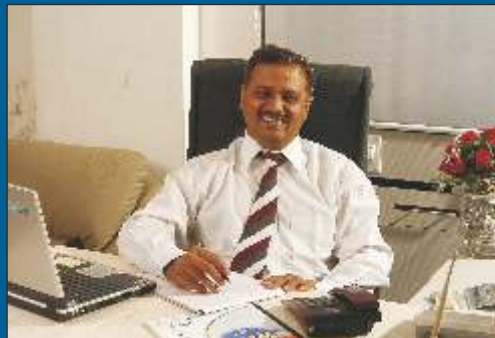


Plastics Testing Machines & Ancillary Equipments



Quality : Foundation of Our Identity


deepak
Poly Plast Pvt. Ltd.
An ISO 9001:2015 Company



Deepak Asrani
Chief Innovator

Be in control of your larger business destiny, by being in control of even the most minuscule part of your quality control process and product quality. May quality facilitate your success.



solutions for quality control
and evaluations

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profile

Our story so far...

In our early days, we focused more on developing interrogative solutions to exclusive problems based on analogue outputs. These solutions gave us a great deal of creative satisfaction and built for us a grateful and loyal clientele. After a few years of working we realized that in this gigantic industrial market, digitalization and computerization are required to do the continual data analysis of test results. And we infused this realization into our business vision. Today, we have maintained our status as leading producer of plastic testing equipments in India and are constantly spreading our wings to international market.

Area of work

Our core field is manufacturing of testing equipments for plastic and rubber industries. We produce a complete range of quality equipments with a wide range of applications. At the same time, we maintain a cutting-edge R & D division, to meet specialized technological challenges that come our way from time to time. As we matured into greater standardization and improved in-house quality control, it totally transformed the way we did our business and gave us better control over production cost. In fact, for most of our new clients, our equipment prices came as a pleasant surprise for them.

Reasonable price, superior quality

Yet another reason we provide for choosing our product is, control on the in-house inspection and testing as a total quality management measure, making it mandatory for all individuals responsible for quality of their work. These procedures, that enable TQM, are continuously aimed at zero failure and defect free performance, leading to superior products.

In the pursuit of quality DPPL has successfully implemented management system satisfying quality system standard ISO 9001:2015 and by adopting CE (European Complies) as a guide to its quality assurance activity.

A tradition to follow, a reputation to keep

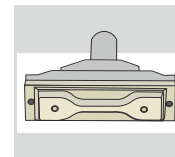
Through its unflinching adherence to quality, scientific temper and commitment to the customer, DPPL has built for itself a reputation that today precedes its permutations. Numerous big and small companies across the world have adopted our user-friendly testing solutions to ensure the quality of their products.

Corporate culture

"Each sale should begin a new relationship" that continues even after the transaction. This also gives us feedback of past sales that functions as invaluable performance analysis.

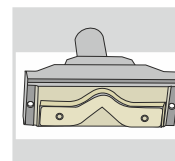
DPPL's self-image and market confidence is based entirely on this feedback. In this brochure we have sought to provide a glimpse of our testing equipments.

Range of Testing Equipments for Plastics



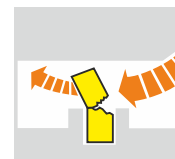
SPECIMEN PREPARATION

- Manual Hollow Die Punch
- Manual Notch Cutter
- Hollow Dies and Master Templates
- Contour Cutter
- Compression Press
- Two Roll Mill
- Notch Cutter for Pipes
- CNC Contour Cutter
- Hydraulic Sheet Moulding Press



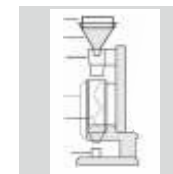
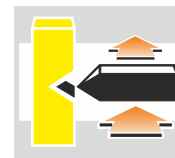
PHYSICAL AND MECHANICAL TEST EVALUATION

- Hydrostatic Pressure Testing for Pipes
- Emitter Flow Rate Variation Tester
- Load Deformation Tester for DOT Pipes
- Sliding C.O.F for Optical Fiber Ducting
- MDPE Gas Pipe Testing Equipment
- Elemendorf Tear Tester
- Bursting Strength Tester



PRODUCT TEST EVALUATION

- Free Falling Dart for Pipe/Film
- C.O.F. Tester
- Tensile Tester
- Flexural Tester
- Compression Tester
- Izod & Charpy Impact Tester
- Abrasion Tester
- Flattening Test M/C



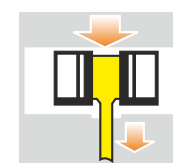
PROCESS TEST EVALUATION

- Melting Point Apparatus
- Specific Gravity
- Bulk Density
- Melt Flow Rate Index Tester
- Shrinkage Oil Bath Tester
- Accelerated Weathering Test (UV Tester)



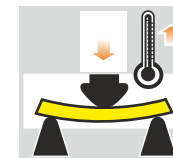
THERMAL TEST EVALUATION

- HDT / VST
- Carbon Black Dispersion Tester
- Differential Thermal Analyzer
- Ash Content Tester
- Thermocyclic Test M/C
- Carbon Black Content Tester
- E.S.C.R.
- Temp. Malfunctioning Test M/C
- Oxidation Induction Time Testing M/C



OTHER TEST EVALUATION

- Opacity Tester
- Deep Freezing Chamber
- Weighing Balance
- Microscope
- Methylene Chloride Test Bath
- Manometer for Water Proofness Test
- Hot Air Oven
- Constant Temperature Water Bath
- End Caps for Pipes
- Sieve Analysis Tester
- Cone Tester



SPECIAL EQUIPMENTS

We design and develop special equipments as per new testing standards or customer requirements.

Product Testing Solution According to National & International Standards

PIPE & FITTINGS TESTING SOLUTION

- HDPE Pipe Testing IS : 4984 - 2016 & IS : 14333
- Sprinkler Pipe Testing IS : 14151/IS : 17425
- R-PVC Pipe Testing IS : 4985 : 2000
- PLB Duct Testing (As per DOT Standard)
- LLDPE Drip Pipe Testing IS : 12786 / 13488
- Online Emitters / Drippers IS : 13487
- Casing Pipe Testing IS : 12818
- MDPE Pipe Testing IS : 14885/ISO 4437
- Conduit Systems for Electrical Installation IS : 14930:2001 (Part-1 & 2)
- Flexible PVC Hose Testing IS : 15265
- PVC Sewerage Pipe Testing IS : 15328
- C-PVC Pipe Testing IS : 15778
- PPR Pipe Testing IS : 15801
- Electrical Conduits Testing IS : 9537 (Part-1 & 3)
- u-PVC Pipe Testing ASTM D 1785
- SWR Pipes Testing IS : 13592
- SWR Fittings IS : 14735
- Structured Wall Plastics Piping Systems for Non-pressure Drainage and Sewerage Testing IS : 16098:2013 (Part-1 & 2)
- OPVC Pipe Testing IS : 16647-2017
- Woven Fabric Testing
- Rotational Moulded Watertanks Testing IS : 12701

OTHER TESTING SOLUTION

- Multilayer Co-extruded Film Testing IS : 2508 / IS : 2530
- Textile-tarpaulin Testing IS : 7903-2005/706 (P-8)/15351
- Solvent Cement Joints For Water Suppliers Testing IS : 7834
- PE - Aluminium - PE Composite Pressure Pipes Testing IS : 15450 : 2022
- Geosynthetics - HDPE Geomembrane For Lining Testing IS : 16352 : 2020
- Electrical Conduit Trunking Pipe / System - IS-16205:2018 Part-1 & Part-24
- PE Mulch Film For Agri & Horticulture IS 17216 : 2019
- Special purpose machines for various application for pipe industries as per requirements.
- We offer full lab setups for all above products according to all national & international standards.





DTRX 1KN-TT
with Pneumatic Grip

DTRX 1KN-TT
with Mechanical Grip

DTRX 5KN-TT
(Single Load Cell Model)



DUTT 101

For Plywood Test Applications
(MOV & MOR Test)

Universal Tensile Tester

Single Screw Models

The single column material testing machines having frame capacities of 1 KN to 5 KN, available in range of DTRX (Table Top) & DUTT (Floor Mounting) series.

Single Screw Table Top Models

With PC interfacing & variable speed drive system.

- DTRX - 1 KN for film testing application.
- DTRX - 1 KN for tape testing application.
- DTRX - 5 KN with single load cell for fabric testing application.
- DTRX - 5 KN with single load cell for PTFE liner testing application.
- DTRX - 5 KN with single load cell for low thickness SWR pipes testing application.
- DTRX - 5 KN with dual load cell for tape & fabric testing application.
- DTRX - 5 KN suitable for MOV, MOR & WET bending strength testing in plywood testing application.

Single Screw Floor Mounting Models

- DUTT - 101 (with PC interfacing software + variable speed)
- DUTT - 104 (without PC interfacing + variable speed) with LCD / digital display of readings.

Twin Screw Twin Bar Models

The dual column material testing machines having frame capacities of 10 KN to 300 KN, available in range of DTRX & S-DTRX (Floor Mounting) series.

- **DTRX - 10 KN / S-DTRX - 10 KN Model**
For PP strap, casing PVC pipes, C-PVC pipes, injection moulding articles, etc. testing application.
- **DTRX - 20 KN / S-DTRX - 20 KN Model**
For PET strap, wood composites, special applications from defence, etc. testing application.
- **DTRX - 30 KN / S-DTRX - 30 KN Model**
For automobiles & engineering plastics testing applications.
- **DTRX - 50 KN / S-DTRX - 50 KN Model**
For universal applications with multi load cell fittings – suitable for belt / fabric / tape testing application.
- **S-DTRX - 100 KN / 200 KN / 300 KN Model**
For PVC column pipe pull-out testing / column pipe thread testing application. Machines are available with suitable pull-out fixtures.

These machines are designed to test a wide range of materials including, but not limited to: Plastics, Films, Paper, Packaging Materials, Non-woven Fabrics, Filter Material, Belt, Leather, Adhesives, Foils, Food Packaging, Toys, Plastic Drum & Containers, Medical products and Electrical Components etc. in Tensile, Elongation, Modulus of Elasticity, Flexural Strength, Compression Strength, Co-efficient of Friction, Sealing Strength, Shear and Peel-off Test, Tearing Test, Grab Test, Butt-fusion, Elongation @ Break, Weldability, Pull-out, Ring Stiffness, Creep Ratio, Special Force Measure Test, etc.

DTRX and DUTT Series

Using a combination of quality engineering and advanced technology, Deepak has produced a series of machines that are accurate and simple to use. All DTRX and DUTT series machines have an easy-to-read backlit liquid crystal display feature. All data shown on this display is obtained in real time. The control unit has dedicated keys for moving the crosshead Up, Down, Stop and Start the test. The DTRX and DUTT series are equipped with lead screw travel & AC frequency drive (close loop feedback system optional) to have speed selection and control. DTRX and DUTT Series models are having speed selection range from 1 mm/min to 500 mm/min (as per application and requirement).



S-DTRX - 10 KN/20 KN/30 KN

S-DTRX - 50 KN/100 KN/200 KN/300 KN



DTRX 10 KN-TT

DTRX-10 KN/20 KN/30 KN/50 KN

S-DTRX Series

DEEPAK has developed servo motor based S-DTRX series of machines. These S-DTRX series models are equipped with servo control system to have better speed accuracy and control with additional software features. These models are having speed selection range from 1 mm/min to 500 mm/min.

