SINCE- 2010

PRINCE

ENGINEERING TECHNOLOY

MANUFACTURER, EXPORTER AND DESIGNER OF

PROCESS CONTROL INSTRUMENTS

PULP, PAPER, BOARD, PACKAGING AND TISSUE TESTING EQUIPMENTS

MAKE IN INDIA

PRINCE
ENGINEERING TECHNOLOY

COMPANY PROFILE

SUSHIL DHIMAN
(FOUNDER & CHAIRMAN)

SANDEEP DHIMAN
(MANAGING DIRECTOR)

WHO WE ARE?

Prince Engineering Technology established in 2010 at Roorkee (India), is a leading manufacturer of advance micro- control based Measurement, Control & Testing Instruments for Pull & Paper Industry. PET is established in 2010 as a quality testing equipment manufacturer to supply these highly qualitative instrument to the industry, which add to the productivity and profitability of our customers.

OUR CAPABILITIES-

As designers and manufacturers we are ideally placed to react quickly to changes in international standards. We can easily customize our products according to the varying needs of customers. We are proud to offer the digital versions of various Lab Instruments with the Highest Accuracy at affordable price. We have a very good reputation with regards to product Quality, on time Delivery and after sale services.

OUR SERVICES-

Our service department is able to repaire, calibrate the instruments even after many years of usages at your site or at our workshop.All product are backed up with years of experience in Pulp and Paper Industry, covered by our comprehension extended warranty and supported by our field service and calibration personnel.
PET provides all the equipments only under the brand name of PET ROORKEE. All the testing equipments are highly precised and conforming to the standard, TAPPI, ISO, SCAN, ASTM etc.

Our designers, engineers, technicians, and field service personnel have one common overriding objective to upgrade and improve the design, production, & testing technology helping to enhance the quality of our products on a continuous basis.

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OUR VISION

PET Roorkee is a Manufacturer and Supplier of Quality Testing Equipment used in various Pulp, Paper, Printing, Packaging, Converting, Chemical and Others Industries.Instruments are available to measure more than 50 properties including adhesion, abrasion, friction, compression, tensile strength, impact, internal bond, softness and thickness.The unit has adequate and elaborate facilities for designing, manufacturing, testing, and calibration of its machines.

We believes in customer satisfaction through rigorous quality assurance systems to ensure the right and the best quality at all stages. We provide maintenance and calibration services to eliminate equipment failure and reduce malfunction to a minimum.

OUR GLOBAL PRESENCE

ETHIOPIA

BANGLADESH

NEPAL

UGANDA

NIGERIA

KENYA

SRI LANKA

BHUTAN

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PROCESS CONTROL
EQUIPMENTS

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MOTORISED BASIS WEIGHT CONTROL VALVE
(MICROPROCESSOR BASED)

The basis weight, substance or Grammage is obviously most fundamental property of paper board. All paper machines are designed to manufacture paper in a given basis weight range.Tighter the range and more efficient will be the machine but still it's common for paper manufacturers to seek methods to improve basis weight control.
PET introduce Micro control based Motorised Basis Weight Valve to control the Grammage and save the time in maintaining GSM & grade change in pulp, paper industries. Flange less V-notch ball valve with combination of Electro-Mechanical Actuator & Controller. V-notch ball valve offers equal % characteristics for precise control.

FEATURES-
» Actuator with almost negligible backless.
» Digital valve position indicator.
» Easy to install and user friendly.
» Can be hooked to DCS/QCS system.
» Backed up by skilled service personal.
» Strong support of prominent after sales service.

MODEL NO. PET 901

SPECIFICATIONS-

Type of Construction	"V" notch shear control valve
Size	80mm to 200mm
End Connection	Flange less
Body Material	Ss316
Characteristic	Equal Percentage
Pressure Drop	10% of Inlet Pressure
Actuator	Aluminium
Temperature	Ambient
Opening Time	as per valve size
Resolution Step	15,000-35,000
Output Torque	200Nm-500Nm (as per valve size)
Gear Ratio	1:150 (min.), 1:500 (max.)
Feedback Output	2K ohmsAC
Supply	220V/50Hz

MODEL NO. PET 902

VALVE CONTROLLER

FEATURES-
» Auto-Manual selector in Auto-mode actuator operate as per incoming control command
» LED indications for valve opening/closingDigital Display of signal error & feed-back error.
» Digital Valve position indicator, Indicates %age opening of valve.

SPECIFICATIONS-

Display	0-100%	Input Signal	pulses/4-20M (selectable)
Pulse Width	0.9mili sec (min.)	Least Count	0.1
Output	4-20 mA	Output Accuracy	0.025%
Power Supply	220V AC	Feedback Input	1-5 volt
Drive Input	220V AC		

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CONSISTENCY TRANSMITTER LOOP
(BLADE TYPE)

The basis weight is obviously most fundamental property of paper board.It is common for paper manufacturers to seek methods to improve basis weight control.

PET introduce Micro-control based Consistency Transmitter to control the pulp consistency at wet end to maintain GSM of paper. The transmitter's operation is based on shear force measurement. As consistency changes the movement on diaphragm changes the electrical signal, which is generated by Eddy Current Probe.
And this electric output signal is directly proportional to change in consistency.
The transmitter is supplied within an operating unit.

FEATURES-

» Mounted directly in the process pipe line.
» Single Blade for all pulp furnish.
» No moving parts only one blade (sensor) is in touch with pulp.
» Transmitter module can be serviced in-line.
» Microprocessor based Single Calibrator (display unit) with auto calibration switches.
» Inbuilt single loop PID controller.
» Digital display of set point, actual consistency & valve opening.
» Digitally adjustable span & zero control.
» Economical & low maintenance requirement.
» Compact design, Light weight, Easy to install.
» Fast and accurate measurement.
» Low initial & installation cost.
» Micro-computer controls,
» Menu Driven Software.
» User Friendly software guides the operators through all steps of program selection.
» Can be hooked to DCS/QCS system.
» Backed up with skilled service personals.

MODEL NO. PET 917

SPECIFICATIONS-

Consistency Range	1.2% to 6.5%
Repeatability	0.3% of reading
Span	100g to 2000g
Process Temperature	4° to 60°
Process Pressure	20 bar (max.)
Input Signal	4-20mA
Output Signal	4-20mA
Power Supply	220 V AC

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MOTORISED DILUTION VALVE
(MICROPROCESSOR BASED)

The basis weight, substance or Grammage is obviously most fundamental property of paper board. All paper machines are designed to manufacture paper in a given basis weight range. Tighter the range & more efficient will be the machine but still it is common for paper manufacturers to seek methods to improve basis weight control. PET introduce Micro control based Motorised Basis Weight Valve to control the Grammage and save the time in maintaining GSM & grade change in pulp, paper industries.

» Flange less V-notch ball valve with combination of Electro-Mechanical Actuator & Controller.
» V-notch ball valve offers equal % characteristics for precise control.
» Actuator with almost negligible backless.
» Digital valve position indicator.
» Easy to install and user friendly.
» Can be hooked to DCS/QCS system.
» Backed up by skilled service personal.
» Strong support of prominent after sales service.

MODEL NO. PET 922

SPECIFICATIONS-

Size	50mm, 65mm, 80mm
End Connection	Flange less
Type of Construction	"V" notch shear control valve
Body Material	S.S.304
Characteristic	Equal Percentage
Temperature	Ambient
Actuator	Aluminium
Output Torque	90Nm
Gear Ratio	1:200 (max.)
Feedback Output	2K ohms
AC Supply	220V/50Hz

MODEL NO. PET 902

VALVE CONTROLLER

FEATURES-

» Auto-Manual selector in Auto mode actuator operate as per incoming control command
» LED indications for valve opening/closingDigital Display of signal error & feed-back error.
» Digital Valve position indicator, Indicates %age opening of valve.

SPECIFICATIONS-

Display	0-100%	Input Signal	pulses/4-20M (selectable)
Pulse Width	0.9mili sec (min.)	Least Count	0.1
Output	4-20 mA	Output Accuracy	0.025%
Power Supply	220V AC	Feedback Input	1-5 volt
Drive Input	220V AC		

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AUTO GUIDES
(AUTOMATIC)

Auto guide are designed for wire, felt & fabric run regulation of paper machines. Guide is a device which sets a guide roll into a needed position according to evaluation of sensor impulses. Model No.PET 924(A) Generally,the sensing element work like a distributor valve forcing the pressure air to enter particular pneumatic bellows.
The sensor dislocation is due to palm swinging to the right or to the left from the central position of the longitudinal equipment axis.

