

Main Features

- The ability to run and control several triaxial tests automatically from a PC
- The advantage of systems expansion in modular steps of components and software
- The ability, due to the automatic control, to eliminate the negative environmental discrepancies as operator errors, non-calibration etc.
- Performance of 24 hours 7 days tests without interruption and greater throughput of tests with a considerable cost decrease
- The consequent achievement of a test regime that will produce reliable and repeatable results
- The possibility to upgrade our or other make existing standard triaxial systems

Specifications

The AUTOTRIAX system consists of a number of component, designed specifically for the test automation, which can combined for various up to three independent triaxial systems in different configuration (see Automatic triaxial test systems: possible configurations). Basic components are:
Triaxial compression frame (Triaxial load frames). A suitable machine is our model NG-WF4005, 50 kN cap. Or NG-WF4010, 100 kN cap.
Triaxial cell with vacuum top cap (Triaxial cells for advanced applications). A suitable models are our TriCell plus NG-WF4070/P to NG-WF4150/P equipped with vacuum top cap.

MORE INFO

NG-Oedometer

Front Loading Oedometers – Consolidation Test

Standards

BS 1377:5
ASTM D2435
ASTM D3877
ASTM D4546
AASHTO T216
NF P94-090-1
NF P94-091
UNE 103-405
UNE 103-602

Main Features

- Compact and robust design
- 3 lever arm ratio
- Screw jack support
- Same cell for standard and permeability test
- Possible connection with Data acquisition and processing system

This test determines the rate and magnitude of consolidation of a soil specimen restrained laterally and subjected to a number of successive increments of vertical loads.

MORE INFO

Specifications

- Max loading (using 11:1 beam ratio): 1848 kg, corresponding to 9.061 MPa (92.40 kgf/cm2) on 20 cm2 specimen (50.47 mm dia.)
- Overall dimensions: 500x200x750 mm (height less hanger xwidth x length)
- Weight approx.: 21 kg

MORE INFO

ACE

Automatic Computerized Oedometer

★★★★★

Standards

BS 1377:5
ASTM D2435
ASTM D3877
ASTM D4546
AASHTO T216
NF P94-090-1
NF P94-091
UNE 103-405
UNE 103-602

Main Features

- PC controlled fully automatic test execution
- Pneumatic system for incremental consolidation and one-dimensional swell tests
- Performance of 24 hours 7 days tests without interruption and greater through output of tests with a considerable cost decrease
- To avoid the negative environmental discrepancies as operator errors, non-calibration etc.
- 15 kN max. capacity, 10 mm travel displacement transducer
- Real time data and graph display
- Single ACE software controlling up to 60 units
- Test management software supplied including calibration menu
- High speed LAN network communication

Description

This test determines the rate and magnitude of consolidation of a soil specimen restrained laterally and subjected to a number of successive increments of vertical loads. In this automatic model, the incremental loading, in the load (stress) or swelling (strain) mode, is fully automatic for a practical and accurate test execution with more reliable test results. The ACE unit, the SHEARMATIC Automatic shear testing machine and AUTOTRIAX Automatic triaxial test systems, are the unique equipment for the complete automation of a CST (Consolidation, Shear, Triaxial) Soil Mechanics laboratory in the different configurations. See Automatic Soil Mechanics Laboratory.

Specifications

	NG-ACE
Maximum Vertical Load	15 kN
Load Cell Cap	15 kN
Displacement Transducer	10 mm maximum travel
Maximum Air Pressure Supply	10 bar. If the air pressure line is not available in the laboratory, our Air compress model NG-D2015, 50L capacity may be used
Sample Dimensions	From 50.47 to 112.8 mm diameter using our consolidation cells. See accessories
Software	Can control up to 60 ACE units (not included, see accessories)

