MORE THAN 5,000 PRODUCTS TO TEST ALL BUILDING INDUSTRY MATERIALS.
MATEST
GLOBAL, INNOVATIVE, MANUFACTURER.
Matest is an Italian company founded in 1986 by the family that still runs and manages operations. Thanks to its strong capital, the company is a forerunner in technological innovation and in continuous expansion.
With an increasingly wide and comprehensive range of products, Matest is both a global player and a leading manufacturer of material testing equipment for the building industry.

PAVETEST
WHERE TECHNOLOGY MEETS THE PAVEMENT.
Pavetest is the division of Matest committed to developing innovative dynamic testing systems for asphalt. It offers the most complete and dependable range of pavement materials testing equipment; a position confirmed by the vast majority of the market, especially customers involved in R&D, with whom we continue to develop innovative solutions.

TECNOTEST
MATERIAL TESTING EQUIPMENT.
In early 2017 Matest has acquired Tecnotest. The famous elephant has always been appreciated from the construction material industry for the quality and the stiffness of its products, with a special focus on the geotechnical range.
Being part of Matest group guarantees continuity for its customers.

STEELTEST
UNIVERSAL TESTING SYSTEMS.
Matest awareness of having become a global player with a strong brand identity has also allowed for greater product specialization. Steeltest is in fact the brand that fully represents the quality and functionality inherent in our complete range of equipment for steel testing.
Our universal testing machines are designed to meet requirements of works, laboratories and universities for quality control and research purposes.
MADE IN MATEST, MADE IN ITALY.

Matest’s strength lies in a thorough control of the whole manufacturing process, from design to installation, according to strict quality criteria.

The year 2017 ended with further enlargement of the areas allocated for machine assembly and stocking so as to enhance quality, increase production capacity and provide faster deliveries.

Located in the province of Bergamo, Matest employees are dedicated to upholding the excellence of products Made in Italy.

“Commitment and passion drive us to improve upon what others already consider perfect.”

#GLOBALCUSTOMERS

A first-class technical assistance provided by a team of Product Specialists, qualified in their specific field, and a solid network of experienced distributors on every continent, trained to locally serve a wide variety of customers:

- research centers
- general contractors,
- geotechnical laboratories
- asphalt, concrete and cement manufacturers,
- government authorities and ministries
- universities and polytechnics
- professional consultants.
A 30 PLUS YEARS JOURNEY INTO MANUFACTURING, QUALITY AND WORLDWIDE EXPERIENCE.

1
Company owned by a single family

8,000 m²
Manufacturing and storage facility

8 mln
Stock of finished goods for just in time deliveries

1,000
Compression machines made in Italy per year

5,000
Items comprise the widest range of testing equipment

#GLOBALQUALITY
A constant attention to quality during every stage of the manufacturing process, from the smallest basic equipment to the most technologically advanced system.

Quality assurance management is certified to ISO 9001. Matest is also accredited as Calibration Laboratory Lat No. 214 for force testing of compression machines and material testing equipment, in compliance with EN ISO/IEC 17025 and EA/ILAC requirements.

ISO 9001 certified manufacturer
Accredited Calibration Laboratory n°214
LAT N. 214 Signatory of EA, IAF and ILAC Mutual Recognition Agreements
Aggregates are a component of composite materials such as concrete and asphalt used to add strength to the overall composite material. For this reason, International Standards require several and precise tests on their properties. Matest offers an extensive range of testing equipment for aggregates and rocks.

TEST SIEVES

STANDARDS: EN 933-2 | ISO 3310-1, ISO 3310-2, ISO 565
ASTM E 11 | BS410 | NF X11-504 | UNI 2331,
UNI 2333 | DIN 4187-1 | UNE 7050

A complete range of test sieves, available in different diameters and openings as requested by International Standards. All models can be supplied with woven wire mesh or perforated plate with round or square holes. The sieves are available in the following diameters: 200 - 250 - 300 - 315 - 400 mm and 8"-12". Their openings are clearly marked on the label, including the serial number for the identification and traceability of the sieve. Each sieve is supplied complete with certificate of conformity.

NEW MATEST SIEVES

- FULL STAINLESS STEEL FRAME AND MESH
- LIGHTER THAN BEFORE
- INDIVIDUALLY CERTIFIED

TEST SIEVES

STANDARDS: EN 935-5 | ISO 3310-1
Matest sieve shakers are designed with a triple vibrating action: vertical, lateral and rotational. They are supplied with separate digital control panel for setting sieving time, vibrating intensity and vibrating action (continuous or intermittent). Different models are available for accepting sieves with diameter from 200 mm to 450 mm, or from 8" to 18".

ELECTROMAGNETIC SIEVE SHAKERS

STANDARDS: EN 935-5 | ISO 3310-1
A150N

UNIAXIAL AND TRIAXIAL ELASTIC MODULUS ON ROCKS

AUTOMATIC SYSTEM WITH PACE RATE CONTROL ALSO DURING THE LOAD RELEASE.
STANDARDS: EN 14580 | EN 1926 | ASTM D7012 | ASTM D2664 ASTM D3148 | ASTM D5407 | ISRM

The system can be used with Matest high stability compression machines with capacity of 2000 or 3000 kN, combined with two automatic controllers “Servo-Plus Evolution”.
The equipment includes: hydraulic system, electronic measuring system and UTM2 software for data acquisition and processing.
The system can be used with:
- electric single use extensometers (strain gages, series C125)
- universal electronic mechanical extensometers/compressometers (code C134)

A137

HOEK CELLS FOR ROCK TRIAXIAL TESTS

Used to measure the strength of cylindrical rock specimens subjected to triaxial test.
The Hoek cell is composed of one body complete with two screwed end caps, two self-sealing couplings, two hardened, ground, spherical seats and pistons and a specimen jacket.
Available in different models and sizes.

MAIN FEATURES

- Perfect with pressure up to 70 MPa
- Suitable for specimens from 30.10 to 54.74
- Used to measure the strength of cylindrical rock specimens under triaxial compression.
A008-05 KIT
LABORATORY OVENS
HIGH TEMPERATURE UNIFORMITY AND PRECISION
STANDARDS: EN 932-5 | EN 1097-5 | BS 1924 :1 | ASTM C127, C136, D558, D559, D560, D698, D1557, D1559

MAIN FEATURES
- Forced ventilation airflow.
- Digital temperature control system.
- Stainless steel chamber and trays.
- Insulation by 60 mm thick glass fibres.

A058-05N
AIR JET SIEVING MACHINE
VACUUM SIEVING SYSTEM
STANDARDS: EN 933-10

MAIN FEATURES
- Sieving time from 0 to 99 minutes.
- Vacuum range from 0 to 65 mbar.
- Adjustable calibration function.
- Sieving results from 5 to 4000 microns.
- Automatic cleaning system

A125N
DIGITAL POINT LOAD TESTER
ROCK STRENGTH INDEX
STANDARDS: ASTM D5731 | ISRM
High stiffness load frame with confortable manual hydraulic jack, for testing rocks both in labs and on site.