FEATURES-

» Guide consists of a bearing housing in which guide roll is fitted
» Antifriction bearing are used for fast response
» Imported bellows (Norgern or Fire-Stone) for long life
» Direct acting position control provides fast & precise response
» Customize design for individual needs Fully automatic/Manual operation
» Low operating cost, Easy Mounting Smooth Operation

MODEL NO. PET 924 (A)

SPECIFICATIONS-

Working stock of Guide	± 40mm to ± 60mm
Maximum dia. of housing	220mm
Minimum Input Air Pressure	1.0kg/sq cm
Maximum Input Air Pressure	1.5-2.0kg/sq cm
Mode of Control	Different cum Proportional

MODEL NO. PET 924 (B)

MODEL NO. PET 924 (C)

MATERIAL USED

Guides available in MS and SS.

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PHYSICAL PROPERTIES
TESTING EQUIPMENTS

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MANUAL BURSTING STRENGTH TESTER
(MULLEN TYPE)

Bursting Strength of any material is its strength under multidirectional force and is defined as the hydrostatic pressure required to produce rapture of the material when pressure is applied at a controlled increasing rate through a rubber diaphragm.

FEATURES

» Manual Clamping & Auto reserve
» One Touch Push the button operation
» Measure & retain Peak Pressure
» Measuring Results in Kg/sq.cm
» Latest & Compact design
» Design to give a long and trouble free life

MODEL NO. PET 929 (B)

SPECIFICATION-

Pressure (Capacity)	0-15,35 Kg/sq.cm (for Pap
Pressure (Capacity)	0-35 Kg/sq.cm (for Board)
Resolution	0.01 Kg/sq.cm
Accuracy	± 1% of measured value
Power Supply	220 V/ 50Hz

MODEL NO. PET 929 (C)

SEMI-AUTOMATIC BURSTING STRENGTH TESTER
(MICROCONTROLLER BASED)

Semi-Automatic Bursting Strength is micro-controller based equipment. Bursting Strength of any material is its strength under multidirectional force and is defined as the hydrostatic pressure required to produce rapture of material when pressure is applied at controlled increasing rate through a rubber diaphragm.

FEATURES

» Manual Clamping & Auto reserve
» One Touch Push the button operation
» Measure & retain Peak Pressure
» Automatic zero setting
» Test result are displayed on display window
» Measuring Results in Kg/sq.cm
» Latest & Compact design with digital control display
» Design to give a long and trouble free life

MODEL NO. PET 905 (B)

SPECIFICATION-

Pressure (Capacity)	0-15,35 Kg/sq.cm (for Paper), 0-35 Kg/sq.cm (for Board)
Resolution	0.01 Kg/sq.cm
Accuracy	± 1% of measured value
Power Supply	220 V/ 50Hz

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FULLY-AUTOMATIC BURSTING STRENGTH TESTER
(PNEUMATIC CLAMPING)

Bursting Strength of any material is its strength under multidirectional force and is defined as the hydrostatic pressure required to produce rapture of the material when pressure is applied at a controlled increasing rate through a rubber diaphragm.

FEATURES
» Pneumatic Clamping & Auto reserve
» One Touch Push the button operation
» Measure & retain Peak Pressure
» Automatic zero setting
» Test result are displayed on display window
» Measuring Results in Kg/sq.cm
» Latest & Compact design with digital control display
» Design to give a long and trouble free life

MODEL NO. PET 929 (A)

SPECIFICATION-

Pressure (Capacity)	0-15,35 Kg/sq.cm (for Paper)
Pressure (Capacity)	0-35 Kg/sq.cm (for Board)
Resolution	0.01 Kg/sq.cm
Accuracy	± 1% of measured value
Power Supply	220 V/ 50Hz

PORTABLE BURSTING STRENGTH TESTER
(MICROCONTROLLER BASED)

Semi-Automatic Bursting Strength is micro-controller based equipment. Bursting Strength of any material is its strength under multidirectional force and is defined as the hydrostatic pressure required to produce rapture of material when pressure is applied at a controlled increasing rate through a rubber diaphragm.

FEATURES
» Manual Clamping & Auto reserve
» One Touch Push the button operation
» Measure & retain Peak Pressure
» Automatic zero setting
» Test result are displayed on display window
» Measuring Results in Kg/sq.cm
» Latest & Compact design with digital control display
» Design to give a long and trouble free life

MODEL NO. PET 905 (A)

SPECIFICATION-

Pressure (Capacity)	0-15,35 Kg/sq.cm (for Paper), 0-35 Kg/sq.cm (for Board)
Resolution	0.01 Kg/sq.cm
Accuracy	± 1% of measured value
Power Supply	220 V/ 50Hz

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DOUBLE HEAD MANUAL BURSTING STRENGTH TESTER
(MULLEN TYPE)

Bursting Strength of any material is its strength under multidirectional force and is defined as the hydrostatic pressure required to produce rapture of the material when pressure is applied at a controlled increasing rate through a rubber diaphragm.

FEATURES
» Manual Clamping & Auto reserve
» One Touch Push the button operation
» Measure & retain Peak Pressure
» Measuring Results in Kg/sq.cm
» Latest & Compact design
» Design to give a long and trouble free life

MODEL NO. PET 929 (D)

SPECIFICATION-

Pressure (Capacity)	0-15,35 Kg/sq.cm (for Paper)
Pressure (Capacity)	0-35 Kg/sq.cm (for Board)
Resolution	0.01 Kg/sq.cm
Accuracy	± 1% of measured value
Power Supply	220 V/ 50Hz

DOUBLE HEAD SEMI-AUTOMATIC BURSTING STRENGTH TESTER
(MICROCONTROLLER BASED)

Semi-Automatic Bursting Strength is micro-controller based equipment. Bursting Strength of any material is its strength under multidirectional force and is defined as the hydrostatic pressure required to produce rapture of material when pressure is applied at a controlled increasing rate through a rubber diaphragm.

FEATURES
» Manual Clamping & Auto reserve
» One Touch Push the button operation
» Measure & retain Peak Pressure
» Automatic zero setting
» Test result are displayed on display window
» Measuring Results in Kg/sq.cm
» Latest & Compact design with digital control display
» Design to give a long and trouble free life

MODEL NO. PET 929 (D)

SPECIFICATION-

Pressure (Capacity)	0-15,35 Kg/sq.cm (for Paper), 0-35 Kg/sq.cm (for Board)
Resolution	0.01 Kg/sq.cm
Accuracy	± 1% of measured value
Power Supply	220 V/ 50Hz

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PRINCE
ENGINEERING TECHNOLOY

DOUBLE HEAD FULLY-AUTOMATIC BURSTING STRENGTH TESTER
(PNEUMATIC CLAMPING)

Bursting Strength of any material is its strength under multidirectional force and is defined as the hydrostatic pressure required to produce rapture of the material when pressure is applied at a controlled increasing rate through a rubber diaphragm.

FEATURES
» Pneumatic Clamping & Auto reserve
» One Touch Push the button operation
» Measure & retain Peak Pressure
» Automatic zero setting
» Test result are displayed on display window
» Measuring Results in Kg/sq.cm
» Latest & Compact design with digital control display
» Design to give a long and trouble free life

MODEL NO. PET 929 (E)

SPECIFICATION-

Pressure (Capacity)	0-15,35 Kg/sq.cm (for Paper)
Pressure (Capacity)	0-35 Kg/sq.cm (for Board)
Resolution	0.01 Kg/sq.cm
Accuracy	± 1% of measured value
Power Supply	220 V/ 50Hz

COBB SIZING TESTER
(TILTING TYPE)

The tilting type Cobb sizing tester is used for determining the Water Absorbency of Paper, Paperboard and similar materials.
The water absorbency of paper (the Cobb value) is defined as the quantity of water absorbed in a given time by one side of a Specified area of paper or board placed horizontally under a head of one Centimeter of Water. The Access Water has to be removed through a Couch Roller.The unit is Tilting Type Lid Clamped by way of Spring Loaded Finger Grips.

EXTRA ON DEMAND
Standard Blotting Paper: 200-215 GSM,
Size- 200 mm x 200 mm.

MODEL NO. PET 930

SPECIFICATION-

Equipment Category:	Physical Property Testing Equipment
Weight:	13.100 Kg.
Dimension:	Main Unit – 29.0 x 15.0 x 22.5 cm., SS Couch Roller - 12.5 x 20.0 x 53.0 cm.

