# <u>IDEAL LAB EQUIPMENTS</u>

(MANUFACTURER/EXPORTER OF PLASTIC TESTING MACHINES)

WORKS:9 Shree Krishna Industrial Estate Devicha Pada MIDC Taloja Navi Mumbai-410208

#### **Best Quality with Accuracy**

#### **About Us**

Ideal Lab Equipments, is a company which is leading Manufacturer of Polymer Testing Equipments since its inception, is leading the markets by making customers avail a qualitative range of products, which includes, Dart Impact Tester, Hot Air Circulating Oven, Digital Opacity Tester, etc. We believe in consistently working with perfection because we want to excel in this line of work and envision ourselves to be remarked as one of the most praised manufacturers of this industry. Our first focus is to be a customer oriented firm, which always regulates and adheres to the policies, so as to delight the customers. We strive to make the clients feel that no other company is as reliable as us, and to do this, we take care about their hard earned money and precious time. Experts who are appointed by us, are sincere, and well understands their responsibilities, because they know that the execution of plans is in their hands, and the manner of their work, will reflect the reputation of our company.

### **Driven by Positive Attitude**

They say that the success of a company belongs in the quality of work, but we think that a company's success remains in the dedication towards maintaining perfection in everything.

The positivity in the attitude holds the capability to drive each and every individual towards

one objective, which is to attain the target, prior to deadlines, without compromising the quality. Personnel working with us are always motivated, and are focused on achieving their goals prior to deadlines. We make sure to keep the morale of our employee as high as we can by giving them awards and recognition whenever they win the objectives.

### Why Choose Our Company?

We do not speak of the reasons to prioritize us over any other business entity, rather we prefer to state the facts to our clients that how commendably we have satisfied each customer who came to us. Our policies revolves around the contentment of our clients, and we ensure on giving them advantages of doing business with us. Some of those factors are mentioned by us, on the basis of which we make ourselves a priority in the eyes of our clients:-

We maintain a variety, which fulfills diverse needs of clients.

We always deliver the consignments with safety prior to deadlines. We keep complete transparency in our business deals.

We never compromise with the quality.

INTRODUCING WITH OUR PIPE TESTING EQUIPMENTS

TESTING EQUIPMENTS FOR PIPE INDUSTRY: HDPE, MDPE, PPR, RPVC, UPVC, SWR, CPVC, FRP/GRP, Electrical Conduits, Etc...

- <u>Digital / Computerized Hydro Pressure Testing Machine</u>
- Hydrostatic Pressure Testing Machine are used to find out the resistance to internal pressure of R-PVC, C-PVC, U-PVC, MDPE, HDPE, LLDPE, Pipes, Fittings And Valves as per IS, BS, ASTM, and so many equivalent standards.



Description	Two	Three	Four	Six	Eight	10
	Station	Station	Station	Station	Station	Station
Pressure	Up to	Up to	Up to	Up to	Up to	Up to
Range	100 bar	100 bar	100 bar	100 bar	100 bar	100 bar
Pressure	+/- 0.5	+/- 0.5	+/- 0.5	+/- 0.5	+/- 0.5	+/- 0.5
Accuracy	%	%	%	%	%	%
Timer Range	Up to	Up to	Up to	Up to	Up to	Up to
	9999.9	9999.9	9999.9	9999.9	9999.9	9999.9
	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.
Pressure Unit	K.g./ cm2 , BAR, PSI, MPA	K.g./ cm2, BAR, PSI, MPA	K.g./ cm2 , BAR, PSI, MPA	K.g./ cm2 , BAR, PSI, MPA	K.g./ cm2, BAR, PSI, MPA	K.g./ cm2, BAR, PSI, MPA
Maximum	Up to	Up to	Up to	Up to	Up to	Up to
Pressure	100 bar	100 bar	100 bar	100 bar	100 bar	100 bar
Power Requirement	230 V Ac, 1 Phase,	230 V Ac, 1 Phase,	230 V Ac, 1 Phase,	230 V Ac, 1	230 V Ac, 1 Phase,	230 V Ac, 1 Phase,

	50 HZ.	50 HZ.	50 HZ.	Phase, 50 HZ.	50 HZ.	50 HZ.
Out let.	2 or 3	2 or 3	2 or 3	2 or 3	2 or 3	2 or 3

- End Fittings
- HYDROSTATIC PRESSURE TESTING END CAPS FOR HDPE PIPES, PVC PIPES, UPVC PIPES etc for Pressure Upto 50 Bar. zero maintenance high performance long life Caps for Pipes. As per National and International Standards.
- AVAILABLE IN ALL SIZE 20MM TO 600MM





#### PRODUCT NAME: MELT FLOW INDEX TESTER (AUTO CUTTER ADVANCED)

Melt Flow Index Tester(Auto Cutter Advanced) is Microcontroller Based High accuracy Preprogramed as per ASTM 1238/ISO1133 Logic with Advance features of Auto Cutter and Manual cutter both function also work in this model.

