

MISSION STATEMENT / / /

We at Tej Engineers continuously thrive to exceed our customers' expectations by providing quality, on time delivery, efficient & quick service and affordable cost through continual improvement in technology and Supplier / Customer interactions.



ABOUT US / / /

Tej Engineers was established by Mr. Jaydev Prajapati – Proprietor in 2015 as a small-scale contract manufacturing company providing machines to certain manufacturers & suppliers of testing machines in a small factory unit. Due to his continuous involvement in manufacturing / testing of machines and his nature of learning the process, today his brainchild has a spawning 350 sq. ft. of factory premises with nearly all required machines.



Tej Engineers is having its H.O. as well as their works at Ahmedabad, which is known as the **Central Hub for Plastic Machineries & Ancillaries for all India**. With a competent technical team of Engineers / Technicians having methodical knowledge & understanding of BIS as well as other International Standards, we have trained & experienced Production / Installation / Servicing team available at the service of our valued Customers.

Tej Engineer's state of the art Production Centre near Ahmedabad with in-house facility for machining, erection and assembly of various Testing Equipments, Apparatus and Accessories. Our Production / Installation / Servicing team have complete knowledge of the machines and their relevant testing procedures, which helps our customers in having hassle free operations of machines and testing.

HYDROSTATIC PRESSURE TESTER



Hydrostatic Pressure Test is carried out for determination of resistance of thermoplastic pipes which are intended for the conveyance of fluids, to constant internal pressure at constant external temperature.

Hydrostatic Pressure Tester manufactured by Tej Engineers is used for determining resistance to internal pressure at constant temperature of HDPE, MDPE, LLDPE, UPVC, CPVC, RPVC, DWC Pipes and their relevant fittings.

SALIENT FEATURES





- $\bullet \, \mathsf{Models:} \, \mathsf{WaterPump} \, \mathsf{withBooster} \, \mathsf{based} \, \mathsf{andPneumaticPump} \, \mathsf{based}.$
- Range: 1 Station with 3 Outlets to 8 Stations with 16 outlets.
- $\bullet \mbox{ Pressure Control through Digital Pressure Controllers and ball valves}. \\$
- Efficient Pressure Controllers used to determine pressure in samples.
- Pressure Range upto 99.00 Kg/cm². LC 1 Kg.
- Timer Range 999.9 / 9999 Hours with resolution of 0.1 hour.
- Digital Calibration feature provided.
- Sturdy Structure with Powder Coating.
- MOC: Inner Piping: Copper. Fittings: SS.

HOT WATER BATH

Hot Water bath is used along with Hydrostatic Pressure Tester to determine the strength of walls of Pipes under constant Higher Temperatures and High-Pressure environments.



- Size: From 15"x15"x15" to 72"x48"x48" (Inner Tank LxBxH) as per your requirements.
- MOC: Inner Tank: SS. Outer Body: Powder Coated MS.
- Digital Temperature controller with range up to Ambient to 10°C and control precision of ± 0.5 °C and resolution of 0.1°C.
- 50 mm glass wool Insulation to maintain water temperature effectively.
- Self-priming water pump to evenly cool water across the tank.
- · Heavy duty performance heaters used for heating.
- Power: 230/440V AC, Single/Three Phase with Neutral as per inner size of hath

COLD WATER BATH

Cold Water bath is used along with Hydrostatic Pressure Tester to determine the strength of walls of Pipes under constant Lower Temperature and High-Pressure environments.



SALIENT FEATURES

- Size: From 15"x15"x15" to 72"x48"x48" (Inner Tank LxBxH) as per your requirements.
- MOC: Inner Tank: SS. Outer Body: Powder Coated MS.
- Digital Temperature controller with range up to ambient to 10°C and control precision of ± 0.5 °C and resolution of 0.1°C.
- 50mm PUF Insulation to maintain water temperature effectively.
- Self-priming water pump to evenly cool water across the tank.
- Highly efficient Compressor used for cooling.
- Power: 230/440V AC, Single/Three Phase with Neutral as per inner size of bath.