MORE INFO

Shearmatic 300

Large Shear Testing Machine

★★★★★

Standards

ASTM D3080
ASTM D6243
BS 1377:7
EN ISO 12957
ASTM D5321

Main Features

- Ideal for testing Shale, Industrial slag, Brick rubble, Colliery spoils, Geosyntetics
- Sample size up to 300 mm
- 100 kN shear and consolidation force
- Sleeplessly variable speed control from 0 to 11.00000 mm/min
- Automatic hydraulic application of pre-set consolidation steps (up to 50)
- Automatic test management from consolidation to failure: the operator is only requested to remove the clamping screws of the shear box
- Straight connection between shear box, drive unit and load cell for the axial transmission of the horizontal force along the shearing plane, instead of the classic "swan neck"

MORE INFO

Description

The SHEARMATIC 300 automatic machine is ideal for testing geosyntetics and also soil and other materials that contain large particles of up to 20 mm largest dimension. Sample size up to 300 mm square can be tested, with inserts allowing the testing of smaller sample sizes. See accessories.

Specifications

	NG-Shearmatic
Sample Size	Up to 300 mm. Can be reduced to 150 mm using NG-WF2304/1 150 mm sample insert. See accessories.
Shear and Vertical Force	100 kN
Speed Range	Sleeplessly variable from o to 11.00000 mm/min
Maximum Travel	75 mm
Steps of Consolidation	Up to 50

MORE INFO

Resonant Column and Torsional Shear Tester

Description

RESONANT COLUMN combines the features of both resonant column and torsional shear into a single unit including the current driven motor to apply torsional load to sample, a series of transducers with signal conditioning, a cell and back pressure electro-pneumatic control system and a data logger.
The SHEARMATIC 300 automatic machine is ideal for testing geosyntetics and also soil and other materials that contain large particles of up to 20 mm largest dimension. Sample size up to 300 mm square can be tested, with inserts allowing the testing of smaller sample sizes. See accessories.

Main Features

- Combined Resonant Column / Torsional Simple Shear device
- Automatic detection of fundamental frequency
- RC: damping ratio from half power bandwidth and from free vibration data
- TSS: damping ratio from hysteresis loops
- Internal floating frame for large angular and axial deformation
- Confining pressure up to 1 MPa

MORE INFO

Specifications

- The RESONANT COLUMN consists of:
- aluminium cell with stainless steel columns and acrylic transparent cylinder with 170 mm int. dia. x 200 mm ext. dia., including channels for bottom drainage;
- test accessories for 50 mm (38 mm) dia. specimens;
- Internal floating frame for assembling the electrical motor that applies the torsional loads; this motor has four NeFeB 10 x 25 x 40 mm magnets and eight coils.
- main control box including:
  - power supply
  - current amplifier
  - 8 channels signal conditioning unit
  - USB data acquisition and signal generation board
  - two electro-pneumatic converters for cell & back pressure

MORE INFO

Automatic Shear Testing Machine

Standards

ASTM D3080
BS 1377:7
AASHTO T236
CEN-ISO/TS 17892-10
NF P94-071

Main Features

- Microprocessor controlled drive system
- Large 240x120 pixel display
- Test speed, travel and cycles (up to 9) programmable by the keyboard
- Rapid approach and automatic positioning
- Infinitely variable speed from 0.0001 to 11.00000 mm/min

MORE INFO

Specifications

	NG-Shear DGEN
Speed Range	Adjustable from 0.00001 to 11.00000 mm/min
Maximum Shear Force	5000 N
Maximum Vertical Load	500 N or 5000 N using 10:1 lever ratio device
Horizontal Travel	Pre-set via firmware up to 20 mm
Cycles	Up to 9 (forward and reverse)
Specimen Sizes	60 and 100 mm square, 50; 60; 63.5 and 100 mm diameter
Overall Dimensions	95 x 39 x 118 cm
Approximate Weight	120 kg

Description

This test cover the determination of the consolidated drained shear strength of a soil material in direct shear. The AUTOSHEAR machine is controlled by a microprocessor system which reads and processes horizontal force and displacement readings, manages the motor and the safety controls through closed loop system assuring the following important features:

- Automatic test running
- Test speed closed loop control
- Large monochromatic graphic display, 240x128 pixel to view data recording in real time