Common Features

DTRX, S-DTRX and DUTT series machines are suitable to communicate directly with standard desktop/laptop PC running with Windows XP/7/8.1/10/ Any latest software packages via high speed RS 232 communication port/USB port. DTRX and DUTT series machines are equipped with rapid change Z beam load cells that allow simple and quick 'Sizing' of the machines to an appropriate capacity for the test. These load cells have accuracy of +/- 0.5% of the applied load value, from 2% to 100% of the load cell capacity.

DTRX and DUTT series have a huge assortment of specimen grips and fixtures allowing the selection of an ideal configuration for your application.



DTRX 5KN-TT
(Dual Load Cell Model)



DTRX 30KN/50KN
(Triple Load Cell Model)



Dual Load Cell Table Top DTRX-5KN Machine Features:

- Equipped with separate grips for fabric & tape test application.
- Selector switch on panel to select type of test as per requirement.
- Selector switch gives option to select type of sensor, suitable for Fabric "or" Tape/Yarn Test Application.

Note: No need to interchange the Grip "or" Load Cell. Both test applications are having separate location of Load Cell & Grips.

Multi Application Machine with Triple Load Cell & Triple Grip Sets

Suitable for tensile, elongation, modulus of elasticity etc. test applications for Webbing Belt, Fabric & Tape-Yarn Specimens

Motorized Compression Cum Flattening Test Machine for c-PVC / u-PVC Specimen Testing

- Twin Screw Floor Mounting Structure suitable for up to 12 Inch Dia Pipes.
- Equipped with Flattening Platons: With Stationary Platon & Moving Platon Assembly
- Equipped with 2 HP AC Motor Driven & With Heavy Gear Box System.
- With Electrical Control Panel for smooth operation and with inbuilt limit switch safety features.
- Power requirement: 415 V AC, 50 Hz Three Phase + neutral + earthing is required.



Ring Stiffness & Ring Flexibility / Creep Ratio Testing Machine Suitable For PE DWC Pipes / PE - PVC Electrical Conduit Trunking Pipes / PVC Sewerage Pipes.



Compression cum Pulling Force Testing Machine Suitable for PE Drum / Container Testing Application, as per IS: 6312 - 1994 Standard.



Compression cum Flattening Test Machine



S-DTRX - 100KN / 200KN / 300KN

Software

DEEPAK has a long history of providing solutions to an enormous variety of testing problems with specific and focused applications. By designing focused application software in co-operation with our valued customers around the world.

There are several valuable features that are common to all, perhaps the specialty is the ability to further customize the testing parameters that are used to collect and store operation testing data, as well as to control the testing machine.

Standard Features

- PC compatible via high speed RS 232 com port/USB port.
- Machines are proof loaded at 200% of their capacity.
- Force accuracy of 0.5% of applied load across the load cell display range.
- Built-in protection for over load and over travel.
- Displacement resolution of 0.01 mm for S-DTRX series & 0.1 mm for DTRX & DUTT series.

Pull-out Test Application of Column Pipes

Technical Details

- Load Cell Capacity: 10000 / 20000 / 30000 Kgf. (10 / 20 / 30 Tons) Maximum. (Round Bar Type Load Cell).
- Motor: AC Servo Motor.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.
- Inbuilt Testing Facility for Compression/Flattening/Ring Stiffness Test for the same provision of mechanical square high polish platons.
- With fixtures for pipes Sizes: 1", 1¼", 1½", 2", 2½", 3", 4", 5" & 6".

All versions of our focused application software are developed or customized to improve productivity and to build strong database.

- Specially designed Windows XP/7/8.1/10/ Any latest software for DTRX and DUTT series machines.
- Unit conversion facility.
- Online graph plotting system on your PC system with result comparison upto 5 samples and has an ability to recall, re-plot and re-scale curves.
- Graph line colour selection.

Specifications

- Load measurement accuracy: +/- 0.5% of applied load from 2% to 100% capacity, extended range down to 1% capacity with accuracy of 1% of applied load.
- Position measurement accuracy: +/- 0.1% of reading or 0.01 mm in S-DTRX series & 0.1 mm in DTRX and DUTT series.
- Speed accuracy: +/- 0.1% of set speed.
- Load measuring systems: Load measuring system meets the requirements of ASTM E4, ISO 7501.
- Strain measuring system: Strain measuring system meets the requirements of ASTM E83.

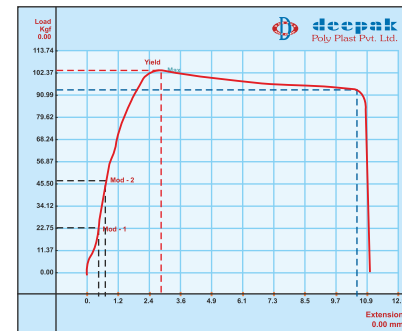
TENSILE AND ELONGATION TEST REPORT

Test Sr.No.	4714	Test Date	15-12 -2022
Customer Name	ABCD PIPE	Test Time	14:16:56
Customer Code	INSPECTION		
Operator Name	DPPL		

Sample Details	BLACK
Specimen code	
Ref. Standard	IS 4984:2016
Grip Length	150
Guage Length	0
Sample Width	20
Sample Thickness	10
Speed of testing (mm/min)	50

*All dimension in mm

Graph View



Obtained Results

Sr. No.	Parameters	Value	Units
1	Area	2.00	cm²
2	Yield Force	493.50	Kg
3	Yield Elongation	22.21	mm
4	Break Force	318.5	Kg
5	Break Elongation	225.38	mm
6	Tensile Strength at Yield	246.75	Kg/cm²
7	Tensile Strength at Break	159.25	Kg/cm²
8	Tensile strength at max	246.75	Kg/cm²
9	% Elongation	150.25	%
10	Max Force	493.50	Kg
11	Max Elongation	225.38	mm

Remarks

- After completion of test, report will be generated in windows excel sheet, which accommodates graph view & results table view in single page.
- Buyer's company name & logo, can be added in software.
- Generated excel report can be converted in to pdf format & the same can be forwarded as an attachment by e-mail facility.

Note: Specifications are subject to change without prior notice.





GRIPS FOR UNIVERSAL TENSILE TESTER



Customized grips and fixtures according to products and reference standards.

Range of Grips

- Mechanical Wise Type Grip Set
- Combine Grip Set For Elongation At Break Testing & Butt Fusion Testing
- Centering Pin Type Grip Set
- Grip Set For Tape Test
- Fabric Grip Set
- Leather / Rubber Coated Grip Set for Films Testing
- Special Roller Type Holding Grip Set for Yarn Testing
- Heavy Grip Set for Webbing / Belt Testing
- Special Grip Set for Plywood Testing (MOV/MOR Testing)
- Special Grip Set for PE Container Side Handle Pulling Test
- Grip for Trapezoidal Test
- Grip for Grab Test
- Grip for Stitching Yarn
- Grip for Wide Width Strength
- Grip for CBR Puncture Test
- Grip for Index Puncture Test
- Grip for PP Tape Testing



Dumbbell Cutters/Die Punches



Dumbbell Cutters/Die Punches

Range of Die Punches

- Dumbbell Shape Specimen Punching as per ASTM D 638
- Type 'I' Overall Length: 165 mm
- Type 'II' Overall Length: 183 mm
- Type 'III' Overall Length: 246 mm
- Type 'IV' Overall Length: 115 mm
- Type 'V' Overall Length: 63.5 mm
- Die Punch as per ISO-527-2 Standard
- Tear Strength Test Die Punch as per ASTM D 624 (Die-C)
- 75 mm, 150 mm Die Punch and many more as per IS and International Standards



Vice for Flexural Test



Hydraulic Cylinder Operated Press Machine for Specimen Die Punching Application

Manual Press for Specimen Die Punching Application



Compression Test Attachment



Puncture Test Attachment



Butt-Fusion Weldability Test Grip



300mm Compression Plate Grip



3 Point Bending Flexural Grip



Heavy Wedge Type Grip

Universal Tester For Electrical Trunking Pipes

Suitable As Per IS : 16205

Model : DTRX - 10KN

Suitable upto maximum 300 mm ID dia pipes

- With one set of high polish smooth platons suitable for trunking corrugated pipes compression test application. platon thickness: 300 x 300 x 12 mm
- With one set of mechanical wise type grip set suitable for telecom / BSNL tensile test application. maximum grip opening: 08 to 10 mm
- Equipped with extensometer for compression testing application of trunking corrugated conduit pipe specimen (As per IS:16205)



Universal Tester For Packaging Products

Model : DTRX-1 KN – Extended screw length

for high elongation packaging products.

(Low height table / platform mounting single column machine)

Exclusive for multilayer / monolayer films / liners, laminations etc...

Specifications

Frame Capacity	1000 N
Max. Crosshead Travel, Standard Travel	1450 mm Grip to Grip
Crosshead Speed Range	5 mm to 700 mm
Max. Return Speed	350 mm / min
Speed Accuracy (Unloaded)	± 0.2 % of Selected Speed From 2 % to 100 % of Max. Speed
Min. Load Resolution (Load Cell Specific)	0.001 Kgf → 0.01 N
Load Cell Accuracy	± 0.5 % from 1% to 100% of loadcell value
Extension Resolution	0.1 mm



I-COF Tester For PLB Pipes

Single Screw Equipped with 450 Degree Angle Drum

- Equipped with dead weight of 25 Kgs. for internal co-efficient of friction test between pre-lubricated PLB pipe and optical fibre cable.
- Suitable for 32, 40 & 50 mm PLB pipe holding.



GRIPS FOR UNIVERSAL TENSILE TESTER





Motorised Jig Tester

Motorised Jig Tester

Jig for squeeze-off testing as per IS-14885:2001

Suitable for 20mm to 315 mm dia MDPE pipes

- Twin screw structure with motor driven gearbox system.
- Vertical vibration less structure based on twin column and heavy base platon system.
- With stationary platon & moving platon assembly.

Mandrel

(As per IS-14885:2001)

M.O.C.: SS-304 material

- For 16 to 20 mm OD pipes minimum radius of mandrel ==> 12 mm
- For 25 to 50 mm OD pipes minimum radius of mandrel ==> 16 mm
- For 63 to 110 mm OD pipes minimum radius of mandrel ==> 19 mm
- For 125 to 250 mm OD pipes minimum radius of mandrel ==> 25 mm



Mandrel (As per IS-14885:2001)

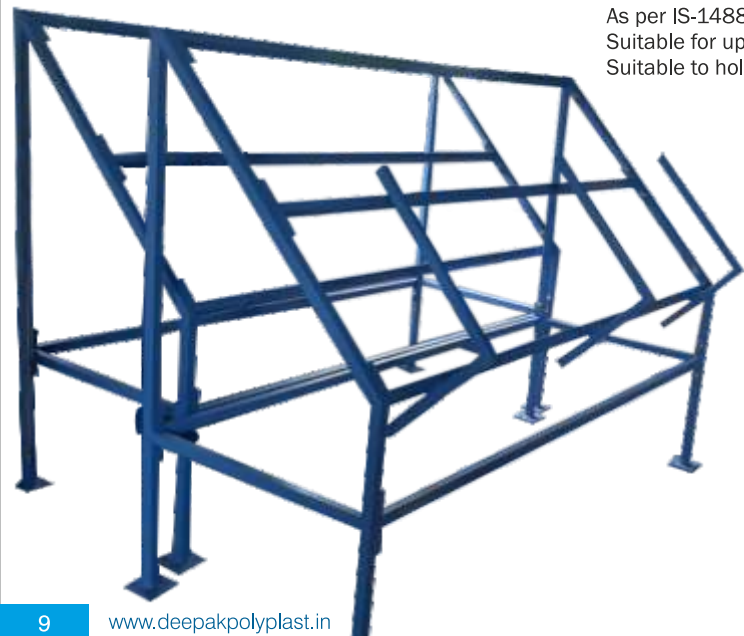
Weathering Stand

Fabricated stand for Weathering test of gas pipes

As per IS-14885:2001 – Annex: F-1 to F-3

Suitable for upto 315 mm dia pipes

Suitable to hold 3 samples of each size



Hydraulic Power-Pack Universal Tester For Manhole Chambers

DRS 100 (100KN / 10 Ton Capacity) High width platon type structure

Ring stiffness / Compression strength testing of Manhole chambers, ladders etc...