Specification and Accessories same as before and also suitable work in any Industrial Environment.



- Microcontroller based auto tuned PID controller with temperature range from ambient to 400°C, resolution of 0.1°C and accuracy of ± 0.1°C.
  - Timer: Digital presettable with a range up to 999 seconds.
  - Sample cutting : Automatic
  - Weights: 1.2 kg, 2.16 kg, 3.8 kg & 5 kg., 10.0kg, 21.6kg
  - Accessories :Standard accessories\*
  - Paint : Powder coated.
  - Power: 230 Volts, 50 Hz, single phase.
- Standard accessories includes Orifice, Piston, Spanner, Spirit Level, Material charger, Tweezer, Orifice cleaner, Barrel cleaner and inbuilt Accessory stand.

### Density Test Apparatus

IDEAL LAB ENGINEERS LLP offers best in class Density Test Apparatus. The machine is made with EMFC TECHNOLOGY the highest precision to bring the accurate results and Longar Life. We have ensured that the design of the machine matches the international Test standards for Plastics . Our Digital density tester comes with multiple microprocessor so that you can Operate it easily with no manual error chanses.



#### B.O.D. Incubator



### Pipe Burst Tester

# **SPECIFICATION**

The Benz Pipe Burst Tester tests pipe, tube and hose from 1/8" to 12.0", measuring burst pressure up to 3000 psi. Custom burst pipe testers can measure higher pressures and larger diameter samples.

The Benz Pipe Burst Tester is unique, with a push-button, dial-in control panel and a dedicated microprocessor controller designed specifically for testing pipe, tube and hose.

Built into the Pipe Burst Tester's main console are three software programs.

- A rapid-burst test shows a realtime curve of increasing pressure until the sample fails.
- A pass-fail test ramps pressure up to a pre-defined point, then releases the pressure.
- A load-and-hold test ramps pressure to a specified number, then holds it at that pressure for a time period set by the operator

(Like Pipes Burst testing, Burst tester for pipes, R-PVC Burst tester, C-PVC Burst tester, U-PVC Burst tester, MDPE Burst tester, HDPE Burst tester, LLDPE Burst tester, Pipes Fittings Burst tester, Valves Burst tester



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- Freezer (Zero Degree Chamber)

  IDEAL LAB ENGINEERS LLP is specially used to condition the specimen for different test at 0° C or low temperature as specifications in different national & international standards.
- IDEAL LAB ENGINEERS LLP conditioning chambers are designed & developed in such a way to obtain the set temperature / humidity within short time and it's with puff insulation and microprocessor based controller helps to maintain the set parameter within + 1%.



**Humidity Chamber and Humidity Test Chambers** 



### • Air Circulating Oven ( SIZE:12X12 , 14X14 ,18X18 , 24X24 INCH SIZE)

IDEAL LAB ENGINEERS LLP Air Circulating Oven is specially used to condition the specimen for different test at Higher Or Low Temperature as Specified in Different National and International Standards.

Size	18" X 18" X 18 ". (Inner Size) & As per Requirement. (Size In Inch)	
Temp. Range.	Ambient To 250o C. & As per Requirement	
Resolution.	0.1 o C.	
Accuracy .	+/- 0.5 %	
Material Construction	Inner S.S. & Outer M.S. With Powder Coated Or Paint.	
Power Supply.	230 V , 1 Phase , 50 HZ.	



# Muffle Furnace

# **PRODUCTS**

- Double Walled with double insulation for minimum heat leakage & faster temp. Rise.
- The outer casing made of thick CRC Powder coated. Heating chambers consist of rectangular horizontal totally enclosed muffle bracket.
- Heating elements are made of Nichrome / Kanthal wise wounded externally on the muffle.
- Temp. Controlled by micro processors based digital temp. Indicator cum controller with CS/AI sensor.
- Max.Temp.1000°C, working temp. 900° C.
- Various models with different temp. Ranges and Sizes 4x4x9, 6x6x12 inches etc. available.



# Environmental Stress Cracking Resistance Tester(ESCR)

**E.S.C.R** is used for determining the susceptibility of ethylene plastics, to environmental stress cracking when subject to certain conditions.

# **APPLICATION**

Environmental stress cracking is a property that is highly dependent upon the nature and level of stress applied and on the thermal history of specimen. This taste is normally employed for routine inspection purpose.