UNIVERSAL TENSILE TESTER

SINGLE SCREW



Tensile Testing is one of the most common mechanical testing techniques. It is used to find out how strong a material is and also how much it can be stretched before it breaks. This test method is used to determine yield strength, ultimate tensile strength, ductility, strain hardening characteristics, Young's modulus and Poisson's ratio.

SALIENT FEATURES

- Available in range of from 10 kg to 50 ton capacity.
- Available in Table top model to Heavy vertical model.
- Sturdy and heavy structure for stability during tests.
- Precise Proximity sensor used for controlled movement of grips.
- Reputed make Load cell with high accuracy used for load measurement.
- •Load cell paired with Microprocessor based load indicator having accuracy of \pm 0.05% of load indicated & resolution of 1 Kg.
- Protection against over load and excess elongation provided for protection of crucial parts of machine.
- Powder coated and hard chrome parts.

HOT AIR CIRCULATING OVEN



Hot Air Circulating Oven is one of the widely used Conditioning chamber or a medium of creating dry heat by heating the air inside it in various industries for various applications.

SALIENT FEATURES

- Size: From 18"x18"x18" to 36"x36"x36" (Inner Chamber LxBxH) as per your requirements.
- MOC: Inner Tank: S.S. Outer Body: Powder Coated M.S.
- Digital PID controller with range up to 300°C with control precision of ± 0.2 °C and resolution of 0.1°C.
- 50 mm Glass wool Insulation to effectively retain dry heat inside the chamber.
- Strategically placed fan to heat the air evenly inside the chamber.

APPARATUS FOR DETERMINATION OF CARBON BLACK CONTENT



To determine the % of Carbon Black (An UV Stabilizer) present in Polyethylene and Polypropylene compounds used for manufacturing of PE Pipes by "The Pyrolysis Process" used worldwide.

SALIENT FEATURES

- •Microprocessor based Digital PID Temperature Controller with range up to 1000°C, having control precision of ± 0.2 °C and resolution of 0.1°C.
- Accessories: Quartz Tube and Quartz boat.
- Heating load: 2 kW.
- Fire brick lined furnace with glass wool insulation having Ni-chrome heating element.
- Powder Coated.
- Power: 230V AC, Single Phase.
- Convenient Table Top Model.

ENVIRONMENTAL STRESS CRACKING RESISTANCE TEST APPARATUS

Environmental Stress Crack Resistance (ESCR) is a very crucial property required in plastics for its durability. ESC is one of the most common causes of unforeseen brittle failures in thermoplastics which may account for around 15-30% of all plastic component failures in service.

BOOMES L

SALIENT FEATURES

- Size: 18"x12"x10" (Inner Tank LxBxH).
- MOC: Inner Bath S.S. Outer Bath: Powder Coated M.S. with Top SS Lid.
- Microprocessor Based digital Auto tune PID controller with range up to 300°C Resolution of 0.1°C & control precision of \pm 0.5°C.
- Heating Load: 2 KW.
- Inner Circulation using Induction motor with stirrer.
- Test of Six samples at a time.
- Accessories: Cutting Die, Nicking Jig, Bending cum Transfer tool and Aluminum Foil, Specimen holder, Test tube and rubber cork.
- Power: 230V AC, 1 Phase, 50 Hz.

HOT OIL BATH FOR LONGITUDINAL REVERSION TEST

Change in length along the surface of the pipe due to heating and subsequent cooling is called reversion. This bath is particularly used for PVC based pipes.



SALIENT FEATURES

- Microprocessor based Digital PID Temperature Controller with range up to 250° C, having control precision of $\pm 0.2^{\circ}$ C and resolution of 0.1° C.
- MOC: Inner Tank: SS. Outer Body: Powder Coated MS.
- •50mm Glass wool Insulation to maintain liquid temperature effectively.
- Heavy duty induction motor with SS Stirrer to evenly heat liquid across the tank
- Heavy duty performance heaters used for heating.
- Power: 230VAC, Single Phase with Neutral.

MELT FLOW INDEX TESTER



The Melt Flow Index (MFI) is a amount of the effortless flow of the melt of a given thermoplastic polymer. It is defined as the weight of polymer in grams flowing in 10 min through a die of specific diameter and length by a pressure applied through a known weight at a controlled temperature.