MAIN FEATURES
- High precision electric load cell.
- Capacity 56 kN, or 100 kN (A126)
- Core specimens up to 4” (101.6 mm).
- Graduated scale to read the distance between the conical points.
- 0.001 kN resolution.

A131
ROCK SHEAR BOX APPARATUS
STRENGTH AND SLOPE STABILITY
STANDARDS: ASTM D5607 | ISRM
This equipment can be used both on site and in laboratory. The digital model is equipped with Cyber-Plus 8 Evolution data acquisition system. Available a manual rock shear box apparatus with dial gauges (code A129).

MAIN FEATURES
- Rocks max. size 115x125 mm or Ø 102 mm.
- Calibrated 50 kN x 1 kN division
- 2 pressure transducers for load acquisition.
- 1 linear transducer for shear.
A113

SKID RESISTANCE AND FRICTION TESTER
SURFACE FRICTION PROPERTIES
STANDARDS: EN 1097-8 | EN 1338, 1341, 1342 | EN 13036-4
EN 1436 | BS 7976 | ASTM E303

- **MAIN FEATURES**
  - Suitable for both site and laboratory applications.
  - Perfect for polished stone value tests on aggregates (curved specimens) from accelerated polishing tests.
  - Suitable to perform tests on: natural stones and concrete block pavers.
  - Accurate adjustment operations through an incorporated slider lifting device.
  - Simple and reliable height adjusting system.
  - High-precision results thanks to an extremely light pointer.

A128N

ACCELERATED POLISHING MACHINE
DETERMINATION OF POLISHED STONE VALUE
STANDARDS: EN 1097-8, EN 1341, 1342, 1343 | BS 812:114
NF P18-575 | CNR N.105

- **MAIN FEATURES**
  - Measures the resistance of road aggregates, paving stones and blocks to polishing.
  - Up to 14 specimens simultaneously.
  - Road wheel speed, from 310 to 330 RPM.
  - Digital control panel for an easy test execution.
  - Resultant specimens perfectly suitable for the skid resistance tester.

A075N

LOS ANGELES ABRASION MACHINE
DETERMINATION OF RESISTANCE TO FRAGMENTATION
STANDARDS: EN1097-2 | ASTM C131 | UNI 8520-19 | EN 12697-17
EN 12697-43 | NF P18-573 | AASHTO T96 | CNR N° 34

- **MAIN FEATURES**
  - Automatic digital revolutions counter.
  - Counterbalanced cylinder for an easy loading.
  - CE Sound-Proof cabinet available.

A077

MICRO-DEVAL TESTING MACHINE
DETERMINATION OF RESISTANCE TO WEAR
STANDARDS: EN1097-1 | EN 13450 | NF P18-572 | NF P18-576
UNE 83115 | CNR N° 109

- **MAIN FEATURES**
  - Up to 4 stainless steel cylinders.
  - Separate control panel with automatic revolution counter.
  - CE Sound-Proof cabinet available.
A078  
**MICRO-DEVAL APPARATUS**  
ASTM

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A092  
**LABORATORY JAWS CRUSHER**

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A061N  
**HIGH CAPACITY SIEVE SHAKER**

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A062 / A063  
**SAMPLE SPLITTERS (RIFLE BOXES)**

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A023-01N  
**MUFFLE FURNACE**  
1100 °C HIGH CAPACITY

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A023-01N  
**BAR (GRID) SIEVES**  
AGGREGATE FLAKINESS INDEX AND PARTICLE SHAPE

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A068  
**LARGE CAPACITY SAMPLE SPLITTER**

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HIGH END LABORATORY OVENS.  
FORCED VENTILATION, DIGITAL THERMOSTAT  
HIGH TEMPERATURE UNIFORMITY UP TO 300 °C
C381
ROCK CLASSIFICATION HAMMER
LOW IMPACT ENERGY MODEL

A070
FLAKINESS | THICKNESS GAUGE

A071
LENGTH GAUGE

A072
SHAPE GAUGE - SHAPE INDEX

A072-10
PROPORTIONAL CALIPER

A111N
ABRASION MACHINE

A117
END-OVER-END SHAKER

A080 KIT
AGGREGATE IMPACT VALUE APPARATUS
Asphalt testing machines provide a solution for the whole “asphaltic path”: mixing, compacting, modelling and testing. The equipment meets the needs of those who want to perform quality control or experimentation of new asphalt mixtures.

B003

AMA

ASPHALT MIX ANALYZER

AUTOMATIC CLOSED-LOOP SYSTEM

STANDARDS: ASTM D2172 | EN 12697-1

The Asphalt Mix Analyzer (AMA) is an innovative device capable of combining all the processes associated with bitumen extraction and recovery. The unit has been designed for the purpose of determining the bitumen content in asphalt mixture and it is the best solution to analyse and characterize the properties of the reclaimed asphalt pavement (RAP).

MAIN FEATURES

- Fast analysis reducing extraction costs and time.
- Combination of ultrasonic impulses and heating effect to a complete bitumen extraction.
- Complete close cycle avoiding toxic fumes for healthy environment.
- 8000 R.P.M. centrifuge rotation speed.
- Automatic solvent distillation during extraction.
- Integrated 7" colour Touch screen controller.
- Selectable pre-wash phase, number of washing and drying cycles.
- Optional direct connection with rotary evaporation apparatus.

Mesh drum into the washing chamber

Fully automatic and closed cycle

Cup into the centrifuge, up to 8000 revolutions per minute

Sturdy frame and small footprint

Integrated balance for automatic weight record
SUPERPAVE GYRATORY COMPACTORS

STANDARDS: EN 12697-10, EN 12697-31 I ASTM D6925
AASHTO T312, TP4 | SHRP M-002

Gyratory Compactors, entirely developed and manufactured by Matest, are used to simulate and reproduce the real compaction conditions under actual road paving operations, hence determining the compaction properties of asphalts. 

Electro-pneumatic or electro-mechanical, we provide with several models, including for research purposes, compliant either with ASTM or EN standards. Here below a selection of our engineering development.

B045-01

GYRORESEARCH

Used for research purposes, this electromechanical compactor allows for the adjustment of the gyratory angle, selectable in a range between 0° and 3°, during compaction, real time direct shear and torque measurement.

MAIN FEATURES

- Rigid steel frame ensuring excellent angle control.
- Full color 7” touch screen control unit, running like a standard PC.
- Software for PC control acquisition and data processing.
- Integrated shear stress measurement.
- Optional integrated electromechanical extruder.
- Gyration rate from 3 to 65 (other speeds available on request).
- Max consolidation pressure according to the specimen size:
  - Ø 150 mm 1100 kPa
  - Ø 100 mm 2300 kPa

B045

GYROELECTRONIC

Electromechanical gyratory compactor. The load is applied by an electro-mechanical cylinder with a load cell positioned directly on the vertical actuator for precise load measurement. 

The machine can also be configured as requested by EN Specifications (model B045EN)

B041

GYROTRONIC

Electropneumatic gyratory compactor. The load is applied by an electro-pneumatic cylinder, servo controller by a precision pressure regulator. 