MODEL NO. PET 906

APPLICABLE STANDARDS
ISO 535, SCAN P12, DIN 53132, TAPPI T 441, EN 20535, PAPTAC F.2

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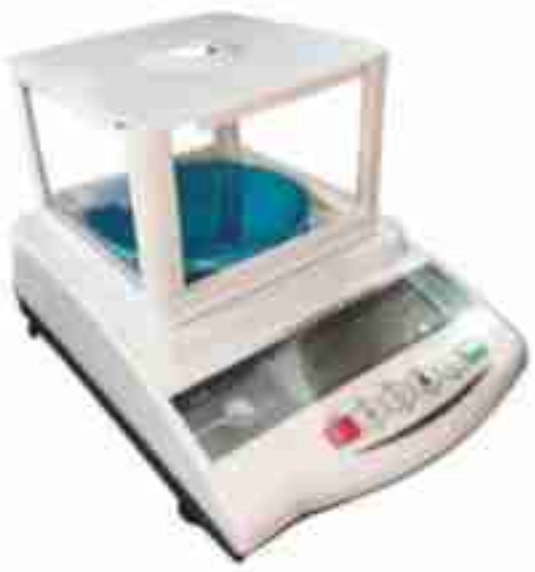
DIGITAL GRAMMAGE TESTER
(PAN MODEL)

The Digital Grammage Tester is used for basis weight checking of Paper & Board. A Test Sample of paper, board/other sheet materials (std. size) is kept in the ring/flat for accurate measurement of GSM is seen on the screen provided.

FEATURES
» Fast & Easy Operation & Response.
Micro Processor based Controller
» Check GSM directly, No need of calculation
» Four Template size can be selected at single scale
» Selectable Template size: (10×20,20×25 & 20×50cms)
» High brightness LED Long Life.
» High Stability Indication
» Avoids Calculation error
» Scale's other opacity available on request



MODEL NO. PET 904 (B)

SPECIFICATION-

Scale Capacity	0-1000 GSM
Readability	0.01 digits
Accuracy	± 0.1 GSM

DIGITAL GRAMMAGE TESTER
(HANGING TYPE)

The Digital Grammage Tester is used for basis weight checking of Paper & Board. A Test Sample of paper, board/other sheet materials (std. size) is kept in the ring/flat for accurate measurement of GSM is seen on the screen provided.

FEATURES
» Fast & Easy Operation & Response.
Micro Processor based Controller
» Check GSM directly, No need of calculation
» Four Template size can be selected at single scale
» Selectable Template size: (10×20,20×25 & 20×50cms)
» High brightness LED Long Life.
» High Stability Indication
» Avoids Calculation error
» Scale's other opacity available on request

MODEL NO. PET 905 (A)

SPECIFICATION-

Scale Capacity	0-1000 GSM
Readability	0.01 digits
Accuracy	± 0.1 GSM

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DIGITAL THICKNESS MICROMETER
(MOTORISED MODEL)

The Micrometer is designed for the accurate measurement of thickness & bulk of paper, board, tissue and other materials. Thickness or Caliper of paper is measured as the perp-endicular distance between two circular, plane, parallel surface under standard pressure. Meets SCAN P47, ISO 5084, TAPPI T-411, ISO 534, Single push button operation, Dial Bench Micrometers. Electronic compensation minimizes displacement transducer non-linearity. Rigid cast aluminum base assures thermal and mechanical stability.

Contact pressure 2.0 ± .1 kpa &lowering speed of 1± .2mm/sec.Containing area & pressure between testing head and specimen conform to the relative standards strictly.
Special configuration design guarantee the parallel of the upper & lower test surfaces.

SPECIFICATION-

Range	0-5000 microns
Resolution	0.001 mm & 0.01 mm
Measuring Accuracy	± 0.5% of measured value
Repeatability	0.1% of range
Test area	2 sq. cm, 10 sq. Cm

MODEL NO. PET 962

180° PEEL STRENGTH TESTER
(MICRO-PROCESSOR BASED)

A peel tester, also known as a peel strength tester, is a testing machine used to evaluate the adhesive strength of materials like tapes, labels, and laminates.

It measures the force required to separate two bon-ded surfaces, providing a quantitative assessment of adhesive performance.

MODEL NO. PET 961

APPLICATIONS:

» Packaging industry: Testing the adhesion of tapes, labels, and other packaging materials.
» Automotive industry: Evaluating the strength of adhesive bonds in various applications.
» Medical device industry: Assessing the performance of adhesives used in medical devices.
» Construction industry: Testing the adhesive strength of materials used in construction projects.

APPLICABLE STANDARDS-

ASTM-B571-97

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TENSILE STRENGTH TESTER
(MICROPROCESSOR BASED)

The Tensile Tester is used to test tensile strength and stretch to paper. A test piece is clamp between two jaws without slipping and pulling apart so that the breaking occurs. The maximum load at which the sample breaks measured by load cell.

This Single Column Tensile Tester is Microprocessor Based with LCD Display and operational through Key Pad. It provides rapid and efficient determination of Tensile Strength, Stretch (Elongation) & Breaking Length (BL) of Paper, Tissue Paper and Paperboard.
For testing of Tissue Papers, Load Cell of low capacity &specially designed Soft Clamps are provided which prevent Test Pieces from Slipping or Tearing during measurements.

PRINCIPLE

A Tensile Strength Tester applies a controlled pulling force (tensile force) to a material sample to determine its tensile strength and other mechanical properties. The machine works by gripping the sample at both ends and gradually increasing the force until the sample either breaks or reaches a point of permanent deformation, according to ZwickRoell. The machine records the force applied and the elongation (change in length) of the sample throughout the test, allowing for the calculation of key parameters like stress, strain, and yield strength.

MODEL NO. PET 908 (A)

FEATURES

» Meets standards TAPPI 494
» Measurement: Dry Tensile Strength (Kn/m), Breaking Elongation (mm), Breaking Force (N) and Breaking Length (km)
» Micro-computer controls, enu Driven Software,Easy Calibration facility & Automatic zero setting
» Display System: Digital Direct read out, Push Button Operated, Frequent Calibration not require
» Provides unmatched stability & Sets up in just few seconds
» Compact design, attractive appearance and easy to operate
» User friendly software guides the operators through all steps of program selection


MODEL NO. PET 908 (B)

TECHNICAL SPECIFICATION

Capacity	0-500 N
Sensitivity	0.01 Kg
Clamps	SS clamp of 15 mm
Jaw Separation	25 mm to 300 mm max
Elongation Resolution	0.1 mm
Elongation Accuracy	± 0.5%
Accuracy	0.1%

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DIGITAL TWIN FOLDING ENDURANCE TESTER
(SCHOPPER TYPE)

Folding endurance tests have been used for the estimation of the suitability of papers in use to with stand repeated bending, folding, and creasing. The instrument measure the number of folds until sample breaks & will suitable for paper having a thickness of 0.25mm or less.

SPECIFICATIONS-

Capacity	9,999 fold (max.)
Least county	1 fold
Tension	min. 7.5 N/max. 9.0 N
Sample Size	15mm × 100mm
Speed	100 strokes/ min.

MODEL NO. PET 991

FEATURES-

» Meets standards TAPPI 423
» Easy Calibration facility & Automatic zero setting
» Push Button Operated, Frequent Calibration not require
» Measured Nos. of Folds and Used upto 0.25mm thickness
» Provides unmatched stability & Set up in just few seconds
» Compact design, attractive appearance and easy to operate
» User friendly software guides the operators through all steps of program selection

BENDING STIFFNESS TESTER
(DIGITAL MODEL)

This tester is used to measure the resistance to banding stiffness of paper, paper board & other flexible material having strong bending resistance Applicable standards TAPPI T-566.

FEATURES

» Automatic zero setting.
» Bending resistance of specimen in one single step.
» One touch selection of units (mN or Taber)
» One touch selection of bending degree
(7.5 degree or 15 degree)
» Measuring result of Stiffness in gmf/ mN/ Taber

MODEL NO. PET 918

SPECIFICATION-

Capacity	0-5000 mN
Bending angle	7.5O, 15O
Bending Speed	5 degree/s
Specimen size	38 × 70mm
Least count	1 mN
Accuracy	± 0.1% of display value
Power Supply	220V AC

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TEARING RESISTANCE TESTER
(ELMENDORF TYPE)

The Elmendorf Tear Tester uses the Elmendorf principle to determine the internal tearing resistance of paper and board.
Elmendorf Tear Tester measures the force perpendicular to the plane of the paper required to tear multiple plies through a specified distance after the tear has been started. The measured results can be used to calculate the approximate tearing resistance of a single sheet.