MORE INFO

Shearmatic

Automatic Shear Testing Machine

★★★★★

Standards

ASTM D3080
BS 1377:7
AASHTO T236
CEN-ISO/TS 17892-10
NF P94-071

Main Features

- Automatic pneumatic application of pre-set consolidation steps (up to 50)
- Automatic test management from consolidation to failure: the operator is only requested to remove the clamping screws of the shear box
- No dead weights and lever arm are requested
- Vertical force positively applied to the shear box without friction
- Straight connection between shear box, drive unit and load cell for the axial transmission of the horizontal force along the shearing plane, instead of the classic "swan neck"
- High resistance techno-polymeric carriage
- Easy and immediate set up of the test parameters via the large digital graphic display

MORE INFO

Description

This microprocessor based advanced model, is a stand-alone machine, driven by a high-resolution stepper motor with epicyclical reduction gear with reduced backlash. Incorporate a pneumatic closed loop system for the automatic application of the axial pressure by a high performance pressure regulator, with the main advantage of eliminating the manual loading of the dead weights. Excellent and high resistance techno-polymeric material has been adopted for the carriage of the shear box. It offers excellent resistance to corrosion, wear and tear and is resistant to all chemicals found in a soil specimen. The carriage is lightweight and easy to clean.

Specifications

NG-Shearmatic	
Motor	High accuracy stepper motor 1/10000 resolution
Test Speed	Infinitely variable from 0.00001 to 11.00000 mm/min
Maximum Horizontal Force	5 kN
Maximum Vertical Force	8 kN = 800 kPA on 100x100 mm square specimens
Maximum Shear Cycles	10 (forward and reverse)
Maximum Travel	20 mm

MORE INFO

Laboratory Vane Apparatus

Standards

BS 1377:7
ASTM D4648

Main Features

- Manual or motorized versions available
- Lightweight, compact and portable, ideal for site or main laboratory
- Convenient and rapid method of determining shear strength of soft soils
- Easy to use: many hundreds in operation today

MORE INFO

Specifications

NG-VaneApp	
Standard Configurations	Vane 12.7 x 12.7 mm Four Calibrated Springs with Deflection/Load
Approximate Weight (kg)	11
Dimensions (H x W x D) (cm)	62 x 25 x 28

Description

The laboratory vane apparatus is based on an original concept of the Transport and Road Research Laboratory of the United Kingdom. It can be provided with a wide range of vane sizes, although as standard, it is sold with the 12.7 mm square vane and a set of four calibrated springs. The test can be performed directly on the sample or in the sample contained in the sampling tube. In this case the NG-WF1736 Attachment for 38 and 100 mm dia. sampling tubes, should be used. See accessories.

MORE INFO

ROCK TESTING EQUIPMENT

NEXTGEN
MATERIAL TESTING

2023

INTERNATIONAL TOLL FREE NUMBER
1(888)332-3582
WWW.NEXTGENTEST.COM

NextGen Double Faced Grinding Machine NG-CoreGrind 2000

Standards

ASTM D4543
ASTM C42
EN 12390-3
EN 12504-1

Description

Our state-of-the-art NG-CoreGrind 2000 automatic grinding machine is expertly engineered to grind and polish the end surfaces of concrete or rock cube and cylinder specimens. Featuring two movable grinding heads, each equipped with Φ200 diamond grinding wheels, this machine delivers unparalleled precision and performance. NG-CoreGrind 2000 complies with ASTM D4543 & ASTM C42 international standards.

NG-CoreGrind 2000 Double Faced Grinding Machine Main Features

- The NG-CoreGrind 2000 is designed to make the process of grinding concrete cubes or cylinders easier and more precise than ever before. Boasting a large base table, this machine delivers exceptional productivity, allowing you to grind multiple specimens quickly and efficiently.
- Thanks to its ergonomic, compact bench model design, our grinding machine is the perfect solution for laboratories that are tight on space. Not only does this machine help you save valuable real estate, but it also enhances laboratory safety.