The machine can also be configured as requested by EN Specifications (model B041EN)

B041-28

GAM

GYRATORY INTERNAL ANGLE MEASURER

STANDARDS: EN 12697-31 I ASTM D7115
AASHTO T344

A SUCCESSFUL PRODUCT

- COST COMPETITIVE
- TRIED AND PROVEN
- OVER 50 UNITS DELIVERED EVERY YEAR
PAVEMIX AUTOMATIC ASPHALT LABORATORY MIXER
STANDARDS: EN 12697-35 | ASTM D6307 | AASHTO TP53
Pavemix prepares homogeneous bituminous mixtures at a strictly controlled temperature.

**MAIN FEATURES**
- Mixing capacity: 32 litres max.
- Selectable mixing temperature: up to 260 °C
- Mixing speed: adjustable from 4 to 40 rpm.
- Easy tilting unloading up to 130°.

ARC ELECTROMECHANICAL ASPHALT ROLLER COMPACTOR
STANDARDS: EN 12697-33 method 5.2 | EN 12697-33 A/TP ASPHALT
Used to produce representative sample slabs of several dimensions.

**MAIN FEATURES**
- 40 kN vertical force.
- Integrated touch screen control unit.
- No air source (compressor) or hydraulic pressure required.
- Optional heating of segment roller and cart.
- Perfect horizontal flatness of the slab surface.
- Uniform density and dimensions of the slabs.
- Energy controlled compaction procedure.

ASC ASPHALT SHEAR BOX COMPACTOR
STANDARD: ASTM D7981-15

**MAIN FEATURES**
- Servo hydraulic vertical ram with integral hydraulic power supply.
- Precision electro-mechanical shearing motion
- Integral specimen extruder.
- Electronic control unit with touch screen color display (no need for PC).
- Precision load cell(s) for vertical and shear stress measurement.
- Optional built-in mould heater.

ACD AUTOMATED CORE DRILL
Fast and accurate cutting of cores from cylinders, prisms and slabs.

**MAIN FEATURES**
- Three selectable drill speeds.
- Ideal for coring prismatic and cylindrical specimens.
- Adjustable specimen clamp and fixture.
- Three core supports to obtain three cores from one prism.
APS AUTOMATIC PAVE SAW

MAIN FEATURES
- Double blade design.
- Motorized feed with automatic retraction of saw carriage.
- Electronic control unit with touch screen colour display.
- Adjustable cutting speed.
- Spacer system allows precise preparation of beams and cylinders from 38 mm to 160 mm.
- Choice of mechanical or pneumatic Jigs.
- Clean operation and unparalleled operator safety.
- Universal saw to cut several material types.

SMARTRACKER™ MULTI WHEELS HAMBURG WHEEL TRACKER;
TEST ENVIRONMENT: DRY+WET
STANDARDS: EN 12697-22 | AASHTO T-324

MAIN FEATURES
- Simultaneous testing of wet and dry samples.
- Separate rutting and deformation analysis of each specimen.
- No heavy lifting. Wheels retract automatically.
- Easy mould sliding mechanism.
- Fully Automatic. Detects and stops at target rut depth.
- Touch-screen control unit
- Mechanical recirculating water bath within ± 1 °C precision.
- Small footprint to accommodate in small construction labs.

AUTOMATIC SCB SYSTEM
STANDARDS: EN 12697-44 | AASHTO TP124 | ASTM D8044
The Automatic SCB system operates in load and displacement control modes. Accommodates a wide range test jigs to run several asphalt performance tests, including IDT/TSR, MARSHALL and DIRECT SHEAR.

MAIN FEATURES
- Precision load cell and LVDT to measure load and displacement.
- Loading sequence fully automated.
- Touch screen display and intuitive controls.
- Data acquisition system accommodating multiple transducers simultaneously.
- Specimen alignment during test perfectly maintained.
- Optional high quality Environmental Chamber performing tests between -25 °C and + 60 °C.
B027 MIXERS
20 AND 30 LITRES

B011 CENTRIFUGE EXTRACTOR
1500 / 3000 g CAPACITY

B007 ASPHALT SPLITTER

B008 AUTOMATIC BINDER EXTRACTION UNIT

B014 CONTINUOUS FLOW FILTERLESS CENTRIFUGE

B017 KIT HOT EXTRACTION APPARATUS
WIRE MESH FILTER METHOD

B061 KIT KUMAGAWA (SOXHELET) EXTRACTOR
1 AND 2 LITRES

V085 SPECIFIC GRAVITY FRAME
B031N1
AUTOMATIC MARSHALL EN COMPACTOR

B033-01N
AUTOMATIC MARSHALL ASTM COMPACTOR

B043 KIT
DIGITAL MARSHALL TESTER
50 KN CAPACITY

B047-10
DIRECT SHEAR TEST LEUTNER

B047-02
SPLITTING TENSILE TEST

B047-06
DIGITAL UPGRADE FOR ANALOG LOAD FRAME

B038
UNITRACKER
SINGLE WHEEL TRACKING APPARATUS

B052
DIGITAL WATER BATH
Bituminous mixture is mainly composed by aggregates and bitumen, an infinite variety of mixtures being possible. Matest provides all the equipment required for bitumen testing, including machines to study the rheological properties of bitumen as well as the features of bituminous emulsion.

"AUTOMATIC IDENTIFICATION OF THE NEEDLE CONTACT POINT
REAL TIME DISPLAY OF PENETRATION CURVE
HIGH-TECH CONTACTLESS DISPLACEMENT TRANSDUCER 0.01 MM RESOLUTION"

B059M
SMARTIP
FULLY AUTOMATIC PENETROMETER
STANDARDS: EN 1426 I ASTM D5 I AASHTO T49 I ASTM D217
BS 1377-2 I NF T66-004 I DIN 52210 I IP 49
JIS K 2207
Automatic apparatus for the determination of the needle penetration value, avoiding any possible operator lack of concentration and ensuring a reliable repeatability of the results. It can be implemented with device for testing electrically conductive samples (B059M-01) in order improve material tested range.

MAIN FEATURES
- Fully automatic test, simply by taping the START icon: approach, touch point, penetration.
- Electro-magnetic needle probe release to perform the test.
- Automatic zero at the contact before starting penetration.
- 7” touch screen with an user-friendly software and interface.
- Optional temperature probe PT 100 (B059M-11) connected to the monitor to show and record the test temperature.
- Optional water chiller (B058M) to control test temperature, ± 0.1 °C accuracy, in a range between 5 °C and 30 °C.
B091M

PAV
PRESSURE AGEING VESSEL
STANDARDS: EN 14769 | ASTM D6521 | AASHTO R28
PAV simulates in-service oxidative aging that occurs in asphalt binders during service after 5 to 10 years.
Available a research version implemented with an electronic pressure valve to adjust the test pressure from ambient to 2.4 MPa (B091M1).

- MAIN FEATURES
  - Fast pre-heating system selectable up to 60 °C in order to reduce the conditioning time.
  - Timer for setting time and date to start the machine at the desired time.
  - Innovative cooling system, starting at the end of the test.
  - CE and ASME certification.
  - Testing time up to 99 hours.
  - Programmable temperature range up to 130 °C.