FEATURES
» Suitable for paper & cardboard specimens with max. 1,600g capacity
» Incision knife of hardened and ground spring steel
» Dual leveling screws, Extra light low friction
» Precision clamps with controlled jaws, made of stainless steel
» Adjustable cutting blade provides precise tearing length to meet test standard

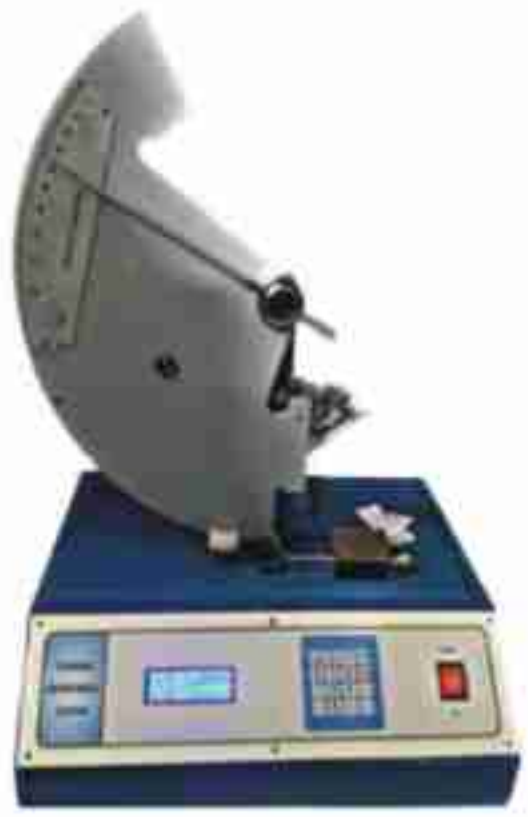
MODEL NO. PET 910 (A)

SPECIFICATION-
Equipment Category: Physical property Testing Equipment
Weight: Main Unit with Pendulum (45.0 × 23.0 × 50.0 cm)
Applicable Standard: SCAN P 11, TAPPI T414, CPPA D.9, ISO 1974, BS 4468, DIN 53128, APPITA/AS 1301.400

TEARING RESISTANCE TESTER
(DIGITAL MODELS)

This Tearing Resistance Tester's used for measuring the Resistance against Tearing of Paper, Board, Plastic Films and other similar materials. The unit is easy to operate due to its Key pad Operational system and manually clamping of the test specimen. Its Microprocessor Based hardware enables to display the Individual Value of the Test Data on the LCD Panel.

FEATURES
» Precision clamps with controlled jaws, made of staninless steel
» Adjustable cutting blade provides precise tearing length to meet test standard
» Suitable for paper & cardboard specimens with max. 1,600g capacity
» Incision knife of hardened and ground spring steel
» Dual leveling screws, Extra light low friction



MODEL NO. PET 910 (B)

SPECIFICATION-
Equipment Category: Physical property Testing Equipment
Weight: Main Unit with Pendulum (45.0 × 23.0 × 50.0 cm)
Applicable Standard: SCAN P 11, TAPPI T414, CPPA D.9, ISO 1974, BS 4468, DIN 53128, APPITA/AS 1301.400

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PRINCE
ENGINEERING TECHNOLOY

INTERNAL PLYBOND TESTER
(MANUAL MODEL)

Ply bond testing is used to determine the internal strength of paper and board material. The ply bond test measures the energy required to determinate a multiply board structure. It is a dynamic test that measures and defines strength in terms of energy absorption. The Scott Internal Bond Tester has been used to monitor the effects dry strength additives and to evaluate stock preparation and refining.
Test specimen are built, from bottom to top, consisting of a stainless steel sample base, layer of double-sided tape, the paper or board sample, layer of double- sided tape, and an aluminum angle.

FEATURES
» Solid stainless steel pendulum Provided with two
» Measuring scale: 0-250 lbs & 0-500 lbs
» Measuring Unit: ft.lbs

SPECIFICATION-

Equipment Category	Physical property Testing Equipment
Weight	41.300 Kg
Applicable Standard	TAPPI T-569

MODEL NO. PET 978

INTERNAL PLYBOND TESTER
(DIGITAL MODEL)

Ply bond testing is used to determine the internal strength of paper and board material. The ply bond test measures the energy required to determinate a multiply board structure. It is a dynamic test that measures and defines strength in terms of energy absorption. The Scott Internal Bond Tester has been used to monitor the effects dry strength additives and to evaluate stock preparation and refining.
Test specimen are built, from bottom to top, consisting of a stainless steel sample base, layer of double-sided tape, the paper or board sample, layer of double- sided tape, and an aluminum angle.

FEATURES
» Solid stainless steel pendulum Provided with two
» Measuring scale: 0-250 lbs & 0-500 lbs
» Measuring Unit: ft.lbs

SPECIFICATION-

Equipment Categor	Physical property Testing Equipment
Weight	41.300 Kg
Applicable Standard	TAPPI T-569

MODEL NO. PET 940

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PRINCE
ENGINEERING TECHNOLOY

DIGITAL LABORATORY CRUSH TESTER
(MCROPROCESSOR BASED)

The Crush Tester is used for accurate testing of Paper, Paper board, Solid Fiber board & Corrugated Board for RCT, ECT, CCT, FCT, PAT& CMT Test,as well as Performing Compression Test on Small Packages (Mono Cartons). The Touch Screen (HMI) panel displays all the Test Results, Graphically & Numerically, with a Single Touch Operation. The unit is provided with standard Load range 0-500 Kg f (5000 N).The RCT "Test Sample Holder" & "Removable Disc" (08 numbers) for sample thickness of 0.15mm to 0.49mm are supplied with the main unit.

FEATURES
» Menu Driven Software, Measure & retain Peak Load
» Measuring Results: Breaking force in kgf & RCT in N/m.
» Test result & statistics are displayed on display window
» Direct result of RCT Value on Digital Display
» Force measurement by Load cell & Automatic zero setting

MODEL NO. PET 906

SPECIFICATION-

Display	LCD
Testing Speed	12.0 ± 1mm/min
Measuring Range	0-2000N
Load Indicator Accuracy	± 0.5% of full Scale
Rupture Sensitivity	2-10% of the relevent max. load

PAPER SURFACE OIL ABSORBENCY TESTER (SOAT)
(PATRA TYPE)

This instrument is used for determining the oil absorption resistance of the surface of paper and paper board provided with Electronic self starting timer.
A specimen is placed on a inclined plane surface covered with rubber offset blanket, the standard oil drops on brass roller & is rolled against the rubber blanket and the oil film on brass roller is transferred to the specimen surface. The oil absorption time is measured in seconds.

The SOAT is the time taken for the 75% of surface covered by oil to have absorbed the oil.

SPECIFICATIONS
» Inclined plane 500 × 100mm with a 4.5 degree gradient. Inclined plane covered with rubber offset blanket. Brass Roller 2.1Kg, 76mm diameter and 55mm.
» Oil-burette delivers 0.02 Goil droplet.
» Steel holder for oil burette
» Automatic digital timer for measuring the time taken for oil absorption by the surface.

MODEL NO. PET 939

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PRINCE
ENGINEERING TECHNOLOY

SMOOTHNESS, POROSITY & SOFTNESS TESTER
(GURLEY TYPE)

This instrument is used for testing the average Smoothness, Porosity and Softness of paper and films by determining the time necessary for a certain volume of air to flow through the inserted sample, under a uniform pressure.

MODEL NO. PET 936 (A)

FEATURES
» Weight of inner cylinder 567 ± 7g, provided with the ring mark for measuring air leakage through the specimen.
» Outer cylinder of Stainless Steel
» Inner cylinder of light metal with top of Aluminum Alloy
» Support spring for the inner cylinder in the raised position.
» Self aligning clamping plate of stainless steel with ground top surface & ORIFICE Area 1 sq. Inch.
» Rubber Gasket for air tight sealing for sample

SPECIFICATIONS

Smoothness Test	Lateral flow between several sheets.
Porosity Test	Rate of flow through one square inch.
Software	Rate of flow over the surface which has been constructed by a given Weight.

SMOOTHNESS, POROSITY & SOFTNESS TESTER
(BENDTSEN TYPE)

This equipment is used to determining the smoothness and porosity of paper, paperboard & similar is based on leak principal. A sample is placed on perfect glass plate, measuring head on the test piece a controlled & small air pressure pass through a flat metal ring and the specimen. The pressure difference read off on Digital Display.