**IDEAL LAB ENGINEERS LLP ESCR apparatus** is consisting of S.S. bath insulated with puff to maintain the required temperature with accuracy of 0.1° C. Temperature is controlled by microprocessor based PID controller. ESCR is having a facility of digital time totalizer to keep watch on process line.

### **SPECIFICAITON**





Temperature Range	0-400°C		
Time totalizer range	999.9 hrs.		
Water Circulation	Through induction motor with stirrer		
Testing Capacity	6 tests at a time		
Heating Load	1.5 to 3 kW		
Body	Inner S.S and Outer M.S with powder coating		
Power Supply	1 Phase, 230 V, AC, 50 Hz.		

# Opacity Tester

IDEAL LAB ENGINEERS LLP Opacity Tester is used to determine optical characteristic of plastics including colour, clarity, general appearance & move directly measurable properties.

Direct percentage reading of light passing through specimen. Precious least count 0.01%

Design to ensure maintenance free long life of the apparatus. Dust free specimen chambers. (Like Pipes Opacity testing, Opacity tester for pipes, R-PVC Opacity tester, C-PVC Opacity tester, U-PVC Opacity tester, MDPE Opacity tester, HDPE Opacity tester, LLDPE Opacity tester, Pipes Fittings Opacity tester, Valves Opacity tester)



# Impact Tester for pipes

# **Product**

Impact Strength is the Mechanical property of polymer and as molecular flexibility plays an important role in determining the relative toughness of materials. For any plastic pipes this impact test plays an vital roll.

(**Impact Tester** like Pipes impact tester, Impact tester for pipes, R-PVC impact tester, C-PVC impact tester, U-PVC impact tester, MDPE impact tester, HDPE impact tester, LLDPE impact tester, Fittings impact tester, Valves impact tester)

### **STANDARDS**

All Indian Standards, ASTM, DIN, BS Standards and many other equivalent standards.



# H.D.T. ( Heat Deflaction Tester) / VSP(Vicat Softening Tester)

HDT/VSP - Heat Deflection Test Apparatus is used to determine the deflection temperature limit for specific application and comparing the heat softening characteristics of thermoplastic material at persistent load in oil up to 300° C with specified rate of rise.

Model No.	HP -HDT-I	HP- HDT-II	HP- HDT-III	HP- HDT-IV
Temp.Range	0 to 300°C	0 to 300 °C	0 to 300 °C	0 to 300 ℃
Rate of rise	48C/H , 120C/H	48C/H , 120C/H	48C/H , 120C/H	48C/H , 120C/H
Displacement measuring	Analog	Analog	Analog	Analog
Station	1	2	3	4
Interface	N.A.	N.A.	N.A.	N.A.
Body	M.S.inner SS-304	M.S.inner SS-304	M.S.inner SS-304	M.S.inner SS- 304



# Revision Oil Bath (Reversion Test Appt.)

# Product

• IDEAL LAB ENGINEERS LLP s Bath are Different Designed to heat faster with low energy cost and maintain the temperature for longer time. To Maintain the temperature in to the bath circulation is done by either one 0r two pumps Or Motor as depending on the volume of bath. Temperature is controlled by Auto Tune PID Controller.

Size	700 X 500 X 700 mm. (Inner Size) & As per Requirement.		
Temp. Range.	Ambient To 250 o C.		
Resolution.	0.1 o C.		
Accuracy .	+/- 0.5 %		
Material Construction	Inner S.S. & Outer M.S. With Powder Coated Or Paint		
Power Supply	415 V , 3 Phase , 50 HZ.		



# Carbon Black Dispersion Tester

This instrument is used to check the uniform distribution of carbon added the product during production process. It comes with projection microscope, hot plate, slide box and handling accessories.

Determination of Carbon Black Dispersion in polyethylene material and compounds as IS: 2530-63

**Definition**: The process of dispersing carbon black through a substance, such as rubber.

Carbon Black Dispersion Test apparatus:

Microscope: Microscope with magnifying lens capable of magnifying view of  $200 \pm 10$  times.

Hot Plate: Hot Plate capable of heating PE compound at 170°C to 210°C

Microscope glass slides for preparations of slides.

**Principle & Significance**: The carbon black dispersion in the material under test is performed to determine a uniform background free from white streaks and the number and size of agglomerates in specimens.

### **APPLICATION**

This test method is used to determine the average carbon black dispersion in materials like Films, Plastic Pipes, Cables, Sheets.