PAV & VDO
- MADE IN MATEST
- 100% STAINLESS STEEL
- PRESSURE AND TEMPERATURE MONITORED IN REAL-TIME
- INTEGRATED 7" COLOR TOUCH-SCREEN

B091M-01
VDO
VACUUM DEGASSING OVEN
STANDARDS: EN 14769 | ASTM D6521 | AASHTO R28
VDO removes air bubbles created during the in-service oxidative aging of asphalt binder by the PAV.

- MAIN FEATURES
  - Temperature is measured by Platinum RTD.
  - Over temperature limit switch.
  - Automatic release of the pressure at the end of the test.
  - Double vessel to insert 4 or 8 samples.
  - Fast heating and vacuum system to reach set point.
  - USB port on front unit with software upgrades and data storage.
B070N1

SOFTMATIC

AUTOMATIC DIGITAL RING AND BALL APPARATUS

AUTOMATIC SOFTENING POINT DETERMINATION

STANDARDS: EN 1427 | ASTM D36 | AASHTO T53 | NF T66-008;
comparable to: BS 2000 | DIN 52011 | UNE 7111
UNI 4161 | CNR N.35

■ MAIN FEATURES
- Fully automatic.
- Real time display of temperature and chart.
- Microprocessor Touch-Screen controller.
- Multilanguage selection.
- Top quality components: laser sensors, electronic magnetic stirrer, ceramic-glass heating plate.
- Fast test area cooling system.

B055-20N

DUCTILOMETER WITH DATA ACQUISITION

BITUMEN DUCTILITY DETERMINATION

STANDARDS: EN 13589, 13703, 13998 | ASTM D113, D6084
AASHTO T51, T300, T301
GOST 11505-75, 33138-2014

■ MAIN FEATURES
- Works automatically.
- Selectable speed from 1 to 400 mm/min.
- Max stroke 1500 mm.
- Stainless steel made with fibreglass insulation.
- Digital thermoregulator for a constant water bath temperature (25 °C ± 0.5 °C).
- Dual safety thermostat to prevent accidental over-temperature.
- Cyber-plus 8 evolution data acquisition and processing system.
- Optional refrigerating unit (+5 °C to +25 °C).

B066M KIT

ROLLING THIN-FILM OVEN

EFFECT OF HEAT AND AIR ON A MOVING FILM OF ASPHALT BINDER

STANDARDS: EN 12607-1 | ASTM D2872 | AASHTO T240

■ MAIN FEATURES
- 7” Touch-screen color display.
- Temperature ramp designed to achieve the target temperature within 10 minutes when the door is closed.
- Flow meter range: from 200 to 14,000 mm/min.
- Temperature accuracy ± 0.1 °C when the target temperature test is achieved.
- 15 rpm rotation speed.
B085-21

ROTATIONAL VISCOMETERS
STANDARDS: EN 13302 | ASTM D2196 | ASTM D4402 | AASHTO T316
Dynamic viscosity of a substance by rotating a spindle within the sample.

- **MAIN FEATURES**
  - Wide viscosity range.
  - High accuracy ± 1% on full scale.
  - High repeatability ± 0.2%.
  - Temperature sensor PT 100 included.
  - High temperature precision ± 0.1 °C.
  - Direct readout on graphic display.
  - Optional test bath and PC Software available.

B088N

VISCOSIMETER BATH
STANDARDS: EN 12595 | ASTM D2170
To determine Dynamic and Kinematic viscosity of liquid asphalts at a uniform temperature.

- **MAIN FEATURES**
  - Extremely precision (± 0.02 °C stability).
  - 4.3” LCD display.
  - PID controller.
  - PT 100A probe included.
  - Overheating alarm system and security water level.
  - Motor stirrer, heating element, cooling coil.

B100 / B102

BENKELMAN BEAM APPARATUS
STANDARDS: ASTM D4965-03 | CNR N° 141 | NF P98-200-2 | AASHTO T256
To measure the deflection of the road surface when loaded by the wheels of vehicles.

- **MAIN FEATURES**
  - Aluminium alloy made, with dial indicator and accessories
  - Length of the Benkelman beam is 2500 mm.
  - Beam fulcrum ratio 4:1 and 2:1
  - Supplied complete with wooden carrying case
  - Optional Ø 600mm bearing plate to NF P94-117-1
B085-07N
DSR
DYNAMIC SHEAR RHEOMETER

B064 KIT
ROTATING SHELF THIN FILM OVEN

B075
WATER IN BITUMEN EMULSIONS

B088-01N
VACUUM VISCOMETER BATH

B085-05
BBR
BENDING BEAM RHEOMETER

B063 KIT
EMULSIFIED ASPHALT DISTILLATION APPARATUS

B069 KIT
DISTILLATION OF CUT-BACK ASPHALTS ELECTRIC

B098N
TRAVELLING BEAM DEVICE
MAIN FEATURES
- Compact up to 16 Input, 4 control axis.
- Sampling rate up to 192 kHz over all channels.
- Up to 64 times over-sampling.
- Up to 20 bit resolution over the full range (no auto ranging required).
- Automatic recognition of transducers and upload of calibration files.
- Optional remote control using a WiFi based iPad/Tablet.

CDAS - CONTROL AND DATA ACQUISITION SYSTEM
Pavest's compact Control and Data Acquisition System, complete with the TestLab Software, delivers unparalleled performance, real time control and ultimate versatility in acquisition and provide a flexible and user-friendly testing solution.

TESTLAB SOFTWARE
TestLab is an open architecture user programmable software application. Users have full access to a comprehensive suite of pre-programmed Method Files and/or the opportunity to create their own Method Files, to suit their individual needs. Both the CDAS hardware and TestLab software use a modular approach allowing users to add new functionality to perform additional materials tests and even upgrade third party servo-hydraulic/pneumatic dynamic testing machines.

MAIN FEATURES
- Open architecture software.
- Pre-programmed “Method files” for a range of international test methods.
- User may clone, modify and/or create method files to suit their specific requirements.
- Real time graphing of results and configurable real time transducer.
- Simulation mode to run a complete test without a specimen.
- Full access for advanced user to specify their own calculations, test results and charting.
- View hydraulic oil temperature/pressure and set/monitor climatic chamber temperature.
DTS-30

30 KN SERVO-HYDRAULIC DYNAMIC TESTING SYSTEM
Servo-hydraulic testing machine utilizing digital control of a servo valve to provide accurate loading wave shapes up to 100 Hz.

MAIN FEATURES
- Small footprint.
- Reaction frame embedded in the test chamber.
- A two piece temperature controlled cabinet.
- Fully configurable to suit a large range of testing applications.
- Digital Servo-Hydraulic control.
- Dynaflo™ HPS provides dynamic speed control of the pump motor ensuring quiet operation.
- 4 axis control and 16 channel data acquisition as standard.

AMPT

ASPHALT MIXTURE PERFORMANCE TESTER
Servo-hydraulically controlled testing machine designed to perform: Dynamic Modulus, Flow Number and Flow Time asphalt tests.