FEATURES
» Meets standards ISO 8791-2, 5636-1, 5636-3
» Measurement: Porosity (ml/min) and Roughness (ml/min)
» Provides unmatched stability & Sets up in just few sec.
» Easy Calibration facility & Automatic zero setting.
» Display System: Digital Direct read out.
» Contact Pressure roughness 98 Kpa (74.2psi)
» Self contained air supply, Compact design, attractive appearance & easy to operate

MODEL NO. PET 936 (B)

SPECIFICATION-

Measuring Range: 5-3000 ml flow rates	Accuracy of flow: ±0.5% of final value
Accuracy of test duration: ±0.5s	Flow Sensor: 5-3000 ml/min
Air Permeability Measuring Area: 10±0.2 cm^2	Roughness Measuring Area: Ø31.5mm, 150

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PRINCE
ENGINEERING TECHNOLOY

COP TESTER OR OIL PENETRATION TESTER
(WILLIAM TYPE)

The apparatus is designed for determining penetration time of oil or other liquid through paper and some other flat materials. A WILLIAMS's standard tilting type penetration testing apparatus consist of chamber with Office 6.03cm diameter for holding the liquid medium (castor oil) and a clamping device for holding the paper.
Digital temperature of 35 ± 1C, Apparatus consists automatic digital timer for measuring penetration time in sec.

MODEL NO. PET 937

SPECIFICATION-
Temperature Range: Ambient to 100oC.
Electronic PID digital temp.
Controllers control the temp. of the liquid 35 ± 1 degree C.
Penetration timer: 999 second with 0.1 second.

APPLICABLE STANDARDS-
TAPPI T462 om-01, ASTM.

ACCESSORIES ON DEMAND-
"Self Starting Digital Timer" for measurement of Penetration Time in Seconds.
Measuring range up to 99,999 Seconds.

WATER ABSORPTION SUCTION HEIGHT TESTER
(KLEMN TYPE- CAPILLARY RISE METHOD)

The capillary rise of water in paper is the distance water will rise in strip of Paper suspended vertically with lower end immersed in water. This method is Applicable to blotting paper & other un-sized paper where water absorption is too high.

Test pieces are cut in machine and cross direction from a conditional specimen and vertically suspended with the lower and immersed in water to a depth of 10mm. the capillary rise of the water is measured after 5 minutes.

APPARATUS: One or more vertically suspended test pieces are to be lowered into water to a depth of 10 ± 1mm. in the device.
The device is provided with scale for measuring capillary rise above the water level in millimeter.

MODEL NO. PET 938

SPECIFICATION-
Equipment Category: Physical Property Testing Equipment
Applicable Standards: SCAN P 13:64
Testing Applications: Kraft Liner/fluting Paper/sack (Stiffness)

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OPTICAL PROPERTIES
TESTING EQUIPMENTS

PRINCE
ENGINEERING TECHNOLOY

BRIGHTNESS & OPACITY TESTER
(PHOTOVOLT TYPE)

Brightness & Opacity Tester is used for electronically measuring and digitally presenting the Brightness, Opacity and Gloss of paper and other similar material by angular reflectance (Photovolt Type). This method requires an instrument employing 45o illumination and 0o viewing geometry with the illuminating and viewing beams adjusted so that translucent materials are evaluated on an arbitrary but specific scale. The measurement is not suitable for paper/paperboard containing added coloring matter (such as yellow or green dyestuff) which appreciably absorbs light in that part of spectrum extending from abt. 400 to 500nm.

MODEL NO. PET 933

FEATURES
» Meets standards TAPPI 452, IS (1060 Part II).
» This instrument employing 45o illumination and 0o viewing geometry, Compact design & Easy to operate.
» Provide unmatched stability & Sets up in just few second & Digital Direct read out.
» Measured Brightness, Opacity and Gloss

SPECIFICATION-
Measurement Area- 20mm Dia.
Filters:Brightness & Opacity
Light Source- 12V, white lamp
Power Supply :200 volts/50Hz
Sensor:- Photocell

BRIGHTNESS & OPACITY TESTER
(ISO TYPE)

Brightness is defined as the percentage reflectance of blue light only at a wavelength of 457nm. Brightness is arbitrarily defined, but carefully standardized, blue reflectance that is used throughout the pulp and paper industry for the control of mill process and in certain types of research and development programs..

MODEL NO. PET 907 (B)

FEATURES
» Meets standard TAPPI 525
» Diffuse reflectance is measured at an effective wavelength of 457nm by using suitable filter set or an equivalent having diffuse illumination & perpendicular observation geometry.
» Provide unmatched stability & Set up in just few sec.
» Design to give a long and trouble free life

SPECIFICATION-
Integrating sphere diameter: 150mm
Filters: Brightness & Opacity
Measurement Area: 10mm Dia.
Display: Digital LCD
Sensor: Photocell
Sensitivity: 0.1%
Accuracy: ± 0.5%
Power Supply: 220 volts/50Hz

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PRINCE
ENGINEERING TECHNOLOY

BRIGHTNESS,OPACITY & COLOUR TESTER
(ISO TYPE)

This instrument measures Brightness, Opacity and Colour for Paper, Paperboard, Textile, Ceramic, Mica Sheets and such other materials including Brightness of Powdered Material. The measuring results can be obtained for ISO Brightness (Blue Whiteness - R457), Degree of Whiteness, CIE Whiteness, Whiteness of Non-Metal Minerals, yellowness, color purity, color matching & color fastness,Opacity,Transparency,Absorption Value of Printing Ink etc. It also measures the effect of fluorescent additives by use of a removable ultra-violet filter. It adopts CIE 1964 Chroma Supplement System and CIE 1976 (L* a* b*) Color Space Chromatic Aberration Formula.

The Diameter of Diffuse Reflection Ball is 150 mm and the Test Window is 25 mm. High Pixel LCD Display & Easy Operation. The Communication Interface is RS- 232 and Built- in Thermal Printer.

MODEL NO. PET 907 (A)

SPECIFICATION-

Integrating sphere diameter 150mm	Sensor Photocell
Measurement Area 10mm Dia.	Sensitivity 0.1%
Filters Brightness, Opacity & Colour	Accuracy ± 0.5%
Power Supply 220 volts/50Hz	Display Digital LCD

GLOSS METER
(AUTOMATIC)

Gloss Meter is for measuring specular gloss of paper at 75o (15o from the plane of paper). Although its chief application is to coated papers, it is also used for a variety of un-coated papers.

A paper with high gloss gives good print quality and contrast,but too high paper gloss can reducer readability because of reflection. To achieve a good compromise the paper's gloss must be optimized.

FEATURES

» Meets standards TAPPI 480.
» This instrument Measures using the 75o geometry
» Fully Automatic, Standard Gloss Tile is fixed with the unit
» Push Button Operated, Frequent Calibration not require
» Provides unmatched stability & Sets up in just few seconds
» Display System: Digital Direct read out
» Measurement: Gloss
» Design to give a long and trouble free life
» Compact design, attractive appearance & easy to operate
» Accurate and reliable


MODEL NO. PET 992

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PRINCE
ENGINEERING TECHNOLOY

BEATING & FREENESS TESTER (°SR)
(SCHOPPER RIEGLER TYPE)

The 'Schopper Riegler' beating and freeness tester is designed to determine the rate of drainage or freeness of a dilute pulp suspension. The rate of drainage is related to the work done on the fiber during beating and refining.

FEATURES

» Stainless steel structure & Calibrated nozzle
» Cast iron base with leveling feet for correct installation
» Stainless steel drainage chamber funnel spreader cone and sealing cone
» 1000ml Plexiglas measuring cylinder,graduate in SR scale
» Phosphor bronze / Stainless steel wire is non corrosive for low maintenance & 2 SR measuring beakers

MODEL NO. PET 903

SPECIFICATION-

Speed of sealing cone	100 + 10mm/s
Calibrated bottom orifice	150.0 ± 10s for 1000ml of water
Drainage chamber volume	1000ml
Drainage Area	100sq.cm
Sample (Dry Weight)	2.0gm

PNEUMATIC BEATING & FREENESS TESTER (°SR)
(SCHOPPER RIEGLER TYPE)

The 'Schopper Riegler' beating and freeness tester is designed to determine the rate of drainage or freeness of a dilute pulp suspension. The rate of drainage is related to the work done on the fiber during beating and refining.