# Hot Water Bath

# **APPLICATION**

As plastics are affected by the temperature, Hydrostatic Pressure tests for HDPE, R-PVC, C-PVC, U-PVC, MDPE and lateral pipes test specimens are suppose to be tested either at room temperature, at higher temperature or lower temperature in water bath as per national & international standards

Size	1220 X 760 X 460 mm. (Inner Size) & As per Requirement.
Temp. Range.	Ambient To 100 o C.
Resolution.	0.1 o C.
Accuracy .	+/- 0.5 %
Material Construction	Inner S.S. & Outer M.S. With Powder Coated Or Paint.
Power Supply	415 V , 3 Phase , 50 HZ.

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# Carbon Black Content Test Apparatus

Carbon Black Content Tester is used to test percentage of carbon content in plastic material. This test method is used to determine the average carbon black content in materials like sheets, plastic pipes, films, cables, water tanks.

# **SPECIFICATION**

Temperature Controller	Ambient Temperature to
M.O.C	M.S.
Heating Load	2 kW
Power Supply	1 Phase, 230 V, AC, 50 Hz.
Accessories	All required accessories
Paint	Powder Coating



• Universal Tensile Testing Machine (Top Load Tester, Compression Tester, Tensile Tester)

Tensile Testing Machine used for getting the accurate Measurement of material with standing force capacity by pull it apart and to determine what extent the materials can be stretched before reaching the breaking point.

IDEAL LAB ENGINEERS LLP UTM Gives Highly Accurate Result with Latest Technology and is available in So many Different Models for testing various types of Materials. Load Measuring Sensor, Sample Holding Grips, Fixtures can be interchange smoothly and easily to perform various test like Compression, Flexural, TENSILE, peel strength, bond strength.

#### Standards:

All Is Standards, ASTM D 638, D 882, D 790, D 695 and BS 2782 or so many equivalent standards.

#### **Application:**

Tensile Tester machines is for the universal test applied to many polymers to check the mechanical properties and it is the most important property as majority of mechanical loading & properties like Tensile strength and modulus, elongation, compressive strength Etc. are calculate by using this machine.

MACHINE IS AVAILABLE DIFFERENT DIFFERENT LOAD CAPACITIES RANGE: 100KG, 500KG, 1000KG, 2500KG.



#### **5.PRODUCT: COMPUTERISED SINGLE SCREW UTM MACHINE 1000KG CAPACITY**



UNIVERSAL TENSILE MACHINE: (TENSILE/ELONGATION/FLEXURAL/COMPRESSION/PEAK LOAD/AVERAGE LOAD/PEEL/BOND TESTER) AS PER STANDARD

#### Specification:

- Load capacity: up to 1000 kg\*.
- No. of load cell : One.
- Cross Travel: Up to 1000mm\*.
- Speed : Variable between 5mm/minute to 500mm/minute.
- Paint : Powder coated.
- Power: 230 Volts, 50Hz, single phase.
- Direct display ON Computer screen: Peak load, Break load, Tensile strength at peak,

Tensile strength at break, Yield load, Yield Stress, % Elongation at Peak, % Elongation at Break & Young's Modulus.

#### PRODUCT NAME:OIT TESTER(OXIDATION INDUCTION TIME)



Technical Specification: OXIDATION INDUCTION TESTER/MELTING POINT APPARATUS

Power: 230 v/50hz/1 phase

Power consumption: 1kw

#### • Temperature Controller :

Digital PID Controller with range up to 300°C, Resolution of  $0.1^{\circ}$ C & accuracy of  $\pm 0.5^{\circ}$ C.

• Pan: Cooling of barrel by water is provided.

25 Nos. of aluminium pans with 40 mesh screen in SS 316 will be provided as per DOT specification.

#### • Gas Flow Control:

Gas Regulators & Rotometers will be supplied for Nitrogen & Oxygen Gas respectively. Indium material will be supplied for Calibration of temperature.

#### **PRINTOUTS THROUGH PC:**

- . The display & printout of Delta Temperature Vs Time graph along with Oxidation Induction Time result is Possible through your PC. The printout includes Party's Name, address, file name, date, batch no, Operator name, Sample weight, Set temperature, Start time, Finish time, Gas flow rate etc.
- . Calibration graph of melting point of indium metal along with printout facility is provided as per Specification.
  - . **Cooling System**: Cooling of barrel by water is provided.

### **Dumbbell Die**

Dumbbell Press offered by us are laboratory sample cutting presses that form an essential
parts of laboratory. These are used primarily for cutting dumbbell shaped that are used in
various tests like elongation test, tensile test and others. Further, the hand wheel cutting type
press has high impact hardened cutting screws that allows high volume cutting.



# **IDEAL LAB EQUIPMENTS**

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