As per EN 13598 - 2 / EN 14982 : 2006



Milling Contour Cutter Machine (CNC Based)

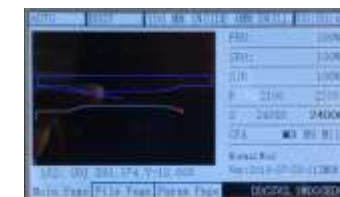
- High RPM Stapper Based Milling Machine with PC interface. Suitable upto 45mm thickness samples.
- Special Feature: Templates are not required. Cutting shape / design to be uploaded from PC system as per various international standards.
- For specimen preparation of HDPE / PVC / PE / ACP samples upto 45mm thickness.
- "X" & "Y" axis stepper driver and ball screw based.
- Motor RPM: Upto 3000 RPM.
- Specimen Size: Maximum upto 250 x 250 mm (as per platon size).
- Milling Cutter with 4 & 6 cutting flaps for precise cutting.
- Variable speed control for milling cutter.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.



HMI Based Control Panel with Programming Facility



Milling Contour Cutter Machine



Contour Cutter Machine (Template Type)

Technical Details

- Speed: Based on AC Variable Speed AC Drive. High cutting speed.
- Milling performance & easy operation.
- Used for Tensile Test Dumbbell Shape Specimen Preparation.
- Power requirement: 415 V AC, 50 Hz Three Phase + neutral + earthing is required.



Templates

Suitable Templates for Contour Cutter

- Template for Die Type - A (180 X 60 mm)
- Template for Die Type - A (180 X 80 mm)
- Template for Die Type - B (250 X 100 mm)
- Template for Die 150 x 20 mm Type 1
- Template for Die 115 x 25 mm Type 2
- Template for Die 250 x 100 mm Type 3
- 63.5 mm Dumbbell shape as per ASTM D 638
- 115 mm Dumbbell shape as per ASTM D 638
- 165 mm Dumbbell shape as per ASTM D 638
- 245 mm Dumbbell shape as per ASTM D 638
- Rectangular size: 150 x 25 mm, 127 X 13 mm, 80 x 10 mm



Contour Cutter Machine



Hydro Static Pressure Testing Machine - 2 Stations
Model: Hydro-102-D-SD



Hydro Static Pressure Testing Machine - 3 Stations
Model: Hydro-103-D-SD



Hydro Static Pressure Testing Machine - 6 Stations
Model: Hydro-106-D-SD

Hydro Static Pressure Testing Machine

Deepak Hydro-static Pressure Testing Machine is designed specifically for testing HDPE, PVC, PPR, Lateral pipes as per IS 4985, IS 4984, IS 12786, IS 13592, IS 14333, IS 14151/IS 17425, IS 15328, IS 15801, EN 921:1994, ASTM D 1785 and other relevant standards. Hydro-static Pressure Testing Machine is used to maintain the required pressure in pipes.

Features

- Standard equipment includes versatile microprocessor based controller with high performance to price ratio. This is a single chip micro-controller based controller designed for 4-20 mA inputs. Four user-friendly key operated instrument, where keys are used for programming of pressure display unit of each channel.
- Separate versatile microprocessor based controller for each station with high accuracy pressure control up to 0.10 bar.
- Option of one to three pressure outlets with each station, or as per customer requirement.
- User friendly Windows XP/7/8.1 based software suitable up to 32 pressure stations and 08 temperature stations in software. All the stations can be operated from single bar graph window from PC display and all pressure control parameter can be set by few selected mouse clicks.
- PC connectivity is not required for entire test duration with machine. After completion of test, data can be downloaded from machine to PC. Machine display micro controller is with inbuilt memory card, suitable up to 3000 data storage.

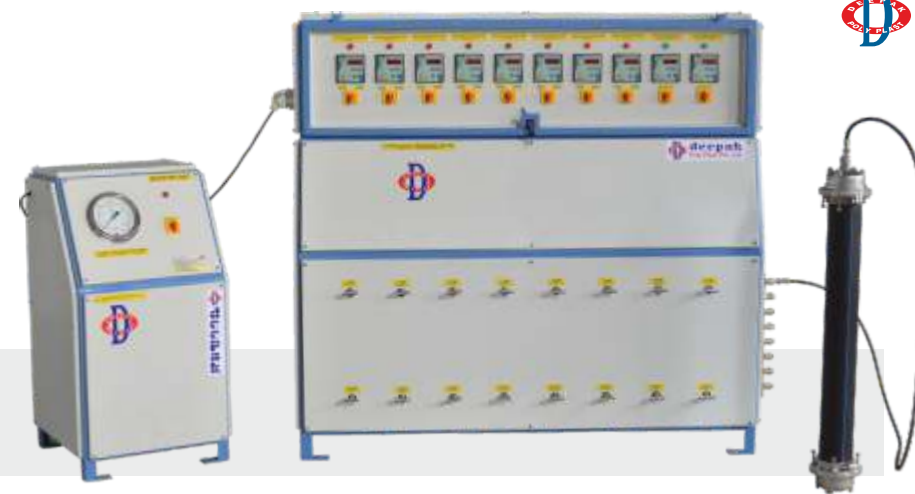
Positive/Negative Pressure Testing Machine for Elastomeric Ring Type Socket Joints, suitable for PVC Sewerage Pipes (IS:15328) & DWC Structural Pipes (IS:16098)
Model: Hydro-101-D



- Negative Pressure Test Machine** – Equipped with in-built vacuum pump unit for negative vacuum pressure generation.
- Positive Pressure Test Machine** – Equipped with inbuilt airless Motorized Pump / Hydro-pneumatic Cylinder Unit for positive pressure generation.
- With digital programmable (cyclic programming) display controller for test cycle programming for negative & positive pressure test.



Hydro Static Pressure Testing Machine - 4 Stations
Model: Hydro-104-D



Hydro Static Pressure Testing Machine - 8 Stations
Model: Hydro-108-D with Pressure Booster Station & High Pressure Accumulator

- Facility of report generation is available in two formats (1) in software format & (2) in Microsoft excel with graph and test data.
- Option of two type of booster for accumulator (1) motorize pump system which requires only water inlet & (2) pneumatic pump system which requires air and water inlet to generate pressure.

Model : Hydro-XXX-D-SD

Digital version only.

Based on hydro-pneumatic cylinder pump unit.

- All stations are suitable for long term & short term pressure test application.
- Pressure range: from 1 to 260 bars.
- L.C. : min. 0.01 to max. 0.1 bar.
- Power Requirement 220/230 V AC, 50 Hz Single Phase

Model	Pressure Stations
HYDR0-106-D-SD	06
HYDR0-105-D-SD	05
HYDR0-104-D-SD	04
HYDR0-103-D-SD	03
HYDR0-102-D-SD	02
HYDR0-101-D-SD	01

Model : Hydro-XXX-D

Digital version with PC interfacing facility.

Based on Airless motorised water booster pump unit.

- All stations are suitable for long term & short term pressure test application.
- Pressure range: from 1 to 260 bars.
- L.C. : min. 0.01 to max. 0.1 bar.
- Power Requirement : 415 V AC, 50 Hz Three Phase + neutral + earthing

Model	Pressure Stations
HYDR0-110-D	10
HYDR0-108-D	08
HYDR0-106-D	06
HYDR0-104-D	04
HYDR0-103-D	03
HYDR0-102-D	02
HYDR0-101-D	01



Extension brass block stand structure

- For pressure line extension structure
- For 03 stations / 05 stations / 06 stations machines.
 - Extension blocks are based on 1 inlet – 3 outlets & 1 inlet – 5 outlets
 - Equipped with male – female QRC fittings & connection hose pipes

(Fitting accessories are available as per client requirements)



Hydro-static pressure testing machine (Single station with single outlet)

As per IS : 15351 for textiles - laminated high density polyethylene (HDPE) fabric for canal lining

Model: Hydro-101-D-PP
(Peak pressure reading of tarpaulin test)

- Based on hydro-pneumatic cylinder actuation and digital pressure indicator for peak pressure readings.
- Suitable for peak pressure & sustain pressure test Application.



Test Bench For Leak Tightness Test

Under Internal Pressure

Equipped With Rack N Penion Support System For Movement of Locking Back Plate. Suitable For Upto 315 mm Dia Pipes.

Complete Fabricated Angel Structure With Based On "C" Channel. With Round Cut Plate For Pipe Mounting, Along With Sizing Rings. With Deflection Mendrel & Screw Driven System For Bench Movement.

With Scale Mounting To Check Specimen Length, As Per Testing Requirement of IS-16477 Standard With Centre Arm Piller For Pipe Specimen Mounting & Support.



Test Bench as per IS : 15328 for Leak Tightness of Joints against Angular Deflection (with Positive & Negative Pressure Applied)



Bursting Chamber Unit Machine.
(Ref. Standard: ASTM D 751-95.)
Made of SS-304 Machining Process



Test Bench For C-PVC / u-PVC Fittings



Hydro Static Pressure Testing Machine -
Single Station Model:
Hydro-101-D-SD for Busting Test

Test Bench for Fittings Pressure
Test Application



**Analogue Gauge Version Manual Dun-key Type
Hydro Static Pressure Test M/c -
For Water Tightness of Joints Test**

- Short term single station with single outlet.
- Range of Analogue SS Pressure Gauge: 0-4 Kg/cm2. L.C.: 0.02 Kg/cm2.
- Based on Manual Dun-Key Type Water Pump Pressure Generation System.
- With digital stopwatch for test duration observation.

Methylene Chloride Tester

The Methylene Chloride Test is meant to check the gelation in rigid PVC pipes. This method is based on various national and international standards, where specified test temperature and duration concludes resistance of unplasticized PVC pipes against dichloromethane.

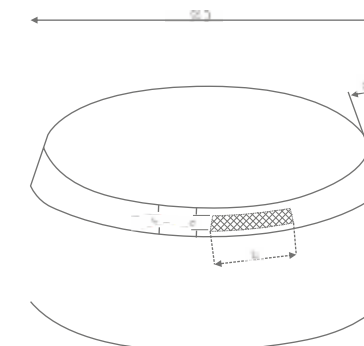
A piece of PVC-U pipe of specified length, chamfered at one end to an angle dependent on its thickness, is immersed for a fixed period of time in a thermo controlled dichloromethane bath in order to verify that the PVC-U is not attacked at the temperature Θ specified in the product standard.