FEATURES

» Stainless steel structure & Calibrated nozzle
» Cast iron base with leveling feet for correct installation
» Stainless steel drainage chamber funnel spreader cone and sealing cone
» 1000ml Plexiglas measuring cylinder,graduate in SR scale
» Phosphor bronze / Stainless steel wire is non corrosive for low maintenance & 2 SR measuring beakers

MODEL NO. PET 927

SPECIFICATION-

Speed of sealing cone	100 + 10mm/s
Calibrated bottom orifice	150.0 ± 10s for 1000ml of water
Drainage chamber volume	1000ml
Drainage Area	100sq.cm
Sample (Dry Weight)	2.0gm

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PRINCE
ENGINEERING TECHNOLOY

VALLEY LABORATORY BEATER
(S.S. MODEL)

Valley Beater is used for laboratory beating of pulp under a controlled mechanical treatment to determine the behavior of pulp when subject to define beating schedule. A measured amount of pulp of specified stock concentration is beaten between roll bars & bedplate of laboratory beater.Sample are withdraw at regular interval during treatment to determine their beating degree & to be made into laboratory hand-sheets for evaluation. The laboratory beater is made completely of stainless steel materials.
The tub has a capacity of 23 1, which allows the beating of 360g of pulp. The diameter of the roll with 32 in number of fly-bars inserted is 194mm. The thickness of each fly-bar is 4.8mm and the width of the roll shall be 152 ±1mm. The bed plate consists of seven bars with a thickness of 3.2mm.

MODEL NO. PET 925

FEATURES-

» Chrome steel bedplate band fly- bars, stainless steel holder & Stainless steel tub
» Discharge drain closed by stopper
» Beating pressure adjustable by means of weight
» Volume: 23 1 (at a consistency of 1.57%)
» Beatable amount of pulp: 360g (o.d.)

CONSISTENCY DETERMINATION APPARATUS
(VICAT TYPE)

This apparatus is used for Quick Determination of pulp/stock Consistency. The measured stock is poured on to the grid plate of the equipment & drained under suction through a Vacuum Pump (Optional) which enables quick suction of excess water from Pulp Sheet and reports the Test Results accurately.

The filtration is repeated until the filtrate becomes perfectly clear. After Drying and weighing of the sheet, the consistency can be determined.

MODEL NO. PET 926

SPECIFICATION-

Capacity	1 liter Container
Cover	Top easily removable
Clamping	Rapid action & efficient
Grid Plate	Fitted with a supporting lattice to facilitate removal of the pulp mat from the wire

APPLICABLE STANDARD-

TAPPI T-240

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PRINCE
ENGINEERING TECHNOLOY

PULP DISINTEGRATOR
(STANDARD MODEL)

Standard Pulp Disintegrator is used for disintegrating pulp to a homogeneous suspension prior to making hand sheet without significantly changing the physical characteristics of the pulp prior to subsequent evaluation.

FEATURES

» Stainless steel construction throughout, housing, shaft, propeller
» Digital counter with preset value and automatic shut off
» Dual safety interlock ensures safe operation Stainless steel disintegrator pot
» Motor is 200W with gear belt & pulley drive
» Safety System: Start only when container & drive unit is on correct position

MODEL NO. PET 916

SPECIFICATION-

Capacity: 2 liter Container
Propeller: three Blade propellers
Power Supply: 440V/ 50Hz 3Ø
East Count: 1
Max. Count: 99,999

LAB SHEET PRESS)
(PNEUMATICALLY CONTROLLED)

This Pneumatically Operated Sheet Press is used for quick Pressing and de-watering of the sheets in a uniform manner, in accordance with "Industry Standards".

The sheet press consists of press section and control panel . The press platens are made of stainless steel with, the bottom one adjustable to allow for the loading of varying numbers of hand sheets, pressing time & pressure can be preset to conform with the Industry Standards and the "Pressing Cycle are Automatic".

The control panel consists of pre-determining timers for two pressing cycles. The working pressure is 3.5 kg / cm^2 and the standard press platen size is 330 x 350 mm.

MODEL NO. PET 993

SPECIFICATION-

Equipment Category: Pulp Testing Equipment
Applicable Standards: SCAN C 26 : 76, M 5:76, TAPPI T205 OM88, CPPA C.4, ISO 5269/1

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PRINCE
ENGINEERING TECHNOLOY

HAND SHEET FORMER
(TAPPI TYPE)

This stainless steel device produces laboratory hand sheets to allow the test & evaluation of the physical properties of pulp. The conditions of sheet making should be similar to commercial production. Sheet Former is intended for production of laboratory sheets for physical tests. The design of the dewatering vessel gives a constant flow across the entire wire, thus permitting extremely uniform sheets.

The design of the drainage System provides the anti swirl baffle eliminates the vortex effect in drainage with uniform flow across the entire wire, thus permitting exceptionally uniform sheets. The equipment has specially designed, as approved by the "Technical Section of the British Paper & Board Making Association". The Standard Accessories are supplied along with equipment.

MODEL NO. PET 915 (A)

FEATURES-

» Meets TAPPI T-205, ISO 5269/1, SCAN-C 26 , Stainless steel construction throughout
» Valve lifting and agitation of pulp ensures the instrument is easy to use
» Phosphor bronze wire is non-corrosive for low maintenance
» Calibrated nozzle, Bench mounted (optional)
» Trouble free running and long service life
» Easy operating and long service life
» Easy operating and almost zero maintenance
» Efficient and prompt after-sale service by competent engineers/technicians.

MODEL NO. PET 915 (B)

SPECIFICATIONS-

Sheet Size:	165mm dia = 274cm2 area (SCA) 165mm × 165mm square (KCL)
Trimmed Size :	200cm2
Wire Screen (upper):	150 mesh (TAPPI std.)
Wire Screen (support):	20 mesh
Suction Height:	800mm
Standard Accessories:	Stirrer,Couch Roll, Couch Plate etc.

ON DEMAND ACCESSORIES-

Standard Blotting Papers (Size-200 x 200 mm & GSM - 200 to 215)
Pulp Stock Divider for obtaining the Uniformly Agitated Pulp Samples.

Fabricated Table to Mount the Equipment. White Water Re-circulation System. Wire Mesh Fixing and Removing Device.

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PRINCE
ENGINEERING TECHNOLOY

HAND SHEET FORMER
(SEMI-AUTOMATIC MODEL)

Semi-Automated Sheet Former is suitable for rapid production of circular sheets and it improves output and reduced operator fatigue & variability. The Pneumatic Sheet Press & Rapid Sheet Dryer are mounted on the same base table. The apparatus is equipped with control cabinet which performs various operation such as automatic regulation of fresh or tank water for filling in the stock container, air agitation & settling of pulp and drainage of water. After the formation of sheet & automatic couchina cvcle, the sheet can be taken out and is ready for further pressing & drying.

MODEL NO. PET 994

APPLICABLE STANDARDS:

» (For TAPPI Type Apparatus)-TAPPI T-205, T-221 & ISO 5269-1,
» (For SCA Type Apparatus) - TAPPI T-205, ISO 5269/1, CPPA C.4, SCAN C26, DIN 54358, APPITA P 203

ACCESSORIES ON DEMAND-

» "Standard Blotting Papers" (Size-200 mm x 200 mm & GSM-200 to 215)
» "Wire Mesh Fixing and Removing Device".
» "Pulp Stock Divider" for obtaining the Uniformly Agitated Pulp Samples.

SHEET DRYING CABINET
(THERMOSTATICALLY CONTROLLED)

The Drying Cabinet intended for drying laboratory sheets. It is specially designed in accordance with the second report of the "Pulp Evaluation Committee" to the "Technical Section of Paper Makers Association".
The Chamber attached to the cabinet with thermostatically controlled hot air blowing at 60°C temperature. The hot air passes through the holes of drying ring and dries the pulp sheets without effecting its brightness or surface.

MODEL NO. PET 995

SPECIFICATION-

Equipment Category: Pulp Testing Equipment
Temperature range – variable to max 200°C & Pressure 15 Kg /cm²

OPTIONAL FACILITY-

"Digital Temperature Indicator Cum Controller" (PID).

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Website: www.princetechno.in

PRINCE
ENGINEERING TECHNOLOY

LABORATORY RESEARCH DIGESTOR
(MICROPROCESSOR BASED)

The Research Digester is a complete Pulping Unit for producing the Sulphate & Sulphite pulps by cooking of Wood Chips in a manner similar to a Commercial Digester.
The unit is easy to operate and features Precise Temperature Control of pulping variables to ensure good repeatability of results. A sampling line with cooling attachments allows Liquor Samples to be withdrawn safely during the cooking process and a control Valve determine the Circulation Rate of cooking chemicals.
The circulation digester consists of cooking vessel with a chips basket, a separate vessel to heat the cooking liquor before the wood chips are cooked, a heat exchanger, circulation pump and all the necessary piping & components. Microprocessor Based pre –programmable Temperature Indicator Cum Controller has mounted on the operational control panel.Temperature range variable to max 200°C & Pres-sure 15 Kg/cm².