MORE INFO

Specifications

NG-CoreGrind 2000	
Motor	.75kW Speed 1,430rpm
Power for Grinding Head	1.1kW x2 Speed 2,800rpm
Grinding Mode	Parallel grinding of both surface ends simultaneously
Grinding Head Control Modes	Manual or Automatic
Automatic Grind Feeding Speeds	0.04-0.2mm (adjustable)
Maximum Specimen Sizes	Cubes: 50x50x50mm to 150x150x150 mm 50mm Dia. To 150mm Dia.

MORE INFO

NextGen Curemate 750

Climatic Cabinet for Curing 750L

Features

- Digital control unit (0.1 resolution)
- Temperature (e.g. 20.0°C) and relative humidity (e.g. 95.0% RH) are displayed at all times as well as all the other phases (cooling-heating-ventilation-humidification, etc.).
- Temperature range: from +15°C to +30°C (± 1°C).
- Humidity range: from 80% to 100% (saturation).
- Humidifier: automatically-generated humidity by vaporization.
- Thermal insulation: in 60 mm thick self-extinguishing polyurethane (CFC-free) foam.
- Service door: at the front with magnetic sealing gasket. Safety key closure.
- Refrigerating system: airtight type with air condensation and R 404a ecological (CFC-free) gas.
- Heating: thermostatically-controlled heating element with low thermal inertia.

Description

NG-CureMate 750 - Climatic Curing Chamber has inner and outer structure made entirely in AISI 304 stainless steel. Up to six extractable shelves (600 x 800 mm, 40 kg max. load) can be fitted. Four shelves are supplied as standard, made of plasticized steel. With 6 shelves it may contain up to 24 molds.

MORE INFO

NextGen Curemate 550

Climatic Cabinet for Curing 550L

★★★★★

Standards

ASTM C109
ASTM C511
EN 196-8
EN 196-1
EN ISO 679

Features

- Temperature range: from +10°C to +40°C (± 1°C).
- Humidity range: from 80% to 100% (saturation).
- Humidifier: automatically-generated humidity by vaporization.
- Inner/outer structure: Entirely in AISI 304 stainless steel. Grid shelves.
- The cabinet top can be used as a work bench.
- Thermal insulation: in 60 mm thick self-extinguishing polyurethane (CFC-free) foam.
- Doors: mounted on special hinges for automatic closure. Four doors and eight (plasticized steel) shelves, supplied as standard.
- Up to six extra shelves can be added.
- Refrigerating system: airtight type with air condensation and R 404a ecological (CFC-free) gas.
- Heating: thermostatically-controlled heating element with low thermal inertia.

Description

NG-CureMate 750 - Climatic Curing Chamber has a Capacity 550 Litre. Digital control unit (0.1 resolution). Temperature (e.g. 20.0°C) and relative humidity (e.g. 95.0% RH) are displayed at all times as well as all the other phases (cooling, heating, ventilation, humidification, etc.).

MORE INFO

Rock, Concrete and Masonry Saw

Specifications

	NG-MasonrySaw
Maximum Cutting Height	115 mm with 350 mm diameter blade and 165 mm with 450 mm diameter blade
Maximum Blade Diameter	450 mm
Power	3 kW
Overall Dimensions	130 x 70 x 70 cm
Approximate Weight	92kg

Description

This universal saw, completed with the suitable accessories, can be used to cut concrete and rock cores, and irregular rock samples in order to obtain geometrically defined samples. It can be fit with 300 to 450 mm dia. blades.
The head is adjustable in height. The tilting motor head permit cuts up to 45 inclination. The tank and the trolley are zinc plated to avoid corrosion. Complete with water pump for cooling the blade and double filtering system.

MORE INFO

Rock Shear Box Apparatus

Standards

ASTM D5607

Description

This apparatus was originally developed at Imperial College, London, by Professor E. Hoek. It is a simple and practical method of determining the strength and slope stability of rock, both in the field and in the laboratory. The apparatus consists of a shear box designed to accept samples not larger than 115x125 mm, or alternatively cores up to 102 mm dia. The shear box consists of two halves, the upper being connected to two rams for reversible shearing action and the lower connected to a ram for normal load application. The loads are recorded by Bourdon tube load gauges or by pressure transducers (in this case external data logger.
The normal loading system is complete with an adjustable low friction pressure maintainer to absorb volume changes of the specimen during the shearing action and to ensure a constant vertical stress.