MAIN FEATURES
- Thermoelectric (TE) Heating/Cooling.
- The unit can be equipped with water cooled TE heating/cooling technology (optional).
- Magnetically mounted on-specimen transducer system.
- Gauge point fixing jig facilitates gluing gauge points and the platens for proposed AMPT Direct Tension Cyclic Fatigue (S-VECD) Test.
- Dynamic Verification Device.
- Dynaflo™ HPS provides dynamic speed control of the pump motor ensuring quiet operation.
- Optional built-in, silent, air compressor.

STS-25

STATIC TESTING SYSTEM
OVERLAY, SCB, DCT, TSRST AND DTT
STANDARDS: ASTM D7313-07a | AASHTO TP105-13 | AASHTO TP124
ASTM D8044 | ASTM WK 26816 | AASHTO T 314-12
AASHTO TP10-1993 | TxDOT_Tex-248-F
Electro-mechanical servo-controlled testing machine utilizing digital control of an electro-mechanical actuator to provide accurate loading rates up to 50mm/minute, designed to perform a range of static tests.

MAIN FEATURES
- Precision electro-mechanical actuator (silent operation).
- A range of two piece climatic chambers.
- Monitor, set and “Auto tune” the temperature via the PC.
- Optional swivel stand allows the unit to be oriented vertically or horizontally.
MAIN FEATURES

- Up to three working stations (electromechanical and/or servo-hydraulic stations).
- Serve-hydraulic actuator: 30 kN static, 25 kN dynamic, double acting, fatigue rated and equal area type with long life Labyrinth bearings & seals.
- DynafloTM Hydraulic Power Supply: Variable Frequency Drive 2.2 kW pump motor; Silent operation.
- Ability to clone, modify and/or generate user’s own method file(s) to suit their specific requirements.
- Programmable test Wizard to guide the operator step by step based on a recipe book approach.
- Temperature controller programmed via PC software.

4PB

STAND-ALONE SERVO-PNEUMATIC FOUR POINT BENDING SYSTEM

AASHTO T321 | ASTM 03 | ASTM-D7460

- Backlash free rotation and translation on all load and reaction points.
- Fully configurable to suit a large range of testing applications.
- High performance servo-valve.
- Long life pneumatic actuator.
- Digital Servo-pneumatic control.
- 2 axis control and 8 channel data acquisition.

OT

SERVO-PNEUMATIC OVERLAY TESTER

STANDARDS: Texas DOT test procedure Tex-248-F and proposed ASTM Standard WK 26816

- Thermoelectric (TE) Heating/Cooling - More reliable and environmentally friendly than mechanical refrigeration & heating elements.
- Optional silent, air compressor including membrane dryer.
- Built in verification (Dial gauge).
- Integral stand with wheels.
B220-02 KIT
DTS-16 WITH MOTORIZED CROSSHEAD

B250 KIT
INDIRECT TENSILE MODULUS - FATIGUE

B272 KIT
TRIAXIAL RESILIENT MODULUS - TRM

B240
130 KN SERVO-HYDRAULIC DYNAMIC TESTING SYSTEM (DTS-130)

B260 KIT
UNIAXIAL CYCLIC COMPRESSION - UCC

B254-02 KIT
AASHTO | ASTM SCB TESTING KIT

DYNAMIC MODULUS - $E^*$

OVERLAY TEST
Concrete is one of the most used materials in the construction industry. Matest proposes a wide range of testing equipment and high stiffness compression machines which allow to test concrete cubes, cylinders and blocks and satisfy the EN and other International Standards.

SPR
SERVO-PLUS RESEARCH CONTROL UNIT
HIGH PERFORMANCE SERVO-PLUS SERVO-STRAIN

The Servo-plus Servo-strain Research Control Unit (SPR), has the ability to perform tests where maximum performance is required from a control system. Besides compression, flexure and splitting tensile tests, Matest SPR performs rock and concrete elastic modulus tests, FRC tests (Deflection, CMOD, CTOD and flexural strength), triaxial test on rocks and Stress-path tests and Toughness of fibre on reinforced concrete, plus energy absorption of sprayed concrete tests.

- **MAIN FEATURES**
  - Possibility to perform tests in load, displacement and strain rate control.
  - Firmware and software for standard tests already included.
  - Fully customizable test ramps.
  - Possibility to set different sampling frequencies at desired thresholds during the tests.
  - Fully automatic test frame selection between 2 frames, with the possibility to add electrovalves for automatic selection up to 4 frames.
CONCRETE

CYBER-PLUS EVOLUTION
ONE TECHNOLOGY, MANY SOLUTIONS

Innovative and user-friendly technology to control and manage the most advanced material testing machines for the construction industry. This control unit is a modular, flexible and multi-functions PC-based and touch screen system.

ELASTIC MODULUS TEST
Rocks and concrete elastic modulus tests can be performed, either by using the new Matest Servo-plus Servo-strain Research Control Unit or the standard C125N system installed on Matest automatic compression machines, servo-plus evolution.

DISPLACEMENT CONTROLLED TESTS AND DEFLECTION
The deflection measurement on steel fiber reinforced concrete beams may be performed by means of the specific deflection measurement device, displacement transducers installed on Matest flexural machines, and the software license (C109-15N) servo-plus evolution or by using and the automatic new Matest Servo-plus Servo-strain Research Control Unit.
THE WIDEST RANGE OF COMPRESSION AND FLEXURAL TESTING MACHINES
COMPRESSION CAPACITY FROM 1300 KN TO 5000 KN, FLEXURAL CAPACITY FROM 150 KN TO 360 KN

MAIN FEATURES

- Designed to meet international standards, EN, ASTM, BS, AASHTO, NF, DIN
- Four columns prestressed frames and tested for high stability.
- Both hand-operated and motorized versions.
- Flexure with closed or open-side frame
- Possibility to combine and customize compression and flexural machines to obtain groups of two or more frames.
CLIMATIC CABINETS
Available in two versions:

C313N
Temperature and humidity-controlled cabinet for testing concrete (EN 12390-2), cement (EN 196-1), aggregates (EN 1367-1) and many other applications.

C316N
Only temperature-controlled cabinet for the determinations of the behavior and resultance to freezing and thawing of aggregates (EN 1367-1) and other applications on concrete and building materials.

MAIN FEATURES
- Real-Time display of temperature and humidity parameters.
- High quality thermal insulation material.
- Capacity from 535 to 1200 litres.
- Temperature control from -30 to +70 °C with high stability (± 0.15 °C).
- Humidity control from 20% to 95% with ± 5% stability and ± 1% accuracy (within temperature +10 to +70 °C).
C129
ABRASION TESTER BÖHME

C318N
CORE DRILLING MACHINE, ELECTRIC MOTOR

C390
ANVIL

C369N
ULTRASONIC PULSE VELOCITY TESTER

C435
CONCRETE WATER IMPERMEABILITY APPARATUS, THREE PLACE

C178 KIT
SLUMP CONE TEST

C138N
UNIVERSAL DIGITAL TESTER WITH MICROPROCESSOR FOR LOAD CELLS
Cement is an inorganic material that, by mixing with water, becomes a paste with adhesive properties. This paste is generally used as a binder with solid inert materials such as sand, gravel and small rocks to produce the mortar and to prepare different types of concrete (light, reinforced, pre-stressed concrete). Matest offers a complete range of testing equipment for cement and mortar.