MODEL NO. PET 996

SPEIFICATION-

Standard Model: 20 Liter Capacity. Optional Capacity: 10, 50 Liters or Customized.
Customized Equipment: "Continuous Digester"

LABORATORY ROTARY DIGESTER)
(MICROPROCESSOR BASED)

The PET Rotary Digester is used for cooking of Raw Materials, such as Wood Chips and various Fibrous material under specified & controlled conditions of Pressure,Temperature & Time, prior to "Producing the Pulp". The rotations of cooking vessel with the change of turning direction, ensures efficient agitation of the pulp.
The Acid Proof Stainless Steel Rotary Vessel is tested to with stand at Pressure upto 15kg/cm² & Temperature up to200°C.
The Perforated Basket inside the Vessel enables to easy lift and separate the cooked material from the black liquor, after cooking is over. The Heating is performed electrically, through a set of jacketed heaters. The safety valve & pressure gauge are mounted on the vessel's sealing lid and provided with Microprocessor Based Temperature Indicator Cum Controller with facility of more Detailed Pre-Programming to Control the Boiling Sequence. The surface, in contact with pulp are made of Acid Proof Stainless Steel.

MODEL NO. PET 997

SPECIFICATION-

Equipment Category	Pulp Testing Equipment
Available Capacity	15, 25, 50, 100 Liter OR Customized

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Website: www.princetechno.in

PACKAGING TESTING
EQUIPMENTS

PRINCE
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SCUFF TESTER
(MOTORISED MODEL)

The Scuff Tester is mostly used in the Printing & Packaging Industry to measure the Rub Resistance of Printed Paper, Carton Package, Board and other similar materials.

The Scuffing / Rubbing is performed by applying the Contact Pressure Method. Two Sample Holding Disc rotate in contact with each other at a same Angular Speed, giving "Constant Relative Velocity" at all the points.

The Motorized Unit is provided with the "Interchangeable Dead Weights", the Dust Blower and the "Pre Set Revolution Counter".

MODEL NO. PET 981

SPECIFICATION-

Equipment Category:	Packaging Testing Equipment
Applicable Standards:	TAPPI – T-830 / ASTM D-5264-92 and PATRA / PIRA / BS - 3110
Testing Applications:	Corrugated Fibre Board Box Board (Scuff)

ABRASION TESTER
(MOTORISED MODEL)

This Equipment is Designed to determine the Wear & Durability of Paper and Board, Ceramics, Plastic, Textile, Rubber, Flooring, Painted, Lacquered & Electroplated Surfaces.

The Motorized Equipment with single or Double Independent Abraser unit is provided along with the Vacuum Dust Extractor and the Digital "Predetermined Cycle Counter", mounted on the Front Panel with selections between 1 to 99,999 Numbers.

MODEL NO. PET 982

SPECIFICATION-

Equipment Category	Packaging Testing Equipment
Dimension	Single Abraser Unit (28.5 x 39.5 x 32.5 cm.) Vacuum Dust Extractor (38.0 x 21.0 x 22.0 cm.)
Applicable Standards	TAPPI T476

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Website: www.princetechno.in

PRINCE
ENGINEERING TECHNOLOY

BOX COMPRESSION TESTER
(MICROPROCESSOR BASED)

Box compression tester machine is designed to determine the compression resistance of corrugated & non-corrugated boxes. The instrument provides the Digital Display of the Compression Load and the Deformation of Test sample. The Microprocessor Based Circuit enables the Memory for Retaining Peak Value, Automatic or Normal Zero Setting, Over Load and Over Travel Protection Facilities.

The Standard Platten Size are 600 mm x 600 mm /1000 mm x 1000 mm with Load capacity 0-1000 Kgs. /0-2000 Kgs.
Customized Compression Tester for Corrugated Box / Mono Cartons are also Manufactured on Demand.

OPTIONAL FACILITIES-

» Special Dedicated Window Based Software for Interfacing the Main Unit with P.C. & printer.
» Special Software for the Collection of Test Data and the Data Analysis which are Computer

MODEL NO. PET 941

CORE COMPRESSION STRENGTH TESTER
(MICROPROCESSOR BASED)

This Instrument is widely used in the "Paper & Packaging Industry" to determine the "Core Collapsing Strength" of the Core Pipes & Core Cones.
The unit has adjustable testing area to accommodate, specimen of different size and shapes by using different Clamping Jaws. The Motorized unit has operated through piston, which applies the uniform pressure to crush the test sample.

The "Maximum Peak Crush Value" is recorded on the "Digital Load Indicator".
Standard Load Range 0-1000 Kgf / 0 -10000 N. & Clamping Jaws for 6" core sample is provided.

OPTIONAL ON DEMAND-

» Load Range 0-2000 Kgf. & 0-5000 Kgf.
» Clamping Jaws as per Users Choice (3", 4",5", 12" etc.)

SPECIFICATIONS-

Equipment Category	Packaging Testing Equipment
Applicable Standard	AS 2001.4.21

MODEL NO. PET 983

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Website: www.princetechno.in

ENVIRONMENTAL
TESTING EQUIPMENTS

PRINCE
ENGINEERING TECHNOLOY

DIGITAL MUFFLE FURNACE
(PID CONTROLLED)

The muffle furnace is used for the determination of Ash Contents in Paper and Incineration of the Solids. The Unit is available in various Inner Chamber sizes with the Working Temperature up to 930 Deg C.

The Digital Temperature Indicator cum Controller (PID) of range from ambient to 1100 Deg C is mounted on front panel. The Unit is Insulated with a Muffled Blanket and is provided with a Pyrometer to read an immediate change in Exhaust Temperature through the Ther-mocouple, whereas the Temperature is controlled by an Energy Regulator.

MODEL NO. PET 950

REGULAR MODELS:

» Inner Chambers Size: 9" x 4"x 4".
» Inner Chambers Size: 12"x 6"x 6".
» Inner Chambers Size: 12"x 8"x 8".

ON DEMAND:

Customized Size & Max Working Temperature.

DIGITAL OVEN
(PID CONTROLLED)

The laboratory oven is used for determination of percent Moisture Content in Pulp, Paper, & Paperboard etc. The Single Door Units are available in various Inner Chamber sizes, with a Digital Temperature Indicator Cum Controller (PID) of range from ambient to 250 Deg C, mounted on the front panel.

The hot air is circulated through a fan, and the side ventilation keeps the temperature down, as and when required during the test cycle.

MODEL NO. PET 913

REGULAR MODELS-

» Size: 14" x 14" x 14"
» Size: 16" x 16" x16"
» Size: 18" x 18" x 18"
» Size: 24" x 24" x 24"

ON DEMAND ACCESSORIES-

Customized Size & Double Door Units.

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ENVIRONMENTAL CHAMBER
(PID CONTROLLED)

This Environmental Chamber is designed for conditioning the Samples of Paper, Board and other similar materials, under the Specified Lab Conditions. The desired Temperature & Humidity are set and monitored through PID controllers,which are mounted onthe Front Panel. A Sample is conditioned and said to be in equilibrium with the conditioning atmosphere when it has been exposed to the atmosphere long enough for the results of two weighing of a test piece, performed at an interval of at least 1 hour and not to be differ by more than 0.25 per cent.

MODEL NO. PET 965

SPECIFICATION:

Inner chamber size	700 mm X 450 mm X 450 mm.
Temperature Range	10°C to 60°C with Accuracy ± 0.5°C.
Humidity Range	30%to90% with Accuracy±3%.

Complete Unit is provided with Compressor and Water Chamber fitted with Heater.

BOD INCUBATOR
(PID CONTROLLED)

This instrument is used for incubating the BOD samples of Effluents, Polluted & Waste Waters etc. The Biological Oxygen Demand (BOD) is an empirical test in which Standardized Laboratory Procedures (SLP) are used to determine the Relative Oxygen Requirements (ROR) of Microbes in Waste Waters, Effluents and Polluted Waters etc. The BOD Incubator is designed in such a manner to fulfill the Incubating requirements. It is double walled and heavily insulated to maintain working Temperature range from 5°C to50°C with Accuracy ±0.5°C. The Digital Temperature Indicator cum controller (PID) is mounted on the front Panel to Check & Set the same during the Operation of Incubator.

MODEL NO. PET 964

AVAILABLE SIZES WITH DIGITAL TEMPERATURE INDICATOR CUM CONTROLLER (PID)-

» Inner chamber size: 33" X 20" X 16.5" (83.82 x 50.8 x 41.91 cm.)
» Inner chamber size: 34.5" x 22.5" x 22.5" (87.63 x 57.15 x 57.15 cm.)
» Inner chamber size: 36" x 26" x 23" (91.44 x 66.0 x 58.42 cm.)