The test pieces are dried in air and then examined to observe whether the PVC has been attacked or not.

Available chamber sizes are : 350 x 350 x 200 mm,
650 x 650 x 300 mm,
650 x 650 x 500 mm



Methylene Chloride Tester





Hot Water Bath
Size : 78 x 36 x 60 inch

Cold Water Bath
Size : 78 x 36 x 60 inch



Hot Water Bath
Size : 40 x 20 x 40 inch

Hot / Cold Water Bath
Size : 60 x 30 x 46 inch



Hot/Cold Combined Water Bath
Complete Stainless Steel Body

Room Temperature Water Bath
Suitable for Short Term Pressure Test

Room / Hot / Cold Water Bath

Deepak hot/cold water bath is used for short term and long term hydro-static Pressure test of HDPE, R-PVC, C-PVC, MDPE and Lateral Pipes. They are tested at higher (hot) or lower (cold) temperature in water bath as per IS, ISO and ASTM Standards.

Length (inch)	Width (inch)	Height (inch)
60	30	46
60	30	60
48	30	18
36	24	18
40	20	40
40	24	40
40	24	18
48	36	22
48	36	20
48	36	18
44	20	18
30	20	18
14	14	12
72	40	40
78	39	60
98	48	60
84	40	60

Features

- Microprocessor based temperature controller with PID action.
- Temperature range up to 100°C with least count of +/- 0.1°C and accuracy +/- 2°C.
- Inside S.S. body, outside M.S. body with powder coating and puff insulation (injected puff).

- Complete inner and outer S.S. body bath.
- 'GRUNDFOSS' make water circulating pump is provided in Hot/Cold water bath to achieve the temperature uniformity in entire water bath.
- Heating, cooling or both facilities can be provided as per the requirement.
- Power requirement: 415 V AC, 50 Hz Three Phase + neutral + earthing is required.



Cold Water Bath with inbuilt chiller
Size : 48 x 24 x 18 / 48 x 36 x 22 / 48 x 36 x 18 inch



Hot Water Bath
Size : 48 x 24 x 18 / 48 x 36 x 22 / 48 x 36 x 18 inch



Hot Water Bath
Size : 98 x 48 x 60 inch

Hot Water Bath for Temp. Malfunctioning Test

For CPVC pipes & fittings - Water circulation test at 95 & 82°C with inner water circulating pumps fitted + with external high pressure Grundfoss water pump fitted.

Water Circulating Pump GRUNDFOSS - CRC3

- Type: CRC3, 1.10 Kw Capacity
- Power Requirement: 220 V AC - 50 Hz - Single Phase.
- With attachment of 1/2" inch hose collar connection for inlet & outlet.
- With Flow Control Needle / Ball Valve Mounting & Brass Block Mounted
- 0-20 bars electronic pressure display unit fitted.



GRUNDFOSS - CRC3 Pump



Horizontal Hot Water Bath for
Temp. Malfunctioning Test
Size : 48 x 24 x 18 inch

Vertical Hot Water Bath for
Temp. Malfunctioning Test
Size : 40 x 20 x 40 inch





MS Block Type
for HDPE/R-PVC/PPR/u-PVC/C-PVC
Test Application

Hose Coller Cone Type Block Fitting
for Lateral Pipe Test Application

Aluminium Design Cup Type
for HDPE/R-PVC/PPR/u-PVC Test Application

End Plugs

- End Plugs suitable for R-PVC, C-PVC, u-PVC, H.D.P.E, Lateral, Sprinkler, PPR, M.D.P.E., SWR, etc. Pipes and Joints.
- Sizes are available from 12 mm to 1200 mm pipe diameters.

Types

- MS Block type with double rubber gasket.
- Aluminium design cup type with double rubber gasket.
- Investment steel casting (SS-304) with double rubber gasket.
- Hose collar block type end plugs for lateral pipes.



Special Application High Pressure End Plugs
With Centre Tie Rod



Cone Type Flange Fitting for
HDPE/Sprinkler Pipe Test Application



Investment Steel Casting End Plugs for HDPE/R-PVC/u-PVC Test Application



Izod-charpy Impact/Tensile Pendulum Impact

The new model of Pendulum Impact tester is built with versatility, ease of operation and display of information with high resolution.

These machines are capable of determining the impact strength using Charpy, Izod or Tensile Pendulum Impact methods by changing the pendulum striking tab.

By using the appropriate striking tab and the specimen clamps on the base of the machine, plastic samples can be tested in accordance with -

ASTM D 256	Izod Impact	ASTM D 4812	Un-notched cantilever beam Impact
ISO 179	Charpy Impact	ASTM D 4508	Chip Impact
ISO 180	Izod Impact	ASTM D 950	Adhesive bond Impact
ASTM D 6110	Charpy Impact		

Pendulum capacity can be easily change & increased by adding the optional weights on Pendulum Hammer Device. The energy absorbed for breaking can be configured in different units of measurement and the same is displayed by an optical encoder mounted on the shaft of the machine.

Key Features

- Selectable energy units – J, in.lbf, ft.lbf, kgf.m, kgf.cm
- Selectable strength calculation in J/m, KJ/m², kgf.m/m²
- Auto calibration for bearing wind edge and friction

Technical Specification

Pendulum Capacity	Maximum up to 25 Jules
Drop Height	0.61 meter
Impact Velocity	3.46 m/s
Power	220/230 V AC, 50 Hz Single Phase

Notch Cutter

The linear notching machine is designed to prepare rapid and accurate notched specimen for impact resilience determinations according to Izod-Charpy impact methods.

Reference standard
ASTM D 256 & ISO 179.

Manual operation based on hand wheel.

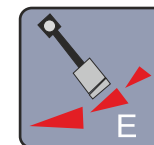
Motorized operation based on panasonic geared motor.



Izod-charpy Impact



Hammer



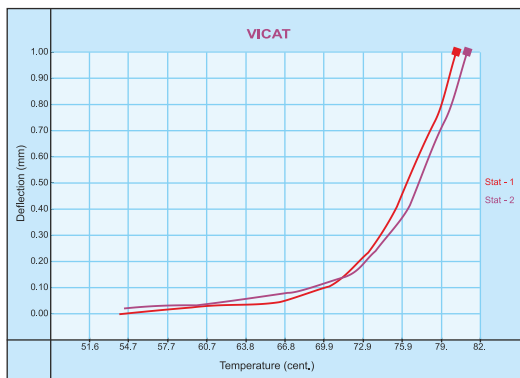
Manual Notch Cutter



Tensile Pendulum Impact



Motorized Notch Cutter



HDT / VST Tester (Eco / Classic)

Deepak HDT/VST instrument is used for determining the deflection temperature limit for specific application and comparing the heat softening characteristics of thermoplastic material at a constant load in oil media up to 300° C.

Plastic materials, being heat sensitive in nature, have a lot of bearing on thermal environment for their performance. Though their behaviour in thermal conditions is very complex, some simple yield tests are used to predict its behaviour and performance in a given condition.

'Vicat Softening Point' or 'Heat Deflection Temperature' is one of such yield points, very commonly used for engineering plastics. Vicat test consist of penetrating a unit size indenter in a plastic surface with predefined load under constant rate of environmental temperature rise.

Heat distortion test, as it is sometimes called, consists of deflecting a simply supported beam of test material under similar heating conditions and with a predefined stress application.

Available range of VST Tester

Single Station, Two Stations, Three Stations, Four Stations & Six Stations.

Eco Model

Indentation / Deflection Measurement Based on Analogue dial gauge with 0.01 mm Accuracy

Classic Model

Indentation / Deflection Measurement Based on Electronic LMPT Device & Direct display on digital panel with 0.01 mm Accuracy



Classic Model with PC Interfacing (Four Station)



Eco Model (Six Station)

Eco Model (Single Station)



Classic Model with PC Interfacing (Two Station)

Muffle Furnace

System Specifications

Temperature range	Ambient temperature to 1000° C
Temperature resolution	1° C
Furnace size	9" x 4" x 4" & 12" x 6" x 6"
Furnace construction	Inside SS outside MS with powder coating
Insulation	Heavily insulated with glass wool and fire bricks
Power supply	220/230 V AC, 50 Hz Single Phase
Weight	50 kgs (approx.)



Muffle Furnace



Reversion Oil Bath Horizontal Model



Reversion Oil Bath Vertical Model



Opacity Tester for PVC Pipe

Reversion Oil Bath

Digital PID based temperature controller with 0.1° C least count.

Features

- Temperature range: Max. up to 200° C.
- In side SS out side MS with powder coating.
- For uniform temperature stirring is provided.
- Actual Inner Size: 26(L) X 20(W) X 16(H) inch / Working Area: 18(L) X 20(W) X 16(H) inch suitable up to 250 mm pipe testing with oil filling capacity up to 140 Ltr.
- Actual Inner Size: 28(L) X 22(W) X 32(H) inch / Working Area: 22(L) X 22(W) X 32(H) inch suitable up to 400 mm pipe testing with oil filling capacity up to 180 Ltr.
- Actual Inner Size: 42(L) X 34(W) X 27(H) inch / Working Area: 34(L) X 30(W) X 27(H) inch suitable up to 315 mm pipe testing with oil filling capacity up to 180 Ltr.
- Actual Inner Size: 18(L) X 14(W) X 14(H) inch / Working Area: 14(L) X 14(W) X 14(H) inch suitable up to 200 mm pipe testing with oil filling capacity up to 60 Ltr.
- Size can be modified according to customer requirements.
- Insulation: glass wool insulation.
- Power requirement: 415 V AC, 50 Hz Three Phase + neutral + earthing is required.

Opacity Tester for PVC Pipes

(As per new amended standard of IS 4985 April 2012)

- Compact table top model.
- New version as per amendment of standard IS : 12235 (PART 3) 2004
- Digital display with direct % reading facility.
- With standard testing slide of 0.2 % light intensity
- Dust free chamber with openable cover to protect sample during test.
- Also avoid unwanted light passing through sample.
- With in-built specimen mounting spring type clamp (fitted in specimen mounting chamber).
- Light source used as incandescent lamp working between 540 nm to 560 nm.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase



Falling Dart Impact Tester Manual
Falling Dart Impact Tester Motorised

Falling Dart Impact Tester for PVC, DWC, Conduits & PPR Pipes / Fabric Material

Deepak Free Falling Dart Impact Tester is used for PVC pipes, PVC ducting pipes, DWC & Conduits pipes as per IS, DIN, ASTM, BS, DOT specifications.

The impact properties of the polymeric materials are directly related to the overall toughness is defined as the ability of the polymer to absorb applied energy. The area under the stress-strain curve is directly proportional to the toughness of a material. Impact strength is a measurement of toughness. The higher the impact strength of a material the higher the toughness and vice-versa. Impact resistance is the ability of a material to resist breaking under a shock loading or the ability to resist the fracture under stress applied at high speed.

The pipe shall be placed on 'V' block in a such way that one of the marked lines is upper most. The striker shall be allowed to fall manually/chain drive motorized system. Specimens: 200 ± 10 mm long pipe shall be cut from the complete section. Each specimen shall be cut clean & gauge to the axis of the pipe.

Features

- Drop height up to 2 mtrs.
- Drop height controlled manually / motorised.
- Pipe diameter can be tested up to 315 mm in manual version, where as up to 450/630 mm in motorised version.
- Falling weight: 250 gms, 500 gms, 1 kg, 10 kg or as per the requirement of various standards.