E092N KIT

MIXMATIC
AUTOMATIC PROGRAMMABLE MORTAR MIXER

STANDARDS: EN 196-1, EN 196-3, EN 413-2, EN 459-2, EN 480-1
DIN 1164-5, DIN 1164-7 | ASTM C305M | AASHTO T162

■ MAIN FEATURES
- Transparent CE safety guards.
- Planetary transmission for silent and low maintenance operation.
- Digitally controlled rotation speed.
- Easy and fast bowl insertion and removal.
- Safe operation thanks to sensors, bowl presence, correct position and emergency stop button.

E044-06

THERMOSTATIC CONTROLLED HEATING/COOLING SYSTEM “TWO” VICATRONIC

This device produces water with suitable heating and cooling elements at controlled temperature of 20 °C ± 0.5 °C. The water is forced into the test tank (E043) to submerge specimens as requested by standards. Up to two Vicatronic can be connected to the system.

VICATRONIC
THE WORLD’S MOST POPULAR AUTOMATIC AND COMPUTERISED VICAT APPARATUS
E183N

COMPRESSION AND FLEXURAL TESTING MACHINE

STANDARDS: EN 196-1, EN 13286-41, EN 933-5, EN 1015-11
ISO 679 | ASTM C109, C348, C349, C1194 | DIN 1164
BS 4550 | GOST 26798-1

MAIN FEATURES
- Double testing chamber and two independent measuring ranges.
- Compression tests in the chamber 300Kn capacity and flexural test in the chamber 15kN capacity.
- Flexural tests on cement prisms
- Compression tests on portions of prism, cubes side 40, 50, 70, 100 mm and 2”cores.
- The applied load is measured by two strain gage load cells (15kN and 300kN) granting very high accuracy (max. error within +/- 0.5%).
- Fully automatic version
- Suitable to perform Elastic Modulus (E190N).

E142

DIGITAL BOND STRENGTH TESTER

STANDARDS: EN 1542, EN 1348, EN 1015-12, EN 13687-2,
EN 13963, EN 14496 | NF P18-858 | BS 1881:207

This dynamometer measures the adhesive force and the tensile strength of two layers of materials (concrete, facing plasters, mortars, building plasters, lime etc.) being particularly suitable for the repairs of any structure where the bond strength between two layers is an essential factor.

E130

JOLTING APPARATUS

STANDARDS: EN 196-1 | EN ISO 679

Used to compact cement mortar prisms 40x40x160 mm contained into a three gang mould.
The apparatus is supplied with separate control panel including main switch, automatic digital drop counter, start/stop push button. Also available a high-performance version (E131N).
Optional soundproof cabinet.

E090-01 KIT

FLOW TABLES

STANDARDS: EN 459-2, EN 1015-3, EN 13279-2 | ASTM C230
*comparable to BS 4551-1

Used to perform flow and workability tests on mortar and lime. The equipment consists of a circular top table with spindle, tripod, bronze flow mould and tamper. The devices to EN Standards are equipped also of a filling hopper. Motorized models provided with automatic digital drop counter.
CEMENT - MORTAR

E159D COMPRESSION TESTING MACHINES

E161-01N COMPRESSION/FLEXURAL TESTING MACHINES WITH DUAL MEASURING RANGE

E170 COMPRESSION TEST ON MORTAR SPECIMENS

E172-01 FLEXURE TEST ON MORTAR SPECIMENS

E102 THREE GANG MOULDS

E093 MORTAR MIXERS

E138 LARGE CAPACITY CURING CABINET

E140 CURING BENCH WITH COOLING HEATING SYSTEM
Matest products range for test on steel includes universal electromechanical and hydraulic machines to perform tensile, compression, flexural, bending and resilience tests on metallic materials. This equipment can also be used to carry out tests on plastic, composed and textiles materials, wires, ropes, paper and rubber.

UNIVERSAL HYDRAULIC AUTOMATIC TENSILE MACHINES
600 KN, 1000 KN, 1500 KN, 2000 KN CAPACITY
STANDARDS: EN ISO 6892-1, EN 7500-1 | EN 10002, EN 10080, EN 50081-1, EN 15630-1, EN 15630-3 | ASTM A370, ASTM E8 | UNI 7676 (Wire Strands)
The machine is designed to meet requirements of works, laboratories and universities for quality control and research purposes. This system is suitable to test metallic round and flat rebar, to determine tension, compression, bending shear strength and to determine compression and flexure strength on concrete.

A second frame can be easily connected to perform a compression test on concrete specimens, including configurations for Elastic Modulus and Poisson ratio determination.

MAIN FEATURES
- Hydraulic servo-controlled system regulating the load rate
- Four thick columns and two lead screws grant high structural stiffness
- Two different work spaces, the upper one for tension and the lower one for compression, bending and shearing
- High precision load cell, class 1 according to ISO 376 standard, grants accurate force measurement
- Hydraulic jaws, for stronger clamping of specimens
- Possibility to fit accessories for tensile tests on nut bolts, headed and shouldered specimens, wire ropes
- Integrated displacement photoelectric encoder
- Movable lower crosshead with button panel for an easy machine operation and specimens positioning
- Compression platens included for an easy machine calibration
- Machine CLASS: 1
**DIFFERENT FRAMES, DIFFERENT NEEDS.**

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>H001A</th>
<th>H001B</th>
<th>H001BS*</th>
<th>H001C</th>
<th>H001D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load capacity (kN)</td>
<td>both tension and compression</td>
<td>600</td>
<td>1000</td>
<td>1000</td>
<td>1500</td>
</tr>
<tr>
<td>Load accuracy (%)</td>
<td>± 1</td>
<td>± 1</td>
<td>± 1</td>
<td>± 1</td>
<td>± 1</td>
</tr>
<tr>
<td>Test speed (mm/min):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td>85</td>
<td>35</td>
<td>35</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Min</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Deformation accuracy (%)</td>
<td>± 1</td>
<td>± 1</td>
<td>± 1</td>
<td>± 1</td>
<td>± 1</td>
</tr>
<tr>
<td>Max crosshead moving speed (mm/min)</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Piston stroke (mm)</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
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<tr>
<td>Horizontal columns distance</td>
<td>480</td>
<td>580</td>
<td>590</td>
<td>700</td>
<td>840</td>
</tr>
<tr>
<td>Max tension space (mm)</td>
<td>750</td>
<td>750</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Columns diameter</td>
<td>75</td>
<td>80</td>
<td>100</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>Length of the grips for standard samples</td>
<td>90</td>
<td>110</td>
<td>110</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Length of the insert for strands and special samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>225</td>
</tr>
<tr>
<td>Max compression space (mm)</td>
<td>590</td>
<td>570</td>
<td>680</td>
<td>750</td>
<td>780</td>
</tr>
<tr>
<td>Dimension of platens** (mm)</td>
<td>Ø128x30</td>
<td>Ø148x40</td>
<td>Ø148x40</td>
<td>Ø200x60</td>
<td>Ø200x60</td>
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<tr>
<td>Span of bending attachment (mm)</td>
<td>30-500</td>
<td>50-500</td>
<td>50-500</td>
<td>50-500</td>
<td>50-720</td>
</tr>
<tr>
<td>Roller length (mm)</td>
<td>120</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>160</td>
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<tr>
<td>Roller diameter (mm)</td>
<td>30</td>
<td>50</td>
<td>50</td>
<td>50</td>
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</tr>
<tr>
<td>Bending depth (mm)</td>
<td>100</td>
<td>180</td>
<td>180</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Load frame dimensions (mm)</td>
<td>2450</td>
<td>2665</td>
<td>3115</td>
<td>3500</td>
<td>3500</td>
</tr>
<tr>
<td>Height (including piston stroke)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>770</td>
<td>900</td>
<td>980</td>
<td>1120</td>
<td>1340</td>
</tr>
<tr>
<td>Depth</td>
<td>600</td>
<td>650</td>
<td>670</td>
<td>850</td>
<td>1000</td>
</tr>
<tr>
<td>Frame weight (kg)</td>
<td>2700</td>
<td>3100</td>
<td>3900</td>
<td>5000</td>
<td>9000</td>
</tr>
<tr>
<td>Power supply</td>
<td>380V, 3ph, 50-60Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Absorbed power (kW)</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>6.2</td>
</tr>
</tbody>
</table>