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OTHER TESTING
EQUIPMENTS

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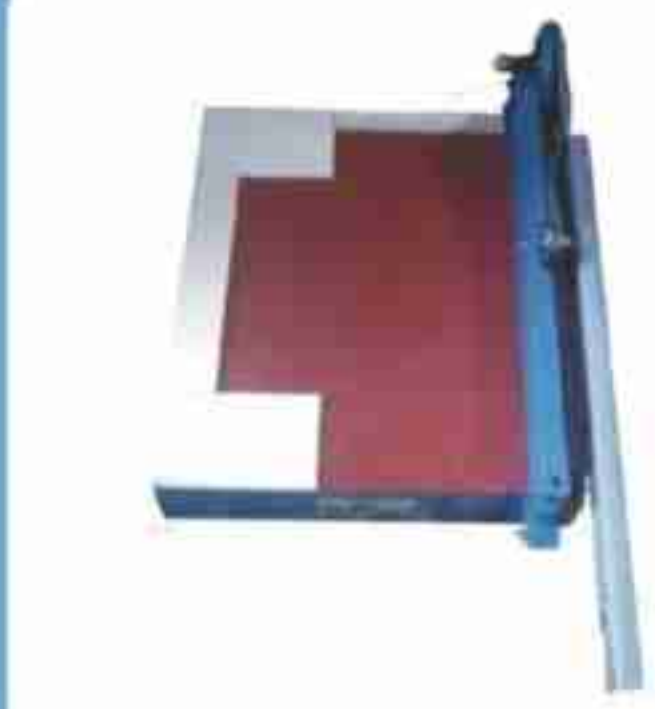
MODEL NO. PET 969

A4 SAMPLE CUTTER
(GUILLOTINE TYPE)

The UEC Sample Paper Strip Cutter is used for Accurate and Rapid preparation of Test Pieces towards Tensile Test.
The cutting blade is made from special knife steel attached with an automatic clamping device, which by means of clamping beam, holds the sheet material firmly prior to the cutting action, eliminating the deformation observed in test specimen during sample preparation



MODEL NO. PET 920

SAMPLE STRIP CUTTER
(DIE PUNCH *TYPE)*

The PET Precision Test Strip Punch &Die Cutters are intended for accurate and rapid preparation of test pieces for use in Ring Crush Test, Folding Endurance Schopper, Ply Bond Test and other similar tests without any deformation & damage.
» For RCT Tester -12.7 x 152.4 mm.
» For Folding Endurance(SCHOPPER Type)Test -15 x 100 mm.
» For Ply Bond Test - 25.4 x 152.4 mm.

MODEL NO. PET 984

SQUARE SAMPLE CUTTER
(DIE PUNCH *TYPE)*

The UEC Square Punch & Die Cutter is an excellent and convenient precision cutter for speedy and accurate cutting of specimen size 100 x 100 mm, without any deformation and damage.
It is extremely useful for the determination of Basis Weight in paper machines profile when used in conjunction with GSM Scale.

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MODEL NO. PET 928

CIRCULAR SAMPLE CUTTER

(DIE PUNCH *TYPE*)

Circular Punch & Die Cutter is an excellent and convenient precision cutter for speedy & accurate cutting of specimen size 100 cm² in area without any deformation and damage of paper & tissue.

It is extremely useful for the determination of basis weight in paper machines profile when used in conjunction with GSM Scale. The Cutter is also provided to cut, customized size of Samples.

MODEL NO. PET 975

STIFFNESS STRIP CUTTER

(DIE PUNCH *TYPE*)

The PET Stiffness Punch & Die Cutter is an excellent and convenient precision cutter for speedy and accurate cutting of specimen size 38 x 72 mm, without any deformation and damage.

It is extremely useful for the determination of Bending Stiffness of Paper, Board and other materials..

MODEL NO. PET 976

TEAR STRIP CUTTER

(DIE PUNCH *TYPE*)

The PET Tear Punch & Die Cutter is an excellent and convenient precision cutter for speedy and accurate cutting of specimen size 50 x 50 mm, without any deformation and damage.

It is extremely useful for the determination of Tearing Resistance of Paper, Board and other materials.

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MODEL NO. PET 967

COD DIGESTOR
(FOR LABORATORY)

A COD digester is laboratory instrument used to determine the Chemical Oxygen Demand (COD) of a water sample. COD is a measure of the amount of oxygen required to chemically oxidize organic and inorganic compounds in water, and it's a key indicator of water quality, especially in waste water. COD digesters heat samples under controlled conditions to facilitate the oxidation process, allowing for accurate COD measurement.

MODEL NO. PET 985

BURST TESTER SPARE
(PRESSURE GAUGE &RUBBER DIAPHRAM)

The PET Bursting Strength Tester consist of many essential components like- Rubber Diaphrams, Pressure Gauges, Calibration Sheets etc.
- *» Rubber Diaphrams- For Board & For Paper*
- *» Pressure Gauge- 0 to 35 Kg F*
- *» Calibration Sheet- 2.3±0.1 KgF, 5.0±0.1 Kg F*
- *» Customization is also available*

MODEL NO. PET 986

SHEET FORMER SPARE
(MESS, STIREER ETC)

PET Hand Sheet Former includes several essential components such as- manual stirrer, SS grid pallets, SS couch rolls, couch plates, drawing discs and drawing rings.

The stirrer mixes the pulp, SS plates and SS couch rolls help in removing excess water content, couch plates give a flattened surface to the sheets, drawing discs and drawing rings are used for drying or the final stage.

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MODEL NO. PET 987

CRUSH TESTER SPARE
(TESTING DISKS)

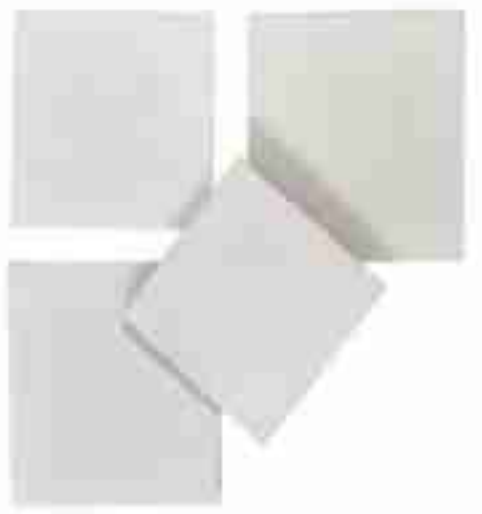
The PET Laboratory Crush Tester Consist of Different Test sampling Discs help to clamp the paper & board to check the RCT, ECT & FCT of sample.

These discs come in different sizes and thicknesses, so all types of samples can be clamped easily. Customization in the size of the disc is also available.

MODEL NO. PET 988

CALIBRATION TILES
(FOR BRIGHTNESS & OPACITY TESTER)

The PET Calibration Tiles is use to calibrate the Brightness & Opacity Tester (Photovolt Type), Brightness &Opacity Tester (ISO Type), Brightness, Opacity & Colour Tester (ISO Type) and Gloss Meter.
These tiles have different standard brightness values and based on these values the optical property testing instrument is calibrated.



MODEL NO. PET 989

TENSILE TESTER JAWS
(FOR PAPER CLAMPING)

There are many essential components in a PET tensile strength tester such as- Clamping jaws. These jaws help to clamp or hold the paper or sample to test the tensile strength of the given sample.

Over a long period of time, these jaws lose their accuracy in clamping or holding the sample piece. Due to this, the result of the instrument is affected and becomes erroneous.

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MODEL NO. PET 977

°SR TESTER SPARE

(MESS, RUBBER RING & CYLINDER)

A Beating and Freeness Tester (also known as a Schopper Riegler tester) is used to measure the drainage rate of a pulp suspension,which is an indicator of the pulp's freeness or dryness. Key parts & specifications include the cylinder, screen, and measuring apparatus.
The PET Beating & Freeness Tester consist of many essential Components to measure Degree SR Value These components are Mess, Rubber Rings, Measuring Cylinders etc.

MODEL NO. PET 978

DOUBLE SIDED TAPE

(FOR INTERNAL PLYBOND TESTER)

For internal ply bond testing,double-sided adhesive tape is crucial for preparing the sample. It's used to create a sandwich structure with paper or board sample, allowing for accurate measurement of internal bonding strength.

The tape's width is typically 1 inch.
Customization is also available in Double sided Tape

MODEL NO. PET 979

SS TEMPLATES

(FOR SAMPLING)

The PET S.S. Template of different sizes is made with high precision and by highly experienced engineers. So, the result become excellent & convenient to the test sampling. These templates is also use instead of Sample Cutters for small amount of sampling.
For GSM Tester- 100x100 mm
Other Sizes-100x20mm, 200x250mm, etc
Custamization in these sizes are also available.

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OUR INTALLATIONS

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