Falling Dart Impact Tester With Built-In Pneumatic Cylinders
IS:15351 – 2008 / IS:7903

Bulk Density / Dry Flow / Flowability / Pourability Test Apparatus

It is easy to determine fast and accurate bulk density of plastics raw materials with the Deepak Bulk Density tester. You can control the uniformity of the raw material from different stocks and deliveries according to standards.

System Specifications

Capacity of hopper	Approx. 115±5 ml
Capacity of measuring cup	Approx. 100±5 ml
Dimensions	Height-250 mm, Width-150 mm, Depth-140 mm
Weight	2 kg (approx.)
Calculation	Apparent density = $(G1-G0):100$ in g/ml Or = $(G1-G0) \times 10$ in g/ml

Features

- According to ASTM D1895, ISO R-60, IS-466, ARM standard, etc.
- Easy handling.
- Compact structure.
- Made of high quality, polished corrosion free materials.
- With anodizing treatment as per requirement.



Bulk Density



Deep Freezing Chamber
Front Opening



Deep Freezing Chamber
Front Opening



Deep Freezing Chamber
Top Opening

Deep Freezing Chamber (For Specimen Conditioning)

Deepak Zero Degree Chamber is specially used to condition the R-PVC pipes at 0 ° C. for impact testing as per IS 4985 standard.

A true material comparison is possible only when test values are determined by identical test methods under identical conditions. In general, physical and mechanical properties of plastics and electrical insulating materials are affected by temperature and humidity. Plastic materials tested above/below room temperature will yield relatively higher impact strength and lower tensile strength as well as modules. In order to make reliable comparisons of different materials and test results obtained by different laboratories, it is necessary to establish standard conditions of temperature and humidity for testing.

Features

- Microprocessor based temperature controller with PID action.
- Temperature range: Room temperature to -5 ° C or -20 ° C.

Standard Chamber Size

- 18 x 18 x 18 inch (Front opening single door model).
- 20 x 15 x 30 inch (Top opening single door model).
- 46 x 20 x 26 inch (Top opening single/two door model).
- 70 x 30 x 32 inch (Top opening three door model).
- 120 x 28 x 28 inch (Top opening two door model).
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.



Deep Freezing Chamber For Upto -5 Deg.c. Suitable For Squezz Off Test Sample Conditioning Application As Per IS : 14885



Deep Freezing Chamber Complete inner & outer S.S. body with 2 & 3 Door Openings





Co-Efficient of Friction Tester

Deepak friction tester is primarily designed to determine the co-efficient of friction of plastic films, sheets, laminates, pipes and paper etc. The equipment provides measurement of static and kinetic co-efficient of friction. The apparatus conforms to BS 2782 and ASTM D - 1894 and other equivalent standards.

Measurement of frictional properties may be made on a film or sheeting specimen when sliding over itself or over another substance. The co-efficient of friction are related to the slip properties of plastic films that are of wide interest in packaging application. These methods yield empirical data for control purpose in film production. Co-relation of test results with actual performance can usually be established.



Shrink Oil Bath Apparatus

Shrink Oil Bath Apparatus

- Oil Bath inner chamber size : 12 x 12 x 08 inch. Capacity: Max. 18 Ltr.
- With Digital PID Temperature Cont., Temperature Panel Fitted. Temperature Working Range: Ambient Room Temperature to 150 °C.
- Maximum Working Temperature Range : Upto 150 °C with +/- 1 °C Accuracy.
- To keep uniform temperature in oil bath, Remi make regulated stirrer motor fitted on top SS sheet cover.
- Inside SS (SS-304) & out side MS body with high temp. resistant PU-Sunsilk paint with 1.5 inch thick glasswool insulation on all side walls of Oil Bath structure.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.

Co-Efficient of Friction Tester (Slip Tester)

Features

- Microprocessor based programmable LCD digital display unit with memory back-up.
- With PC interfacing software facility (Rs-232 to Rs-485 convertor system).
- With master software CD & interfacing cable with USB connectivity.
- Variable speed control system with AC drive digital speed indicator. Speed selection: 10 mm /min TO 300 mm/min.
- Sled movement of 300 mm/min.
- With overload protection system for load cell.
- With auto-stop facility after 300 mm travel.
- Electronic flat bar type load cell, available with 700 “or” 1500 gm capacity.
- Panasonic make compact AC geared motor & compact gear box system
- Sled with steel and rubber combination.
- Movement of Sled is based on friction less linear guide system to avoid play in running mode.
- S.S. High Polish Moving Platform with guide and scale with auto reverse on/off selection facility.
- Attachment available for peel of strength of plastic adhesive film, at extra cost.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase



Special Design Vertical Co-Efficient of Friction Tester for Finishing Flooring Surface Testing Applications, ASTM D 2394 - 83 (1999)



GSM Cutter with Rubber Pad



Falling Dart Impact Tester for Films



Elmendorf Tear Tester

Falling Dart Impact Tester for Films

Generally Plastics Films are used for 'Packaging Application', and undergo wear & tear. Hence study of 'Impact' Resistance is established to evaluate the quality and mechanical property of the film.

This method covers the determination of the energy that causes Plastics Film to rupture under specific conditions of impact of a Free Falling Dart (load). This energy is expressed in terms of weight (mass) of the missile falling from a specified height which would result in %age specimen's failure tested.

Features

- The evaluation of 'Impact Strength' of different types of Plastics Films & Sheet, Decorative Laminates, Corrugated roofing sheets etc.
- Dart with different weights are available to drop from different height to study the fracture of the product.
- To clamp film specimen tightly, 'Vacuum Clamping System' is provided with 'Vacuum Ring & Gauge'.
- Electromagnetic Dart Holder is provided so as to hold the dart and drop at press of button.
- Evaluation can be carried out as per 'IS-2508, ASTM D-1709 & BIS-2782' standards.

Accessories

Accessories can be provided as per different standard requirement.

Specification

- Dimension (W x D x H): 22 x 20 x 84 (inch)
- Dart: As per IS - 2508 and ASTM D 1709 standard
- Supply: 220/230 V AC, 50 Hz Single Phase
- Approx Weight: 75 kg

Elmendorf Tear Tester

It is used to determine ballastic tearing strength and work factor of fabrics elmendorf method, supplied with calibration weights and augmenting mass to test upto 6400 gms.

This test method has been widely used as one index of the tearing resistance of plastic film and sheeting used in packaging applications. While it may not always be possible to co-relate film tearing data with its other mechanical properties. This test method provides a controlled means for tearing specimens at straining rates approximating some of those found in actual packaging services.

- Pendulum of 1600 gf, 3200 gf and 6400 gf capacity (as a extra weight).
- Pointer reset mechanism.
- Sturdy & compact design.
- Rigid cast iron body to bear the vibration of pendulum swing.
- Provided along with ASTM and BS Templates.
- Reference standard ASTM D 1922 & IS 2508.



Opacity Tester for Film

Opacity Tester for Films

Deepak Opacity Tester is used to determine optical characteristics of plastics films. Procedure is based on transmission of light through the specimen.

Specifications

- Reference Standards: ASTM D 1746, ASTM D 2530, IS 2508
- Power Requirement: 220/230 V AC, 50 Hz Single Phase





Carbon Black Content Tester

Deepak Carbon Black Content Tester has been designed incorporating many features and new ideas. The apparatus conforms to the most recognized national and international standards including BIS, ISO, ASTM, etc.

To determine the average of carbon black content especially in polyethylene materials by pyrolysis method, like plastic pipes, films, sheets, cables, water tanks etc., this equipment is very useful for evaluation of carbon black content. Carbon black is used in plastic as a UV stabilizer to prevent degradation of plastic by UV radiation. It is also possible to find out ash content in plastic material by this instrument.

Carbon Black Content Tester

Standards

Designed and manufactured as per the following standards:

- IS 2530 / 2508
- ASTM D 1603 or equivalents

Features

- Compact tubular furnace to get temperature up to 800° C with microprocessor based PID temperature controller.
- The furnace contains 2.0 KW heating element wound on a tubular 'Quartz' tube.
- Provided with nitrogen gas purification and moisture absorption system.
- Specimen is heated in controlled nitrogen atmosphere (inert atmosphere).
- Instrument is heavily insulated with glass wool and insulation/fire bricks.
- Relevant glass wares and gas flow regulator meter provided with the machine for purification and regulation of the nitrogen gas.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.

Carbon Black Dispersion Tester

Deepak Carbon Black Dispersion Instrument is used to find out the dispersion of additives e.g. pigments, fillers in plastics. In plastic material, pigment and fillers play a very important role for matching the uniform colours as well as resistance against UV light.

This equipment is also useful for determination of surface defects, voids, bubbles, filler distribution and other structural investigation.

Standards

Designed and manufactured as per the following standards:

- IS 2508/2530.
- ASTM, BS or equivalent standards.

Hot Plate

Thermostatically operated with indication lamp and on/off switch.

Hot plate diameter: 8 inch, coated with enamel coating.

Projection Microscope

Projection screen dia: 6 inch.
Magnification: 100x, 200x, 450x available.
Light source: 6 V or 12 V LED Lamp.



Projection Microscope

Digital Hot Plate

Carbon Black Content Tester

Standards

Designed and manufactured as per the following standards:

- IS 2530 / 2508
- ASTM D 1603 or equivalents

Features

- Compact tubular furnace to get temperature up to 800° C with microprocessor based PID temperature controller.
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- Specimen is heated in controlled nitrogen atmosphere (inert atmosphere).
- Instrument is heavily insulated with glass wool and insulation/fire bricks.
- Relevant glass wares and gas flow regulator meter provided with the machine for purification and regulation of the nitrogen gas.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.

Carbon Black Dispersion Tester

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This equipment is also useful for determination of surface defects, voids, bubbles, filler distribution and other structural investigation.

Standards

Designed and manufactured as per the following standards:

- IS 2508/2530.
- ASTM, BS or equivalent standards.

Hot Plate

Thermostatically operated with indication lamp and on/off switch.

Hot plate diameter: 8 inch, coated with enamel coating.

Projection Microscope

Projection screen dia: 6 inch.
Magnification: 100x, 200x, 450x available.
Light source: 6 V or 12 V LED Lamp.



Projection Microscope

Digital Hot Plate



Hot Air Circulating Oven

Deepak Hot Air Circulating Oven is used for multipurpose tests for plastic material such as shrinkage, reversion, migration, warpage, moisture content and lateral E.S.C.R.

Features

- Temperature range: Ambient to 199.9° C.
- Temperature controlled by 'Digital PID' based temperature controller.
- Choice of M.S., Aluminum or SS Interior body.

Memet Design Oven : Three Wall Heating System
Suitable upto 260 Deg.c. Temp.

Regular Design Oven : Suitable upto 170 Deg. C Temp.