* Wire Strands can be tested with this model only. Other models for wire strands testing are available on request.

** Compression platens are already included in the supplied machine
**H003N**

**UNIVERSAL HYDRAULIC SERVO-CONTROLLED MACHINE 600 KN CAPACITY**

STANDARDS: EN 10002, EN 10080, EN 15630-1, EN 15630-3
EN ISO 6892-1, 7500-1 | ASTM A370, ASTM E8

Designed to perform both tensile tests using the grips placed in the clamping heads, and also flexural, compression, bending, hardness, and other tests in the upper part of the frame. Equipped with the hydraulic Servo-Plus Evolution system for data acquisition and control.

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**H007N**

**UNIVERSAL ELECTROMECHANICAL SERVO-CONTROLLED MACHINE**

CAPACITY: 10 KN, 50 KN, 100 KN, 200 KN AND 600 KN

STANDARDS: EN 12390-4 | EN ISO 6892, 7500-1 | ASTM E4

Suitable to perform tensile ad elongation tests in laboratories for quality control and research on different materials, such as metals, plastics, composed materials, wires, ropes, paper and textiles.

---

**H010-02N**

**UNIVERSAL TENSILE/COMPRESSION MACHINE**

STANDARDS: EN 10002 | EN ISO 6892-1, 7500-1, 15630-1
ASTM C39, E4 | BS 1610 | NF P18-411 | DIN 51220
AASHTO T22

Servo-controlled hydraulic testing machine with touch screen control unit. Tensile tests on steel reinforced round bars with a diameter from 6 to 26 mm, and flat bars with max. dimensions of 25x15 mm. Compression tests on concrete cubes with max. side of 150 mm, and cylinders with max. diameter of 160x320 mm. The four columns loading frame is oversized to provide high rigidity and stability.

---

**MAIN FEATURES**

- Strong base facing transmission and Hardware control.
- Two big diameter and high resistance steel columns with ground hard chrome surfacing granting a high lateral rigidity.
- Possibility to execute tests in both directions.
- Two re-circulating spheres screws with pre-loaded female screws that grant no clearance to the cross-bar movement.
- Big section cross-bar granting high stiffness.
- Sintered bushes with low friction coefficient cross-bar movement.

---

**NEW MODEL WITH LARGER TENSILE HEADS**
**H017**

**UNIVERSAL EDUCATIONAL TESTING MACHINE**
**CAPACITY 20 KN**

Designed to measure strength of metallic materials and study the various reactions they undergo when subject to different stresses, verifying the same with the following tests:
- Tensile
- Shear
- Compression
- Flexural
- Brinell hardness

---

**H065N**

**COLD BEND TESTING MACHINE**
**STANDARDS: EN ISO 7438, EN ISO 15630-1 | ASTM A615, ASTM A615M | D.M. 14/1/1988**

Designed to perform bending tests on steel bars for reinforced concrete. It accepts bars with diameter up to 40 mm and it is supplied with two series of rollers, having respectively a diameter of 50 and 100 mm. CE safety guards available.

**MAIN FEATURES**
- Maximum piston load: 160 kN
- Maximum piston stroke: 550 mm
- Piston speed adjustable from 0 to 6 mm/s

---

**H020**

**MARKING-OFF MACHINE**
**AUTOMATIC MOTORISED**

**STANDARD: UNI 556**

Used to mark off specimens with round, flat and square shape and with improved bond for the measurement of the percentage elongation after their breaking, in accordance with the Standards.

---

**H057N**

**BROACHING MACHINE**
**MOTORISED**

Used to make notchings on impact test bars for resilience tests. The notch on the specimen is obtained by only one tooling with very high dimensional accuracy.
The triaxial test brings the sample back to its site conditions through the various steps characterizing the triaxial test (saturation, consolidation) and measure the material resistance to shearing and the connections between stress and strain.

Three versions are available, from the standard model to the high-performance load frame for advanced laboratories, covering several levels of automatization and a wider range of testing speeds. Dial gauges, dynamometric rings or cells and data acquisition systems available for system upgrade.

**Triaxial Systems**

This section provides all instruments needed to analyse soil samples in order to evaluate their properties, by providing a complete range of soil testing equipment for extracting, sampling, classification, consolidation, shear strength, triaxial, compaction, penetration, bearing capacity, permeability, density, geotechnical and chemical tests, in compliance with the EN, ASTM, BS and the most known International Standards.

**New Triaxial Frame**

- Widest testing speed range
- Innovative design
- Orientable high-resolution touch screen

Suitable to perform Unconfined, CBR, Marshall and Standard Triaxial tests

Maximum compression capacity: 50kN

Maximum testing speed: 100 mm/min
TRIAXLAB AUTOMATED SYSTEM

STANDARDS: BS 1377:7, BS 1377:8 | ASTM D2850, D4767, D7181 | NF P94-070, P94-074 | CEN-ISO-TS 17892

- MAIN FEATURES
  - POWERFUL. Equipped with Pavetest’s leading edge Control and Data Acquisition System (CDAS) and TestLab Software.
  - VERSATILE. Designed for routine tests, central laboratories and for research purposes.
  - GREAT EFFICIENCY. By working in complete automatic mode, it reduces to absolute minimum the manual intervention.
  - EASY TO USE. The system works via the pre-programmed Method Files.
  - FLEXIBLE. Multiple triaxial tests with no need for compressed air supply.