Features

Two versions are available:

- NG-ShearBox/A is supplied complete with: 5 digital gauges 25x0.001 mm (4 vertical and 1 horizontal); 2 mould formers; 2 hand operated pumps for lateral and vertical load fitted with Bourdon gauges. The pump for vertical load is fitted with a pressure maintainer to assure uniform load during the test.
- NG-ShearBox/D is supplied complete with: 5 potentiometric transducers with 25mm travel (4 vertical and 1 horizontal); 2 mould formers; 2 hand operated pumps for lateral and vertical load fitted with Bourdon gauges; 2 pressure transducers for the direct acquisition of the load values on the external data logger (supply as accessory, see Multipurpose data logger for automatic data acquisition). The pump for vertical load is fitted with a pressure maintainer to assure uniform load during the test.

Specifications

NG-ShearBox	
Gauges range	50kN x 1kN
Overall Dimensions (loading frame only)	46 x 25 x 60 cm
Apprixmate Weight	45 kg

MORE INFO

Rock Strength Index Apparatus

Standards

ASTM D5731

Features

- Light and portable unit
- Sample size up to 102 mm dia.
- Accepts irregular shaped samples
- High resolution digital display, battery operated
- Resistant to failure shocks
- Serial port for PC connection included
- Compression platens option for compression test on small cores and cylinders

Specifications

NG-RockStrength	
Load Range	0 - 60 kN
Digital Display	2x16 characters
Resolution	32,000 div
Load Pacer	Included
Units for Load Measurement	kN and MPa
Connections	Serial port for PC

Description

The apparatus consists of a load frame 60 kN cap. with a hydraulic loading ram actuated by a hand pump. The frame is adjustable for testing samples up to 102 mm dia. A ruler assembled on the frame allows for direct measurement of the distance D between the conical platens before and after the test. The compression load is measured by a pressure transducer with an advanced digital display unit assuring the best accuracy and resistance to the failure shocks. The machine, fit with the accessory NG-D0550/D5, can also be used for compression tests on small cores or cylindrical specimens. The apparatus is contained in an easily transportable plastic case.

MORE INFO

Core Trimmer and Cut-Off Machine

NG-CoreTrim

Features

- Specifically designed for rock testing laboratories
- To obtain samples from irregular rock or core pieces
- Double function of trimmer and cut-off apparatus
- Complete with safety device conforming to CE requirements

Specifications

NG-CoreTrim	
Power	1100 W
Blade Speed	3000 r.p.m.
Dimensions	73x105x59 cm approx.
Weight Approximately	100 kg

Description

NG-CoreTrim is used to obtain rock samples perfectly machined (cube, prisms, etc) from irregular rock or core pieces. It is supplied complete with a proper vice to hold irregular pieces firmly in place up to 7x14 cm approximately and “V” device for cores up to 75 mm diameter. Longer cores can be machined by turning the sample upside down in the device. The machine also include cooling water inlet and transparent cover, conforming to CE requirements, with switch that stops the machine automatically when opened. The machine can be fit with either a cutting blade or a double-faced cup wheel for surfacing cylindrical specimens’ ends. Blade, cup wheel and water pump are not included and have to be ordered separately.

MORE INFO

Laboratory Coring Machine and Bits

Specifications

NG-Coring	
Power	1800 W
Coring Speed	1485 / 2720 rpm
Coring Range	From 28 to 60 mm in diameter
Dimensions of the Base Tray Assembly	60 x 50 x 20 cm
Approximate Weight	80 kg

Description

This machine is specifically used in the laboratory for cutting core samples from hard materials such as rock and concrete. A clamp is provided to firmly secure the material during the cutting cycle. The coring area is protected by a transparent cylinder. A special clamping device to prepare rock samples from core pieces is also available. See accessories. Drill bits not included.