Standard Chamber Size (L x W x H)

- 350 x 350 x 350 mm (14 x 14 x 14 inch)
- 450 x 450 x 450 mm (18 x 18 x 18 inch)
- 450 x 450 x 600 mm (18 x 18 x 24 inch)
- 600 x 600 x 600 mm (24 x 24 x 24 inch)
- 600 x 600 x 760 mm (24 x 24 x 30 inch)
- 1000 x 1000 x 1000 mm (39 x 39 x 39 inch)
- 1065 x 600 x 600 mm (42 x 24 x 24 inch)
- 1980 x 760 x 910 mm (78 x 30 x 36 inch)
- 2260 x 1240 x 1490 mm (89 x 49 x 59 inch)



Special Hot Air Oven
for DWC Testing Application



Manual Cutting System



Digital HMI Display Version
With Auto Cutting System

Melt Flow Rate Index Tester

Deepak Melt Flow Tester, built according to international standards, is an instrument for measuring 'Melt Flow Rate' with high accuracy and also useful for quality control test on flow ability, grading of thermoplastic materials according to flow. In general, it is designed to calculate accurate rate of extrusion of molten resin through an orifice at specified temperature and pressure. Standard equipment includes all operating tools, piston and dies. Integrated microprocessor based PID temperature controller/timer incorporates latest digital technology. Operations up to 400° C with control and display with an accuracy of 0.1° C.

Features

- Microprocessor based PID Temperature Controller.
- Temperature range up to 400°C. +/- 0.1° C
- Built-in microprocessor based cyclic timer with buzzer output.
- Optional attachments for automatic cutting device and PC interfacing are available with extra cost.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.



MFI Toolkit

Test Accessories

- Piston Rod With Reference Markings
- Barrel Cleaner, Die Cleaner & Material Charging Tool
- Testing Loads (Dead Weights) of 1.2 KGS, 3.8 KGS, 2.16 KGS, 5.0 KGS, 10.6 KGS & 21.6 KGS
- Material Feeding Hopper (Aluminium)
- Specimen Cutting Knife
- 2.09mm Die Orifice
- Back Panel Cover Key

Reference Standards

- ASTM D 1238 Method A • ISO 1133 • IS 2508/2530



Memet Design Hot Air Circulating Oven



Regular Design Hot Air Circulating Oven



Shrinkage Water Bath

Shrinkage Water Bath Apparatus

(Hot Water Bath With Specimen Hanger)

- As Per IS : 6193-1971 For Monoaxially Oriented HDPE Tapes
- Complete Inner & Outer SS Body.
- Top Cover Equipped With Hanger Rod, Suitable to hang 05 Tape specimens at a time for Immersion Shrinkage testing.
- Equipped with digital temp. control panel & water stirring system

Electronic Weighing Balance

With density measuring system.

Model: 200/220 gms for specific gravity/density test application

- With density kit.
- Max. Capacity: 200/220 gms.
- Readability: 0.0001 gm (0.1 mg)
- Power Req.: 12V / 0.84 A.
- Direct display of calculated density result.
- Suitable for mass density test application.



Humidity Chamber Unit

Humidity Chamber Unit (For Specimen Conditioning)

- Inner chamber of SS, outer MS body with powder coating.
- With digital indicator for RH value & temp. read out.
- Temp. range: 25 °C to 45 °C.
- Humidity readout range: 45% RH to 80% RH.
- With blower system for uniform temperature.
- With inner glass door for easy visibility.
- With two SS shelves (racks).
- Inner chamber size:
 - 18 X 18 X 18 inch
 - 18 X 18 X 22 inch
 - 18 X 18 X 40 inch
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.



Electronic Weighing Balance



Cone Tester



Manometer Pressure
Test Machine for Water
Proofness Testing



Differential Thermal Analyzer (OIT Tester)

Differential Thermal Analyzer (OIT Tester)

- Outstanding repeatability and reproducibility on heating.
- High sensitivity for both endothermic and exothermic events.
- Top class design reliable, robust yet extremely sensitive.
- Easy to use with a new comprehensive software package for control, data acquisition and processing.

Specifications

Temperature Range	Room Temperature to 400 °C
Heating Rate	0.1 °C to 30 °C/min at 0.1 °C intervals
Cooling Rate	Cool rates to ambient within 15 to 20 minutes
Reproducibility	0.5 °C with full calibration procedure
Accuracy	Traceable to NABL standards.
Principle	Differential temperature measurement (Constant heat flux plate with indents locations for reference & sample pans)
Signal	Stable low noise, low temperature drift, solid state amplifier with appropriate sensitivities
Sensor	Differential sensors – ‘E’ Type Control Sensor – PT 100
Atmosphere	Separate Gas flow meter to measure the gas flow: Automatic gas switching accessory with user definable set points

Motorised “V” Notch Cutter for Slow Crack Growth Rate Test 60 Degree Double Equal Angle Cutter Unit

‘V’ Notch making machine is used for making the ‘V’ Notch over the pipe surface for slow crack growth resistance test.

Features

- Machine is made in accordance with ASTM F-1474-93 and ISO-13479, IS 14885, IS 4984 - 2016.
- Machine is fully equipped with the digital measurement for length & depth of the notch.
- Control for ‘V’ Notch length is digital and auto reversible.
- Notch length measurement with bench travel with accuracy of 0.1 mm.
- Control for depth of ‘V’ Notch is manual and measurement is digital.
- Notch depth measurement with 0.01 mm accuracy LMPT potentiometer, while making the notch on HDPE/MDPE pipe sample.
- Cutting rate is digitally adjustable.
- Cutter rotation is having a variable speed drive with AC frequency control & equipped with Panasonic motor & inbuilt gear box.
- Machine notch bench is suitable up to 315 mm dia pipe & also available for higher diameters, as per requirement of ISO standard.
- Equipped with front mirror polish acrylic safety cover, for observation during notch making operation.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.



Motorised “V” Notch Cutter





20 Ton Compression Moulding Press

20 Ton Compression Moulding Press (Lab Model)

Deepak Compression Moulding Press is designed for making sheets for different testing i.e. tensile, density, etc.

Features

- Manually operated Hydraulic Press – 20 ton capacity.
- Platen size: 8 x 8 inch. Max. working pressure: 140 kg/cm²
- Digital temperature controller for both platens.
- Temperature range: 0-300 °C.
- S.S sheet mould (spacer) for moulding of sheets from various plastics material.
- Water cooling facility for both the platens.
- Standard spacer sheet mould of 120 x 120 x 3 mm and 120 x 120 x 4 mm or as per the requirement.
- Reference standard: IS 7328, IS 4984 - 2016.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.



Special Design
Cavity Sheet Mould
& Spacer Sheet

50 Ton Power Pack Operated Micro-processor Based Compression Moulding Press (Lab Model)

Deepak Hydraulic press is made out as four-column press, the machine can be used to produce all kinds of flat samples for Lab Testing applications. Working dimensions for the same are suitable for national & international standards.

- Digital Pressure Indicator & control functions are controlled by electrically operated solenoid valves & HMI based micro-controller.
- Heating energy is provided by plate heater which are arranged to achieve our equal temperature distribution.
- An integrated water cooling system allows cooling down samples under pressure.
- Insulating plates are used to reduce heat transfers from the press unit.

Technical Data	Unit	Value
Working area	mm x mm	250 x 250
Plate dimension	mm x mm	300 x 300
Daylight opening	mm	100 for both stage
Press force	tons (max)	50
Hydraulic pressure	bars (max)	120
Working temperature	°C (max)	300
Hydraulic power	KW	1.1
Heating power per plate	KW	1.5
Machine length	L x D x H (mm)	1000 x 550 x 1650
Machine weight	Kg	600



50 Ton Micro-processor Based Compression Moulding Press

Two Roll Mill (Lab Model)

With Dual Motor Driven HMI Control System

Suitable for PVC / PE / PP / Thermoplastic materials

Specifications

- Roll Diameter -150 mm
- Roll Width - 360 mm
- Working Width - 300 mm
- Material Construction: SS rolls & buffing process
- HMI touch screen with PLC controller.
- NIP distance range: 0.7 to 3 mm
- NIP gap measurement with 0.1 mm least count.
- Separate temperature controller & display for both the Rolls.
- Temperature Range: Upto 300 °C with PID controller (Electrically Heated Rolls)
- Motor Driven Power : 1.5 - 1.7 KW
- Doctor blade tool for removal of material from running Rolls.
- A/C Frequency drive for speed control (2 to 30 RPM) (Controllable from HMI with speed display).
- Paint: Sunsilk PU Paint
- Element covered by SS cage for protection & long operation.
- SS rod for manual cutting of the processed polymer.
- With SS tray fitted for handling, the running material between Rolls.
- The motor driven system is equipped with the limit switch actuated for emergency stop. (Situated at knee level in front of the machine)
- Power Requirement : 415 V AC, 50 Hz Three Phase + Neutral + Proper earthing is required.
- Available in AC variable speed model.



Two Roll Mill (Lab Model)

Hydraulic Press for Cone Type End Plugs Clamping

Features

- Clamping Force: 50 Tons, Maximum.
- Ramp Opening: 1.6 Mtrs.
- Base size suitable for 315 mm to 800 mm Dia Pipes.
- Clamping Platen Size: 800 X 800 mm.
- Maximum Stroke: 600 mm.
- Maximum Clamping Speed: 50 to 150 mm/min.
- Hydraulic Power Pack with Panel with 3 HP / 3 Phase Motor.
- Vertical Heavy Duty Structure with Base Mounting.



Hydraulic Press for Cone Type End Plugs Clamping





Environmental Stress Cracking Resistance Tester

This apparatus is used for determining the susceptibility of ethylene plastics, to Environmental Stress Cracking when subjected to certain conditions. Bent specimens of the plastic having controlled imperfections are exposed to the action of a surface-active agent. These tests are normally employed for routine inspection purpose.

Environmental stress cracking is a property that is highly dependent upon the nature and level of the Stress applied and on the thermal history of the specimen. This equipment consists of a heating bath to hold water or surface active liquid used for the test.

- Model with Accommodation of 08 Test Tubes
Size : 12(L) x 12(W) x 14(H) inch.
- Model with Accommodation of 16 Test Tubes
Size : 20(L) x 20(W) x 15(H) inch.

Temperature	Room temperature to 100.0° C
Timer	In-built timer with temperature controller synchronize with temperature
Test Accessories	As per standards all test accessories Blanking Die, Nicking Jig, Specimen Holder Test Tubes with Test Tube Holder Rack & Rubber Corks, Bending Clamp, Transfer Tool



- Reference standard ASTM D 1693.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.



Environmental Stress Cracking Resistance



U. V. Weather Meter
Accelerated Weathering Tester

Deepak DWT accelerated weathering tester is a laboratory simulator of the damaging effects of weather. It is used to predict the relative durability of materials exposed to the outdoor environment. Rain and dew are simulated by a revolutionary condensation system.

U. V. Weather Meter Accelerated Weathering Tester

The damaging effects of sunlight are simulated by fluorescent UV lamps. Exposure temperature is automatically controlled, as the daily sequence of UV periods and condensation periods. Testing duration of deterioration effect can be reduce by DWT which may occur in a longer period like a month or years of outdoor exposure. Deterioration observed includes fading, chalking, cracking, crazing, hazing, blistering, gloss lose, strength lose, and embitterment.