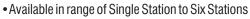
SALIENT FEATURES

- Microprocessor based Digital PID Temperature Controller with range up to 400° C, having control precision of $\pm 0.2^{\circ}$ C and resolution of 0.1° C.
- Microprocessor based Digital Timer with range up to 999.9 seconds and having preset facility and buzzer output.
- Relevant hard chrome plated weights supplied.
- MOC: Powder Coated MS.
- · Heavy duty performance heaters used for heating.
- Power: 230VAC, Single Phase with Neutral.

VICAT SOFTENING POINT (TEMP.) TEST APPARATUS

The VICAT softening temperature (VSP) test is a standard test used to assess the temperature at which a flat tipped needle of specified dimensions penetrates into plastic specimen a specified distance under a given load.





- MOC: Inner Tank: S.S. Outer Body: Powder Coated M.S.
- Microprocessor based Digital PID Temperature Controller with range up to 250° C, having control precision of $\pm 0.2^{\circ}$ C and resolution of 0.1° C.
- Selectable ramp rate for temperature escalation from 50°C per hour or 120°C per hour.
- Displacement measured through reputed make gauge having accuracy of $\pm 0.01 \text{mm}$.
- Cooling facility through running water provided.
- All required accessories are provided as per Size selected by customer.

SHEET MOLDING PRESS WITH COOLING SYSTEM FOR DENSITY TEST SAMPLE PREPARATION (MINI HOT PRESS)

The Sheet Molding Press or Mini Hot Press is an apparatus to prepare a sample sheet of given thermoplastic polymer to carry out density test.



SALIENT FEATURES

- •Microprocessor based Digital PID Temperature Controller with range up to 250° C, having control precision of $\pm 0.2^{\circ}$ C and resolution of 0.1° C.
- Heavy duty Compression plates for effective compression of molten polymer. Size as per mould size.
- Compression through a jack of 10T or more capacity.
- Mould cooling through running water system provided.
- Power: 230VAC, Single Phase with Neutral.

OPACITY TESTER

This apparatus determines the percentage of visible light transmission through the wall of PVC pipe. The transmission of the light through the wall of pipe & fitting should not be more than 0.2%



SALIENT FEATURES

- LED Lamp having wavelength between 540nm & 560nm used as light source.
- Having range of 0% to 100% Transparency with accuracy of 0.01% FSD.
- MOC: Powder coated M.S.
- Power: 230V AC, Single Phase with Neutral.

OXYGEN INDUCTION TIME TESTER





SALIENT FEATURES

- Temperature Controller: Digital PID Controller with range up to 300°C, Resolution of 0.1° C & accuracy of $+0.5^{\circ}$ C.
- Pan: Aluminium pans will be provided as per specifications.
- Computer Interface: through RS 232.
- •Software: SOFTWARE IS COMPATIBLE TO RUN WITH XP AND WINDOWS 7 HOME BASIC OR HIGHER OPERATIVE SYSTEM.
- •Gas Flow Control: Through accurate & precise Gas Regulators and Rotameters.
- Test Time Range: Can be set from 0 to 300 minutes.
- Test Temperature Range: Ambient to 300°C
- Indium & Tin material will be supplied for Calibration of temperature.

PIPE V NOTCH CUTTER



SALIENT FEATURES

- Notch Cutter Tools as per Standard.
- Variable Speed with AC frequency drive.
- Reputed make Displacement Sensor for accurate notch cutter.
- •Instrument with Digital Display having 0.00 mm displacement display.
- Digital speed indicator for mm/min display.
- Pipe diameter : As per requirements.
- Floor Model.
- Power Supply: 230 V AC, 1 Phase.

DIGITAL DENSITY SCALE



SALIENT FEATURES

- ·Capacity 220 g.
- •Accuracy / LC 0.1 mg.
- •Pan size Ø 90 mm.
- •LED Display.
- •Response time 3 sec.
- Table Top Model.
- •Power Supply : 230 V AC, 1 Phase.