PRESSUREMATIC
- CLOSED LOOP CONTROL UP TO 3500 KPA
- HIGHEST VOLUME AND PRESSURE RESOLUTION
- HIGH VOLUME CAPACITY

THE FUTURE OF LABORATORIES IS SMART

CDAS
Control and Data Acquisition System

CYCLIC TRIAXLAB AUTOMATED SYSTEM


- MAIN FEATURES
  - Automatic execution of static and dynamic triaxial tests including effective stress and standard stress path.
  - 4 axis control and 16 channel control Data Acquisition System.
  - Servo feedback controlled precision pressure (Pressurematic) generation system.
  - Digital Servo-Pneumatic Control to provide accurate loading wave shapes up to 70 Hz.
  - User friendly “Method files” through the TestLab Software.
  - Possibility to upload user-defined wave-shapes (e.g. earthquakes time series) through Replay Editor.
  - Programmable Dashboard display showing real-time system status and test result and charting.
  - Bender elements kit
S205N

UNITRONIC 50 KN
UNIVERSAL MULTIPURPOSE FRAME

Electromechanical frame with automatic load or displacement/deformation control for compression, flexural and tensile tests on different materials such as soil, asphalt, concrete, cement, metals, plastic, wires, clay blocks, rocks and stones.

- **MAIN FEATURES**
  - Maximum compression capacity: 50kN
  - Maximum tensile capacity: 25kN (accessory S205-05N)
  - Adjustable testing speed from 0.01 to 51 mm/minute
  - Adjustable pace rate from 1 N to 15 KN/sec.
  - Max. ram travel: 100 mm
  - 8 channels for data acquisition and data processing system
  - Available Pc software for remote control

S206N

UNITRONIC 200 KN
UNIVERSAL MULTIPURPOSE FRAME

Universal and versatile machine to perform compression, flexure and tensile tests on different materials such as soil, asphalt, concrete, cement, metals, plastic, wires, clay blocks, rocks and stones. Equipped with automatic servo-controlled load or displacement deformation control, the 200 kN capacity allows performing Duriez test.

- **MAIN FEATURES**
  - Max. load: 200 kN (both Compression and Tensile)
  - Testing speed range: from 0.01 to 100 mm/min
  - Load rate: from 1 N/s to 5 kN/s
  - Displacement resolution: 0.01 mm with accuracy better than 0.2%
  - 8 channels for data acquisition and data processing system
  - Available Pc software for remote control

S262N

EDOTRONIC
AUTOMATIC CONSOLIDATION APPARATUS
(OEDOMETER)

STANDARDS: ASTM D2435-80 | CEN - ISO - TS 17892-5 | BS 1377:5

This automatic consolidation system, ideal for modern and efficient laboratories, has been created to eliminate or reduce to the absolute minimum any forms of manual intervention, providing results in greater efficiency and cost effectiveness. Easy to use, Edotronic is equipped with a digital control unit with touch-screen display. Electro-mechanical version available on request.
SHEARTRONIC
DIGITAL SHEAR TESTING MACHINE
STANDARDS: ASTM D3080-72 | BS 1377:7 | NF P94-071-1
AASHTO T235 | CEN-ISO-TS 17892-10 | NF P094-071-2

Advanced system specifically designed to perform consolidation, direct and residual shear stages in a fully automated way. Sheartronic, with incorporated data acquisition system, is based on a pneumatic closed-loop system which along with a high-performance regulator guarantees an automatic application of a vertical load up to 6000N, thus offering the unique possibility to reduce to the absolute minimum any form of manual intervention.

DATATRONIC
AUTOMATIC DATA ACQUISITION AND PROCESSING SYSTEM
8 ESPANDABLE TO 16 CHANNELS

This system can be used both with Matest testing machines (edemometers, CBR/ Marshall/ELL machines, triaxial machine, shear test apparatus etc.), and with equipment of other brands. Datatronic data acquisition and processing system with full colour touch screen can be connected to the PC via LAN. Equipped with slots for USB Pen-drive or SD Card memory, it is a flexible, customizable and expandable solution.

AUTOMATIC PROCTOR CBR COMPACTOR
STANDARDS: EN 13286-47 | ASTM D698, D1557, D1883
AASHTO T99, T180, T193 | BS 1377:7 | NF P94-093, P94-066 | DIN 18127 | AS 1289
and many others.

Designed to compact Proctor and CBR specimens, it ensures an extremely uniform compaction degree, granting reliable and repeatable test results.

The software allows to select and perform automatically different compaction cycles in accordance with the international Standards. The user can select and memorize up to 10 personalized test cycles. Several moulds and rammers are available.
S199T
AUTOMATIC PROCTOR
CBR COMPACTOR
TECNOTEST MODEL

S202N
CALIFORNIA BEARING RATIO TEST SETS

S260
FRONT LOADING OEDOMETER
CONSOLIDATION APPARATUS

S276-01
AUTO SHEARLAB
DIGITAL SHEAR TESTING MACHINE
WITH INCORPORATED
DATA ACQUISITION SYSTEM

S215A
UNIVERSAL MULTISPEED LOAD FRAME
DIGITAL TOUCH-SCREEN

S160-01N
MOTORIZED SAND EQUIVALENT SHAKER

S165-02 KIT
SEMI AUTOMATIC CONE
PENETROMETER
DIGITAL

S172
LIQUID LIMIT DEVICE
S224-01 KIT
DIGITAL PLATE BEARING TEST EQUIPMENT
200 KN CAPACITY

S088
PROCTOR PENETROMETER

S234-01 KIT
FIELD DENSITY SAND REPLACEMENT METHOD

S158 KIT
SAND EQUIVALENT TEST SET

S238N KIT
RELATIVE DENSITY OF COHESIONLESS SOILS

S178
PLASTIC LIMIT

S220 KIT
FIELD CBR TEST SET

S051
DYNAMIC CONE PENETROMETER (DCP)
SPECIFIC GRAVITY FRAME
STANDARDS: EN 12697, EN 1097-6 | EN 12390-7 | ASTM C127, C128 | AASHTO T84 | BS 812:2, 1881:114
Used for specific gravity determination of concrete and aggregates. To be used with a suitable electronic balance fitted with an under-hook facility. Robust steel frame made, it incorporates on its lower part a platform adjustable in height, holding a water container, and allowing the specific gravity test.

BALANCES
Mechanical models, rotary automatic scales, batching scales, moisture determination balances, zero-centering balances, and digital models (from 210 g to 300 kg). Most of the models are fitted with under balance weighting facility for specific gravity tests and RS 232 port.

HOT PLATES
Round, rectangular or square laboratory hot plates, used to dry soil and aggregate samples, and for other general heating applications.

LABORATORY GLASSWARE
Glass containers for volumetric tests and laboratory purposes: measuring cylinders and beakers, Erlenmeyer conical flasks, volumetric flasks with and without stopper, filter flasks, graduated bottles, pyknometers, Gay-Lussac and Hubbard-Carmick specific gravity bottles, weighting bottles, glass funnels, graduated pipettes, bended or right graduated burettes and desiccators.
V207
LABORATORY AIR COMPRESSOR

V215-02N
PH / °C ORP (OXIDATION REDUCTION POTENTIAL) METER LABORATORY MODEL

V153
DIGITAL THERMOMETER

V164 / V162
THERMOMETERS

V183...V185-03
SCOOPS

V182
PANS

V035-03
STANDARD CALIBRATION WEIGHTS

V112...
MORTAR AND PESTLE, PORCELAIN