Specifications	
Light source	Fluorescent UV-B type lamp with wavelength of 313 nm.
UV lamps	40 w, 08 nos.
Panel temp. range	Ambient to 90° C
Panel temp. accuracy	± 2° C
Water/condensation temp. range	Ambient to 90° C
Test capacity	Provision of holding 22 specimen of size 75 x 300 mm
Test specifications	ASTM G 53, ASTM D 4329, ASTM D 5208, ISO 4892, IS 14887-2000 CLAUSE 4.2, ANNEX-D and other relevant national and international standards.
Power requirement	415 V AC, 50 Hz Three Phase



Creep Resistance Tester

Creep Resistance Tester

- Features**
- With static loads up to 3 kg. With the 0.1 kg Graduation.
 - With environmental system to control the temperature of chamber : From room temperature to 5° C (cooling) and room temperature to 100° C (heating).
 - Sample Width : Up to 30 mm.
 - Digital display for load and elongation readings.
 - Load & Elongation indicator or Control & Display unit.
 - Digital PID based Temperature controller with Autotune facility.
 - Heating/ cooling "ON" selection toggle switch.
 - Weight supporting stand on right side of the machine.
 - Weights for difference ranges.
 - Load cell on left side of the cover.

Stationery Grip set fitted inside the environmental chamber of the machine. One is fixed another is free and fix up with the string which is hanged on to the weight supporter.



Moisture Analyzer

Sieve Analysis Tester

- Features**
- A complete set of Sieve and Shaker.
 - Motorized Test Bench Type, Cast Iron Housing Type.
 - With built in timer.
 - With complete casting base structure.
 - Power Requirement: 220/230 V AC, 50 Hz Single Phase



Sieve Analysis Tester

Moisture Analyzer

Moisture analyzer is designed for fast and precise moisture determination of a sample based on mass loss during heating process.

Drying process parameters are set by users on the basis of law norms, available chemical-physical data or they are matched experimentally.

Moisture analyzer is designed to work in Plastic raw material industry, Food industry, Construction materials industry, Biotechnology, Pharmacy, Environment protection and others. Main field of use is quality control.



Electrical Conduit Pipes / Casings Testing Application

Bending Test

- Conduits shall be subjected to a bending test.
- Reference to the values and to the tests for conduits are made in one relevant conduit specifications taking into account the manufacturer's instructions for bending, so far as they do not contravene the aims of this specification as a whole.

Compression Test

- Samples of conduit, each 200 mm long, shall be subjected to a compression test using the apparatus shown in Fig. Before the test, the outside diameter of the samples shall be measured. The samples shall then be conditioned at a temperature of $27 \pm 2^\circ\text{C}$ for at least 10 hours.
- Immediately after the conclusion of conditioning period, the samples shall be positioned on a flat steel support and a steel intermediate block as shown in Fig. is placed on the middle of the sample. Slowly increasing force as shown in Table for different types of conduits shall then be applied to the intermediate piece within 30 seconds.

Force for Compression Test

Type of Conduit	Compression Force (N)
Very light	125
Light	320
Medium	750
Heavy	1250
Very heavy	4000

Note - The values in the table are subject to modification in relevant conduit specifications.

Collapse Test

- Samples of conduits made of insulating materials of length as specified in Table shall be bent at room temperature, the bending radius being as given relevant conduit specifications. The samples are then fixed to a rigid support by means of four straps as shown in Fig.

Length of Samples for Collapse Test

Size (mm)	16	20	25	32	40	50	63
Length (mm)	340	370	450	590	740	900	1130

- If mechanical bending aids recommended by the manufacturer are used for rigid conduits, the mechanical aids shall be moved. The support with the sample in position is kept for 24 hours in a heating cabinet at a temperature of $60 \pm 2^\circ\text{C}$ unless specified otherwise in the relevant conduit specification.



Bending Test



Compression Tester for Electrical Conduit



Cone for Collapse



Collapse Test Platform



Impact Test



Deep Freezer



H.V. Tester

H. V. Test Apparatus for Electrical Strength Test

- 5 KV at 50 mA working capacity.
- With suitable electrodes for testing application.
- With digital stop watch for test duration measurement.

Impact Test

- Twelve samples of conduits, each 200 mm long, shall be subjected to an impact test by means of the apparatus shown in Fig. Before the test, the samples shall be conditioned at a temperature of $60 \pm 2^\circ\text{C}$ for 10 days (240 hours).
- The test apparatus shall be placed on a pad of sponge rubber 40 mm thick, and this together with the sample, shall be placed in a freezer, the temperature within which is maintained at $-5 \pm 2^\circ\text{C}$
- When the samples have attained the temperature of the air within the freezer or after 2 hours, whichever is longer period, each sample shall be in turn placed in position on the steel base shown in Fig. and the hammer is allowed to fall whereby an impact energy E according to Table is applied. The mass of the hammer and the fall height are also specified in Table.

Forces for Impact Test

Conduit	Impact Energy - Height (J)	Mass of the - Kg.	Fall - mm
Very light	0.5	0.5	100 \pm 1
Light	1.0	1.0	100 \pm 1
Medium	2.0	2.0	100 \pm 1
Heavy	6.0	2.0	300 \pm 1
Very heavy	20.0	6.8	300 \pm 1

Deep freezer suitable for impact test & bending test application

- With inside complete SS 304 sheet body & outer body made of MS sheet fabrication with PU paint.
- Outer chamber size: 36(l) x 25(w) x 33(h) inch
- Inner chamber size: 29(l) x 20(w) x 30(h) inch

Ball pressure test apparatus

- Ms plate structure for sample resting support.
- Ball pressure indenter structure with side arm loads to apply 20 N force.



Ball Pressure Test Apparatus

Million Meg OHM Meter

For Insulation Resistance Test

- 10 Meg OHM working capacity.
- With suitable electrodes for testing application.



Million Meg OHM Meter





Piston Gauges, Ring Gauges & “C” Type Gauges

Suitable for 16 mm, 20 mm, 25 mm, 32 mm, 40mm, 50 mm & 63 mm pipe sizes.



Piston Gauges For ID Measurement



Piston Gauges For Socket ID Measurement



“C” Type Gauges for OD Measurement



Ring Gauges For OD Measurement



Ring Gauges For Socket OD Measurement



Hot Water Bath

Hot Water Bath

- Suitable for electrical strength test & insulation resistance test
- Inner tank size: 48 x 12 x 12 inch
- Equipped with electronic temp. control panel & water circulating pump to maintain even temp. In bath
- Equipped with insulated top cover and with pipe insertion cavity + holder unit for “T” bending of sample.
- Top cover equipped with special holding clamps for cover locking.



Heat Resistance Test Structure

Heat Resistance Test Structure

- Mechanical heavy structure with upper and lower support plates
- With dead loads 1.0 kg., 2.0 kg. & 4.0 kg. (to be assembled in steps)
- With digital racer stop watch for test duration readings.
- As per Ref. Standard. BS EN 50086-1 :1993, Clause no: 12.2, table-9 & fig.- 8.
- Similar specification as per standard IEC 61386 - 1:2014, clause no.12, table-8 & fig.-8

Bunsen Burner

With 45 degree angel structure with side covers

Vertical Pendulum Impact Tester

Wall mounting structure with loads.
Ref.: IS-3419 standard for non metallic conduit test.

- with 10mm hemispherical striking element made of polyamide “or” hard wood.



External Co-efficient of Friction Tester

External Co-efficient of Friction Tester

During transportation and storage, friction between products or friction between products and surface often causes irreparable damage.

Co-efficient of friction is the ratio of frictional force to gravitational force acting perpendicular to the two surfaces of contact. Measurement of frictional properties are made on a pipe, film or sheeting specimen when sliding over itself or another substance. Deepak External Co-efficient of friction tester employs a Platform covered by the pipe under test, which is allowed to slide across the platform. The platform is tilted by manually. When it reaches a certain angle of tilt the duct starts sliding down

the instant it starts to slide, the degree of tilt is shown on the Digital Angular display. The tangent value of that angle is the co-efficient of friction. Direct digital reading of the co-efficient of friction is also available. This test is valuable to companies dealing in plastic packaging.

i.e.

$$e.c.o.f = \tan \theta$$

θ = Tilting angle of sample (in degree)

$$= 23^\circ$$

$$= \tan 23^\circ$$

$$= 0.4243$$

Torsion Tester

- Reference Standard: 60794 - 1 - 2, IEC : 2003.
- Test Method: E 7: Torsion (Figure 11).

Features

- With set of loads to apply the tension 15 TO 75 N.
- Equipped with cycle counter and programming facility to count four part movements as one cycle.
- Speed: Four part movement as one cycle / min.
- Servo Controlled 180° Rotation: Clock Wise & Counter Clock Wise.
- Duct Clamping: For 3 mm to 50 mm Duct.



Torsion Tester

Abrasion Resistance Tester

- Reference Standard: 60794-1-2-IEC: 2003
- Standard Clause No: 6.2.3.2 Method 2
- Test Method: E 2B Abrasion Resistance of Optical Fibre Cable Markings (Suitable for Microduct / Microduct Bunch - Bundle)

Features

- No. of Cycles: Selectable
- Cycle Speed: 100 Cycles / min \pm 5
- Applied Force : 4 N to 6 N Loads
- Equipped with programmable cyclic counter for counting the cycles and for auto stop after programmed cycle
- Motorized travel facility for 100 mm length stroke
- Available specimen clamping jaws: suitable for 3 mm to 50 mm duct



Abrasion Resistance Tester





Equipments For Inline Emitting Pipe Testing as per IS:13488



Testing Apparatus for Resistance to Pullout of Joints

Features

- With mechanical structure for sample hanging.
- With suitable loads to apply pull-out force.
- As per IS: 13488-2008 standard.
- Ref.: IS-13479 standard.



Traveling Microscope

- Suitable for thickness measurement/flow path measurement. (For distance measurement between ribs of emitters, fitted in inline emitting pipes, as per IS:13488 standard).



Emitting Pipe Flow Rate Measurement Tester

Features

- Testing: suitable for uniformity of emission rate.
- With digital timer & buzzer system panel.
- Along with all necessary measuring cylinders & calibrated borosil glass measuring cylinder (calibrated).
- With twenty five emitting discharge test stations.
- With suitable angel structure to hold specimens in 5 mtr. Laying length.
- Power Requirement : 220/230 V AC, 50 Hz Single Phase.



Testing Apparatus for Resistance to Tension at Elevated Temp.

Features

- Hot air circulating oven with mechanical structure for 4 samples hanging.
- With 180N load.
- As per IS: 13488 – 2008 standard.
- With digital temp. controller, range: 0 to 199.9 °C, L.c. 0.1 °C accuracy $\pm 1^\circ\text{C}$



Go Not Go Gauges

Suitable for 12, 16, 20 & 25 mm emitting pipes. (For inside diameter of inline emitting pipes, as per IS-13488 Standard).



Equipments For Inline Emitting Pipe Testing as per IS:13488



Hot Water Bath For Resistance To Hydro-static Pressure Test of Emitting Pipes, As Per IS:13488

- Equipped with digital temp. Control panel & water circulating pump of 1 HP
- Suitable to generate applied pressure from 0.5 kg / cm² to 5 kg/cm²
- With pressure gauge assembly fitted on side wall.
- Range: 0-4.2 kg/cm² – 01 nos.
- Least count: 0.02 kg/cm²
- Power Requirement : 220/230 V AC, 50 Hz Single Phase.