MORE INFO

GenVac MP3 Series

Epoxy Mounting Vacuum Impregnation System for Metallographic Sample Preparation

Description

The upgraded intelligent vacuum impregnation system, GenVac MP3 allows to set up ninety-nine degassing circles. This epoxy system will is unique because it is exceptional at filling pores and cavities in the sample to enhance the edge retention. The 4.3 inch color touch panel and graphic display make the parameter setting more intuitively. With eight memory methods, multiple languages, unit conversion and the design of ninety-nine degassing circle, all of your vacuum impregnation needs will be met to the best of your satisfaction.

Spare Parts and Consumables

Parts and all consumables are readily available in stock and can be acquired directly from NextGen Material Testing by request. Also, we do not use proprietary parts, therefore additional parts can be sourced from local suppliers as needed many years down the road.

MORE INFO

Specifications

	GenVac MP3
Vacuum Pressure	-600 mm/Hg (-0.799 bar/-79.993 Kpa/-11.602 Psi)
Vacuum Pump Motor Power	180W
Pump Flow	50L/min
Vacuum Chamber Size (WxDxH)	30 x 30 x 30 (cm) 11.8 x 11.8 x 11.8 inches
Pressure Relief Method	Programmable Pressure Relief
Machine Dimension (WxDxH)	54 x 55 x 56 (cm) 21.25 x 21.65 x 22 inches
Weight	45kg 99 lbs
Power Supply	AC110V/220V-1Ø
Standard Accessories	High Flow Epoxy Resin, Vacuum Pump

MORE INFO

West Cerchar Abrasivity Index Tester

Standards

ASTM D7625-10

Features

- Compliant with ASTM D7625-10
- User-friendly and easy-to-use manual handling
- Features precision slide for smooth movement of the rock specimen over the required scratch distance
- Easy adjustment of the daylight for different specimen heights

MORE INFO

Specifications

Standard	ASTM D7625-10
Load	70 N
Maximum specimen height	150 mm (6 inches)
Maximum specimen diameter	76 mm (3.0 inches)
Scratch distance precision	0.01 mm
Steel Stylus	Rockwell Hardness HRC 54/56
Weight	25 kg
Dimensions (WxLxH)	330 x 500 x 500 mm

Description

The West Cerchar Abrasivity Index Tester is designed to determine the rock abrasivity index (CAI) for the purpose of quantifying the classification of rock materials abrasivity. This type of test is especially valuable in the mining industries, underground construction and various tunnelling excavation processes. The process of abrasion is the wear and tear of particles from solid surface materials. The apparatus comprises a stationary stylus, a deadweight (70N) placed on top of the stylus, a stiff load frame, a rigid vice to firmly clamp the rock sample and a cross table with 2 adjustable axes for specimen alignment along the two horizontal axes.

MORE INFO

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ABOUT US

"LARGE-ENOUGH TO SERVE AND SMALL ENOUGH TO CARE"

NextGen's philosophy is to provide the highest quality customer service combined with the best available products and services. This is the reason why thousands of manufacturers, educational facilities, government bodies, NDT facilities, laboratories, etc. utilize NextGen equipment for their most important quality control requirements. NextGen continues to provide high end services in relation to delivering material testing equipment in the market for over 5 years. We have a team comprised of skilled professionals who are committed to providing only the best experience in the market. Our friendly and knowledgeable staff have years of expertise in the industry and are at your disposal at any time in any given day.

NextGen specializes in providing modern technology-based equipment. All of the products offered meet the latest industry standards. We are proud to say that we have professionals who are truly competent and highly qualified in delivering our products and customer service you need to feel confident that your quality testing needs will be met with accuracy, ease, and finesse.

Underselling and over-delivering is the most important philosophy our staff possesses. NextGen comprises of a team of multidisciplinary professionals working together to materialize the company's goal which is to deliver the best experience to customers from start to finish; helping you every step of the way. We believe that our company's success within the material testing industry can be measured by our clients' success. By constantly thriving to provide the most user-friendly interfaces, easy-to-read manuals, and highest accuracy reading equipment; we create the ultimate quality control experience. When the equipment is easy to understand and to operate, you are able to achieve faster and more accurate results. This ongoing method of innovation is our commitment to you.

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MATERIAL TESTING