Optional digital pressure gauge with 0.01 kg/cm² least count equipped with pressure sensing transducer are also available at extra cost



Water Bath For E.S.C.R. Test of Emitting Pipe As Per IS:13488 (Immersion Method)

- Including sample immersing tray container along with the top cover
- Equipped with digital temp. Control panel & stirring facility
- With 01 no. of SS cage type tray suitable for immersion of emitting pipe specimens.
- Inner chamber size: 14(l)x14(w)x12(h) inch

Emitter Flow Rate Variation Tester as per IS:13487 (For Emitters/Drippers)



The Deepak Emitter Flow Rate Variation Tester is designed to determine the mechanical and functional requirements of irrigation emitters, and the data to be supplied by the manufacturer to permit correct installation and operation in the field. The apparatus confirms to IS:13487 :1992 standard. This test applies to emitters (with or without pressure regulation) intended for irrigation. This test does not apply to emitters which are an integral part of the pipe (during manufacturing as well as micro tubing).

Features

- ½ H.P. Motor. Make : Crompton Greaves.
- 28 Stations (seven stations /per pipe).
- Digital timer 0 to 99 min. with buzzer system.
- Pneumatic/manual funnel stand movement integrated with timer.
- Pressure Gauge Range: 0 to 4.2 kg /cm² (02 nos.) With 0.02 Kg/cm² least count.
- Main line & sub main line pipes made with SS.
- Water Tank Size: length: 48", width: 18", height: 12".
- Water tank is made by stainless steel 16 gauge sheet.
- Power Requirement: 220/230 V AC, 50 Hz Single Phase.
- Compressed air line (max. 6 kg/cm²) is required.

Emitter Flow Rate Variation Tester



Torque Rheometer & Measuring Mixers



The Fusion Gram is the universal Torque Rheometer for application of investigations or processing behavior in laboratories and simulations with a torque measuring range of 200 NM and speed range from 2 to 100 RPM. The Fusion Gram is the perfect basic unit for practice oriented measurements with Mixers, Single Screw.

Extruders for:

- Raw Material and Recipe Development.
- Material Testing.
- Quality Control Parallel to Production.
- Optimization of Production Process.
- Laboratory Scale Production of Samples for Further Investigations.



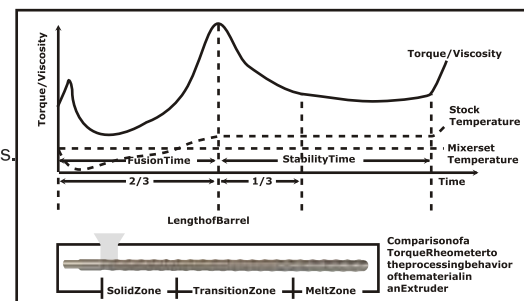
Measuring Mixers for Laboratory

Fusion Behavior
Heat & Shear Stability
Cross Linking Reaction
Flow & Cure Behavior & Many More

The Deepak Measuring Mixers for Testing the Processability of Thermodynamics, Fillers, Pigments, other Plastic and Plastifiable Materials.

Highlights of Deepak Measuring Mixers:

- For Easy Handling and Cleaning
- Electric Heating
- Precise and Constant Temperature Conditioning up to 300 °C
- Flexible Reports



Thermo Cyclic Test Equipment

- REF. ASTM D-2846.
- Pneumatic operations for lifting and dipping the test specimens.
- 6 Nos. of test specimens can be tested at a time.
- Maximum specimen size 2 inch. (dia) & maximum length 300 mm.
- Tank size of hot & cold water bath 900(l) x 600(w) x 400(h) mm.
- Pressure to be applied by air compressor or N2 gas bottle.
- Cycle of operation can be programmed in sequence up to 999.9 seconds for each cycle, & no. of cycles also can be programmed.
- Construction of Water Baths: Inside SS Body (SS-304). Outside MS Body (Coated MS Sheet).
- All Hydraulic / Hydro-pneumatic Parts Fitted are made of SS / Brass only.



Thermo Cyclic Test Equipment



Test Equipment for Apparent Initial Circumferential Tensile Strength Test Application



“Deepak” has great pleasure in introducing to you the DPPL-Split-1000 Machine along with PC interfacing facility. The same is capable of testing pipes of DN 250 to DN 3000 in accordance with requirements of ISO 8521 method B, ASTM D 2290, BS EN 1394. In addition to meeting requirements of above standard, particularly as regards groove depth (specimen width), test speeds (time to failure), stroke, the DPPL-Split-1000 includes following additional features:

Precise LCD display panel unit

An ultra precision measurement system based LCD display for force readings. This is to enable testing pipe sections ranging from DN 250 to DN 3000, the display unit performance is based on ultra-precision low profile load cells enable to fulfill the requirements of relevant testing standards. This is especially important to enable testing pipe sections ranging from DN 250 to DN 3000.



RS-232 connectivity with PC interfacing

The DPPL-Split-1000 is equipped with a RS-232 interfacing software system, which offers PC monitoring, Control and Measurement System. The same is based on user friendly windows-xp based software system. This software system allows standalone machine operation and test result display in the event of PC system failure or PC-Machine communication failure. Software is equipped with the statistical data analysis for the recorded data.

Variable Speed Control -

Conformance to Test Standards Requirements

The DPPL-Split-1000 is equipped with two hydraulic cylinders and speed control with digital flow control valve, allowing conformance to requirements of ISO 8521, ASTM D 2290 and BS 5480 for pipe sized ON 250 to DN 3000.

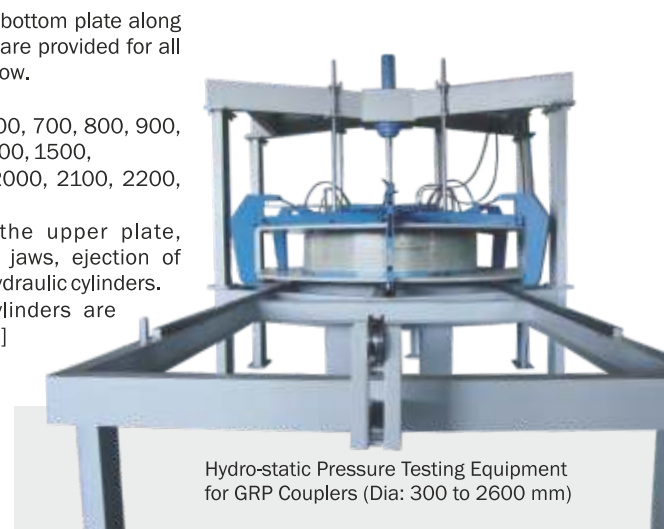
Other Accessories - for safety and user-friendliness

The DPPL-Split-1000 is supplied with a number of accessories including:

- Power Assisted Safety covers
- Standard tool kit
- Master software CD
- Interfacing Connectivity Cable

Test Station for GRP Couplers with Hydraulic Clamping

- Six Jaw Clamping System with six Hydraulic System Operated Jaws, from top side.
- Ejector System for each size of GRP Coupler, fixed with one hydraulic cylinder from bottom side.
- Sliding Trolley System for inserting & removing the GRP Coupler from left side of the equipment.
- Three different types of assemblies for fixing the GRP Couplers, suitable for ring diameter from 300 mm to 500 mm, with height of 270 mm & for ring diameter above 500 mm, with height of 330 mm.
- For rings of 350 and 450 mm, special plates and ejector rings are provided.
- For rings of 300, 400 and 500 mm, the distance boxes are provided.
- To keep the ring on bottom plate while lifting the upper plate by Hydraulic Cylinder, additional different type of hooks are provided for diameter & 450 mm for rest of the rings, hooks will be same.
- To eject the ring from bottom plate after lifting the upper plate, ejectors pins are provided below the bottom plate, for safe operation.
- Male rings for upper plate & bottom plate along with the sealing rubber ring, are provided for all the coupler sizes, as given below.
- Sizes are: 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200, 2300, 2400, 2500 & 2600.
- All functions like lifting the upper plate, movement of six clamping jaws, ejection of specimen ring are driven by hydraulic cylinders. [Total 8 Nos. Hydraulic Cylinders are provided for all the operations]
- Power pack & control panel for all hydraulic cylinders [operations].
- High pressure piping from power pack to all hydraulic cylinders, is provided.



Hydro-static Pressure Testing Equipment for GRP Couplers (Dia: 300 to 2600 mm)



DRS 50 Ring Stiffness Tester

DEEPAK is pleased to offer the DRS-50, the stiffness tester with ring lifting system for addressing safety hazards in handling large pipe diameter stiffness specimens. For pipes up to 2600 mm, stiffness specimen weight exceeds 100 Kg necessitating more than one operator for handling specimen during loading and testing. Suitable for stiffness of 3 mtr. dia pipes.

Precise LCD display panel unit

DRS-50 is having an ultra precision measurement system based LCD display for force readings. This is to enable testing pipe sections as per ISO 5893, and Class 0.5 of EN 10002-2 and ISO 7500/1. Force accuracy of 0.5% is achieved between full-scale of the machine down to 1% of full-scale (range required by standards: from full-scale to 20% of full-scale). The 1% accuracy requirement of ASTM E4 will extend from full-scale to 0.2% of full-scale: for the DRS-50 this corresponds to a range from 6.5 Tons down to 15 Kg.

RS-232 connectivity with PC interfacing

The DRS-50 is equipped with a RS-232 interfacing software system, which offers PC monitoring, Control and Measurement System. The same is based on user



DRS 50 Ring Stiffness Tester

friendly Windows XP/7/8.1/10/Any latest software system. This software system allows standalone machine operation and test result display in the event of PC system failure or PC-Machine communication failure. And statistical data analysis also can be done for all the recorded test data.

Variable Speed Control -

Conformance to Test Standards Requirements

The DRS-50 is equipped with AC servo speed control system, allowing conformance to requirements of ISO 5893, and Class 0.5 of EN 10002-2 and ISO 7500/1 for pipe sized ON 250 to DN 2800.

Other Accessories (For safety and user-friendliness)

The DRS-50 is supplied with a number of accessories as below:

- Power Assisted Safety covers.
- Standard tool kit.
- Master software CD.
- Interfacing connectivity cable RS 232/USB Port.

UTM DTRX 250 KN

DEEPAK is pleased to offer the UTM-DTRX-250 KN, the tensile tester with addressing safety features for high thickness & high load operated samples.

Precise LCD display panel unit

UTM-DTRX-250KN is having an ultra precision measurement system based LCD display for force & elongation readings. This is to enable testing specimens as per ASTM D 638, BS 2782 standards. Force accuracy of 0.5% is achieved between full-scale of the machine down to 1% of full-scale (range required by standards: from full-scale to 20% of full-scale).

RS-232 connectivity with PC interfacing

UTM-DTRX-250KN is equipped with a RS-232 interfacing software system, which offers PC monitoring, Control and Measurement System. The same is based on user friendly Windows XP/7/8.1/10/Any latest software system. This software system allows standalone machine operation and test result display in the event of computer system failure or PC-Machine communication failure.



UTM DTRX 250 KN

Variable Speed Control -

Conformance to Test Standards Requirements

The UTM-DTRX-250KN is equipped with AC frequency variable speed control system, allowing conformance to requirements of ASTM D 638 & BS 2782 standards.

Other Accessories (For safety and user-friendliness)

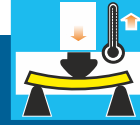
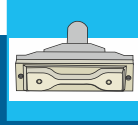
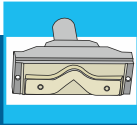
The UTM DTRX 250KN is supplied with a number of accessories as below:

- Power Assisted Safety covers.
- Standard tool kit.
- Master software CD.
- Interfacing connectivity cable RS-232/USB Port.

solutions for quality control and evaluations


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